



**BURNSIDE**

**Grand Bend Wind Farm Post-  
Construction Monitoring Report –  
Year 2**

**Grand Bend Wind GP Inc.  
as a general partner for and on behalf  
of Grand Bend Wind Limited  
Partnership**

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**January 2019 (finalized December 18, 2019)  
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Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
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1	January 16, 2019	First Draft Submission to MNR/MOEC
2	November 8, 2019	Final Submission to MNR/MECP
3	December 18, 2019	Second Final Submission to MNR/MECP

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## Executive Summary

Grand Bend Wind GP Inc. as general partner for and on behalf of Grand Bend Limited Partnership, operates a 100 MW wind facility located north of Grand Bend, Ontario. Renewable Energy Approval (REA) (Number 5186-9HBJXR) was issued by the Ministry of the Environment (now the Ministry of the Environment, Conservation and Parks or MECP) on June 26, 2014 prepared under Ontario Regulation 359/09 of the *Environmental Protection Act*. The REA was amended on March 24, 2015 and again on July 17, 2017. None of these amendments concerned or affected the monitoring study which follows. The project is classified as a Class 4 Wind facility under the Regulation. The Grand Bend Wind Farm (“the Project”) is located in Huron County, spanning the lower-tier municipalities of Bluewater and Huron South. Portions of the transmission line also traverse the municipality of Huron East and municipality of West Perth in Perth County.

The basic project components includes 40 turbines (Siemens SWT-3.0-113 direct drive wind turbine generators limited to produce 2.48 MW turbines each, with a total name plate capacity of 100 MW), turbine access roads, a 36 kV electrical collection system, substation, a parts and storage (office / maintenance) building, a new buried transmission line within municipal road right-of-ways along Sarasas Road, Rodgerville Road, and Road 183 with connection to the provincial power grid at the 230 kV transmission line south of the Seaforth Transformer Station.

The following is a summary of the results from the Year 2 Monitoring Program:

- A total of 59 bird species were recorded during the Monitoring Period across the entire Project site (from May 1 to November 30). Out of these, 40 (68%) were recorded at the sub-sample turbines.
- The corrected total estimate for birds at the Project site in 2018 (from May 1 to October 31) is **10.638 birds per turbine per year**. This estimate is **below** the provincial threshold of annual bird mortality of 14 birds per turbine per year.
- The corrected total estimate for all raptors at the Project site in 2018 (from May 1 to November 30) is **0.0 raptors per turbine per year**. This estimate is **below** the provincial threshold of annual raptor mortality of 0.2 raptors per turbine per year (all raptors). Given that there were no provincially tracked raptors found during the monitoring program (i.e., Bald Eagle, Golden Eagle, Rough-legged Hawk, Peregrine Falcon), raptor mortalities did not exceed the threshold of 0.1 raptors per turbine per year for provincially tracked raptors.
- There were no single mortality events recorded during the Monitoring Period for birds or raptors. The highest number of birds recorded at any one turbine during a single mortality monitoring survey was 2, and the highest number of birds (including raptors) recorded at multiple turbines was 5.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- The threshold for raptor species was not exceeded in 2018; however, the same number of actual raptor mortalities occurred across the Project site in 2018 compared to 2017. As part of the MNRF post-construction mitigation requirements, the threshold exceedance in 2017 requires 2 years of scoped mortality monitoring and cause and effects monitoring (i.e. 2018 and 2019); therefore, monitoring in 2019 will require a continuation of the scoped monitoring schedule detailed above, and may also include behavioral monitoring surveys to assess the cause and effects of raptor mortalities. Based on data from 2017 and 2018, this may include nesting and / or breeding or roosting territory surveys between May-August at turbines located in close proximity to forested units. A plan will be drafted and approved by MNRF prior to the start of the Year 3 monitoring.
- Bat mortalities were recorded in every month of the monitoring program except November. Based on the calculations outlined below, the corrected total estimated mortality rate for bats at the Project site in 2018 (from May 1 to October 31) is **10.186 bats per turbine per year**. This estimate is slightly **above** the annual bat mortality threshold of 10 bats per turbine per year, averaged across the Project site.
- Hoary Bat represented the most common bat species recorded and represented 34% of all bat carcasses; Eastern Red Bat was the second-most common bat species and represented 25% of all bat carcasses recorded. Silver-haired Bat and Big Brown Bat represented 17% and 12% of all bat carcasses recorded, respectively. Little Brown Myotis represented the least common bat species and represented 5% of all bat carcasses recorded. An additional 7% of bat species recorded were not identified to species due to advanced stage of decomposition of carcass or missing body parts required for identifying to bat species (i.e., canine teeth, tragus, forearm).
- Operational mitigation for bat mortalities is expected to remain in place for the duration of the wind farm project. An additional 3 years of effectiveness monitoring is required where post-construction mitigation is applied. This will include 2018, 2019, and 2020. The REA also states: “If the bat mortality threshold...is exceeded after operational mitigation is implemented...the Company shall prepare and implement a contingency plan, in consultation with the Director and MNRF, to address mitigation actions which shall include additional mitigation and scoped monitoring requirements.” According to the Guidelines, a contingency plan addresses mitigation actions necessary in case of continued significant bat mortality after mitigation has been implemented. A contingency plan allows additional mitigation measures to be implemented in the event that ongoing adverse environmental effects are observed. Because cut-in speed mitigation was implemented, and the bat mortality threshold continues to be exceeded, Northland will work with MNRF to determine additional mitigation and scoped monitoring requirements prior to the start of the Year 3 monitoring.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- Timing the scheduled shut down of the wind farm operations for maintenance activities in mid-late July may have the added benefit of reducing bat mortalities during the peak of bat activity. In 2018, bat mortalities were highest in August.

## Table of Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>8</b>
1.1	Project Location .....	9
<b>2.0</b>	<b>Approvals and Permits .....</b>	<b>11</b>
<b>3.0</b>	<b>Summary of Year 1 (2017) Monitoring Results and Mitigation Applied in Year 2 (2018) .....</b>	<b>12</b>
<b>4.0</b>	<b>Year 2 Post-Construction Monitoring Methodology .....</b>	<b>13</b>
4.1	Mortality Thresholds.....	13
4.1.1	Bats .....	13
4.1.2	Birds .....	14
4.2	Effort and Timing for Bat and Bird Mortality Monitoring .....	14
4.3	Avian and Bat Mortality Searches.....	17
4.4	Raptor Mortality Searches .....	18
4.4.1	Raptor Mortality.....	18
4.4.2	Raptor Scoped Mortality and Cause and Effect Monitoring .....	19
4.5	Incidental Observations .....	20
4.6	Carcass (Scavenger) Removal Trials .....	20
4.7	Searcher Efficiency Trials .....	21
4.8	Proportion Area Searched .....	22
<b>5.0</b>	<b>Post-Construction Monitoring Results.....</b>	<b>23</b>
5.1	Carcass (Scavenger) Removal Trials .....	23
5.2	Searcher Efficiency Trials .....	25
5.3	Avian and Raptor Mortality Results.....	27
5.3.1	Species Composition.....	27
5.3.2	Mortalities by Date.....	29
5.3.3	Spatial Distribution .....	31
5.3.4	Raptor Scoped Mortality and Cause and Effects Monitoring.....	31
5.3.5	Corrected (Estimated) Bird Mortality Calculations.....	33
5.4	Bat Mortality Results .....	37
5.4.1	Species Composition.....	37
5.4.2	Mortalities by Date.....	39
5.4.3	Spatial Distribution .....	41
5.4.4	Corrected (Estimated) Bat Mortality Calculations.....	43
<b>6.0</b>	<b>Summary of Avian and Bat Mortalities.....</b>	<b>47</b>
<b>7.0</b>	<b>Conclusions.....</b>	<b>52</b>
<b>8.0</b>	<b>References .....</b>	<b>54</b>

**Tables**

Table 1: Visibility Classes .....	17
Table 2: Scavenger Removal Trial Results at the Project Site.....	23
Table 3: Searcher Efficiency Trial Results by Season .....	26
Table 4: Proportion of Total Area Searched at the Sub-Sample Turbines.....	34
Table 5: Actual Observed Mortalities of All Bird Species (Total) at the Sub-Sample Turbines .....	34
Table 6: Actual Observed Mortalities (Raptors Only) at the Sub-Sample Turbines .....	34
Table 7: Corrected (Estimated) Bird Mortality Rate for All Samples in a Given Month (Total).....	34
Table 8: Corrected (Estimated) Bird Mortality Rate for All Samples in a Given Month (Raptor).....	35
Table 9: Proportion of Total Area Searched at the Sub-Sample Turbines.....	45
Table 10: Actual Observed Bat Mortalities .....	45
Table 11: Corrected (Estimated) Bat Mortality Rate for All Samples in a Given Month .	45

**Figures**

Figure 1: The Project Study Area .....	10
Figure 2: Location of Sub-Sample Mortality and Raptor Mitigation Monitoring Sites .....	16
Figure 3: Bird and Raptor Mortalities at the Project Site .....	29
Figure 4: Number of Bird Mortalities by Species and Season at the Project Site .....	30
Figure 5: Species Composition of Bat Mortalities by Percent at the Project Site.....	38
Figure 6: Number of Bat Mortalities by Species and Season at the Project Site .....	40
Figure 7: Number of Bat Mortalities by Species and Month at the Project Site.....	41
Figure 8: Spatial Distribution of Bat Mortalities by Species and Turbine at the Project Site .....	43
Figure 9: Total Number of Mortalities by Species at the Project Site .....	49
Figure 10: Total Recorded Number of Avian and Bat Mortalities at the Project Site.....	50
Figure 11: Proximity of Turbines to Surrounding Natural Heritage Features at the Project Site .....	51

**Appendices**

Appendix A Approvals and Permits
Appendix B Mortalities Per Turbine (Map Book)
Appendix C Raptor Mortalities Per Turbine (Map Book)
Appendix D Turbine Habitat Maps
Appendix E Post-Construction Monitoring Raw Data

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Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

## 1.0 Introduction

Grand Bend Wind GP Inc. as general partner for and on behalf of Grand Bend Limited Partnership, operates a 100 MW wind facility located north of Grand Bend, Ontario. Renewable Energy Approval (REA) (Number 5186-9HBJXR) was issued by the Ministry of the Environment (now the Ministry of the Environment, Conservation and Parks or MECP) on June 26, 2014 prepared under Ontario Regulation 359/09 of the *Environmental Protection Act*. The REA was amended on March 24, 2015 and again on July 17, 2017. None of these amendments concerned or affected the monitoring study which follows. The project is classified as a Class 4 Wind facility under the Regulation. The Grand Bend Wind Farm (the Project) is located in Huron County, spanning the lower-tier municipalities of Bluewater and Huron South. Portions of the transmission line also traverse the municipality of Huron East and municipality of West Perth in Perth County. The project location and study area are shown on Figure 1.

The basic project components include 40 turbines (Siemens SWT-3.0-113 direct drive wind turbine generators limited to produce 2.48 MW turbines each, with a total name plate capacity of 100 MW), turbine access roads, a 36 kV electrical collection system, substation, a parts and storage (office / maintenance) building, a new buried transmission line within municipal road right-of-ways along Sararas Road, Rodgerville Road, and Road 183 with connection to the provincial power grid at the 230 kV transmission line south of the Seaforth Transformer Station.

An Environmental Effects Monitoring Plan (EEMP) (January 2013) was submitted as part of the REA Application in February 2013. This document addressed the potential negative environmental effects that may result from engaging in the renewable energy project. Post-construction monitoring of potential effects on birds and bats is conducted in accordance with the following guidance documents (herein referred to as “the Guidelines”):

- *Birds and Bird Habitats: Guidelines for Wind Power Projects* (MNR, December 2011); and,
- *Bats and Bat Habitats: Guidelines for Wind Power Projects* (MNR, July 2011).

The EEMP set out a post-construction monitoring plan that included:

- A summary of all potential negative environmental effects which might be caused by the project.
- Performance objectives associated with mitigation measures designed to reduce negative effects (performance objectives are also described as mortality thresholds).
- A description of all mitigation strategies.
- A description of monitoring to be undertaken during project operation.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- Contingency measures that will be undertaken should monitoring reveal that mitigation measures do not meet performance objectives/mortality thresholds.

The Grand Bend Wind Farm became fully operational in July 2016. Post-construction environmental monitoring activities commenced on May 1, 2017.

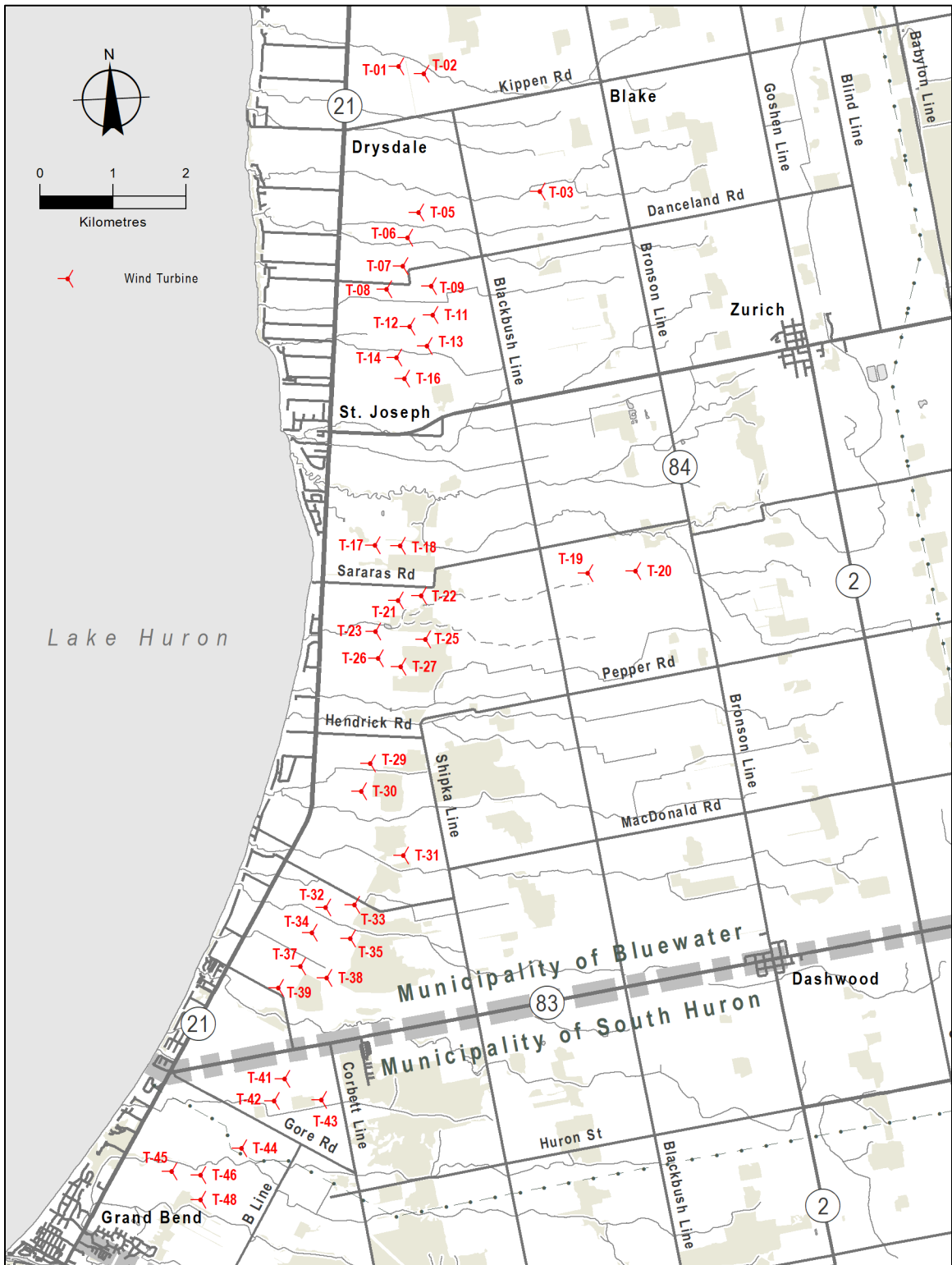
## 1.1 Project Location

The Project is located in Huron County, spanning the lower-tier municipalities of Bluewater and South Huron as well as a portion of Huron East and the municipality of West Perth in Perth County. The Project Study Area, shown in Figure 1, is bounded by:

- The Bluewater Highway (Highway 21) to the west.
- Main Street East / Grand Bend Line to the south.
- Blackbush and Shipka Lines with a small section of the study area in the central section of the project extending to Bronson Line and to the east.
- Staffa Road to the north.

A transmission line route, not shown on Figure 1, runs along Sararas Road, Rodgerville Road, and Road 183 with connection to the provincial power grid at the 230 kV transmission line south of the Seaforth Transformer Station.

Figure 1: The Project Study Area



Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

## 2.0 Approvals and Permits

A variety of approvals, permits and authorizations were required to conduct post-construction monitoring:

- MOE Renewable Energy Approval (REA) (June 26, 2014).
- Canadian Wildlife Service – Scientific Permit – Migratory Bird Regulations Permit #SC004 (this permit applies to any migratory non-SAR birds).
- MNRF Wildlife Scientific Collection (WSC) Permit #1088926.
- MNRF Wildlife Animal Care Committee (WACC) Protocol #18-399.
- *Endangered Species Act* (ESA) Registry Confirmation #M-102-8126759043.

These approvals and permits allow for the handling, collection and storage of birds, bats and any Species at Risk (SAR) found during surveys.

In addition, a Notice of Activity for monitoring at the Grand Bend Wind Farm was submitted to MNRF as required under the ESA, Ontario Regulation 242/08.

A copy of these approvals and permits are found in Appendix A.

### 3.0 Summary of Year 1 (2017) Monitoring Results and Mitigation Applied in Year 2 (2018)

The following summarizes the findings of the Year 1 monitoring and mitigation applied in Year 2:

- The corrected total estimate for birds at the Project site (from May 1 to October 31, 2017) was 10.08 birds per turbine per year. This was **below** the provincial threshold of annual bird mortality of 14 birds per turbine per year. No additional mitigation was applied for bird mortalities in 2018. Bird mortality monitoring in 2018 continued as per the standard post-construction monitoring schedule set by the MNRF (2017-2019 inclusive).
- The corrected total estimate for all raptors at the Project site (from May 1 to November 30, 2017) was 0.89 raptors per turbine per year. This estimate was **above** the provincial threshold of annual raptor mortality of 0.2 raptors per turbine per year (all raptors). Given that there were no provincially tracked raptors found during the monitoring program (i.e., Bald Eagle, Golden Eagle, Rough-legged Hawk, Peregrine Falcon), raptor mortalities did not exceed the threshold of 0.1 raptors per turbine per year for provincially tracked raptors. Because the provincial raptor threshold was exceeded in 2017, scoped mortality monitoring at individual turbines (and unmonitored turbines in near proximity) was conducted in 2018 to determine whether individual or groups of turbines had higher mortalities (see Section 4.4.2). Data from 2017 and 2018 was examined and is discussed in Section 6.0. No operational mitigation was applied for raptor mortalities in 2018.
- The corrected total estimated mortality rate for bats at the Project site (from May 1 to October 31, 2017) was 27.85 bats per turbine per year. This estimate was **above** the annual bat mortality threshold of 10 bats per turbine per year, averaged across the Project site. As a result, mitigation was applied in 2018, including changing the wind turbine cut-in speed to 5.5 m/s and feathering of the wind turbine blades when wind speeds were below 5.5 m/s. The operational mitigation was implemented across the wind power project (i.e. at all turbines) from sunset to sunrise, from July 15 to September 30. The effectiveness of this mitigation is discussed in Section 6.0.

## 4.0 Year 2 Post-Construction Monitoring Methodology

Post-construction mortality surveys are required for all Class 3 and 4 wind power projects. This Post-Construction Monitoring Report is one component of the EEMP and has been prepared in accordance with MNRF's *Bats and Bat Habitats: Guidelines for Wind Power Projects* (July 2011) and MNRF's *Birds and Bird Habitats: Guidelines for Wind Power Projects* (December 2011).

Post-construction bat and bird mortality surveys estimate bird and bat mortality from wind turbines and may identify species and specific periods of high mortality. This knowledge can be used to evaluate the success of mitigation measures, establish protocols for operational mitigation, and inform adaptive management.

Bat and bird mortality surveys identify the number of bats or birds killed per turbine over a known period (expressed as bats per turbine per year **or** birds per turbine per year). This value represents an estimate of bat and bird mortality adjusted for carcass removal rates, searcher efficiency, and percent area searched (see Section 4.1 below).

For bats and birds, a monitoring year is from May 1 to October 31. This extends until November 30 specifically for raptor monitoring.

Post-construction monitoring in Year 2 consisted of:

- Regular bat / bird mortality surveys around specific wind turbines.
- Scoped raptor mortality surveys around specific wind turbines as part of the raptor mitigation requirements.
- Monitoring of bat / bird carcass removal rate by scavengers (or other means).
- Monitoring of bird / bat searcher efficiency (i.e., number of bat / bird fatalities present that are detected by searchers).

### 4.1 Mortality Thresholds

A threshold approach is used by the MNRF to identify and mitigate significant bat and bird mortality resulting from the operation of wind turbines.

#### 4.1.1 Bats

Bat mortality is significant when a threshold of annual bat mortality (averaged across the site) exceeds 10 bats per turbine per year.

This threshold has been determined based on bat mortality reported at wind power projects in Ontario and compared with jurisdictions across North America.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

#### 4.1.2 Birds

Bird mortality is significant when annual bird mortality exceeds one or more of the following thresholds:

- 14 birds per year at individual turbines or turbine groups;
- 0.2 raptors per turbine per year (all raptors) across a wind power project; or,
- 0.1 raptors per turbine per year (provincially tracked raptors) across a wind power project.

Provincially tracked raptors are defined as raptors of provincial conservation concern by the MNRF Natural Heritage Information Centre (NHIC).

In addition, single significant mortality events have been reported at existing wind farms. Such an event has been defined by the MNRF as the results of any single monitoring survey in excess of:

- 10 or more birds at any one turbine; or,
- 33 or more birds (including raptors) at multiple turbines.

For birds, an additional 2 years of scoped mortality and cause and effect monitoring may be required at individual turbines (and unmonitored turbines in near proximity), following any given year where an annual post-construction mortality report identifies significant bird or raptor mortality.

For bird / bats, an additional 3 years of effectiveness monitoring may be required where mitigation is applied.

#### 4.2 Effort and Timing for Bat and Bird Mortality Monitoring

The Project consists of 40 operating turbines. As per the Guidelines, for wind power projects >10 turbines, bat and bird mortality surveys should occur at a sub-sample of at least 30% of turbines (minimum 10 turbines) and should be selected to cover representative areas throughout the project location. A total of 12 turbines were selected to cover representative areas throughout the Project site (the “sub-sample”). The draft sub-sample identified in the EEMP was selected such that:

- The sub-sample of wind turbines that were monitored included a representative sample of all habitats present and covered the spatial distribution of the wind turbines. Wind turbines were selected through a scientifically defensible system (e.g., stratification).
- It included a range of turbines across the full spatial distribution of the project.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- The sub-sample turbines did not include ones where the majority of the search area would not be searchable due to vegetation cover or other impediments (i.e., Visibility Class 4 in accordance with MNR, 2011). See Table 1.

The final 12 sub-sample turbines were modified slightly from the EEMP because none of the originally defined 12 Bat Maternity Colony habitats were found to be significant; therefore, the sub-sample was adjusted to ensure a representative sample of the Project site. The sub-sample consisted of the following 12 turbines used in Year 1 and Year 2 (Figure 2 shows the location of the turbines):

- T-02, T-07, T-16, T-17, T-18, T-20, T-27, T-31, T-33, T-38, T-42, and, T-48.

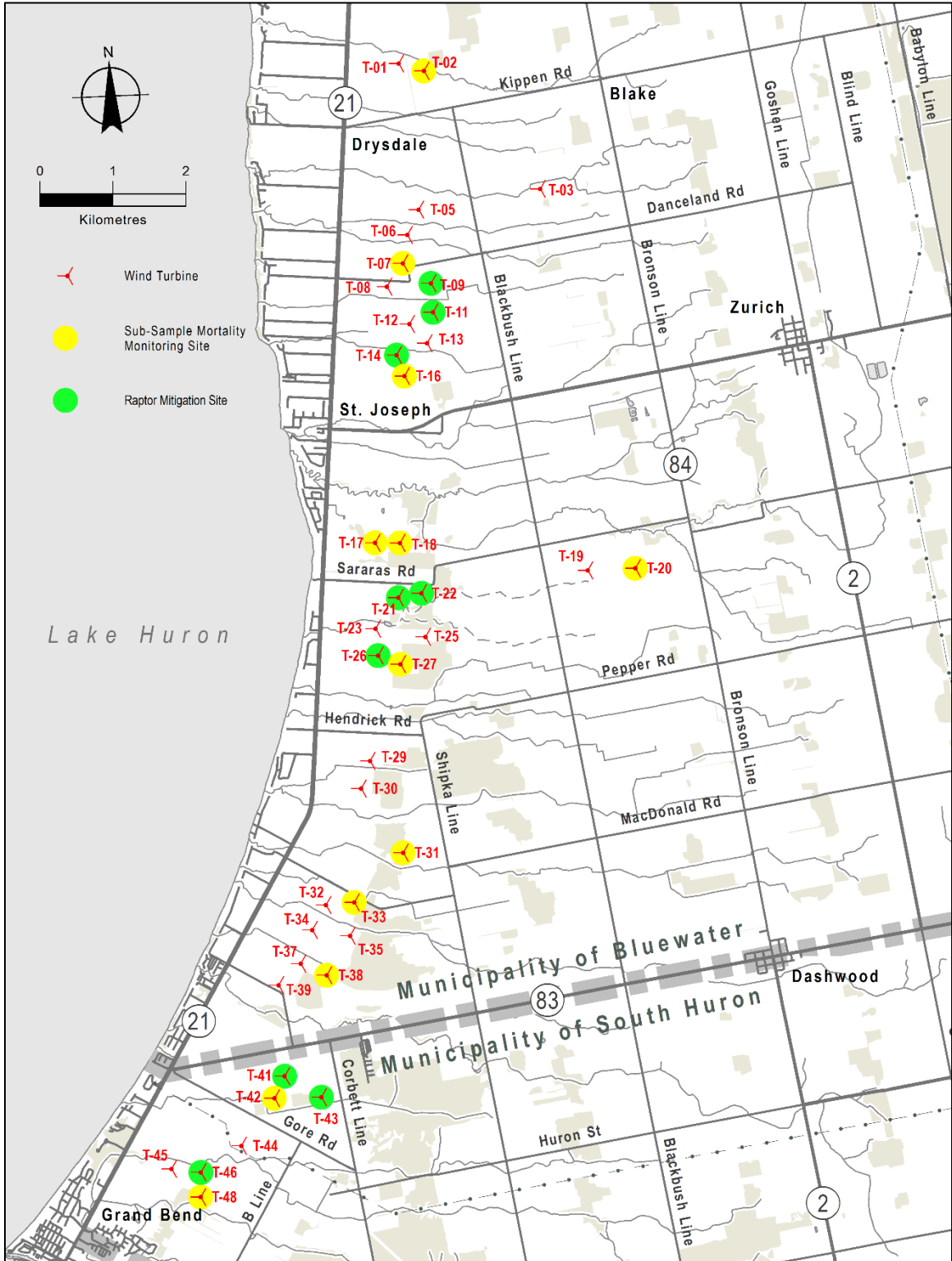
The Project became fully operational in July 2016; therefore, post-construction environmental monitoring activities for Year 1 commenced on May 1, 2017 and ended on November 30, 2017. Post-construction environmental monitoring for Year 2 commenced on May 1, 2018 and ended on November 30, 2018. These dates are referred to in this Report as the “Monitoring Period”.

Data were collected following the Guidelines as well as the data standards and requirements of the Wind Energy Bird and Bat Monitoring Database. Survey data were collected using Fulcrum, a data collection platform for mobile devices. Data collected through Fulcrum automatically populates a database where they can be analyzed, reported and used to address knowledge gaps and create public data summaries. The data forms created in Fulcrum were based on the standardized templates available online through the Wind Energy Bird and Bat Monitoring Database found at [http://www.bsc-eoc.org/birdmon/wind/wind\\_templates.jsp](http://www.bsc-eoc.org/birdmon/wind/wind_templates.jsp).

Post-construction monitoring was conducted by two searchers (herein referred to as searcher “SH” and searcher “SD”).



**Figure 2: Location of Sub-Sample Mortality and Raptor Mitigation Monitoring Sites**



### 4.3 Avian and Bat Mortality Searches

Regular carcass searches for birds (excluding raptors) and bats were conducted twice weekly (3 and 4-day intervals) at the sub-sample of wind turbines between May 1 and October 31. When unsafe working conditions, such as a weather event (i.e., lightning, funnel clouds) caused a “stop work” event, the turbines were searched as soon as possible after the missed date (i.e., the next day)<sup>1</sup>.

Carcass searches consisted of the following:

- The time required searching each turbine varied depending on weather, soil conditions and vegetation cover as well as individual searchers and whether carcasses were recorded, but searchers typically spent between 15 minutes to 1 hour searching at each turbine. Time spent searching also depended on whether the turbine was searched by 1 or 2 searchers.
- Each surveyed turbine consisted of a 50 m search radius from the base of the turbine.
- Within this 50 m radius, the search area was examined using transects 5.0 m apart allowing for a visual search of 2.5 m on each side. The search area was circular (see Appendix B).
- The search area of each turbine was mapped into Visibility Classes according to Table 1.

**Table 1: Visibility Classes**

%Vegetation Cover	Vegetation Height	Visibility Class
≥90% bare ground	≤15cm tall	Class 1 (Easy)
≥25% bare ground	≤15cm tall	Class 2 (Moderate)
≤25% bare ground	≤25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥25% > 30cm tall	Class 4 (Very Difficult)

- Ground cover around the sub-sample turbines was maintained at a low level to facilitate more accurate bat and bird mortality surveys. The sub-sample turbines were maintained at either Visibility Class 1 or 2 for the duration of the Monitoring Program.
- All carcasses found were photographed and recorded / labeled with species (if known), sex (if known), date, time, location (UTM coordinate), carcass condition, searcher name, injuries, ground cover, and distance and direction to nearest turbine.
- Weather conditions including wind speed and precipitation were included as part of the data collection.

<sup>1</sup> The following 5 turbines were searched on the 5<sup>th</sup> day interval (August 7, 2018) due to a stop work event related to lightning on August 6<sup>th</sup>: T-02, T-27, T-38, T-41, T-42. They were searched again as per the regular schedule on August 9<sup>th</sup>, with a 2-day interval since the last search on August 7<sup>th</sup>.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- The estimated number of days since death, and condition of each carcass collected were recorded in one of the following categories:
  - Fresh
  - Early decomposition
  - Moderate decomposition
  - Advanced decomposition
  - Complete decomposition
  - Scavenged
- Bird carcasses found during mortality monitoring were collected and stored in a freezer and used in carcass removal or searcher efficiency trials if they were in reasonable condition.
- Carcasses of the following species found during bat mortality searches were stored in a freezer and used in carcass removal or searcher efficiency trials, if they were in reasonable condition:
  - *Lasionycteris noctivagans* (Silver-haired Bat);
  - *Lasiurus cinereus* (Hoary Bat); and,
  - *Lasiurus borealis* (Eastern Red Bat);
- Because of white-nose syndrome contamination risks, the following species were not used in carcass removal or searcher efficiency trials:
  - *Myotis septentrionalis* (Northern Long-eared Bat);
  - *Myotis lucifugus* (Little Brown Bat);
  - *Myotis leibii* (Eastern Small-footed Bat);
  - *Perimyotis subflavus* (Tri-colored Bat); and,
  - *Eptesicus fuscus* (Big Brown Bat).

#### 4.4 Raptor Mortality Searches

##### 4.4.1 Raptor Mortality

In addition to carcass searches for birds and bats, raptor mortality surveys were conducted twice weekly in combination with the carcass searches at the 12 sub-sample turbines and the 9 raptor mitigation turbines (see Section 4.4.2 below), and once per month at the remaining 19 turbines within the Project during the survey period from May 1 to October 31. For the month of November, once weekly raptor mortality surveys were conducted at the sub-sample turbines and the raptor mitigation turbines in addition to the monthly surveys of the remaining 19 turbines. The 19 turbines were as follows:

- T-01, T-03, T-05, T-06, T-08, T-12, T-13, T-19, T-23, T-25, T-29, T-30, T-32, T-34, T-35, T-37, T-39, T-44, and T-45

The results of the targeted raptor mortality surveys were not added to the sub-sample survey mortality estimate calculations. The purpose of the raptor mortality surveys is to

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

identify any individual or groups of turbines that may exceed the significant mortality threshold for raptors.

As per the Guidelines, searcher efficiency and carcass removal trials were not carried out during targeted raptor mortality surveys at the 28 turbines that were not part of the sub-sample.

#### **4.4.2 Raptor Scoped Mortality and Cause and Effect Monitoring**

As stated in Section 3.0, the provincial raptor threshold was exceeded in 2017, and as a result, scoped mortality and cause and effect monitoring at individual turbines (and unmonitored turbines in near proximity) was required for two subsequent years (2018-2019).

An email was sent to MNRF (Mike Poskin, Acting Renewable Energy Coordinator) on April 20, 2018 (prior to the start of monitoring) to request additional details of raptor scoped mortality and cause and effect monitoring requirements. Burnside proposed a scoped mortality schedule (below) to address mitigation for raptor mortality. On August 23, 2018, Burnside received an email response from MNRF (Kaitlyn McGlade, Regional Planning Ecologist) providing clarification on scoped mortality and cause and effect monitoring requirements at individual turbines. The suggested approach to monitoring locations and frequency that Burnside presented in our original request email was considered reasonable and it was MNRF's opinion that it reflected a good additional subset of turbines that may be located in sensitive / high mortality areas. The following 9 turbines were changed from monthly monitoring to biweekly monitoring as part of Burnside's scoped monitoring schedule:

- T-09, T-11, T-14, T-21, T-22, T-26, T-41, T-43, and T-46

By the date of MNRF's response, post-construction monitoring was well-underway for the 2018 period. During this time, Burnside had moved forward with the scoped mortality monitoring proposed above, but the requirements for "cause and effects monitoring" remained unclear. The following is the email response from MNRF from August 23, 2018:

*"The approach to scoped mortality and cause and effects monitoring will vary by project as it is intended to take a closer, more focused approach to monitoring to determine a potential causal link and inform possible mitigation plans. The scoped mortality and cause and effects monitoring plan(s) should be developed by a qualified professional and follow the basic principles of scientific research/monitoring (i.e., the methods are repeatable, measurable etc.). They should also be able to provide results that lead to conclusions regarding the*

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

*cause and potential ongoing effects of the mortalities on raptor populations in the vicinity of the project.*

*The plan(s) can include a continuation or additional mortality monitoring at turbines where fatalities were recorded (and those in proximity) as well as some form of scoped behavioral monitoring. This behavioral monitoring would align with the techniques identified within Appendix A of the MNRF Bird and Bird Habitats: Guidelines for Wind Projects (December 2011). From an ecological perspective, the most effective form of scoped behavioral monitoring for this circumstance would be migratory, breeding and/or nesting surveys. This information would be used to assess the potential cause of the mortality threshold being exceeded. For instance, are the turbines located along a migration route which would increase the number of raptors in proximity to and potentially impacted by the turbines. Is there a nest and/or breeding territory located within the turbine areas?"*

Based on this response, monitoring in 2019 will require a continuation of the scoped monitoring schedule detailed above, but will also include behavioral monitoring surveys to assess the cause and effects of raptor mortalities. This is discussed in more detail in Section 5.3.4.

#### **4.5 Incidental Observations**

Carcasses may be discovered incidental to formal searches. As per the MNRF Guidelines, these carcasses were processed (i.e., collected, recorded, etc.) and fatality data were included with the calculation of fatality rates. However, data for incidentally discovered carcasses that were found outside of the formal search area (i.e., greater than 50 m) were reported separately and were not included with the calculation of fatality rates

#### **4.6 Carcass (Scavenger) Removal Trials**

Carcass removal by scavengers is highly variable among sites (influenced by vegetation cover, terrain and season) and must be considered when estimating total bat and bird mortality. The rate of carcass scavenging was determined through carcass removal trials. In these trials, carcasses were placed around the wind turbines and monitored until they were removed by scavengers. The average carcass removal time is a factor in determining the estimated bat or bird mortality rate.

Carcass removal trials consisted of the following:

- Carcass removal trials were conducted once per season (Spring, Summer, Fall) during the same period as the mortality surveys (May 1 to October 31).

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- According to the Guidelines, a minimum of 10 carcasses are to be used for each trial with no more than 5 trial carcasses placed at any one time. Burnside staff placed more than the minimum requirement by placing 15 carcasses at each Visibility Class present in the sub-sample per season in 2018 (Visibility Class 1 and 2).
- Carcasses were monitored every 3 to 4 days in conjunction with carcass searches. One exception to this was at T-06: there was 5 days between Visit 3 on June 14 and Visit 4 on June 19.
- Carcass removal trials were conducted in a variety of weather conditions. Weather conditions were recorded.
- Carcasses were distributed across a range of different substrates/habitats and within Visibility Class 1 and 2 of turbines being searched.
- Carcass removal trials were conducted at turbines that were not part of the carcass search sub-sample.
- Carcasses were placed before dusk using gloves and boots to avoid imparting human smell that might bias trial results (e.g., attract scavengers, etc.).
- Trials continued until all carcasses were removed or were completely decomposed (generally two weeks).
- To avoid confusion with turbine related fatalities, trial carcasses were discretely marked with a unique identification, so they could be identified as trial carcasses.
- Frozen carcasses were used and were thawed prior to beginning carcass removal trials.
- Bat and bird carcasses were used for the trials. To the extent possible, bat carcasses were used for at least one third of the trials and bird carcasses were used for another third of the trial carcasses. At least one raptor was used during each trial period.

#### **4.7 Searcher Efficiency Trials**

Searcher efficiency is another important factor in creating an estimate of total bat and bird mortality. Searcher efficiency trials require a known number of discretely marked carcasses to be placed around a wind turbine. Searchers examined the wind turbine area, and the number of carcasses that they found was compared to the number of carcasses placed.

Searcher efficiency trials consisted of the following:

- Searcher efficiency trials were conducted once per season (spring, summer and fall) during the same period as the bat mortality surveys (May 1 to October 31).
- A 'tester' controlled the trials and returned to collect marked trial carcasses at the completion of the trials to determine the number of carcasses remaining and if any carcasses were scavenged or removed during the trial.
- Searcher efficiency trials were conducted for each individual searcher.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- The Guidelines and EEMP state that a total of 10 carcasses per searcher per season per all applicable Visibility Classes (i.e., 1 and 2) found in the search area of the sub-sample turbines (see Table 1) are to be used. Burnside staff placed out more than the minimum requirement by placing 15 carcasses per searcher at each Visibility Class present in the sub-sample per season in 2018 (Visibility Class 1 and 2). The average efficiency per searcher across all applicable Visibility Classes was used for calculations.
- Trial carcasses were spread out over the trial period (each season) and conducted with the mortality surveys. A maximum of 3 trial carcasses were placed at any one time to avoid bias and flooding the area with carcasses.
- Trial carcasses were placed for one search period only and then removed and recorded by the ‘tester’.
- Trial carcasses were randomly placed within the search area and location recorded so that they could be retrieved if they were not found during the trial.
- Trial carcasses were discreetly marked with a unique identification so that they could be identified as a trial carcass by the tester.
- Frozen carcasses were used and thawed prior to beginning searcher efficiency trials.
- Bat and bird carcasses were used for the trials. To the extent possible, bat carcasses were used for at least one third of the trials and bird carcasses were used for another third of the trial carcasses. At least one raptor was used during each trial period.

#### 4.8 Proportion Area Searched

Based on current Ontario post-construction data, most bat and bird mortalities appear to fall within 50 m of a wind turbine base (7,853.97 m<sup>2</sup>). This area therefore represents the maximum recommended search area. Since it was not always possible to search the entire 50 m radius (presence of thick or tall vegetation, active cultivation, etc.) the actual area searched during the mortality surveys was calculated at each turbine, using a GPS. A map of the actual search area for each turbine searched, and a description of areas deemed to be unsearchable (e.g., vegetation height, type, slope, etc.) is provided in Appendix D of this report.

Proportion area searched ( $P_s$ ) was calculated as a total proportion for all turbines in a given season (Spring – May/June; Summer – July/August; Fall – September/October).  $P_s$  was determined as follows:

$$P_s = \frac{\sum \text{actual area searched}}{n\pi r^2}$$

Where,

r equals 50 m

n equals the number of turbines searched (12)

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

## 5.0 Post-Construction Monitoring Results

### 5.1 Carcass (Scavenger) Removal Trials

The proportion of carcasses not removed by scavengers over the search period varied slightly for each season, as indicated below.

Table 2 shows the number of carcasses remaining during carcass removal trials at the Project site. Details on the tester, date placed, species, distance and direction from turbine, dates checked, UTM, and whether the carcass was scavenged can be found in Appendix E.

**Table 2: Scavenger Removal Trial Results at the Project Site**

	No. of Carcasses Placed	No. Remaining	No. Remaining	No. Remaining	No. Remaining
<b>Spring Trial (May/June)</b>					
Turbine #	Visit 0	Visit 1	Visit 2	Visit 3	Visit 4
5	2	2	0	-	-
6	3	2	2	2	2
19	3	2	2	2	2
23	1	1	1	0	-
28	1	0	-	-	-
32	2	0	-	-	-
35	3	3	1	0	-
<b>Total</b>	<b>15</b>	<b>10</b>	<b>6</b>	<b>4</b>	<b>4</b>
<b>Summer Trial (July/August)</b>					
Turbine	Visit 0	Visit 1	Visit 2	Visit 3	Visit 4
3	2	2	2	1	0
13	3	2	0	-	-
29	2	2	2	2	2
30	3	3	3	3	2
44	2	2	2	2	1
45	3	1	0	-	-
<b>Total</b>	<b>15</b>	<b>12</b>	<b>9</b>	<b>8</b>	<b>5</b>
<b>Fall Trial (September/October)</b>					
Turbine	Visit 0	Visit 1	Visit 2	Visit 3	Visit 4
01	3	2	2	2	2
30	2	2	1	0	-
32	1	1	1	1	1
34	2	1	1	0	-



Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

	No. of Carcasses Placed	No. Remaining	No. Remaining	No. Remaining	No. Remaining
37	2	2	1	1	1
44	2	1	0	-	-
44	3	0	-	-	-
<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>	<b>4</b>	<b>4</b>

The following formula was used to calculate the overall scavenger correction ( $S_c$ ) factors based on the proportion of carcasses remaining after each search interval was pooled:

$$S_c = \frac{n_{visit1} + n_{visit2} + n_{visit3}}{n_{visit0} + n_{visit1} + n_{visit2}}$$

Where,

$S_c$  is the proportion of carcasses not removed by scavengers over the search period

$n_{visit0}$  is the total number of carcasses placed

$n_{visit1} - n_{visit3} \dots$  are the numbers of carcasses on visits 1 through 3

$$SC_{Spring} = \frac{n_{visit1} + n_{visit2} + n_{visit3} + n_{visit4}}{n_{visit0} + n_{visit1} + n_{visit2} + n_{visit3}}$$

$$= \frac{(10 + 6 + 4 + 4)}{(15 + 10 + 6 + 4)}$$

$$= \frac{24}{35}$$

$$= 0.686$$

Based on the results of the scavenger removal trials in the Spring period, approximately 69% of carcasses remained after the average search frequency of approximately 3 to 4 days.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

$$\begin{aligned}
 SC_{Summer} &= \frac{n_{visit1} + n_{visit2} + n_{visit3} + n_{visit4}}{n_{visit0} + n_{visit1} + n_{visit2} + n_{visit3}} \\
 &= \frac{(12 + 9 + 8 + 5)}{(15 + 12 + 9 + 8)} \\
 &= \frac{34}{44} \\
 &= 0.773
 \end{aligned}$$

Based on the results of the scavenger removal trials in the Summer period, approximately 77% of carcasses remained after the average search frequency of approximately 3 to 4 days.

$$\begin{aligned}
 SC_{Fall} &= \frac{n_{visit1} + n_{visit2} + n_{visit3} + n_{visit4}}{n_{visit0} + n_{visit1} + n_{visit2} + n_{visit3}} \\
 &= \frac{(9 + 6 + 4 + 4)}{(15 + 9 + 6 + 4)} \\
 &= \frac{23}{34} \\
 &= 0.676
 \end{aligned}$$

Based on the results of the scavenger removal trials in the Fall period, approximately 68% of carcasses remained after the average search frequency of approximately 3 to 4 days.

Overall, scavenger removal trial results did not differ significantly between seasons. The scavenger removal trial results will be used to calculate the estimated bird and bat mortality rates at the Grand Bend Wind Farm.

## 5.2 Searcher Efficiency Trials

Searcher efficiency ( $S_e$ ) was calculated for each searcher as follows:

$$S_e = \frac{\text{number of test carcasses found}}{\text{number of test carcasses placed} - \text{number of carcasses scavenged}}$$

The number of turbines that each individual searches, will vary so it was necessary to calculate a weighted average that reflected the proportion of turbines each searcher

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

searched. The weighted average or overall searcher efficiency was calculated as follows:

$$S_{eo} = S_{e1}(n_1/T) + S_{e2}(n_2/T) + S_{e3}(n_3/T)...$$

Where,

$S_{eo}$  is the overall searcher efficiency  
 $S_{e1}$  and  $S_{e2}$  and  $S_{e3}...$  are individual searcher efficiency ratings  
 $n_1$  and  $n_2$  and  $n_3...$  are number of turbines searched by each searcher  
 $T$  is the total number of turbines searched by all searchers

Vegetation at the sub-sample turbines remained at either Visibility Class 1 or Class 2 throughout the Monitoring Period; therefore, SE trials occurred seasonally. These periods have been denoted as  $SE_{spring}$  (May-June),  $SE_{summer}$  (July-August) and  $SE_{fall}$  (September-October).

The proportional area of turbines searched by each surveyor must be calculated so that respective searcher efficiencies can be weighted into a single composite value. As alluded by the equation for  $S_{eo}$ , this is accomplished by dividing the total number of turbines searched ( $n$ ) by the total number of turbines ( $T=12$ ), and was calculated as follows:

$$P_e = \frac{\sum n}{T}$$

Refer to Table 3 below.

**Table 3: Searcher Efficiency Trial Results by Season**

Season (2018)	Searcher	No. of Carcasses Placed	No. of Carcasses Scavenged	No. of Carcasses Found	No. of Carcasses Not Found	Searcher Efficiency ( $SE_{individual}$ )	Proportion of Turbines Searched Across the Project Site ( $P_e = n/T$ )
Spring	SH	30	0	12	18	0.400	0.493
	SD	30	4	10	16	0.385	0.507
Summer	SH	30	1	15	14	0.517	0.523
	SD	30	1	18	11	0.621	0.477
Fall	SH	30	0	13	17	0.433	0.476
	SD	30	4	9	17	0.346	0.524

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

$$\begin{aligned} SE_{Spring} &= \sum SE_{individual} * P_e \\ &= (0.385 * 0.507) + (0.400 * 0.493) \\ &= 0.392 \end{aligned}$$

The overall weighted average for searcher efficiency revealed that 39% of all carcasses expected across the Project site were found by searchers in the Spring period.

$$\begin{aligned} SE_{Summer} &= \sum SE_{individual} * P_e \\ &= (0.517 * 0.523) + (0.621 * 0.477) \\ &= 0.567 \end{aligned}$$

The overall weighted average for searcher efficiency revealed that 57% of all carcasses expected across the Project site were found by searchers in the Summer period.

$$\begin{aligned} SE_{Fall} &= \sum SE_{individual} * P_e \\ &= (0.433 * 0.476) + (0.346 * 0.524) \\ &= 0.388 \end{aligned}$$

The overall weighted average for searcher efficiency revealed that 39% of all carcasses expected across the Project site were found by searchers in the Fall period.

### 5.3 Avian and Raptor Mortality Results

The following section discusses bird mortality findings by species, date, and spatial distribution and provides the corrected mortality estimates.

#### 5.3.1 Species Composition

Bird mortalities were recorded during the Monitoring Period during every month from May 1 to November 30 at turbines monitored during bi-weekly and monthly raptor monitoring.

Of the 59 bird mortalities recorded at the Project site during the Monitoring Period, a total of 26 different species of birds were identifiable to species, including raptors and incidental observations; and 10 birds were recorded but not identifiable to species (e.g., due to advanced level of decomposition, missing body parts, etc.). Of the 59 bird mortalities, 40 were recorded at the sub-sample turbines. A total of 10 birds were recorded as incidental observations at the Project site, 6 of which were recorded at the sub-sample turbines. A total of 7 raptors were recorded at the Project site, 3 of which were recorded at the sub-sample turbines (but were all recorded as incidental

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

observations outside of the formal search plot), and 4 of which were recorded at the remaining turbines during raptor mortality searches.

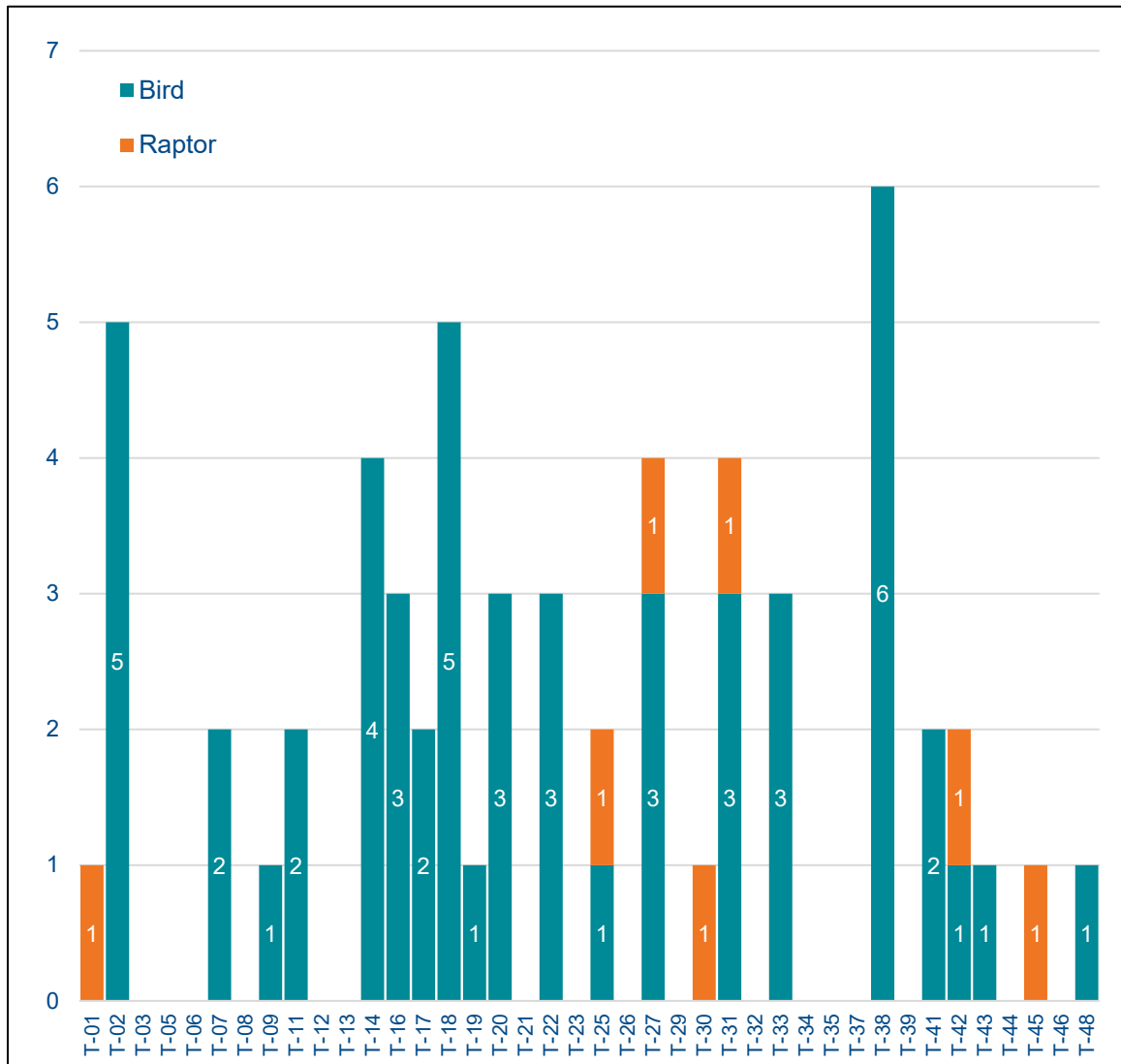
Golden-crowned Kinglet was the most common recorded bird species that was identifiable to species, with a total of 13 carcasses found across the entire Project site. Purple Martin (*Progne subis*) was the second-most common recorded bird species that was identifiable to species, with a total of 5 carcasses found across the entire Project site.

Of the 7 raptor mortalities recorded at the Project site, 2 different species were identified: Red-tailed Hawk (*Buteo jamaicensis*) and Turkey Vulture (*Cathartes aura*). One additional raptor was recorded but not identifiable to species. Three raptors were recorded at the sub-sample turbines but were all incidental observations found outside the formal survey plot.

One bird species at risk (SAR) listed as Threatened under the ESA was recorded at the Project site: Barn Swallow (*Hirundo rustica*).

Figure 3 depicts bird and raptor mortalities at the Project site by turbine. The complete list of bird and raptor mortalities are found in Appendix E.

**Figure 3: Bird and Raptor Mortalities at the Project Site**

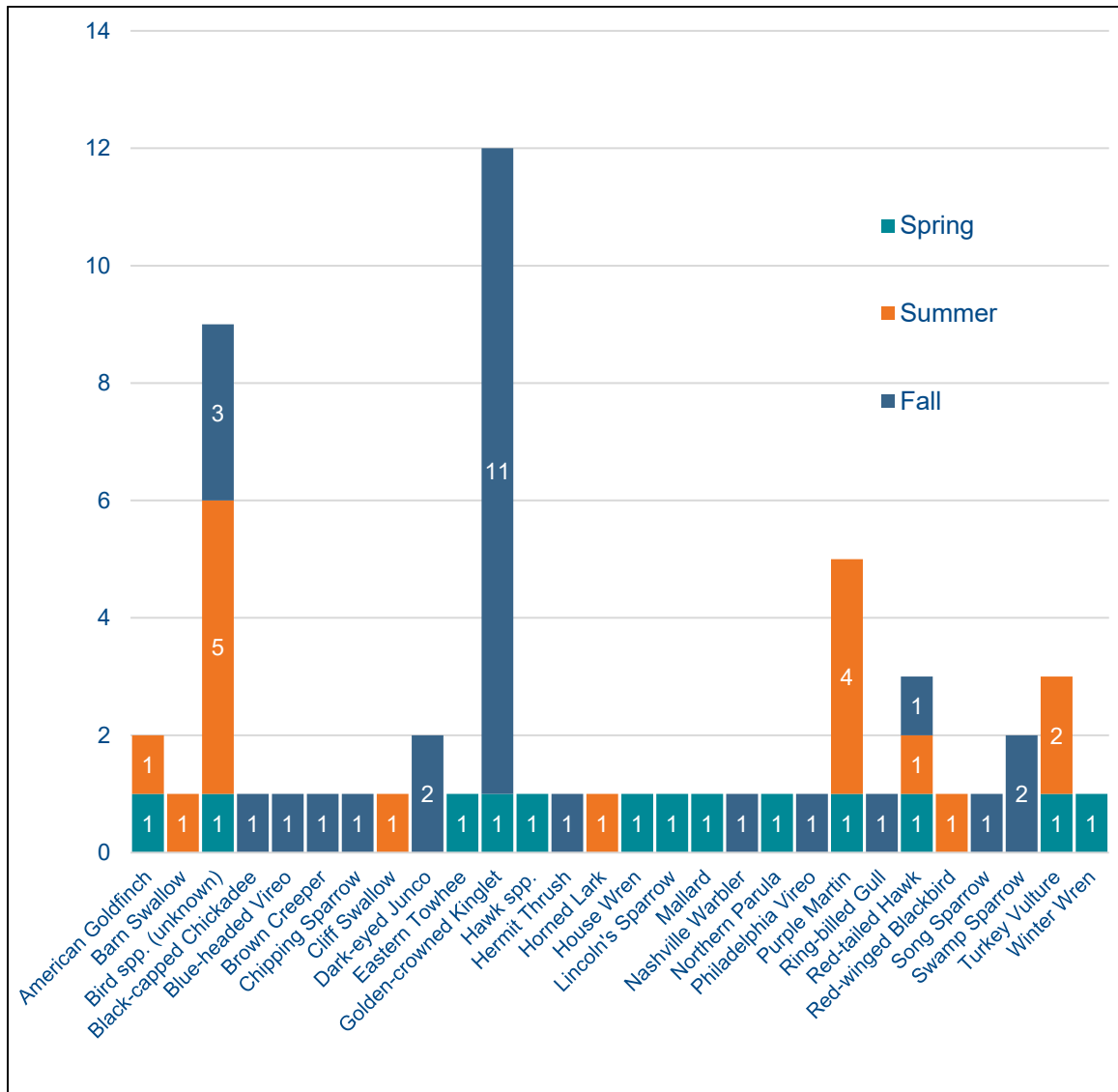


**5.3.2 Mortalities by Date**

Out of a total of 59 bird mortalities recorded across the entire Project site, 18 were recorded in the Spring period (13 of which were in May), 12 were recorded in the Summer period, (split evenly between July/August), 26 were recorded in the Fall period (24 of which were in October), and 3 were recorded in November. As shown on Figure 4 below, the highest mortalities occurred in the Fall period, followed by the Spring period, both of which correspond to peak migratory periods for birds, particularly the months of May and October. In the Spring, they are returning from their wintering grounds and in the Fall they are leaving their breeding grounds and returning to their wintering grounds.

Of the 7 raptor mortalities recorded across the Project site, 3 were recorded in the Spring period (May/June), 3 were recorded in the Summer period (July/August), none were recorded in the Fall period (September/October), and 1 was recorded in November.

**Figure 4: Number of Bird Mortalities by Species and Season at the Project Site**



Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

### 5.3.3 Spatial Distribution

Bird mortalities were recorded at 23 out of the 40 turbines, depicted on Figure 3, and were distributed across the Project site (see also Appendix B).

Of the 59 bird mortalities, 40 were recorded at the sub-sample turbines. Bird mortalities were recorded at all of the sub-sample turbines. T-38 had the highest record of bird mortalities (6); T-02 and T-18 both had the second highest recorded mortalities with 5 each; T-14, T-24, and T-31 all had the third highest recorded mortalities with 4 each.

Seven raptor mortalities were recorded at the following 7 turbines: T-01, T-25, T-27, T-30, T-31, T-42 and T-45. No raptor carcasses were recorded at the 9 raptor mitigation turbines or at the sub-sample turbines within the formal search plot area. Three raptor carcasses, 2 Turkey Vulture and 1 Red-tailed Hawk, were recorded at sub-sample turbines (T-27, T-31 and T-42) but were found outside the formal search plot area as incidental carcasses. As per the MNRF guidelines, incidentally discovered carcasses found outside a formal search plot must be reported separately and are not included in the calculation of fatality rates.

### 5.3.4 Raptor Scoped Mortality and Cause and Effects Monitoring

As discussed in Section 4.4.2, as part of Burnside's scoped monitoring for raptors in 2018, nine of the raptor mortality turbines were surveyed biweekly with the sub-sample turbines, instead of monthly. These included the following turbines:

- T-09, T-11, T-14, T-21, T-22, T-26, T-41, T-43, and T-46.

In 2017, 7 raptors were recorded at:

- T-09 (1), T-16 (1), T-22 (2), T-27 (1), T-43 (1), and T-48 (1).

In 2018, 7 raptors were recorded at:

- T-01 (1), T-25 (1), T-27 (1), T-30 (1), T-31 (1), T-42 (1), and T-45 (1).

The only turbine that had a raptor mortality in both 2017 and 2018 was T-27 (Turkey Vulture in 2017, Red-tailed Hawk in 2018). There appears to be a correlation between hawk mortalities and proximity to forested units (i.e., within 100 m). Between the 2 years, 6 of the 7 hawk species were recorded at the following turbines in proximity to forested units:

- 1 Red-tailed Hawk – T-22 (May 2017)
- 1 Sharp-shinned Hawk – T-22 (November 2017)
- 1 Red-tailed Hawk – T-25 (May 2018)



Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

- 1 Red-tailed Hawk – T-27 (November 2018)
- 1 Red-tailed Hawk – T-30 (July 2018)
- 1 Red-tailed Hawk – T-43 (May 2017)

One exception to this rule was a hawk species (unidentifiable to species) that was recorded at T-01 in May 2018. This turbine is not adjacent to any forested unit and is surrounded by agricultural fields.

Between the 2 years, 4 of the 7 Turkey Vultures were recorded at the following turbines in proximity to forested units (i.e., within 100 m):

- 1 Turkey Vulture – T-27 (August 2017)
- 1 Turkey Vulture – T-31 (June 2018)
- 1 Turkey Vulture – T-42 (July 2018)
- 1 Turkey Vulture – T-48 (September 2017)

Three other mortalities were recorded at turbines surrounded by agricultural fields, although the mortality at T-45 (below) was located adjacent to a vegetated riparian system.

- 1 Turkey Vulture – T-09 (July 2017)
- 1 Turkey Vulture – T-16 (September 2017)
- 1 Turkey Vulture – T-45 (May 2018)

The threshold for raptor species was not exceeded in 2018 (see Section 5.3.5 below); however, the same number of raptor mortalities occurred across the Project site in 2018 compared to 2017. As part of the MNRF post-construction mitigation requirements, the threshold exceedance in 2017 requires 2 years of scoped mortality monitoring and cause and effect monitoring (i.e., 2018 and 2019); therefore, monitoring in 2019 will require a continuation of the scoped monitoring schedule detailed above, but will also include behavioral monitoring surveys to assess the cause and effects of raptor mortalities. Based on data from 2017 and 2018, this may include nesting and/or breeding or roosting territory surveys between May-August at turbines located in close proximity to forested units. A plan will be drafted and approved by MNRF prior to the start of the Year 3 monitoring.

A map book depicting the distribution of raptor mortalities across the Project site in 2017 and 2018 is found in Appendix C.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

### 5.3.5 Corrected (Estimated) Bird Mortality Calculations

#### *Bird Species*

Based on the calculations outlined below, the corrected total estimate for all bird species at the Project site for the 2018 Monitoring Period (from May 1 to October 31) is **10.638 birds per turbine per year**. This estimate is **below** the provincial threshold of annual bird mortality of 14 birds per turbine per year. Bird mortality thresholds have been established based on the range of bird mortality at wind power projects in Ontario and compared with jurisdictions across North America. The annual bird mortality threshold of 14 birds per turbine per year is below the 95<sup>th</sup> percentile of bird mortality rates in Ontario.

#### *Raptor Species*

The corrected total estimate for all raptors at the Project site for the 2018 Monitoring Period is **0.0 raptors per turbine per year** (based on Raptor Mortality surveys and not including incidental findings). This estimate is **below** the provincial threshold of annual raptor mortality of 0.2 raptors per turbine per year (all raptors). Given that there were no provincially tracked raptors found during the monitoring program, raptor mortalities did not exceed the threshold of 0.1 raptors per turbine per year for provincially tracked raptors.

Raptor mortalities at turbines that were not part of the sub-sample turbines are not to be added to the sample survey mortality estimate calculations. According to the Guidelines, the purpose of the raptor mortality surveys is to identify any individual or groups of turbines that may exceed the significant mortality threshold. A significant bird mortality event is defined to have occurred when bird mortality during a single mortality monitoring survey exceeds:

- 10 or more birds at any one turbine; or,
- 33 or more birds (including raptors) at multiple turbines.

There were no single mortality events recorded during the Monitoring Period for birds or raptors. The highest number of birds recorded at any one turbine during a single mortality monitoring survey was 2, and the highest number of birds (including raptors) recorded at multiple turbines was 5.

The following 5 tables (Table 4, Table 5, Table 6, Table 7, and Table 8) summarize the values required for calculating the corrected total estimate for all bird species and for all raptors at the Project site in 2018.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

**Table 4: Proportion of Total Area Searched at the Sub-Sample Turbines**

Month	Total Search Radius (m <sup>2</sup> )	Total Searched Area (m <sup>2</sup> )	Proportion of Area Searched (P <sub>s</sub> )
Spring (May/June)	94,247.64	92,584.15	0.982
Summer (July/August)	94,247.64	82,253.21	0.873
Fall (September/October)	94,247.64	80,539.71	0.854

**Table 5: Actual Observed Mortalities of All Bird Species (Total) at the Sub-Sample Turbines**

Turbine	T2	T7	T16	T17	T18	T20	T27	T31	T33	T38	T42	T48	Total
Spring	1	1	1	0	2	0	1	1	1	2	0	0	10
Summer	3	0	0	1	0	0	0	1	0	1	1	0	7
Fall	1	1	1	1	3	3	1	1	1**	3	0	0	16
<b>Total</b>	<b>33</b>												

\*\* Incidental observation (Ring-billed Gull) located within the search plot but recorded outside formal search time.

**Table 6: Actual Observed Mortalities (Raptors Only) at the Sub-Sample Turbines**

Turbine	T2	T7	T16	T17	T18	T20	T27	T31	T33	T38	T42	T48	Total
Spring	0	0	0	0	0	0	0	0	0	0	0	0	0
Summer	0	0	0	0	0	0	0	0	0	0	0	0	0
Fall	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>												

**Table 7: Corrected (Estimated) Bird Mortality Rate for All Samples in a Given Month (Total)**

Turbine	T2	T7	T16	T17	T18	T20	T27	T31	T33	T38	T42	T48
Spring	0.315	0.315	0.315	0	0.631	0	0.315	0.315	0.315	0.631	0	0
Summer	0.654	0	0	0.218	0	0	0	0.218	0	0.218	0.218	0
Fall	0.372	0.372	0.372	0.372	1.117	1.117	0.372	0.372	0.372	1.117	0	0

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

**Table 8: Corrected (Estimated) Bird Mortality Rate for All Samples in a Given Month (Raptor)**

<b>Turbine</b>	<b>T2</b>	<b>T7</b>	<b>T16</b>	<b>T17</b>	<b>T18</b>	<b>T20</b>	<b>T27</b>	<b>T31</b>	<b>T33</b>	<b>T38</b>	<b>T42</b>	<b>T48</b>
Spring	0	0	0	0	0	0	0	0	0	0	0	0
Summer	0	0	0	0	0	0	0	0	0	0	0	0
Fall	0	0	0	0	0	0	0	0	0	0	0	0

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

The minimum estimated avian mortality (C) was calculated as follows:

$$C_{turbine} = \frac{C_{turbine}}{(SE_{season} * SC_{season} * P_{s-season})}$$

$$C_{month} = \frac{\sum C_{turbine}}{n_{turbine}}$$

$$C_{total} = \sum C_{month}$$

Where,

$C_{turbine}$	Corrected (estimated) monthly mortality rate for a specific turbine (# mortalities/month)
$C_{month}$	Corrected (estimated) monthly mortality rate for all turbines (# mortalities/month/turbine)
$C_{total}$	Corrected (Estimated) mortality rate per year (# mortalities/year/turbine)
$SE_{season}$	Calculated seasonal searcher efficiency
$SC_{season}$	Calculated seasonal scavenger rate
$P_s$	Proportion of total area searched at a turbine for a given season

#### Spring (May-June) – 10 observed mortalities:

$$C_{Spring (total)} = \frac{(10 \text{ mortalities})}{(0.392 * 0.686 * 0.982) * 12 \text{ turbines}} = 3.154 \frac{\text{mortalities}}{\text{turbine}}$$

$$C_{Spring (raptor)} = \frac{(0 \text{ mortalities})}{(0.392 * 0.686 * 0.982) * 12 \text{ turbines}} = 0.0 \frac{\text{raptor mortalities}}{\text{turbine}}$$

#### Summer (July-August) – 7 observed mortalities:

$$C_{Summer (total)} = \frac{(7 \text{ mortalities})}{(0.567 * 0.773 * 0.873) * 12 \text{ turbines}} = 1.526 \frac{\text{mortalities}}{\text{turbine}}$$

$$C_{Summer (raptor)} = \frac{(0 \text{ mortalities})}{(0.567 * 0.773 * 0.873) * 12 \text{ turbines}} = 0.0 \frac{\text{raptor mortalities}}{\text{turbine}}$$

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

### Fall (September-October) – 16 observed mortalities:

$$C_{Fall(total)} = \frac{(16 \text{ mortalities})}{(0.388 * 0.676 * 0.854) * 12 \text{ turbines}} = 5.958 \frac{\text{mortalities}}{\text{turbine}}$$

$$C_{Fall(raptor)} = \frac{(0 \text{ mortalities})}{(0.388 * 0.676 * 0.854) * 12 \text{ turbines}} = 0 \frac{\text{raptor mortalities}}{\text{turbine}}$$

### Total Avian Mortality Rates

#### Total Corrected Avian Mortality

$$C_{(Avian \text{ total})} = C_{(Avian \text{ Spring})} + C_{(Avian \text{ Summer})} + C_{(Avian \text{ Fall})}$$

$$C_{(Avian \text{ total})} = 3.154 + 1.526 + 5.958$$

$$C_{avian} = 10.638 \frac{\text{avian mortalities}}{\text{turbine} * \text{year}}$$

#### Total Corrected Raptor Mortality

$$C_{(Raptor \text{ total})} = C_{(Raptor \text{ Spring})} + C_{(Raptor \text{ Summer})} + C_{(Raptor \text{ Fall})}$$

$$C_{(Raptor \text{ total})} = 0 + 0 + 0$$

$$C_{raptor} = 0.0 \frac{\text{raptor mortalities}}{\text{turbine} * \text{year}}$$

## 5.4 Bat Mortality Results

### 5.4.1 Species Composition

The following section discusses bat mortality findings by species, date, and spatial distribution and provides the corrected mortality estimates.

Bat mortalities were recorded during the Monitoring Period in every month except November at turbines monitored during bi-weekly and monthly raptor monitoring.

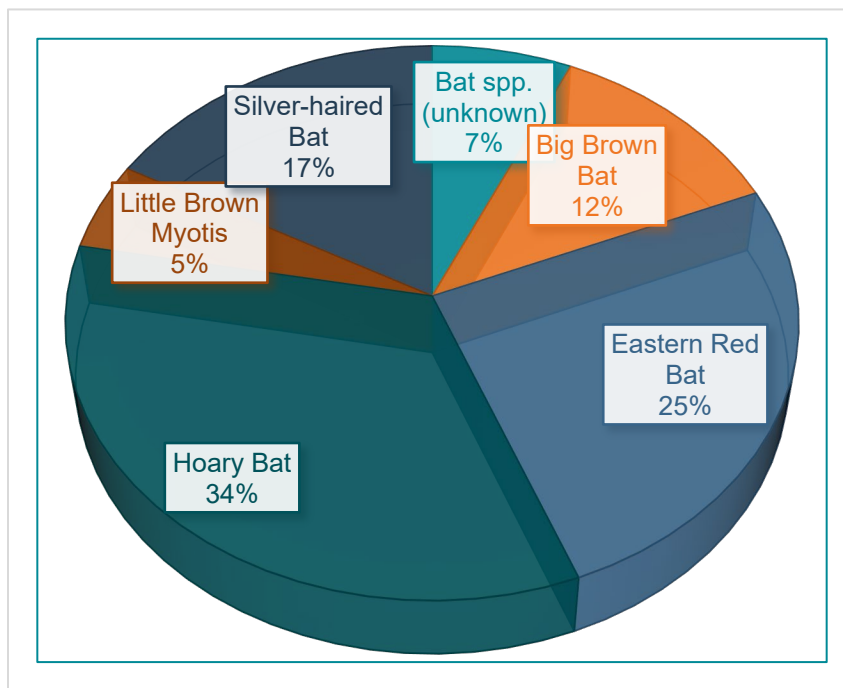
Of the 59 bat mortalities recorded at the Project site during the Monitoring Period, a total of 5 different species of bats were identified: Hoary Bat, Silver-haired Bat, Big Brown

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

Bat, Little Brown Myotis and Eastern Red Bat. One SAR bat species listed as Endangered under the ESA was recorded at the Project site: Little Brown Myotis.

Hoary Bat represented the most common bat species recorded and represented 34% of all bat carcasses; Eastern Red Bat was the second-most common bat species and represented 25% of all bat carcasses recorded. Silver-haired Bat and Big Brown Bat represented 17% and 12% of all bat carcasses recorded, respectively. Little Brown Myotis represented the least common bat species and represented 5% of all bat carcasses recorded. An additional 7% of bat species recorded were not identified to species due to advanced stage of decomposition of carcass or missing body parts required for identifying to bat species (i.e., canine teeth, tragus, forearm). Refer to Figure 5 below.

**Figure 5: Species Composition of Bat Mortalities by Percent at the Project Site**



Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

It is important to note that it can be challenging to distinguish between some of the *Myotis* species and Big Brown Bat based on physical characteristics alone. In 2017, Burnside consulted with Dr. Brock Fenton on several occasions during the monitoring program to assist with bat identification. Dr. Fenton is a well-known bat expert from the Department of Biology at Western University in Windsor, Ontario. According to Dr. Fenton, if the forearm is over 39 mm then the bat is likely not Little Brown Bat and most likely Big Brown Bat. Additionally, the faces of these two species are distinctly different. Therefore, when the identification of a “brown” bat was in question, the forearm was measured and the tragus (if visible) was examined and photographed. The length of the forearm and features of the tragus were used to help distinguish between the two species.

Another key identification technique that is more definitive than forearm length or tragus is to compare the canine teeth. In bats in the genus *Myotis* in the upper jaw there is a gap between the canine (eye) teeth, and the next large tooth (a premolar). There are two small premolars in this space. In *Eptesicus* (e.g., Big Brown Bat) the canine is in contact with the next large tooth in the jaw (a premolar) (Martin, R.E., Pine, R.H. & A.F. DeBlase. 2001).

#### 5.4.2 Mortalities by Date

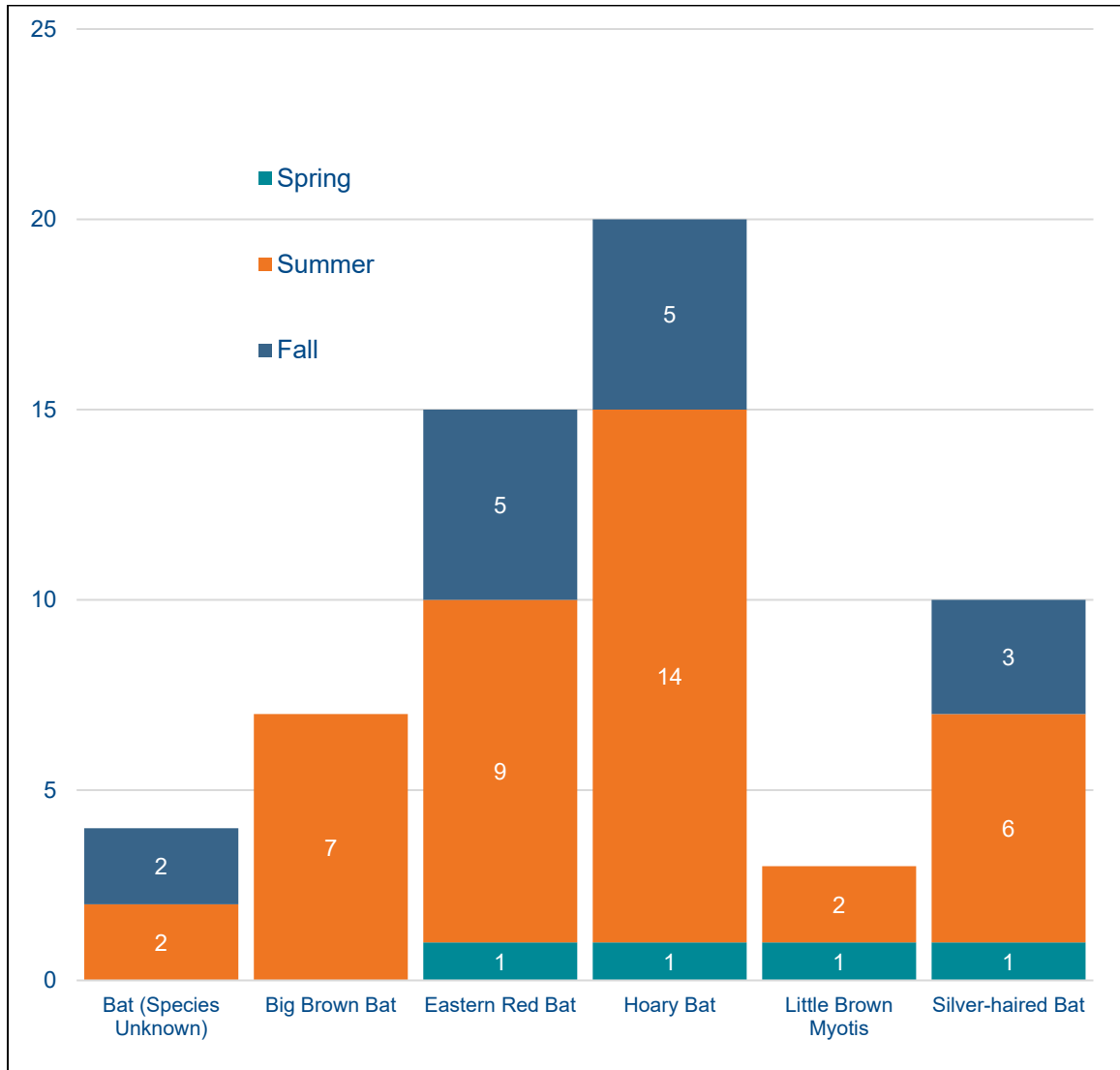
As shown on Figure 6 and Figure 7, the majority (57%) of bat mortalities occurred in the Summer period, which corresponds to the active period for Ontario bats when they are rearing and feeding young (Environment Canada 2015). Out of a total of 59 bat mortalities recorded across the entire Project site, 34 were recorded in the Summer period. According to the Guidelines, the majority of bat mortalities from wind turbine operations occur during fall migration. Across North America, it is estimated that 90% of bat fatalities occur from mid-July through September (July 2011). In 2018, the highest number of bat mortalities recorded across the Project site at all turbines occurred in August (26 mortalities) and September (14 mortalities). In 2017, the highest number of bat mortalities occurred in August (50 mortalities), followed by July (30 mortalities), most of which were in the latter part of the month. According to Grand Bend Wind GP, there were 2 down days in the summer of 2017, but their scheduled shut down for maintenance / testing initiatives occurred between November 13-17, 2017. In comparison, the shut down in 2018 occurred on July 23 and July 25-27. These dates correspond to the period of peak bat fatality; therefore, the scheduled shut down in 2018 would have contributed to the lower bat fatality rates during this time.

As stated in Section 3.0, the threshold for bat species was exceeded in 2017; therefore, operational mitigation for bat mortality was implemented in 2018. This consisted of changing the wind turbine cut-in speed to 5.5 m/s and feathering of the wind turbine blades when wind speeds are below 5.5 m/s. The operational mitigation was

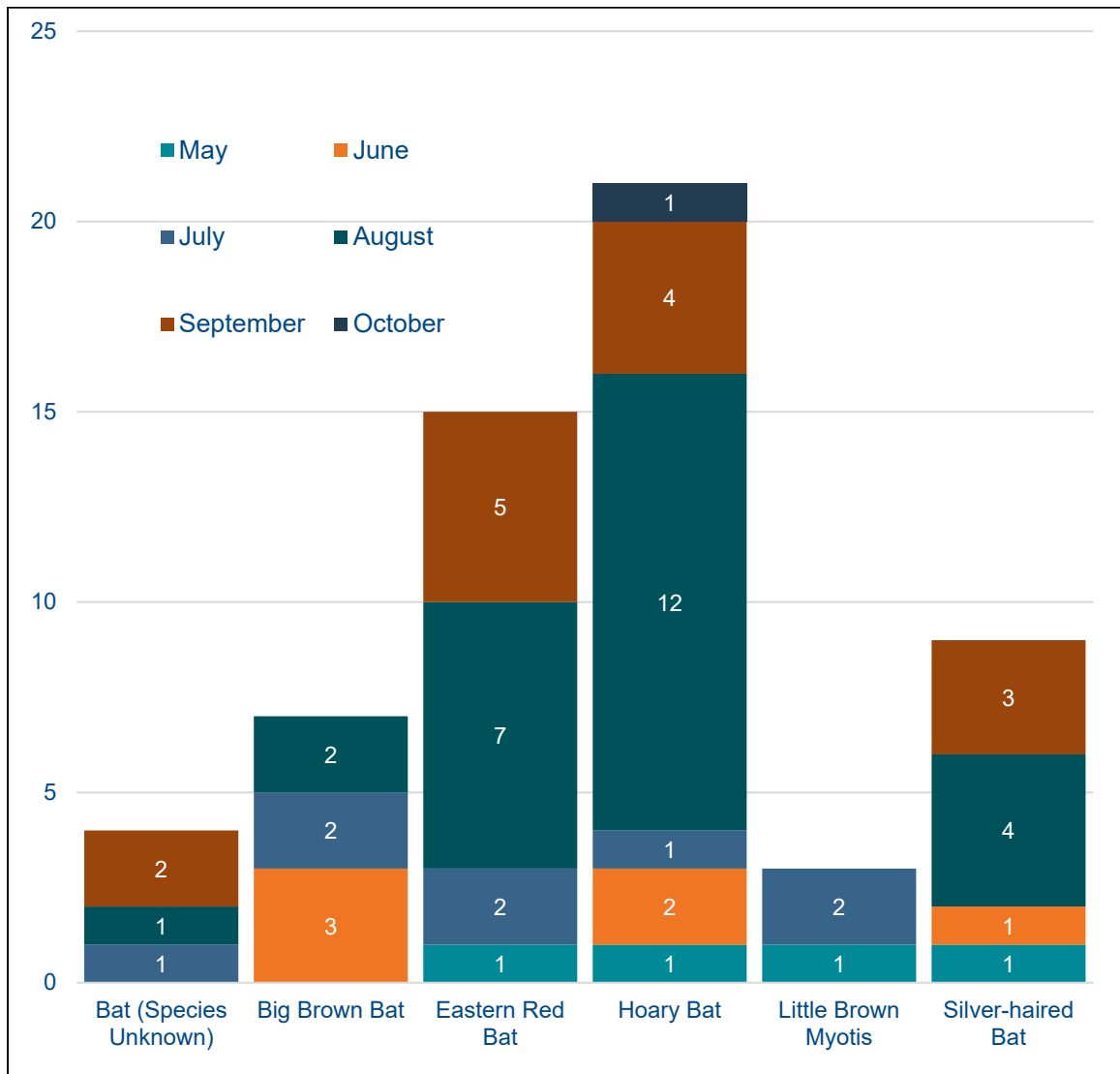


implemented across the wind power project (i.e., at all turbines) from sunset to sunrise, from July 15 to September 30. This mitigation must continue for the duration of the project. The total number of bat mortalities across the Project site in 2018 (59) was half of the number of bat mortalities in 2017 (116); therefore, it is assumed that the two main factors that played an important role in the decrease in bat mortalities in 2018 was related to the operational mitigation and shut down in late July. Refer to Figure 6 and 7.

**Figure 6: Number of Bat Mortalities by Species and Season at the Project Site**



**Figure 7: Number of Bat Mortalities by Species and Month at the Project Site**



**5.4.3 Spatial Distribution**

Bat mortalities were recorded at 20 of the 40 turbines, depicted on Figure 8, and were distributed evenly across the Project site (see also Appendix B).

Of the 59 bat mortalities, 42 were recorded at the sub-sample turbines. Bat mortalities were recorded at all of the sub-sample turbines.

T-18 had 10 recorded bat mortalities, with the highest occurrence of bat mortalities during the sub-sample monitoring program. T-42 had the second-highest recorded number of bat mortalities with 9 bats. T-07 and T-20 each had 4 recorded bat

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

mortalities, ranking them as equally having the third highest number of bat mortalities during the sub-sample monitoring program.

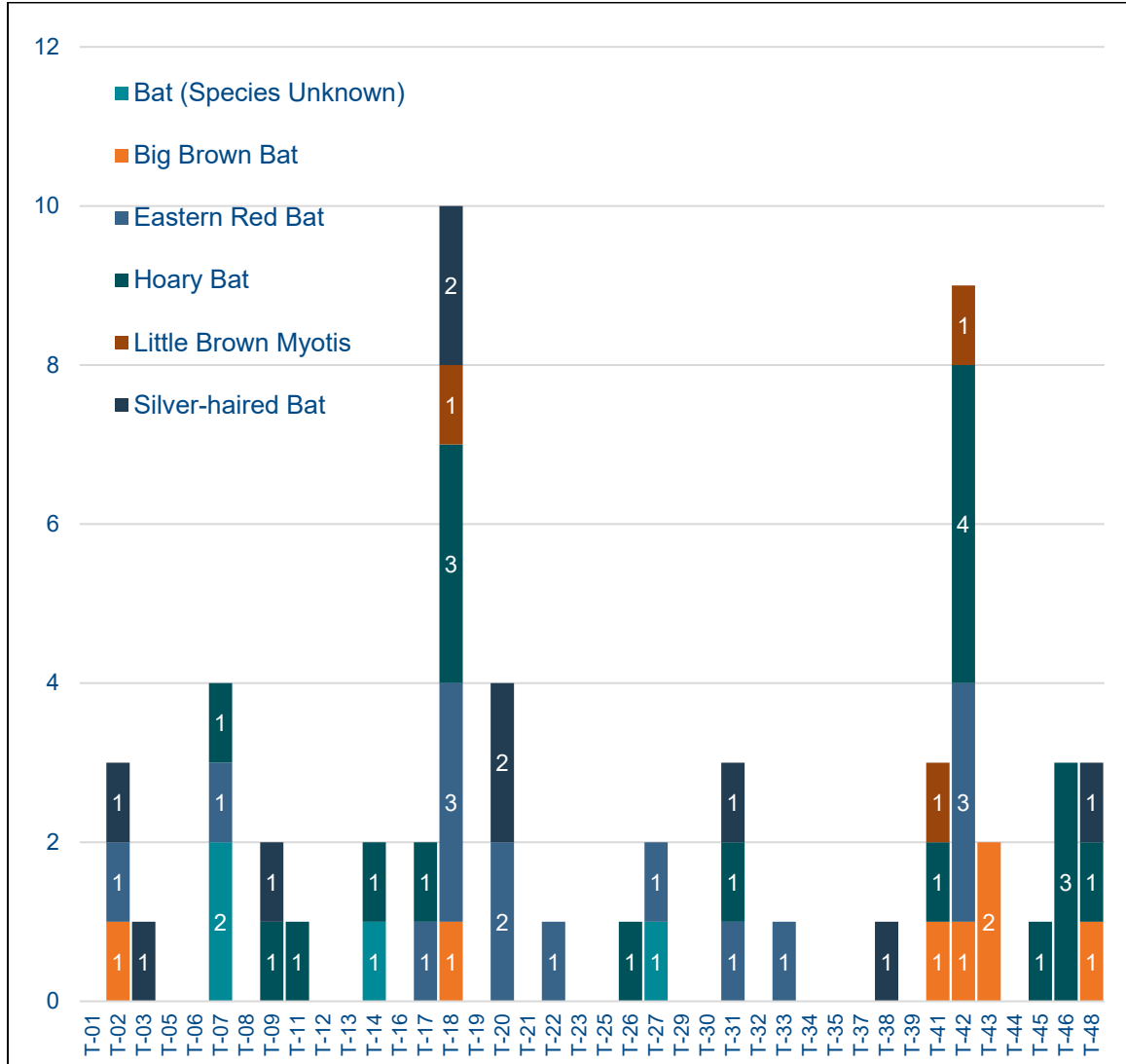
Hoary Bat was found at 13 of the 20 turbines where bat mortalities were recorded. This indicates a fairly even distribution of this species across the Project site. Eastern Red Bat was found at 10 of the 20 turbines. Silver-haired Bat was found at 8 of the 20 turbines, and Big Brown Bat was found at 6 of the 20 turbines. Records of these 4 species of bats, including “bat species unknown,” revealed an even distribution of these species across the Project site. The exception was for Little Brown Myotis, where one record each was recorded for this species at T-18, T-41, and T-42. Turbines where 4 or more bats were recorded had more than 3 different bat species found (T-07, T-18, and T-42).

T-18 and T-42 ranked as having the highest recorded bat mortalities, with 10 and 9 bat mortalities respectively. In comparison, between 1 to 4 bat mortalities were recorded at the remaining 18 turbines.

It is expected that carcasses would be found in lower numbers at turbines not regularly monitored (e.g., scavengers, decomposition). Only 2 of the 59 bat mortalities were recorded at the monthly raptor mortality turbines (T-03 and T-45), with 1 mortality recorded at each. Bat mortalities were not recorded at any of the remaining monthly raptor turbines. Turbines monitored as part of the sub-sample and raptor mitigation naturally had higher numbers of bat mortalities recorded due to the survey frequency at these sites, with a range between 1 and 10 bats recorded. Figure 8 depicts the spatial distribution of bat mortalities by species and turbine.

Seven bats were recorded outside of the formal search plot area at the sub-sample turbines. As per the MNRF guidelines, these were incidentally discovered outside the formal search plot area, and therefore were reported separately and were not included in the calculation of fatality rates.

**Figure 8: Spatial Distribution of Bat Mortalities by Species and Turbine at the Project Site**



**5.4.4 Corrected (Estimated) Bat Mortality Calculations**

Bat mortalities were recorded in every month of the monitoring program except November. Based on the calculations outlined below, the corrected total estimated mortality rate for bats at the Project site in 2018 (from May 1 to October 31) is **10.186 bats per turbine per year**. This estimate is **above** the annual bat mortality threshold of 10 bats per turbine per year, averaged across the Project site. This threshold has been determined based on bat mortality reported at wind power projects in Ontario and comparison with jurisdictions across North America.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

In comparison, the total estimated mortality rate for bats at the Project site in 2017 was 27.85 bats per turbine per year. This is assumed to be a result of both the operational mitigation that was implemented in 2018 and the scheduled shut down for maintenance / testing initiatives on July 23 and July 25-27.

The following 3 tables (Table 9, Table 10, and Table 11) summarize the values required for calculating the corrected total estimate for bats at the Project site in 2018.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

**Table 9: Proportion of Total Area Searched at the Sub-Sample Turbines**

Month	Total Search Radius (m <sup>2</sup> )	Total Searched Area (m <sup>2</sup> )	Proportion of Area Searched (P <sub>s</sub> )
Spring (May/June)	94,247.64	92,584.15	0.982
Summer (July/August)	94,247.64	82,253.21	0.873
Fall (September/October)	94,247.64	80,539.71	0.854

**Table 10: Actual Observed Bat Mortalities**

Turbine	T2	T7	T16	T17	T18	T20	T27	T31	T33	T38	T42	T48	Total
Spring	0	0	0	0	2	0	0	2	0	0	1	0	5
Summer	2	1	0	2	6	2	0	1	0	1	4	0	19
Fall	0	2	0	0	1	2	2	0	1	0	4	0	12
<b>Total</b>	<b>36</b>												

**Table 11: Corrected (Estimated) Bat Mortality Rate for All Samples in a Given Month**

Turbine	T2	T7	T16	T17	T18	T20	T27	T31	T33	T38	T42	T48
Spring	0	0	0	0	0.631	0	0	0.631	0	0	0.315	0
Summer	0.436	0.218	0	0.436	1.308	0.436	0	0.218	0	0.218	0.872	0
Fall	0	0.745	0	0	0.372	0.745	0.745	0	0.372	0	1.489	0

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

The minimum estimated bat mortality (C) was calculated as follows:

$$C_{turbine} = \frac{C_{turbine}}{(SE_{season} * SC_{season} * P_{s-season})}$$

$$C_{month} = \frac{\sum C_{turbine}}{n_{turbine}}$$

$$C_{total} = \sum C_{month}$$

Where,

$C_{turbine}$ :	Corrected (estimated) monthly mortality rate for a specific turbine (# mortalities/month)
$C_{month}$ :	Corrected (estimated) monthly mortality rate for all turbines (# mortalities/month/turbine)
$C_{total}$ :	Corrected (Estimated) mortality rate per year (# mortalities/year/turbine)
$SE_{season}$ :	Calculated seasonal searcher efficiency
$SC_{season}$ :	Calculated seasonal scavenger rate
$P_s$ :	Proportion of total area searched at a turbine for a given season

### Spring (May-June) - 5 observed mortalities

$$C_{Spring (total)} = \frac{(5 \text{ mortalities})}{(0.392 * 0.686 * 0.982) * 12 \text{ turbines}} = 1.577 \frac{\text{mortalities}}{\text{turbine}}$$

### Summer (July-August) – 19 observed mortalities

$$C_{Summer (total)} = \frac{(19 \text{ mortalities})}{(0.567 * 0.773 * 0.873) * 12 \text{ turbines}} = 4.141 \frac{\text{mortalities}}{\text{turbine}}$$

### Fall (September-October) – 12 observed mortalities

$$C_{Fall (total)} = \frac{(12 \text{ mortalities})}{(0.387 * 0.676 * 0.854) * 12 \text{ turbines}} = 4.468 \frac{\text{mortalities}}{\text{turbine}}$$

### Total Corrected Bat Mortality

$$C_{(Bat \text{ total})} = C_{(Bat \text{ Spring})} + C_{(Bat \text{ Summer})} + C_{(Bat \text{ Fall})}$$

$$C_{(Bat \text{ total})} = 1.577 + 4.141 + 4.468$$

$$C_{bat} = 10.186 \frac{\text{bat mortalities}}{\text{turbine} * \text{year}}$$

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

## 6.0 Summary of Avian and Bat Mortalities

A total of 118 mortalities were recorded across the Project site during the 2018 Monitoring Period (Refer to Figure 9 below), 59 of which were birds, and 59 of which were bats. In 2017, there were 163 mortalities. Of the 40 turbines at the Project site, 26 turbines had recorded mortalities in 2018 (refer to Figure 10). The remaining 14 turbines with no recorded mortalities were not part of the sub-sample, and therefore were only monitored once per month for raptors, except for T-21 that was monitored biweekly as part of the raptor mitigation. It is expected that carcasses would be found in lower numbers at turbines not regularly monitored (e.g., scavengers, decomposition).

A total of 17 avian and bat mortalities were recorded across the Project site as “incidental” observations. These are defined as carcasses that were discovered incidental to formal searches and were found either outside of the 50 m formal search area or found incidentally during other tasks. Twelve of the 17 incidental observations were recorded at sub-sample turbines but were found outside of the formal search area and were therefore reported separately and not included with the calculation of fatality rates (see Section 4.5). One additional incidental observation was recorded at a sub-sample turbine but was found incidentally during other tasks and within the formal search area. This carcass was included in the calculation of fatality rates. Incidental observations are listed in Appendix E.

Of the 26 turbines where bird and bat mortalities were recorded in 2018, the following two turbines had 10 or more bird and bat mortalities recorded:

- T-18: 15 mortalities
- T-42: 11 mortalities

These turbines were both part of the sub-sample monitoring. Turbines monitored as part of the sub-sample or biweekly raptor mitigation naturally had higher numbers of bird and bat mortalities recorded due to the frequency of the surveys at these sites. However, the fact that certain turbines in the sub-sample and/or biweekly raptor mitigation monitoring had higher mortality rates than others in the sub-sample may indicate that certain geographic locations where turbines are situated may contribute to higher or lower mortality rates, as discussed below.

Turbines with the highest bird and bat mortalities (combined) correspond with turbines that also had high bat mortalities. The overall trend appears to be that higher rates of mortalities occurred in the central and southern portion of the Project site (i.e., T-17 to T-42). Refer to Figure 9 below. This appears to correspond with proximity to woodland and treed (swamp) wetland habitats that, while still fragmented, are more contiguous and are larger in size when compared with the north end of the Project site. Wooded / wetland habitats in proximity to turbines located north of County Road 84 (i.e., T-1 to



Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

T-16) are much sparser, fragmented without any linkages and smaller in size. Higher rates of mortalities occurred at the very southern end of the project (T-41 to T-48) where wooded / wetland habitats are sparser. Refer to Figure 11 below.

Two migratory bat species, Hoary Bat and Eastern Red Bat, were the most impacted species in 2018, followed by Golden-crowned Kinglet. Hoary Bat represented 17% of the overall bird and bat mortalities across the Project site. Eastern Red Bat and Golden-crowned Kinglet represented 13% and 11% respectively. In comparison to 2017, Hoary Bat (28%) and Silver-haired Bat (13%), followed by Big Brown Bat (11%), represented the most impacted species. Out of 118 bird and bat mortalities in 2018, 50% were bats. Out of 163 bird and bat mortalities in 2017, 71% were bats. Therefore, it is assumed that the 21% decline in bat mortalities across the two years of monitoring is attributed to the operational mitigation for bats that was implemented in 2018 and the scheduled shut down that occurred in late July.

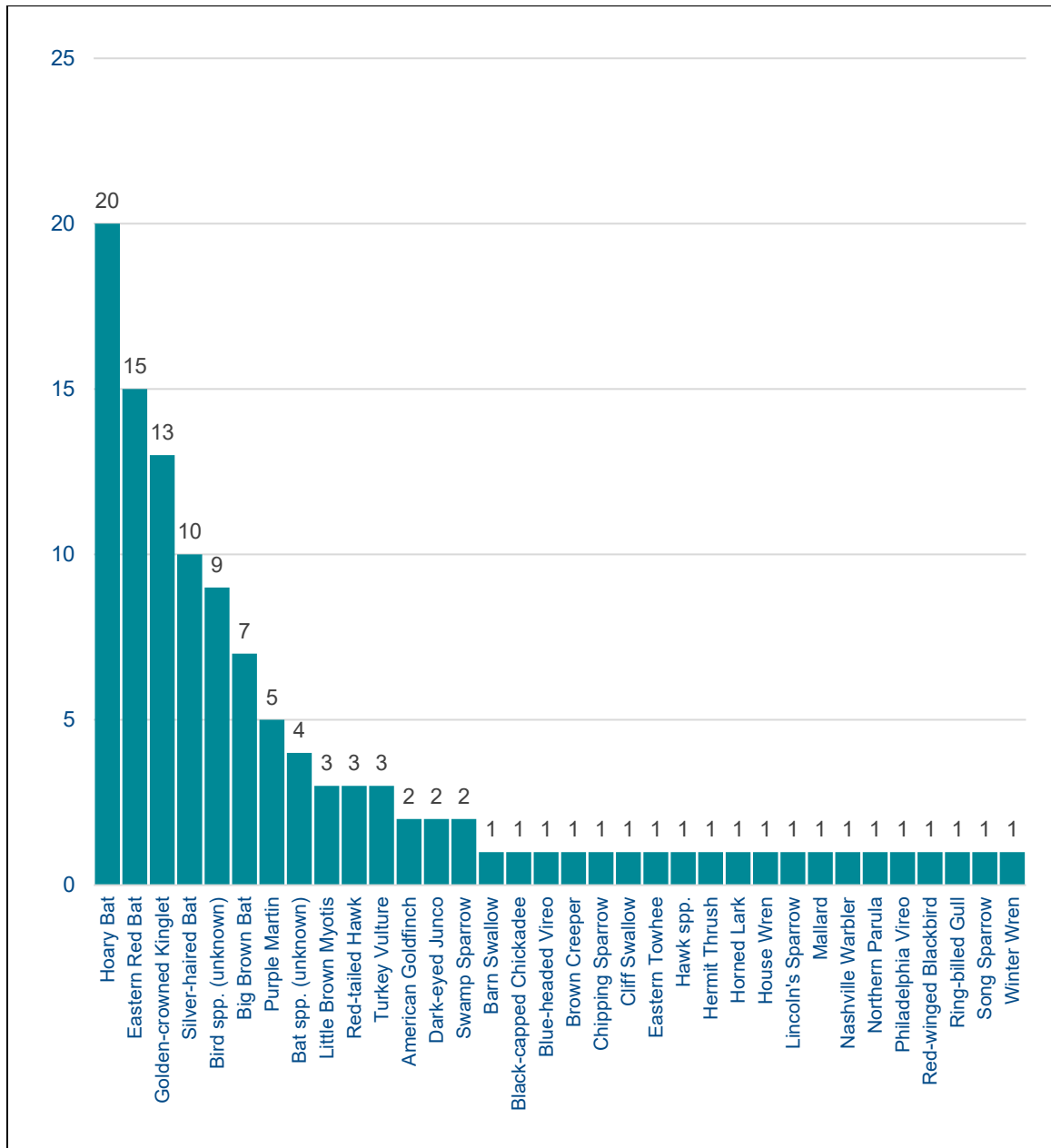
When comparing 2017 and 2018 mortality data, there were 5 turbines that had relatively consistent total number of mortalities over the 2 years:

- T-02
  - 2017: 3 bat mortalities, 4 bird mortalities (7);
  - 2018: 5 bird mortalities (5).
- T-07
  - 2017: 5 bat mortalities; 1 bird mortality (6);
  - 2018: 4 bat mortalities; 2 bird mortalities (6).
- T-18
  - 2017: 7 bat mortalities; 4 bird mortalities (11);
  - 2018: 10 bat mortalities; 5 bird mortalities (15).
- T-20
  - 2017: 5 bat mortalities; 3 bird mortalities (9);
  - 2018: 4 bat mortalities; 3 bird mortalities (7).
- T-42
  - 2017: 9 bat mortalities; 3 bird mortalities (12);
  - 2018: 9 bat mortalities; 2 bird mortalities (11).

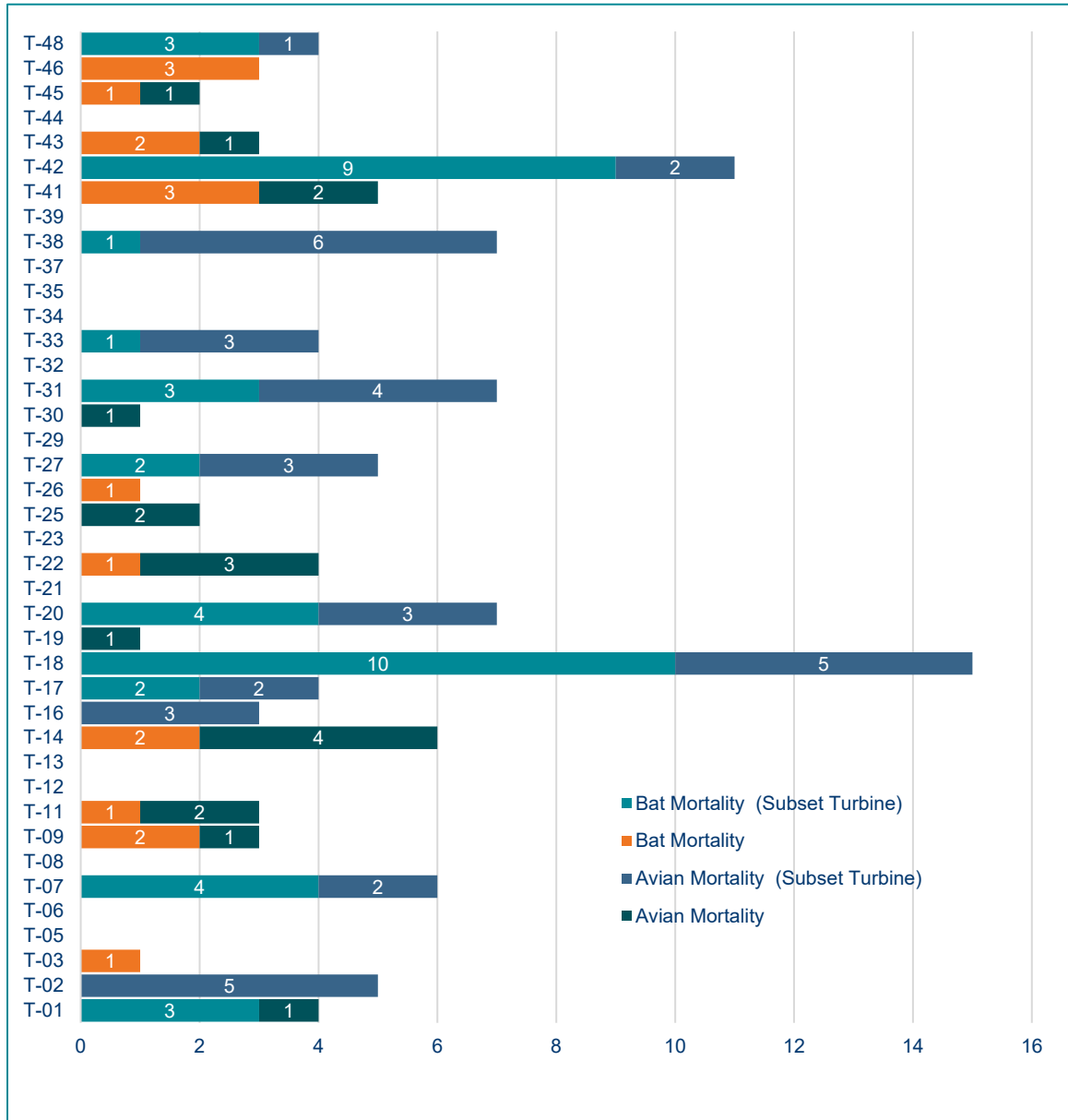
Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
 January 2019 (finalized December 18, 2019)

For future operational mitigation and scoped monitoring plans, additional focus may be warranted at the turbines listed above because bird and bat mortalities either remained consistent or increased between 2017 and 2018.

**Figure 9: Total Number of Mortalities by Species at the Project Site**

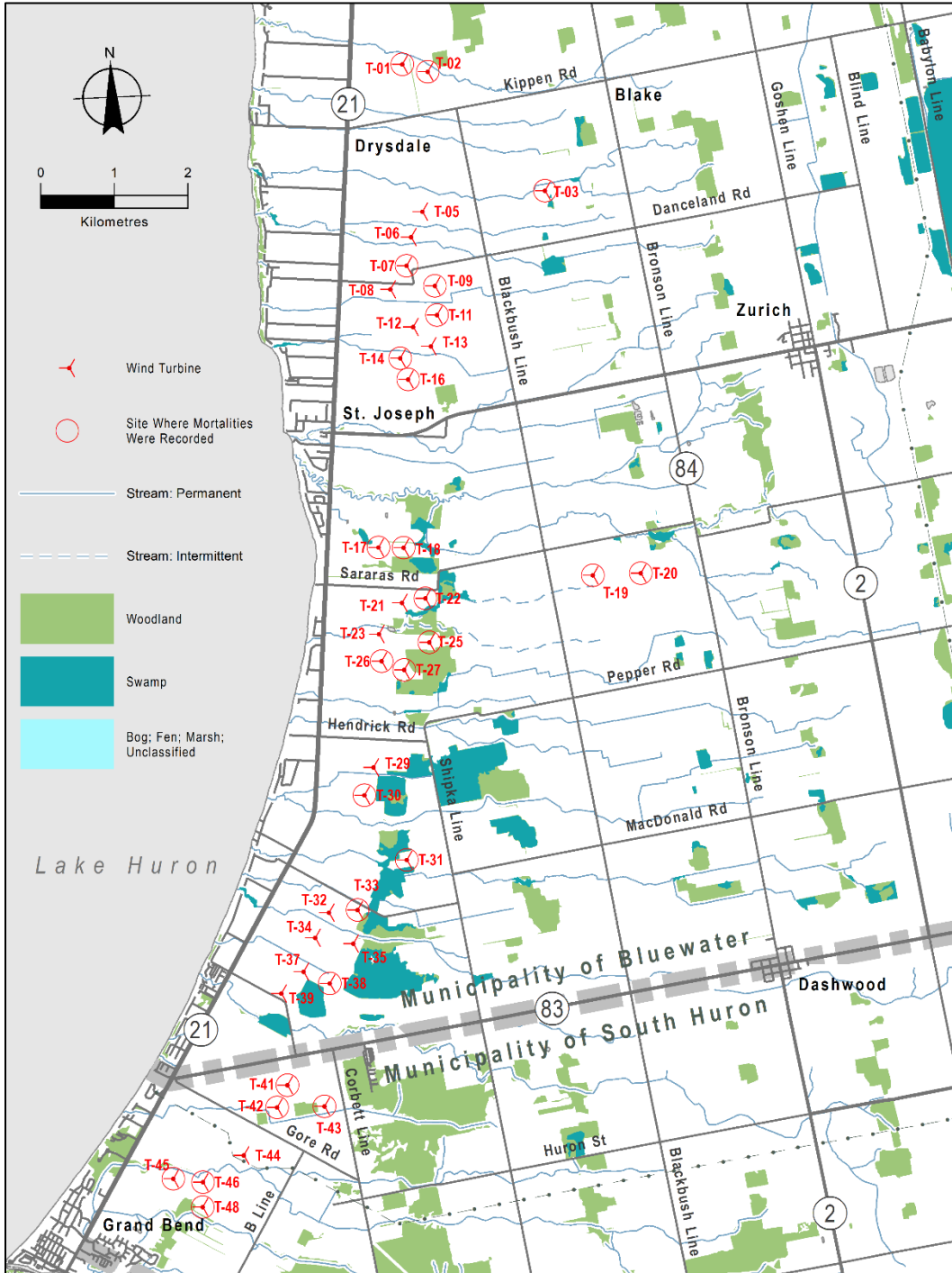


**Figure 10: Total Recorded Number of Avian and Bat Mortalities at the Project Site**



Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

**Figure 11: Proximity of Turbines to Surrounding Natural Heritage Features at the Project Site**



## 7.0 Conclusions

The following summarizes the Year 2 post-construction monitoring results, mortality threshold exceedances, as well as any operational mitigation results and future requirements.

- A total of 59 bird species were recorded during the Monitoring Period across the entire Project site (from May 1 to November 30). Out of these, 40 (68%) were recorded at the sub-sample turbines.
- The corrected total estimate for birds at the Project site in 2018 (from May 1 to October 31) is **10.638 birds per turbine per year**. This estimate is **below** the provincial threshold of annual bird mortality of 14 birds per turbine per year.
- The corrected total estimate for all raptors at the Project site in 2018 (from May 1 to November 30) is **0.0 raptors per turbine per year**. This estimate is **below** the provincial threshold of annual raptor mortality of 0.2 raptors per turbine per year (all raptors). Given that there were no provincially tracked raptors found during the monitoring program (i.e., Bald Eagle, Golden Eagle, Rough-legged Hawk, Peregrine Falcon), raptor mortalities did not exceed the threshold of 0.1 raptors per turbine per year for provincially tracked raptors.
- There were no single mortality events recorded during the Monitoring Period for birds or raptors. The highest number of birds recorded at any one turbine during a single mortality monitoring survey was 2, and the highest number of birds (including raptors) recorded at multiple turbines was 5.
- The threshold for raptor species was not exceeded in 2018 (see Section 5.3.5); however, the same number of raptor mortalities occurred across the Project site in 2018 compared to 2017. As part of the MNRF post-construction mitigation requirements, the threshold exceedance in 2017 requires 2 years of scoped mortality monitoring and cause and effects monitoring (i.e. 2018 and 2019); therefore, monitoring in 2019 will require a continuation of the scoped monitoring schedule detailed above, but will also include behavioral monitoring surveys to assess the cause and effects of raptor mortalities. A plan will be drafted and submitted by MNRF prior to the start of the Year 3 monitoring.
- Bat mortalities were recorded in every month of the monitoring program except November. Based on the calculations outlined below, the corrected total estimated mortality rate for bats at the Project site in 2018 (from May 1 to October 31) is **10.186 bats per turbine per year**. This estimate is slightly **above** the annual bat mortality threshold of 10 bats per turbine per year, averaged across the Project site.
- Hoary Bat represented the most common bat species recorded and represented 34% of all bat carcasses; Eastern Red Bat was the second-most common bat

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

species and represented 25% of all bat carcasses recorded. Silver-haired Bat and Big Brown Bat represented 17% and 12% of all bat carcasses recorded, respectively. Little Brown Myotis represented the least common bat species and represented 5% of all bat carcasses recorded. An additional 7% of bat species recorded were not identified to species due to advanced stage of decomposition of carcass or missing body parts required for identifying to bat species (i.e., canine teeth, tragus, forearm).

- Operational mitigation for bat mortalities is expected to remain in place for the duration of the wind farm project. An additional 3 years of effectiveness monitoring is required where post-construction mitigation is applied. This will include 2018, 2019, and 2020. The REA also states: “If the bat mortality threshold...is exceeded after operational mitigation is implemented...the Company shall prepare and implement a contingency plan, in consultation with the Director and MNRF, to address mitigation actions which shall include additional mitigation and scoped monitoring requirements.” According to the Guidelines, a contingency plan addresses mitigation actions necessary in case of continued significant bat mortality after mitigation has been implemented. A contingency plan allows additional mitigation measures to be implemented in the event that ongoing adverse environmental effects are observed. Because cut-in speed mitigation was implemented, and the bat mortality threshold continues to be exceeded, Northland will need to determine additional mitigation and scoped monitoring requirements prior to the start of the Year 3 monitoring.
- Timing the scheduled shut down of the wind farm operations for maintenance activities in mid-late July may have the added benefit of reducing bat mortalities during the peak of bat activity. In 2018, bat mortalities were highest in August.

Grand Bend Wind Farm Post-Construction Monitoring Report – Year 2  
January 2019 (finalized December 18, 2019)

## 8.0 References

- Cadman, M.D. et al. 2007. Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto, xxii + 706 pp.
- Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Canada [Proposed]. Species at Risk Recovery Strategy Series. Environment Canada, Ottawa. ix + 110 pp.
- Martin, R.E., Pine, R.H. & A.F. DeBlase. 2001. A Manual of Mammalogy With Keys to Families of the World. Dubuque, Iowa: W.C. Brown.
- McCracken, J.D. et al. 2013. Recovery Strategy for the Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. viii + 88 pp.
- Ministry of Natural Resources. July 2011. Bats and Bat Habitats, Guidelines for Wind Power Projects. Second Edition. Queen's Printer for Ontario.
- Ministry of Natural Resources. December 2011. Birds and Bird Habitats, Guidelines for Wind Power Projects. First Edition. Queen's Printer for Ontario.
- Ministry of Natural Resources. 2006. Wind Turbines and Bats: Bat Ecology Background Information and Literature Review of Impacts. Queen's Printer for Ontario.
- Ministry of Natural Resources and Forestry (MNR). March 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. Toronto: Queen's Printer for Ontario. 248 pp.
- Ministry of Municipal Affairs and Housing (MMAH). 2014. Provincial Policy Statement, 2014. Provincial Planning Policy Branch. Toronto: Queen's Printer for Ontario.
- Ministry of Natural Resources and Forestry (MNR). 2000. Significant Wildlife Habitat Technical Guide. Fish and Wildlife Branch, Wildlife Section. Science Development and Transfer Branch, Southcentral Science Section. 151p. + appendices.
- Neegan Burnside Limited. February 2013. Natural Heritage Environmental Effects Monitoring Plan. 24p.



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## Appendix A

### Approvals and Permits





## **CONFIRMATION OF REGISTRATION**

Form Name: Notice of Activity and Other Notices under the Endangered Species Act, 2007

Date Registration Filed: 04/19/2016

Confirmation ID: M-102-8126759043

Version Number: 001

Update Date:

GRAND BEND WIND GP

30 St Clair AVE W12th Fl  
Toronto, ON M4V3A1

Dear Sir/Madam,

You have registered under Ontario Regulation Reg. 242/08 of the *Endangered Species Act, 2007* and your Notice form has been received by the Ministry of Natural Resources for activities eligible under the following regulatory provision:

Wind Facilities - Operations

located at:

2 Parkside AVE  
Zurich, ON N0M2T0

for the following species:

Barn Owl[Tyto alba]; Barn Swallow[Hirundo rustica]; Bobolink[Dolichonyx oryzivorus]; Eastern Meadowlark[Sturnella magna]; Eastern Whip-poor-will[Antrostomus vociferus]; Least Bittern[Ixobrychus exilis]; Yellow-breasted Chat[Icteria virens]; Little Brown Myotis (Little Brown Bat)[Myotis lucifugus]; Northern Myotis (Northern Long-eared Bat)[Myotis septentrionalis];

You are required to show this Confirmation of Registration upon the request of the Ministry. Please refer to Ontario Regulation 242/08 for requirements that apply to your activity.

Any questions related to this registration and/or the Natural Resources Registry should be directed to:

Registry and Approval Services Centre  
Ministry of Natural Resources  
300 Water Street  
Peterborough, ON, K9J8M5  
Toll-free: 1-855-613-4256  
E-mail: [mnr.rasc@ontario.ca](mailto:mnr.rasc@ontario.ca)

**RENEWABLE ENERGY APPROVAL**NUMBER 5186-9HBJXR  
Issue Date: June 26, 2014

Grand Bend Wind GP Inc. as general partner for and on behalf of Grand Bend Wind Limited Partnership  
30 St. Clair Avenue West, Unit 1700  
Toronto, Ontario  
M4V 3A1

Project: Grand Bend Wind Farm  
Location: Generally bound by Lake Huron to west, Main Street/Grand Bend Line to the south, Bronson Line to east, Staffa Road to north, and a transmission line along Sararas Road, Rodgerville Road, and Road 183.  
Municipality of Bluewater, Municipality of South Huron, Municipality of Huron East, Municipality of West Perth, Huron County, and Perth County

*You have applied in accordance with Section 47.4 of the Environmental Protection Act for approval to engage in a renewable energy project in respect of a Class 4 wind facility consisting of the following:*

- the construction, installation, operation, use and retiring of a Class 4 wind facility with a total name plate capacity of 100 megawatts.

*For the purpose of this renewable energy approval, the following definitions apply:*

1. "Acoustic Assessment Report" means the report included in the Application and entitled "Grand Bend Wind Farm - Environmental Noise Impact Assessment Report", dated April 15, 2014 and signed by Michael Medal and Payam Ashtiani, Aercoustics Engineering Limited;
2. "Acoustic Audit - Emission" means an investigative procedure that is compliant with the CAN/CSA Standard C61400-11-07 and consisting of measurements and/or acoustic modelling of noise emissions produced by wind turbine generators, assessed to determine compliance with the manufacturer's noise (acoustic) equipment specifications and emission data of the wind turbine generators, included in the Acoustic Assessment Report;

3. "Acoustic Audit - Immission" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Equipment, assessed to determine compliance with the Noise Performance Limits set out in this Approval;
4. "Acoustic Audit Report-Emission" means a report presenting the results of the Acoustic Audit - Emission;
5. "Acoustic Audit Report-Immission" means a report presenting the results of the Acoustic Audit - Immission;
6. "Acoustic Audit - Transformer Substation/Transformer and Reactor" means an investigative procedure that is compliant with the IEEE Standard C57.12.90 consisting of measurements and/or acoustic modelling of all noise sources comprising the transformer substation/transformer and reactor, assessed to determine compliance with the Sound Power Level specification of the transformer substation described in the Acoustic Assessment Report.
7. "Acoustic Audit Report - Transformer Substation/Transformer and Reactor" means a report presenting the results of the Acoustic Audit - Transformer Substation/Transformer and Reactor.
8. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from wind facilities;
9. "Act" means the *Environmental Protection Act*, R.S.O 1990, c.E.19, as amended;
10. "Adverse Effect" has the same meaning as in the Act;
11. "Application" means the application for a Renewable Energy Approval dated February 5, 2013, and signed by John Brace, President and CEO, Grand Bend Wind GP Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval is issued;
12. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
13. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound. It is denoted as "A";
14. "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";
15. CAN/CSA Standard C61400-11-07, "Wind Turbine Generator Systems – Part 11: Acoustic Noise Measurement Techniques", dated October 2007;

16. "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum";
17. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:
  1. sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);
  2. low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);
  3. no clearly audible sound from stationary sources other than from those under impact assessment.
18. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:
  1. a small community with less than 1000 population;
  2. agricultural area;
  3. a rural recreational area such as a cottage or a resort area; or
  4. a wilderness area.
19. "Company" means Grand Bend Wind GP Inc., as general partner for and on behalf of Grand Bend Wind Limited Partnership, the partnership under the laws of Ontario, and includes its successors and assignees;
20. "Compliance Protocol for Wind Turbine Noise" means the Ministry document entitled, Compliance Protocol for Wind Turbine Noise, Guideline for Acoustic Assessment and Measurement, PIBS# 8540e;
21. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
22. "Director" means a person appointed in writing by the Minister of the Environment pursuant to section 5 of the Act as a Director for the purposes of section 47.5 of the Act;
23. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
24. "Equipment" means the wind turbine generators and the substation with transformer and reactor, identified in this Approval and as further described in the Application, to the extent approved by this Approval;

25. "Equivalent Sound Level" is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is denoted  $L_{eq}$  and is measured in dB A-weighting (dBA);
26. "Facility" means the renewable energy generation facility, including the Equipment, as described in this Approval and as further described in the Application, to the extent approved by this Approval;
27. "IEEE Standard C57.12.90" means the IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers, 2010.
28. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment;
29. "Ministry" means the ministry of the government of Ontario responsible for the Act and includes all officials, employees or other persons acting on its behalf;
30. "Noise Guidelines for Wind Farms" means the Ministry document entitled, "Noise Guidelines for Wind Farms - Interpretation for Applying MOE NPC Publications to Wind Power Generation Facilities", dated October 2008;
31. "Noise Receptor" has the same meaning as in O. Reg. 359/09;
32. "Publication NPC-233" means Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;
33. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
34. "Point of Reception" has the same meaning as in the Noise Guidelines for Wind Farms and is subject to the same qualifications described in that document;
35. "Sound Level" means the A-weighted Sound Pressure Level;
36. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level  $L_{eq}$  ;
37. "Sound Power Level" means ten times the logarithm to the base of 10 of the ratio of the sound power (Watts) of a noise source to standard reference power of  $10^{-12}$  Watts;
38. "Sound Pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given location. The unit of measurement is the micro pascal ( $\mu\text{Pa}$ );

39. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure ( $\mu\text{Pa}$ ) of a sound to the reference pressure of  $20 \mu\text{Pa}$ ;
40. "UTM" means Universal Transverse Mercator coordinate system.

*You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **A – GENERAL**

- A1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application and in accordance with the following schedules attached hereto:

Schedule A - Facility Description

Schedule B - Coordinates of the Equipment and Noise Specifications

- A2. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.
- A3. The Company shall ensure a copy of this Approval is:
- (1) accessible, at all times, by Company staff operating the Facility and;
  - (2) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated.
- A4. If the Company has a publicly accessible website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.
- A5. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.
- A6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.

- A7. The Company shall provide the District Manager and the Director at least ten (10) days written notice of the following:
- (1) the commencement of any construction or installation activities at the project location; and
  - (2) the commencement of the operation of the Facility.
- A8. As described in Schedule A of the Approval the Company shall not construct or operate more than forty (40) out of the forty eight (48) wind turbine generators, one transformer substation (with transformer and reactor), one switchyard, and one parts and storage building, as specified in Schedules A and B of the Approval;

**B – EXPIRY OF APPROVAL**

- B1. Construction and installation of the Facility must be completed within three (3) years of the later of:
- (1) the date this Approval is issued; or
  - (2) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.
- B2. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition B1.

**C – NOISE PERFORMANCE LIMITS**

- C1. The Company shall ensure that:
- (1) the Sound Levels from the Equipment, at the Points of Reception identified in the Acoustic Assessment Report, comply with the Sound Level Limits set in the Noise Guidelines for Wind Farms, as applicable, and specifically as stated in the table below:

<b>Wind Speed (m/s) at 10 m height</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
Sound Level Limits, dBA	40.0	40.0	40.0	43.0	45.0	49.0	51.0

- (2) the Equipment is constructed and installed at either of the following locations:
  - a) at the locations identified in Schedule B of this Approval; or
  - b) at a location that does not vary by more than 10 metres from the locations identified in Schedule B of this Approval and provided that,
    - i) the Equipment will comply with Condition C1 (1); and
    - ii) all setback prohibitions established under O. Reg. 359/09 are complied with.

- (3) the Equipment complies with the noise specifications set out in Schedule B of this Approval.
- C2. Prior to construction and installation of the transformer substation the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the subject transformer and the reactor sound power levels, determined fully in accordance with the IEEE Standard C57.12.90-2010, do not exceed the maximum sound power levels specified in the Schedule B of the Approval. The written confirmation also must include detailed electrical ratings (including MVA and kV) for the transformer and the reactor.
- C3. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition C1 (2), prior to the construction and installation of the Equipment in question, the Company shall apply to the Director for an amendment to the terms and conditions of the Approval.
- C4. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the UTM coordinates of the “as constructed” Equipment comply with the requirements of Condition C1 (2).

#### **D – CONFIRMATION OF VACANT LOT NOISE RECEPTORS**

- D1. The four hundred and fifty eight (458) vacant lots location identified in the Table entitled "Grand Bend Wind Farm - Noise Impact Summary Table - Vacant Lots" from the final revised "Grand Bend Wind Farm - Environmental Noise Impact Assessment Report for the ", as the Non-Participating Vacant Lots with ID numbers VL1-VL458 are specified as Noise Receptors for the purposes of subsection 54 (1.1) of O. Reg. 359/09 and subsection 35 (1.01) of O. Reg. 359/09.

#### **E – ACOUSTIC AUDIT - IMMISSION**

- E1. The Company shall carry out an Acoustic Audit - Immission of the Sound Levels produced by the operation of the Equipment in accordance with the following:
- (1) the acoustic audit measurements shall be undertaken in accordance with Part D of the Compliance Protocol for Wind Turbine Noise;
  - (2) the acoustic audit measurements shall be performed by an Independent Acoustical Consultant on two (2) separate occasions at five (5) different Points of Reception;
  - (3) the Points of Reception shall be selected using the following criteria, subject to the constraints imposed by the location of the Points of Reception with respect to the location of the Equipment:
    - a) the selected Point(s) of Reception should represent the location of the greatest predicted noise impacts, i.e., the highest predicted Sound Levels; and
    - b) the selected Point(s) of Reception should be located in the direction of prevailing winds from the Facility.



- E2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report-Immission, prepared by an Independent Acoustical Consultant, at the following points in time:
- (1) no later than twelve (12) months after the commencement of the operation of the Facility for the first of the two (2) acoustic audit measurements at the five (5) Points of Reception; and
  - (2) no later than eighteen (18) months after the commencement of the operation of the Facility for the second of the two (2) acoustic audit measurements at the five (5) Points of Reception.
- E3. The Company shall carry out an Acoustic Audit - Transformer Substation/Transformer and Reactor and shall submit to the District Manager and the Director an Acoustic Audit Report – Transformer Substation/Transformer and Reactor prepared by an Independent Acoustical Consultant, in accordance with the IEEE Standard C57.12.90 and Ministry Publication NPC-233 and no later than six (6) months after the commencement of the operation of the Facility.
- E.4. In addition to the requirements described in Condition E.3, the Acoustic Audit - Transformer Substation/Transformer and Reactor must include a compliance summary of the measurement results and the transformer and reactor sound data contained in Attachment D of the Acoustic Assessment Report. The following items must be included in the compliance summary:
- (1) transformer sound power levels (overall level and frequency spectra in octave bands);
  - (2) reactor sound power levels (overall level and frequency spectra in octave bands); and
  - (3) statements that the transformer and the reactor sound power levels do not exceed the maximum sound power levels specified in the Schedule B of the Approval.

## **F – ACOUSTIC AUDIT- EMISSION**

- F1. The Company shall carry out an Acoustic Audit - Emission of the acoustic emissions produced by the operation of the wind turbine generators in accordance with the following:
- (1) the acoustic emission measurements of the wind turbine generators shall be undertaken in accordance with the CAN/CSA Standard C61400-11-07;
  - (2) the acoustic emission measurements shall be performed by an Independent Acoustical Consultant; and
  - (3) the acoustic emission measurements shall be performed on two (2) wind turbine generators used in the Facility.
- F2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report-Emission, prepared in accordance with Section 9 of the CAN/CSA Standard C61400-11-07 by an Independent Acoustical Consultant, no later than six (6) months after the commencement of the operation of the Facility.

- F3. In addition to the requirements described in Condition F2, the Acoustic Audit Report-Emission must include a summary of the measurement results corresponding to guarantee letter dated April 7, 2014 from the wind turbine generators manufacturer's (contained in the Attachment A of the Acoustic Assessment Report). The purpose of the summary is to show compliance with the guarantee letter. The following items must be included in the compliance summary:
- (1) sound power levels (overall levels and frequency spectra in octave bands for each wind speed) of the wind turbine generators;
  - (2) tonal audibility values (for each wind speed) of the wind turbine generators;
  - (3) statement that the wind turbine generators sound power levels, as per Condition F3(1), do not exceed the maximum sound power level specified in the Schedule B of the Approval; and
  - (4) statement that the wind turbine generators tonal audibility values, as per Condition F3(2), comply with the maximum tonal audibility value of 3.0 dB.

## **G – STORMWATER MANAGEMENT**

- G1. The Company shall employ best management practices for stormwater management and sediment and erosion control during construction, installation, use, operation, maintenance and retiring of the Facility, as described in the Application.
- G2. Sedimentation and erosion control measures, including, but not limited to, straw bales, silt fence barriers, sand bags, turbidity curtains and/or rock check dams, shall be installed at the site of all construction activities during the construction phase, and remain until the site has been stabilized. The sedimentation and erosion control measures shall be sufficient to control the volumes of surface runoff. Continuous care shall be taken to properly maintain the sedimentation and erosion control devices.
- G3. During the construction and decommissioning phases, monitoring and recording of on-site conditions (including erosion and sediment control measures) shall occur, at minimum:
- (1) weekly during active construction periods;
  - (2) daily during extended rain or snowmelt periods.

## **H – WATER TAKING ACTIVITIES**

- H1. The Company shall not take more than 50,000 litres of water on any day by any means during the construction, installation, use, operation, maintenance and retiring of the Facility.
- H2. Notwithstanding Condition H1, the Company is authorized to take, via diversion of flow, from the sources, for the duration, and at the rates and amounts of taking specified in the following table. Water taken upstream of each source at the culvert work site shall be returned directly downstream of the site with no impoundment of water.

Source	Crossing ID	Maximum Rate of Taking (m3/s)	Maximum number of days of taking	Maximum Volume of Taking (m3/day)
Hay B (North Crossing)	CR-031	0.025	10	21,600
Hay B (South Crossing)	CR-032	0.017	13	19,094
Saint Joseph Drain South	CR-041	0.036	12	37,325
Hay E	CR-023	0.003	10	2,592
Kading Drain	CR-018	0.083	20	143,424

- H3. For water taking for the purpose of watercourse diversion during the installation of the six new culverts, on each day water is taken, the Company shall record the date, the volume of water taken on that date and the rate at which it was taken. The daily volume of water taken shall be measured by a flow meter, or estimated based on the rate and duration of pumping. The Company shall keep all records required by this condition current and available at or near the site of the taking, and shall make these records available for review by the Ministry upon request.
- H4. The Company shall ensure that any water discharged to the natural environment does not result in scouring, erosion or physical alteration of stream channels or banks and that there is no flooding in the receiving area or water body, downstream water bodies, ditches or properties caused or worsened by this discharge.
- H5. The Company shall not discharge turbid water to any watercourse. Turbid water shall be defined as any discharge water or diverted water with a maximum increase of 5 NTUs above the receiving watercourse background levels.

## I – ACCIDENTAL SPILLS

- I1. The Company shall ensure that all equipment used at the site is well maintained, clean and free of leaks. Maintenance on construction equipment such as refuelling, oil changes or lubrication shall only be permitted in designated areas located at a minimum 30 metres from any water feature, and all precautions shall be made to prevent oil, grease, antifreeze or other materials from entering the ground or surface water flow.
- I2. The Company shall ensure that adequate spill clean-up equipment and/or supplies are available at the site for fuel, oil and lubricant spills, and that all on-site operators are familiar with the use of such equipment and/or supplies.

## **J – SURFACE WATER**

- J1. Directional drilling entry points and receiving pits shall be located at a minimum distance of 15 metres from the top of bank of any watercourses, unless the 15 metre setback would require construction activities to take place outside the Project Location, or outside the shoulder of public roads. In the event that the 15 metre setback can not be achieved within the Project Location or in the shoulder of public roads, the Company shall implement additional site-specific erosion and sediment control measures including contingency measures to avoid impacts to watercourses.
- J2. The Company shall undertake, as necessary, any other proposed mitigation measures for the water bodies described in the Water Assessment and Water Body Report, dated February 2013, prepared by Neegan Burnside Ltd.

## **K – SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY**

- K1. The Company shall design and construct a transformer substation oil spill containment facility which meets the following requirements:
- (1) the spill containment facility serving the transformer substation shall have a minimum volume equal to the volume of transformer oil and lubricants plus the volume equivalent to providing a minimum 24-hour duration, 50-year return storm capacity for the stormwater drainage area around the transformer under normal operating conditions. This containment area shall have:
    - (a) an impervious floor with walls usually of reinforced concrete or impervious plastic liners, sloped toward an outlet / oil control device, allowing for a freeboard of 0.25 metres terminating approximately 0.30 metres above grade to prevent external stormwater flows from entering the facility. The facility shall have a minimum of 300mm layer of crushed stoned (19mm to 38mm in diameter) within, all as needed in accordance to site specific conditions and final design parameters; or
    - (b) a permeable floor with impervious plastic walls and around the transformer pad; equipped with subsurface drainage with a minimum 50mm diameter drain installed on a sand layer sloped toward an outlet for sample collection purposes; designed with an oil absorbent material on floor and walls, and allowing for a freeboard of 0.25 metres terminating approximately 0.30 metres above grade to prevent external stormwater flows from entering the facility. The facility's berm shall be designed as needed in accordance to site specific conditions and the facility shall have a minimum 300mm layer of crushed stoned (19mm to 38mm in diameter) on top of the system, as needed in accordance to site specific conditions and final design parameters.
  - (2) the spill containment facility shall be equipped with an oil detection system; it also shall have a minimum of two (2) PVC pipes (or equivalent material) 50mm diameter to allow for visual inspection of water accumulation. One pipe has to be installed half way from the transformer pad to the vehicle access route;

- (3) the spill containment facility shall have appropriate sewage appurtenances as necessary, such as but not limited to: sump, oil/grit separator, pumpout manhole, level controllers, floating oil sensors, etc., that allows for batch discharges or direct discharges and for proper implementation of the monitoring program described under Condition K4; and
- (4) the Company shall have a qualified person on-site during construction to ensure that the system is installed in accordance with the approved design and specifications.

K2. The Company shall:

- (1) within six (6) months after the completion of the construction of the transformer substation spill containment facility, provide to the District Manager an engineering report and as-built design drawings of the sewage works for the spill containment facility and any stormwater management works required for it, signed and stamped by an independent Professional Engineer licensed in Ontario and competent in electrical and environmental engineering. The engineering report shall include the following;
  - (a) as-built drawings of the sewage works for the spill containment facility and any stormwater management works required for it;
  - (b) a written report signed by a qualified person confirming the following:
    - (i) on-site supervision during construction
    - (ii) in case of a permeable floor systems: type of oil absorbent material used (for mineral-based transformer oil or vegetable-based transformer oil, make and material's specifications)
    - (ii) use of stormwater best management practices applied to prevent external surface water runoff from entering the spill containment facility, and
    - (iv) confirm adequacy of the installation in accordance with specifications.
  - (c) confirmation of the adequacy of the operating procedures and the emergency procedures manuals as it pertains to the installed sewage works.
  - (d) procedures to provide emergency response to the site in the form of pumping and clean-up equipment within 24 hours after an emergency has been identified. Such response shall be provided even under adverse weather conditions to prevent further danger of material loss to the environment.
- (2) as a minimum, the Company shall check the oil detection systems on a monthly basis and create a written record of the inspections;
- (3) ensure that the effluent is essentially free of floating and settle-able solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters;

- (4) immediately identify and clean-up all losses of oil from the transformer;
- (5) upon identification of oil in the spill containment facility, take immediate action to prevent the further occurrence of such loss;
- (6) ensure that equipment and material for the containment, clean-up and disposal of oil and materials contaminated with oil are kept within easy access and in good repair for immediate use in the event of:
  - (a) loss of oil from the transformer,
  - (b) a spill within the meaning of Part X of the Act, or
  - (c) the identification of an abnormal amount of oil in the effluent.
- (7) in the event of finding water accumulation in the PVC pipes at the time of inspection, as per Condition K4, the Company shall: (a) for impervious floors, inspect the sewage appurtenances that allow drainage of the concrete pit; or (b) for permeable systems, replace the oil absorbent material to ensure integrity of the system performance and design objectives.
- (8) for permeable floor systems, the Company shall only use the type of oil specified in the design, i.e. mineral-based transformer oil or vegetable-based transformer oil. If a change is planned to modify the type of oil, the Company shall also change the type of the oil absorbent material and obtain approval from the Director to amend this Approval before any modification is implemented.

K3. The Company shall design, construct and operate the sewage works such that the concentration of the effluent parameter named in the table below does not exceed the maximum Concentration Objective shown for that parameter in the effluent, and shall comply with the following requirements:

<b>Effluent Parameters</b>	<b>Maximum Concentration Objective</b>
Oil and Grease	15mg/L

- (1) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
- (2) take immediate action to identify the cause of the exceedance; and
- (3) take immediate action to prevent further exceedances.

K4. Upon commencement of the operation of the Facility, the Company shall establish and carry out the following monitoring program for the sewage works:

- (1) the Company shall collect and analyze the required set of samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified for the effluent parameter, oil and grease, and create a written record of the monitoring:

<b>Effluent Parameters</b>	<b>Measurement Frequency and Sample Points</b>	<b>Sample Type</b>
Oil and Grease	Quarterly, i.e. four times over a year, relatively evenly spaced having a minimum two (2) of these samples taken within 48 hours after a 10mm rainfall event.	Grab

- (2) in the event of an exceedance of the maximum concentration objective set out in the table in Condition K3, the Company shall:
  - (a) increase the frequency of sampling to once per month, for each month that effluent discharge occurs, and
  - (b) provide the District Manager, on a monthly basis, with copies of the written record created for the monitoring until the District Manager provides written direction that monthly sampling and reporting is no longer required; and
- (3) if over a period of twenty-four (24) months of effluent monitoring under Condition K4, there are no exceedances of the maximum concentration set out in the table for Concentration Objective, the Company may reduce the measurement frequency of effluent monitoring to a frequency as the District Manager may specify in writing, provided that the new specified frequency is never less than annual.

K5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition K4:

- (1) Ministry of the Environment publication "Protocol for the Sampling and Analysis of Industrial/ Municipal Wastewater", January 1999, as amended from time to time by more recently published editions, and
- (2) the publication "Standard Methods for the Examination of Water and Wastewater", 21st edition, 2005, as amended from time to time by more recently published editions.

## **L – NATURAL HERITAGE**

### **General**

- L1. The Company shall implement the Environmental Effects Monitoring Plan for the Grand Bend Wind Farm, titled Grand Bend Wind Farm Natural Heritage Environmental Effects Monitoring Plan, dated January 2013, and the commitments made in the Grand Bend Wind Farm Natural Heritage Assessment, dated January 2013 prepared by Neegan Burnside Ltd., and included in the application, and which the Company submitted to the Ministry of Natural Resources in order to comply with O. Reg. 359/09.

- L2. If the Company determines that it must deviate from the Environmental Effects Monitoring Plan or the Natural Heritage Assessment, described in Condition L1, the Company shall contact the Director and the Ministry of Natural Resources, prior to making any changes to the Environmental Effects Monitoring Plan or the Natural Heritage Assessment, and follow any directions provided.

### **Post Construction Monitoring - Significant Wildlife Habitat**

- L3. The Company shall implement the post-construction monitoring described in the Environmental Effects Monitoring Plan described in Condition L1, including the following:
- (1) Disturbance Monitoring for Amphibian Breeding Habitat (ABH-001)
  - (2) Disturbance Monitoring for Turtle Nesting Area (TNA-002)

### **Post Construction Monitoring - Birds and Bats**

- L4. The Company shall implement the post-construction bird and bat mortality monitoring described in the Environmental Effects Monitoring Plan, described in Condition L1, at a minimum of 12 of the 40 constructed turbines, selected in consultation with the Ministry of Natural Resources. Turbines 17, 18 and 42 must be included on the list of monitored turbines.

### **Thresholds and Mitigation**

- L5. The Company shall contact the Director and the Ministry of Natural Resources if any of the following bird and bat mortality thresholds, as stated in the Environmental Effects Monitoring Plan for the Grand Bend Wind Farm described in Condition L1, exceeds:
- (1) 10 bats per turbine per year averaged across the Facility;
  - (2) 14 birds per turbine per year at individual turbines or turbine groups;
  - (3) 0.2 raptors per turbine per year (all raptors) across the Facility;
  - (4) 0.1 raptors per turbine per year (provincially tracked raptors) across the Facility;
  - (5) 10 or more birds at any one turbine during a single monitoring survey; or
  - (6) 33 or more birds (including raptors) at multiple turbines during a single monitoring survey.
- L6. If the bat mortality threshold described in Condition L5(1) is exceeded, the Company shall:
- (1) implement operational mitigation measures consistent with those described in the Ministry of Natural Resources publication entitled "*Bats and Bat Habitats: Guidelines for Wind Power Projects* " dated July 2011, or in an amended version of the publication. Such measures shall include some or all of the following:



- i. increase cut-in speed to 5.5 m/s and/or feather wind turbine blades when wind speeds are below 5.5 m/s between sunset and sunrise, from July 15 to September 30 at all turbines;
  - (2) implement an additional three (3) years of effectiveness monitoring.
- L7. If the bat mortality threshold described in Condition L5(1) is exceeded after operational mitigation is implemented in accordance with Condition L6, the Company shall prepare and implement a contingency plan, in consultation with the Director and the Ministry of Natural Resources, to address mitigation actions which shall include additional mitigation and scoped monitoring requirements.
- L8. If any of the bird mortality thresholds described in Conditions L5(2), L5(3), or L5(4) are exceeded for turbines located outside 120m of bird significant wildlife habitat, the Company shall conduct two (2) years of subsequent scoped mortality monitoring and cause and effects monitoring. Following the completion of scoped monitoring, the Company shall implement operational mitigation and effectiveness monitoring at individual turbines as agreed to between the Company, the Director and the Ministry of Natural Resources, for the first three (3) years following the implementation of mitigation.
- L9. If either of the bird mortality thresholds described in Conditions L5(5) or L5(6) are exceeded, the Company shall prepare and implement a contingency plan to address immediate mitigation actions which shall include:
- (1) periodic shut-down of select turbines; or
  - (2) blade feathering at specific times of year; or
  - (3) an alternate plan agreed to between the Company, the Director, and the Ministry of Natural Resources.
- L10. If any of the bird mortality thresholds described in Conditions L5(2), L5(3), or L5(4) are exceeded while monitoring is being implemented in accordance with Conditions L8, or if either of the bird mortality thresholds described in Conditions L5(5) or L5(6) are exceeded after mitigation is implemented in accordance with Condition L9, the Company shall contact the Director and the Ministry of Natural Resources and prepare and implement an appropriate response plan that shall include some or all of the following mitigation measures:
- (1) increased reporting frequency to identify potential threshold exceedance;
  - (2) additional behavioural studies to determine factors affecting mortality rates;
  - (3) periodic shut-down of select turbines;
  - (4) blade feathering at specific times of year; or

- (5) an alternate plan agreed to between the Company, the Director and the Ministry of Natural Resources.

### **Reporting and Review of Results**

- L11. The Company shall report, in writing, the results of the post-construction disturbance monitoring described in Conditions L3, to the Director and the Ministry of Natural Resources for two (2) years on an annual basis and within three (3) months of the end of each calendar year in which the monitoring took place.
- L12. The Company shall report, in writing, bird and bat mortality levels to the Director and the Ministry of Natural Resources for three (3) years on an annual basis and within three (3) months of the conclusion of the November mortality monitoring, with the exception of the following:
- (1) if either of the bird mortality thresholds described in Conditions L5(5) or L5(6) are exceeded, the Company shall report the mortality event to the Director and the Ministry of Natural Resources within 48 hours of observation;
  - (2) for any and all mortality of species at risk (including a species listed on the Species at Risk in Ontario list as Extirpated, Endangered or Threatened under the provincial *Endangered Species Act*, 2007) that occurs, the Company shall report the mortality to the Ministry of Natural Resources within 24 hours of observation or the next business day;
  - (3) if the bat mortality threshold described in Condition L5(1) is exceeded, the Company shall report mortality levels to the Director and the Ministry of Natural Resources for the additional three (3) years of monitoring described in Condition L6, on an annual basis and within three (3) months of the conclusion of the October mortality monitoring for each year;
  - (4) if any of the bird mortality thresholds described in Conditions L5(2), L5(3), or L5(4) are exceeded for turbines located outside 120 m of bird significant wildlife habitat, the Company shall report mortality levels to the Director and the Ministry of Natural Resources for the additional two (2) years of cause and effects monitoring described in Condition L8, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year; and
  - (5) if the Company implements operational mitigation following cause and effects monitoring in accordance with Condition L8, the Company shall report mortality levels to the Director and the Ministry of Natural Resources for the three (3) years of subsequent effectiveness monitoring described in Condition L8, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year.

- L13. The Company shall publish the following documents on the Company's website;
- (1) any modifications to the Environmental Effects Monitoring Plan as described in Condition L2 within ten (10) days of submitting the final plan to the Director and the Ministry of Natural Resources;
  - (2) the results of the post-construction disturbance monitoring as described in Condition L11 within ten (10) days of submitting the final report(s) to the Director and the Ministry of Natural Resources; and
  - (3) annual bird and bat mortality monitoring as described in Condition L12 with the exception of subsection L12(2), within ten (10) days of submitting the final report(s) to the Director and the Ministry of Natural Resources.

## **M – ENVIRONMENT CANADA**

- M1. Prior to operating (turbine blade movement that is feathered in accordance with the manufacturer's specifications is allowed) any of the wind turbines at the Facility, the Company shall, in collaboration with Environment Canada, develop and, enter into the following:
- (1) an Exceptional Weather Event Protocol that ensures that the Exeter Radar Station (Weather Radar) continues to provide accurate and reliable forecasts and weather warnings for high risk weather events;
  - (2) a Follow-up Plan; and
  - (3) an Adaptive Management Strategy.
- M2. Prior to operating (turbine blade movement that is feathered in accordance with the manufacturer's specifications is allowed) any of the wind turbines at the Facility, the Company shall enter into an Agreement Regarding the Implementation of the Follow-up Plan, the Adaptive Management Strategy and the Exceptional Weather Event Protocol (Agreement) with Environment Canada that will set out the details of the commitments and timelines required for the Exceptional Weather Event Protocol, Follow-up Plan, and Adaptive Management Strategy. The Agreement shall include specifics of the financial assurance to be provided by the Company to ensure the implementation of the agreement.
- M3. The day the first wind turbine is operating (turbine blade movement that is feathered in accordance with the manufacturer's specifications is allowed) at the Facility, the Company shall begin implementing its obligations under the Exceptional Weather Event Protocol and Follow-up Plan described in Condition M1.
- M4. As part of the Follow-Up Plan, the Company shall, in collaboration with Environment Canada:
- (1) develop the measureable objectives and decision making criteria for defining the success of the plan;

- (2) provide for the development, and subsequently the implementation, of the data interpolation mitigation measure agreed to by the Company and Environment Canada;
  - (3) verify the accuracy of the predicted adverse impacts to the Weather Radar resulting from the commercial operation of the Facility;
  - (4) assess the effectiveness of the data interpolation measure(s) to mitigate the predicted adverse impacts during the commercial operation of the Facility; and
  - (5) monitor the effectiveness of the Weather Radar in order to determine whether any additional mitigation measures are necessary.
- M5. During the implementation of the Follow-Up Plan, should it be determined based on the Follow-Up Plan that the data interpolation mitigation measure(s) do not adequately mitigate the adverse impacts of the Facility so that the Weather Radar can continue to provide accurate and reliable forecasts and weather warnings in accordance with Environment Canada's mandate, the Company shall, in collaboration with Environment Canada, implement the Adaptive Management Strategy, which shall include the following:
- (1) the design and implementation of additional mitigation measures that are reasonably necessary to mitigate any identified adverse impacts to the Weather Radar; and
  - (2) the monitoring and assessment of the effectiveness of these additional mitigation measures.

## **N – ABORIGINAL CONSULTATION**

- N1. During the construction, installation, operation, use and retiring of the Facility, the Company shall:
- (1) create and maintain written records of any communications with Aboriginal communities; and
  - (2) make the written records available for review by the Ministry upon request.
- N2. The Company shall provide the following to interested Aboriginal communities:
- (1) updated project information, including the results of monitoring activities undertaken and copies of additional archaeological assessment reports that may be prepared; and
  - (2) updates on key steps in the construction, installation, operation, use and retirement phases of the Facility, including notice of the commencement of construction activities at the project location.
- N3. If an Aboriginal community requests a meeting to obtain information relating to the construction, installation, operation, use and retiring of the Facility, the Company shall make reasonable efforts to arrange and participate in such a meeting.

N4. If any archaeological resources of Aboriginal origin are found during the construction of the Facility, the Company shall:

- (1) notify any Aboriginal community considered likely to be interested or which has expressed an interest in such finds; and,
- (2) if a meeting is requested by an Aboriginal community to discuss the archaeological find(s), make reasonable efforts to arrange and participate in such a meeting.

## **O – ARCHAEOLOGICAL RESOURCES**

O1. The Company shall implement all of the recommendations, if any, for further archaeological fieldwork and for the protection of archaeological sites found in the consultant archaeologist's report included in the Application, and which the Company submitted to the Ministry of Tourism, Culture and Sport in order to comply with O. Reg. 359/09.

O2. Should any previously undocumented archaeological resources be discovered, the Company shall:

- (1) cease all alteration of the area in which the resources were discovered immediately;
- (2) engage a consultant archaeologist to carry out the archaeological fieldwork necessary to further assess the area and to either protect and avoid or excavate any sites in the area in accordance with the *Ontario Heritage Act*, the regulations under that act and the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists*; and
- (3) notify the Director as soon as reasonably possible.

## **P – COMMUNITY LIAISON COMMITTEE**

P1. Within three (3) months of receiving this Approval, the Company shall make reasonable efforts to establish a Community Liaison Committee. The Community Liaison Committee shall be a forum to exchange ideas and share concerns with interested residents and members of the public. The Community Liaison Committee shall be established by:

- (1) publishing a notice in a newspaper with general circulation in each local municipality in which the project location is situated; and
- (2) posting a notice on the Company's publicly accessible website, if the Company has a website;

to notify members of the public about the proposal for a Community Liaison Committee and invite residents living within a one (1) kilometre radius of the Facility that may have an interest in the Facility to participate on the Community Liaison Committee.

- P2. The Company may invite other members of stakeholders to participate in the Community Liaison Committee, including, but not limited to, local municipalities, local conservation authorities, Aboriginal communities, federal or provincial agencies, and local community groups.
- P3. The Community Liaison Committee shall consist of at least one Company representative who shall attend all meetings.
- P4. The purpose of the Community Liaison Committee shall be to:
- (1) act as a liaison facilitating two way communications between the Company and members of the public with respect to issues relating to the construction, installation, use, operation, maintenance and retirement of the Facility;
  - (2) provide a forum for the Company to provide regular updates on, and to discuss issues or concerns relating to, the construction, installation, use, operation, maintenance and retirement of the Facility with members of the public; and
  - (3) ensure that any issues or concerns resulting from the construction, installation, use, operation, maintenance and retirement of the Facility are discussed and communicated to the Company.
- P5. The Community Liaison Committee shall be deemed to be established on the day the Director is provided with written notice from the Company that representative Community Liaison Committee members have been chosen and a date for a first Community Liaison Committee meeting has been set.
- P6. If a Community Liaison Committee has not been established within three (3) months of receiving this Approval, the Company shall provide a written explanation to the Director as to why this has not occurred.
- P7. The Company shall ensure that the Community Liaison Committee operates for a minimum period of two (2) years from the day it is established. During this two (2) year period, the Company shall ensure that the Community Liaison Committee meets a minimum of two (2) times per year. At the end of this two (2) year period, the Company shall contact the Director to discuss the continued operation of the Community Liaison Committee.
- P8. The Company shall ensure that all Community Liaison Committee meetings are open to the general public.
- P9. The Company shall provide administrative support for the Community Liaison Committee including, at a minimum:
- (1) providing a meeting space for Community Liaison Committee meetings;
  - (2) providing access to resources, such as a photocopier, stationery, and office supplies, so that the Community Liaison Committee can:

- a) prepare and distribute meeting notices;
- b) record and distribute minutes of each meeting; and
- c) prepare reports about the Community Liaison Committee's activities.

P10. The Company shall submit any reports of the Community Liaison Committee to the Director and post it on the Company's publicly accessible website, if the Company has a website.

## **Q – OPERATION AND MAINTENANCE**

Q1. Prior to the commencement of the operation of the Facility, the Company shall prepare a written manual for use by Company staff outlining the operating procedures and a maintenance program for the Equipment that includes as a minimum the following:

- (1) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
- (2) emergency procedures;
- (3) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
- (4) all appropriate measures to minimize noise emissions from the Equipment.

Q2. The Company shall;

- (1) update, as required, the manual described in Condition Q1; and
- (2) make the manual described in Condition Q1 available for review by the Ministry upon request.

Q3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition Q1.

## **R – RECORD CREATION AND RETENTION**

R1. The Company shall create written records consisting of the following:

- (1) an operations log summarizing the operation and maintenance activities of the Facility;
- (2) within the operations log, a summary of routine and Ministry inspections of the Facility; and
- (3) a record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility.

- R2. A record described under Condition R1 (3) shall include:
- (1) a description of the complaint that includes as a minimum the following:
    - a) the date and time the complaint was made;
    - b) the name, address and contact information of the person who submitted the complaint;
  - (2) a description of each incident to which the complaint relates that includes as a minimum the following:
    - a) the date and time of each incident;
    - b) the duration of each incident;
    - c) the wind speed and wind direction at the time of each incident;
    - d) the ID of the Equipment involved in each incident and its output at the time of each incident;
    - e) the location of the person who submitted the complaint at the time of each incident; and
  - (3) a description of the measures taken to address the cause of each incident to which the complaint relates and to prevent a similar occurrence in the future.

R3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition R1, and make these records available for review by the Ministry upon request.

## **S – NOTIFICATION OF COMPLAINTS**

- S1. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.
- S2. The Company shall provide the District Manager with the written records created under Condition R2 within eight (8) business days of the receipt of the complaint.

## **T – CHANGE OF OWNERSHIP**

- T1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:
- (1) the ownership of the Facility;
  - (2) the operator of the Facility;



- (3) the address of the Company;
- (4) the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act*, R.S.O. 1990, c.B.17, as amended, shall be included in the notification; and
- (5) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

## **U – TRAFFIC MANAGEMENT PLANNING**

- U1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Municipality of Bluewater, Municipality of South Huron, Municipality of Huron East, Municipality of West Perth, Huron County, and Perth County.
- U2. Within three (3) months of having provided the Traffic Management Plan to the Municipality of Bluewater, Municipality of South Huron, Municipality of Huron East, Municipality of West Perth, Huron County, and Perth County, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Municipality of Bluewater, Municipality of South Huron, Municipality of Huron East, Municipality of West Perth, Huron County, and Perth County.
- U3. If a Road Users Agreement has not been signed with the Municipality of Bluewater, Municipality of South Huron, Municipality of Huron East, Municipality of West Perth, Huron County, and Perth County within three (3) months of having provided the Traffic Management Plan to the Municipality of Bluewater, Municipality of South Huron, Municipality of Huron East, Municipality of West Perth, Huron County, and Perth County, the Company shall provide a written explanation to the Director as to why this has not occurred.

## **SCHEDULE A**

### **Facility Description**

The Facility shall consist of the construction, installation, operation, use and retiring of the following equipment:

- (a) a total of forty (40) out of forty eight (48) Siemens SWT-3.0-113 wind turbine generators each rated at 2.483 megawatts generating output capacity, as specified in the Acoustic Assessment Report;

with a total name plate capacity of up to approximately 100 megawatts, designated as source ID Nos. T-01 to T-48, each with a hub height of 99.5 metres above grade, and sited at the locations shown in Schedule B;

- (b) one (1) transformer substation including one (1) transformer and one (1) reactor and sited at the location shown in Schedule B;
- (c) one (1) switchyard as shown in Figure 2s of the Project Description Report, dated February 2013, prepared by Neegan Burnside Ltd.
- (d) one (1) parts and storage building as shown in Figure 2e of the Project Description Report, dated February 2013, prepared by Neegan Burnside Ltd.
- (e) associated ancillary equipment, systems and technologies including on-site access roads, underground cabling and underground transmission line,

all in accordance with the Application.

## SCHEDULE B

### Coordinates of the Equipment and Noise Specifications

Coordinates of the Equipment are listed below in UTM, Z17-NAD83 projection:

Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators and Transformer Substation/Transformer and Reactor

Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
T-01	101.5*	444036	4811878	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-02	101.5*	444376	4811760	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-03	101.5*	445882	4810067	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-04	101.5*	443802	4810148	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-05	101.5*	444206	4809869	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-06	101.5*	444035	4809533	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-07	101.5*	443954	4809148	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-08	101.5*	443718	4808841	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-09	101.5*	444323	4808855	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-10	101.5*	444002	4808745	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-11	101.5*	444330	4808461	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-12	101.5*	444001	4808315	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-13	101.5*	444228	4808041	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-14	101.5*	443802	4807902	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-15	101.5*	444500	4807773	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-16	101.5*	443896	4807611	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-17	101.5*	443377	4805355	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-18	101.5*	443717	4805337	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-19	101.5*	446261	4804829	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-20	101.5*	446913	4804825	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-21	101.5*	443654	4804592	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-22	101.5*	443974	4804635	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-23	101.5*	443320	4804184	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-24	101.5*	443623	4804057	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-25	101.5*	443997	4804036	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-26	101.5*	443339	4803814	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-27	101.5*	443638	4803681	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-28	101.5*	443409	4803439	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-29	101.5*	443154	4802383	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m

Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators and Transformer Substation/Transformer and Reactor (continued)

Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
T-30	101.5*	443011	4802014	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-31	101.5*	443540	4801110	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-32	101.5*	442448	4800448	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-33	101.5*	442838	4800465	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-34	101.5*	442243	4800119	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-35	101.5*	442757	4800013	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-36	101.5*	442447	4799830	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-37	101.5*	442062	4799669	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-38	101.5*	442409	4799492	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-39	101.5*	441744	4799389	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-40	101.5*	441527	4798742	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-41	101.5*	441764	4798145	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-42	101.5*	441607	4797851	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-43	101.5*	442249	4797830	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-44	101.5*	441123	4797225	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-45	101.5*	440154	4796958	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-46	101.5*	440550	4796892	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-47	101.5*	440850	4796687	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
T-48	101.5*	440529	4796554	Siemens model SWT-3.0-113 Rev. 0, 2.483 MW, hub height 99.5 m
R	100.2**	446784	4804831	Reactor
TS	96.1**	446772	4804794	Transformer

NOTE: \* Wind turbine generators Sound Power Levels reported above are identified in the guarantee letter prepared by Siemens, dated April 7, 2014.  
 \*\* The Sound Power Levels reported above for the Transformer and Reactor include the 5 Decibels (dB) adjustment for tonality as prescribed in Publication NPC-104.

Table B2: Maximum Sound Power Spectrums (dBA and dB Lin) for the transformer and the reactor

Transformer Substation	Octave Band Centre Frequency (Hz)								Overall
	63	125	250	500	1000	2000	4000	8000	
Lw (dBA) for the transformer	72.5	84.6	87.1	92.5	89.7	85.9	80.7	71.6	96.1
Lw (dB) for the transformer	98.7	100.7	95.7	95.7	89.7	84.7	79.7	72.7	105.5
Lw (dBA) for the reactor	70.0	81.0	96.0	98.0	65.0	60.0	55.0	50.0	100.2
Lw (dB) for the reactor	96.2	97.1	104.6	101.2	65.0	58.8	54.0	51.1	107.1

Note: The Transformer and Reactor Sound Power Level values above include the 5 decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Conditions A1, A2 and A8 are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in the manner in which it was described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.
2. Conditions A3 and A4 are included to require the Company to provide information to the public and the local municipality.
3. Conditions A5 and A6 are included to ensure that final retirement of the Facility is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure long-term protection of the health and safety of the public and the environment.
4. Condition A7 is included to require the Company to inform the Ministry of the commencement of activities related to the construction, installation and operation of the Facility.
5. Condition B is intended to limit the time period of the Approval.
6. Conditions C1 and C2 are included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Equipment and to ensure that the noise emissions from the Equipment will be in compliance with applicable limits set in the Noise Guidelines for Wind Farms.
7. Conditions C3, C4 and D are included to ensure that the Equipment is constructed, installed, used, operated, maintained and retired in a way that meets the regulatory setback prohibitions set out in O. Reg. 359/09.
8. Conditions E and F are included to require the Company to gather accurate information so that the environmental noise impact and subsequent compliance with the Act, O. Reg. 359/09, the Noise Guidelines for Wind Farms and this Approval can be verified.
9. Conditions G, H, I, J, K, L and U are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.
10. Condition M is included to ensure that Environment Canada's Exeter Radar Station can continue to be used to provide accurate and reliable forecasts and weather warnings consistent with Environment Canada's mandate.
11. Condition O is included to protect archaeological resources that may be found at the project location.
12. Condition N is included to ensure continued communication between the Company and interested Aboriginal communities.

13. Condition P is included to ensure continued communication between the Company and the local residents.
14. Condition Q is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, O. Reg. 359/09 and this Approval.
15. Condition R is included to require the Company to keep records and provide information to the Ministry so that compliance with the Act, O. Reg. 359/09 and this Approval can be verified.
16. Condition S is included to ensure that any complaints regarding the construction, installation, use, operation, maintenance or retirement of the Facility are responded to in a timely and efficient manner.
17. Condition T is included to ensure that the Facility is operated under the corporate name which appears on the application form submitted for this Approval and to ensure that the Director is informed of any changes.

## **NOTICE REGARDING HEARINGS**

*In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.*

*Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:*

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The signed and dated notice requiring the hearing should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

*This notice must be served upon:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto, Ontario  
M5G 1E5

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario  
M5S 2B1

AND

The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca), you can determine when this period ends.*

*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.*

DATED AT TORONTO this 26th day of June, 2014



---

Vic Schroter, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

NC/

c: District Manager, MOE Owen Sound  
Gordon Potts, Northland Power Inc.

## Hannah Maciver

---

**From:** Fraser, Sarah (MNRF) <Sarah.Fraser@ontario.ca>  
**Sent:** Wednesday, December 27, 2017 10:13 AM  
**To:** Hannah Maciver  
**Cc:** Richardson, Kathy (MNRF); Scientific Collection Permits Guelph (MNRF); Bonaldo, Michelle (MNRF)  
**Subject:** Renewal of protocol #399

December 27, 2017

Hannah, (R.J. Burnside & Associates Limited)

The OMNRF Wildlife Animal Care Committee has reviewed and approved the renewal of your protocol: "Grand Bend Wind Farm Post-Construction Monitoring."

Your protocol number for 2018 is #18-399

Protocol approvals are valid for one calendar year only and must be kept current. Should amendments to projects or procedures be deemed necessary, the researcher must contact the Wildlife Animal Care Committee and provide updated information for review.

A summary report will be required annually or upon completion of this project, stating number of animals handled, injuries, fatalities and any problems that may have occurred. This report is necessary for our files plus it will expedite the process if this protocol is to be renewed in the future.

Please note that if there are multiple unanticipated injuries or mortalities the project must be stopped. A report is to be submitted to the Wildlife Animal Care Committee with amendments to rectify the issue(s) prior to resumption.

Researchers who are not collaborating with an expert in animal pathology/physiology or who have limited expertise in this area should seek appropriate assistance in the event of an unexpected and unexplained mortality. Specimens should be submitted for necropsy to the nearest Canadian Wildlife Health Cooperative facility in the event of an unexpected mortality or mortality of a SAR. Make arrangements prior to commencing field work. Contact information for CWHC facilities can be found at <http://www.cwhc-rcsf.ca/>

Please ensure that you have also contacted the appropriate Ministry of Natural Resources and Forestry District Office(s) in your study area for the required permit(s) before this research begins. It is also your responsibility to provide them with a copy of this approval.

Good luck with your project,

*Sarah*

*Sarah Fraser, Chair  
Wildlife Animal Care Committee  
Ontario Ministry of Natural Resources and Forestry  
c/o Trent University, DNA Building  
2140 East Bank Dr.  
Peterborough, ON K9L 0G2  
Cell: 705-313-0090  
[sarah.fraser@ontario.ca](mailto:sarah.fraser@ontario.ca)*



Ministry of Natural  
Resources and Forestry

Ministère des ressources  
naturelles et des forêts

Guelph District  
1 Stone Road West  
Guelph, Ontario  
N1G 4Y2

Telephone: (519) 826-4955  
Facsimile: (519) 826-4929



March 13, 2018

Hannah Maciver  
R.J. Burnside & Associates Ltd.  
922 Speedvale Ave. West  
Unit 20  
Guelph, ON N1H 1C4

**Re: Wildlife Scientific Collectors Authorization #1088926**

Dear Hannah,

Attached is the above Wildlife Scientific Collectors Authorization required for 'Post Mortality Monitoring of Birds and Bats at Grand Bend Wind Farm'.

The WSCA has been issued in conjunction with approved Animal Care Protocol #18-399 and Registration M-102-8126759043 and will expire on December 31<sup>st</sup>, 2018. Please ensure you and your assistants read and adhere to all conditions and have this documentation with you when you are on site at all times.

Please return the signed WSC Authorization and Schedule A to me by fax, mail or email prior to commencement of any work.

If you have any questions or need to amend your authorization at any time please contact Kathy Richardson at 905 562-1177 or by email at [kathy.richardson@ontario.ca](mailto:kathy.richardson@ontario.ca).

Sincerely,

A handwritten signature in black ink that reads "Michelle Bonaldo".

Michelle Bonaldo  
Ministry of Natural Resources  
Resources Clerk  
519 826-4909  
Email [michelle.bonaldo@ontario.ca](mailto:michelle.bonaldo@ontario.ca)

To meet with our staff please be sure to call ahead and make an appointment.  
For general information visit: [www.mnr.gov.on.ca](http://www.mnr.gov.on.ca) or [www.ontario.ca](http://www.ontario.ca)



Ministry of  
Natural Resources

Ministère des  
Richesses naturelles

# Wildlife Scientific Collector's Authorization Autorisation pour faire la collecte scientifique d'animaux sauvages

Authorization No. N° d'autorisation	1088926
Local Reference No. N° de référence local	7200
Issuer Account No. N° de compte du délivreur de permis.	10001664

This authorization is issued under Section 39 of the Fish and Wildlife Conservation Act, 1997 to:  
Cette autorisation est délivrée en vertu de l'article 39 de la Loi sur la protection du poisson et de la faune de 1997 à:

Name of Authorization holder Nom du titulaire de l'autorisation	Last Name / Nom de famille Mrs. Maciver	First Name / Prénom Hanna	Middle Name / Second Prénom
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Name of Business/Organization/Affiliation (if applicable) Nom de l'entreprise/de l'organisme/de l'affiliation (le cas échéant)	R.J. Burnside and Associates Limited
---	--------------------------------------

Mailing address of Authorization holder Adresse postale du titulaire de l'autorisation	Street Name & No./PO Box/RR#/Gen. Del. / N° rue/C.P./R.R./poste restante 292 Speedvale Ave	City/Town/Municipality / Ville/Village/municipalité Guelph	Province/State Province/État ON	Postal Code/Zip Code Code Postal/Zip N1H 1C4
---	---	---	---------------------------------------	--

This authorization permits the above-named person to:  
Cette autorisation permet à la personne nommée ci-haut de:

- Capture wildlife of the species and sex, in the numbers, and in the area set out below.  
Capturer les espèces d'animaux sauvages selon le nombre et le sexe indiqués ci-dessous dans les lieux indiqués ci-dessous and/or / et/ou
- Keep game wildlife or specially protected wildlife in captivity for the purposes of education or science.  
Garder des animaux sauvages spécialement protégés et du gibier sauvage en captivité à des fins éducatives et scientifiques
- Release the captured wildlife in the area of capture, if the captured wildlife is not to be removed from that area  
Remettre en liberté les animaux sauvages capturés dans la zone de capture si les animaux captures ne doivent pas être enlevés de cette zone

OR / OU

- Capture and kill wildlife of the species and sex, in the numbers, and in the area set out below.  
Capturer et tuer les espèces d'animaux sauvages selon le nombre et le sexe indiqués ci-dessous dans les lieux indiqués ci-dessous

Species / Espèces	Sex Sexe	Numbers Nombre	Location / Endroit
All scheduled bird species			Grand Bend Wind Farm
All scheduled bat species			Grand Bend Wind Farm

Yes/Oui  Additional list attached / Liste additionnelle ci-jointe

Authorization Dates Dates d'autorisation	Effective Date / Date d'entrée en vigueur (YYYY-MM-DD) 2018-05-01	Expiry Date / Date d'expiration (YYYY-MM-DD) 2018-11-30
---	---	---

Authorization conditions: This authorization is subject to the conditions contained in Schedule A if included. / Cette autorisation doit respecter les conditions de l'annexe A si celle-ci est jointe.

Conditions de l'autorisation: Yes/Oui  No/Non  Schedule A included. / Annexe A ci-jointe

Authorized by (please print) Autorisé par (veuillez écrire en caractères d'imprimerie) Ian Thornton, Resources Operations Supervisor	Signature of Authorizer / Signature de la personne chargée d'autoriser 	Date of Issue / Date de délivrance (YYYY-MM-DD) 2018-03-13
Signature of Authorization holder / Signature du titulaire de l'autorisation Hannah Maciver		Date (YYYY-MM-DD) 2018-03-13

Personal information contained on this form is collected under the authority of the Fish and Wildlife Conservation Act, 1997 and will be used for the purpose of licencing, identification, enforcement, resource management and customer service surveys. Please direct further inquiries to the District Manager of the MNR issuing district.  
Les renseignements personnels dans ce formulaire sont recueillis conformément à la Loi sur la protection du poisson et de la faune, 1997, et ils seront utilisés aux fins de délivrance de permis, d'identification, d'application des règlements, de gestion des ressources et de sondage sur les services à la clientèle. Veuillez communiquer avec le chef du district du MRN qui délivrera le permis si vous avez des questions.

**Wildlife Scientific Collector's Authorization**  
**Autorisation pour faire la collecte scientifique d'animaux sauvages**  
**Schedule A – Authorization conditions**  
**annexe A - Conditions de l'autorisation**

#1088926

This authorization is subject to the conditions listed below.

Cette autorisation doit se conformer aux conditions ci-dessous.

1. This authorization is valid only for the persons, species, numbers, areas and calendar year indicated. A written report covering the operation of the preceding year must be submitted to [scp.guelph@ontario.ca](mailto:scp.guelph@ontario.ca) within 30 days of the termination date, but in no case later than January 31 next following the year of issue. The report shall contain a statement outlining the objectives of the operations, the methods used, the number and species of wildlife caught and their fate as well as a map indicating where the collections took place. An analysis is not required. The submission of a satisfactory report is a prerequisite to any subsequent renewals.

1. Cette autorisation n'est valide que pour les personnes, espèces, nombres, zones et année civile indiqués. Un rapport écrit portant sur les activités de l'année précédente doit être soumis au délégué de l'autorisation dans les 30 jours suivant la date d'expiration et jamais plus tard que le 31 janvier qui suit la date de délivrance. Le rapport devra comprendre une déclaration décrivant les objectifs des activités, les méthodes utilisées, le nombre et les espèces d'animaux sauvages capturés et leur destination finale ainsi qu'une carte montrant l'emplacement des collectes. Une analyse n'est pas requise. La présentation d'un rapport satisfaisant est une condition préalable pour obtenir un renouvellement de l'autorisation.

2. Before carrying out any operation under the authorization in any area the authorized person shall inform the reporting Biologist, Anne Marie Laurence of his or her intentions at least a week before commencing work and include information as to the type of operation, location, duration, and the name or names of personnel involved. The forgoing does not apply to the collection of road killed specimens of a type indicated on the authorization. Anne Marie can be reached at 519 826-4132 or by email at [annemarie.laurence@ontario.ca](mailto:annemarie.laurence@ontario.ca).

2. Avant de réaliser toute activité visée par l'autorisation dans toute zone, la personne autorisée doit aviser le superviseur de la zone de ses intentions au moins une semaine avant de commencer ses activités et il doit fournir des renseignements sur le type d'activité, l'emplacement, la durée et le nom de toutes les personnes impliquées. Cette condition ne s'applique pas à la collecte de spécimens tués sur la route s'il s'agit d'une espèce mentionnée dans l'autorisation.

3. When possible, all wildlife captured under this authorization shall be released alive in the area of capture. When further examination of the animal is necessary in the laboratory permission must be obtained as part of this authorization under section 40(2)(c) of the Fish and Wildlife Conservation Act. Where furbearing mammals are collected the authorized person must contact the issuing office and make arrangements to pay the royalty. Dead animals which are no longer required must be cremated or buried. The authorized person will inform the issuer of any burial site. Any animal suspected of being infected with a communicable disease shall be incinerated in a facility approved under the Environmental Protection Act for that purpose.

3. Lorsque cela est possible, tous les animaux sauvages capturés en vertu de cette autorisation doivent être remis en liberté dans la zone de capture. Lorsqu'un examen ultérieur d'un animal dans un laboratoire est nécessaire, il faut obtenir une permission à cet effet dans le cadre de cette autorisation, conformément à l'alinéa 40(2)(c) de la Loi sur la protection du poisson et de la faune. Lorsque des mammifères à fourrure sont récoltés, la personne autorisée doit communiquer avec le bureau qui délivre l'autorisation et prendre des dispositions pour payer les redevances afférentes. Les animaux morts qui ne sont plus utiles doivent être incinérés ou enterrés. La personne autorisée avisera le délégué de l'autorisation de tout lieu d'enterrement. Tout animal qui pourrait avoir été infecté d'une maladie transmissible devra être incinéré dans une installation approuvée à cette fin, conformément à la Loi sur la protection de l'environnement.

4. A copy of the original authorization must be carried by the authorized person when working at the designated sites. An assistant of the authorized person who is carrying out activities under this authorization during the absence of the authorized person shall carry a copy of the authorization on his or her person.

4. Le titulaire de l'autorisation doit avoir en sa possession un exemplaire de l'autorisation originale lorsqu'il travaille dans les endroits désignés. Si un adjoint du titulaire de l'autorisation réalise des activités visées par l'autorisation en l'absence du titulaire de l'autorisation, il devra avoir un exemplaire de l'autorisation en sa possession.

5. All collection gear shall be clearly marked with the authorized person's and the organization's name.

5. Tout le matériel de collecte doit indiquer bien clairement le nom du titulaire de l'autorisation et de son organisme.

6. This authorization is not valid in Provincial Parks, park reserves, National Parks, Conservation Areas, Crown game preserves or sanctuaries established under the Migratory Birds Convention Act without written permission from the authorized person in charge of the area concerned.

6. Cette autorisation n'est pas valide dans les parcs provinciaux, les réserves de parcs, les parcs nationaux, les zones de protection de la nature, les réserves de chasse de la Couronne et les réserves naturelles établies en vertu de la Loi sur la Convention concernant les oiseaux migrateurs sans la permission écrite de la personne autorisée qui est responsable de la zone en question.

7. Capture gear to be used: latex free gloves, clear plastic bags, labels, freezer for storage, totes to transport any wildlife that may be accidentally injured to a rehab centre.

7. Tout le matériel de collecte doit être inspecté régulièrement et les viviers doivent être inspectés au moins une fois par jour.

\* Capture gear shall be inspected regularly and live holding traps must be inspected at least once daily.

8. Cette autorisation ne permet pas au titulaire d'avoir accès à une propriété privée sans la permission du propriétaire foncier.

8. This authorization does not allow access to any property without permission of the landowner.

9. Sections 5 and 6 of the Fish and Wildlife Conservation Act 1997, and the provisions of the regulations relating to open seasons and bag limits do not apply to a person capturing or killing wildlife under this authorization.

9. Les articles 5 et 6 de la Loi sur la protection du poisson et de la faune de 1997 et les dispositions des règlements se rapportant aux saisons de chasse et aux limites de prise ne s'appliquent pas à la personne qui capture ou tue des animaux sauvages en vertu de cette autorisation.

Signature of authorization holder / Signature du titulaire de l'autorisation

Date

*Hannah Maciver*

March 15, 2018

**Wildlife Scientific Collector's Authorization**  
**Autorisation pour faire la collecte scientifique d'animaux sauvages**  
**Schedule A – Authorization conditions**  
**nnexe A - Conditions de l'autorisation**

#1088926

10. Native and non-native reptiles and amphibians that are collected must be immediately released at the location of capture.

11. Any observation or capture of any threatened or endangered species must be reported immediately to the MNR Guelph District Office ([esa.guelph@ontario.ca](mailto:esa.guelph@ontario.ca)) within two (2) business days.

12. When SAR are involved, the SAR Handling Manual is to be used as a reference and all staff must be properly trained prior to any handling of the animals.

13. **Names of Assistants covered under this authorization are;**  
Sara Henry  
One additional TBD

14. This authorization is issued in conjunction with approved Animal Care Protocol #18-399 and Registration #M-102-8126759043. All conditions must be adhered to.

2

Signature of authorization holder / Signature du titulaire de l'autorisation

*Hannah Maciver*

Date

March 15, 2018



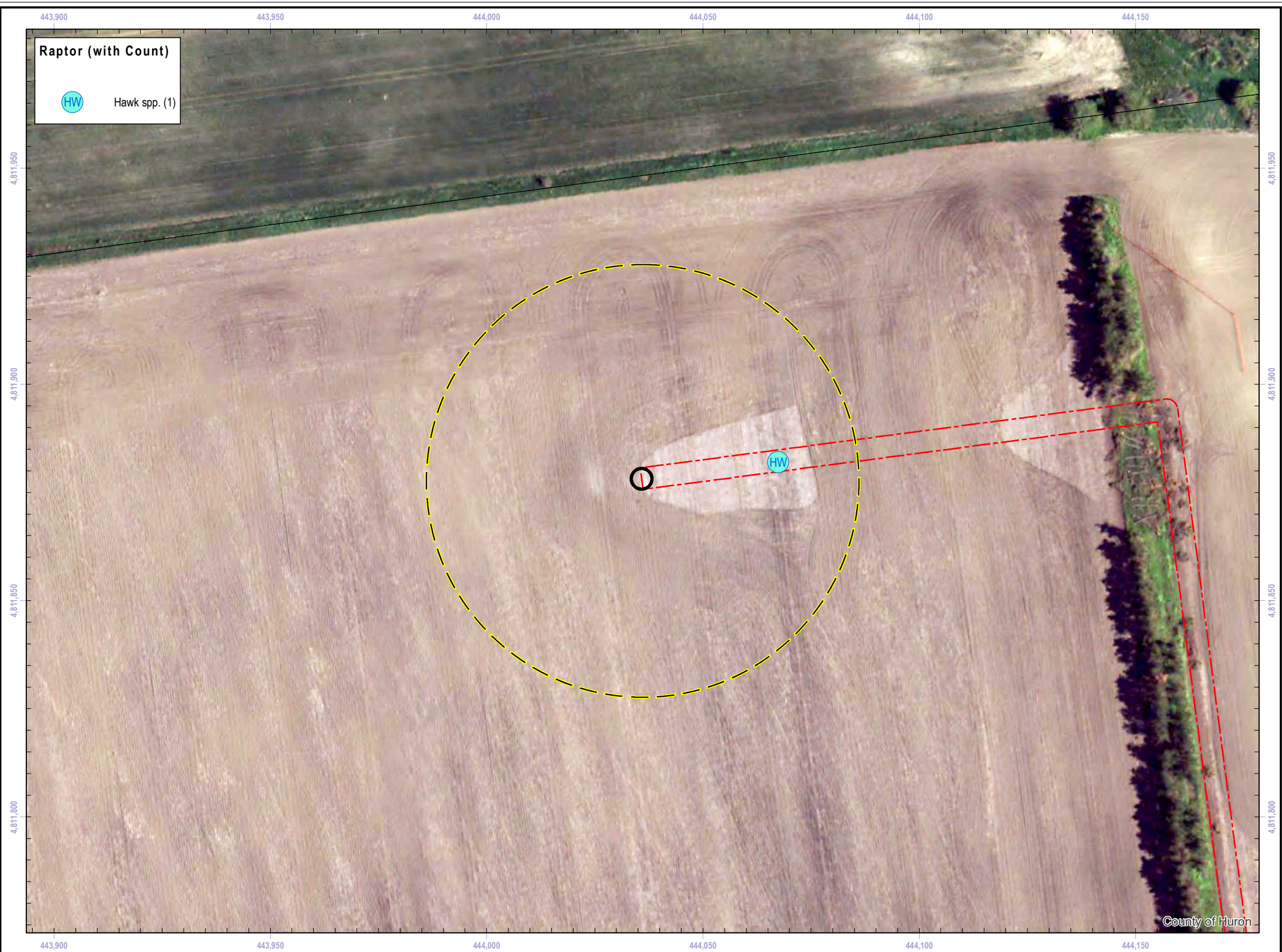
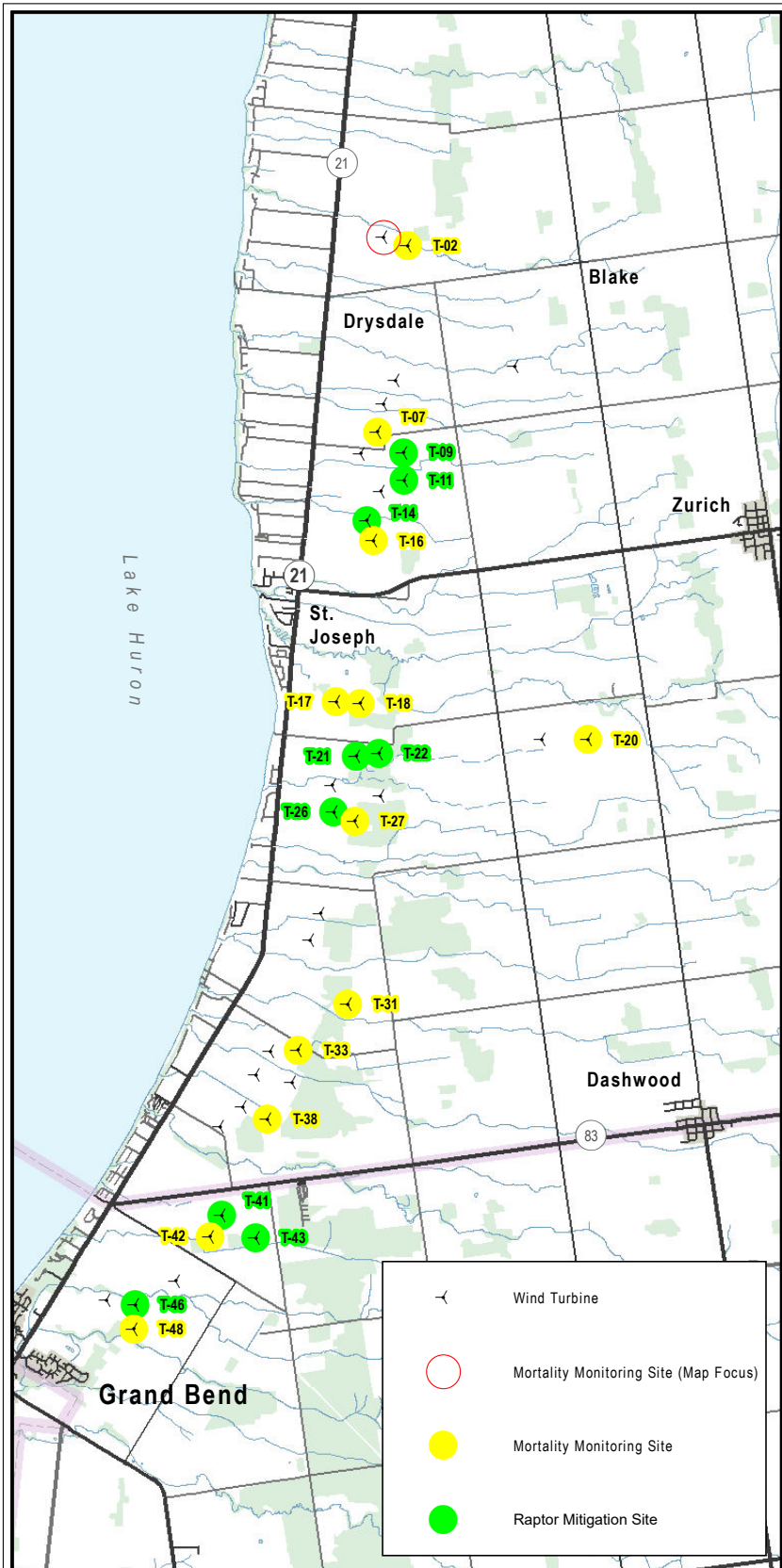
**BURNSIDE**

[ THE DIFFERENCE IS OUR PEOPLE ]

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## Appendix B

### Mortalities Per Turbine (Map Book)



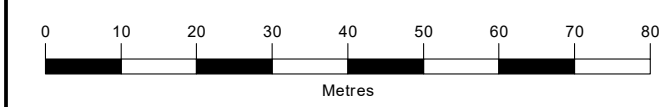
**Raptor (with Count)**

Hawk spp. (1)

- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Search Radius (50m)
- Turbine Base Footprint
- Approach to Turbine

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960  
 Grid North



**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

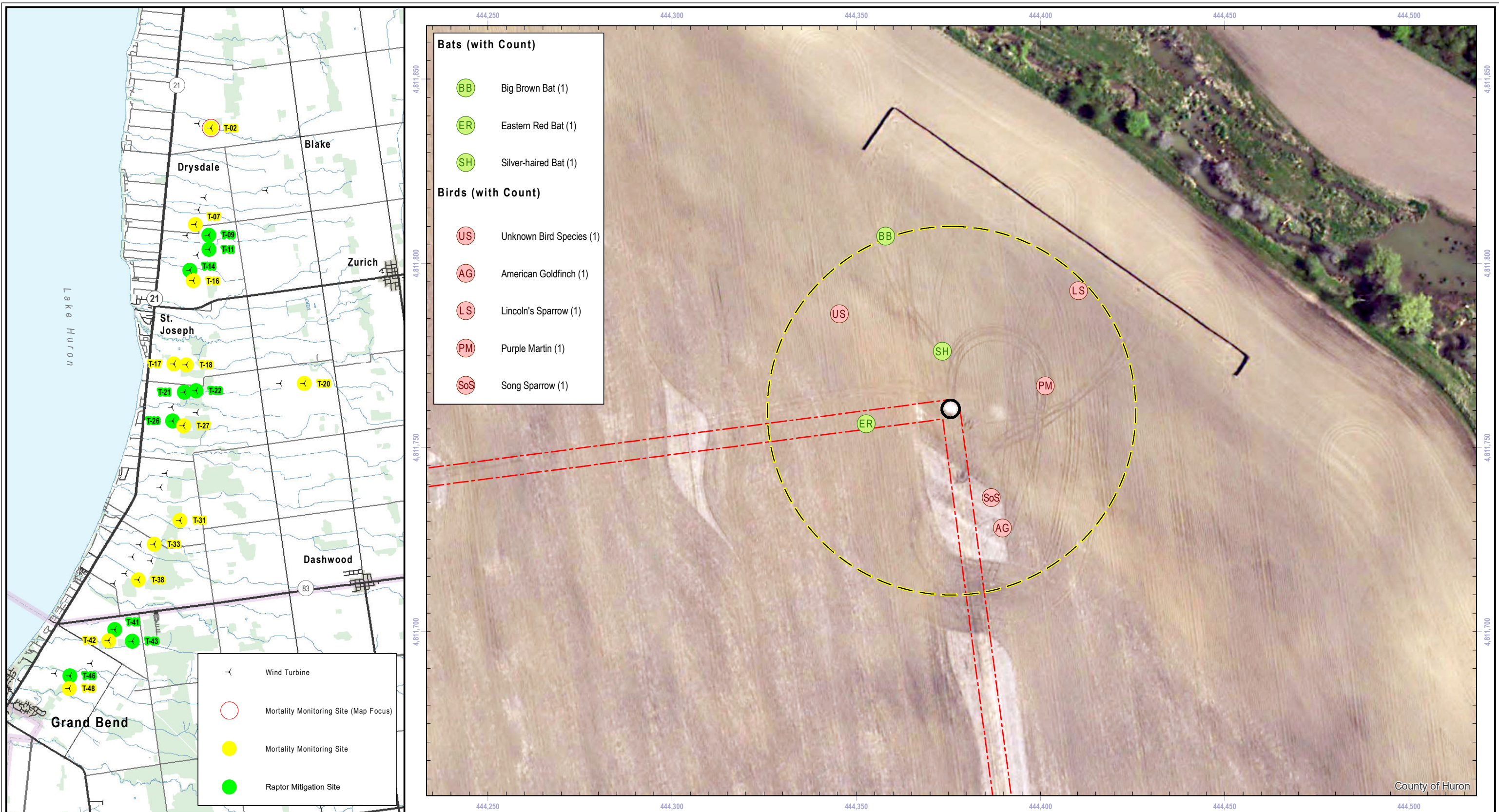
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.



Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-01  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-1</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

0 10 20 30 40 50 60 70 80  
 Metres

Wind Turbine  
 Mortality Monitoring Site (Map Focus)  
 Mortality Monitoring Site  
 Raptor Mitigation Site

Search Radius (50m)  
 Turbine Base Footprint  
 Approach to Turbine

Sources:  
 1. Ministry of Natural Resources, © Queen's Printer for Ontario  
 2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.  
 3. Huron County  
 4. R.J. Burnside & Associates Limited

Notes:  
 1. Imagery reflects ground conditions in 2015.  
 2. This map shows results for the 2018 monitoring year.

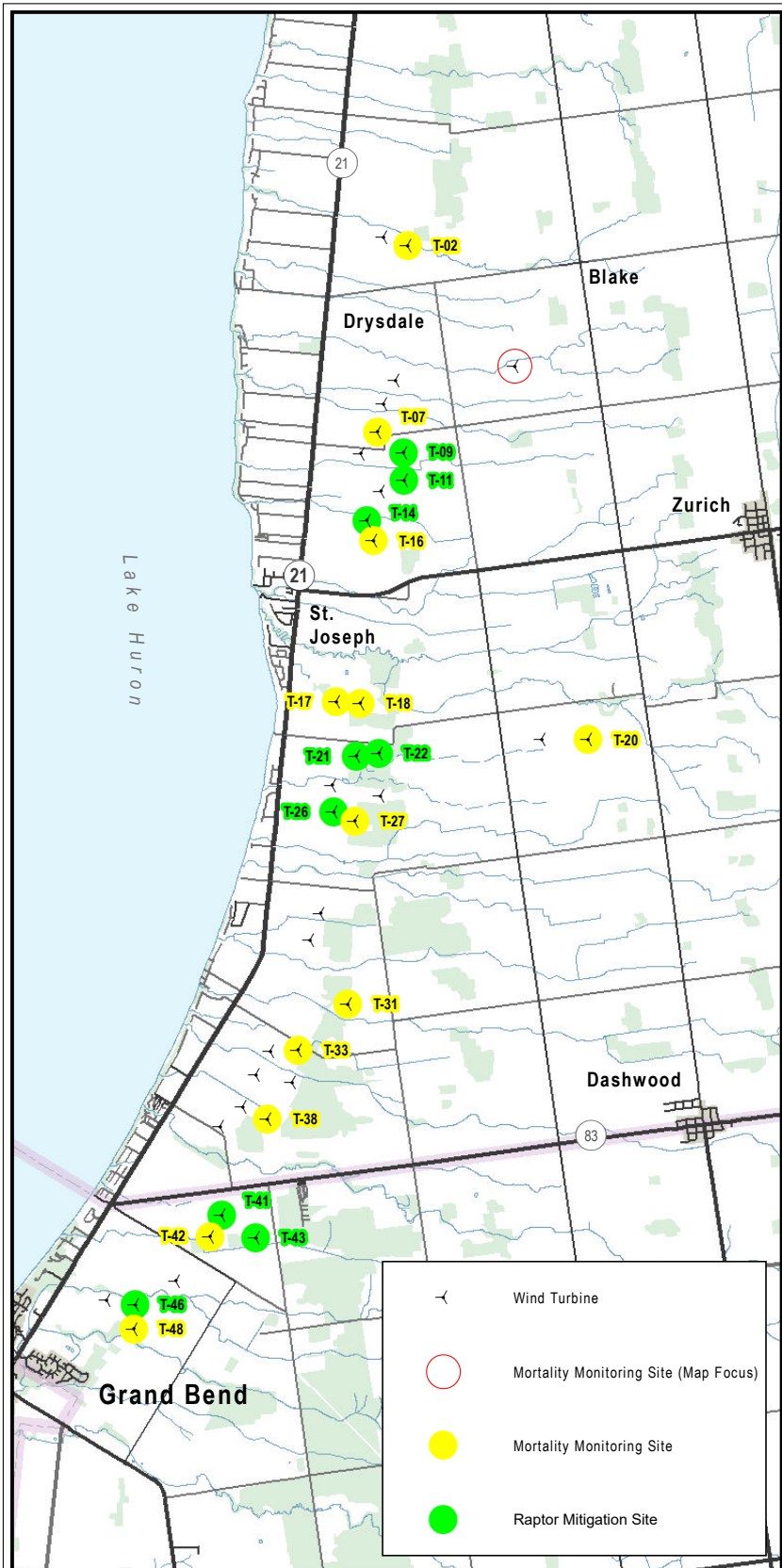
**BURNSIDE**

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-02  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-2</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		

H 1:1,000



- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site



- Bats (with Count)**
- Silver-haired Bat (1)

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

- Search Radius (50m)
- Turbine Base Footprint
- Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

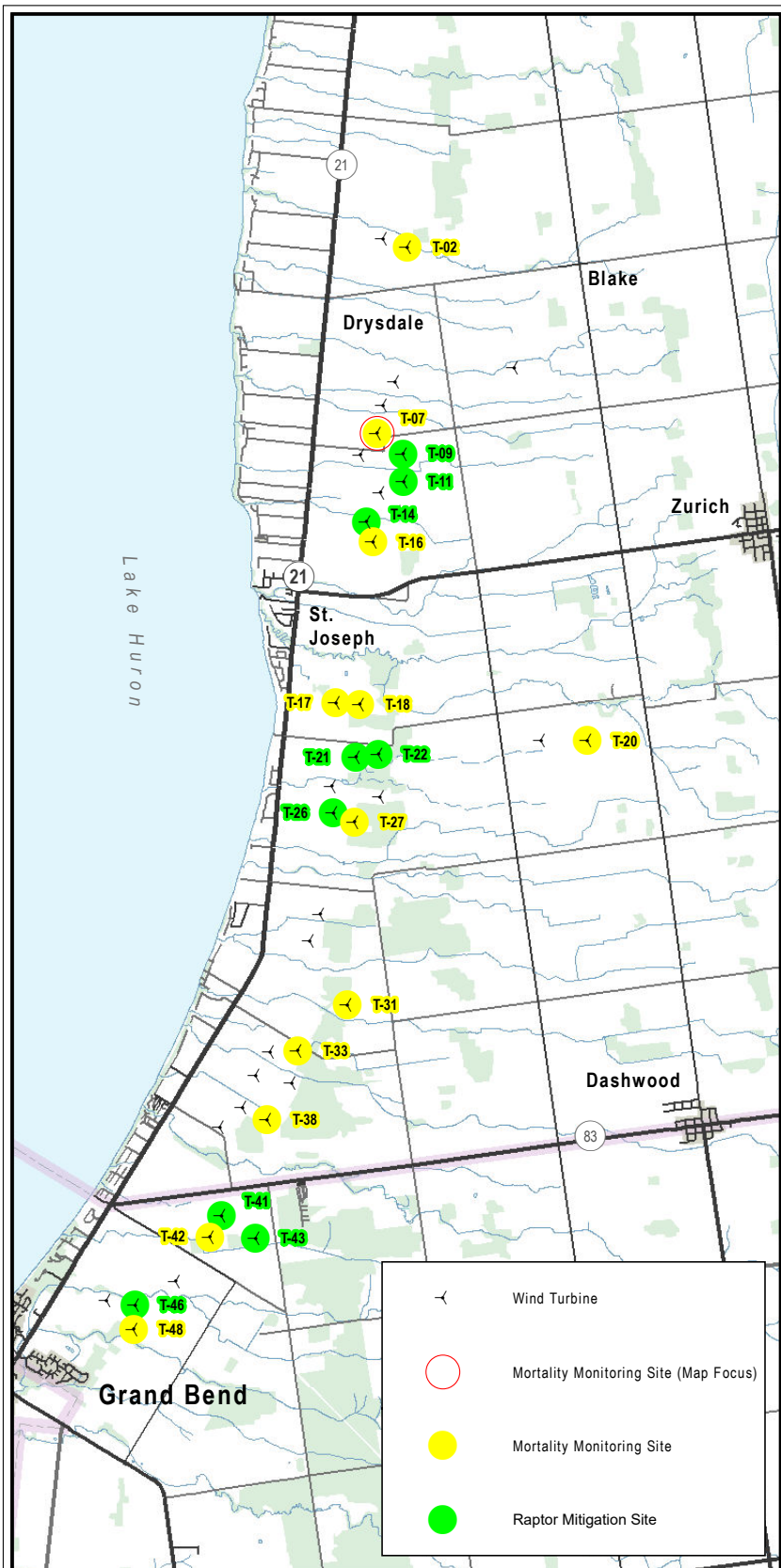
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-03  
 Carcass Search Results (2018)

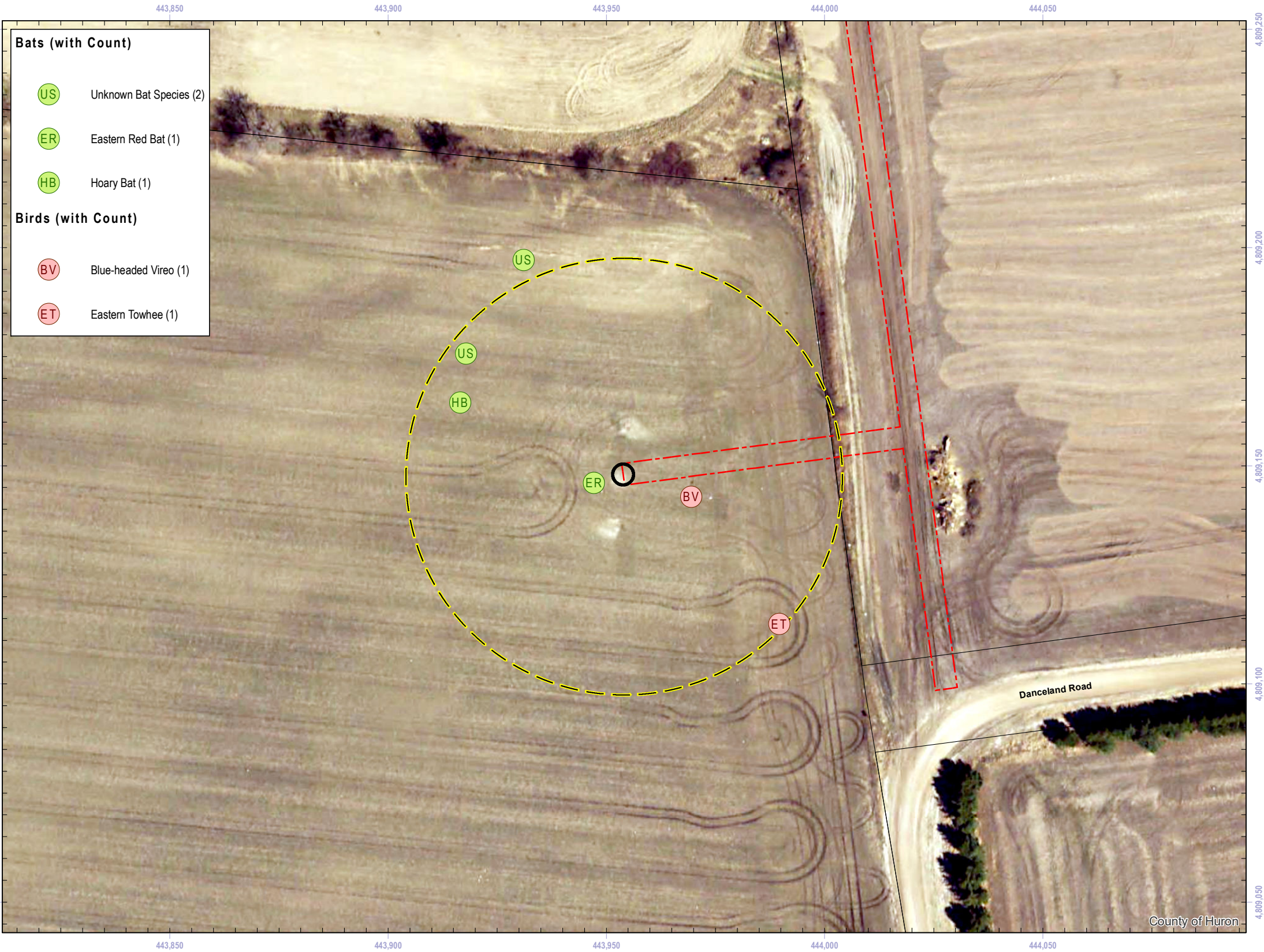
Drawn	Checked	Date	Figure No. <b>B-3</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:1,000			PIA019991





- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Bats (with Count)**
- Unknown Bat Species (2)
  - Eastern Red Bat (1)
  - Hoary Bat (1)
- Birds (with Count)**
- Blue-headed Vireo (1)
  - Eastern Towhee (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80  
Metres

Search Radius (50m)      Turbine Base Footprint

Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

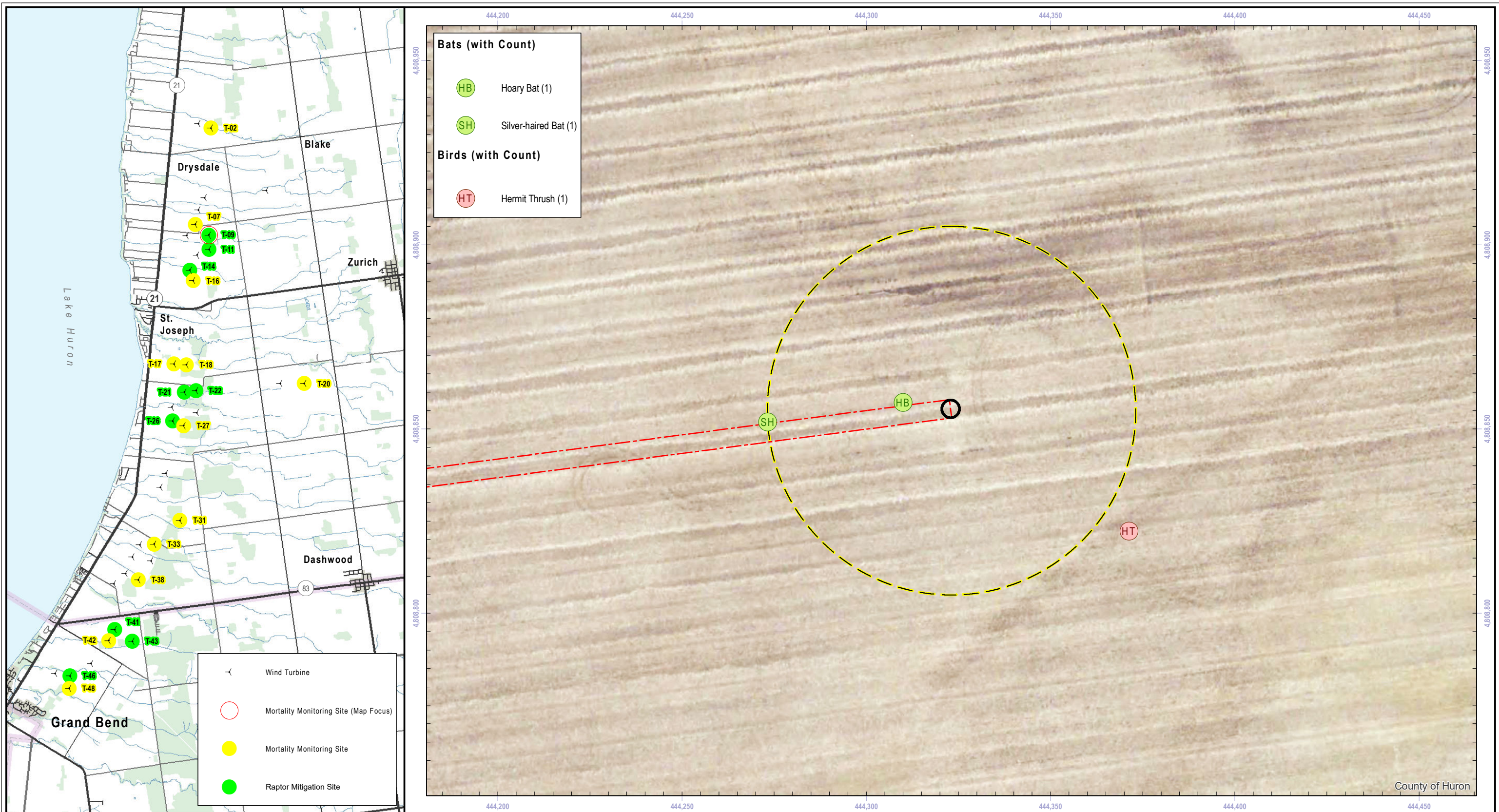
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**BURNSIDE**

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-07  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-4</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:1,000			PIA019991



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80  
 Metres

Wind Turbine  
 Mortality Monitoring Site (Map Focus)  
 Mortality Monitoring Site  
 Raptor Mitigation Site

Search Radius (50m)  
 Turbine Base Footprint  
 Approach to Turbine

Sources:  
 1. Ministry of Natural Resources, © Queen's Printer for Ontario  
 2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.  
 3. Huron County  
 4. R.J. Burnside & Associates Limited

Notes:  
 1. Imagery reflects ground conditions in 2015.  
 2. This map shows results for the 2018 monitoring year.

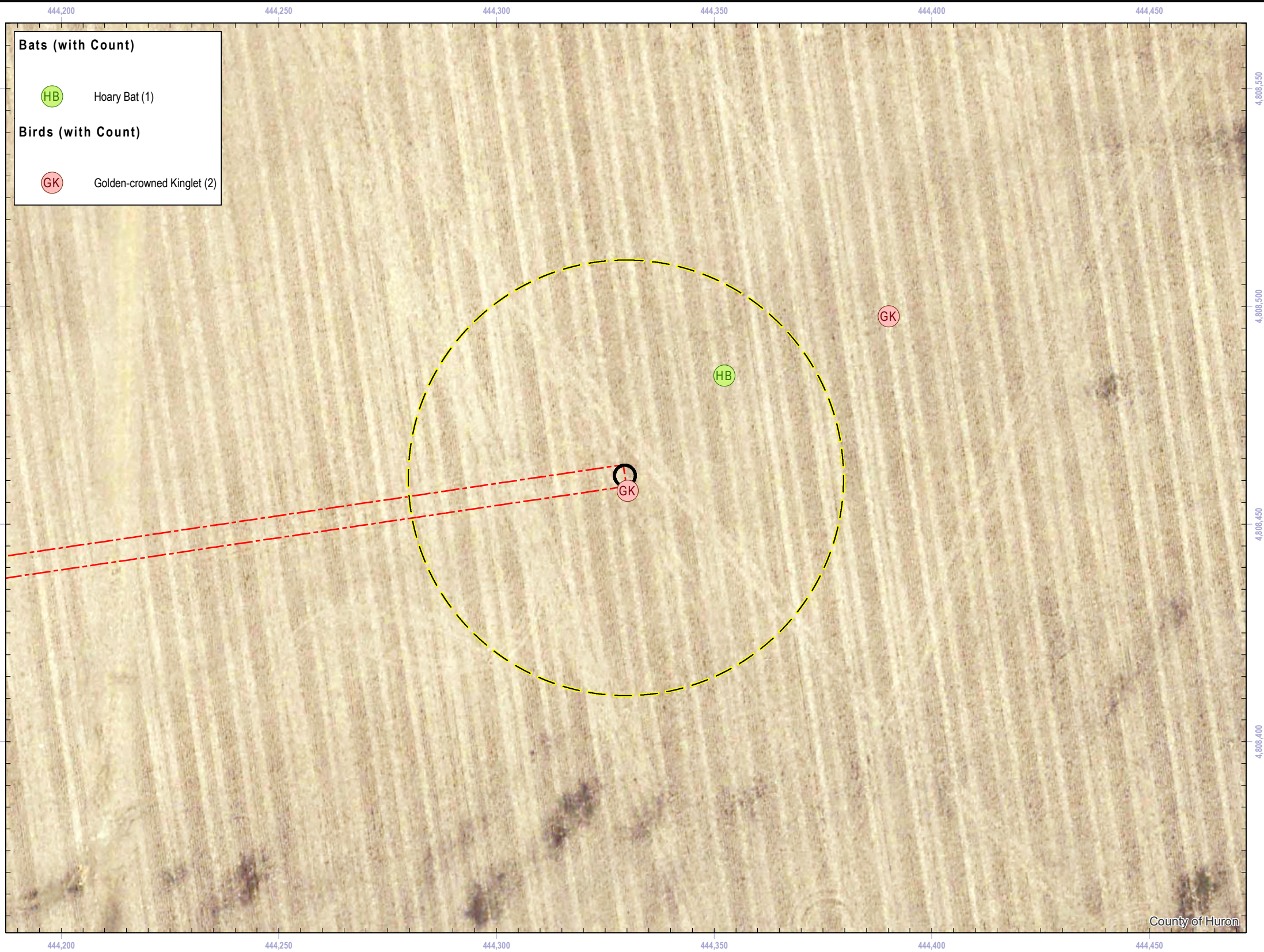
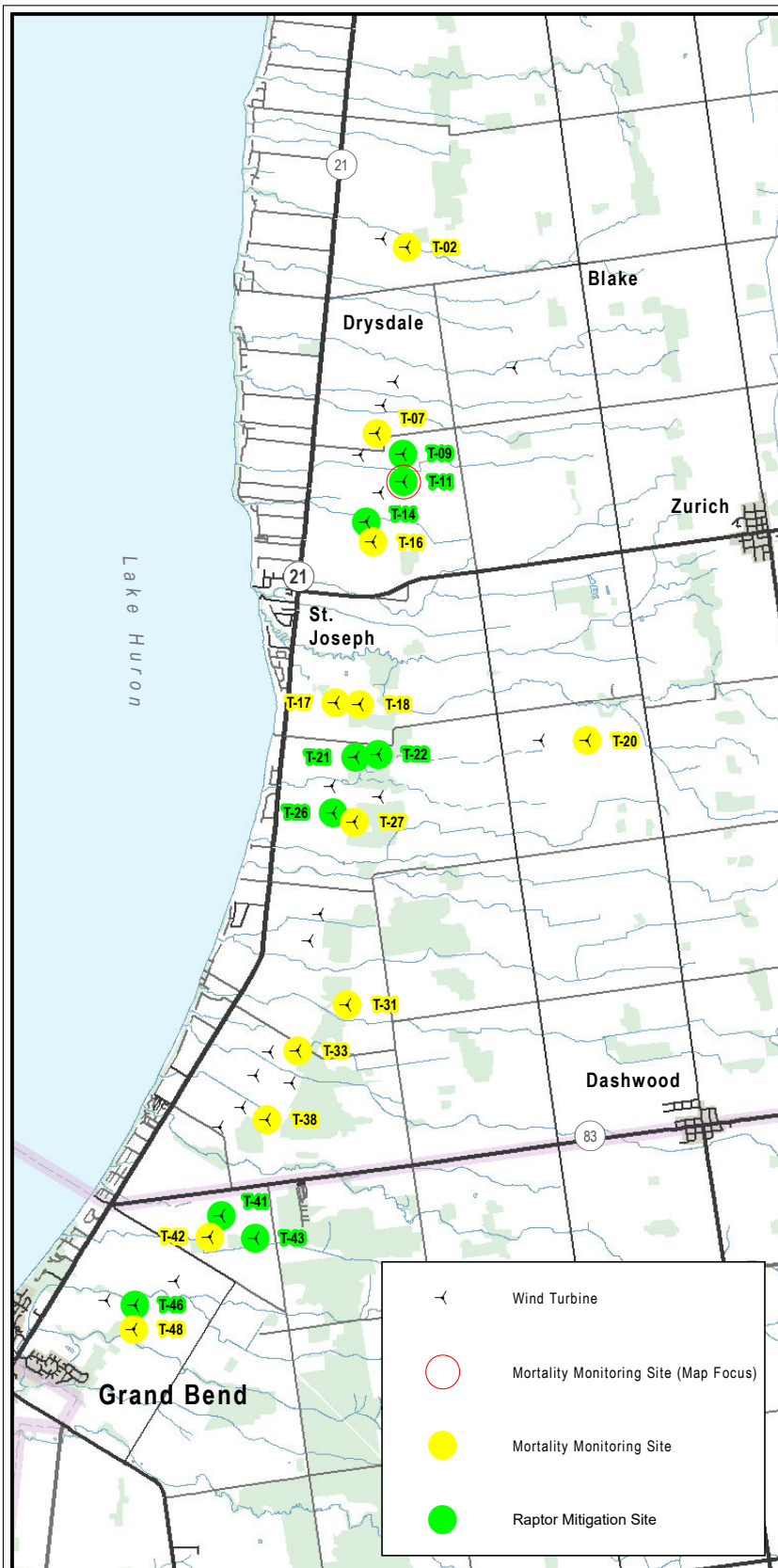
**BURNSIDE**

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-09  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-5</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		

H 1:1,000



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

Search Radius (50m)    
 Turbine Base Footprint  
 Approach to Turbine

Sources:

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

Notes:

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**BURNSIDE**

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-11  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-6</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m | False Northing: 0m  
 Rotation: 0 | Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80  
 Metres

Legend:

- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site
- Search Radius (50m)
- Turbine Base Footprint
- Approach to Turbine

Sources:

- Ministry of Natural Resources, © Queen's Printer for Ontario
- Natural Resources Canada © Her Majesty the Queen in Right of Canada.
- Huron County
- R.J. Burnside & Associates Limited

Notes:

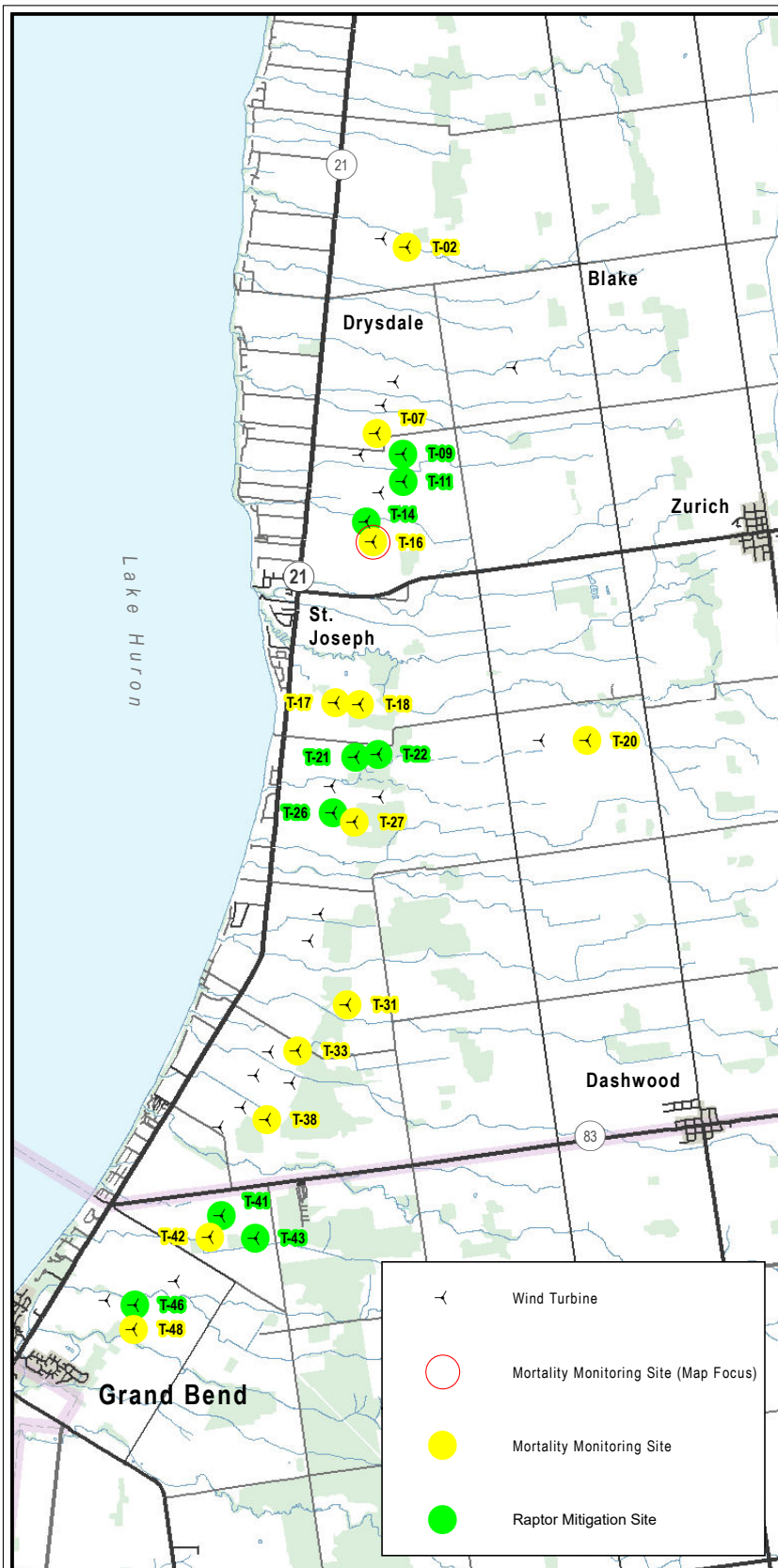
- Imagery reflects ground conditions in 2015.
- This map shows results for the 2018 monitoring year.

**BURNSIDE**

Client: **Grand Bend Wind GP Inc.**

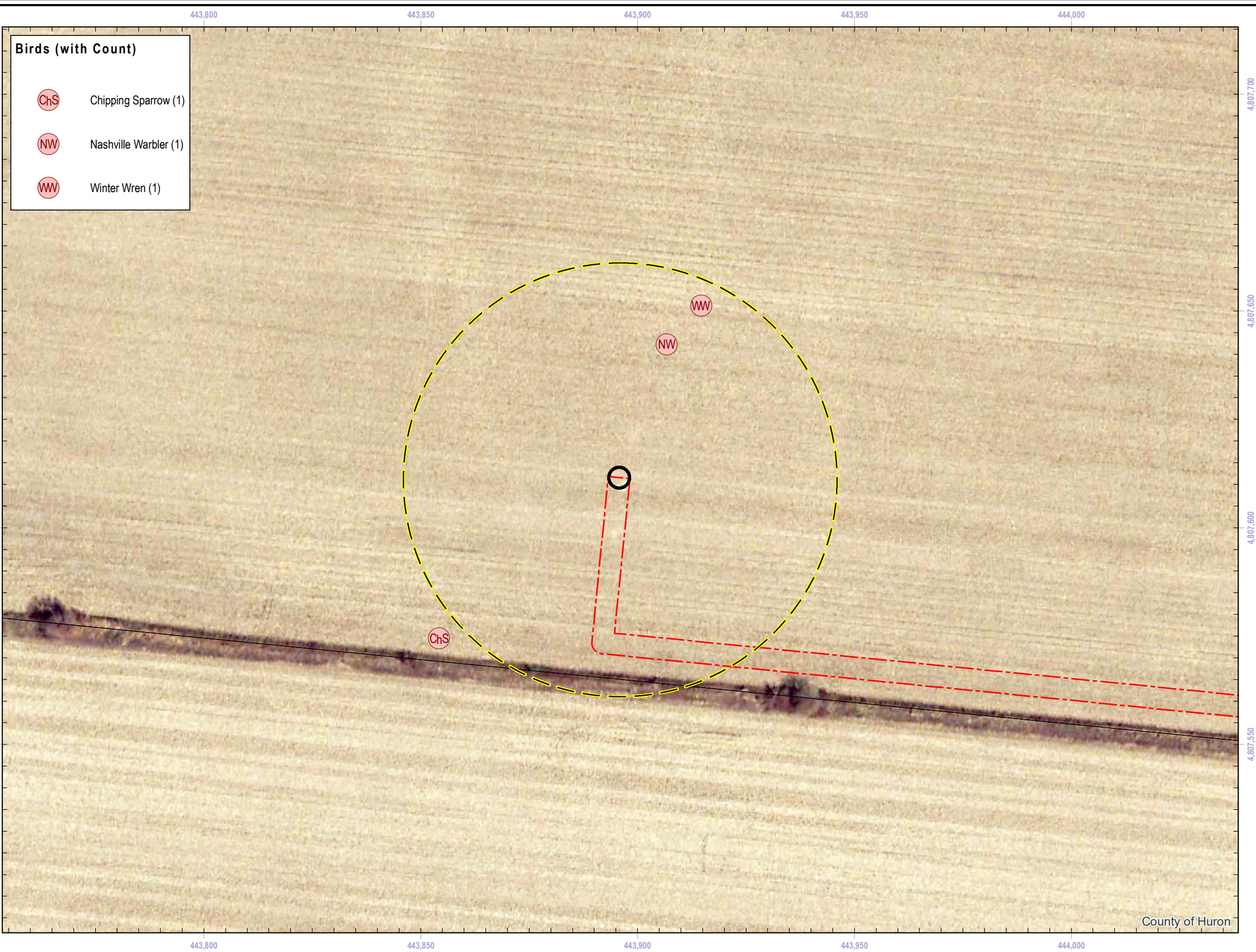
Figure Title: **Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
**Turbine T-14**  
**Carcass Search Results (2018)**

Drawn	Checked	Date	Figure No. <b>B-7</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Birds (with Count)**
- Chipping Sparrow (1)
  - Nashville Warbler (1)
  - Winter Wren (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

- Search Radius (50m)
- Turbine Base Footprint
- Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

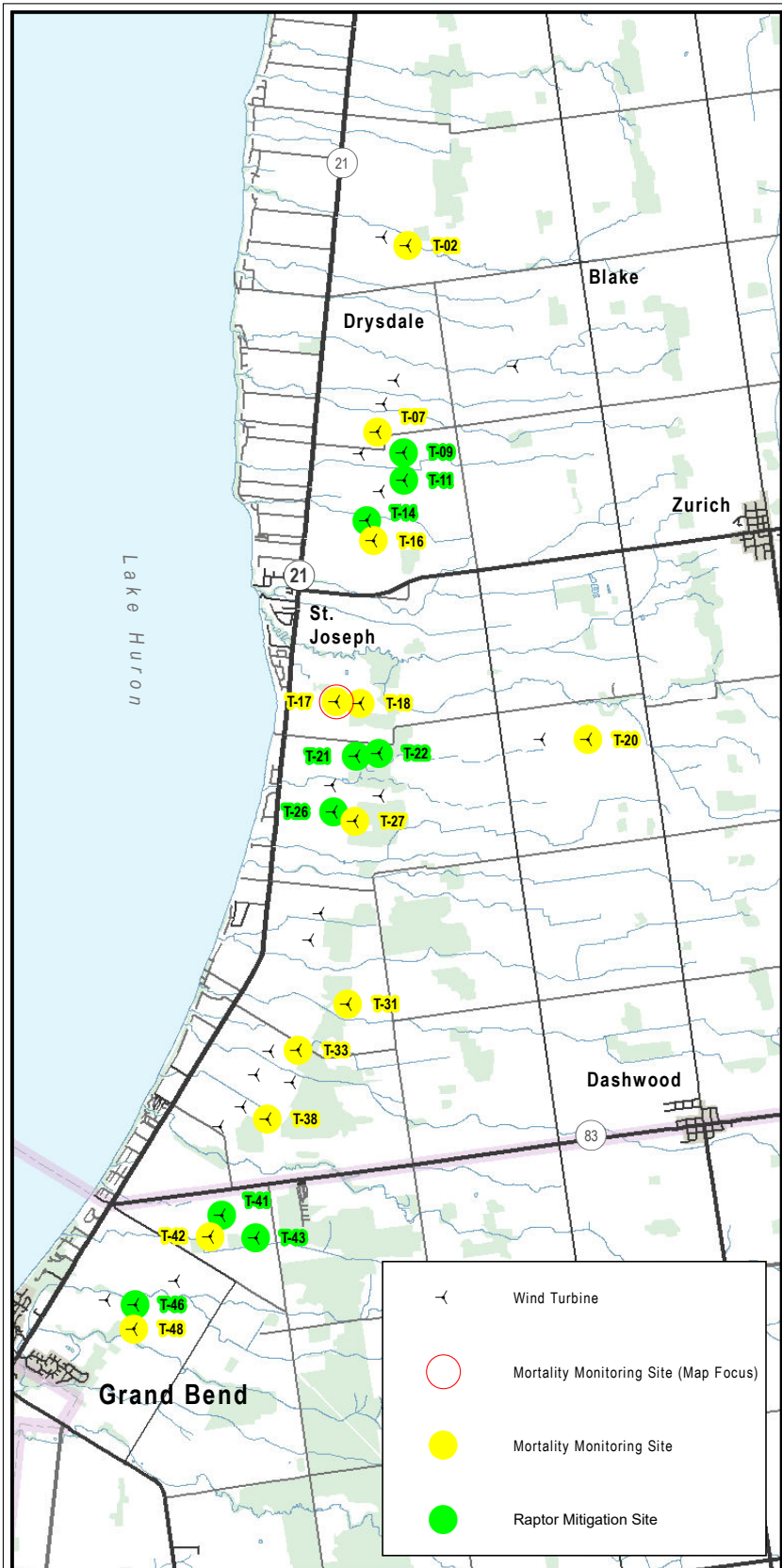
**Notes:**

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-16  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-8</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			

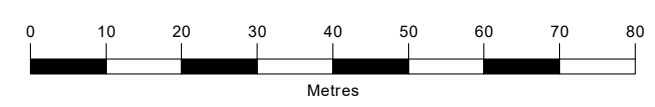
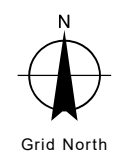


- Bats (with Count)**
- ER Eastern Red Bat (1)
  - HB Hoary Bat (1)
- Birds (with Count)**
- GK Golden-crowned Kinglet (1)
  - PM Purple Martin (1)

- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Search Radius (50m)
- Turbine Base Footprint
- Approach to Turbine

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960



**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

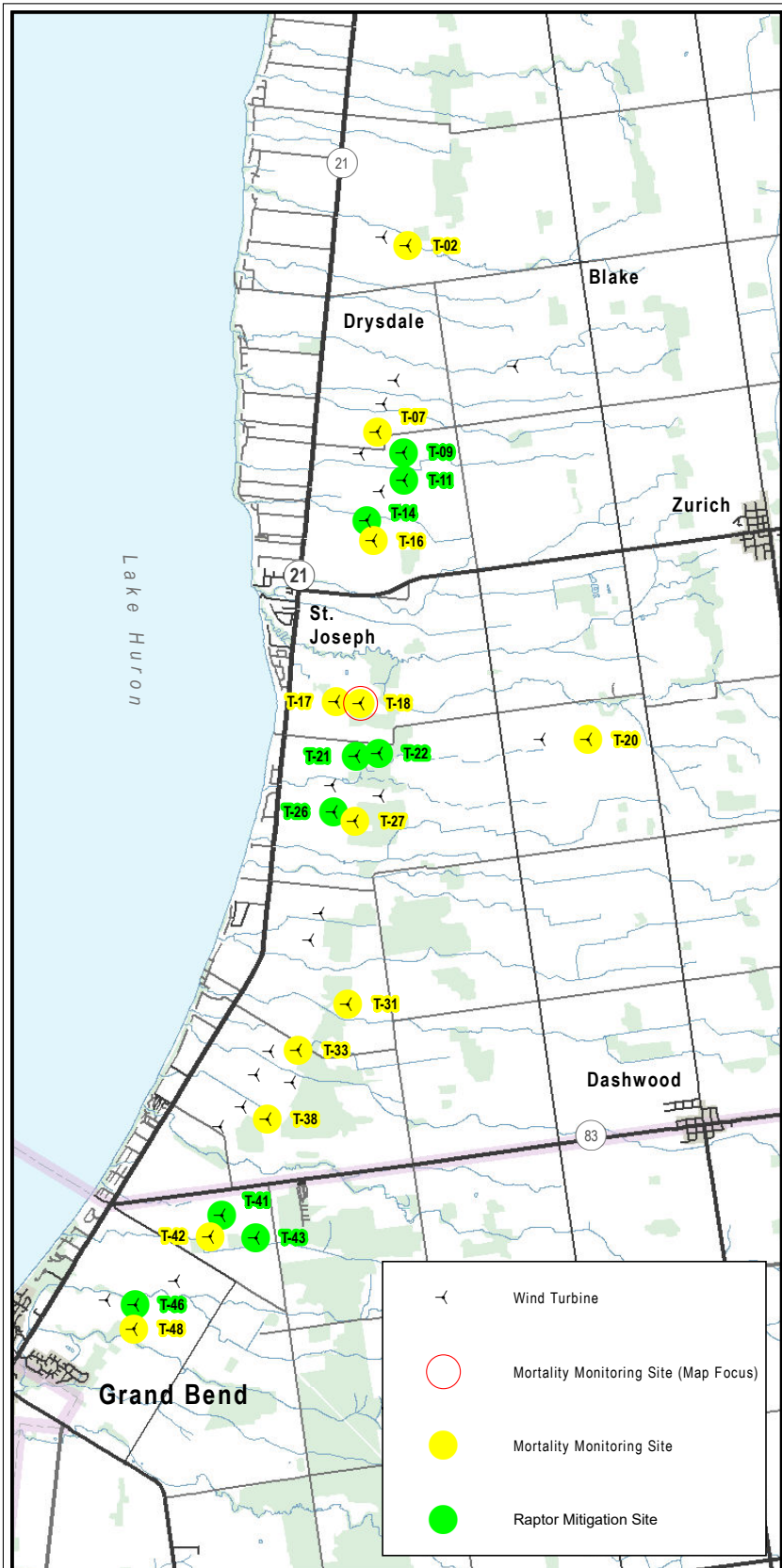
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.



Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-17  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-9</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



- Bats (with Count)**
- BB Big Brown Bat (1)
  - ER Eastern Red Bat (3)
  - HB Hoary Bat (3)
  - LM Little Brown Myotis (1)
  - SH Silver-haired Bat (2)
- Birds (with Count)**
- US Unknown Bird Species (2)
  - GK Golden-crowned Kinglet (2)
  - RB Red-winged Blackbird (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

Search Radius (50m)
 Turbine Base Footprint  
 Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

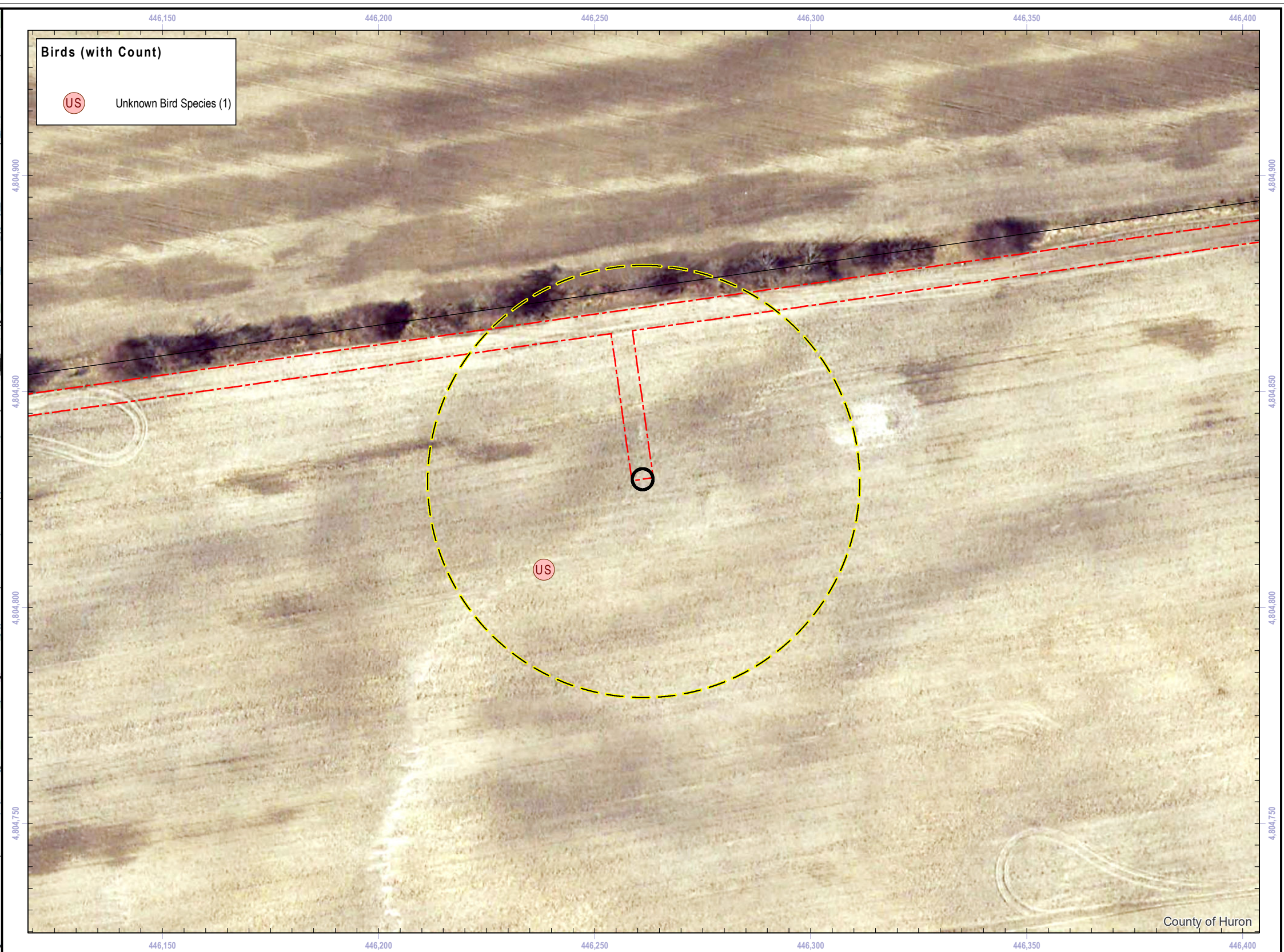
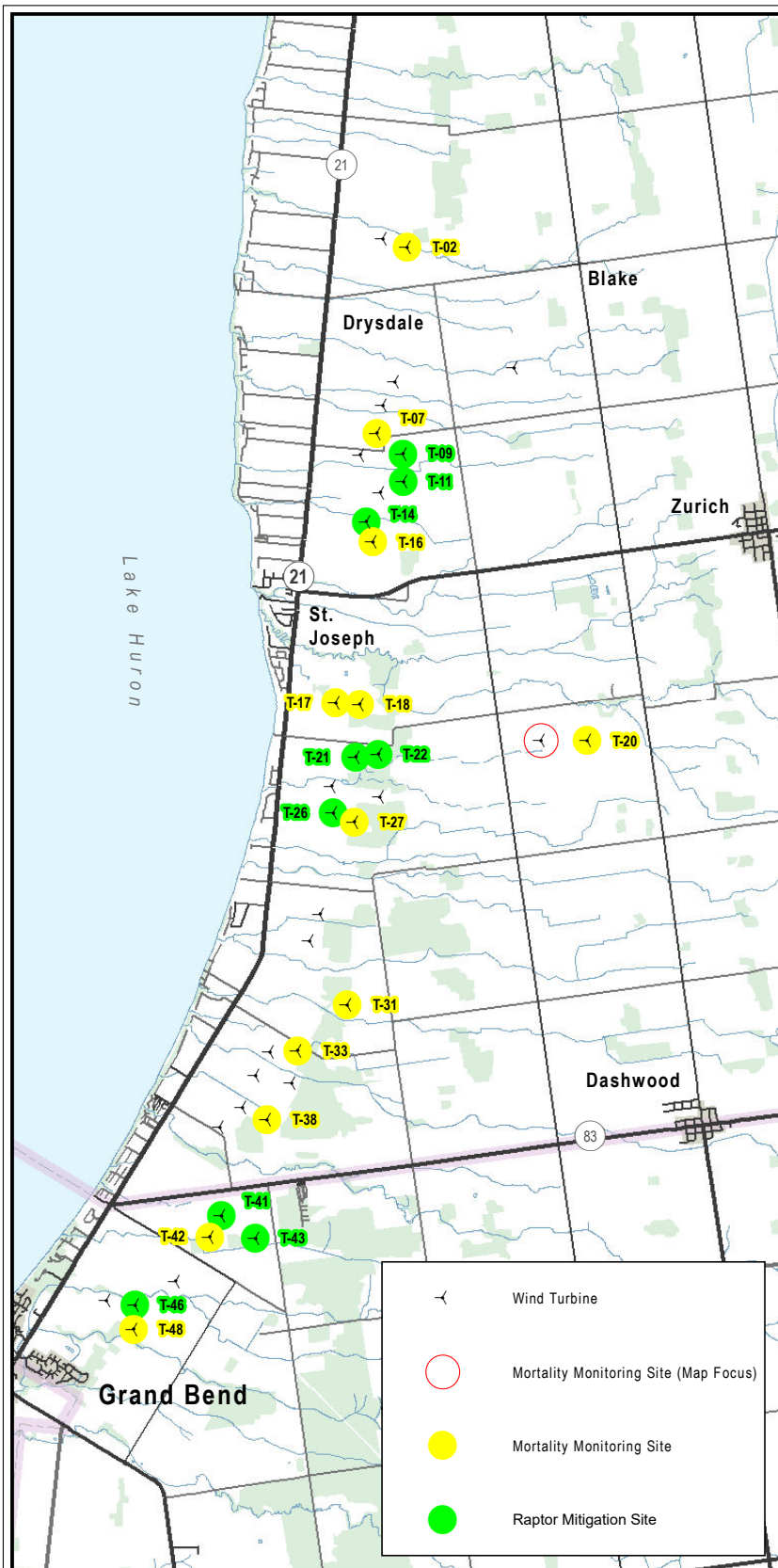
**Grand Bend Wind GP Inc.**

Client

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-18  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-10</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		

H 1:1,000



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

Search Radius (50m)
 Turbine Base Footprint

Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Client

Figure Title

**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**

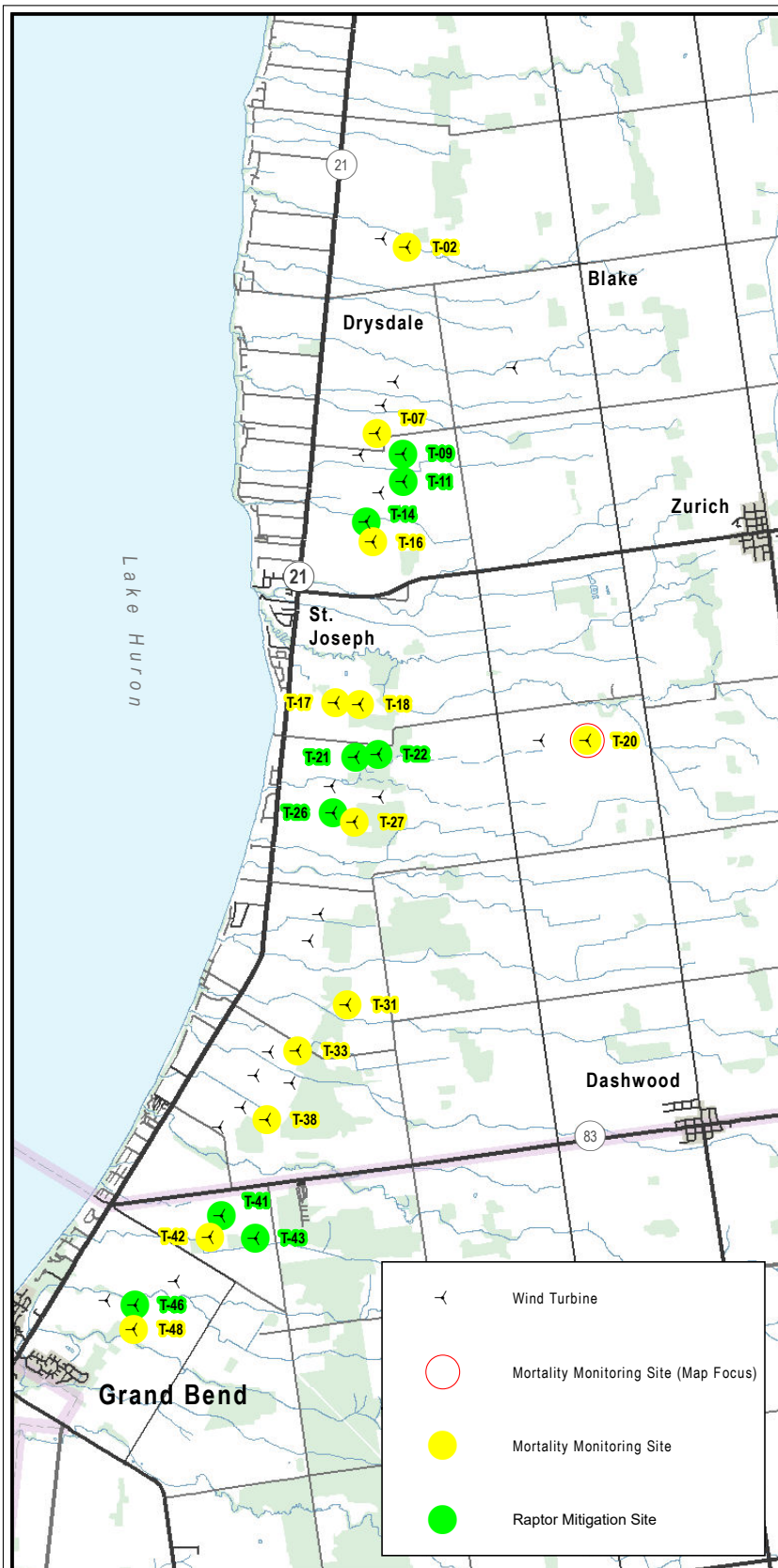
**Turbine T-19**

**Carcass Search Results (2018)**

Drawn	Checked	Date	Figure No.
PS	HM	2018/12/07	
Scale	Project No.		
H 1:1,000			<b>B-11</b>

PIA019991





- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Bats (with Count)**
- Eastern Red Bat (2)
  - Silver-haired Bat (2)
- Birds (with Count)**
- Unknown Bird Species (2)
  - Golden-crowned Kinglet (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Search Radius (50m)      Turbine Base Footprint

Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

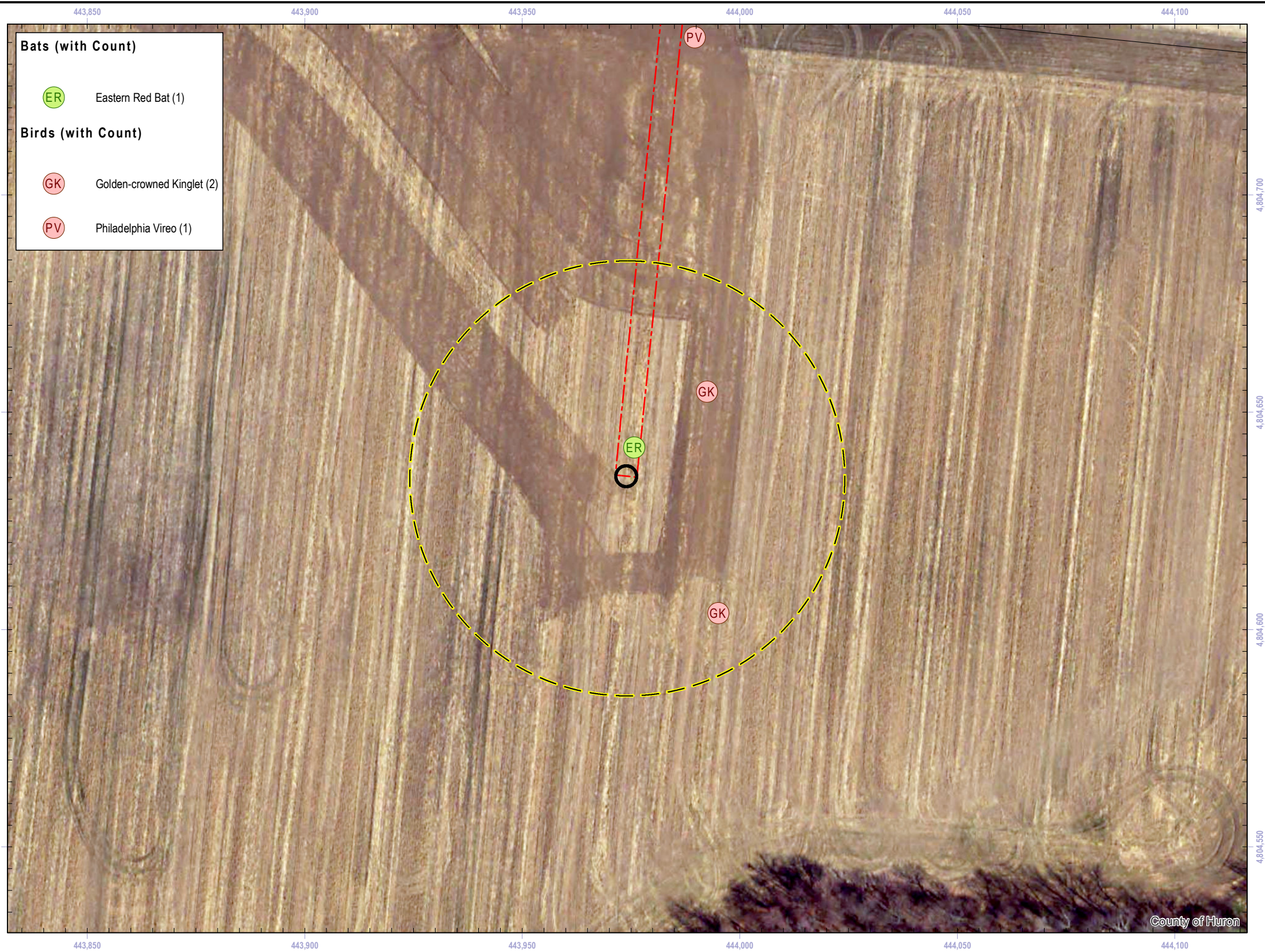
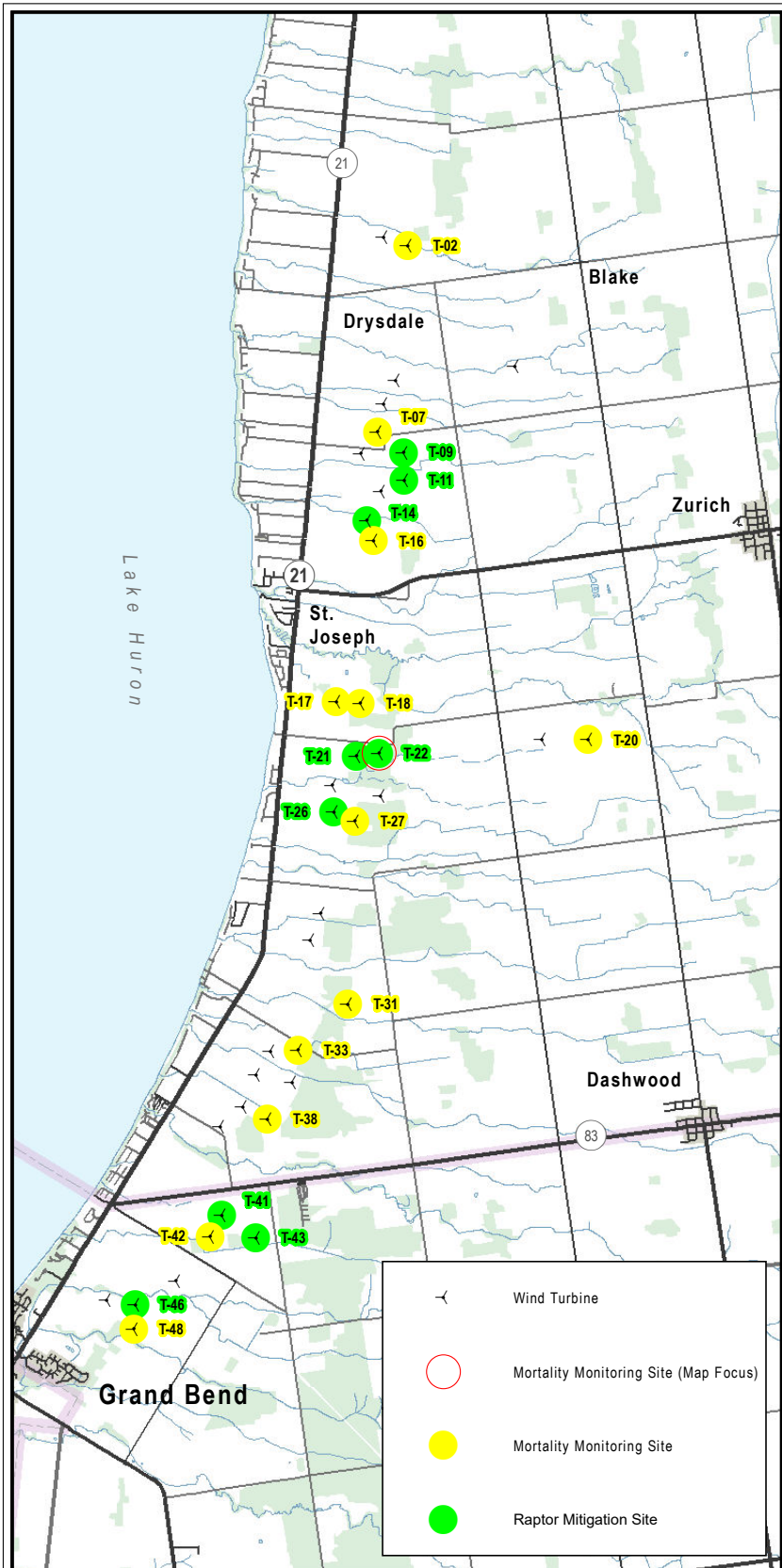
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-20  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-12</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		

H 1:1,000

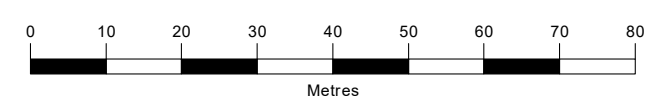
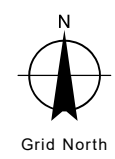


- Bats (with Count)**
- ER Eastern Red Bat (1)
- Birds (with Count)**
- GK Golden-crowned Kinglet (2)
  - PV Philadelphia Vireo (1)

- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Search Radius (50m)
- Turbine Base Footprint
- Approach to Turbine

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960



**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

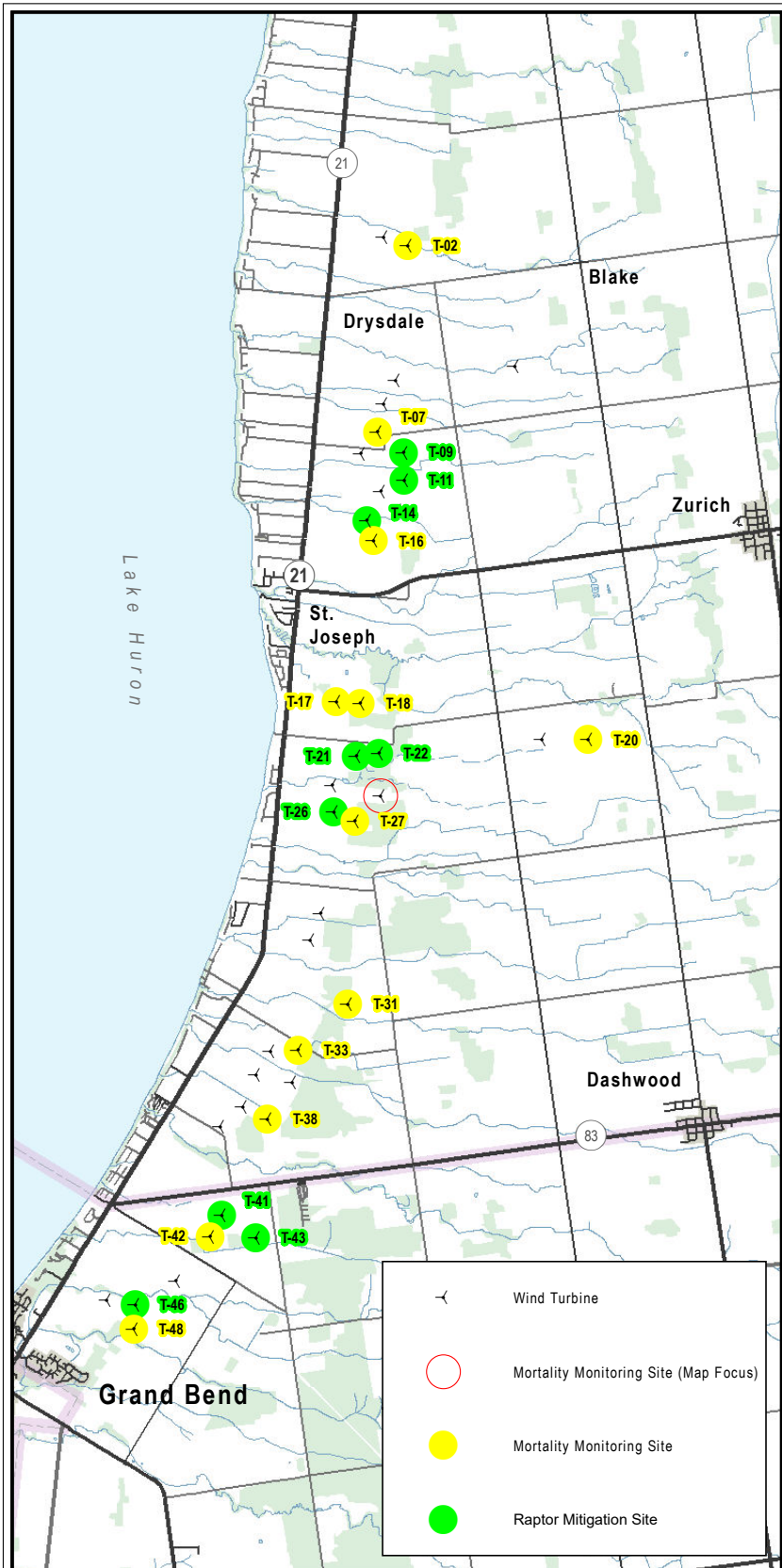
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.



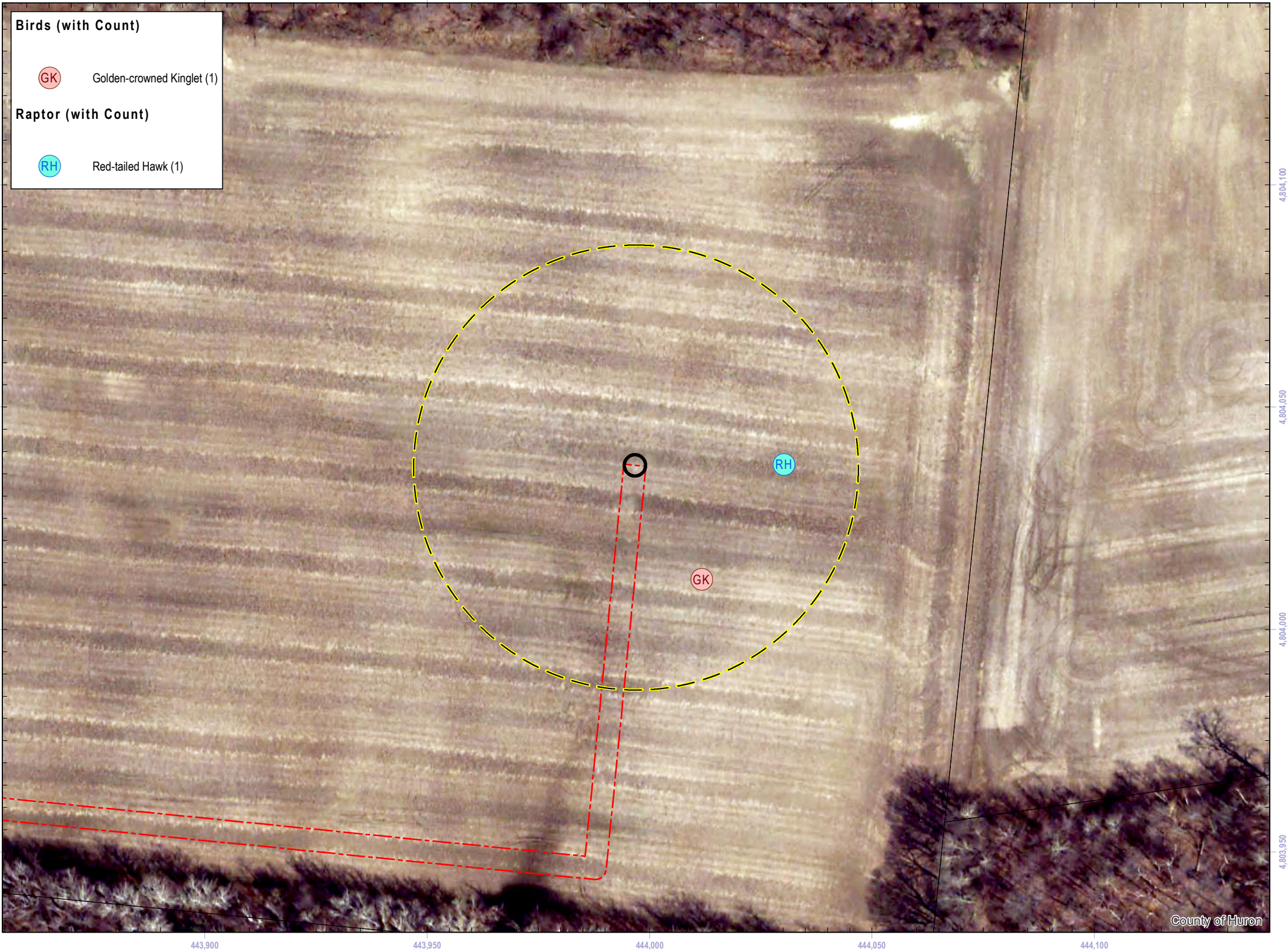
Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-22  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-13</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



- Birds (with Count)**
- Ⓞ GK Golden-crowned Kinglet (1)
- Raptor (with Count)**
- Ⓞ RH Red-tailed Hawk (1)



- Wind Turbine
- Ⓞ Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

- Ⓞ Search Radius (50m)
- Ⓞ Turbine Base Footprint
- Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Client

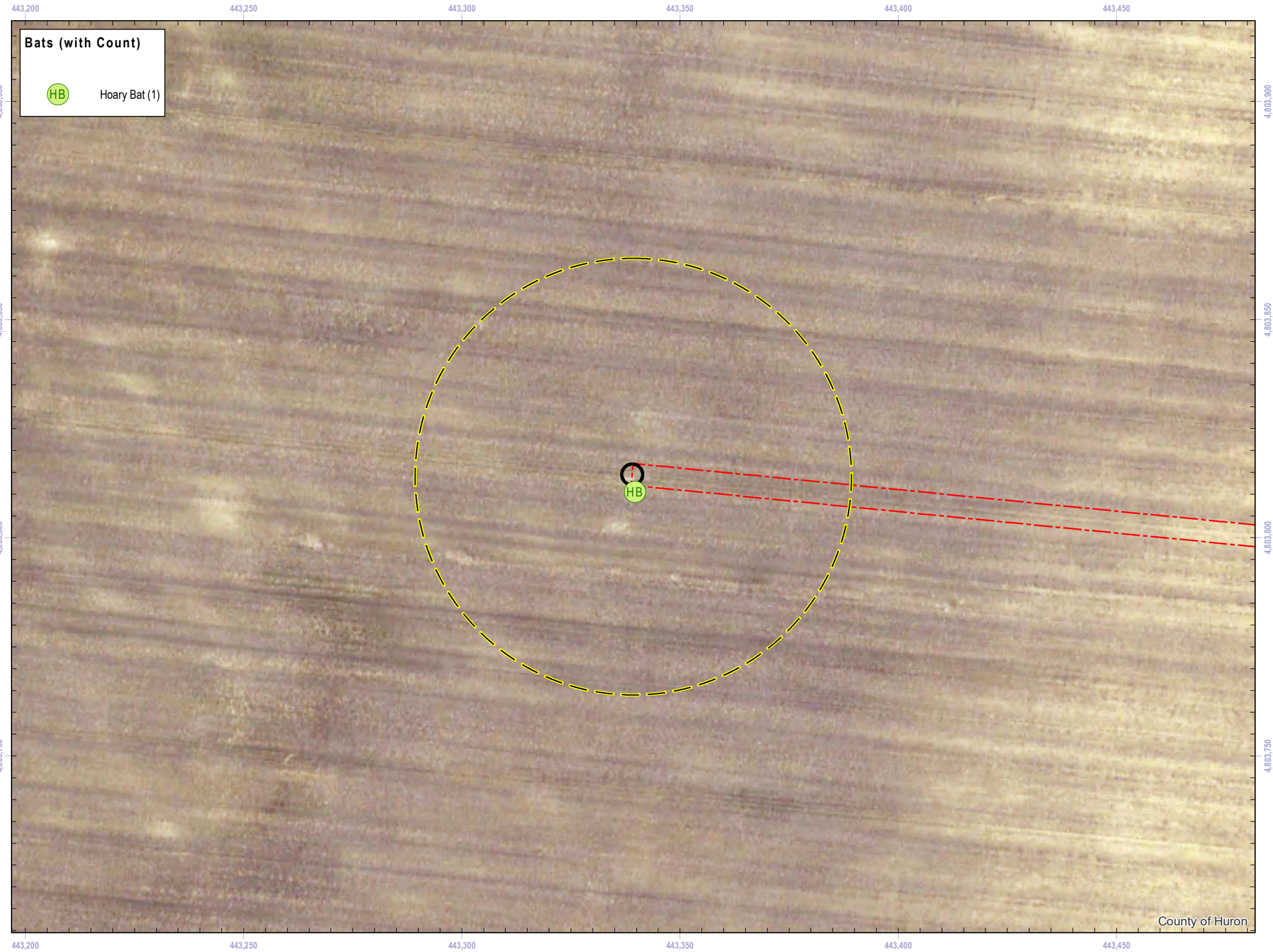
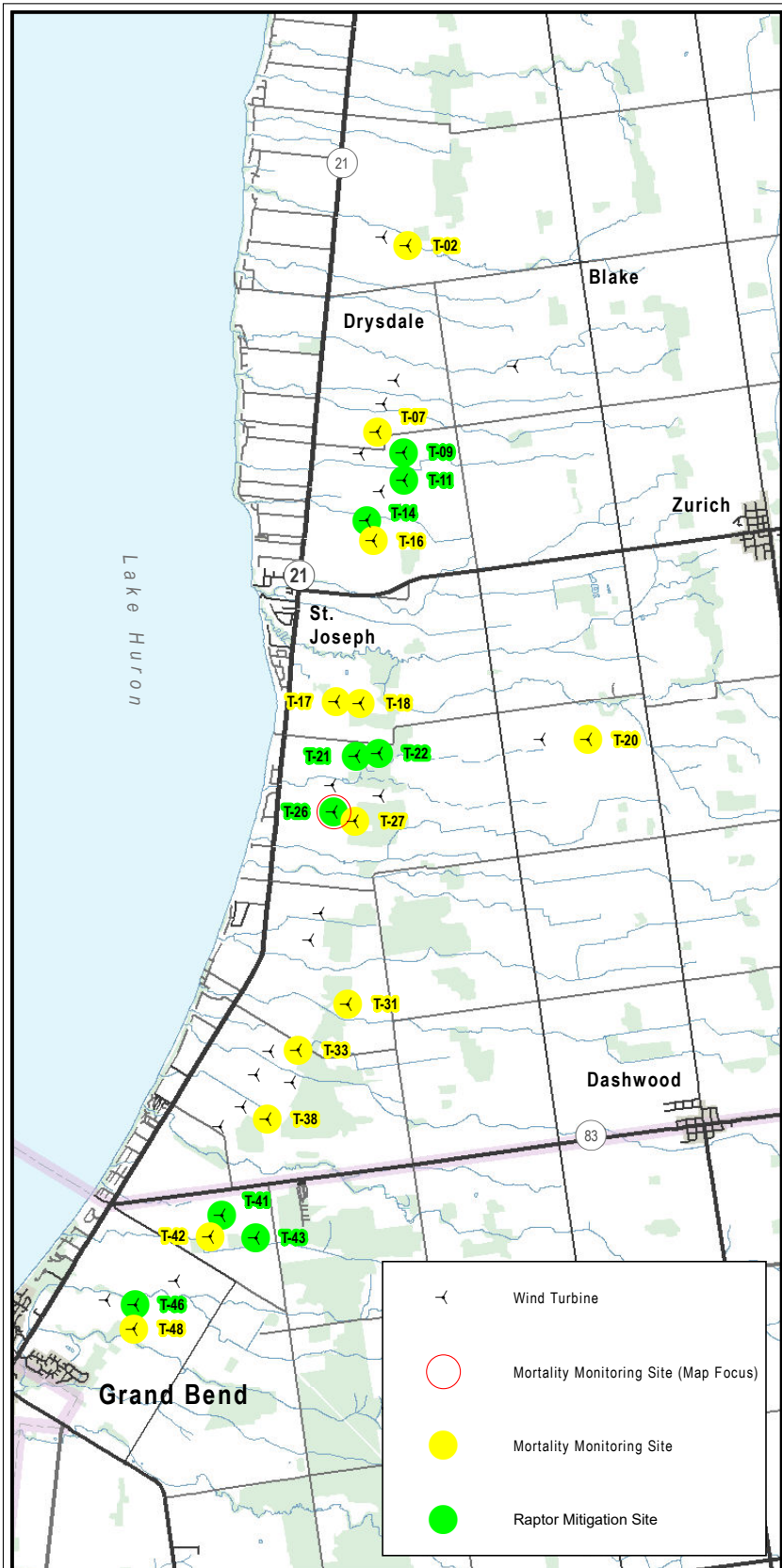
Figure Title

**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**

Turbine T-25  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No.
PS	HM	2018/12/07	
Scale	Project No.		
H 1:1,000			PIA019991

**B-14**



**Bats (with Count)**

HB Hoary Bat (1)

Wind Turbine

Mortality Monitoring Site (Map Focus)

Mortality Monitoring Site

Raptor Mitigation Site

Search Radius (50m)

Turbine Base Footprint

Approach to Turbine

Datum: North American 1983

Coord. System: NAD 1983 UTM Zone 17N

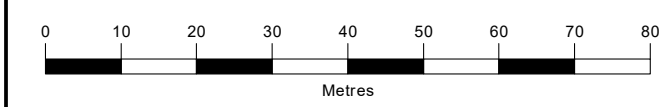
Projection: Transverse Mercator

Central Meridian: 81°0'0.00"W

False Easting: 500,000m False Northing: 0m

Rotation: 0 Scale Factor: 0.99960

Grid North



**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.



Client

**Grand Bend Wind GP Inc.**

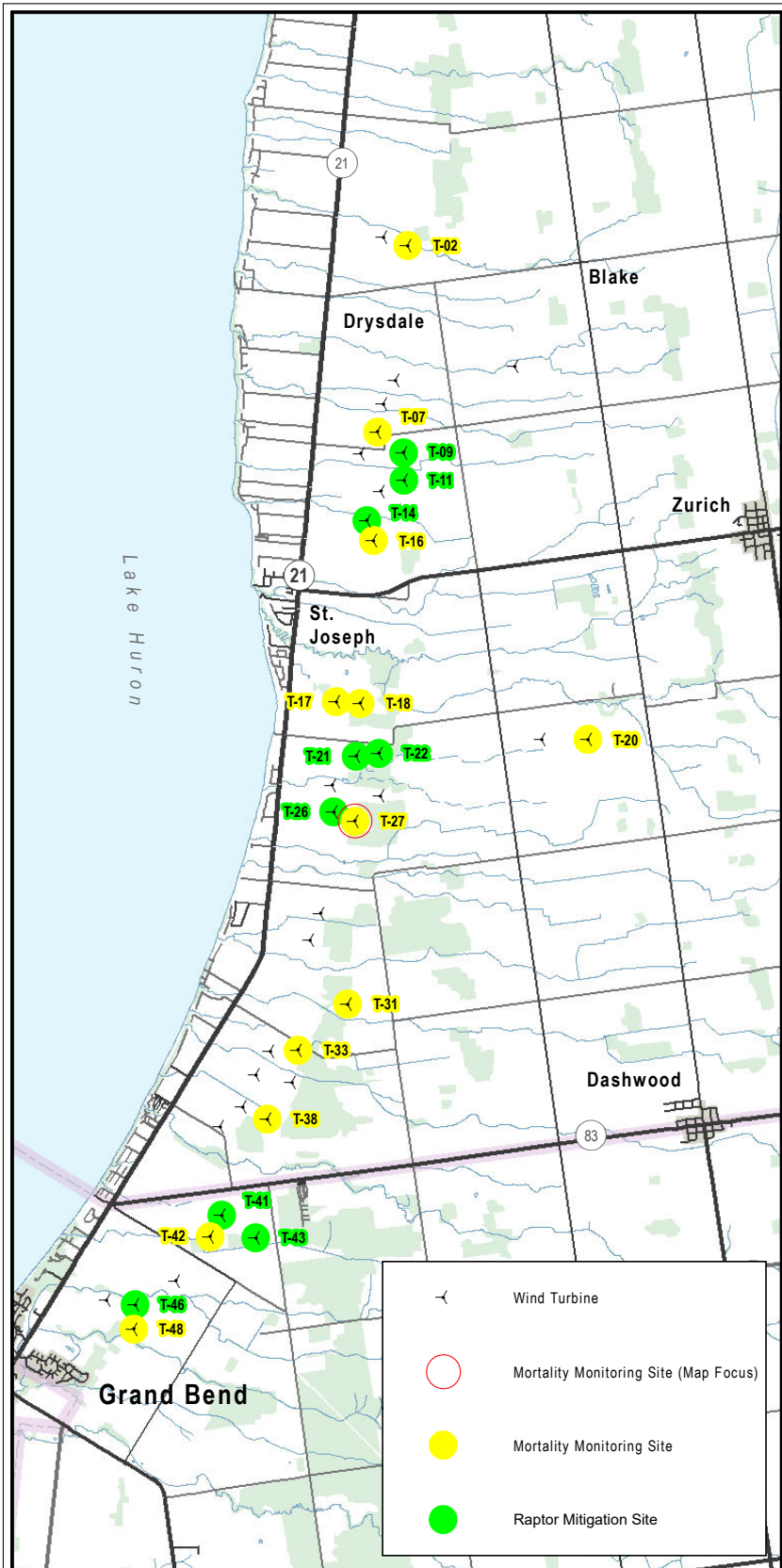
Figure Title

**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**

Turbine T-26

Carcass Search Results (2018)

Drawn	Checked	Date	Figure No.
PS	HM	2018/12/07	
Scale	Project No.		
H 1:1,000			<b>B-15</b>



- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Bats (with Count)**
- Unknown Bat Species (1)
  - Eastern Red Bat (1)
- Birds (with Count)**
- Unknown Bird Species (1)
  - Golden-crowned Kinglet (1)
  - Swamp Sparrow (1)
- Raptor (with Count)**
- Red-tailed Hawk (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80  
 Metres

Search Radius (50m)      Turbine Base Footprint

Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

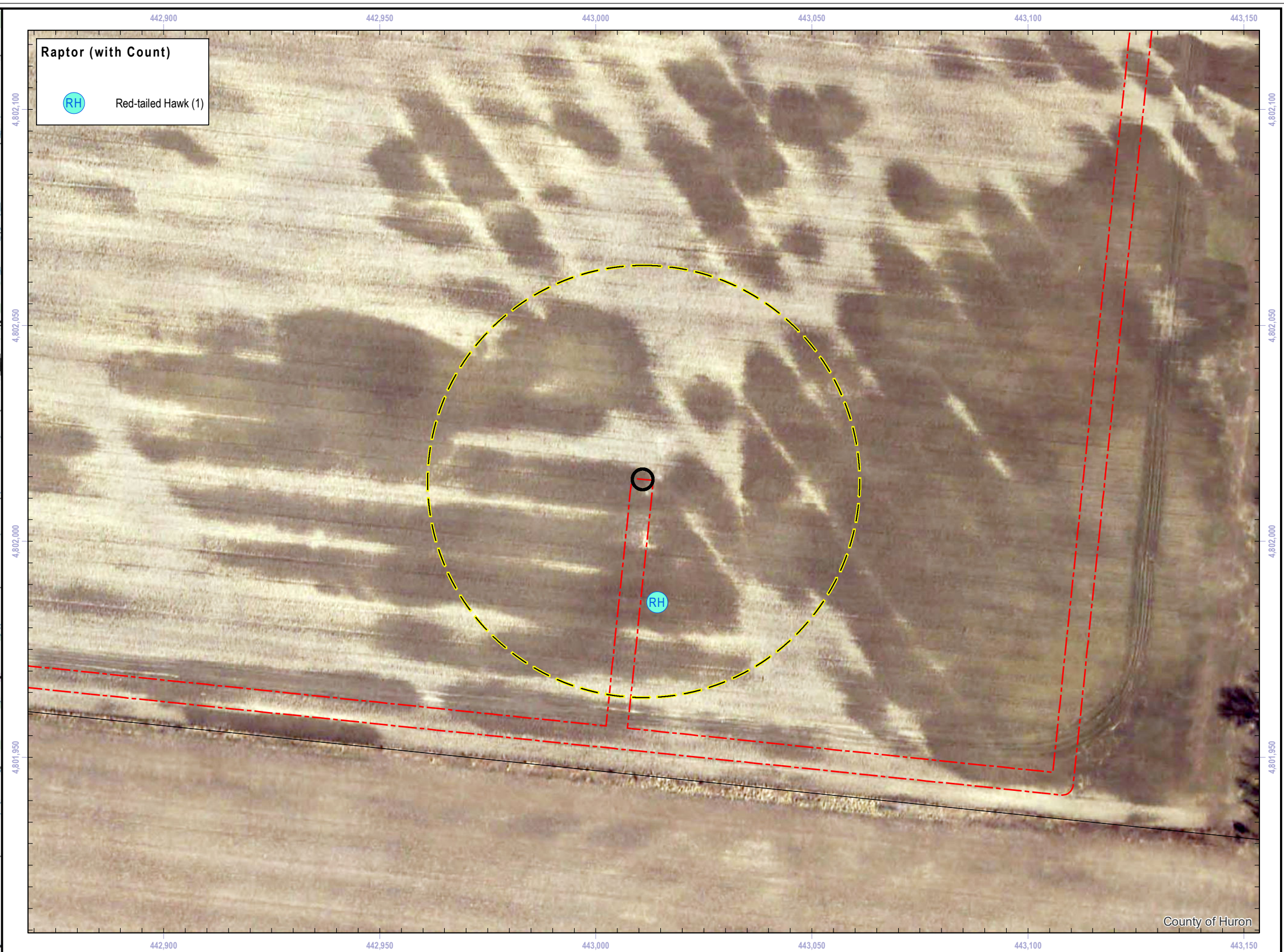
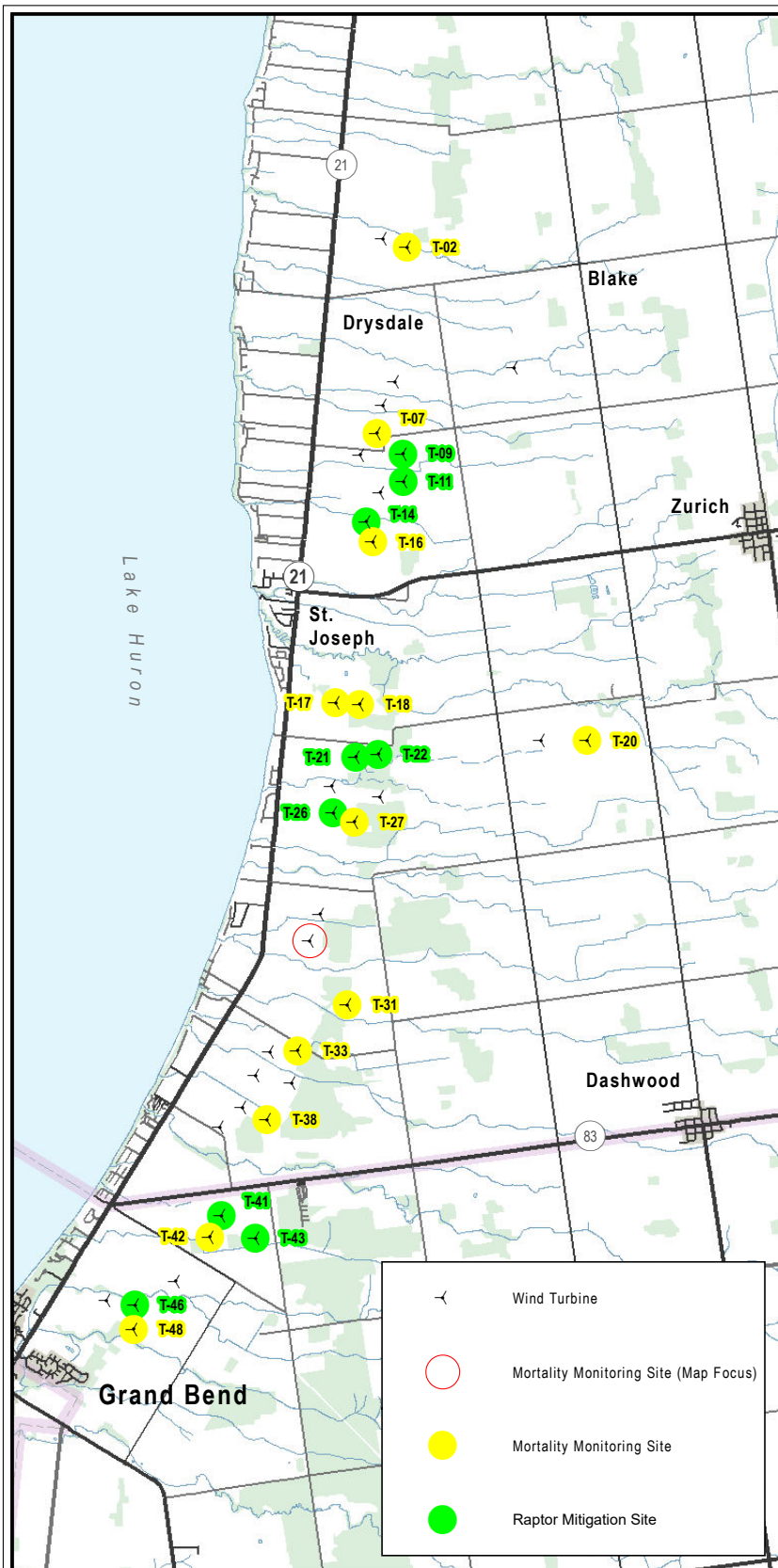
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**BURNSIDE**

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-27  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No.
PS	HM	2018/12/07	
Scale	Project No.		<b>B-16</b>
H 1:1,000	PIA019991		



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

Search Radius (50m)
 Turbine Base Footprint

Approach to Turbine

Sources:

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

Notes:

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

Client

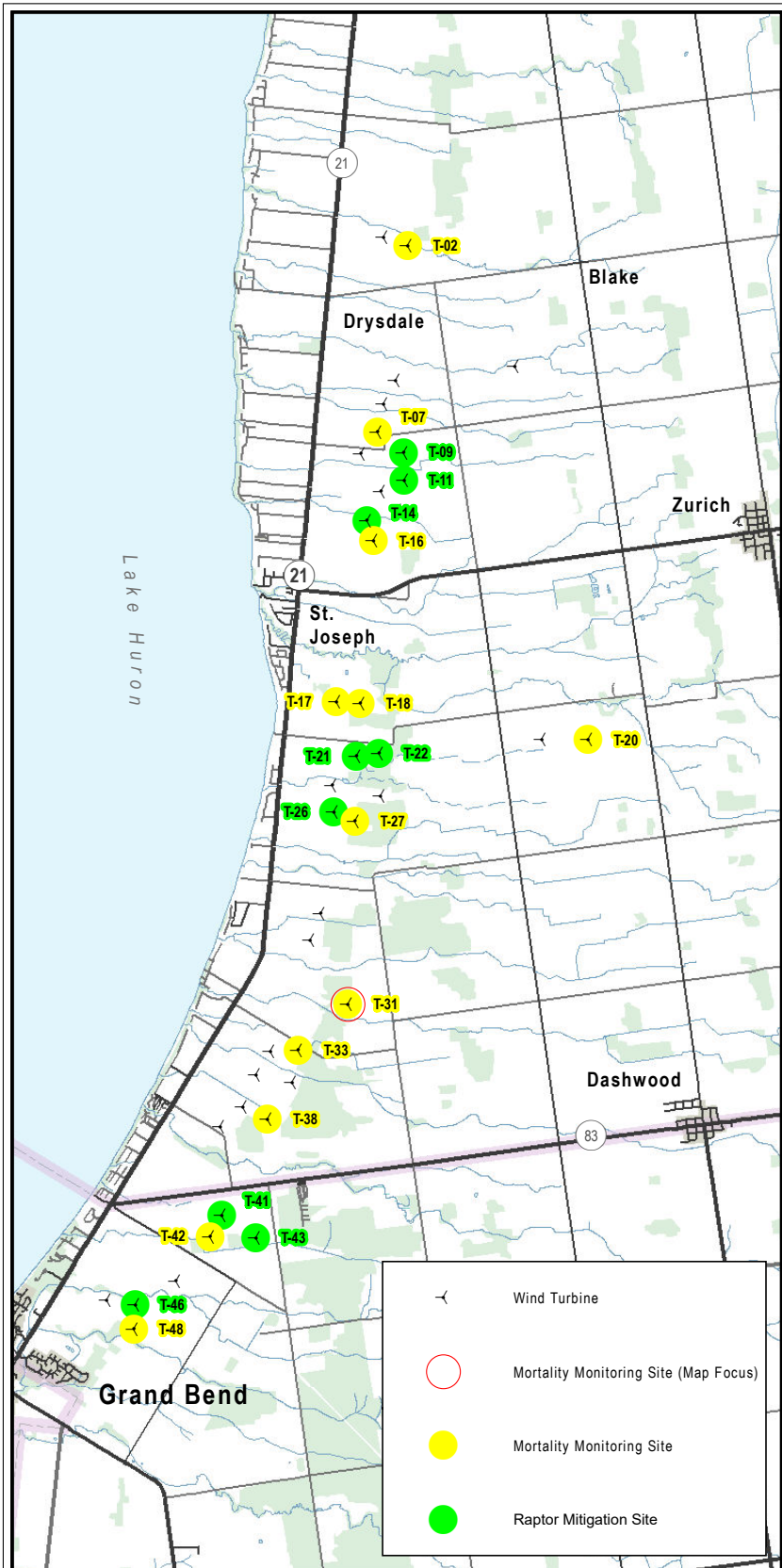
**Grand Bend Wind GP Inc.**

Figure Title

**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**

Turbine T-30  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-17</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:1,000			PIA019991



- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

**Bats (with Count)**

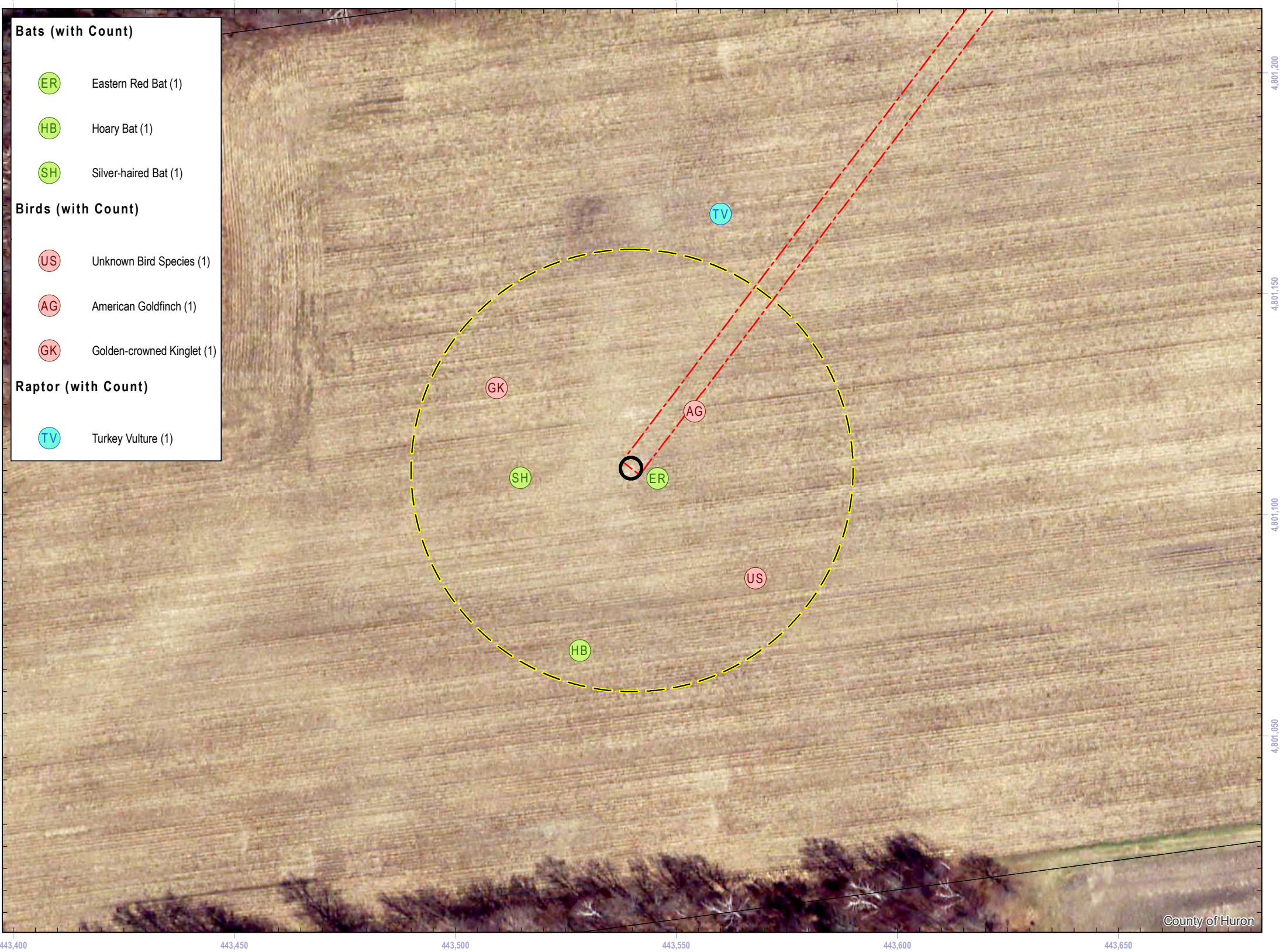
- Eastern Red Bat (1)
- Hoary Bat (1)
- Silver-haired Bat (1)

**Birds (with Count)**

- Unknown Bird Species (1)
- American Goldfinch (1)
- Golden-crowned Kinglet (1)

**Raptor (with Count)**

- Turkey Vulture (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80  
Metres

Search Radius (50m)      Turbine Base Footprint

Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

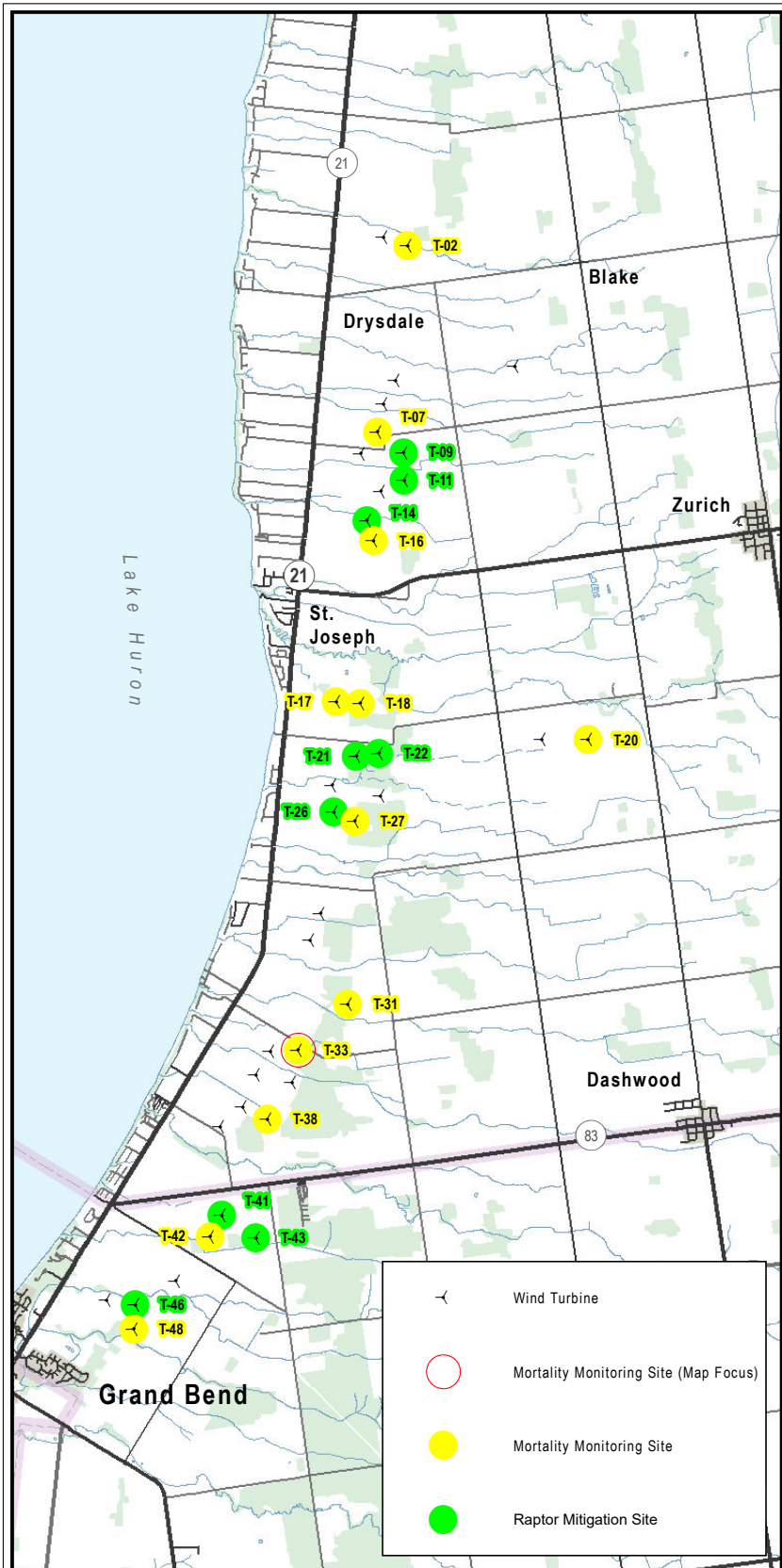
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**BURNSIDE**

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-31  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-18</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

- Bats (with Count)**
- Eastern Red Bat (1)
- Birds (with Count)**
- Mallard (1)
  - Purple Martin (1)
  - Ring-billed Gull (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80  
 Metres

Search Radius (50m)      Turbine Base Footprint

Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

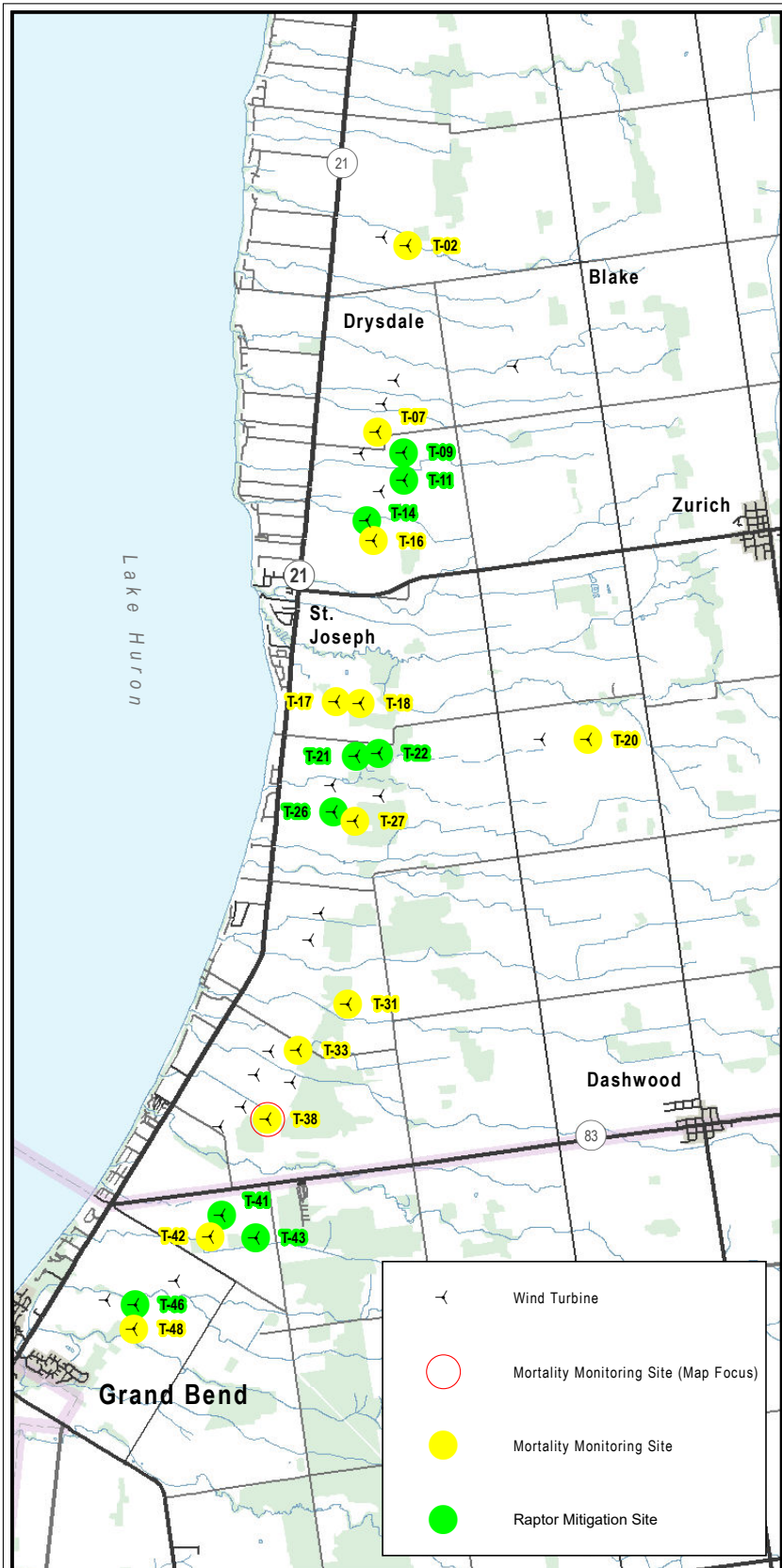
**BURNSIDE**

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-33  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-19</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			





- Bats (with Count)**
- SH Silver-haired Bat (1)
- Birds (with Count)**
- BC Black-capped Chickadee (1)
  - CS Cliff Swallow (1)
  - DJ Dark-eyed Junco (1)
  - GK Golden-crowned Kinglet (1)
  - HW House Wren (1)
  - PM Purple Martin (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80  
 Metres

Search Radius (50m)    
 Turbine Base Footprint  
 Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

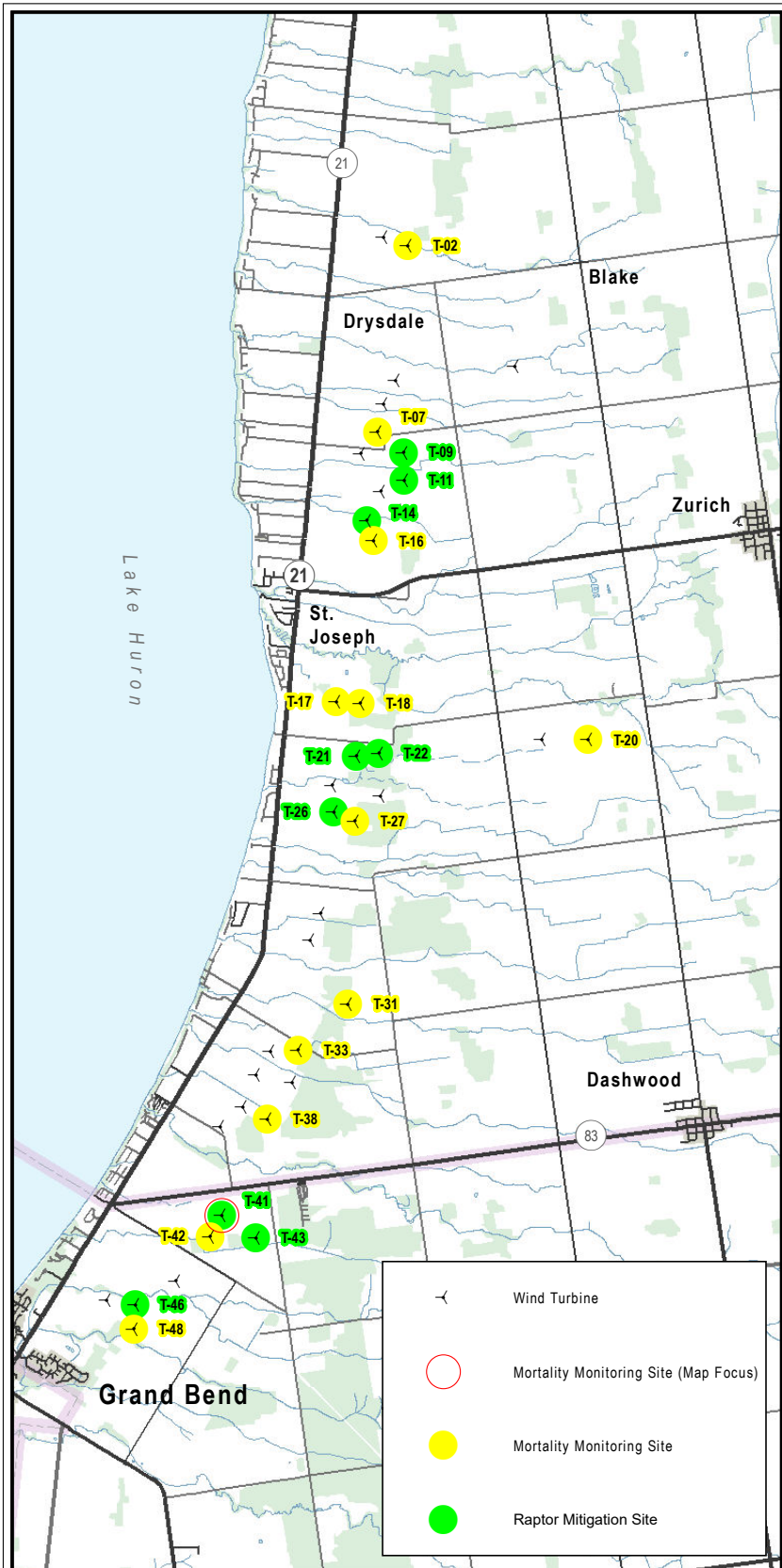
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Client

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-38  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-20</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:1,000			PIA019991



- Bats (with Count)**
- BB Big Brown Bat (1)
  - HB Hoary Bat (1)
  - LM Little Brown Myotis (1)
- Birds (with Count)**
- HL Horned Lark (1)
  - SWS Swamp Sparrow (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

**Sources:**

- Ministry of Natural Resources, © Queen's Printer for Ontario
- Natural Resources Canada © Her Majesty the Queen in Right of Canada.
- Huron County
- R.J. Burnside & Associates Limited

**Notes:**

- Imagery reflects ground conditions in 2015.
- This map shows results for the 2018 monitoring year.

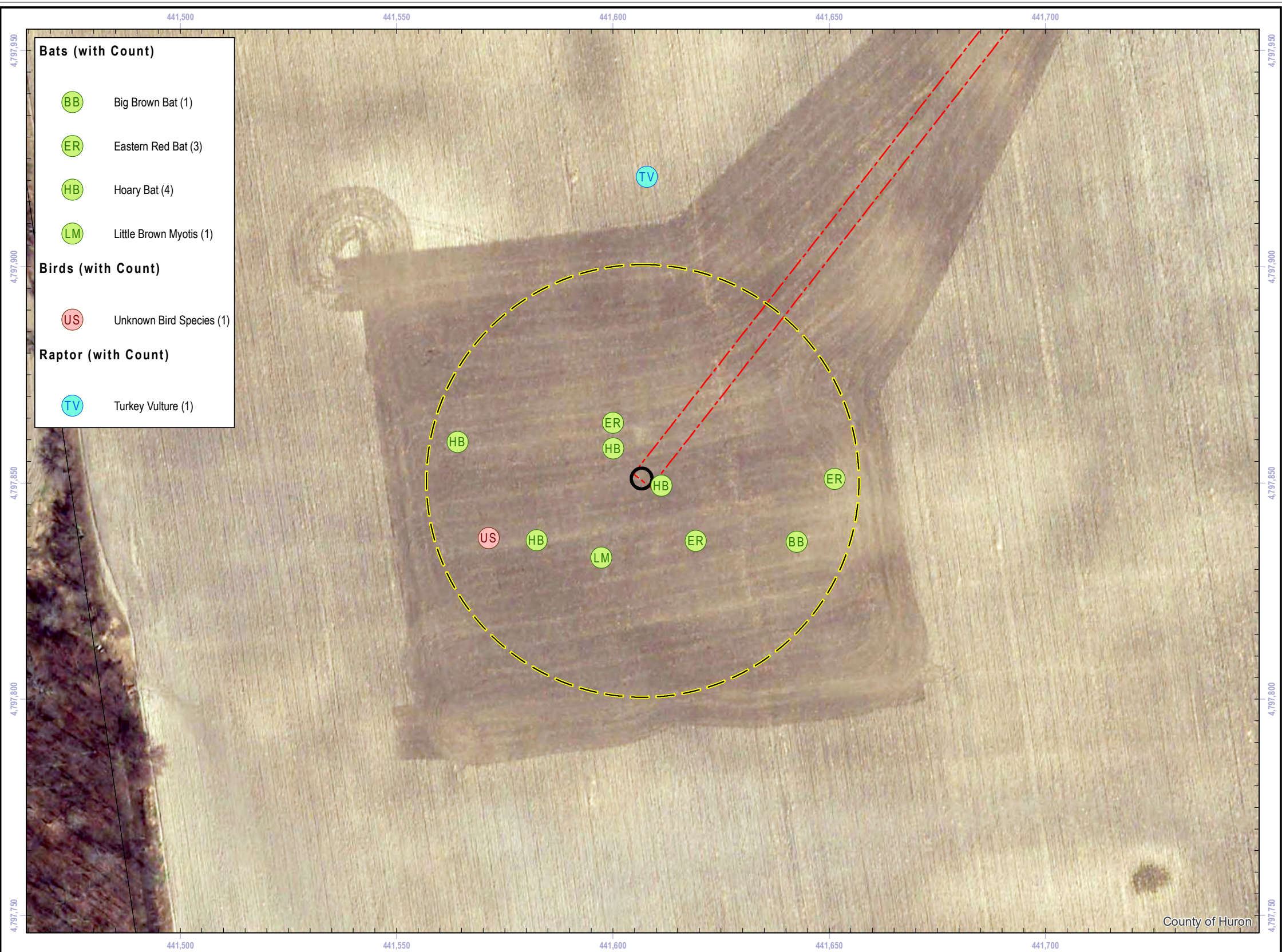
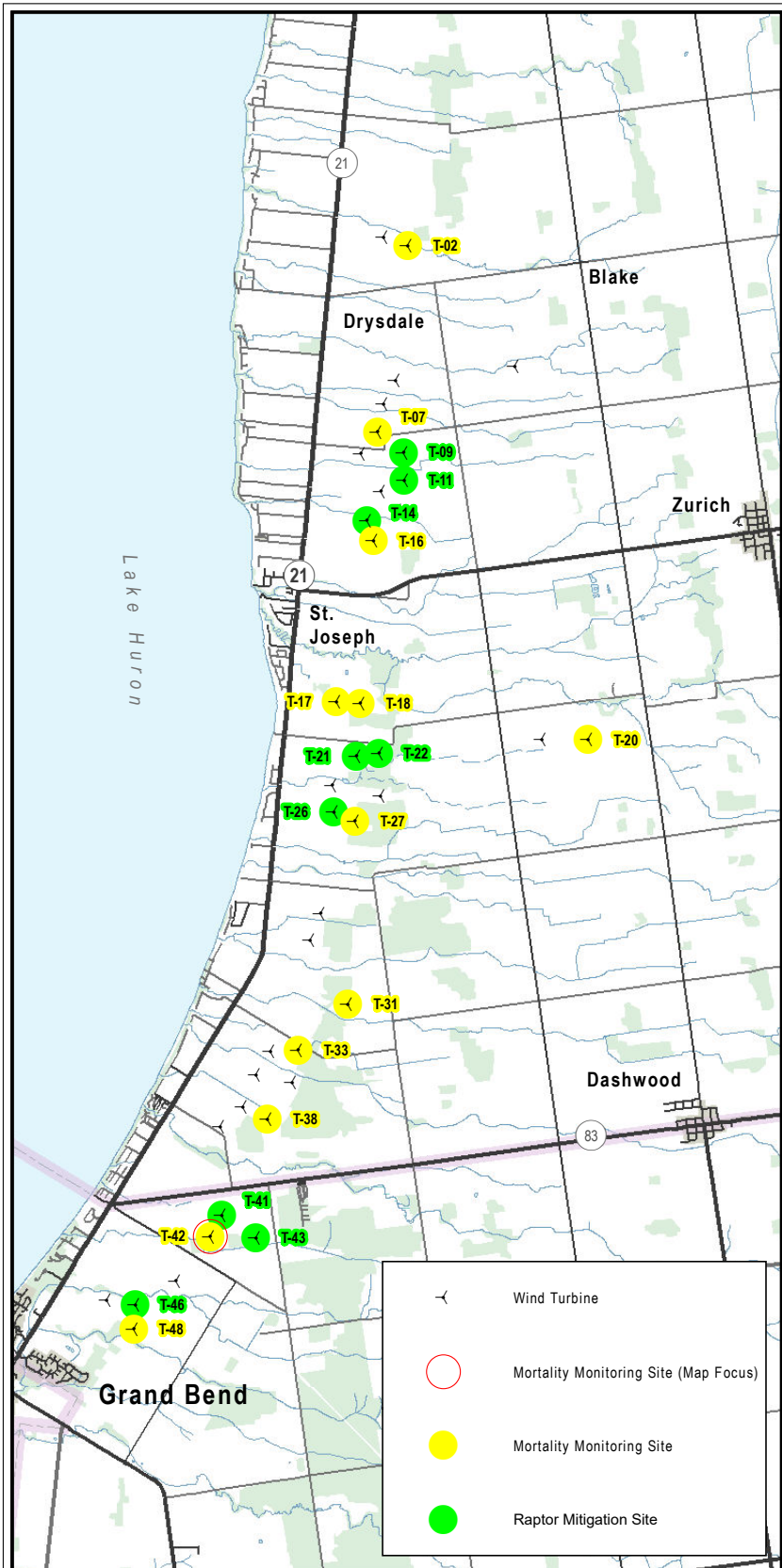
**BURNSIDE**

Client: **Grand Bend Wind GP Inc.**

Figure Title: **Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
**Turbine T-41**  
**Carcass Search Results (2018)**

Drawn	Checked	Date	Figure No. <b>B-21</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		

H 1:1,000



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

Search Radius (50m) Turbine Base Footprint Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

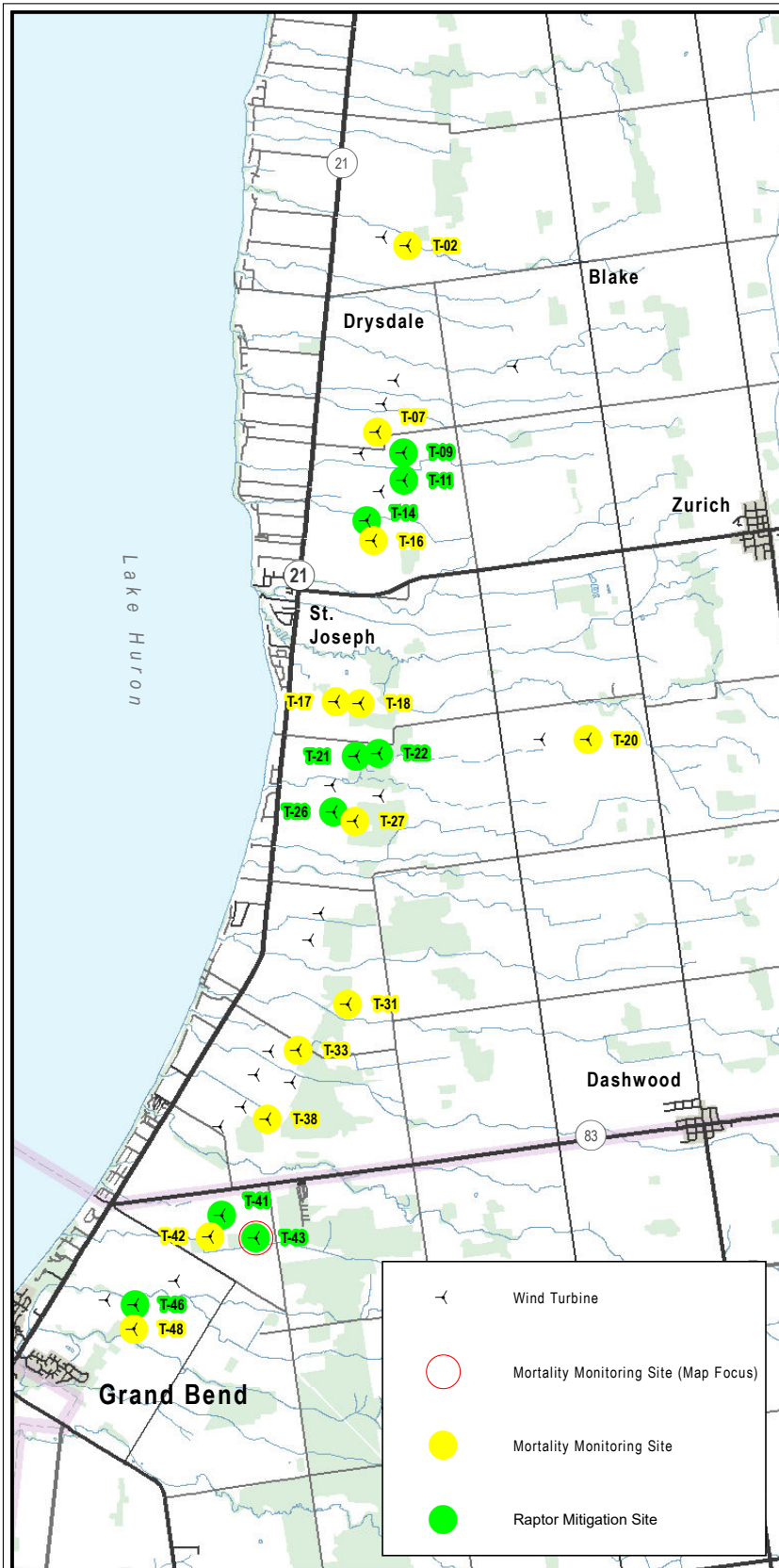
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-42  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-22</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		

H 1:1,000



- Wind Turbine
- Mortality Monitoring Site (Map Focus)
- Mortality Monitoring Site
- Raptor Mitigation Site

**Bats (with Count)**

- Big Brown Bat (2)

**Birds (with Count)**

- Barn Swallow (1)



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

0 10 20 30 40 50 60 70 80 Metres

- Search Radius (50m)
- Turbine Base Footprint
- Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

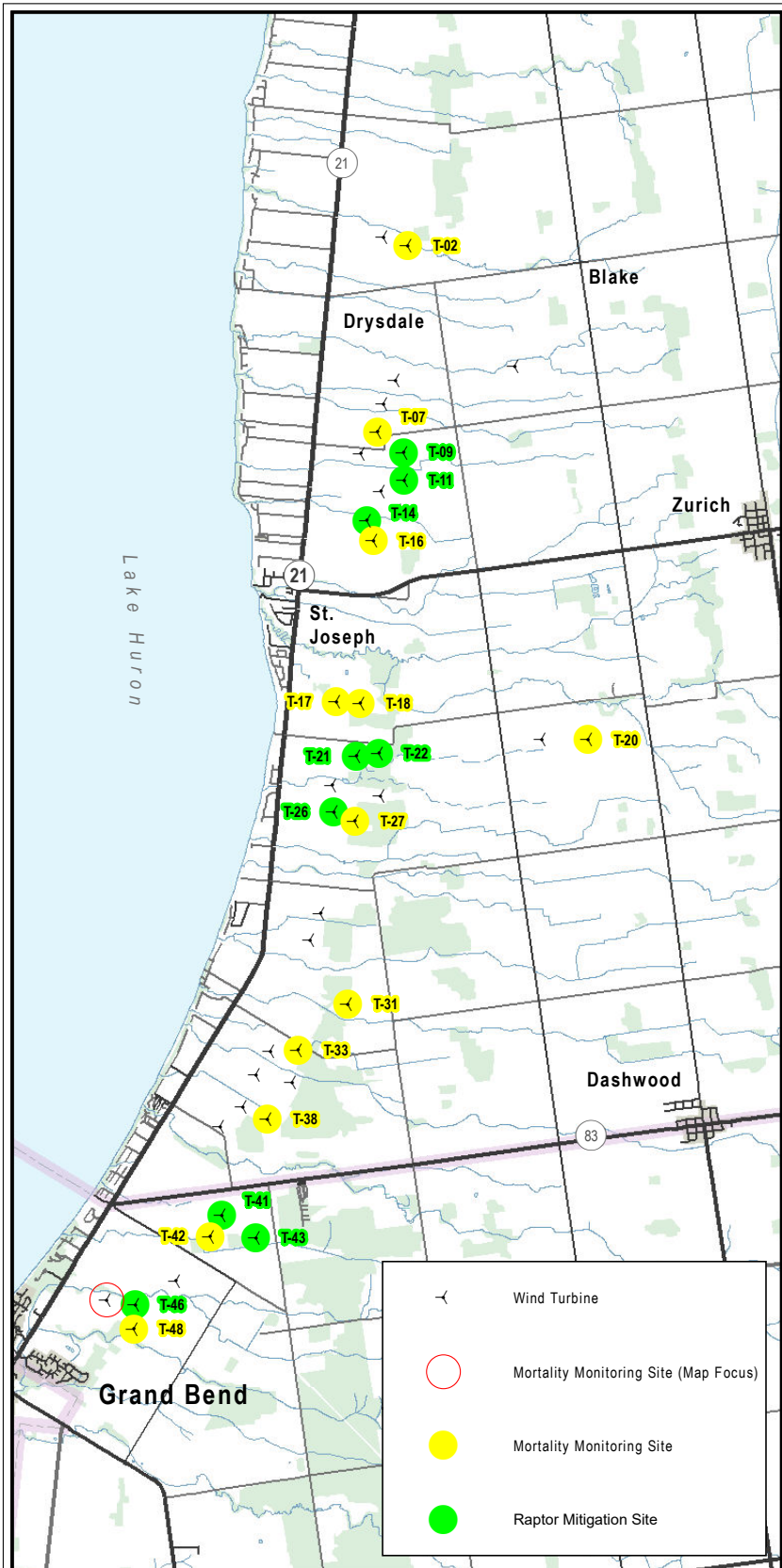
1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-43  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-23</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		

H 1:1,000



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

Search Radius (50m)    
 Turbine Base Footprint  
 Approach to Turbine

Sources:

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

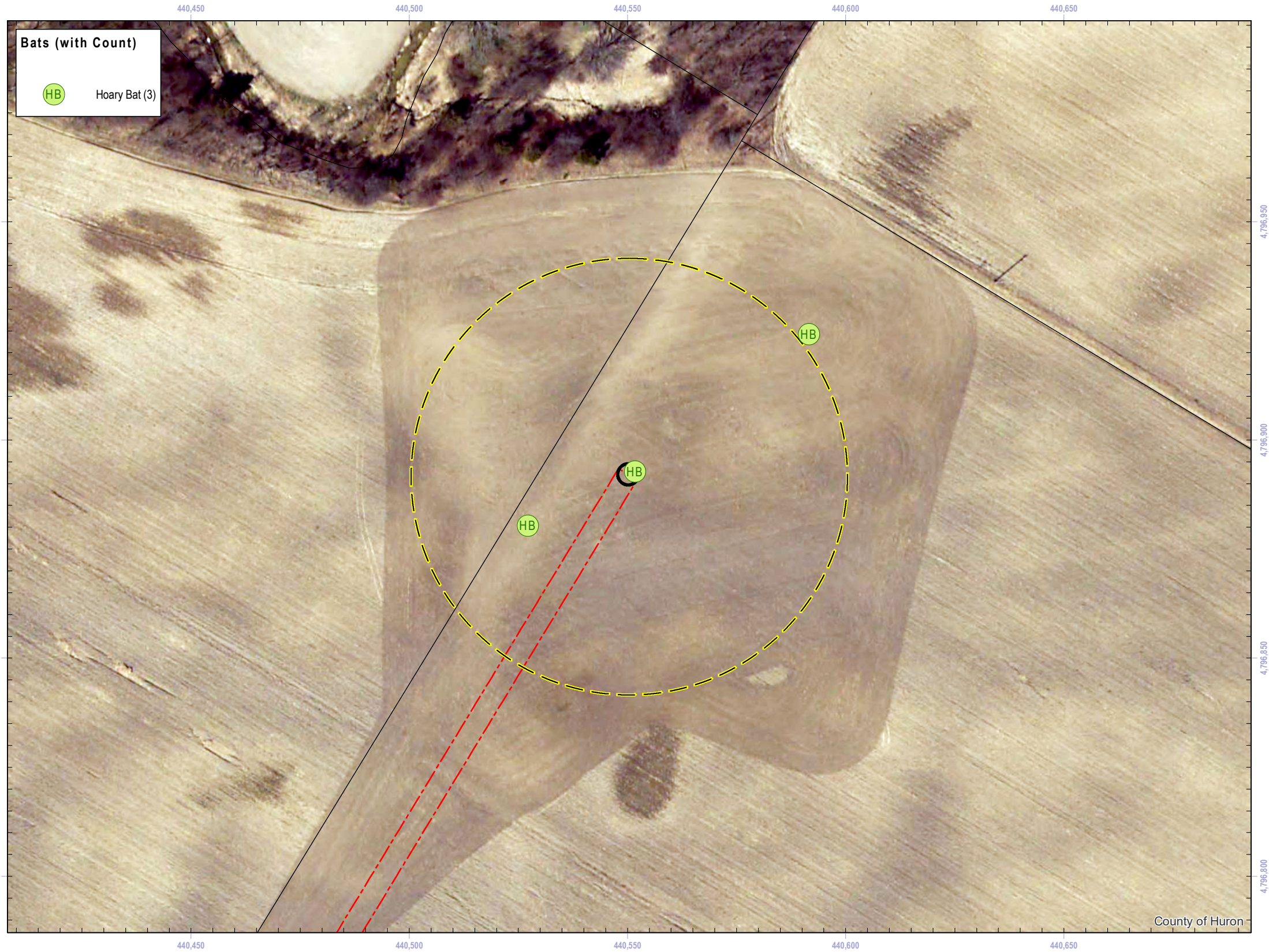
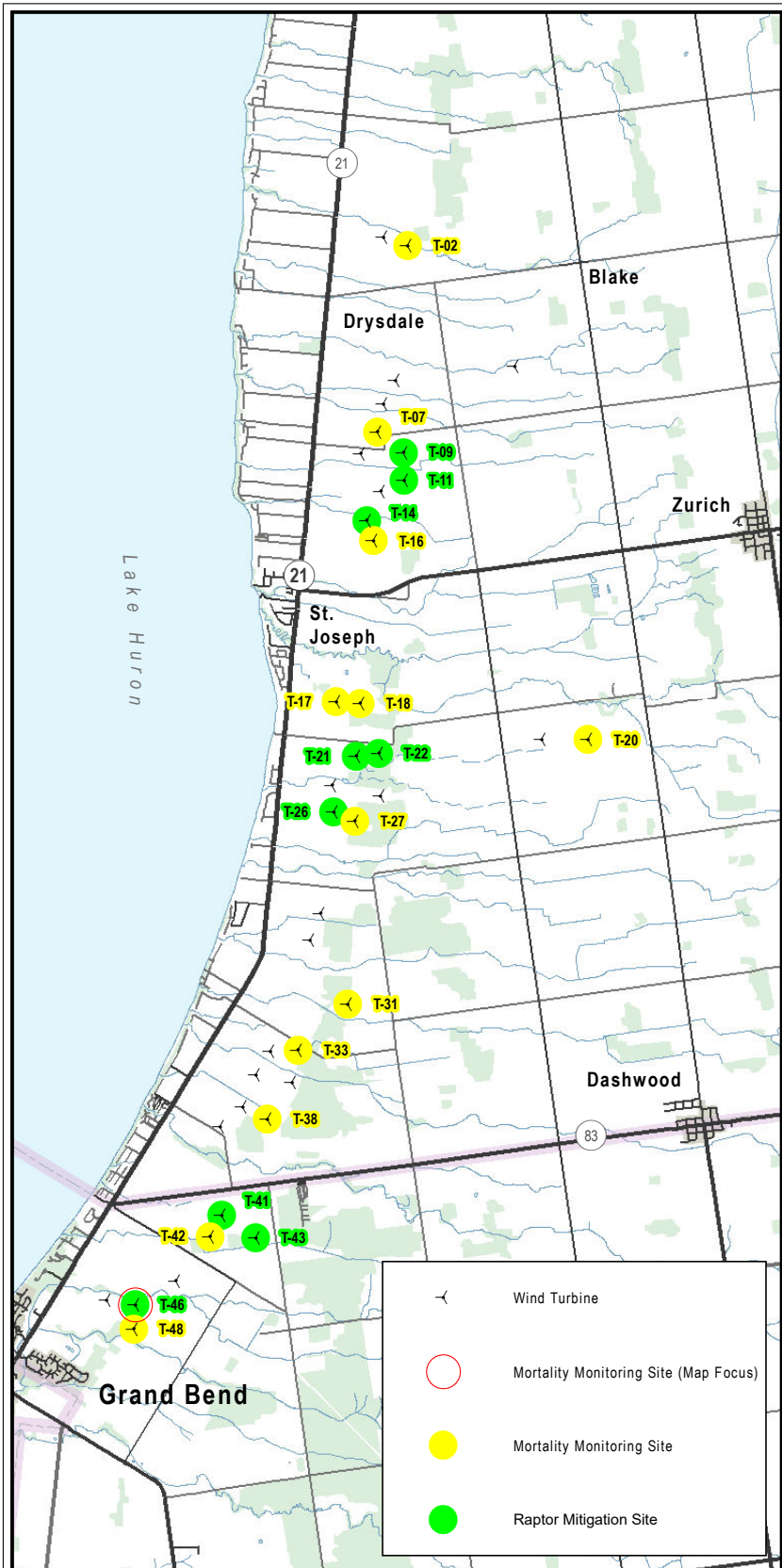
Notes:

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-45  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-24</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m | False Northing: 0m  
 Rotation: 0 | Scale Factor: 0.99960

Grid North

Search Radius (50m)    
 Turbine Base Footprint  
 Approach to Turbine

Sources:

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

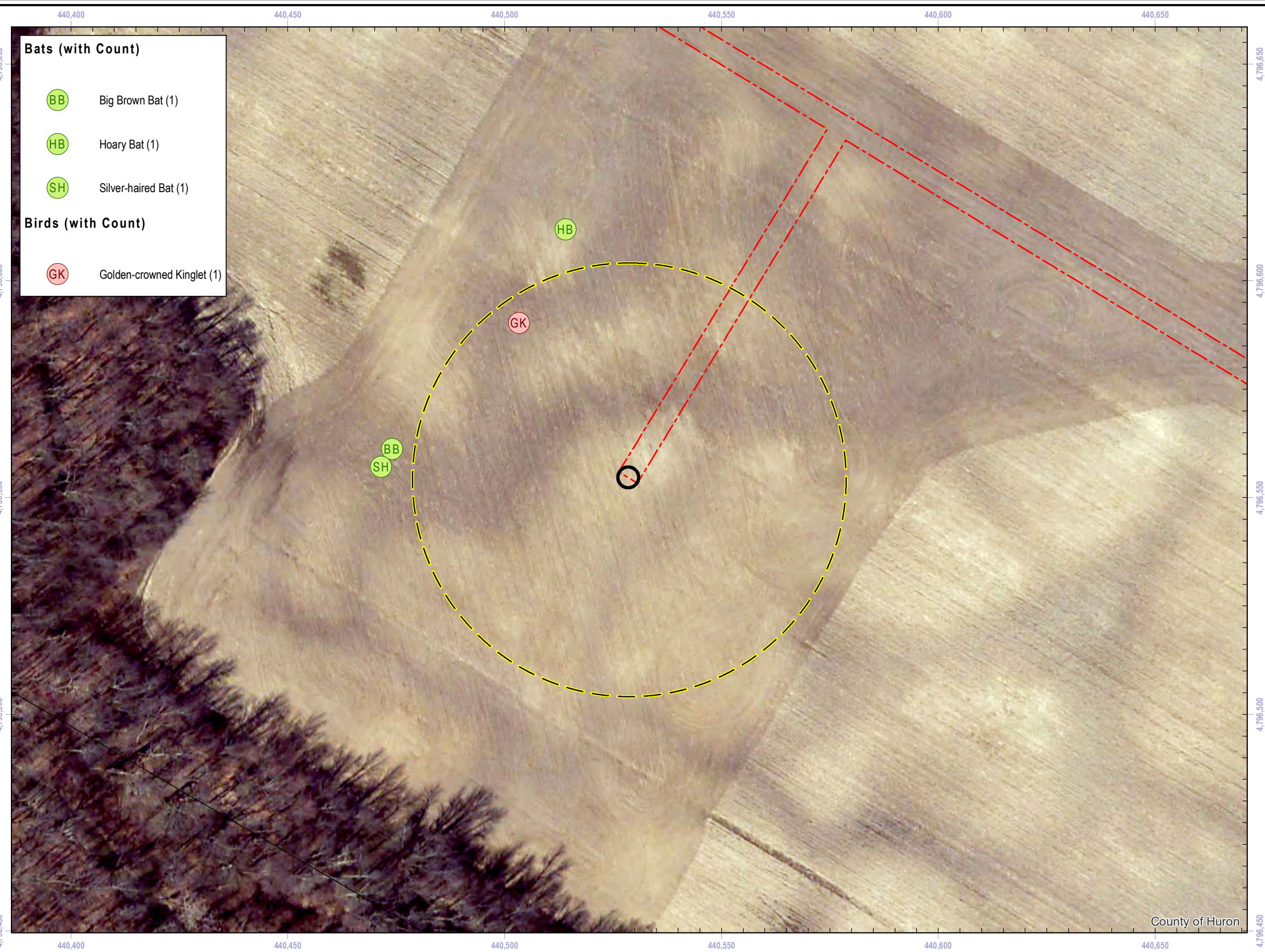
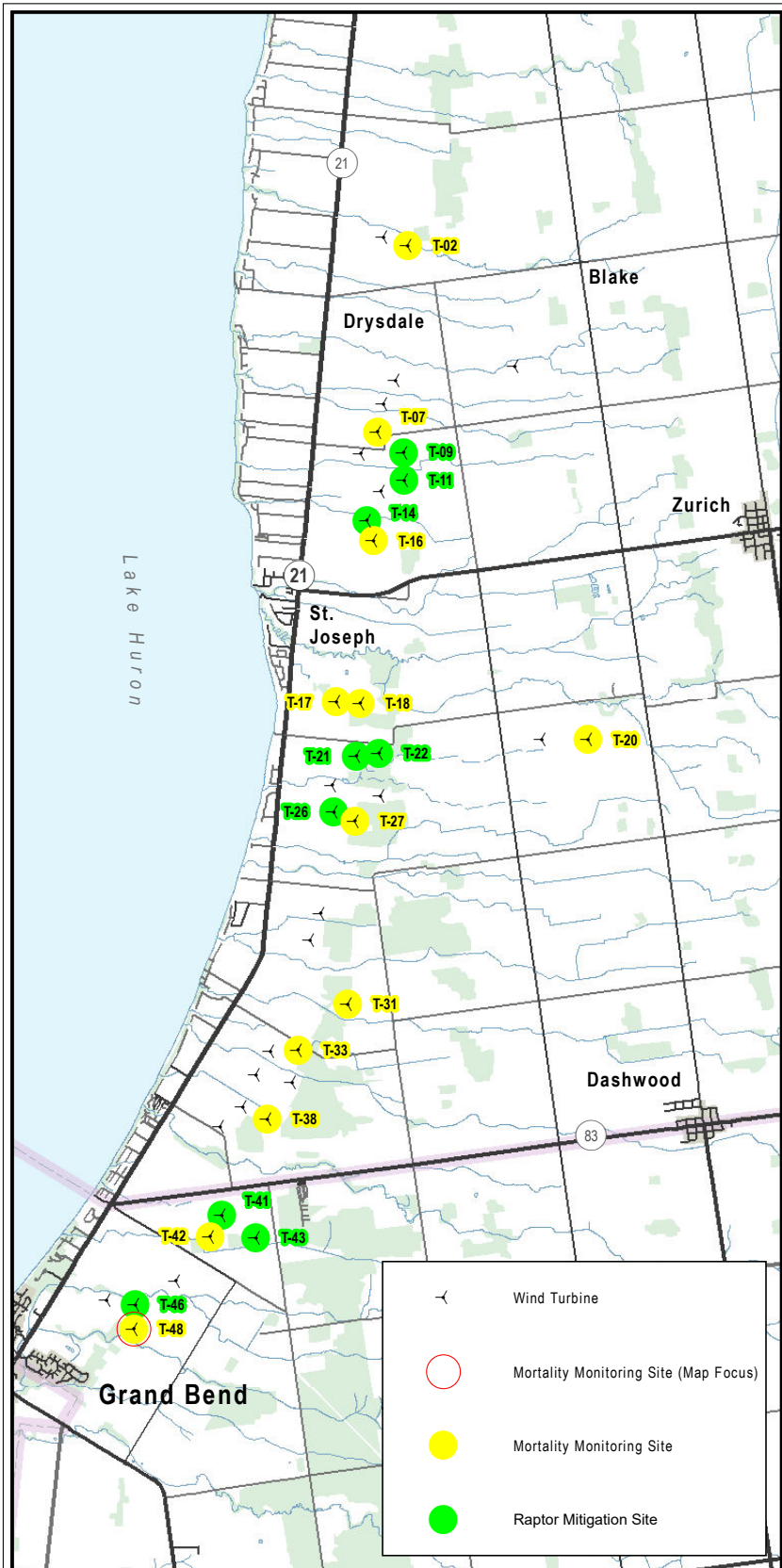
Notes:

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

Client  
**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-46  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No. <b>B-25</b>
PS	HM	2018/12/07	
Scale	Project No. PIA019991		
H 1:1,000			



Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m False Northing: 0m  
 Rotation: 0 Scale Factor: 0.99960

Grid North

Search Radius (50m) Turbine Base Footprint  
 Approach to Turbine

**Sources:**

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Huron County
4. R.J. Burnside & Associates Limited

**Notes:**

1. Imagery reflects ground conditions in 2015.
2. This map shows results for the 2018 monitoring year.

**Grand Bend Wind GP Inc.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Windfarm**  
 Turbine T-48  
 Carcass Search Results (2018)

Drawn	Checked	Date	Figure No.
PS	HM	2018/12/07	
Scale	Project No.		<b>B-26</b>
H 1:1,000	PIA019991		



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## Appendix C

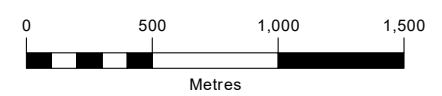
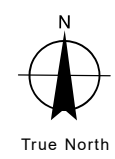
### Raptor Mortalities Per Turbine (Map Book)





SWH Code	Description
ABH	Amphibian Breeding Habitat (Woodland)
ABH (WE)	Amphibian Breeding Habitat (Wetland)
BMC	Bat Maternal Colony
SCC	Species of Conservation Concern
SS	Seeps & Springs
TNA	Turtle Nesting Area
TWA	Turtle Wintering Area
WASBB	Woodland Area Sensitive Breeding Birds
WRN	Woodland Raptor Nesting
WSSA	Waterfowl Stopover Staging Aquatic
WNA	Waterfowl Nesting Area
SESBB	Shrub/Early Successional Bird Breeding Habitat

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m  
 False Northing: 0m  
 Page Orientation: 0°  
 Scale Factor: 0.99960



- Wind Turbine
- Turbines with Raptor Mortalities 2018 (see comment 1)
- Turbines with Raptor Mortalities 2017 (see comment 2)
- Turbines with Raptor Mortalities 2017 & 2018 (see comment 1)
- Transformer Station
- Original 2013 Project Location (120m Natural Heritage)
- Original 2013 Project: Area of Responsibility
- Agriculture
- Cultural (Old ELC)
- Forest
- Open Water
- Wetland: Marsh
- Wetland: Swamp

**Comments:**

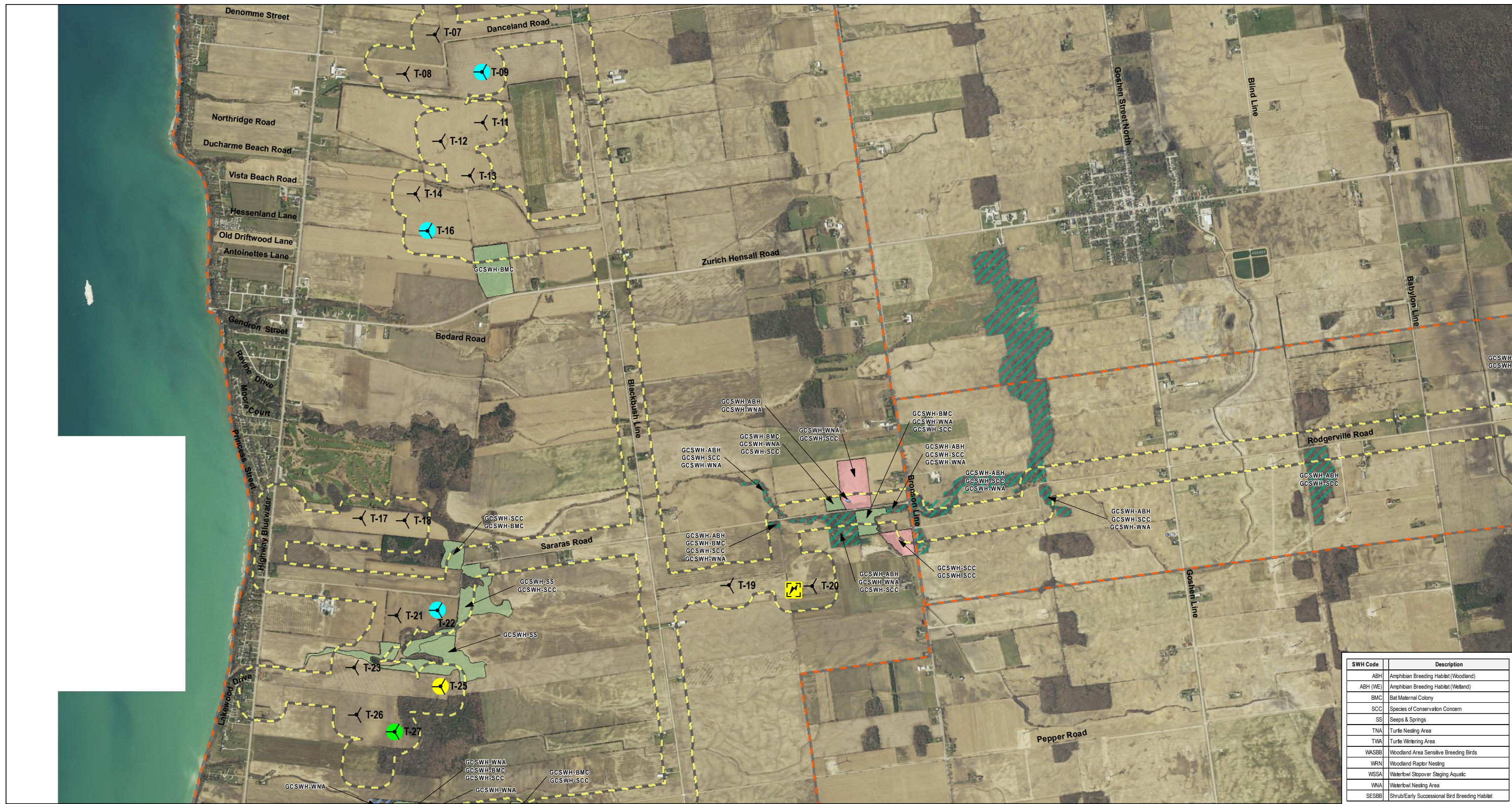
- Raptors found in vicinity of Turbines T-27, T-31, and T-42 for monitoring year 2018 are incidental mortalities.
- Raptor found in vicinity to T-22 for monitoring year 2017 is an incidental mortality.



Client  
**GRAND BEND WIND  
 GP INC.**

Figure Title  
**Post-Construction Environmental  
 Monitoring for The Grand Bend Wind Farm**  
 Turbines with Raptor  
 Mortalities 2017 and 2018

Drawn	Checked	Date	Figure No. <b>C-1</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:30,000	PIA019991		



SWH Code	Description
ABH	Amphibian Breeding Habitat (Woodland)
ABH (WE)	Amphibian Breeding Habitat (Wetland)
BMC	Bat Maternal Colony
SCC	Species of Conservation Concern
SS	Seeps & Springs
TNA	Turtle Nesting Area
TWA	Turtle Wintering Area
WASBB	Woodland Area Sensitive Breeding Birds
WRN	Woodland Raptor Nesting
WSSA	Waterbird Stopover Staging Aquatic
WNA	Waterbird Nesting Area
SESBB	Shrub/Early Successional Bird Breeding Habitat

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m | False Northing: 0m  
 Page Orientation: 0° | Scale Factor: 0.99960

Wind Turbine	Transformer Station	Cultural (Old ELC)	Wetland: Swamp
Turbines with Raptor Mortalities 2018 (see comment 1)	Original 2013 Project Location (120m Natural Heritage)	Forest	<b>Comments:</b>
Turbines with Raptor Mortalities 2017 (see comment 2)	Original 2013 Project: Area of Responsibility	Open Water	1. Raptors found in vicinity of Turbines T-27, T-31, and T-42 for monitoring year 2018 are incidental mortalities.
Turbines with Raptor Mortalities 2017 & 2018 (see comment 1)	Agriculture	Wetland: Marsh	2. Raptor found in vicinity to T-22 for monitoring year 2017 is an incidental mortality.

Client  
**GRAND BEND WIND GP INC.**

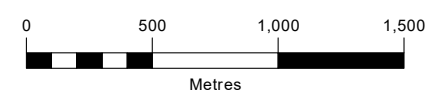
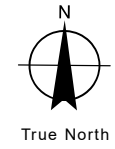
Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Wind Farm**  
 Turbines with Raptor Mortalities 2017 and 2018

Drawn	Checked	Date	Figure No. <b>C-2</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:30,000	PIA019991		



SWH Code	Description
ABH	Amphibian Breeding Habitat (Woodland)
ABH (WE)	Amphibian Breeding Habitat (Wetland)
BMC	Bat Maternal Colony
SCC	Species of Conservation Concern
SS	Seeps & Springs
TNA	Turtle Nesting Area
TWA	Turtle Wintering Area
WASBB	Woodland Area Sensitive Breeding Birds
WRN	Woodland Raptor Nesting
WSSA	Waterfowl Stopover Staging Aquatic
WNA	Waterfowl Nesting Area
SESBB	Shrub/Early Successional Bird Breeding Habitat

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m  
 False Northing: 0m  
 Page Orientation: 0°  
 Scale Factor: 0.99960



- Wind Turbine
- Turbines with Raptor Mortalities 2018 (see comment 1)
- Turbines with Raptor Mortalities 2017 (see comment 2)
- Turbines with Raptor Mortalities 2017 & 2018 (see comment 1)
- Transformer Station
- Original 2013 Project Location (120m Natural Heritage)
- Original 2013 Project: Area of Responsibility
- Agriculture
- Cultural (Old ELC)
- Forest
- Open Water
- Wetland: Marsh
- Wetland: Swamp

**Comments:**

- Raptors found in vicinity of Turbines T-27, T-31, and T-42 for monitoring year 2018 are incidental mortalities.
- Raptor found in vicinity to T-22 for monitoring year 2017 is an incidental mortality.



Client  
**GRAND BEND WIND  
 GP INC.**

Figure Title  
**Post-Construction Environmental  
 Monitoring for The Grand Bend Wind Farm**  
 Turbines with Raptor  
 Mortalities 2017 and 2018

Drawn	Checked	Date	Figure No. <b>C-3</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:30,000	PIA019991		



SWH Code	Description
ABH	Amphibian Breeding Habitat (Woodland)
ABH (WE)	Amphibian Breeding Habitat (Wetland)
BMC	Bat Maternal Colony
SCC	Species of Conservation Concern
SS	Seeps & Springs
TNA	Turtle Nesting Area
TWA	Turtle Wintering Area
WASBB	Woodland Area Sensitive Breeding Birds
WRN	Woodland Raptor Nesting
WSSA	Waterfowl Stopover Staging Aquatic
WNA	Waterfowl Nesting Area
SESBB	Shrub/Early Successional Bird Breeding Habitat

Datum: North American 1983  
 Coord. System: NAD 1983 UTM Zone 17N  
 Projection: Transverse Mercator  
 Central Meridian: 81°0'0.00"W  
 False Easting: 500,000m | False Northing: 0m  
 Page Orientation: 0° | Scale Factor: 0.99960

Wind Turbine	Transformer Station	Cultural (Old ELC)	Wetland: Swamp
Turbines with Raptor Mortalities 2018 (see comment 1)	Original 2013 Project Location (120m Natural Heritage)	Forest	<b>Comments:</b>
Turbines with Raptor Mortalities 2017 (see comment 2)	Original 2013 Project: Area of Responsibility	Open Water	1. Raptors found in vicinity of Turbines T-27, T-31, and T-42 for monitoring year 2018 are incidental mortalities.
Turbines with Raptor Mortalities 2017 & 2018 (see comment 1)	Agriculture	Wetland: Marsh	2. Raptor found in vicinity to T-22 for monitoring year 2017 is an incidental mortality.

Client  
**GRAND BEND WIND GP INC.**

Figure Title  
**Post-Construction Environmental Monitoring for The Grand Bend Wind Farm**  
 Turbines with Raptor Mortalities 2017 and 2018

Drawn	Checked	Date	Figure No. <b>C-4</b>
PS	HM	2018/12/07	
Scale	Project No.		
H 1:30,000	PIA019991		



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## Appendix D

### Turbine Habitat Maps

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-01

Survey Date: May 9/18

Actual Searched Area (m<sup>2</sup>): 7853.97

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



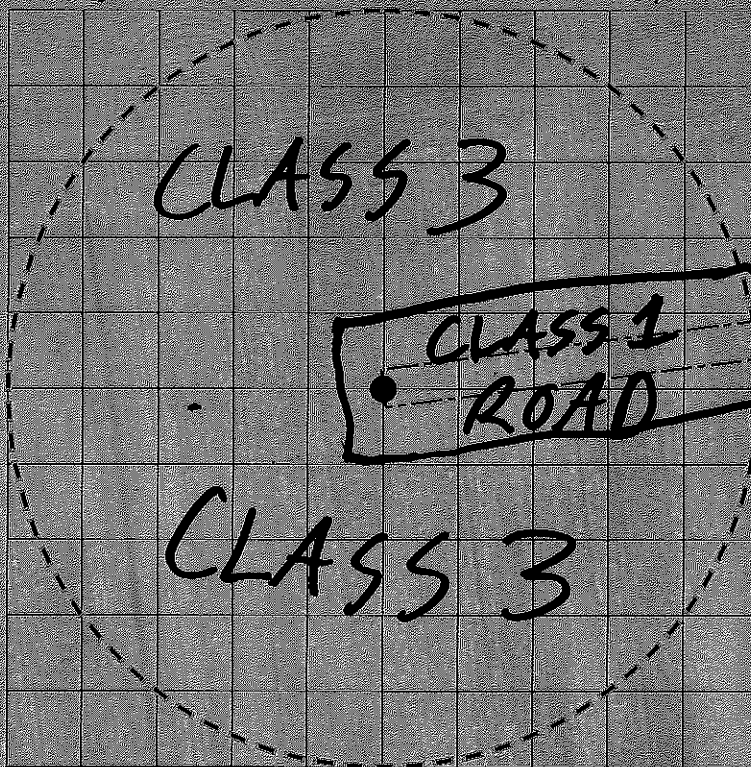
443,950

444,000

444,050

444,100

Approx 1000m<sup>2</sup> is Class 1 gravel access road  
 Approx 6853.97m<sup>2</sup> is Class 3 harvested  
 corn husks, cobs, and stalk at 40 cm height.



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

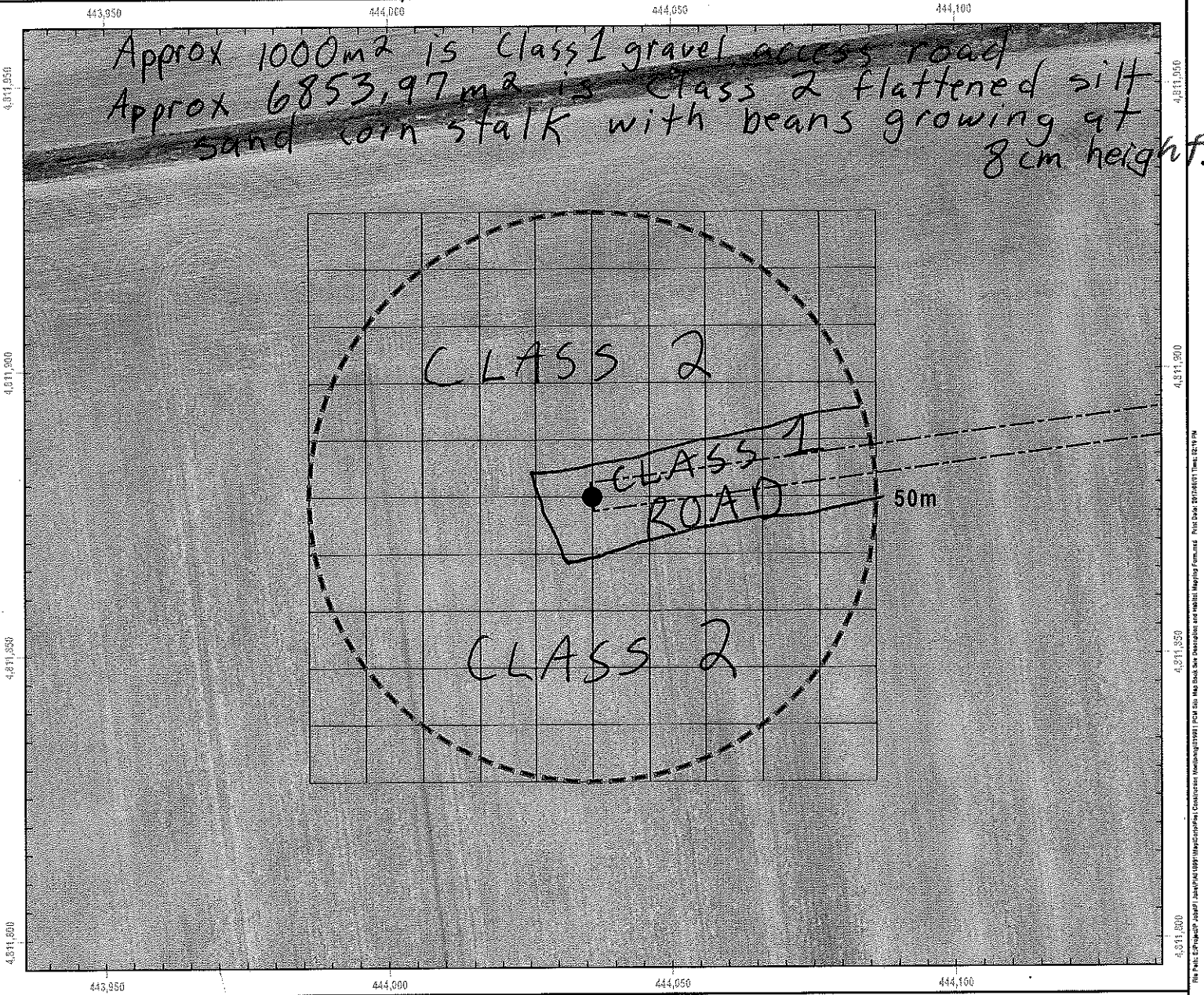
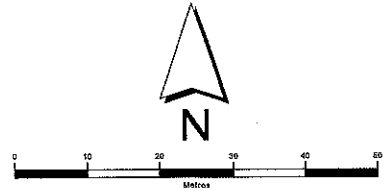
Site Number: T-01

Survey Date: June 6 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



The Public Project/Job# PIA019991 (Wind Energy) - Construction Monitoring/31001 - PIA019991 - Map Scale and Description and Habitat Mapping Form - Post-Construct - 2017/06/17 - Time: 12:15 PM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

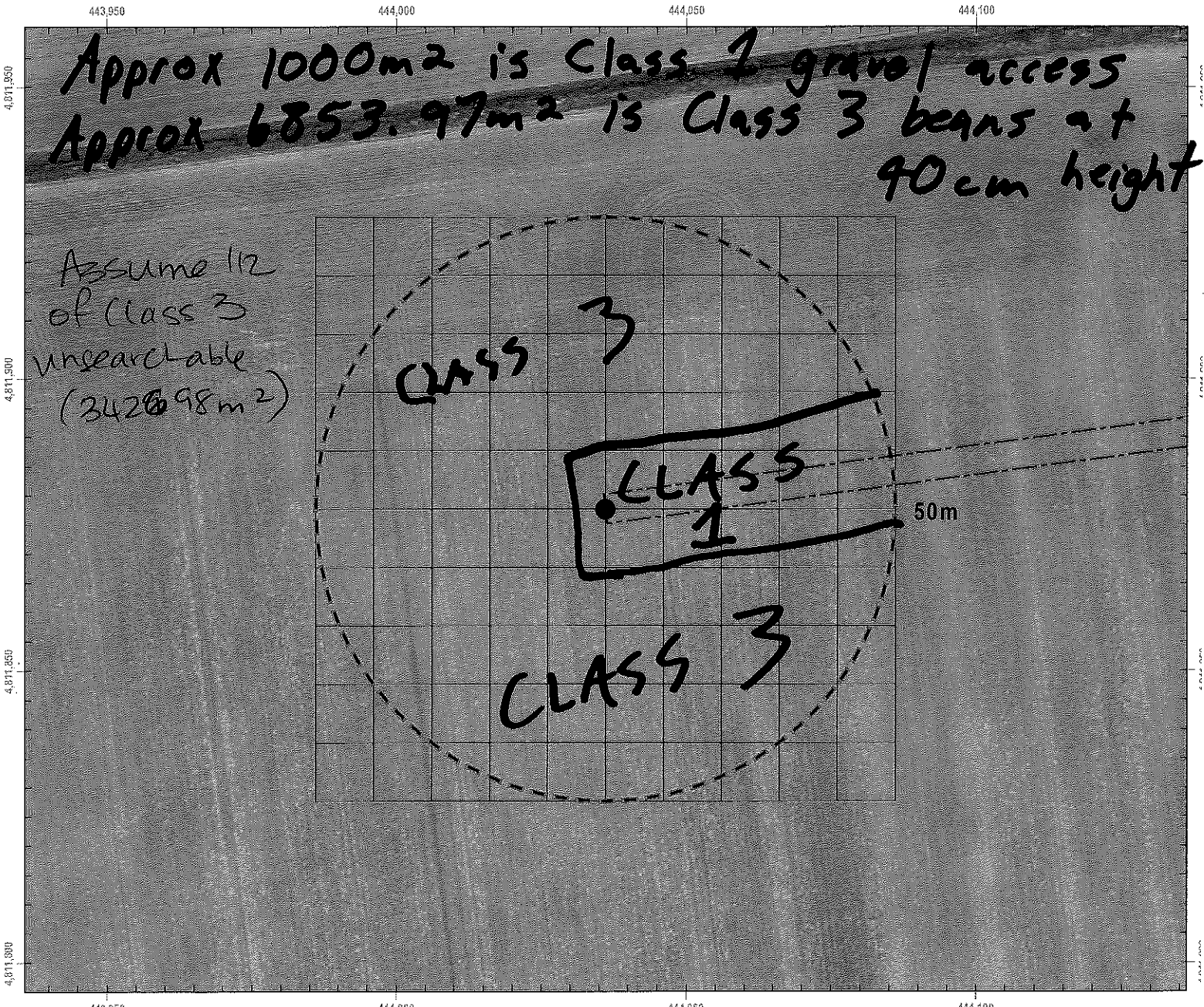
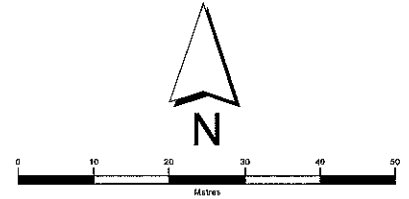
Site Number: T-01

Survey Date: July 4 / 17

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henly



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

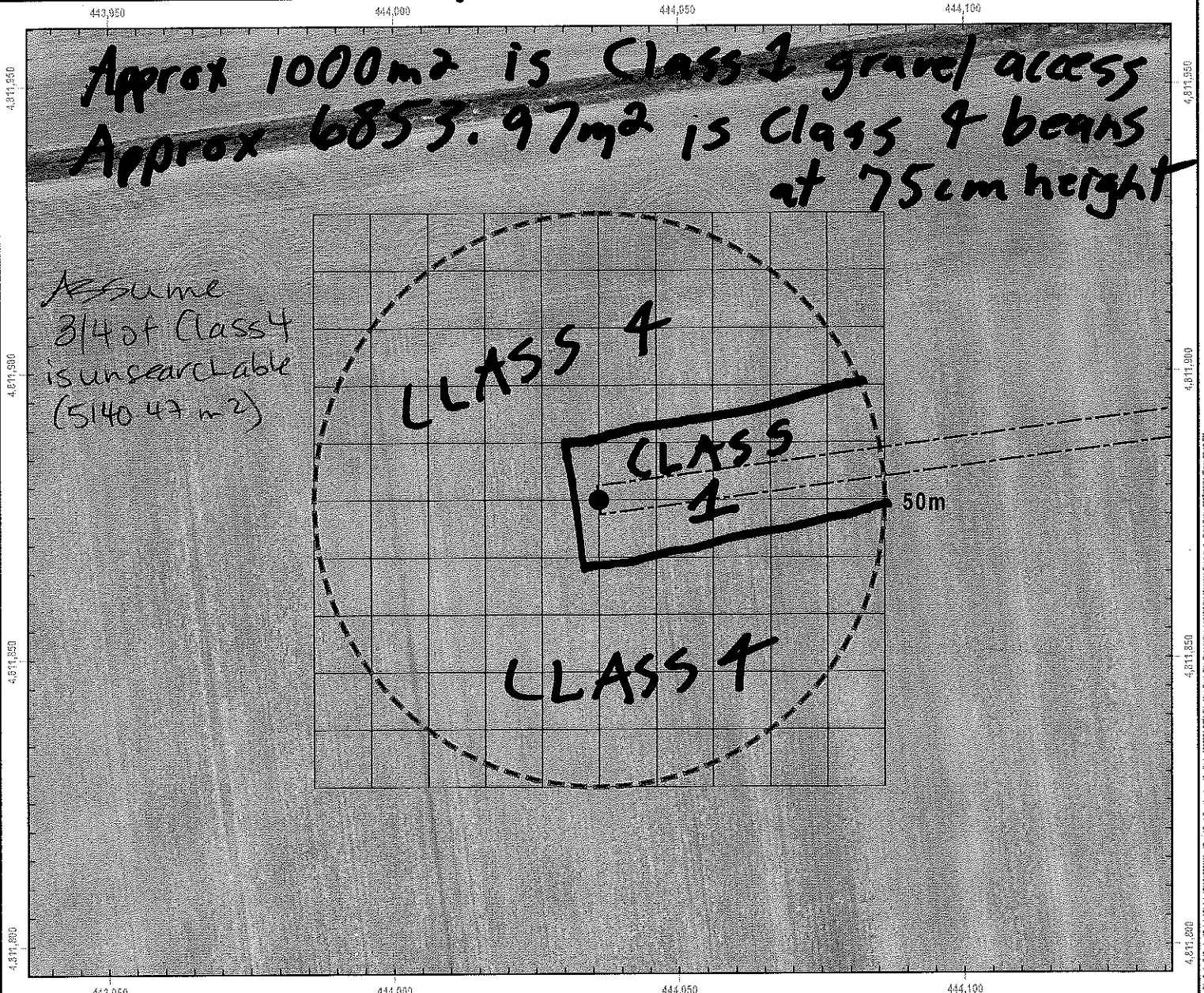
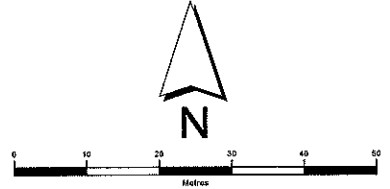
Site Number: T-01

Survey Date: Aug 8/10

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

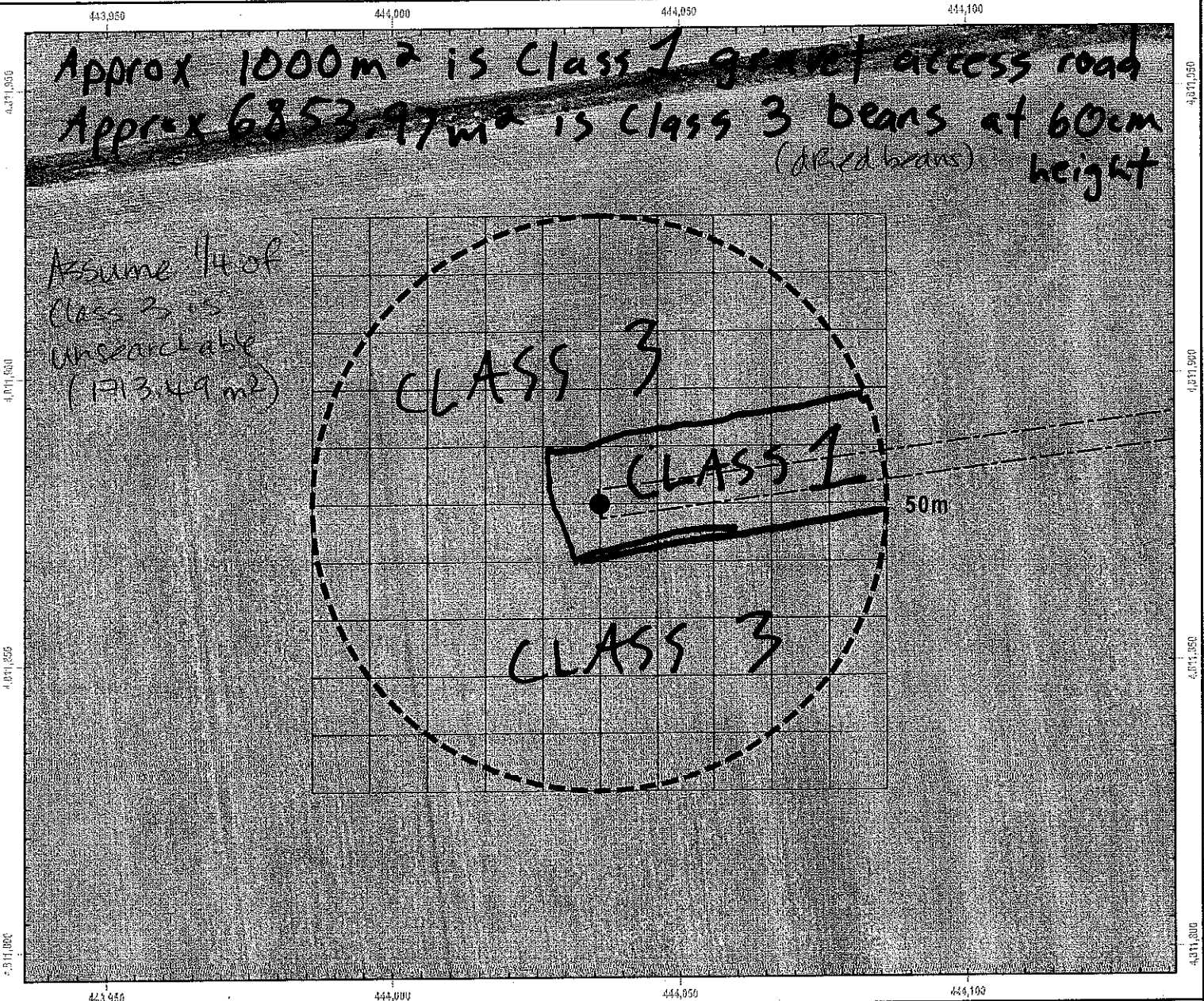
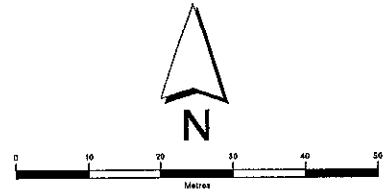
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-01

Survey Date: Oct 3 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

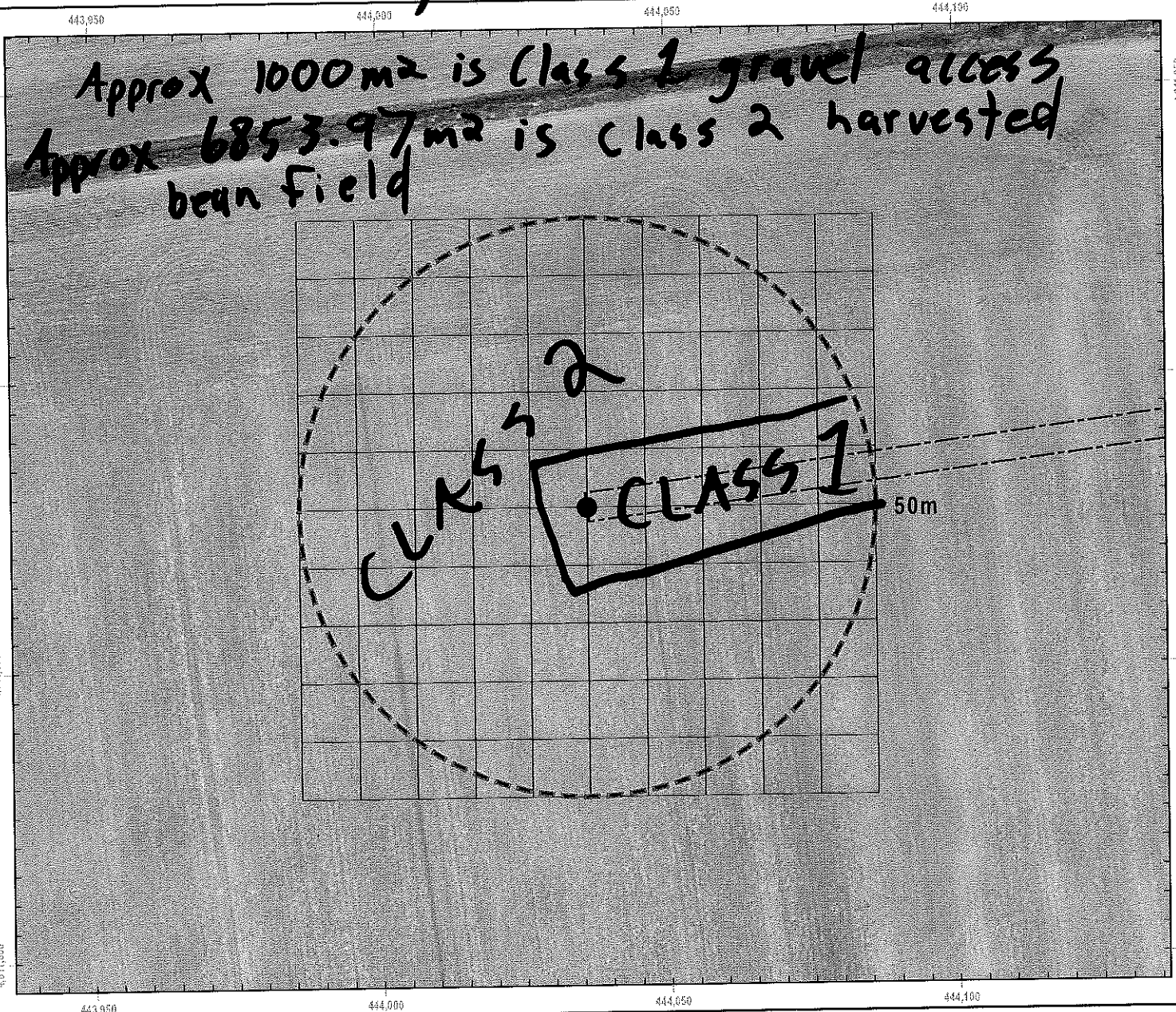
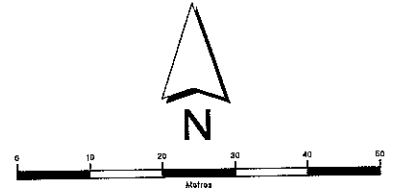


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-01  
 Survey Date: Nov 8 / 18  
 Actual Searched Area (m<sup>2</sup>): 7553.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

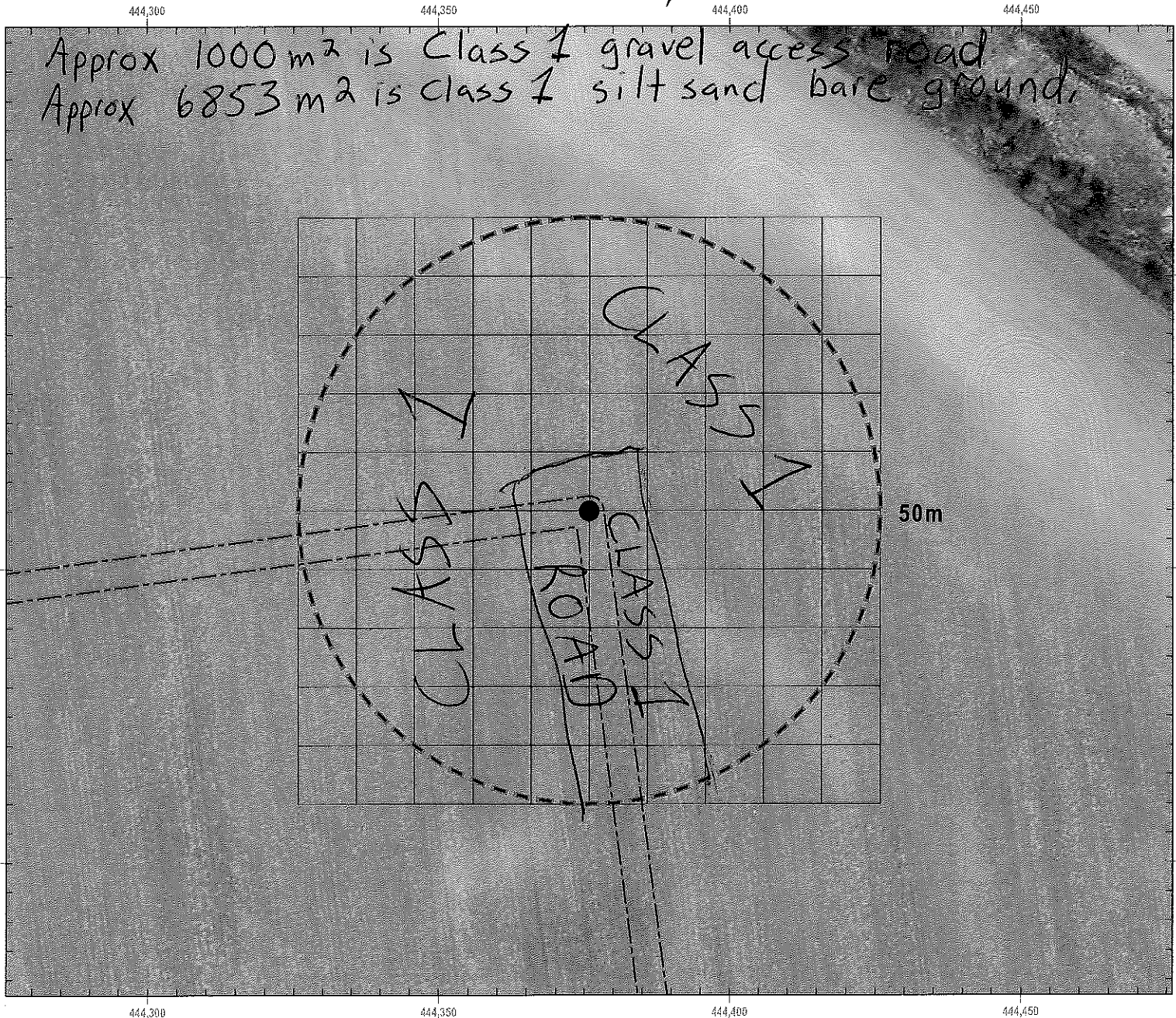
Site Number: T-02

Survey Date: May 1 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



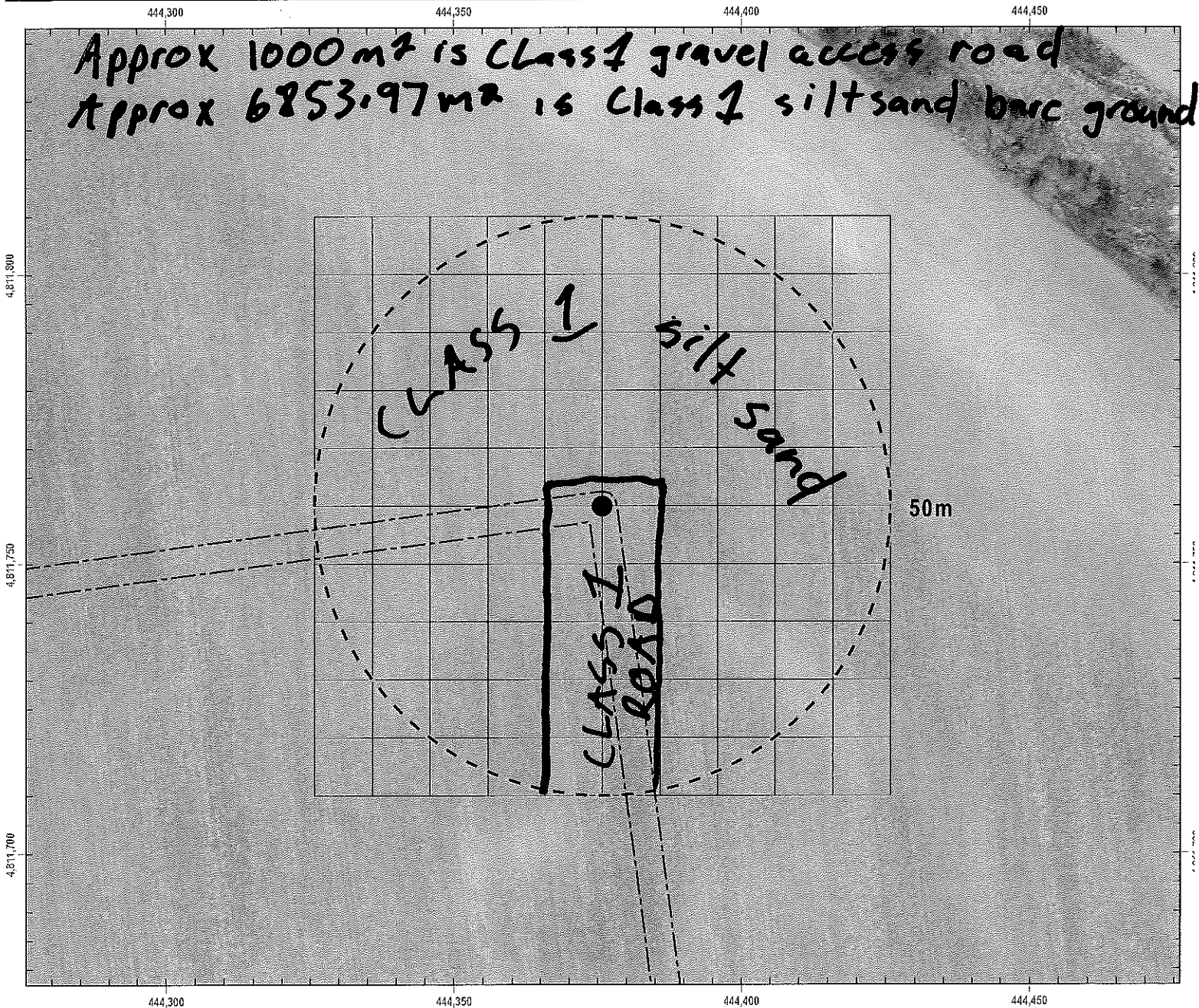
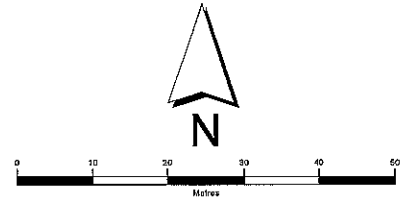


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-02  
 Survey Date: Oct 4/18  
 Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

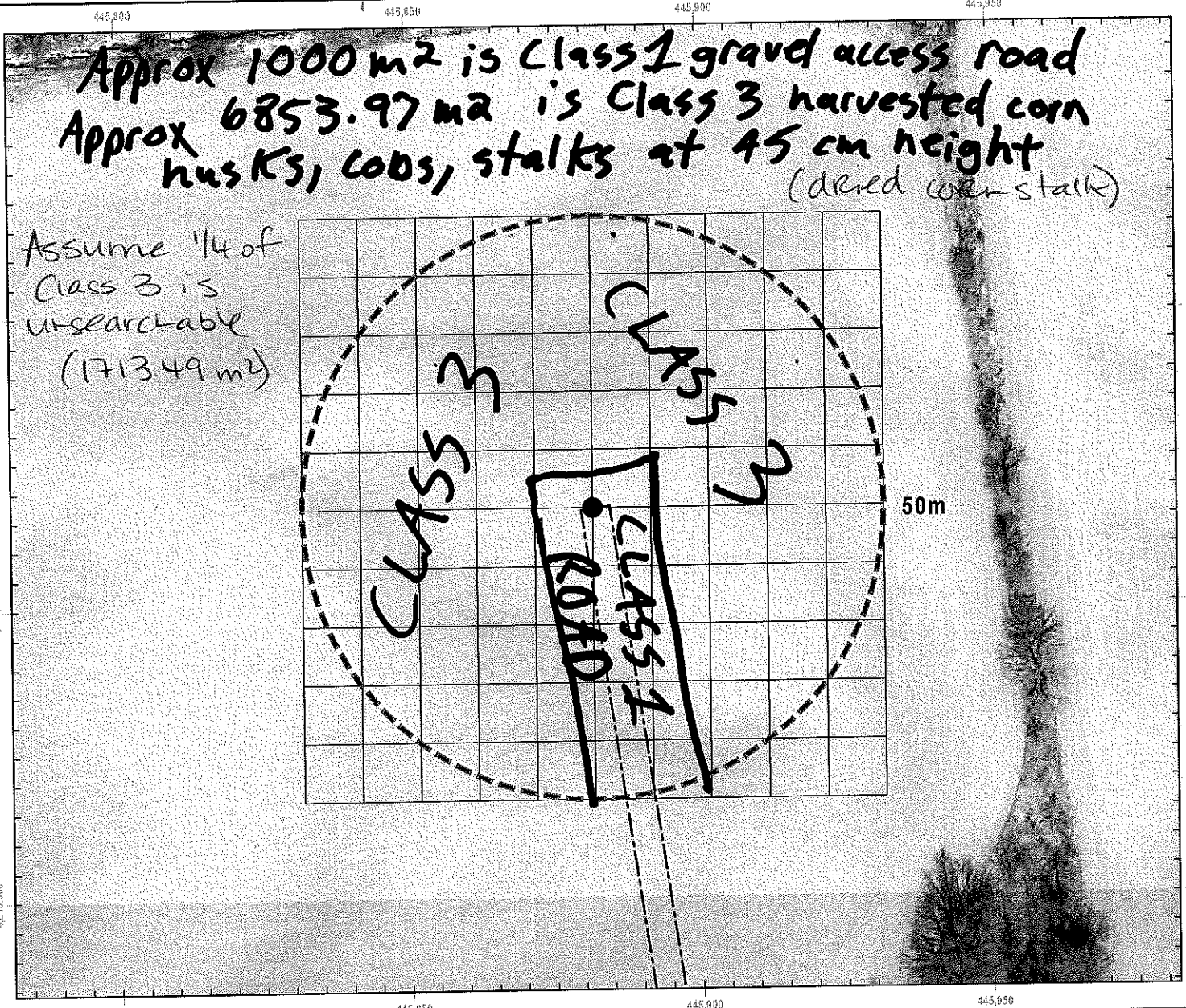
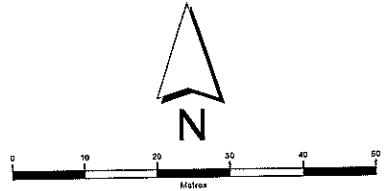
Site Number: T-03

Survey Date: May 9/18

Actual Searched Area (m<sup>2</sup>): 6040.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



4,810,000 4,810,050 4,810,100  
PIA019991.0005 Grand Bend Wind Farm Site Map Book: Site Description and Habitat Mapping Form.mxd File Date: 20180517 Time: 08:29 AM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

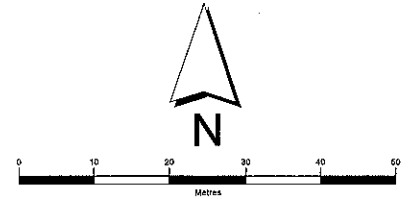
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-03

**Survey Date:** June 6 / 18

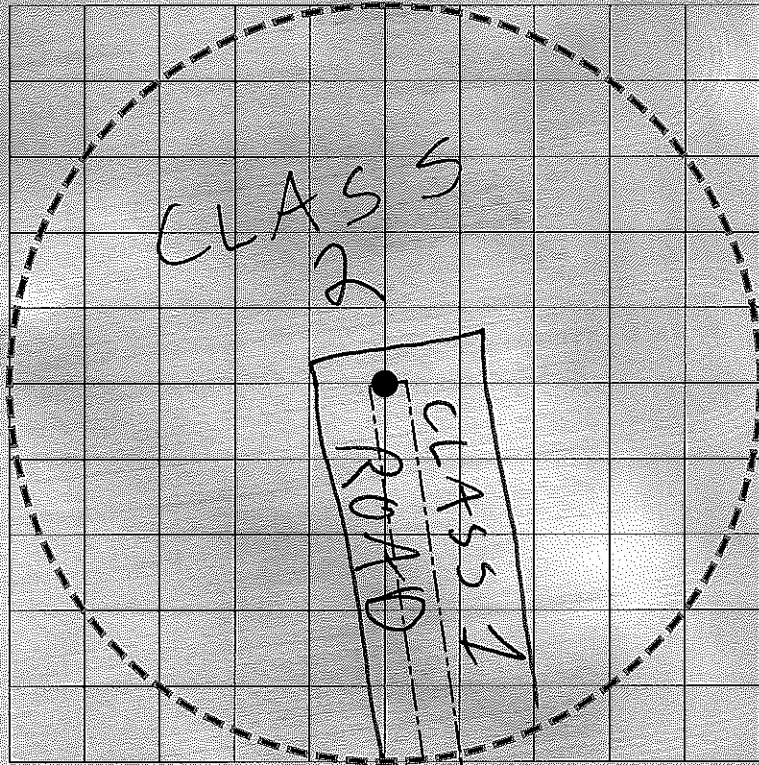
**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



445,800                      445,850                      445,900                      445,950

Approx 1000 m<sup>2</sup> is Class 1 gravel access road  
Approx 6853.97 is Class 2 flattened corn stalk  
with beans growing at 8cm height



445,800                      445,850                      445,900                      445,950

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

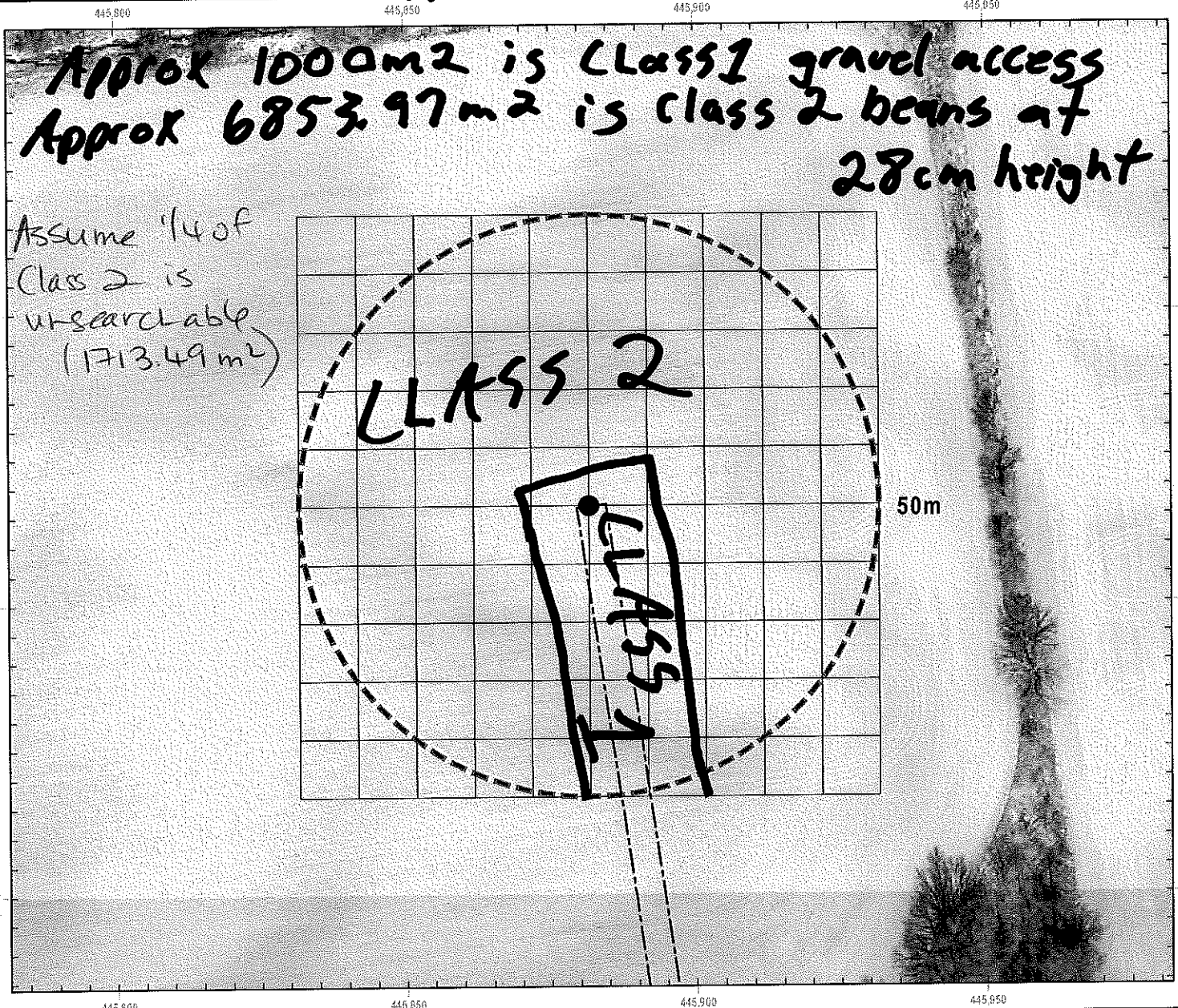
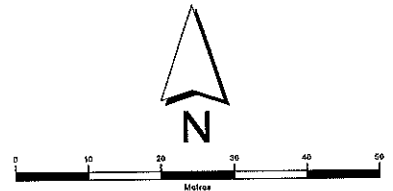
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-03

Survey Date: July 4/18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

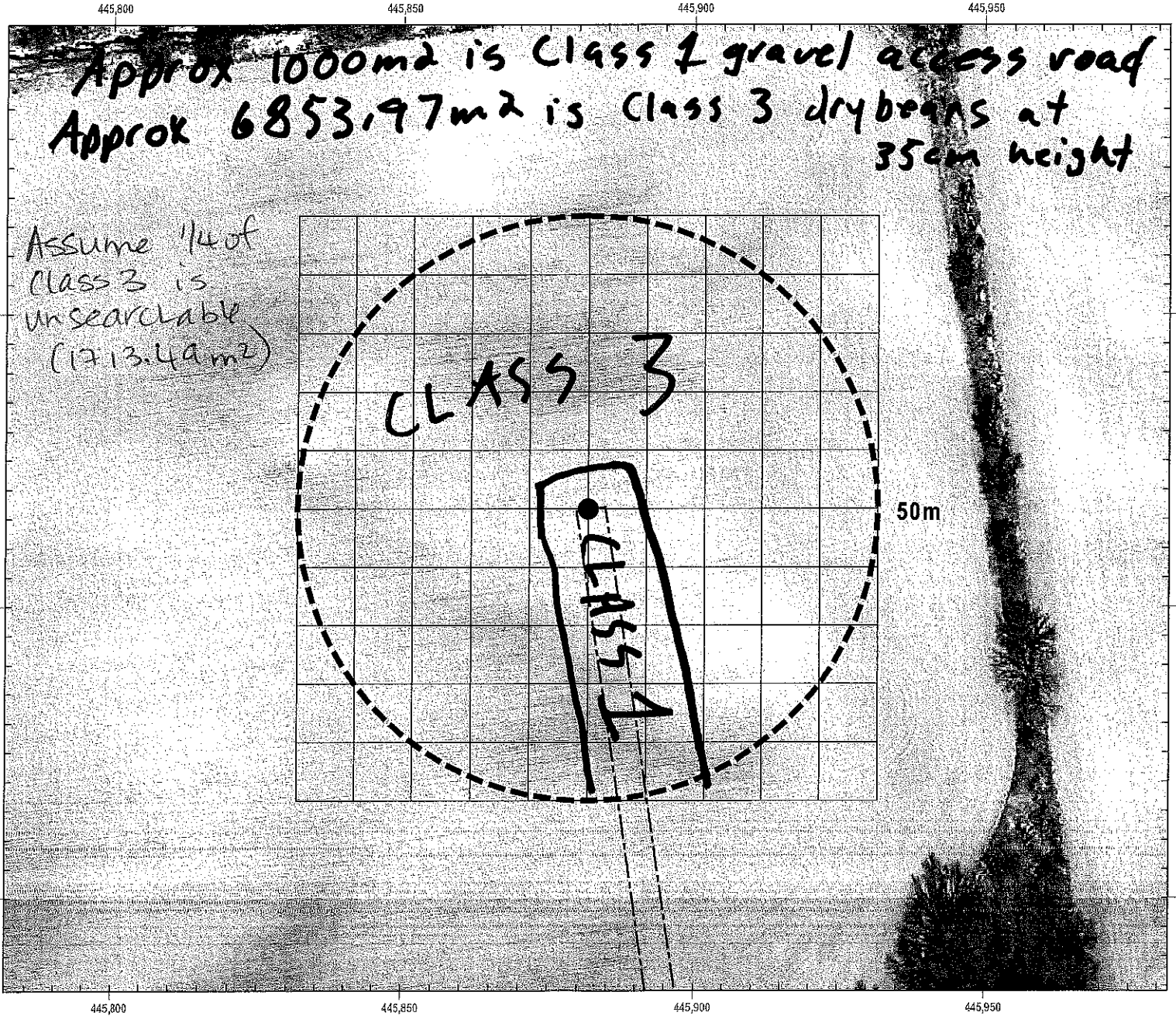
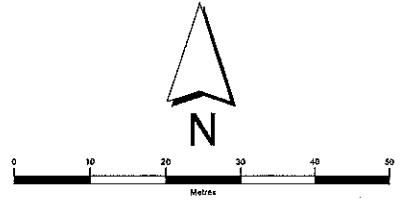
Site Number: T-03

Survey Date: Oct 3/18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



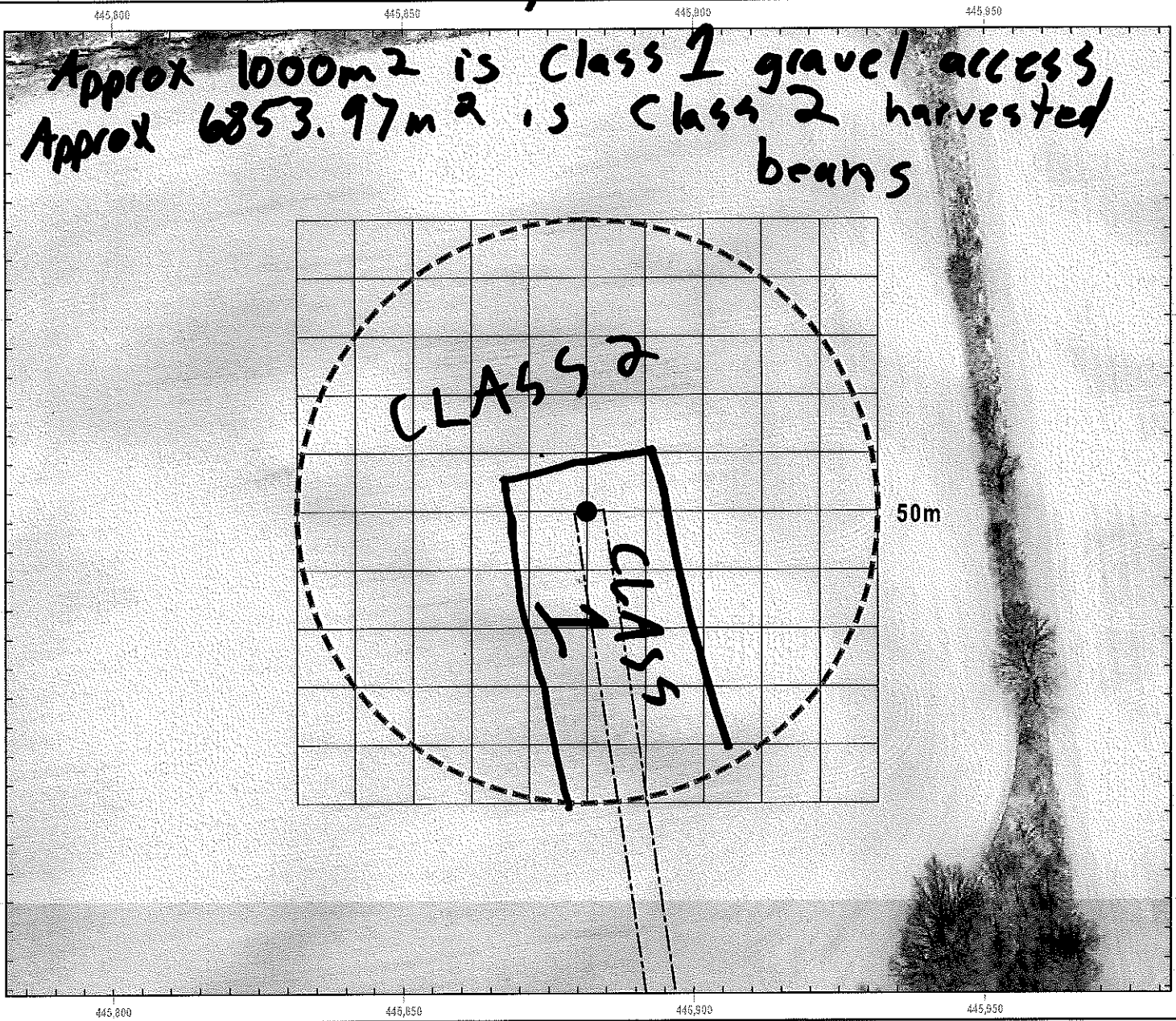
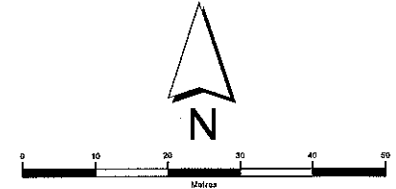
% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
little or no bare ground	> 25% > 30cm tall	Class 4 (Very Difficult)

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-03  
 Survey Date: Nov 8 / 18  
 Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

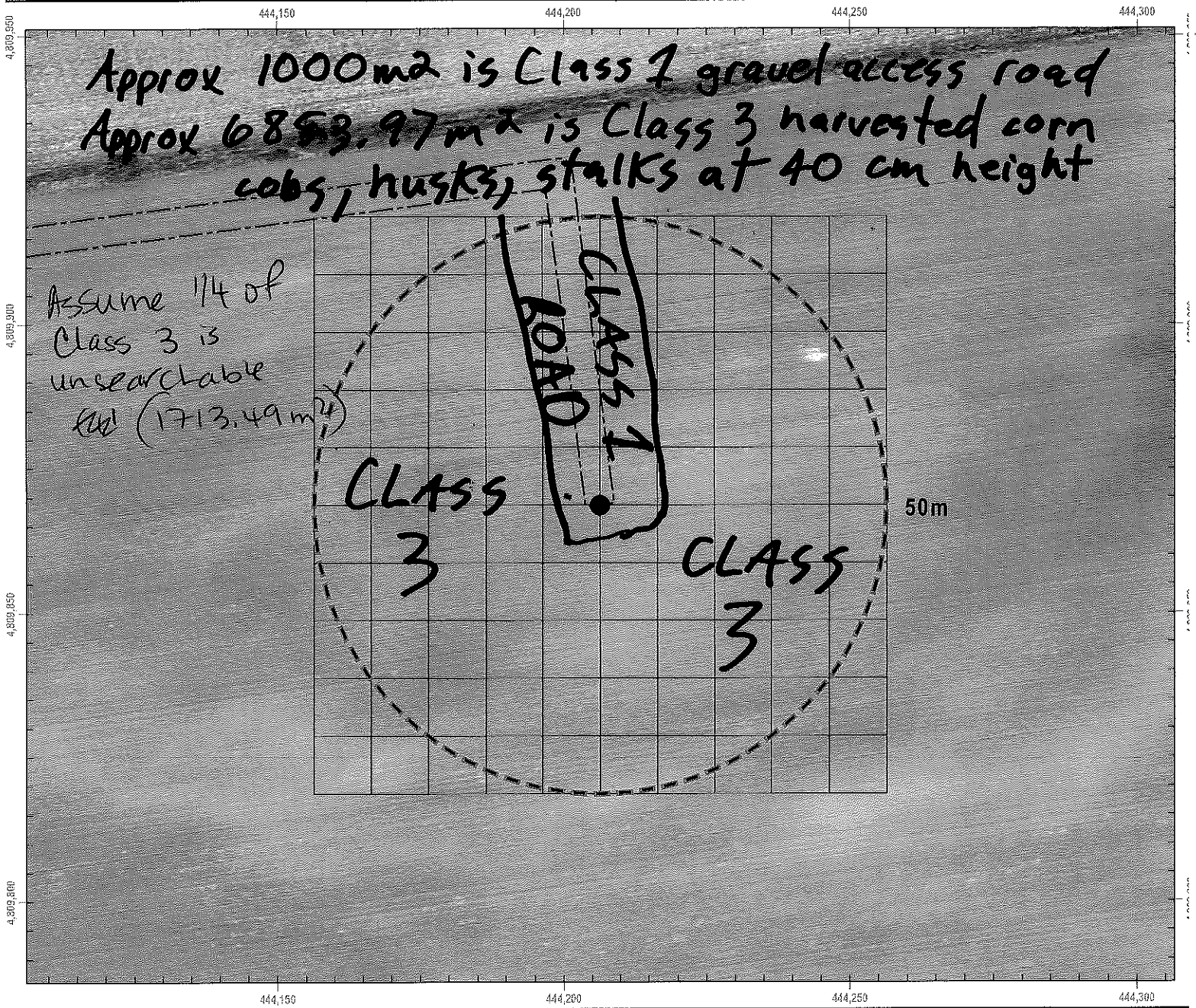
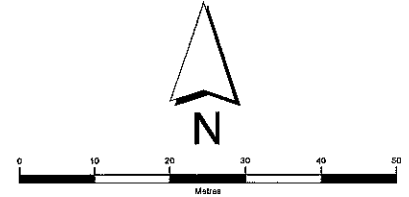
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-05

**Survey Date:** May 9

**Actual Searched Area (m<sup>2</sup>):** 6140.48m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

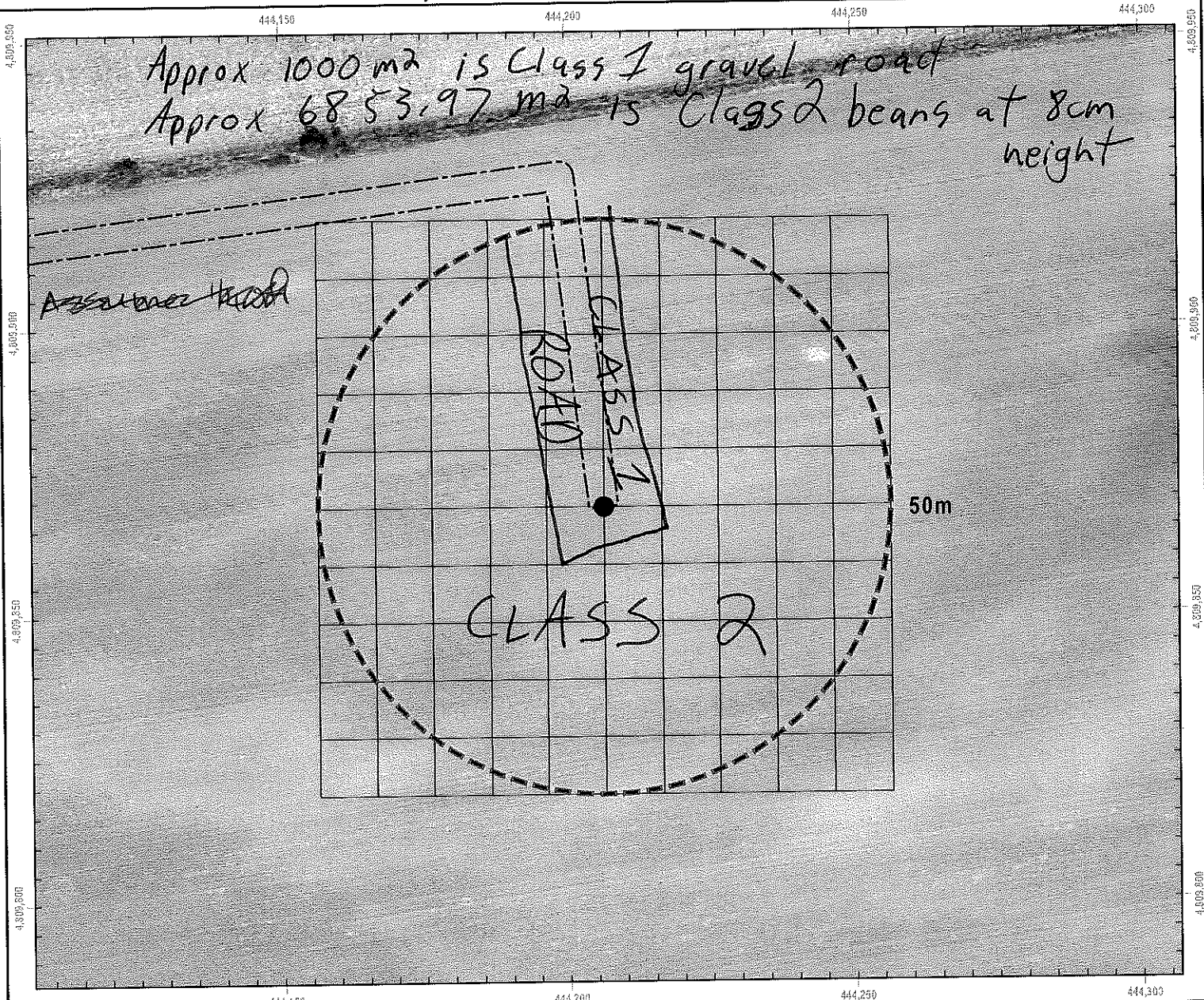
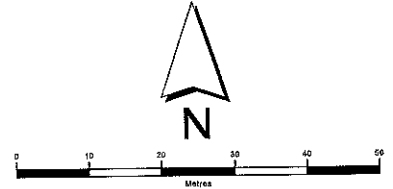
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-05

Survey Date: June 6/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

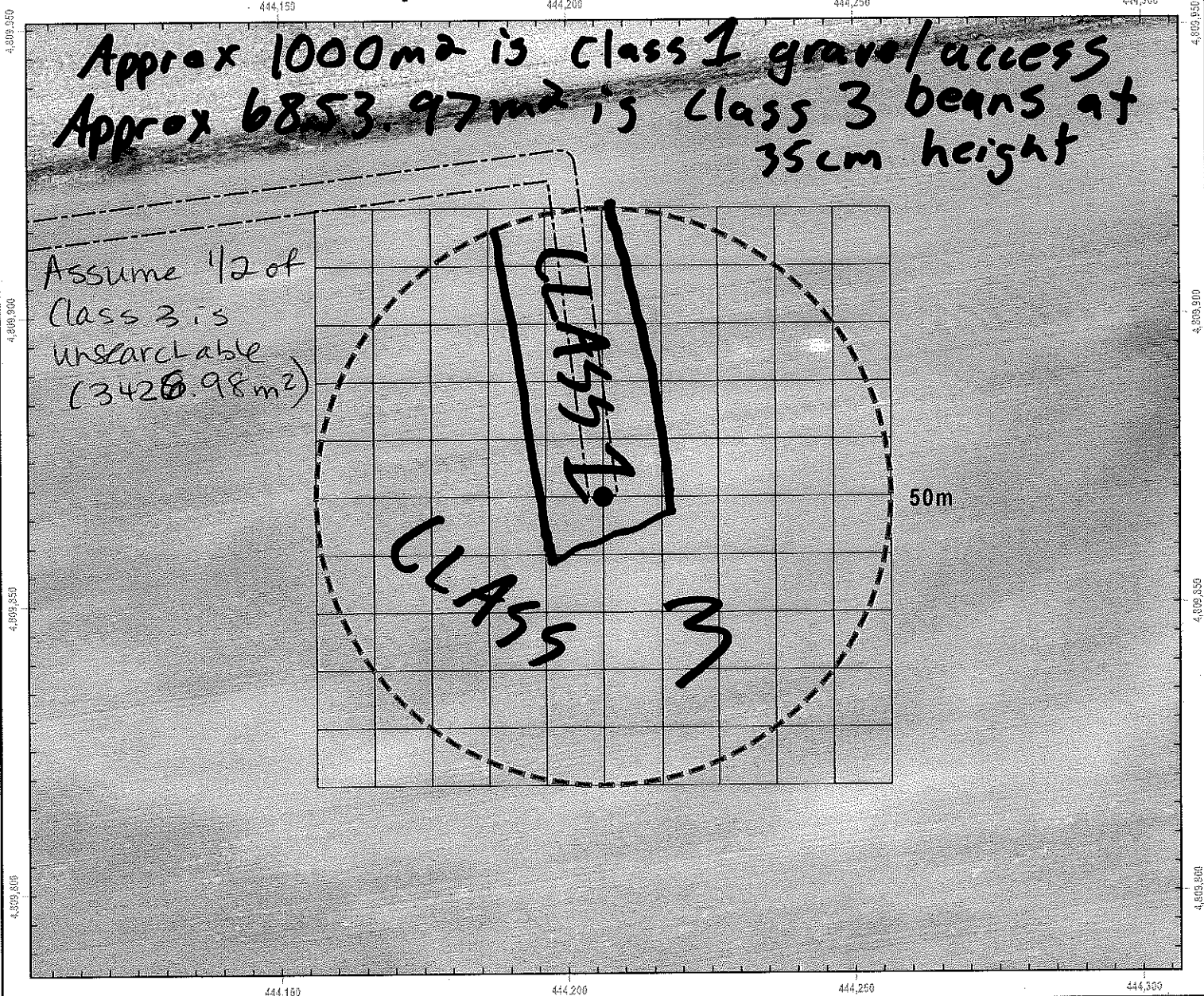
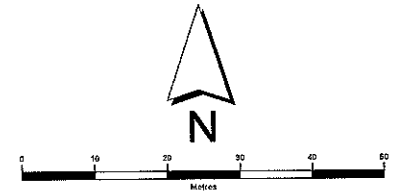
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-05

Survey Date: July 4, 18

Actual Searched Area (m<sup>2</sup>): 4426.99m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



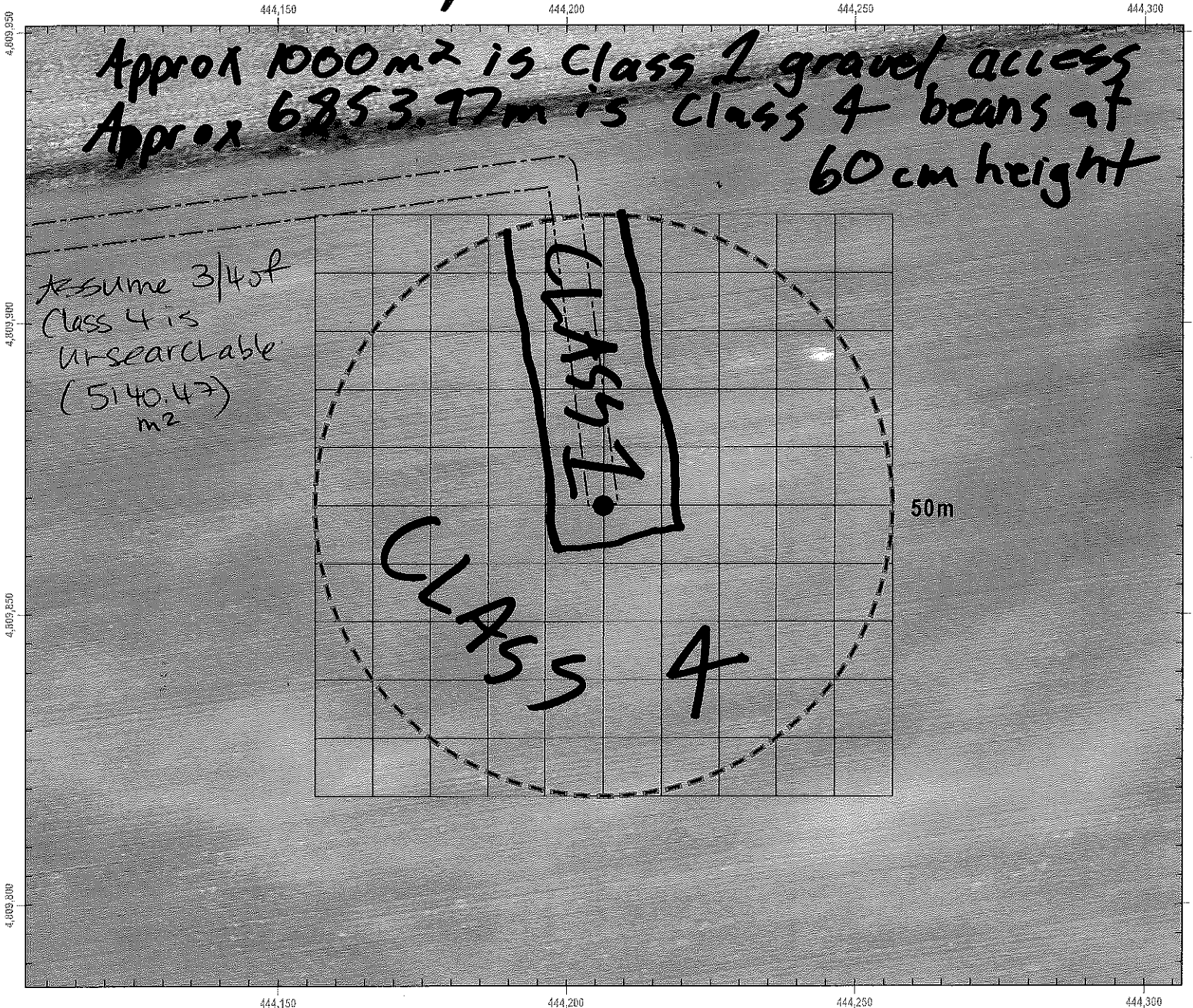
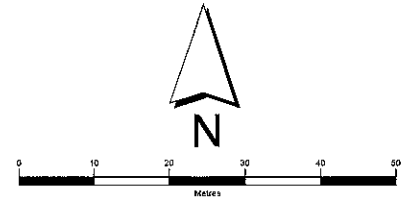
BURN SID E  
 1000 Main Street, Suite 100  
 Grand Rapids, MI 49503  
 Phone: 616.221.1000  
 Fax: 616.221.1001  
 Email: info@burnside.com  
 Website: www.burnside.com

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-05  
 Survey Date: Aug 9 / 18  
 Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>  
(subtract from total search area = 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

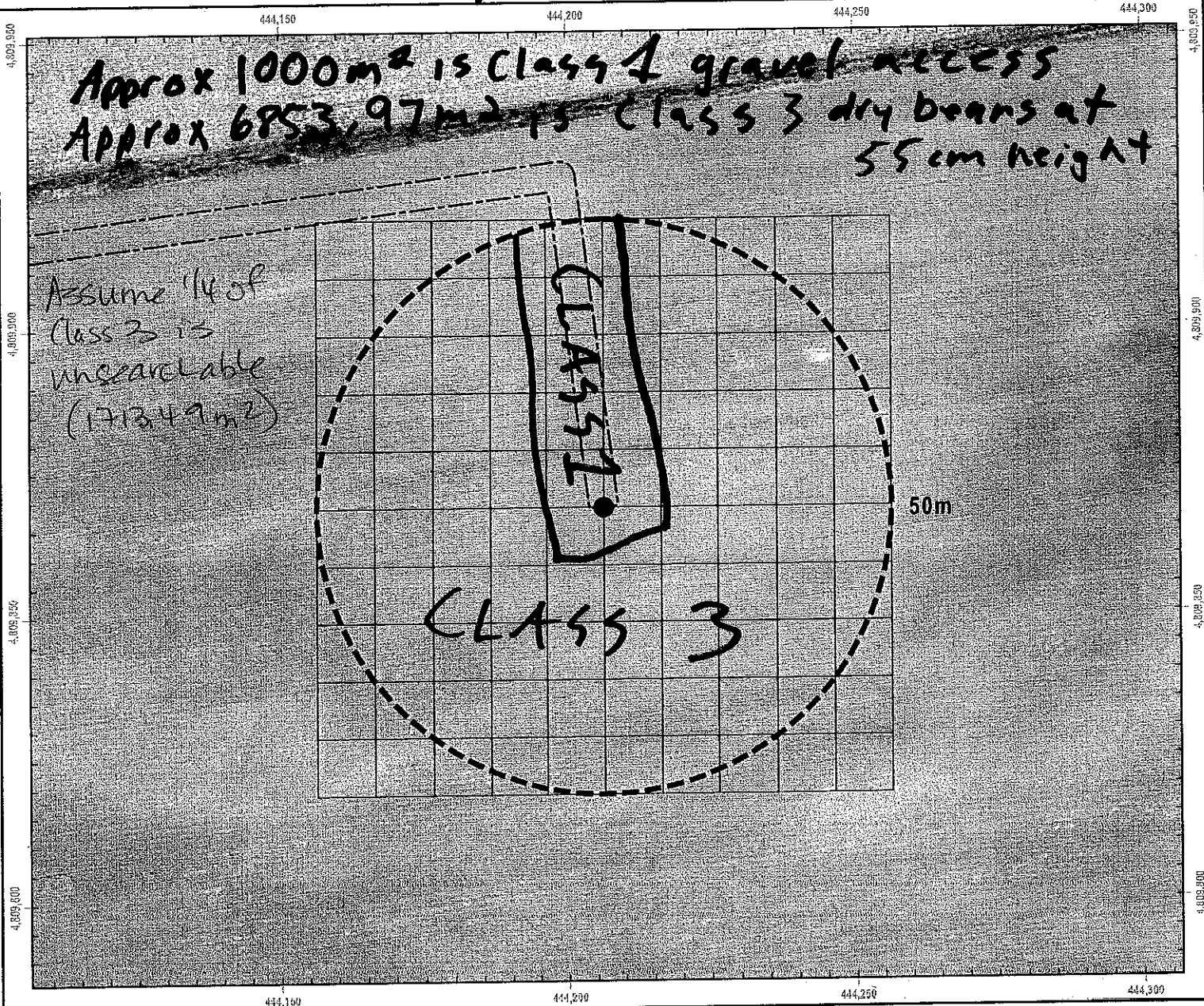
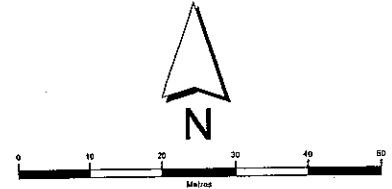
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-05

Survey Date: Oct 3/18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

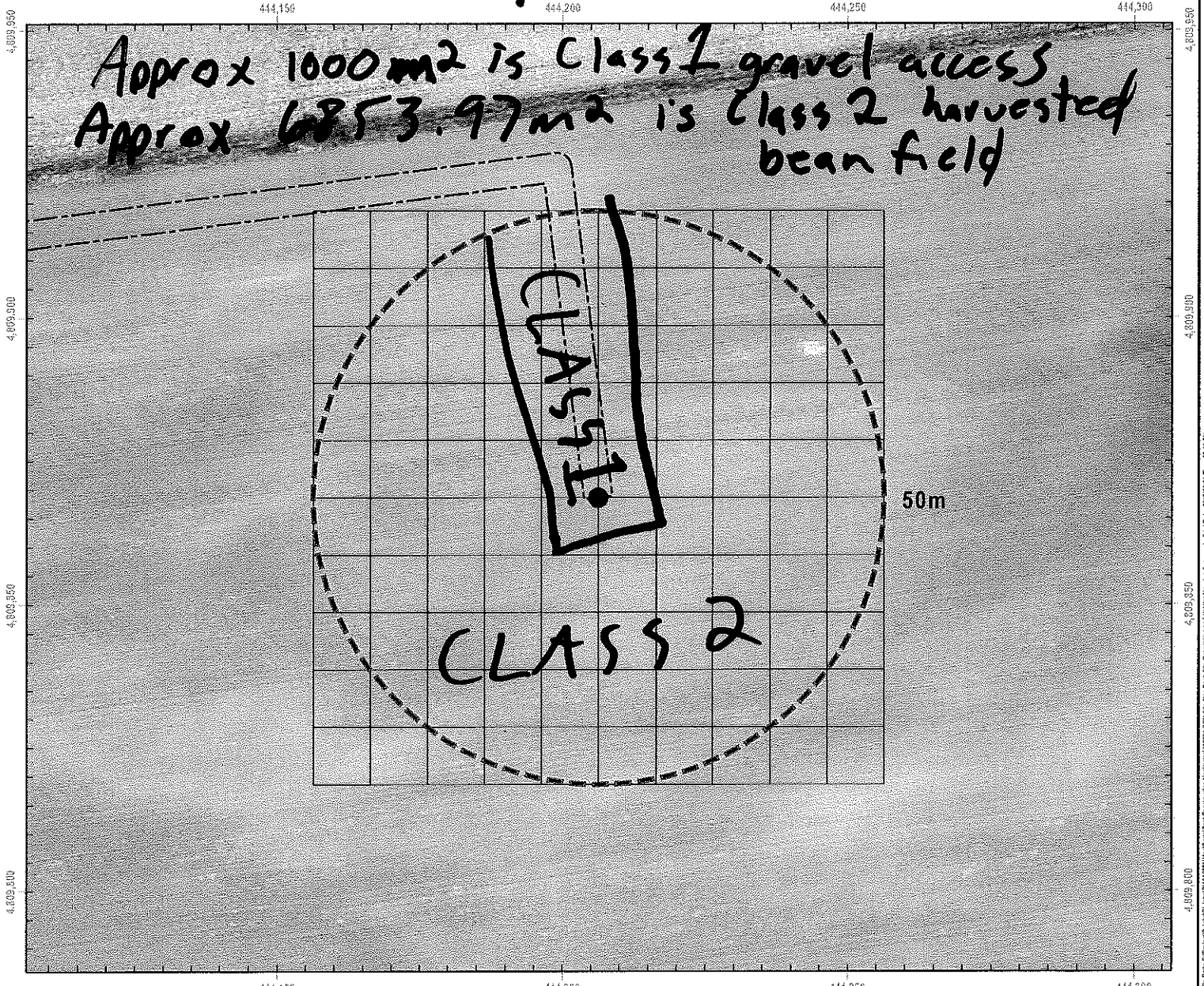
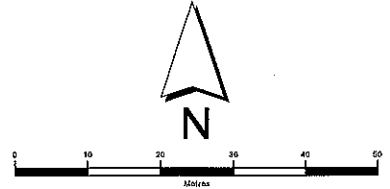
Site Number: T-05

Survey Date: Nov. 7/ 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



4,809,950  
4,809,900  
4,809,850  
4,809,800  
 444,150  
444,200  
444,250  
444,300

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

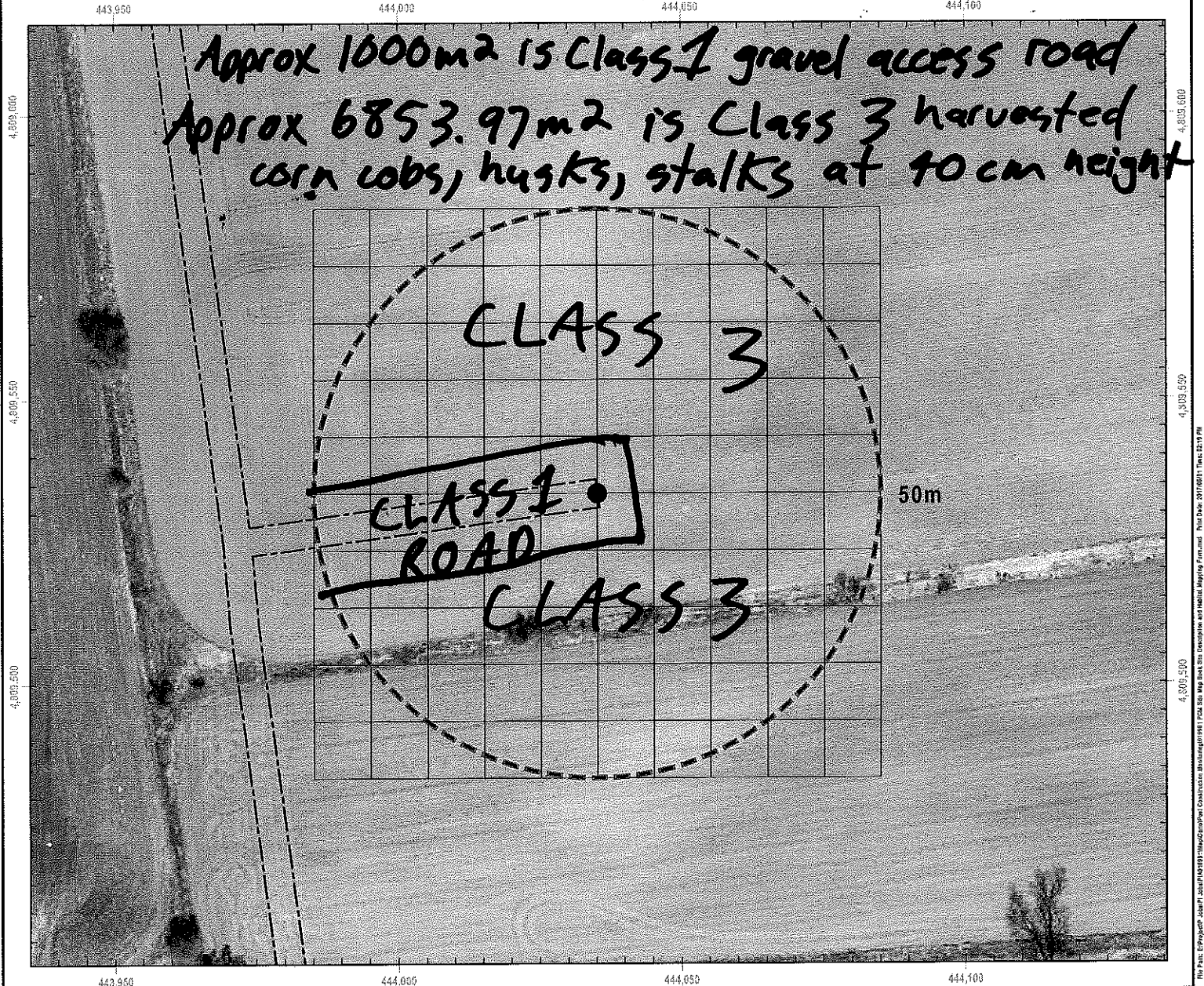
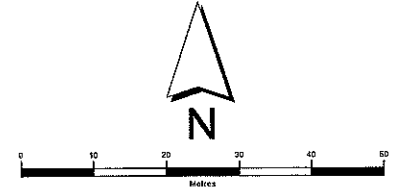
Site Number: T-06

Survey Date: May 9/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



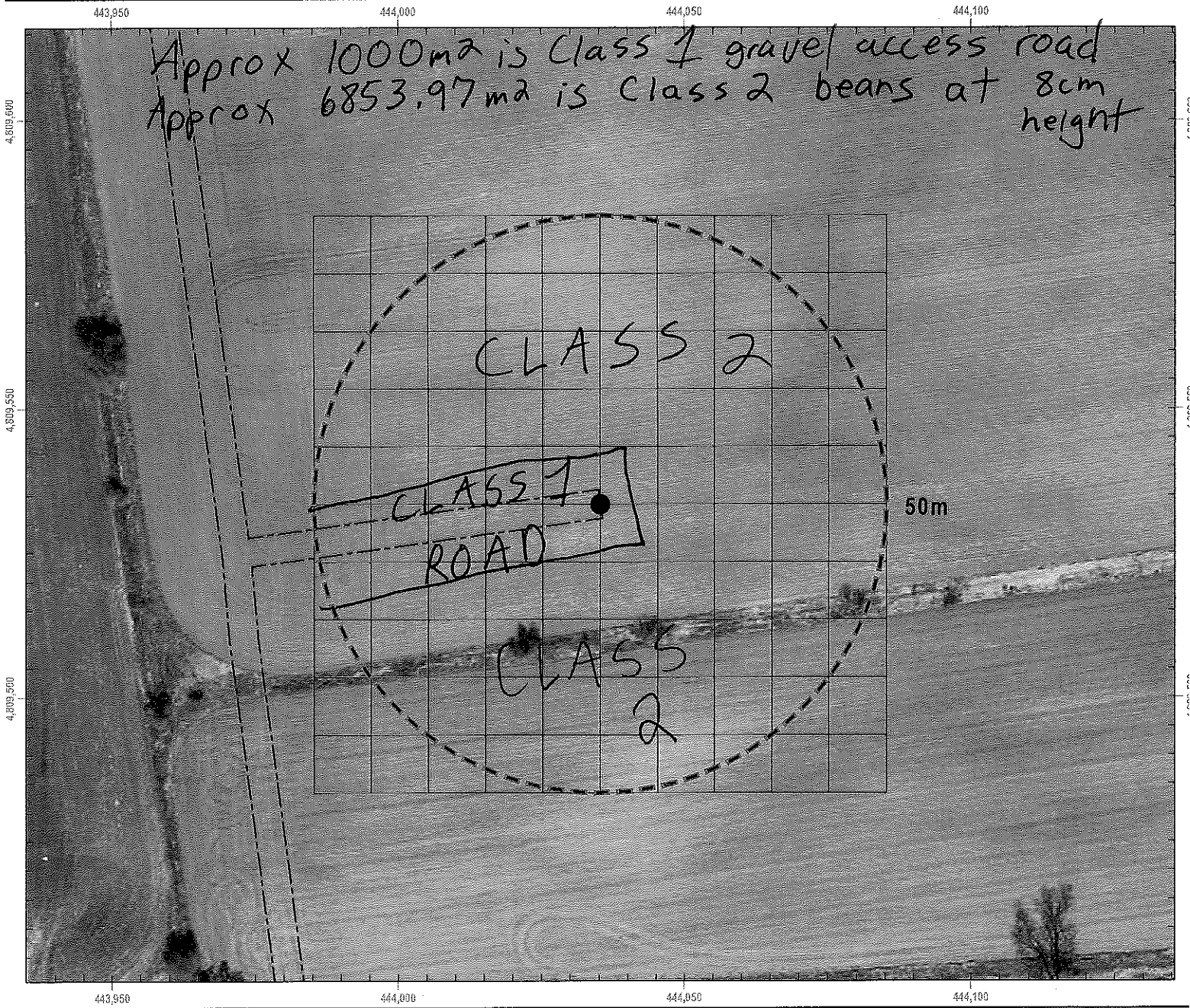
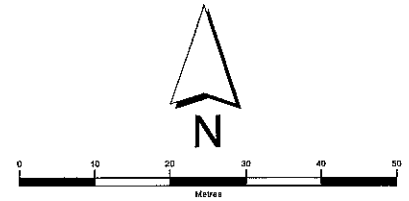
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# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm  
**Site Number:** T-06  
**Survey Date:** June 6 / 18  
**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)  
**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

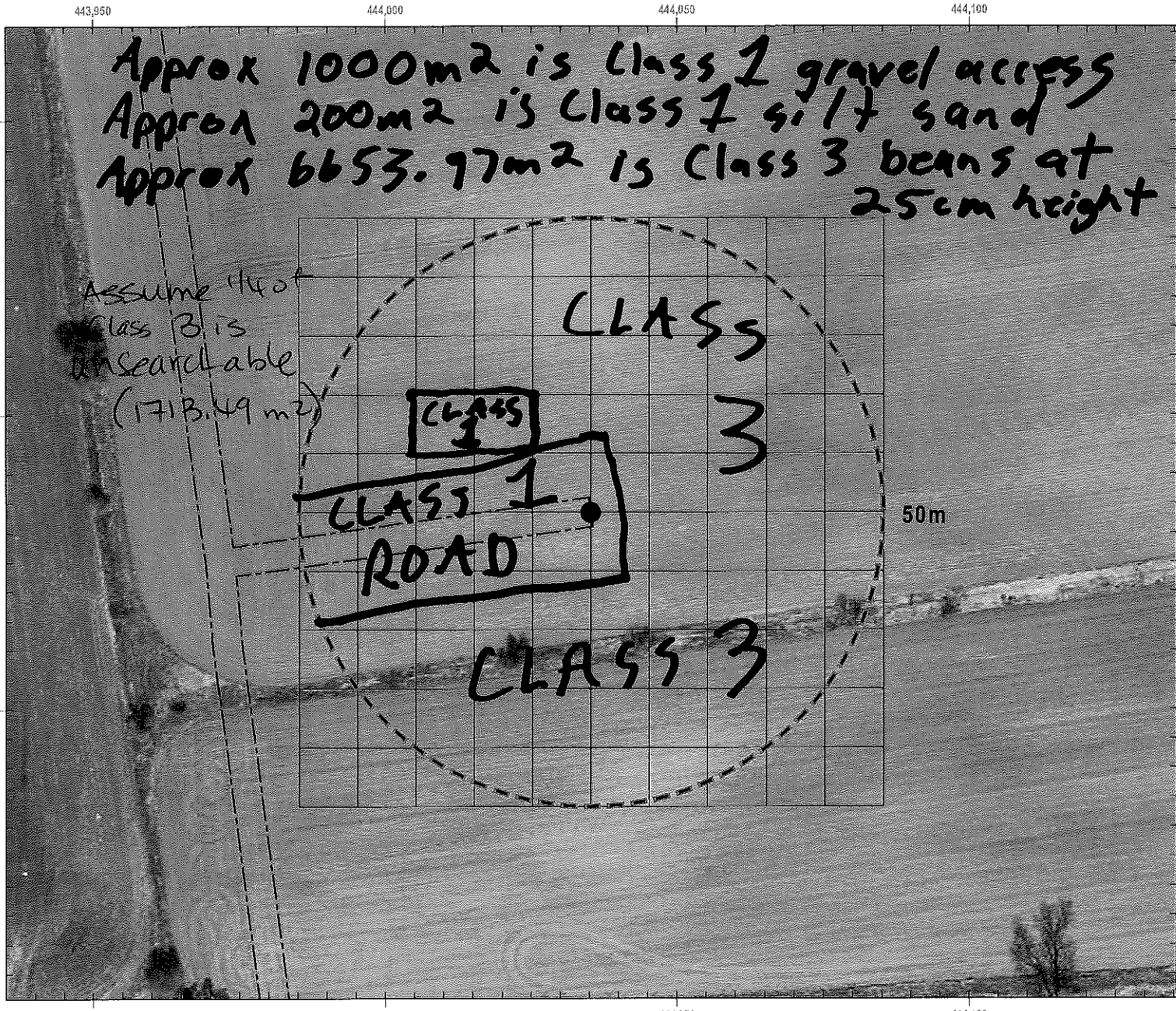
Site Number: T-06

Survey Date: July 4 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

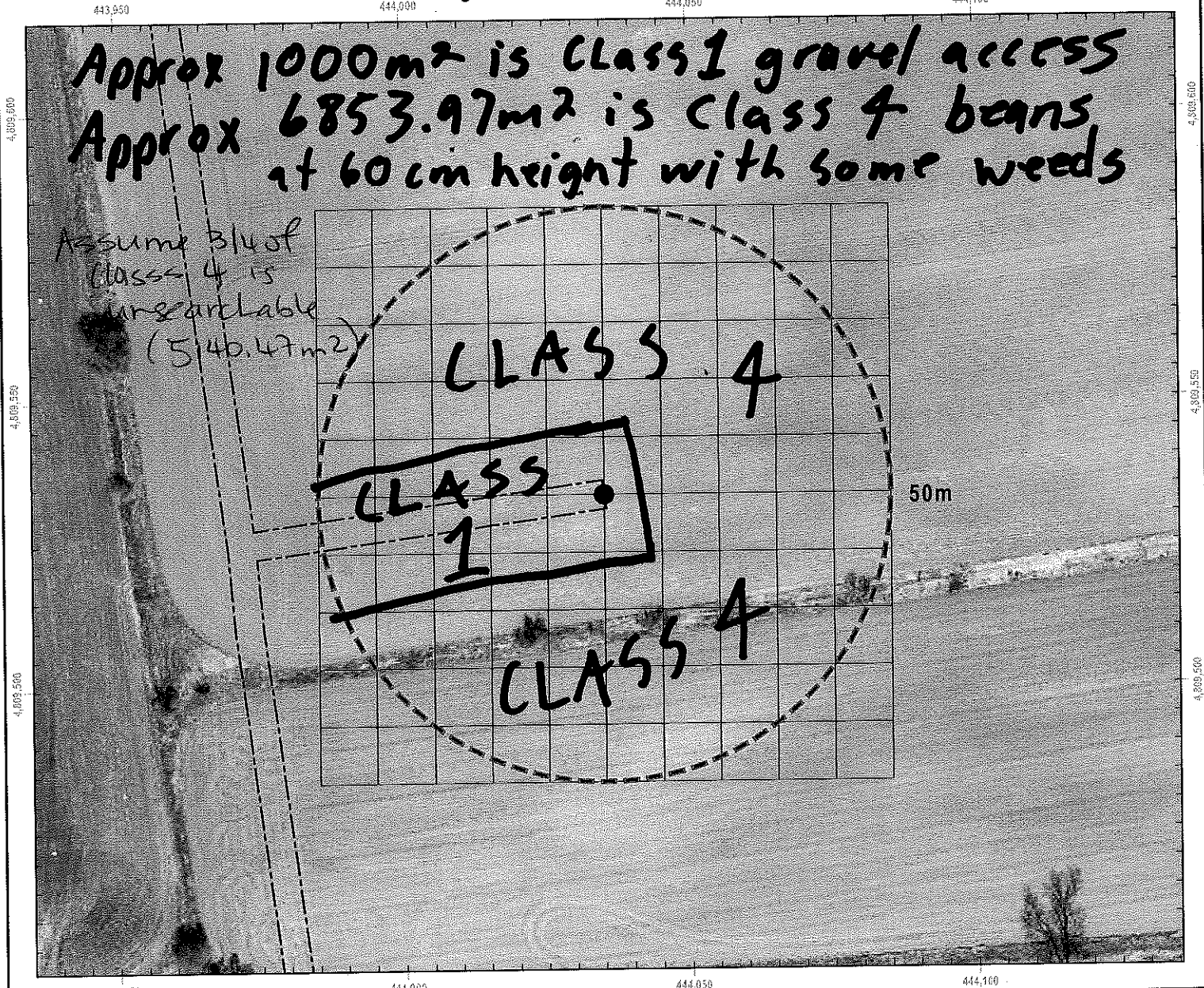
Site Number: T-06

Survey Date: Aug 10/17

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

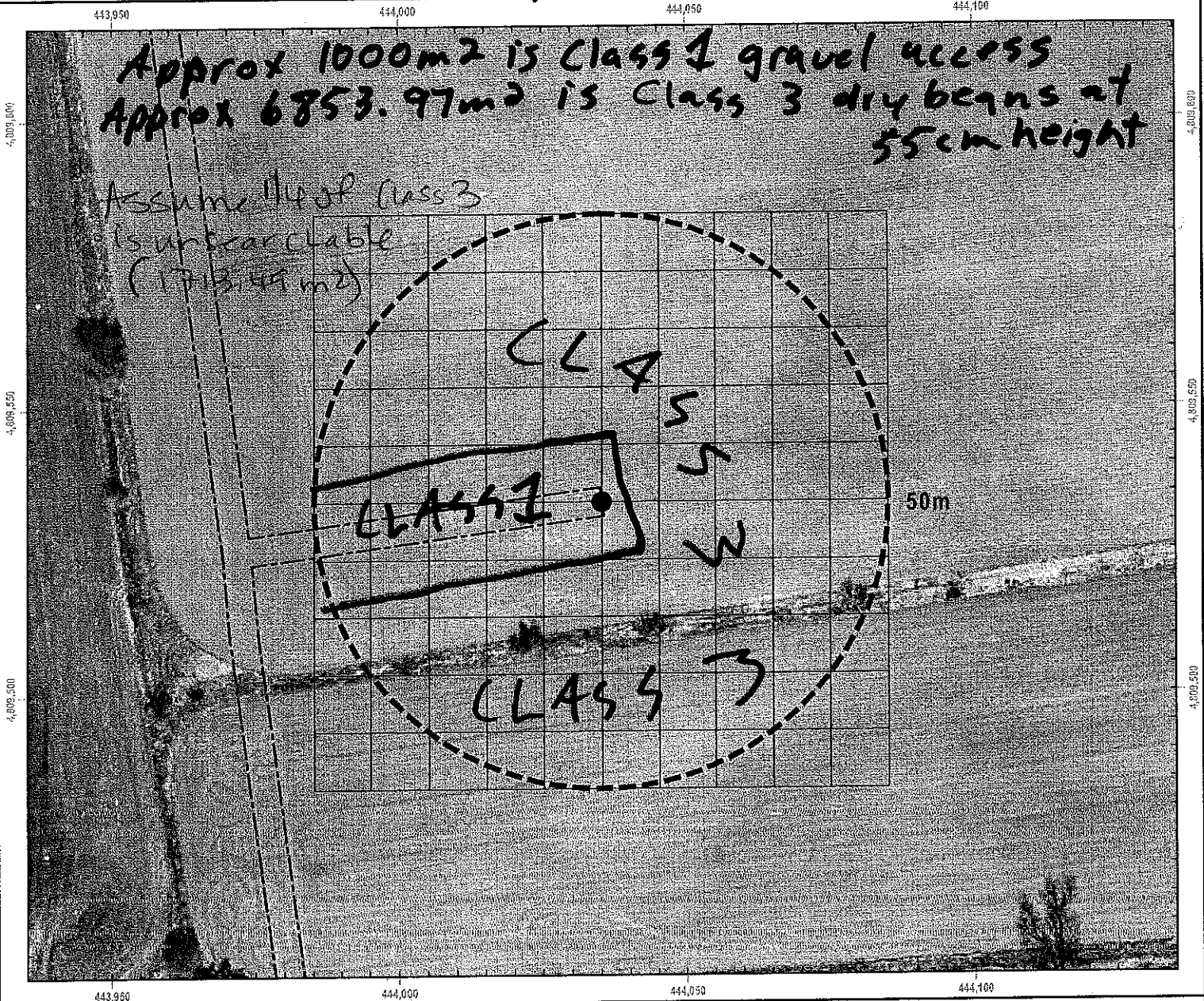
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-06

Survey Date: Oct 3 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

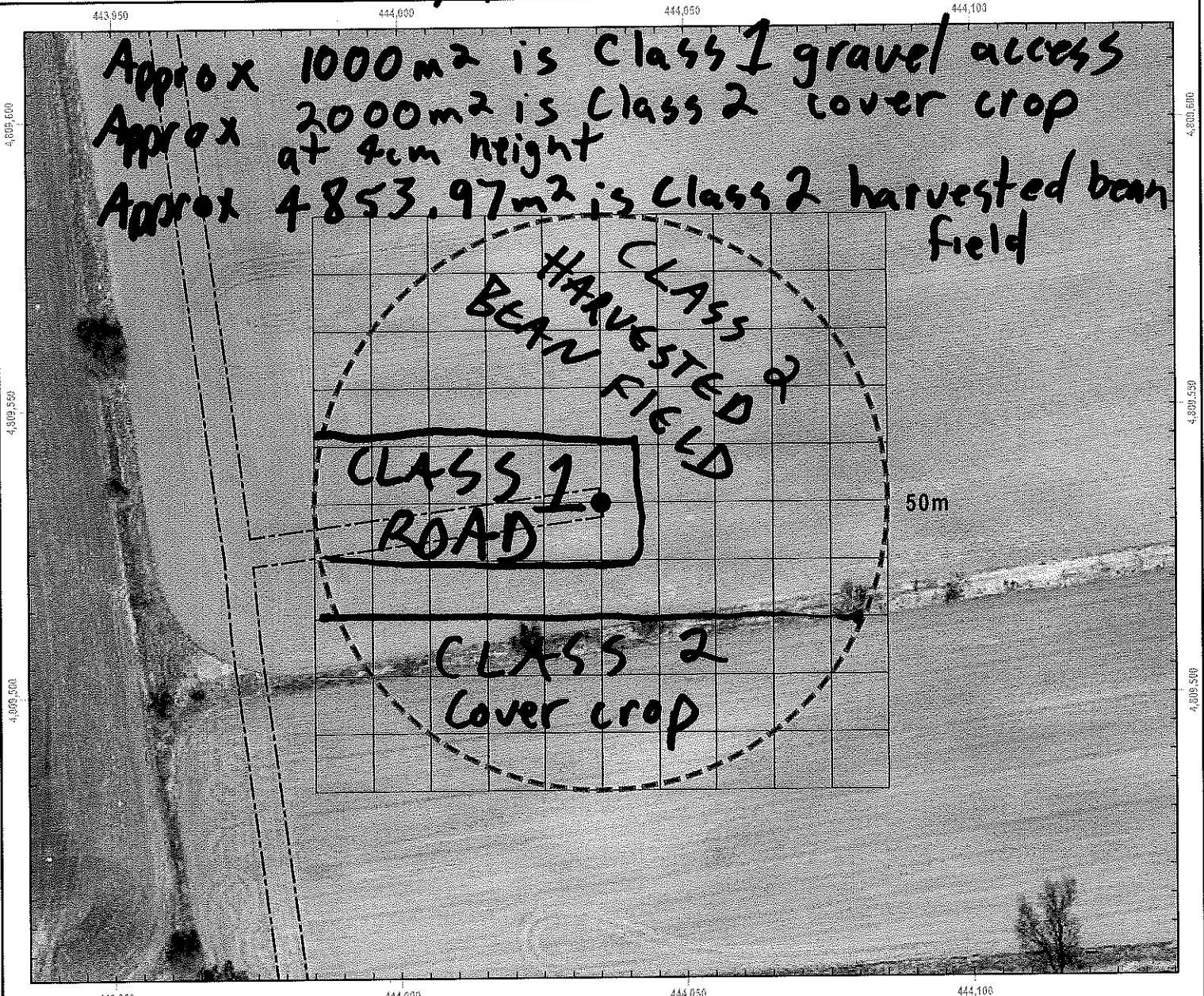
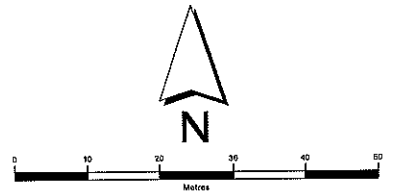
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-06

Survey Date: Nov 7/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

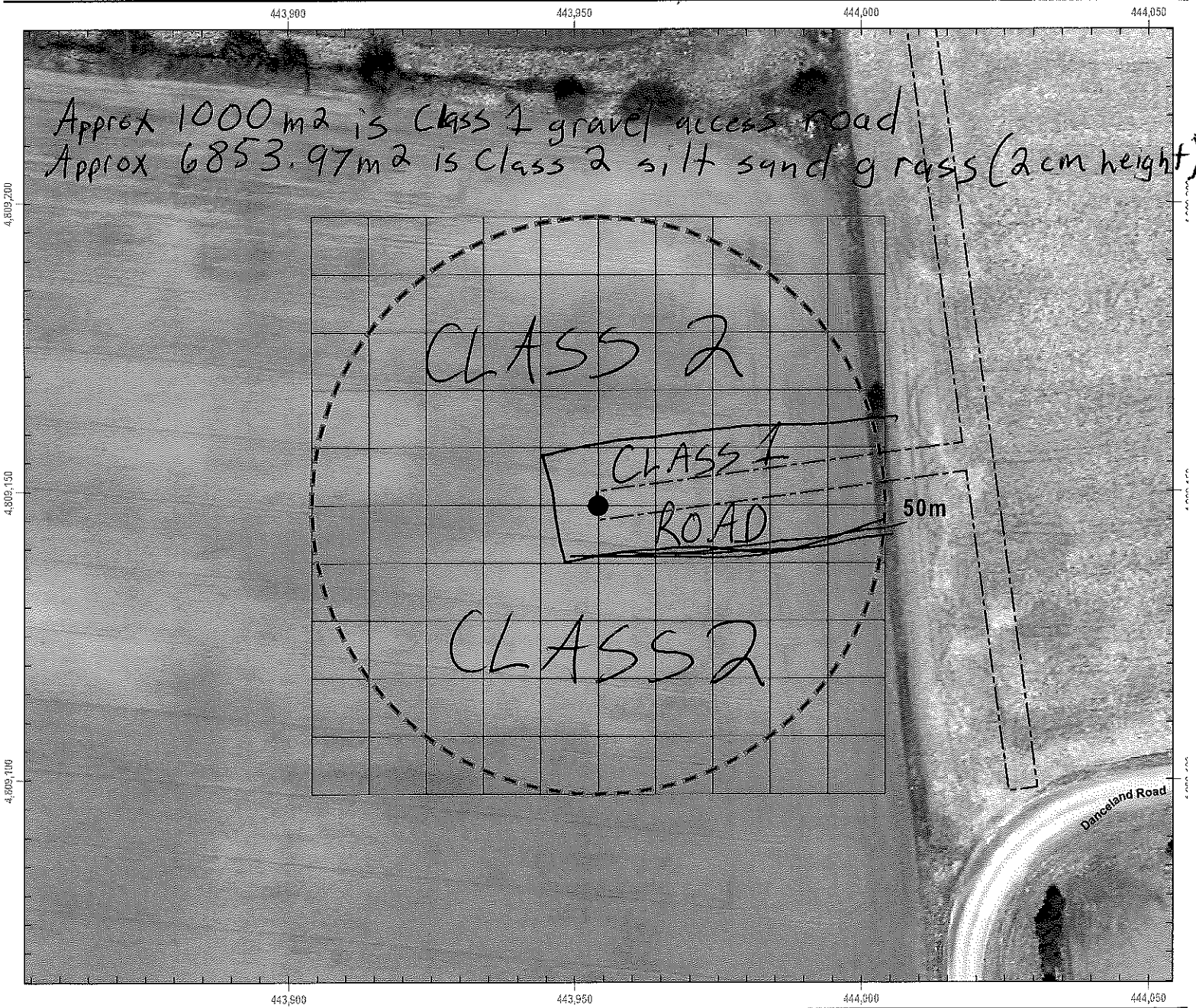
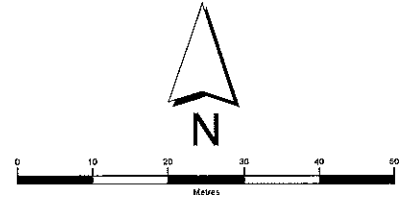
**Site Number:** T-07

**Survey Date:** May 2

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

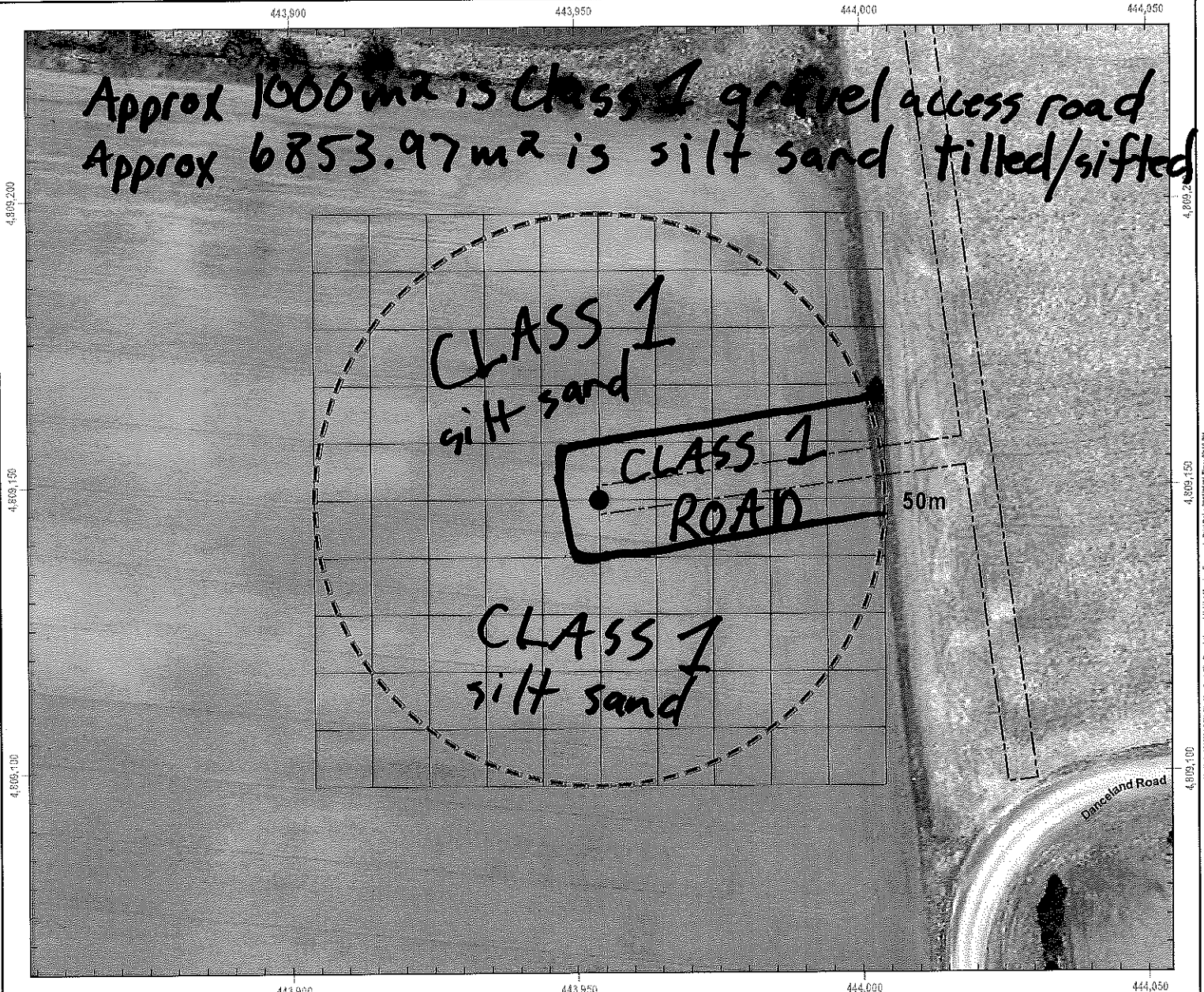
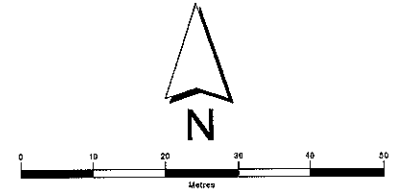
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-07

Survey Date: May 15 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

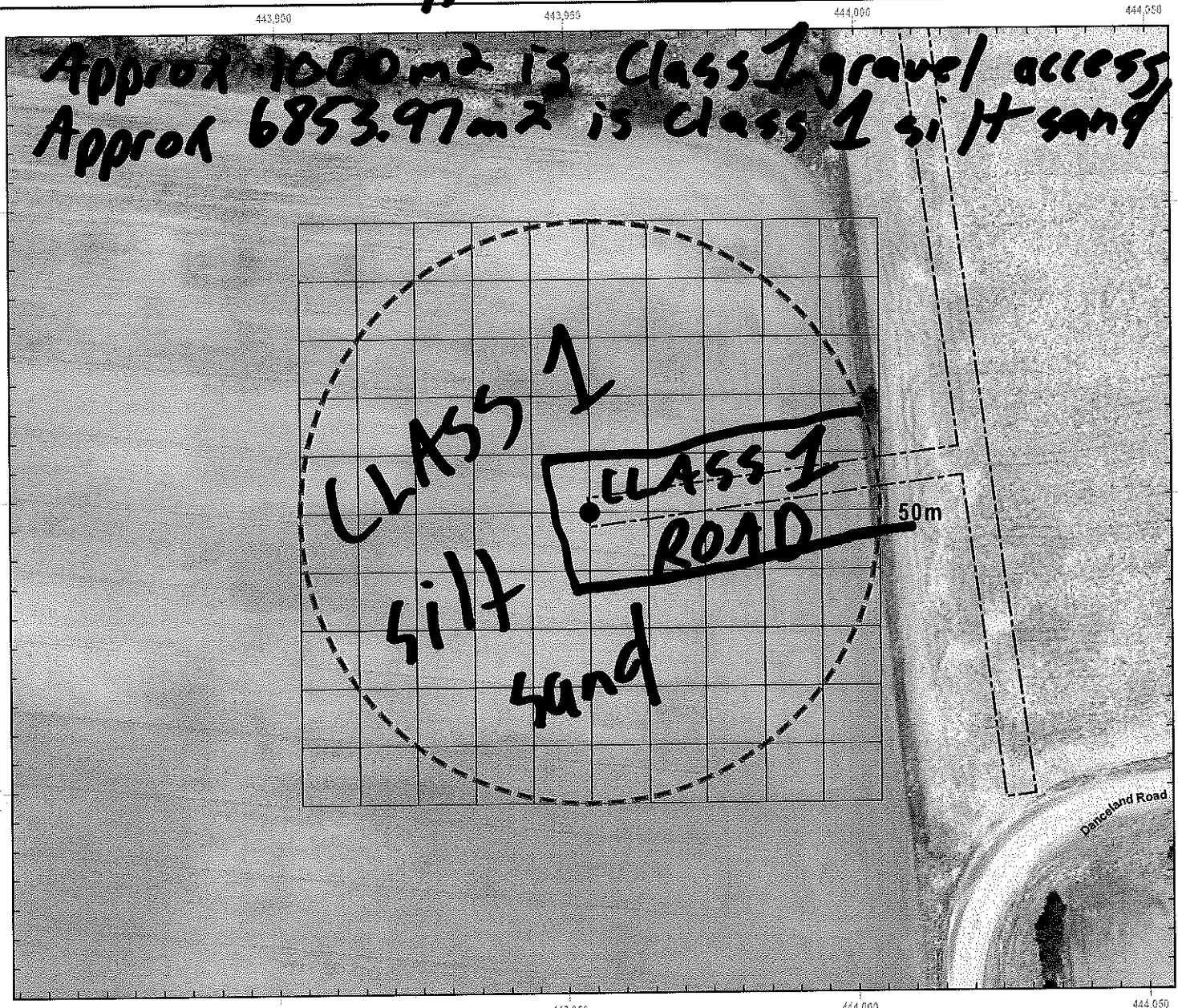
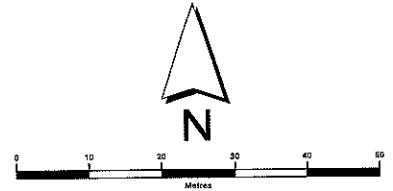
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-07

Survey Date: July 17 118

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

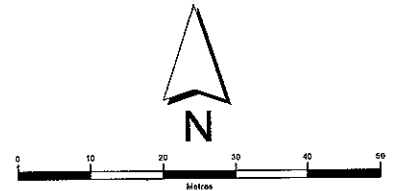
Site Number: T-07

Survey Date: Sept 7 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

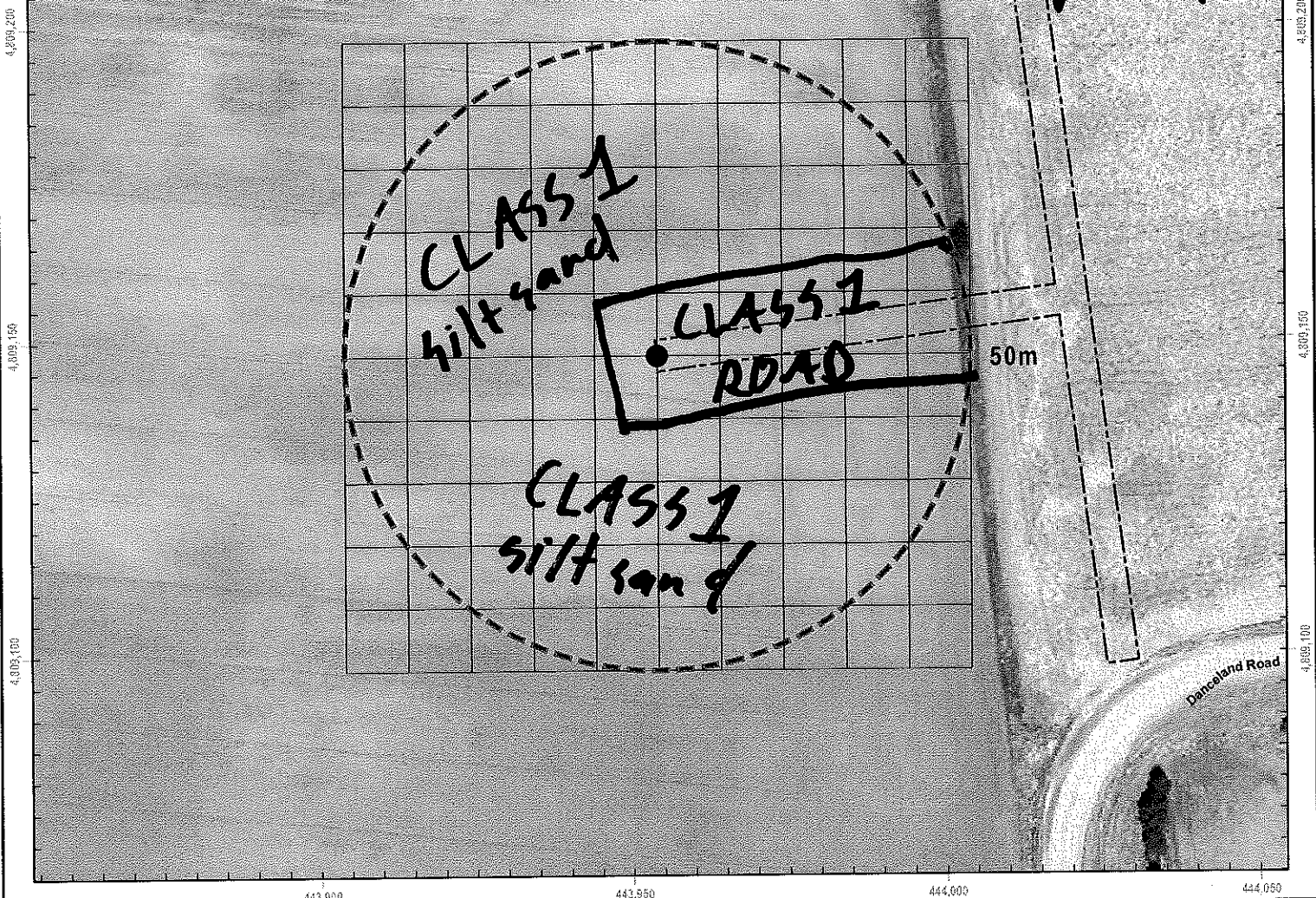
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



443,900                      443,950                      444,000                      444,050

Approx 1000m<sup>2</sup> is Class 1 gravel access road  
 Approx 6853.97m<sup>2</sup> is class 1 silt sand bare ground



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



File Path: C:\Program Files\Autodesk\MapInfo Professional\MapInfo\Projects\GIS\Map\_2018\_09\_07\Map\_2018\_09\_07.mxd    File Size: 20180907\_10:05:17 PM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

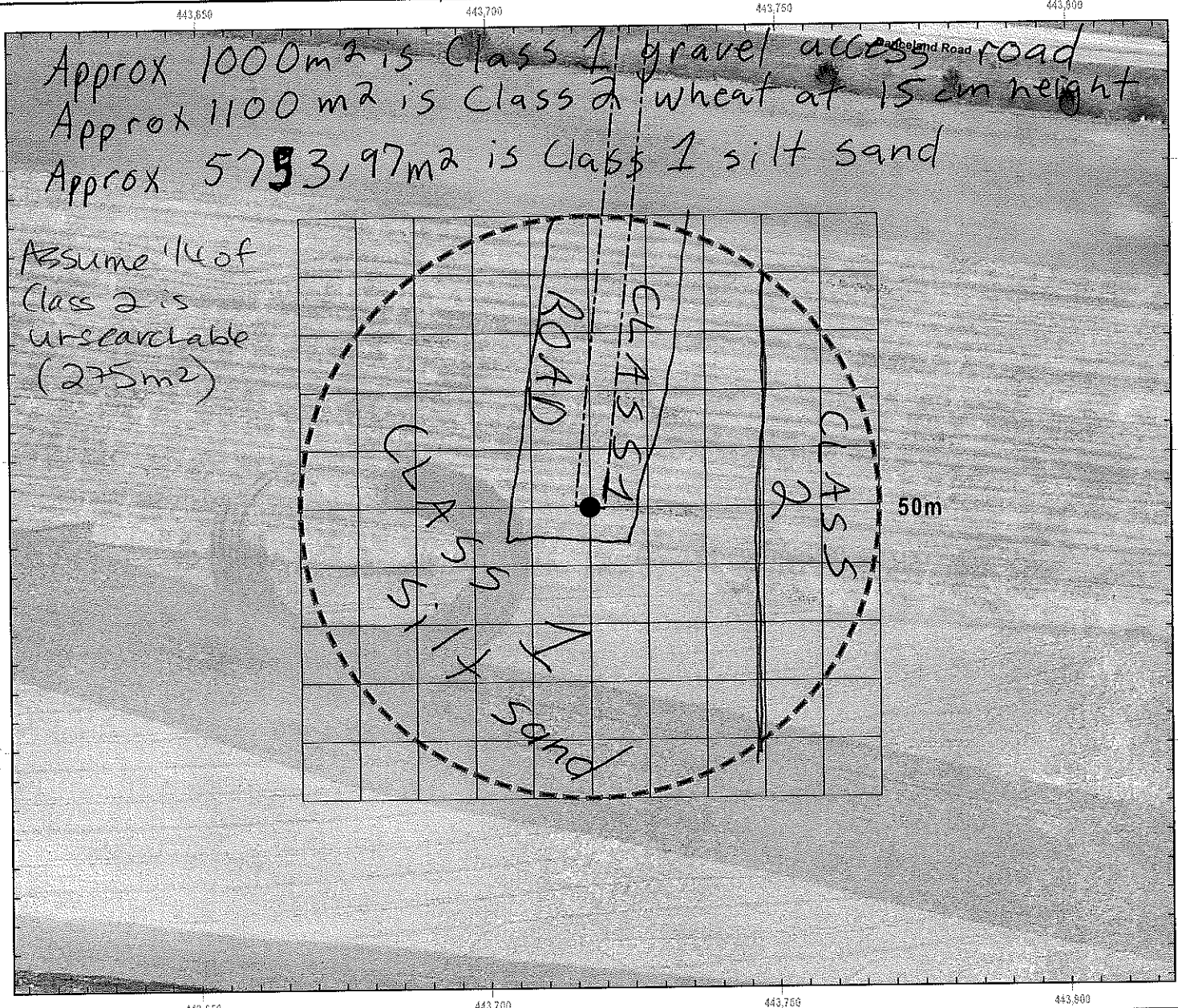
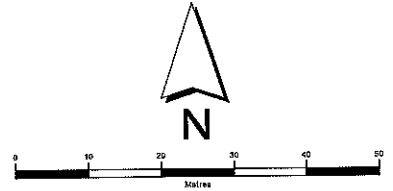
Site Number: T-08

Survey Date: May 9/18

Actual Searched Area (m<sup>2</sup>): 7578.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

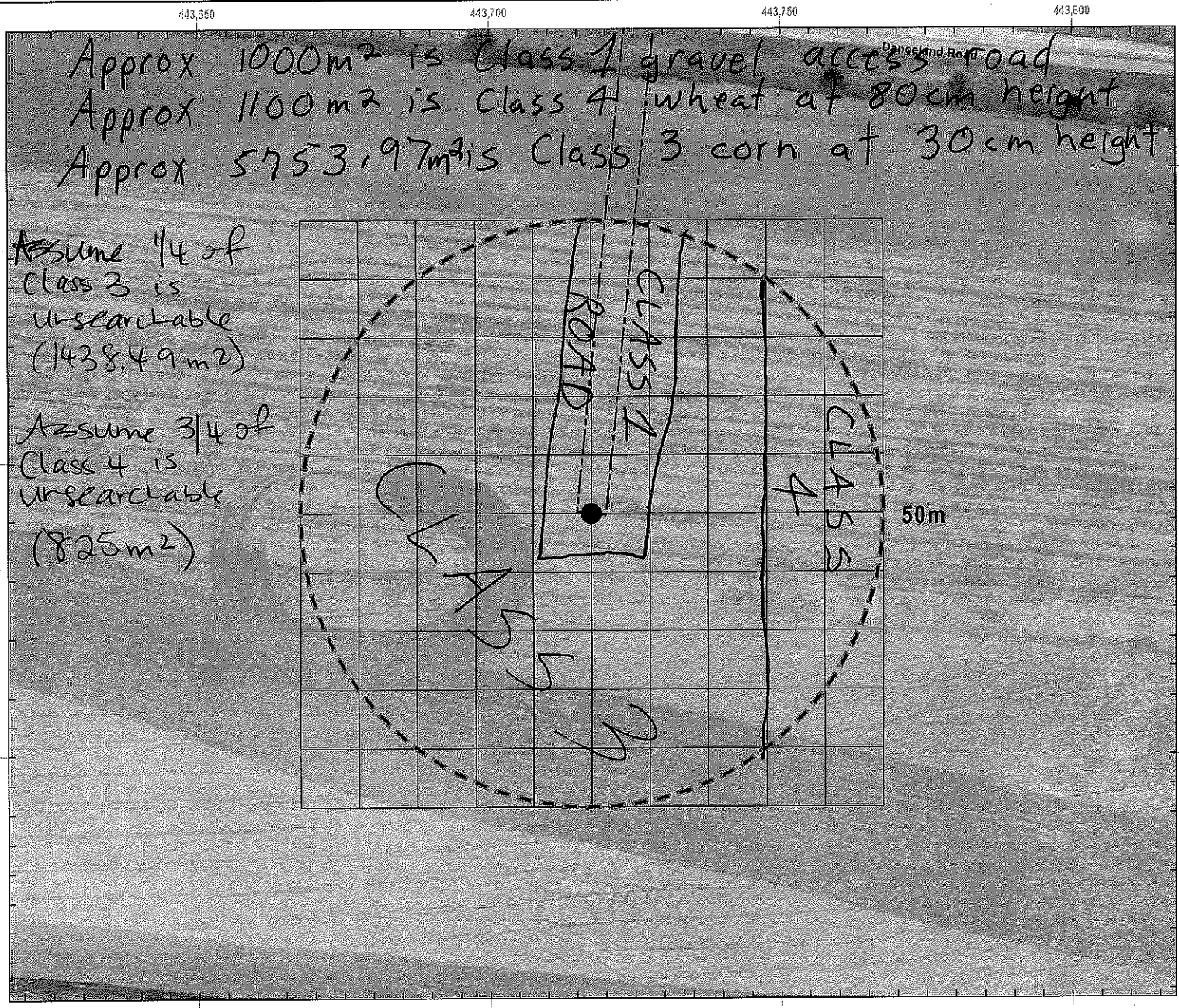
**Site Number:** T-08

**Survey Date:** June 6/18

**Actual Searched Area (m<sup>2</sup>):** 5590.48m<sup>2</sup>

*(subtract from total search area - 7853.97m<sup>2</sup>)*

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

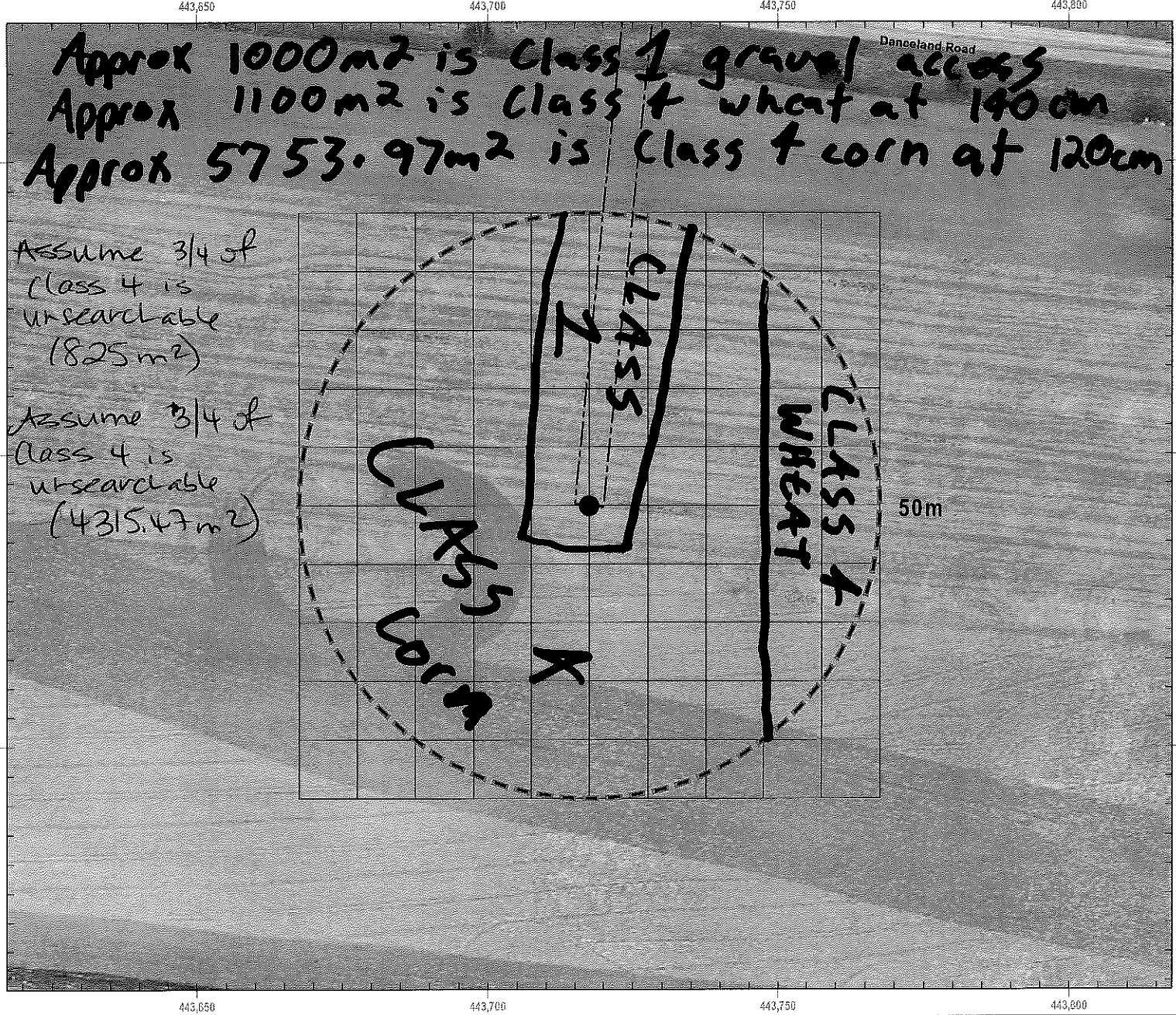
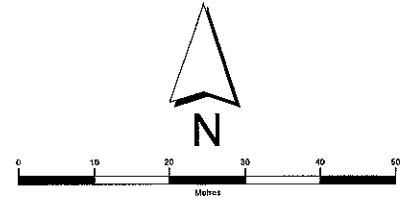
Site Number: T-08

Survey Date: July 4

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



Assume 3/4 of Class 4 is unsearchable (825 m<sup>2</sup>)

Assume 3/4 of Class 4 is unsearchable (4315.47 m<sup>2</sup>)

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

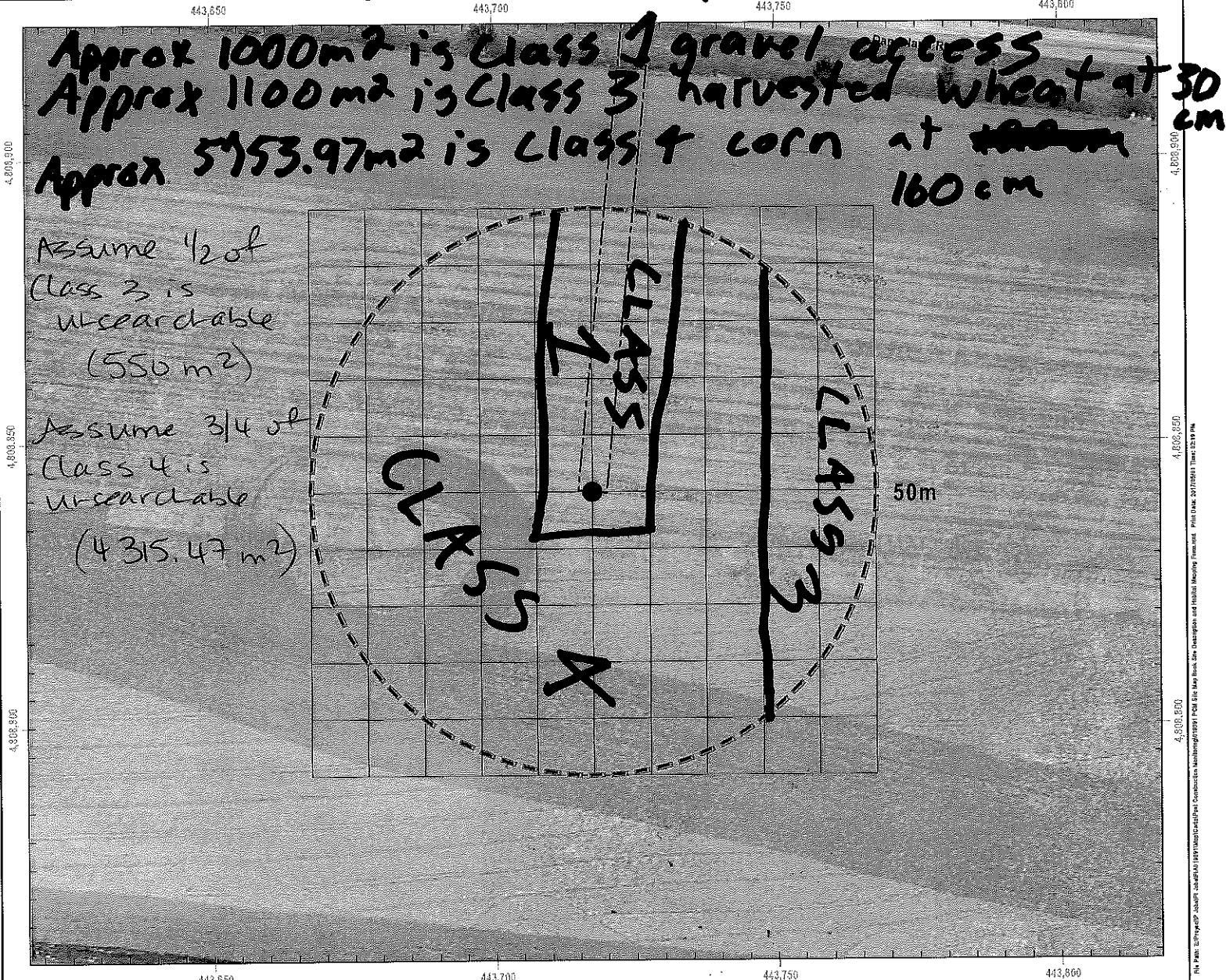
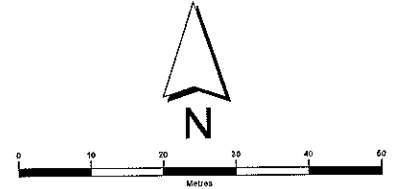
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-08

Survey Date: Aug 10

Actual Searched Area (m<sup>2</sup>): 2988.50 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sara & Deleery



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

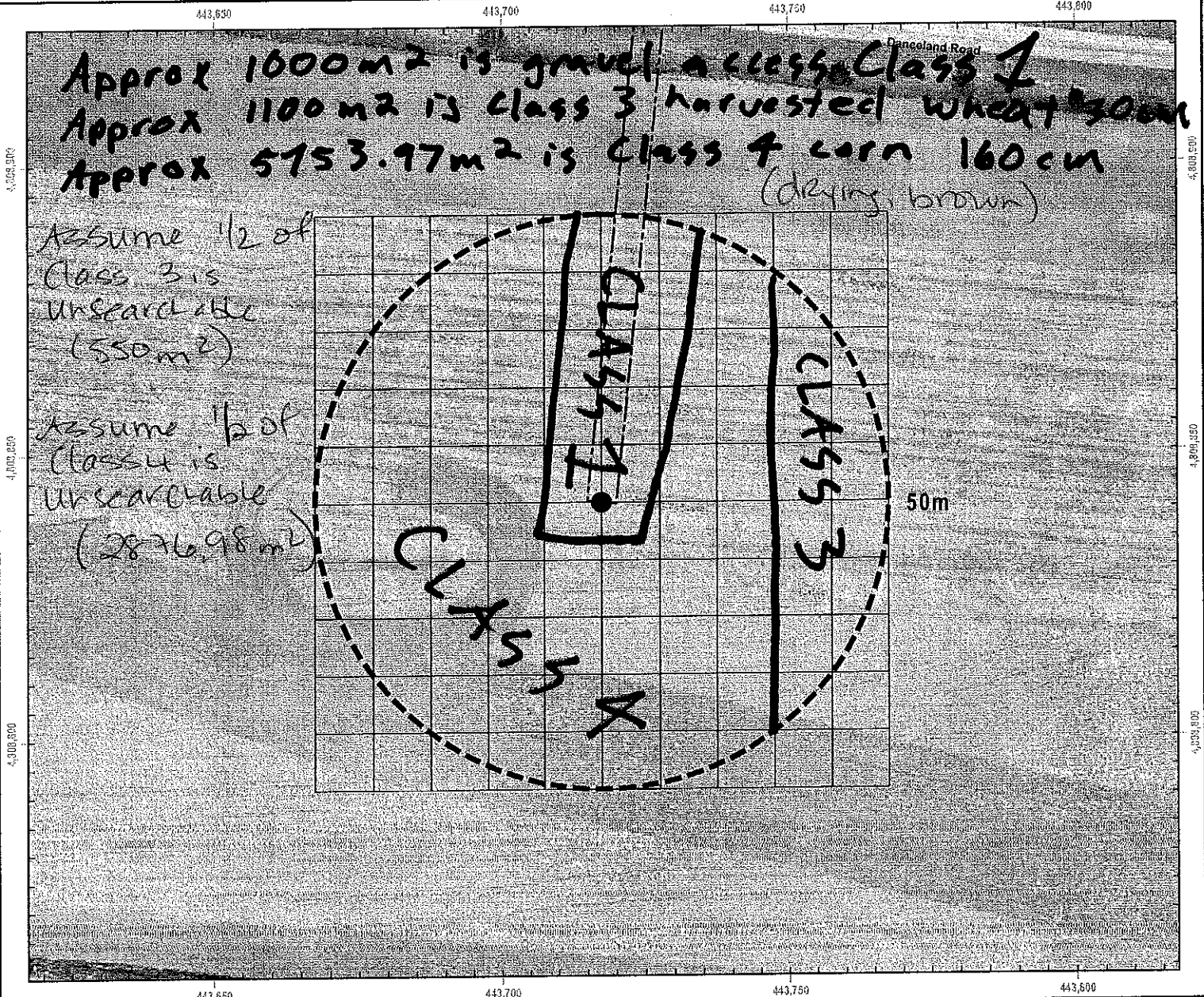
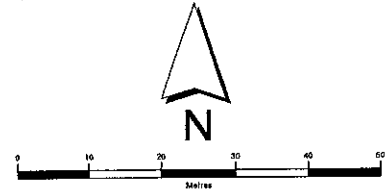


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-08  
 Survey Date: Oct 3/18  
 Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

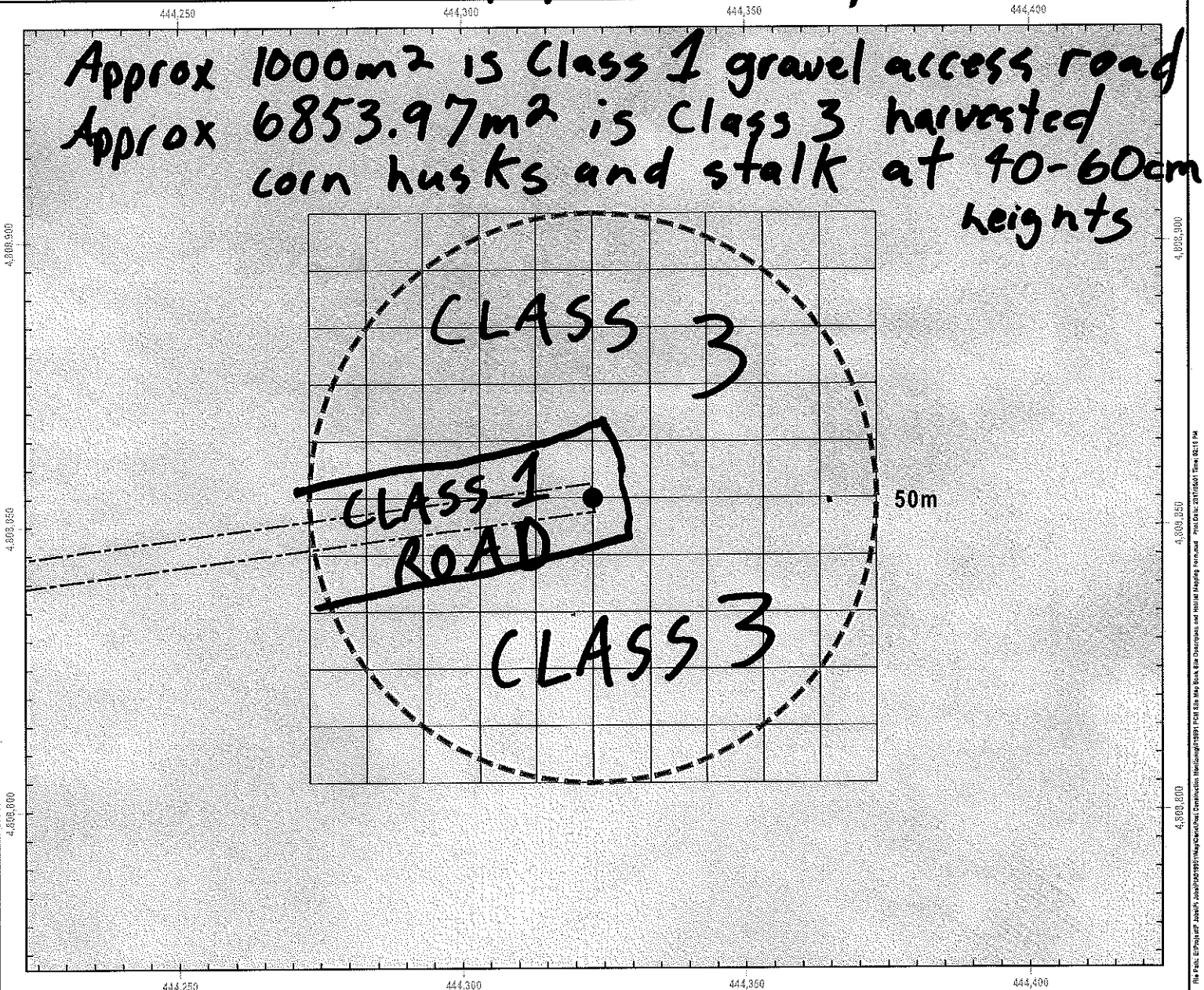
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-09

Survey Date: May 8/18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



File Path: E:\Project\74661\_14610\0001\Map\_Carcass\_Search\Map\_Carcass\_Search.mxd Date: 2018/05/08 10:11 AM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

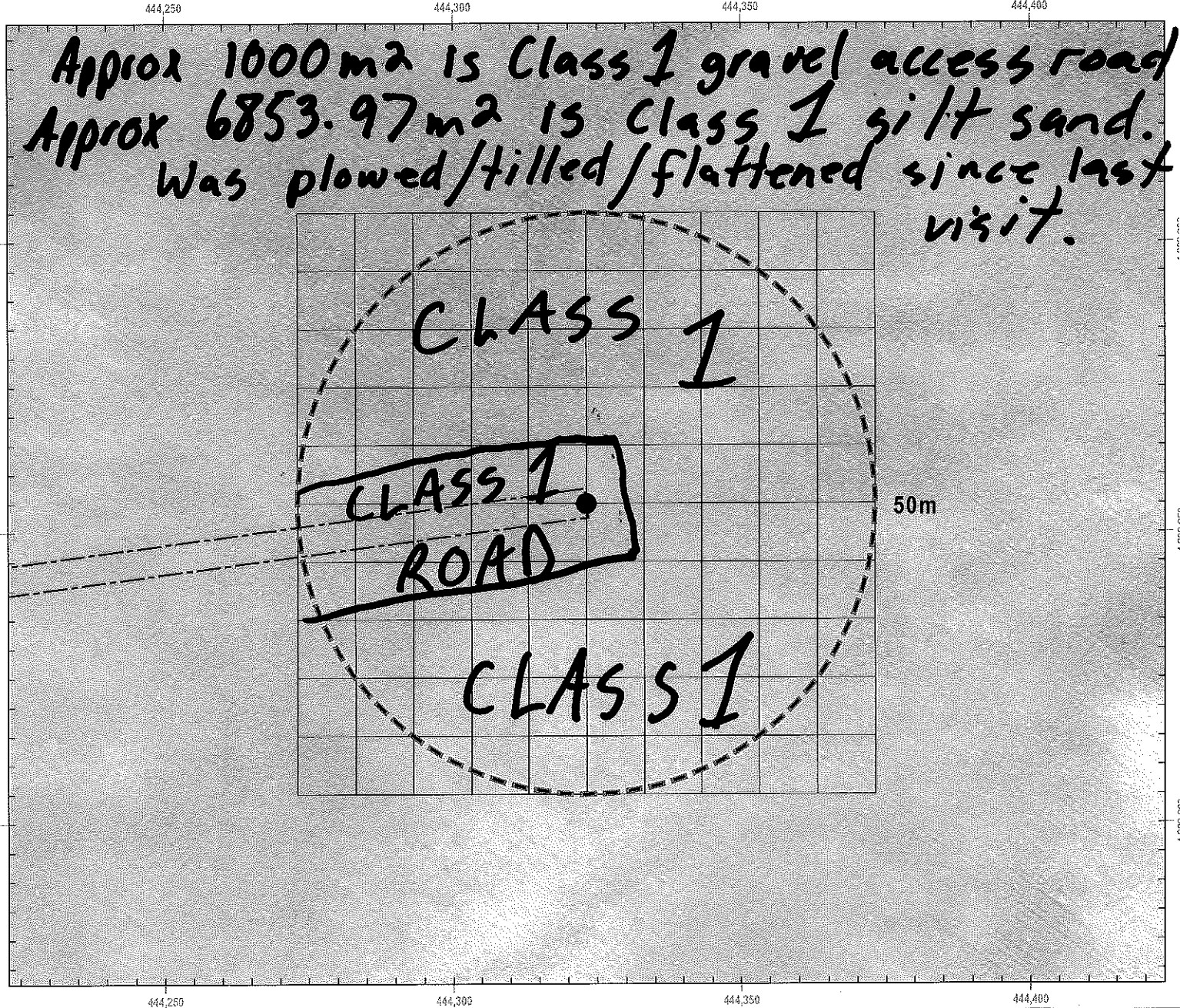
Site Number: T-09

Survey Date: May 15 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

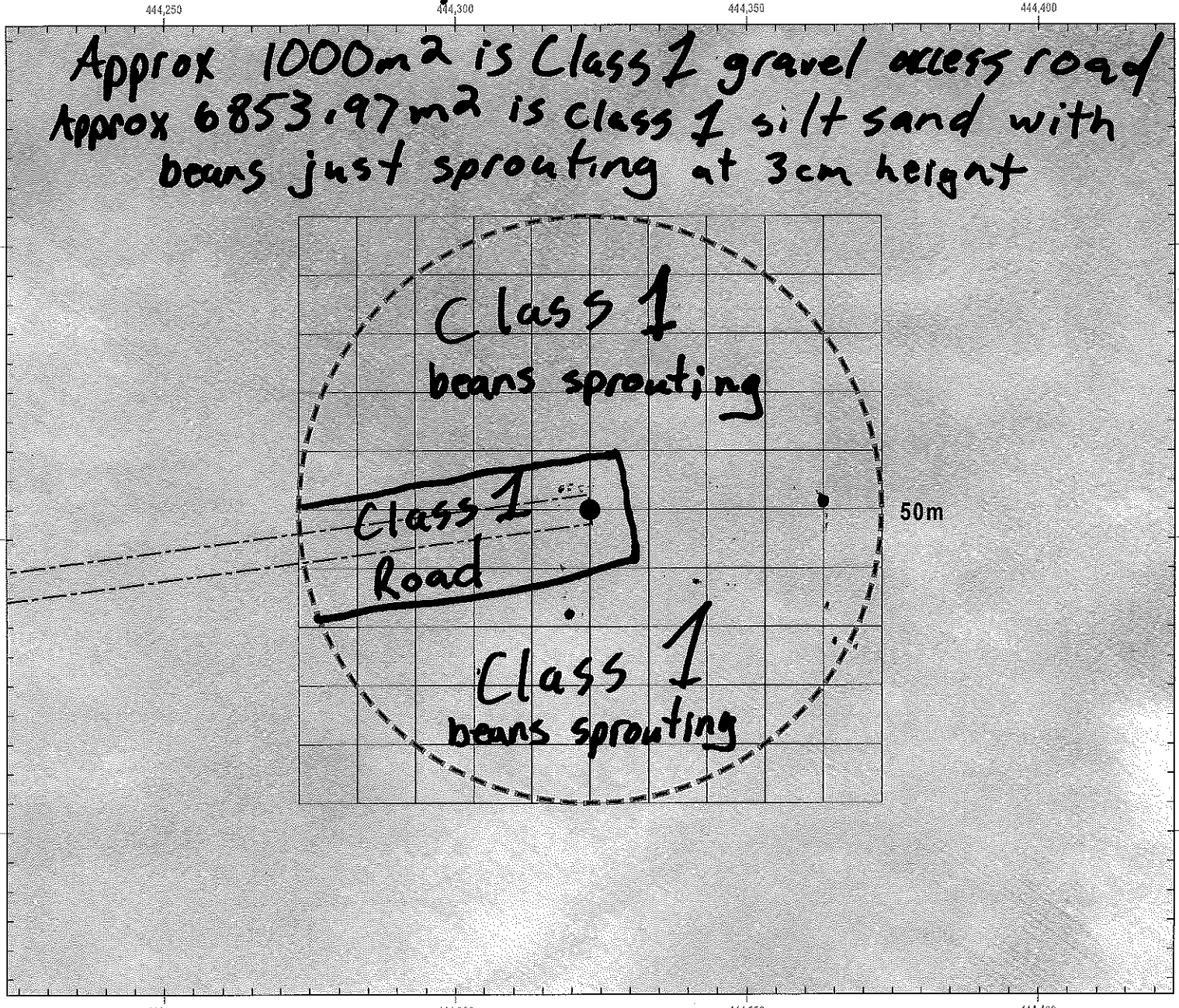
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-09

Survey Date: May 29 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area: 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sara Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

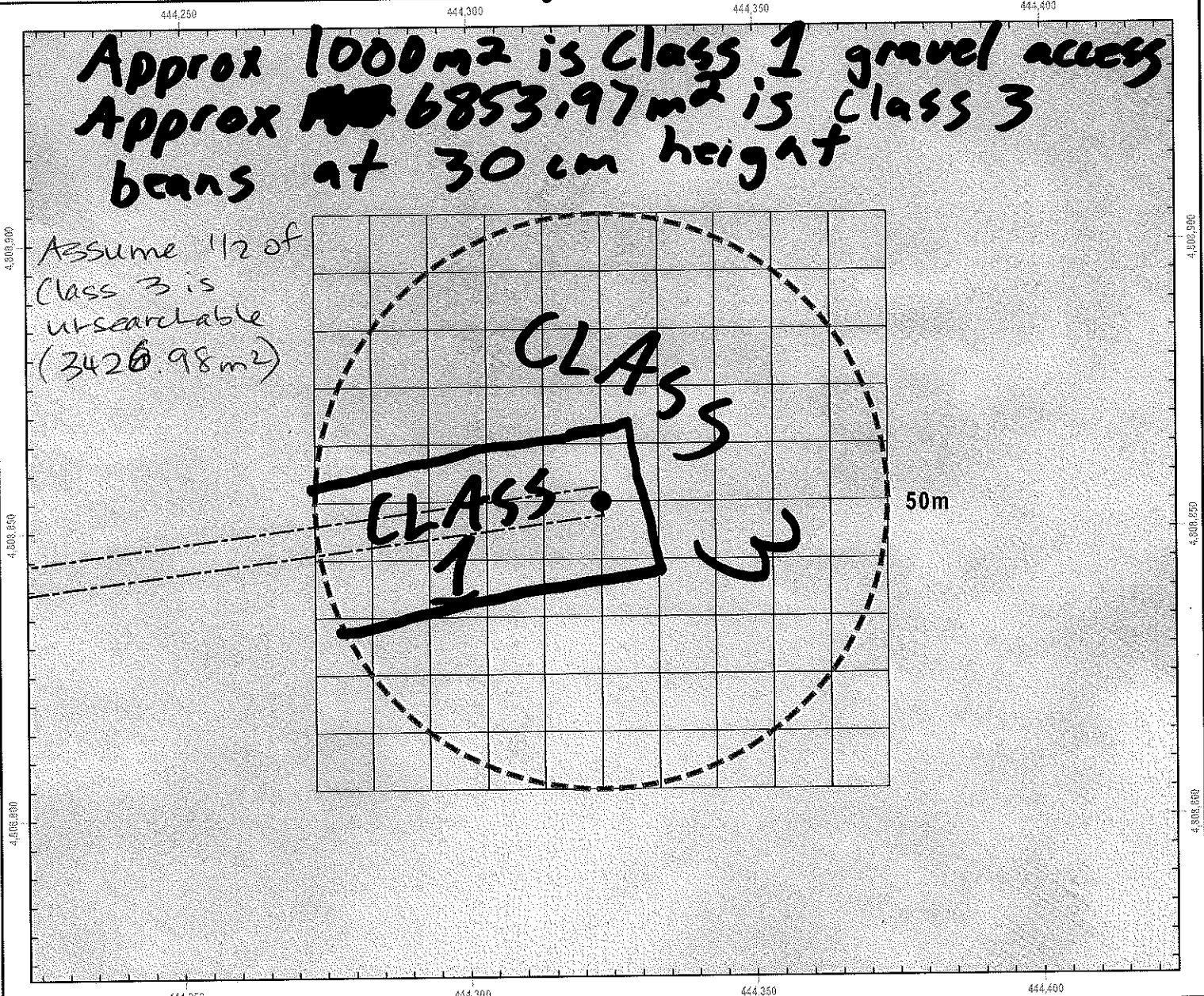
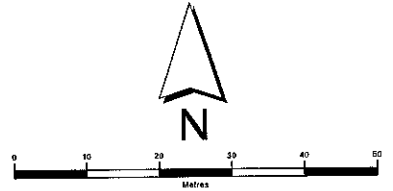
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-09

Survey Date: July 6/18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>  
(subtract from total search area 7853.97m<sup>2</sup>)

Observers: Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

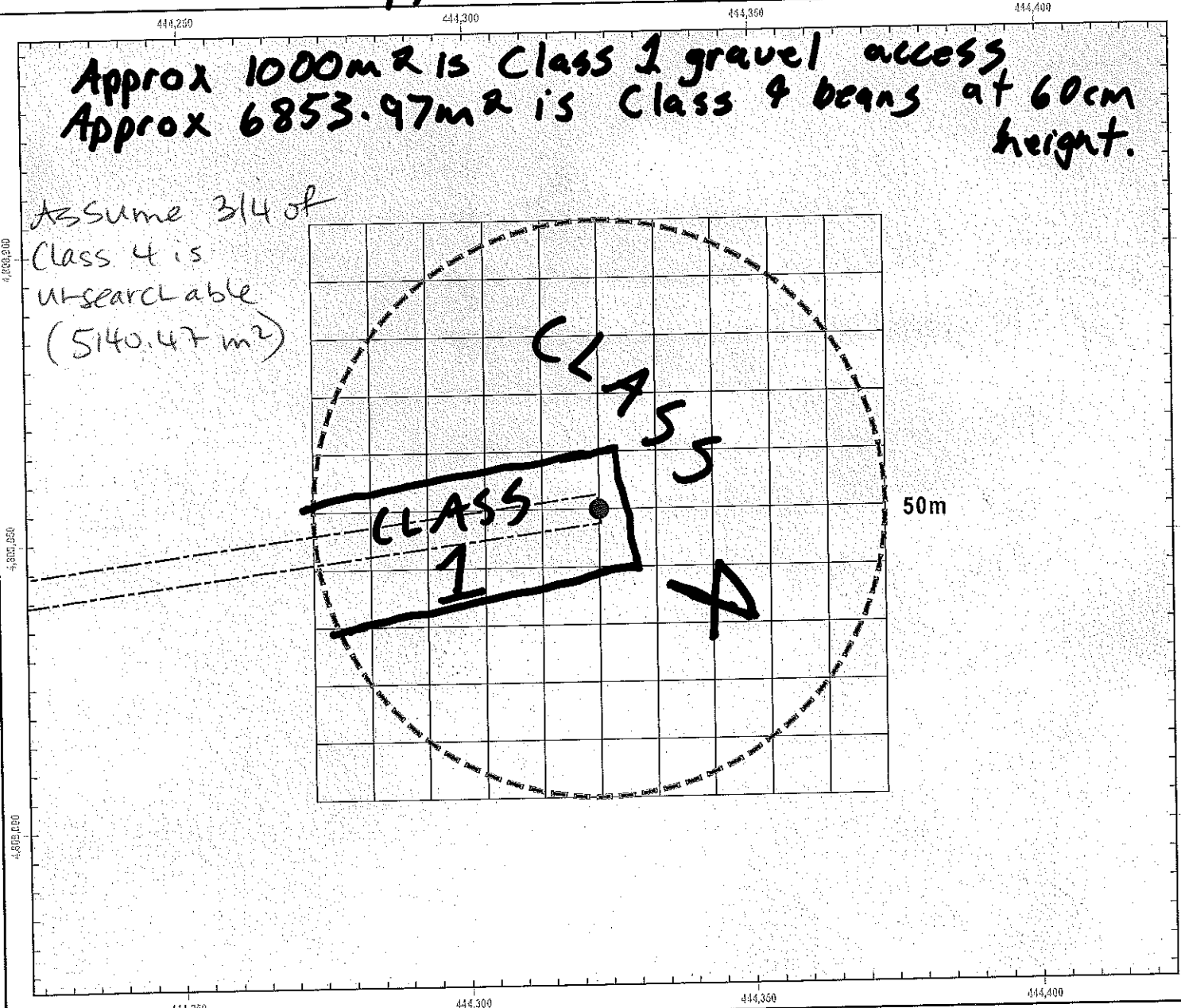
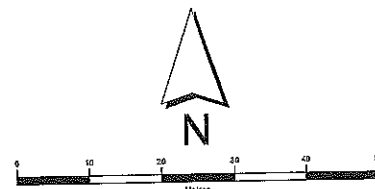
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-09

Survey Date: Aug 14/18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleany



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





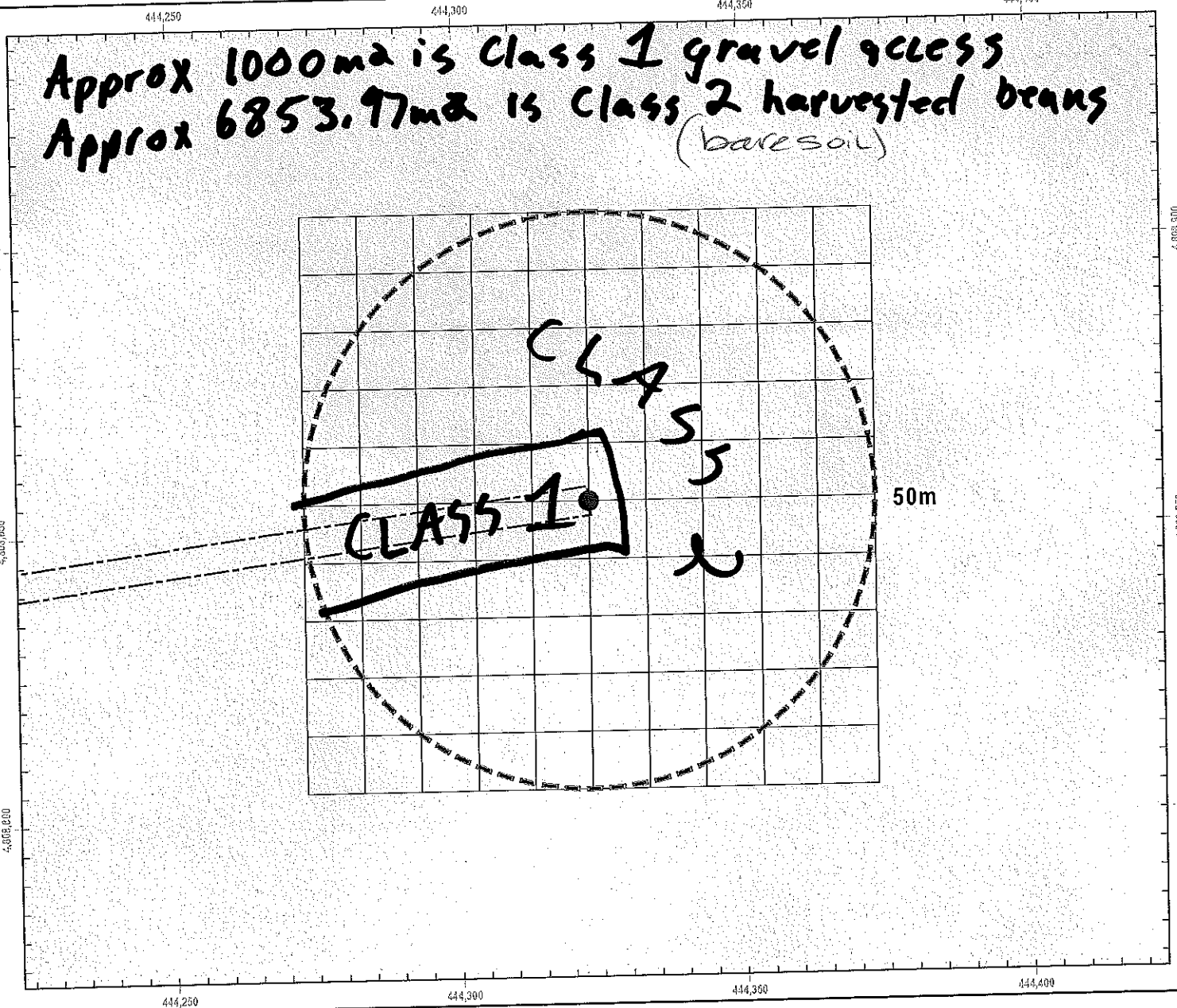
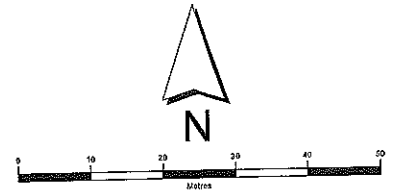


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-09  
 Survey Date: Oct 16 / 18  
 Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



No. PIA: EPH10007 Job# PIA0199910005 Grand Bend Wind Farm Carcass Search Form  
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 4,808,850  
 4,809,000

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

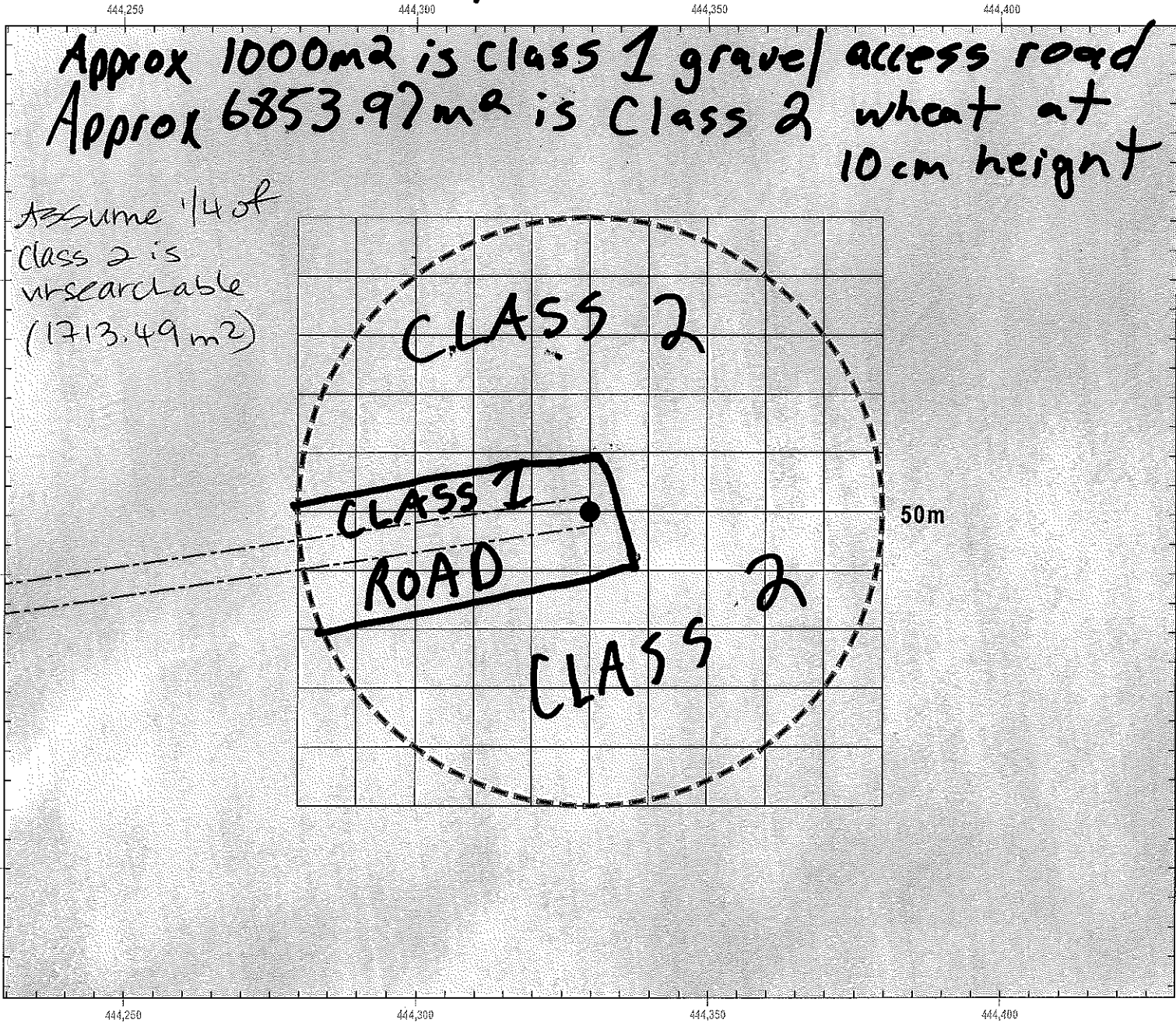
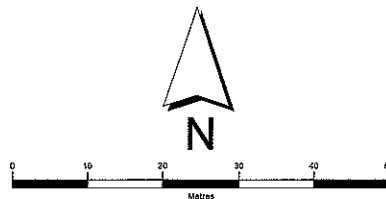
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-11

Survey Date: May 8 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

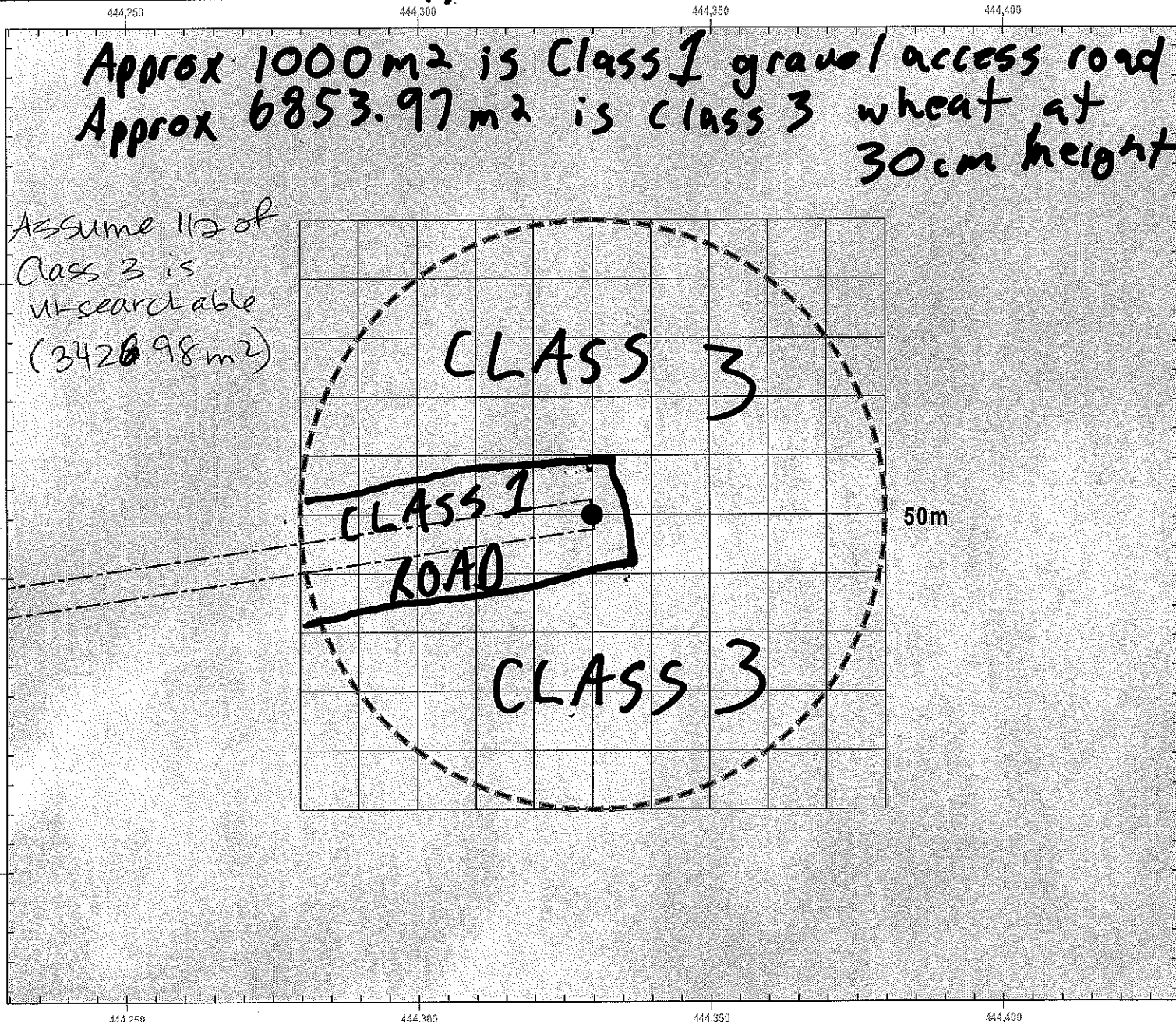
**Site Number:** T-11

**Survey Date:** May 18 / 18

**Actual Searched Area (m<sup>2</sup>):** 2426.99 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

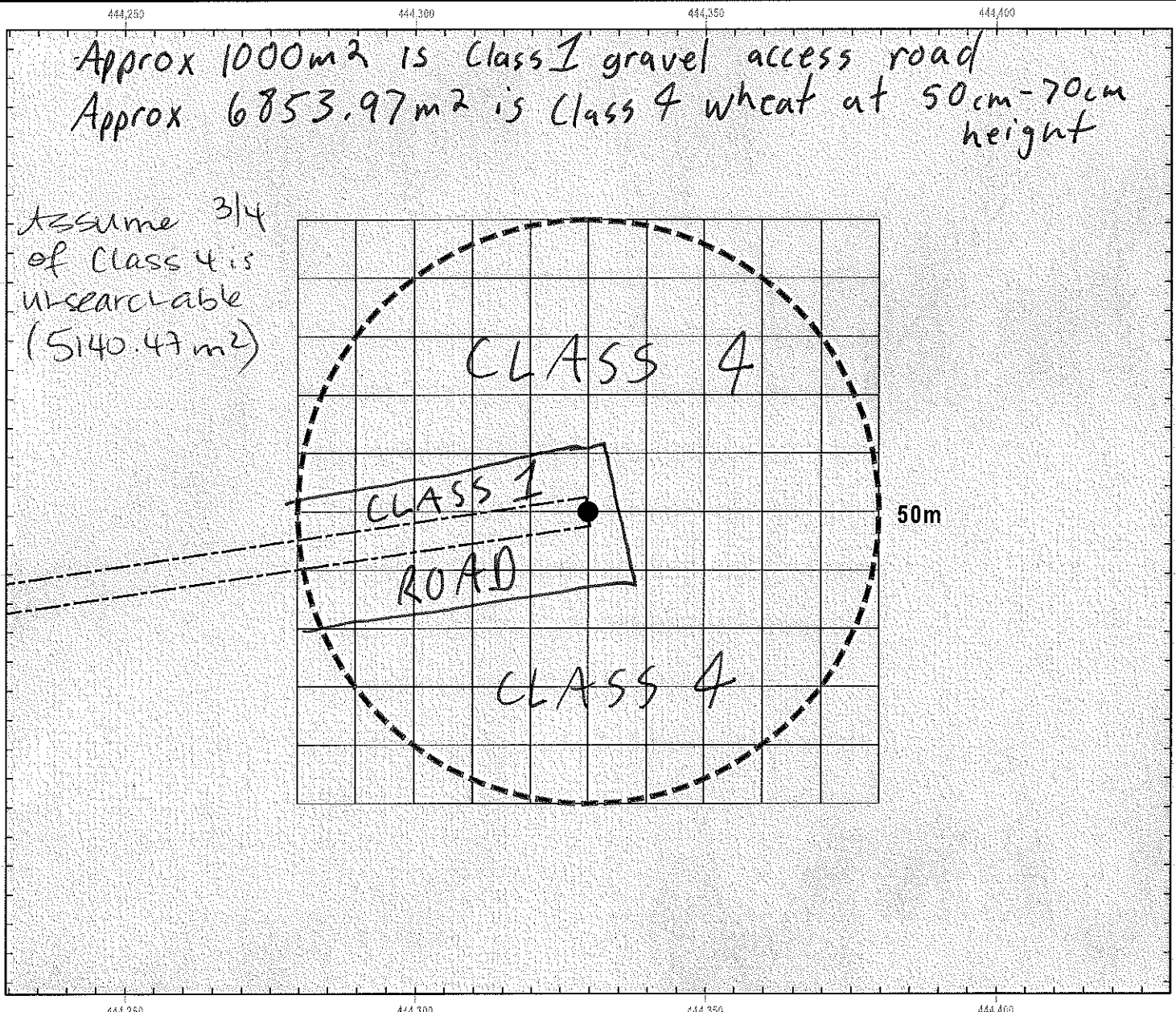
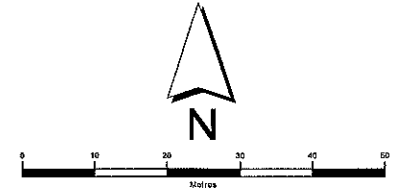
Site Number: T-11

Survey Date: June 12/18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



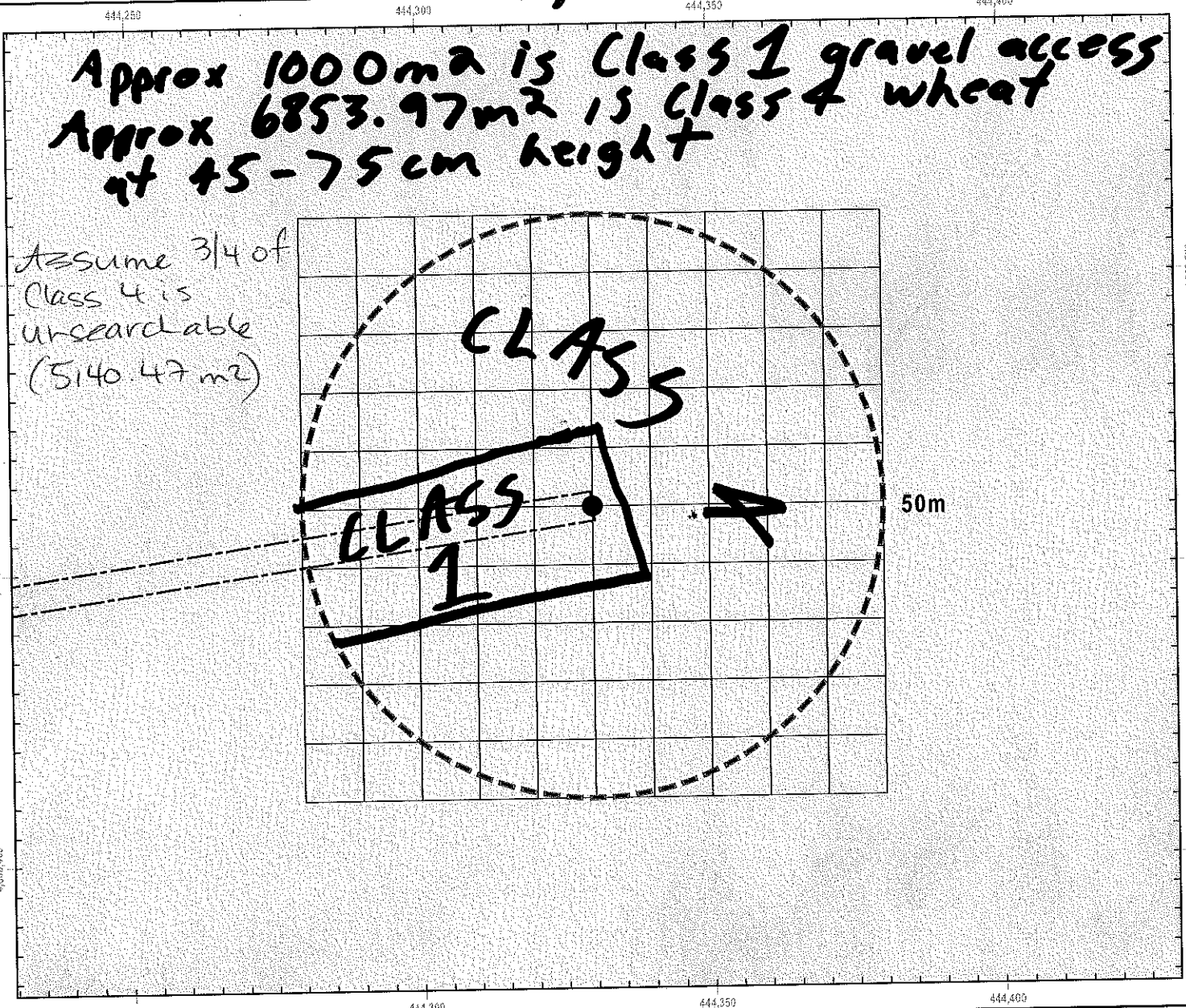
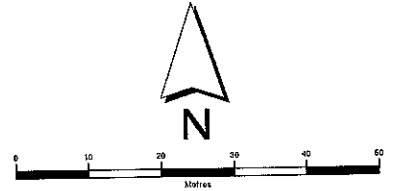
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# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-11  
 Survey Date: July 6 / 18  
 Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sam Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

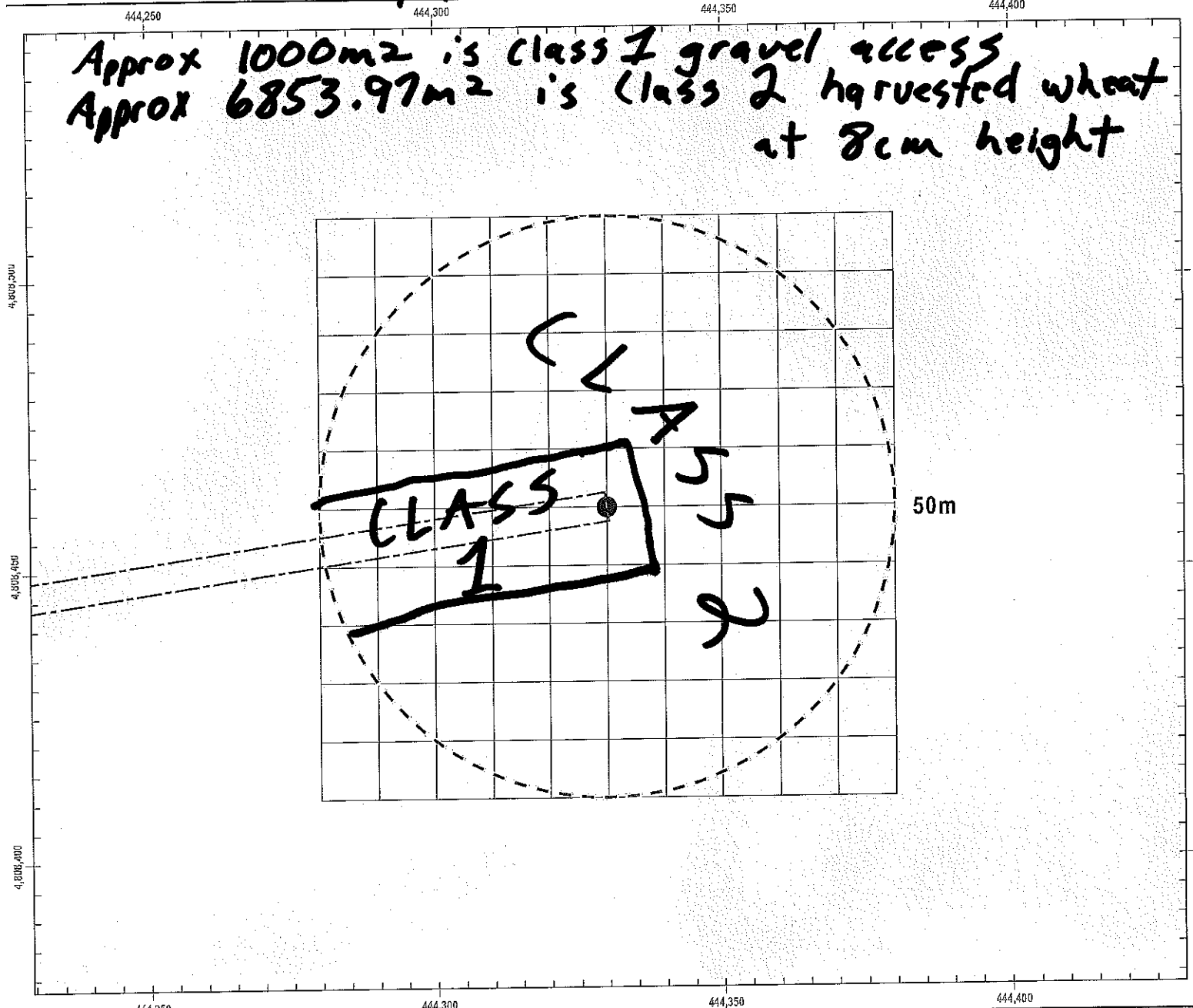
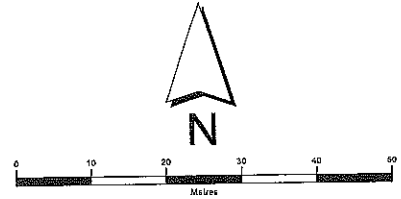
Site Number: T-11

Survey Date: July 20 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



Approx 1000m<sup>2</sup> is class 1 gravel access  
 Approx 6853.97m<sup>2</sup> is class 2 harvested wheat  
 at 8cm height

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

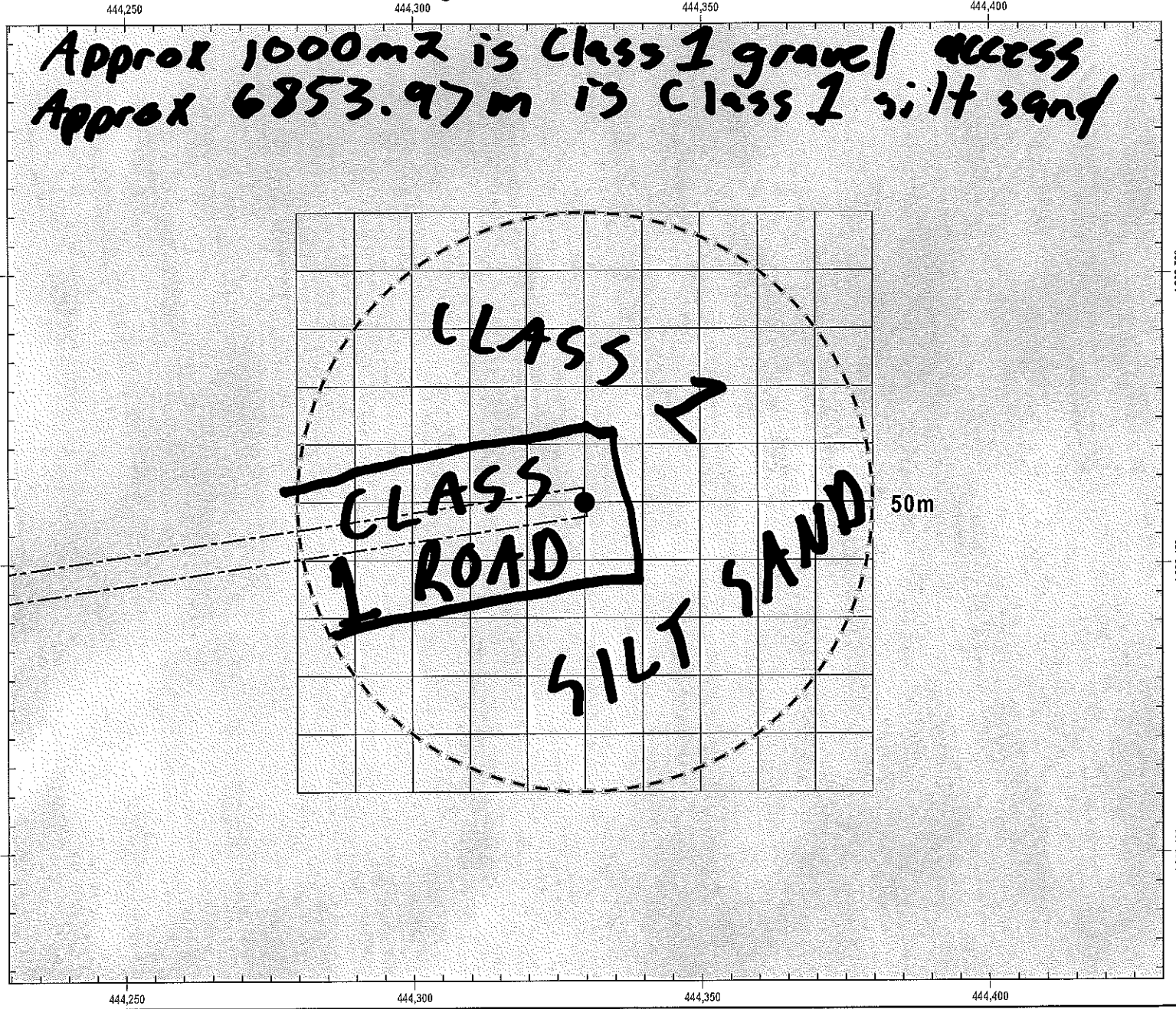
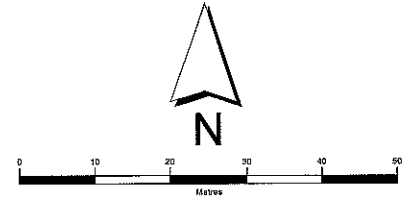
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-11

Survey Date: July 31/18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

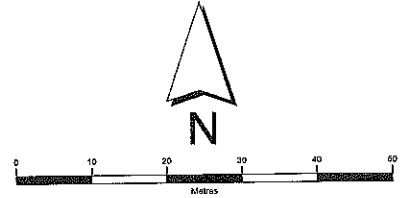
Site Number: T-11

Survey Date: Aug 19/18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



444,250

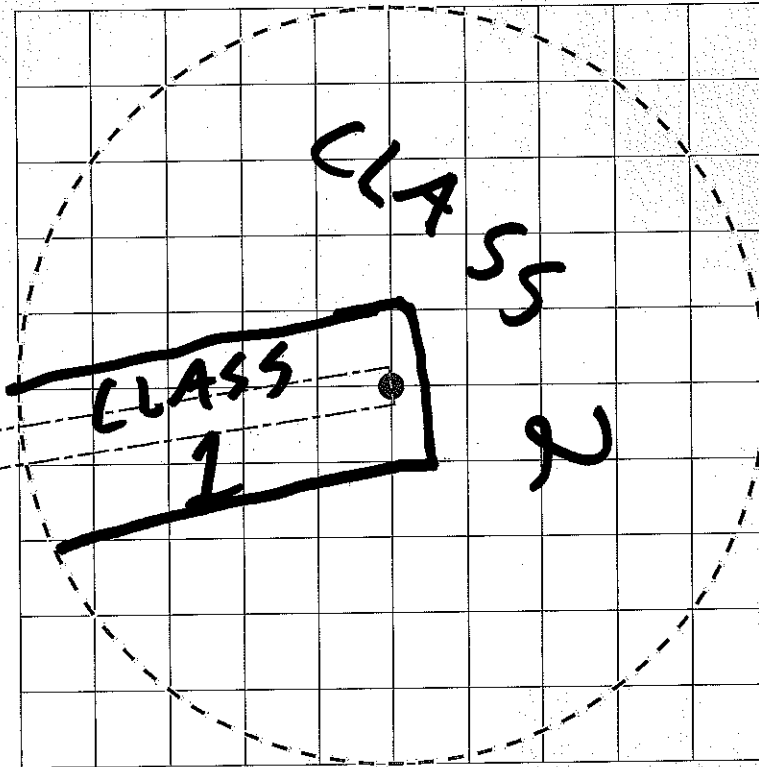
444,300

444,350

444,400

Approx 1000m<sup>2</sup> is Class 2 gravel access  
Approx 6853.97m<sup>2</sup> is Class 2 wheat at 15cm height

Assume 1/4 of Class 2 is unsearchable (1713.49 m<sup>2</sup>)



50m

444,250

444,300

444,350

444,400

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

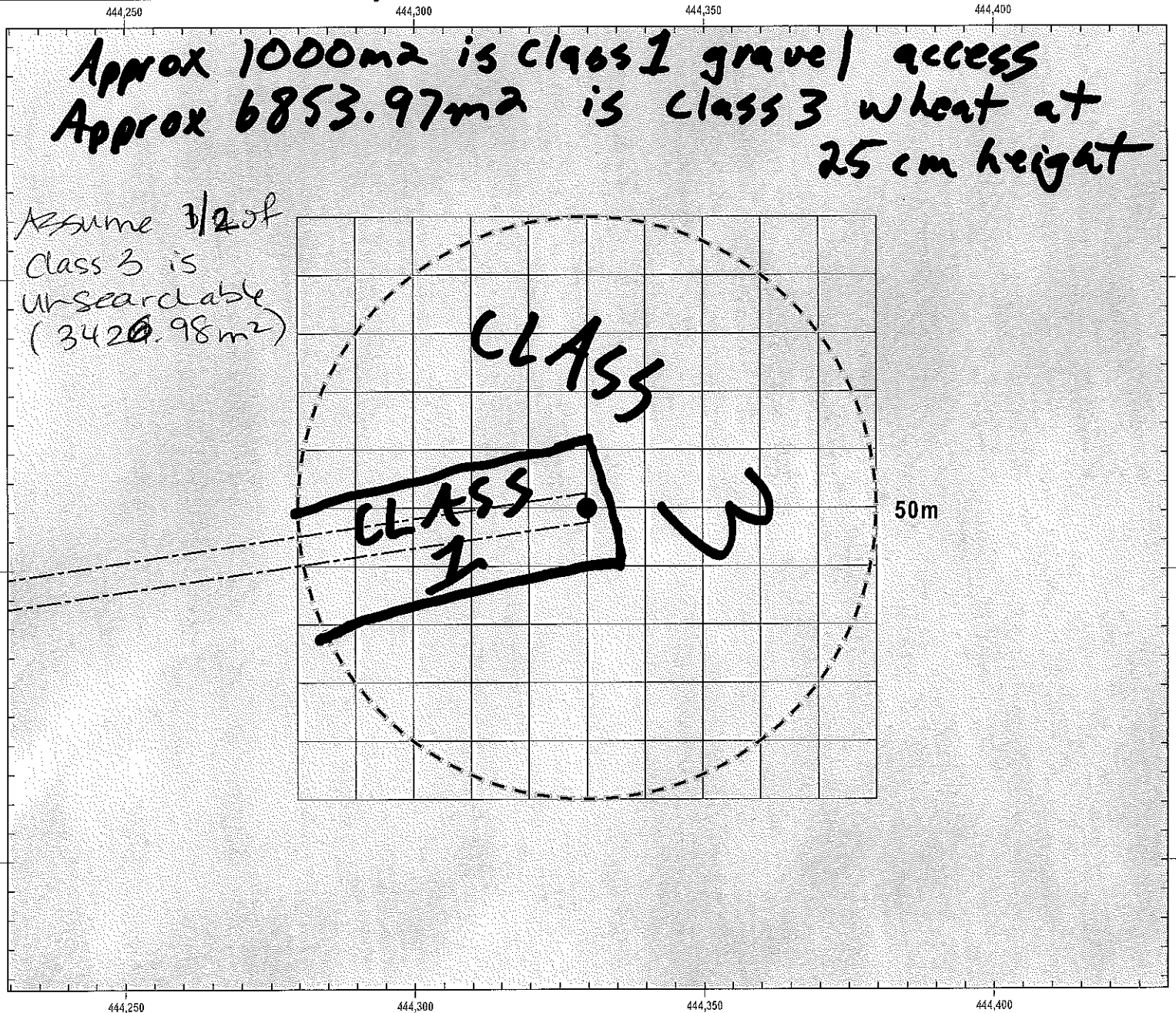
Site Number: T-11

Survey Date: Aug 21/18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

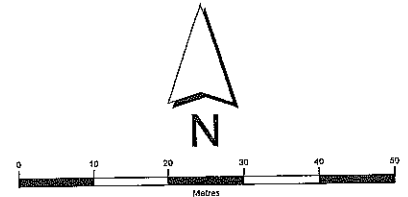
Site Number: T-11

Survey Date: Sept 25/18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

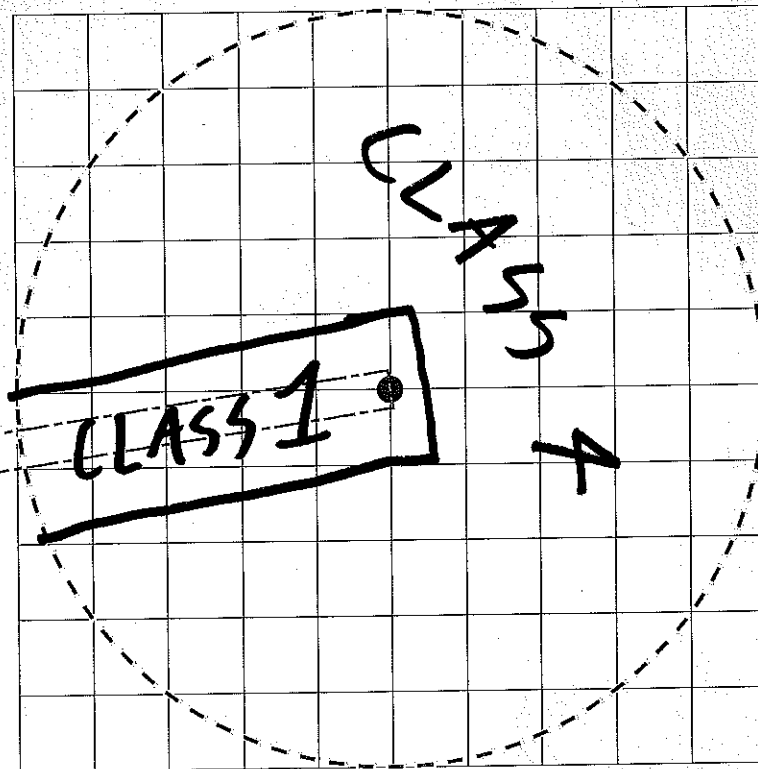
Observers: Sara Henry



444,250                      444,300                      444,350                      444,400

Approx 1000m<sup>2</sup> is class 2 gravel access  
Approx 6853.97m<sup>2</sup> is class 4 wheat/out at 40-60cm height

Assume 3/4 of  
class 4 is  
unsearchable  
(5140.47m<sup>2</sup>)



50m

444,250                      444,300                      444,350                      444,400

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

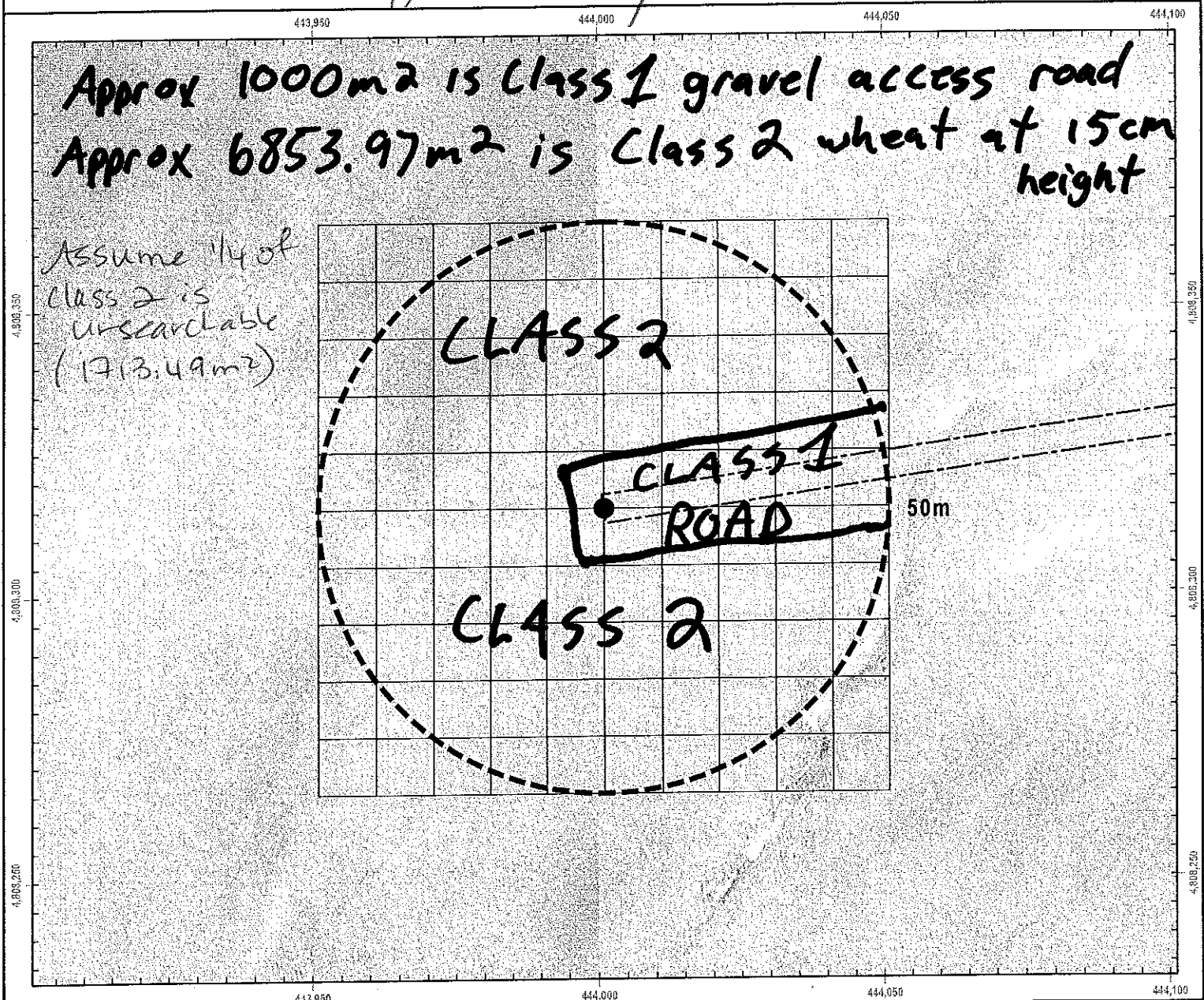
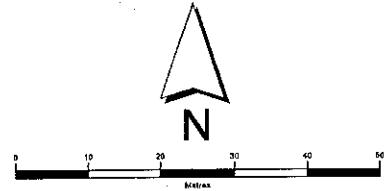
Site Number: T-12

Survey Date: May 16/18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

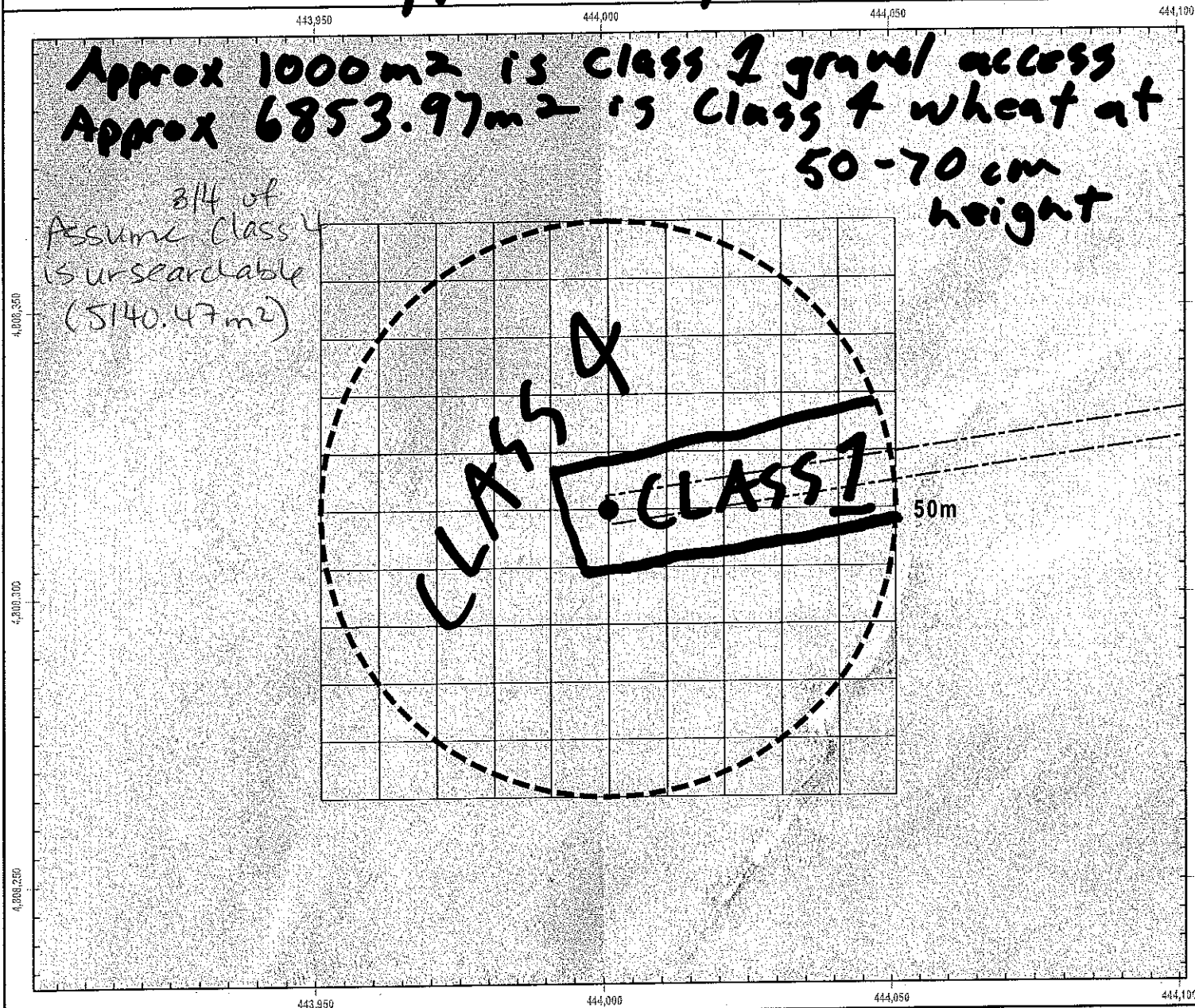
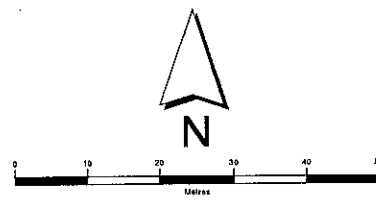
Site Number: T-12

Survey Date: July 18 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henly, Sarah Deleaty



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



© 2011 Burnside Environmental Services, Inc. All rights reserved. PIA019991.0005 Grand Bend Wind Farm - Site Description and Habitat Mapping Form - T-12

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

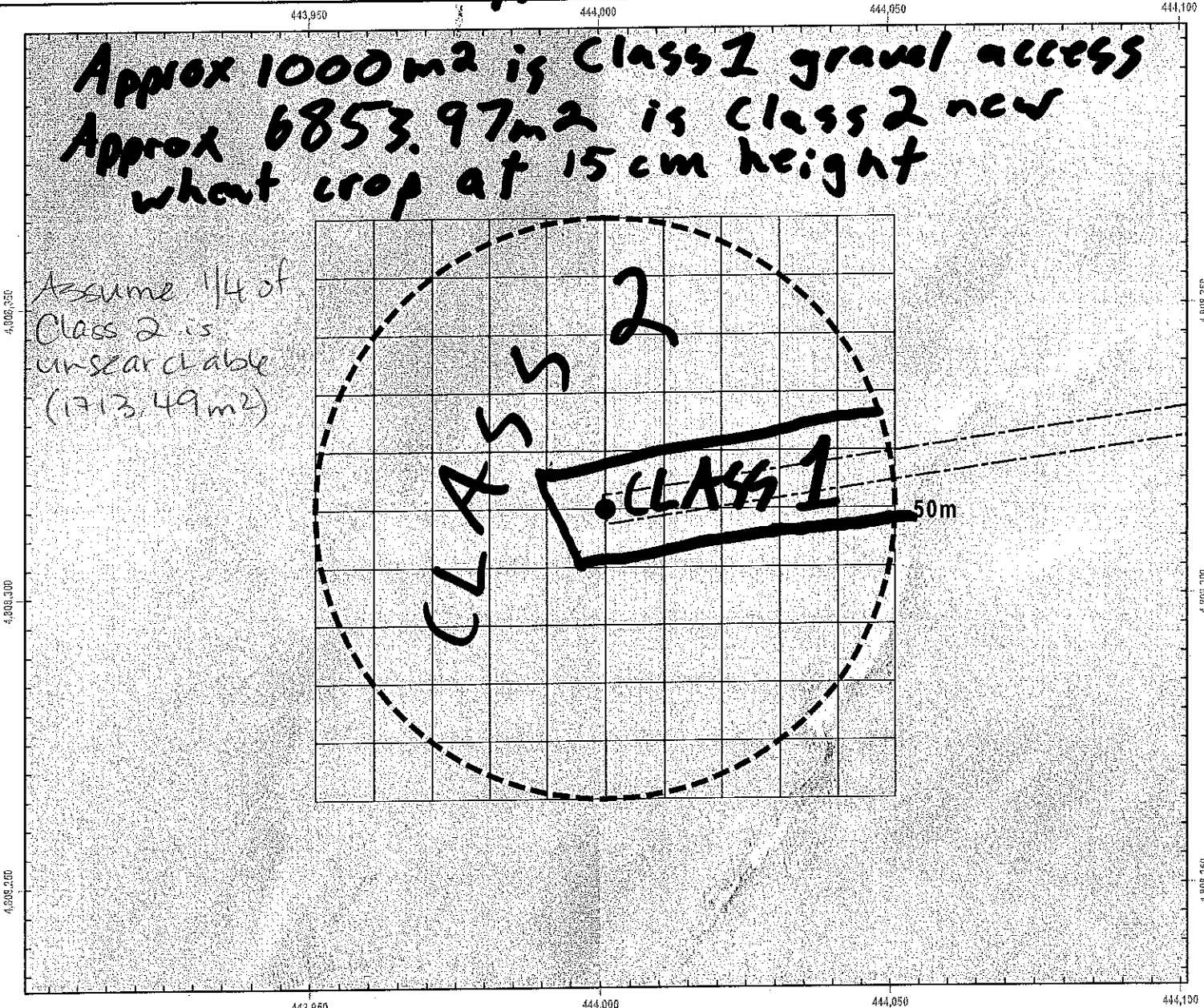
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-12

Survey Date: Aug 15

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



PIA 019991.0005 Grand Bend Wind Farm - Post-Construction and Habitat Mapping Form - Class 2  
 4,808,200  
 4,808,300  
 4,808,400  
 443,950  
 444,000  
 444,050  
 444,100



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

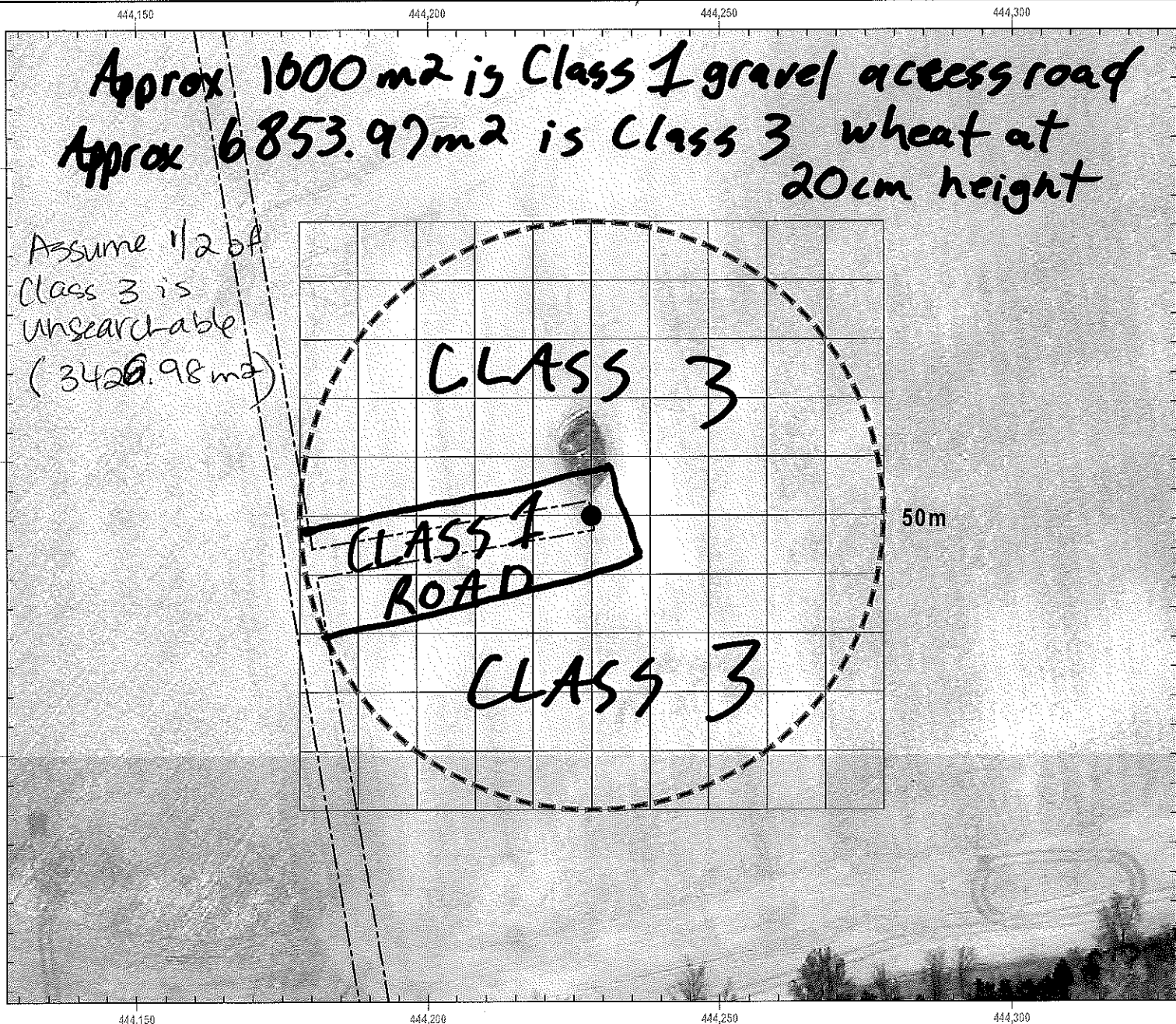
**Site Number:** T-13

**Survey Date:** May 16 / 18

**Actual Searched Area (m<sup>2</sup>):** 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

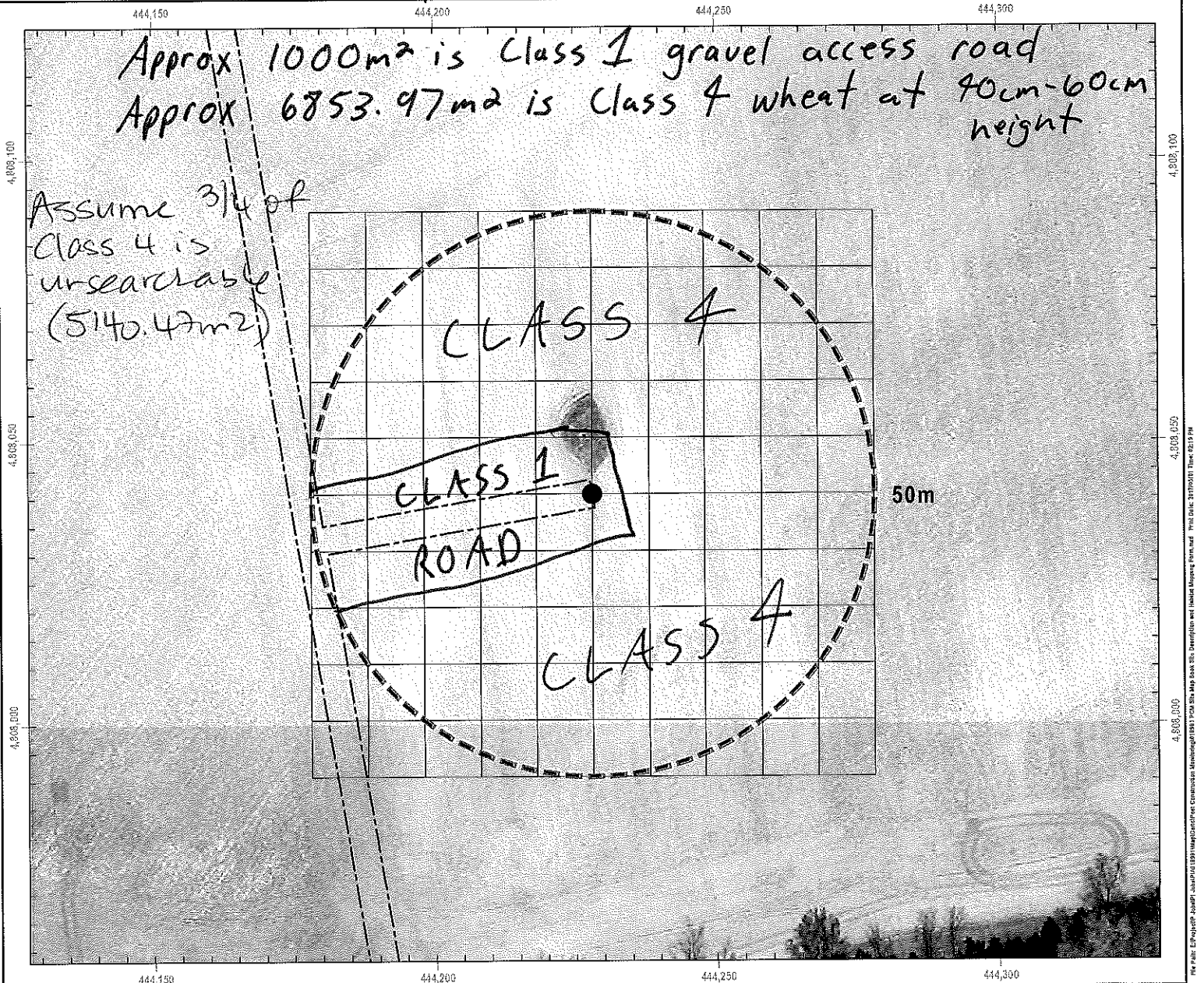
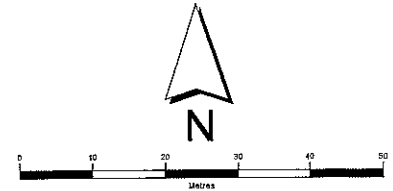
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-13

Survey Date: June 13/18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



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 Print Date: 3/17/2010 Time: 02:18 PM  
 4,806,000  
 4,806,050  
 4,806,100

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

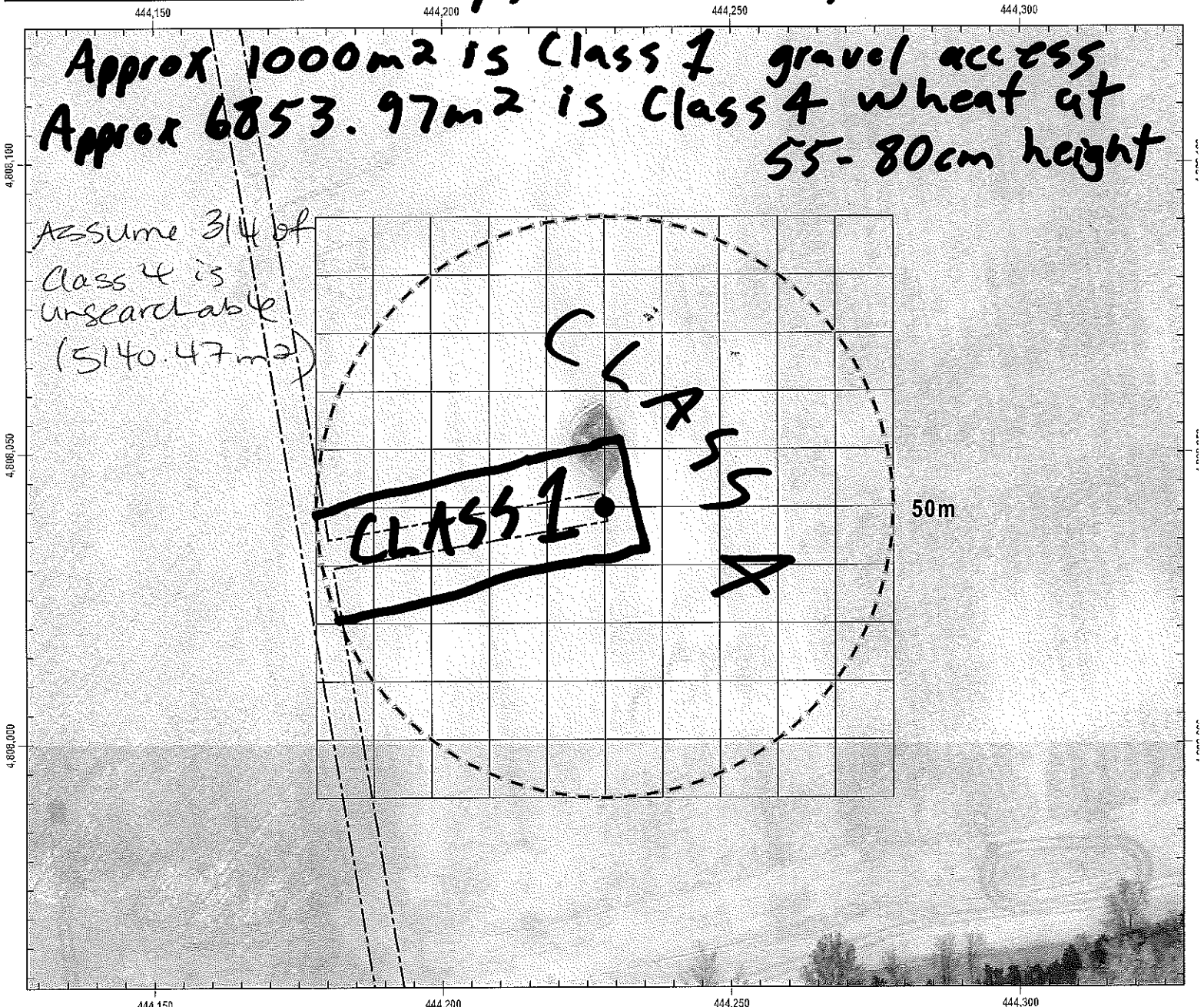
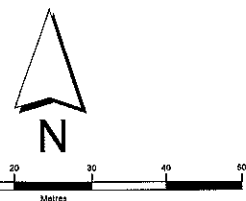
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-13

Survey Date: July 11 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sam Henry, Sarah Doleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

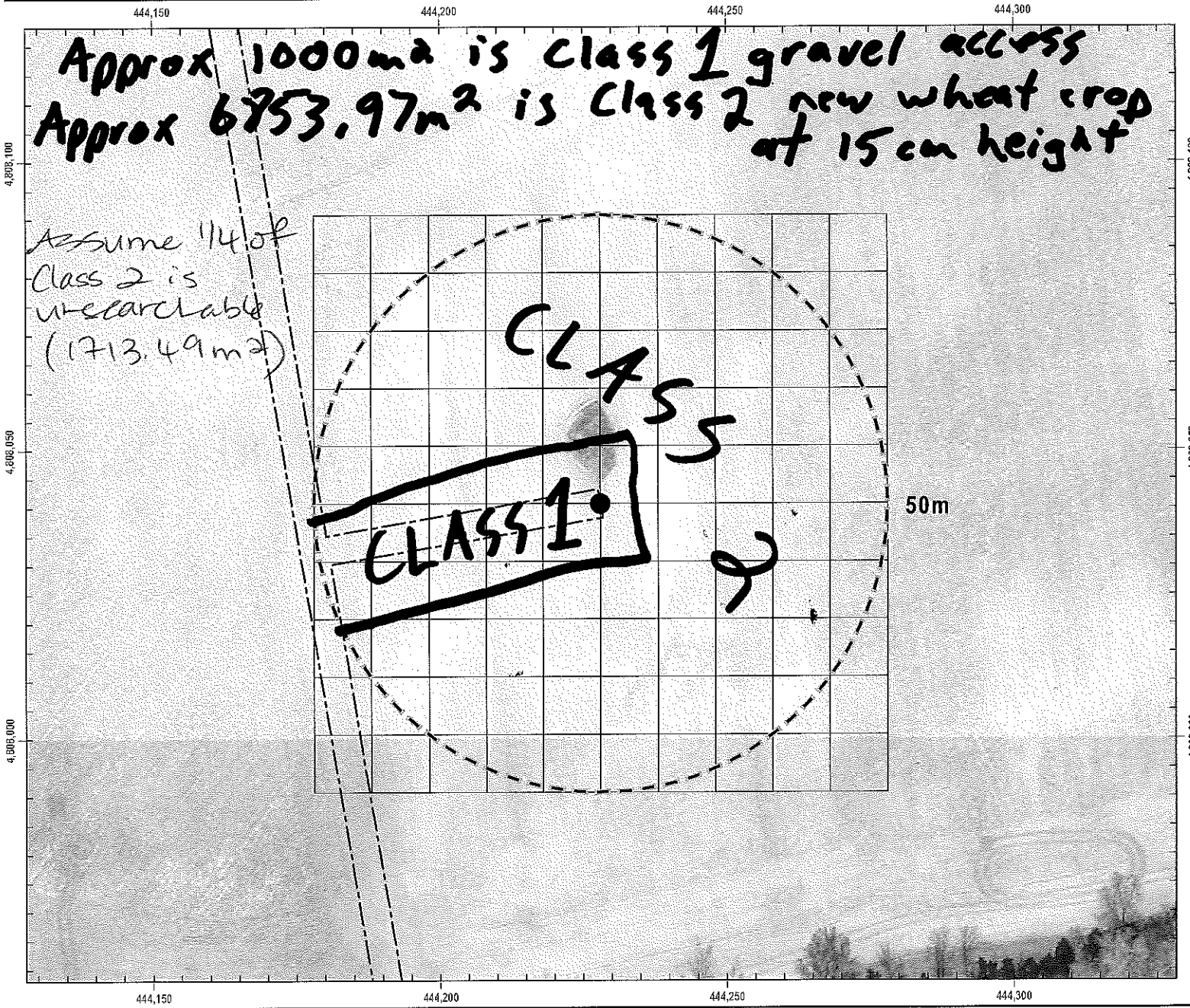
Site Number: T-13

Survey Date: Aug 15/18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7953.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Dolcary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

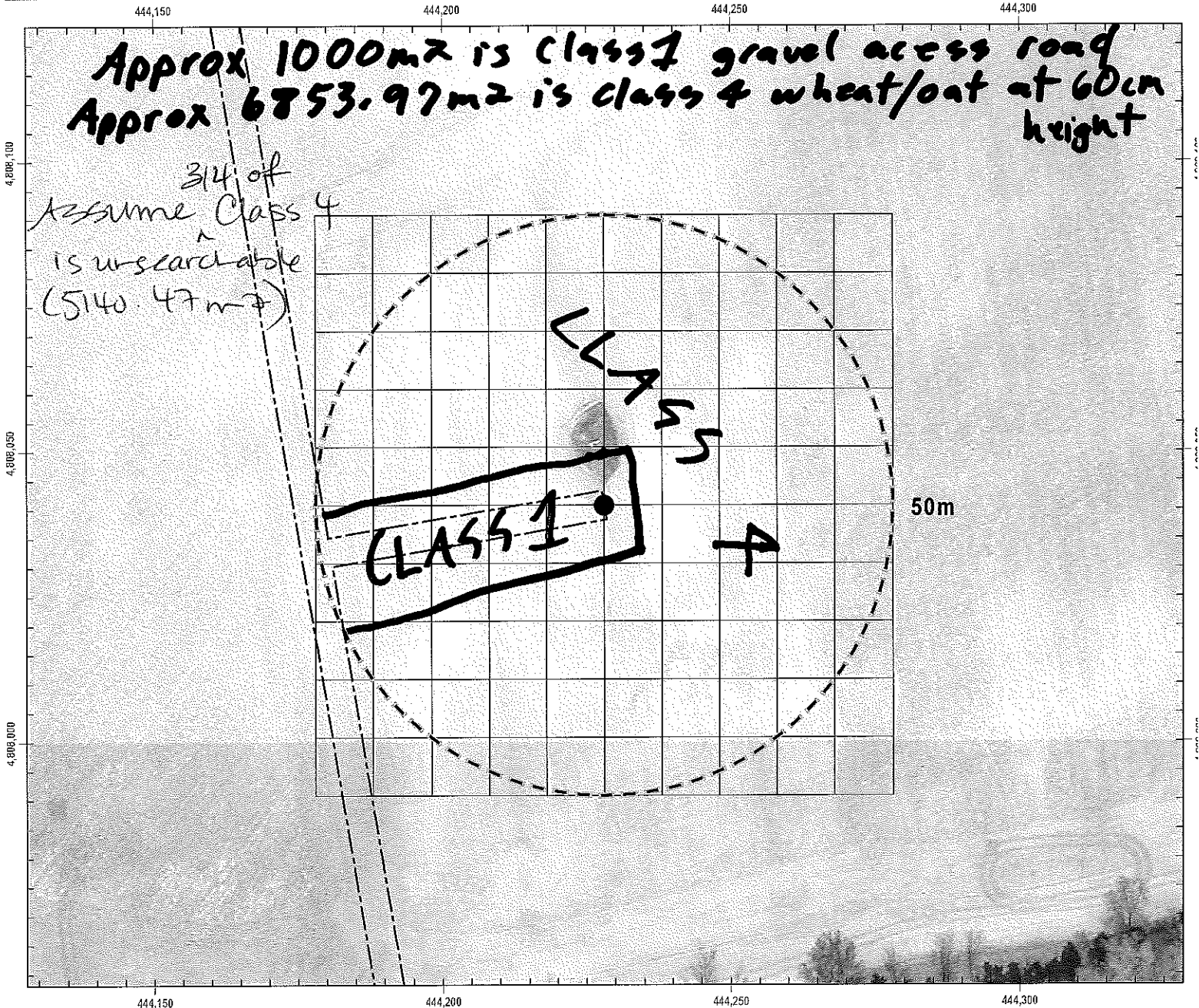
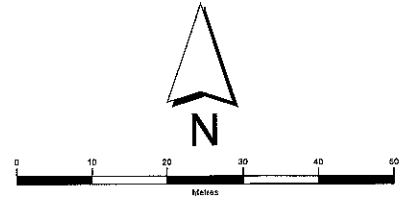


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-13  
 Survey Date: Sept 12/18  
 Actual Searched Area (m<sup>2</sup>): 273.50m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

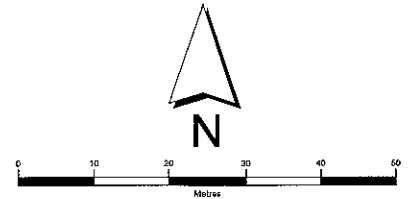
Site Number: T-14

Survey Date: May 8/18

Actual Searched Area (m<sup>2</sup>): 7428.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sara Deleary



443,750

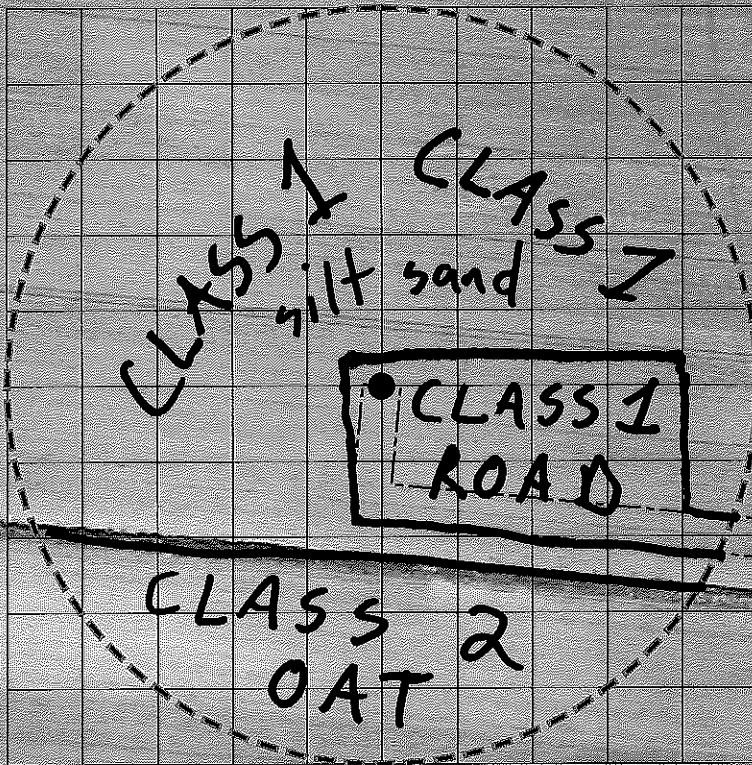
443,800

443,850

443,900

Approx 1000m<sup>2</sup> is Class 1 gravel access road  
 Approx 1700m<sup>2</sup> is Class 2 silt sand oat at 8cm height  
 Approx 5153.97m<sup>2</sup> is silt sand Class 1.

Assume 1/4 of Class 2 is unsearchable (425m<sup>2</sup>)



50m

443,750

443,800

443,850

443,900

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

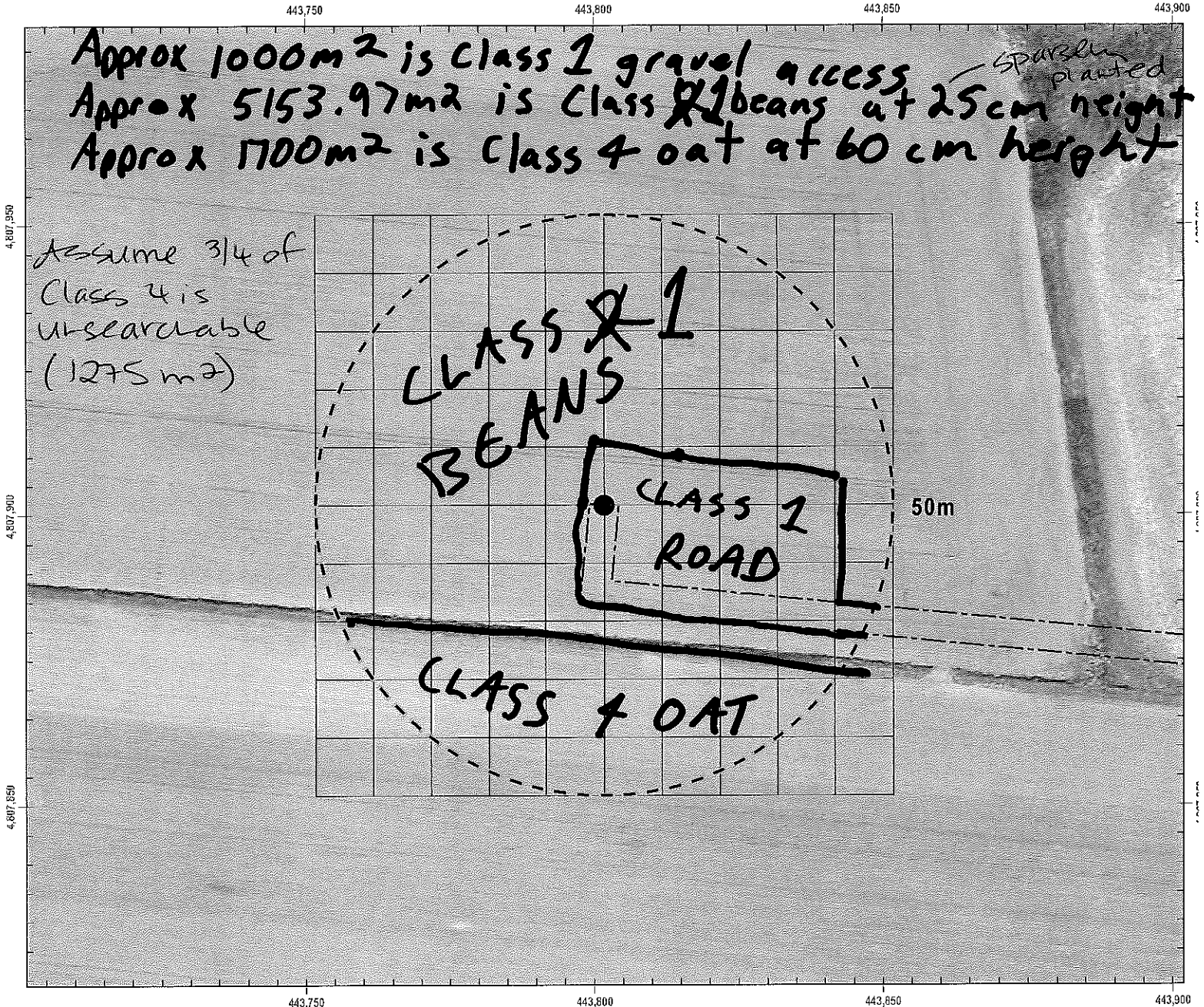
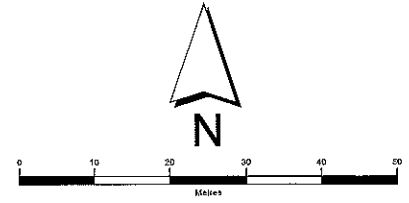


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-14  
 Survey Date: July 3/18  
 Actual Searched Area (m<sup>2</sup>): 6578.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

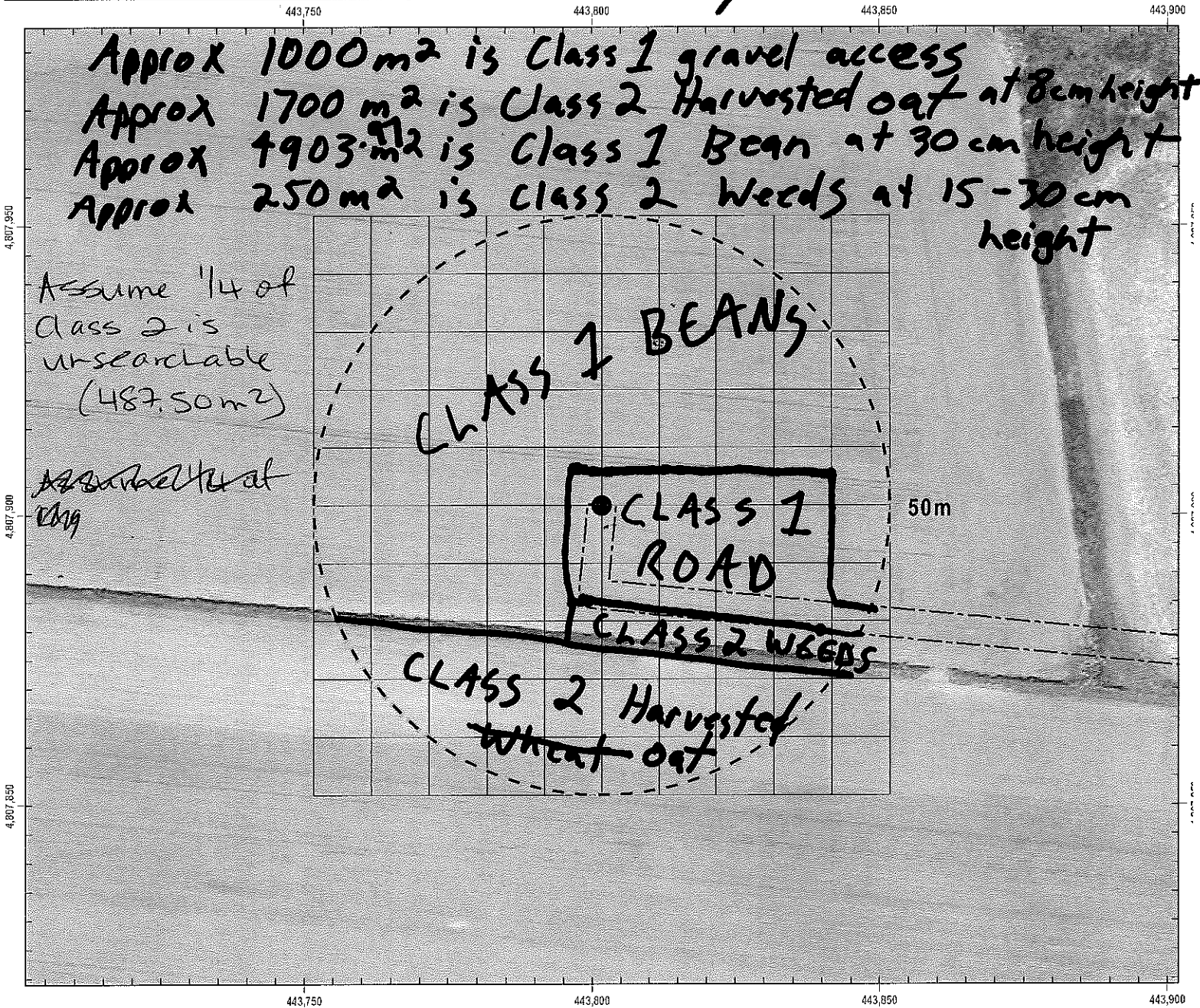
Site Number: T-14

Survey Date: July 20/18

Actual Searched Area (m<sup>2</sup>): 7366.47 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Heary, Sarah Deleagy



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

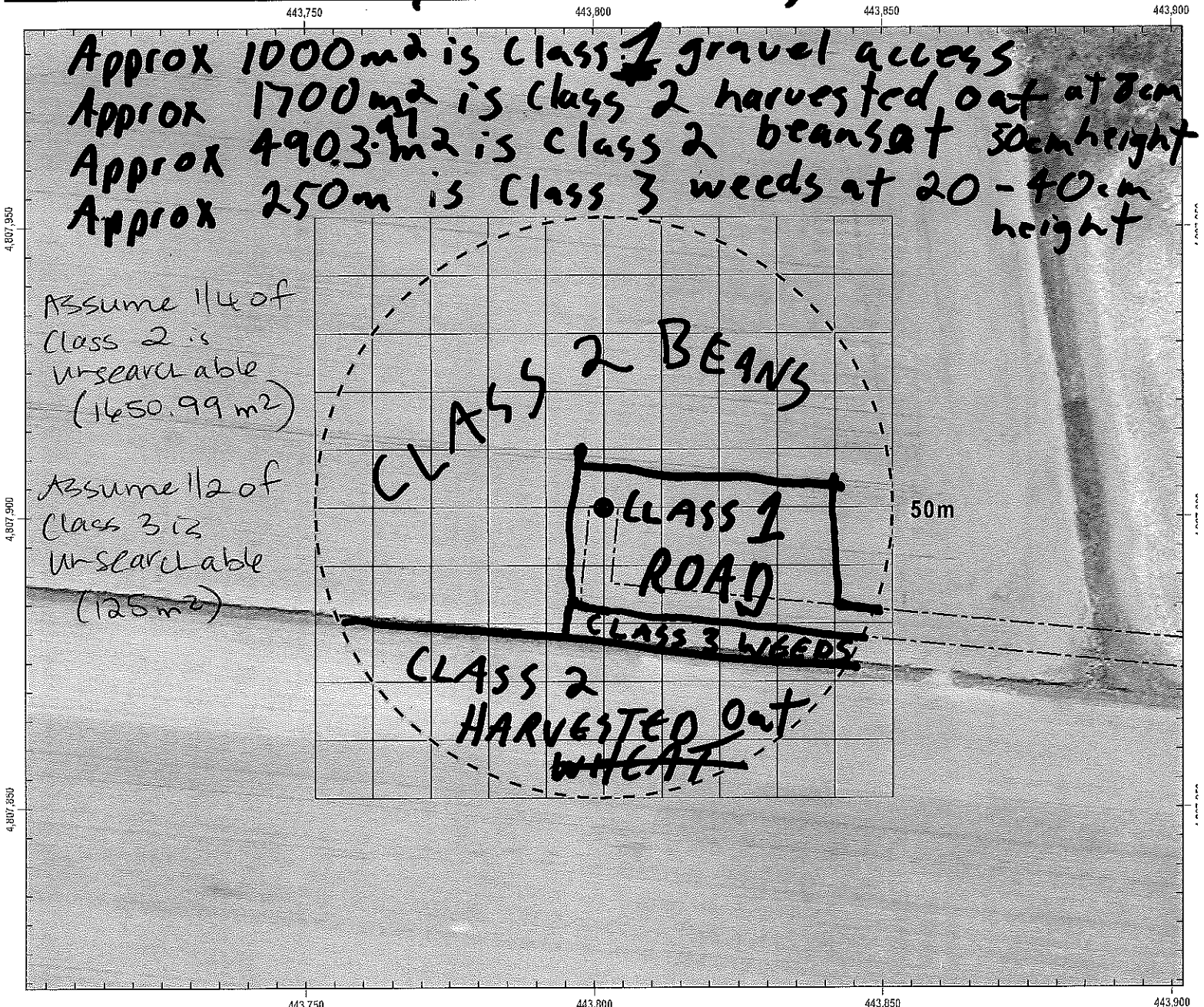
Site Number: T-14

Survey Date: Aug 10 / 18

Actual Searched Area (m<sup>2</sup>): 6077.98 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleany



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

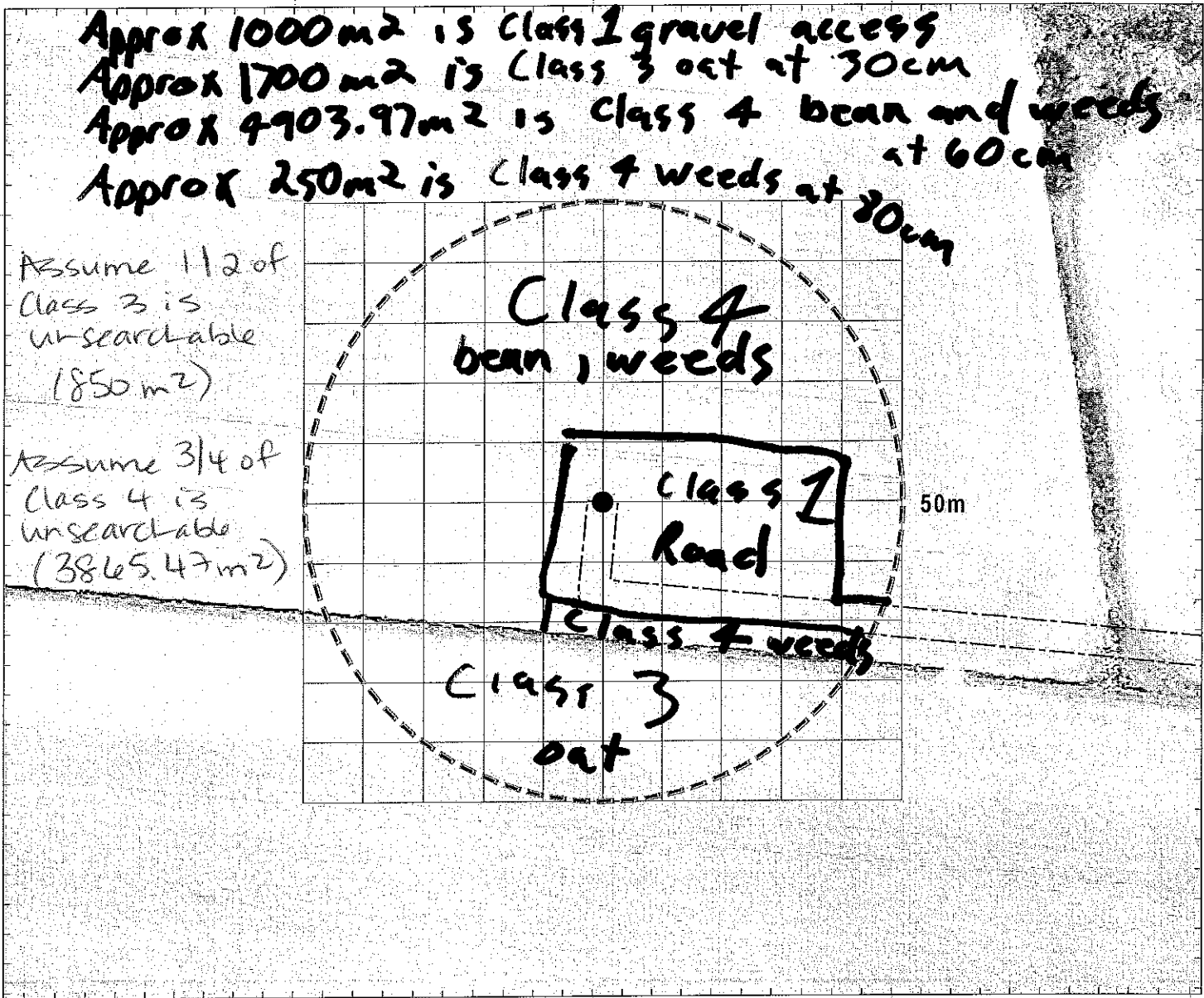
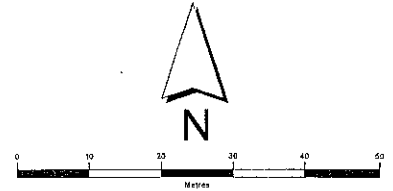


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-14  
 Survey Date: Sept 7 / 17  
 Actual Searched Area (m<sup>2</sup>): 3138.50 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



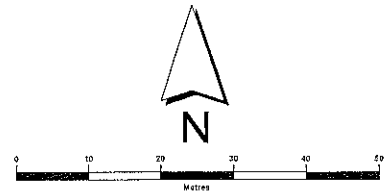
File Path: S:\Projects\030819\PIA019991\Map\Cart\PIA019991\_T14\_Site\_Map\_Sketch\_Sys\_Druid\Photo\_and\_Habitat\_Mapping\_Form.mxd Print Date: 2017/09/11 Time: 12:16 PM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-14  
 Survey Date: Oct 12 / 18  
 Actual Searched Area (m<sup>2</sup>): 5652.98 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry

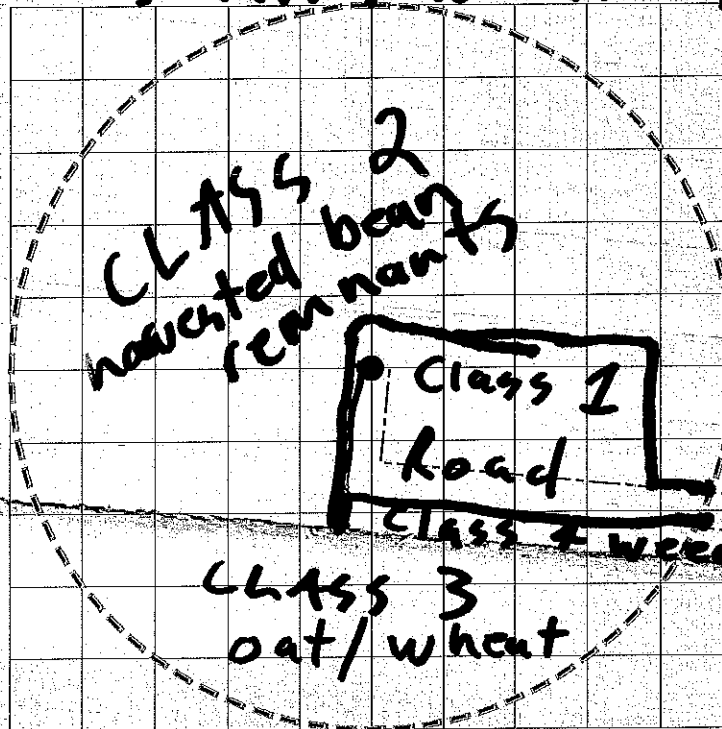


Approx 1000m<sup>2</sup> is Class 1 gravel access  
 Approx 1700m<sup>2</sup> is Class 3 oat/wheat at 25cm  
 Approx 4903.97m<sup>2</sup> is Class 2 harvested beans  
 Approx 250m<sup>2</sup> is Class 4 weeds (dry) at 25cm

Assume 1/4 of  
 Class 2 is  
 unsearchable  
 (1225.99 m<sup>2</sup>)

Assume 1/2 of  
 Class 3 is  
 unsearchable  
 (850 m<sup>2</sup>)

Assume 1/2 of  
 Class 4 is  
 unsearchable  
 (125 m<sup>2</sup>)



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

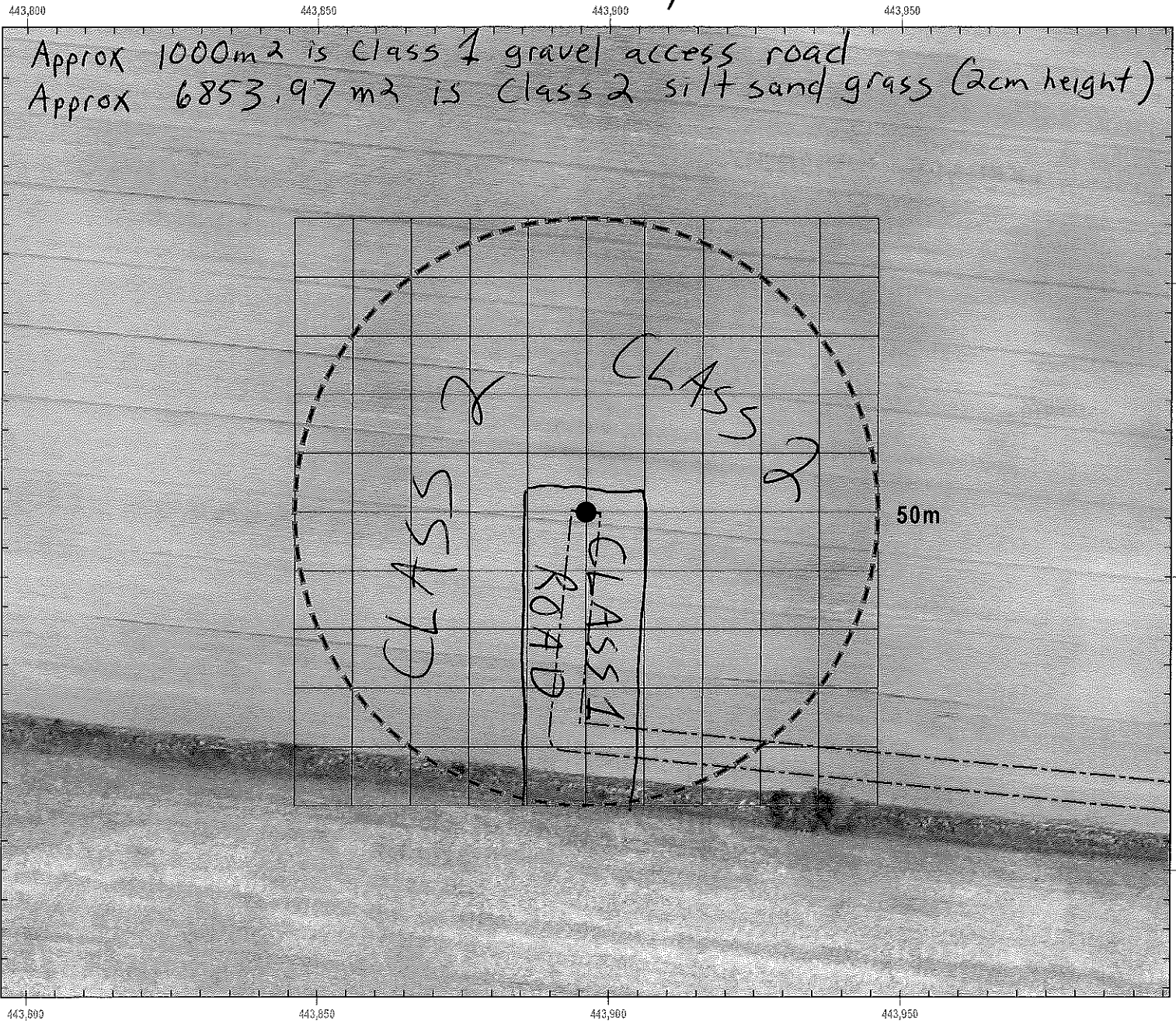
Site Number: T-16

Survey Date: May 2/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

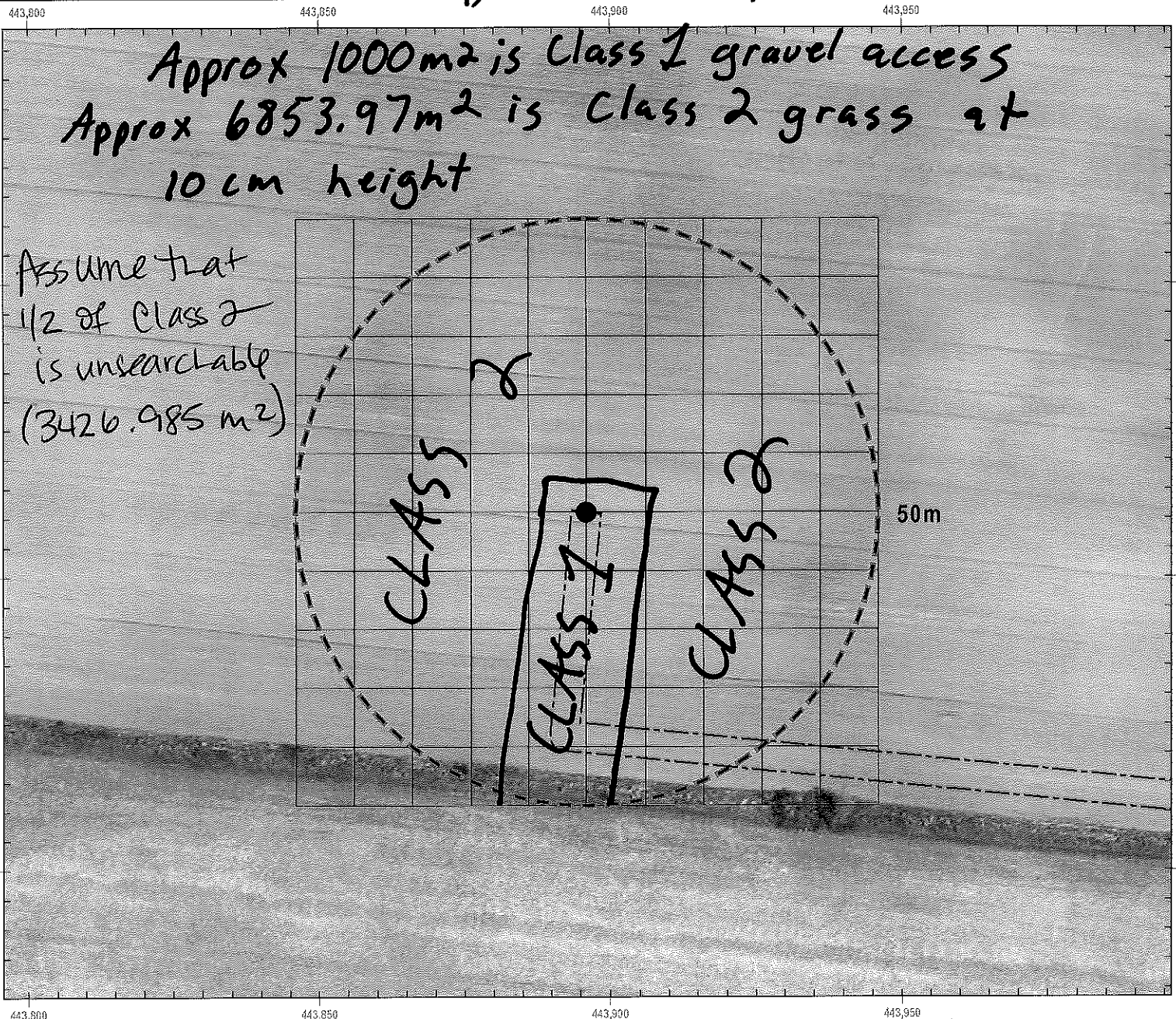
**Site Number:** T-16

**Survey Date:** Aug 14 / 18

**Actual Searched Area (m<sup>2</sup>):** 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

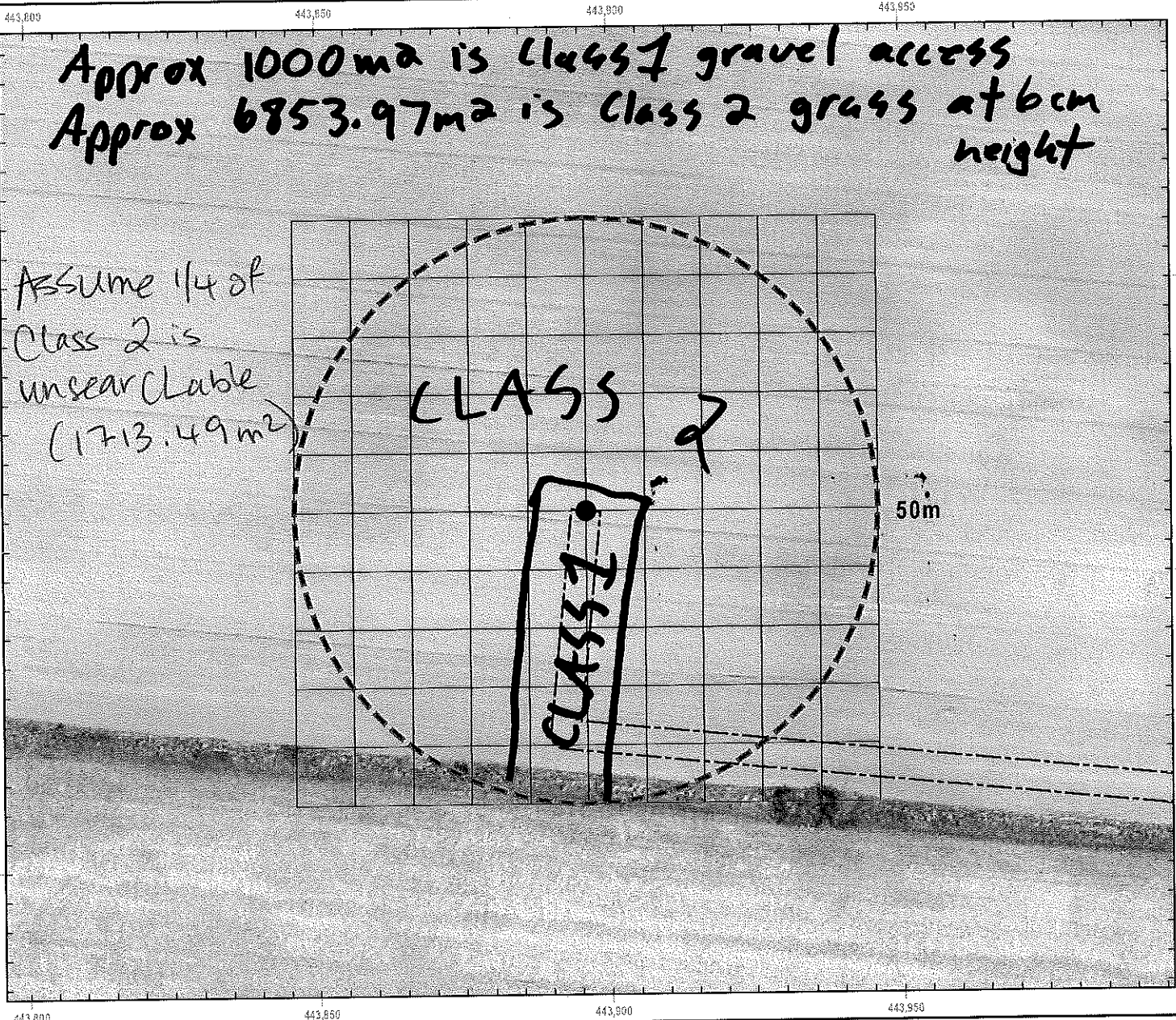
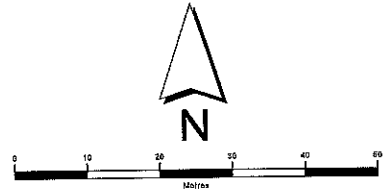
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-16

Survey Date: Sept 7 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

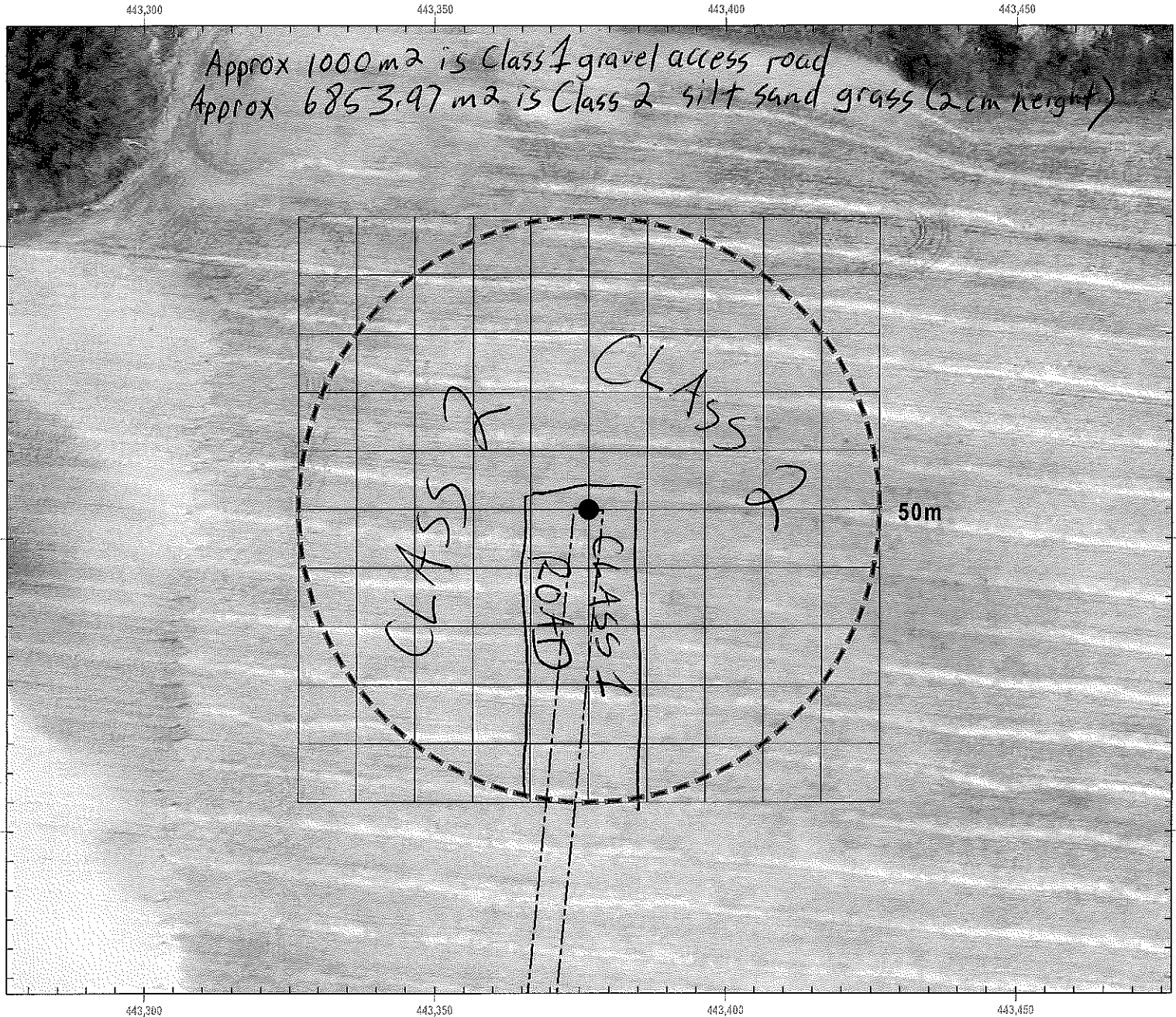
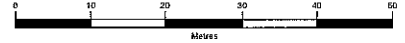
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-17

**Survey Date:** May 2/18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-17

Survey Date: May 15 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary

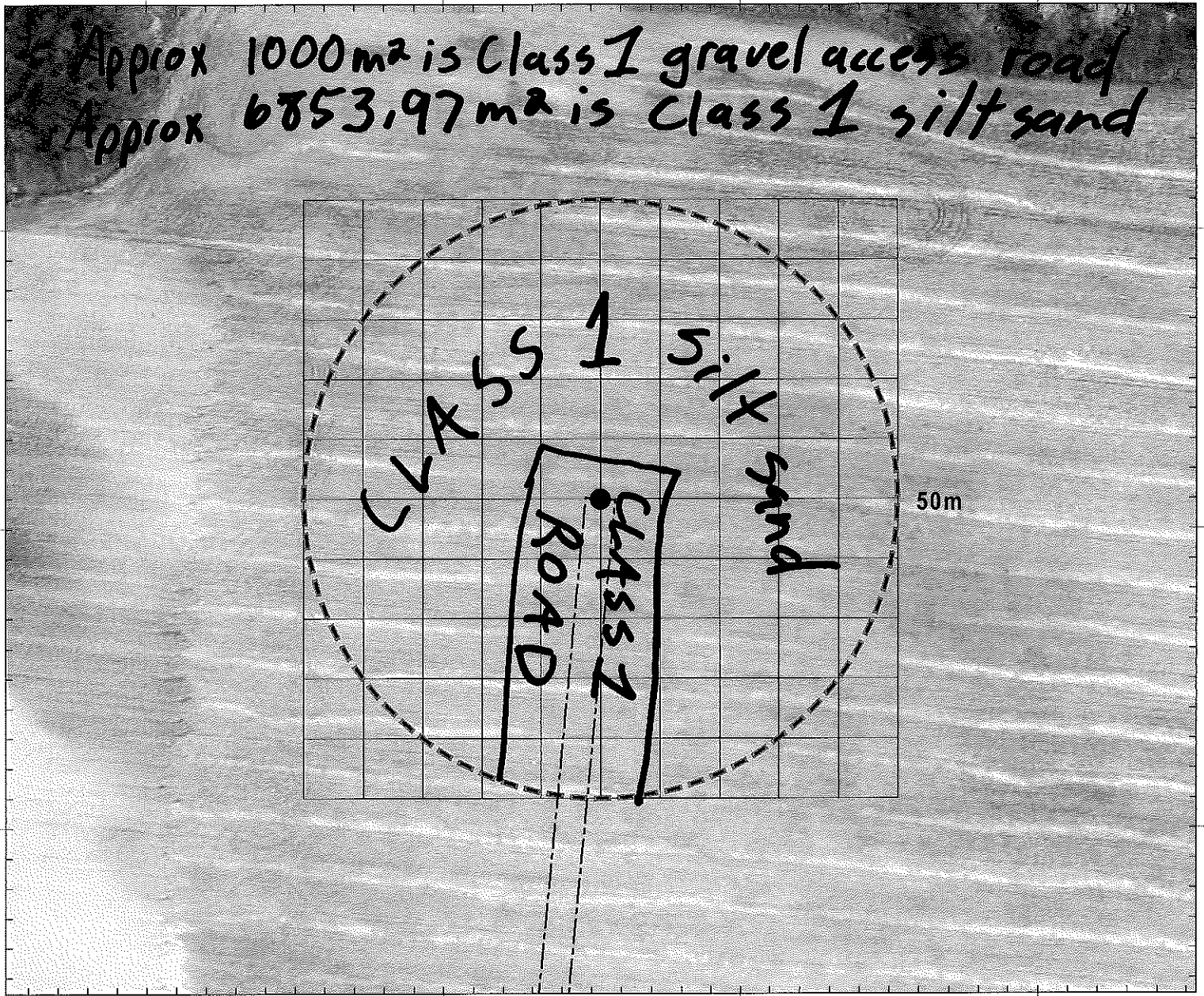


443,300

443,350

443,400

443,450



4,805,400

4,805,350

4,805,300

443,300

443,350

443,400

443,450

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

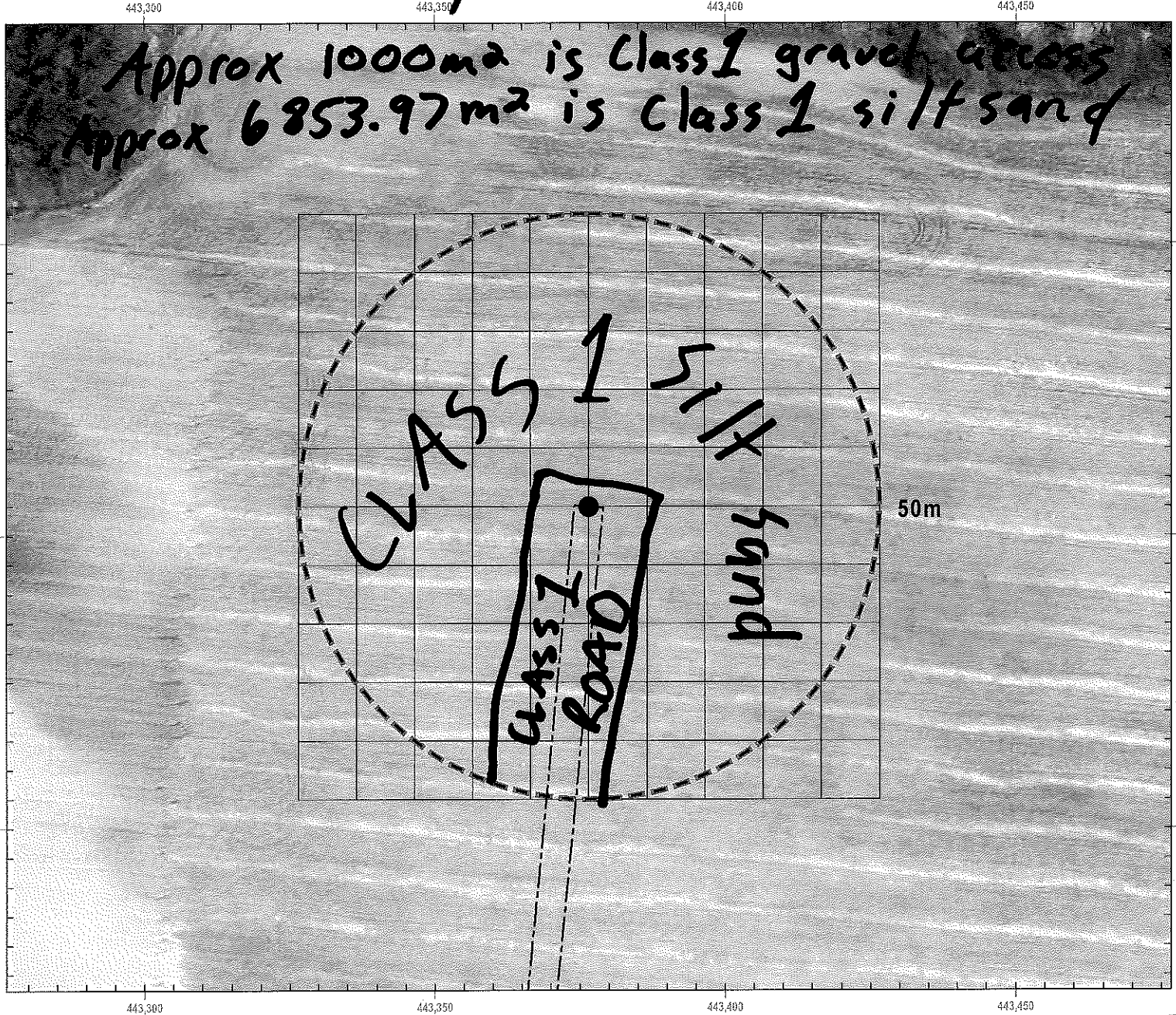
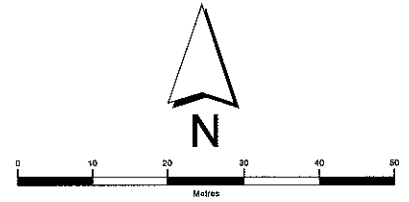
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-17

Survey Date: July 13 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

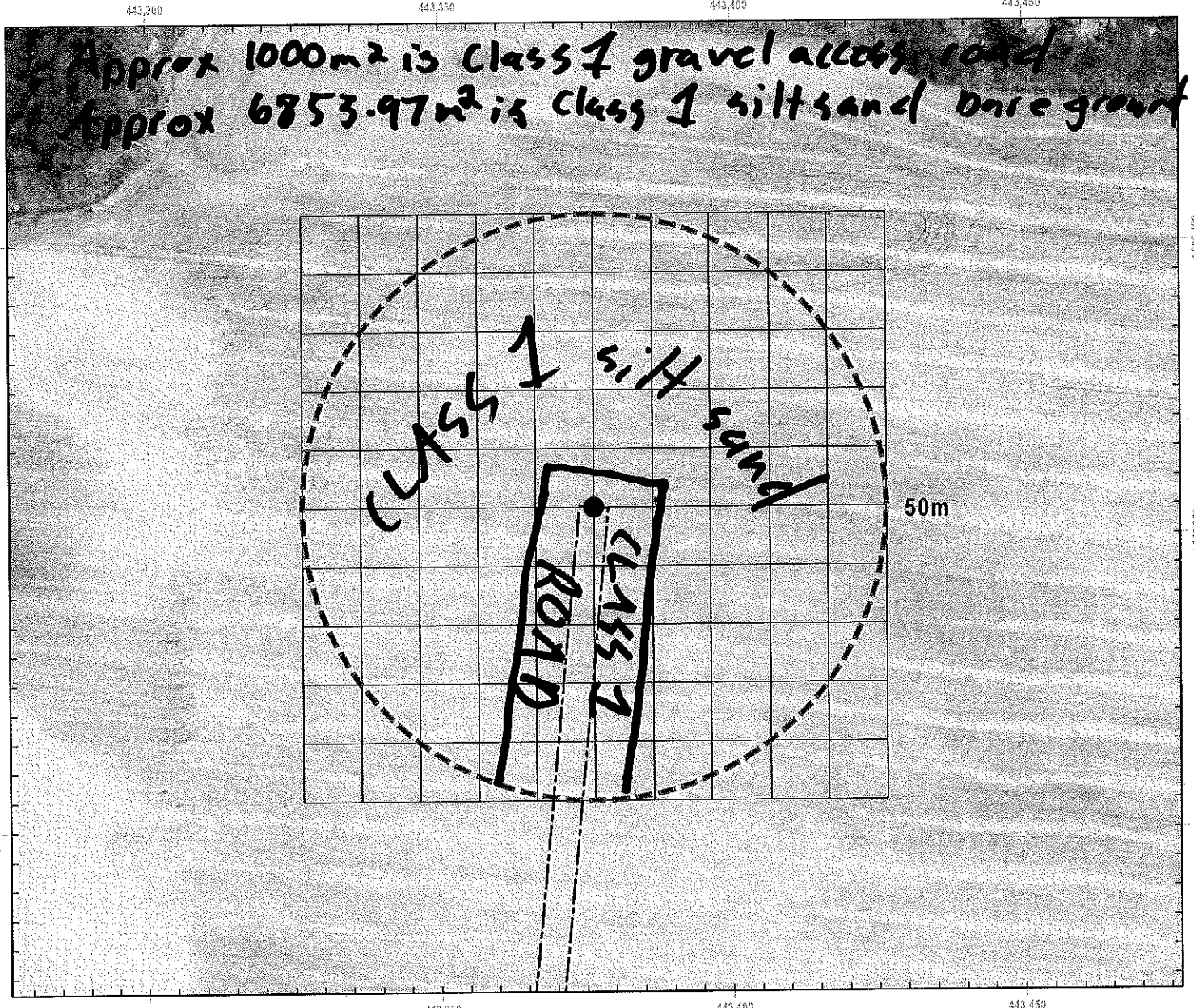
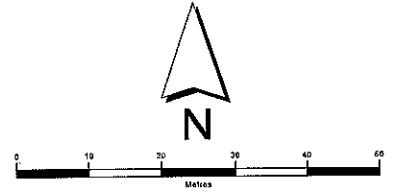
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-17

Survey Date: Sept 7 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Delraiy



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

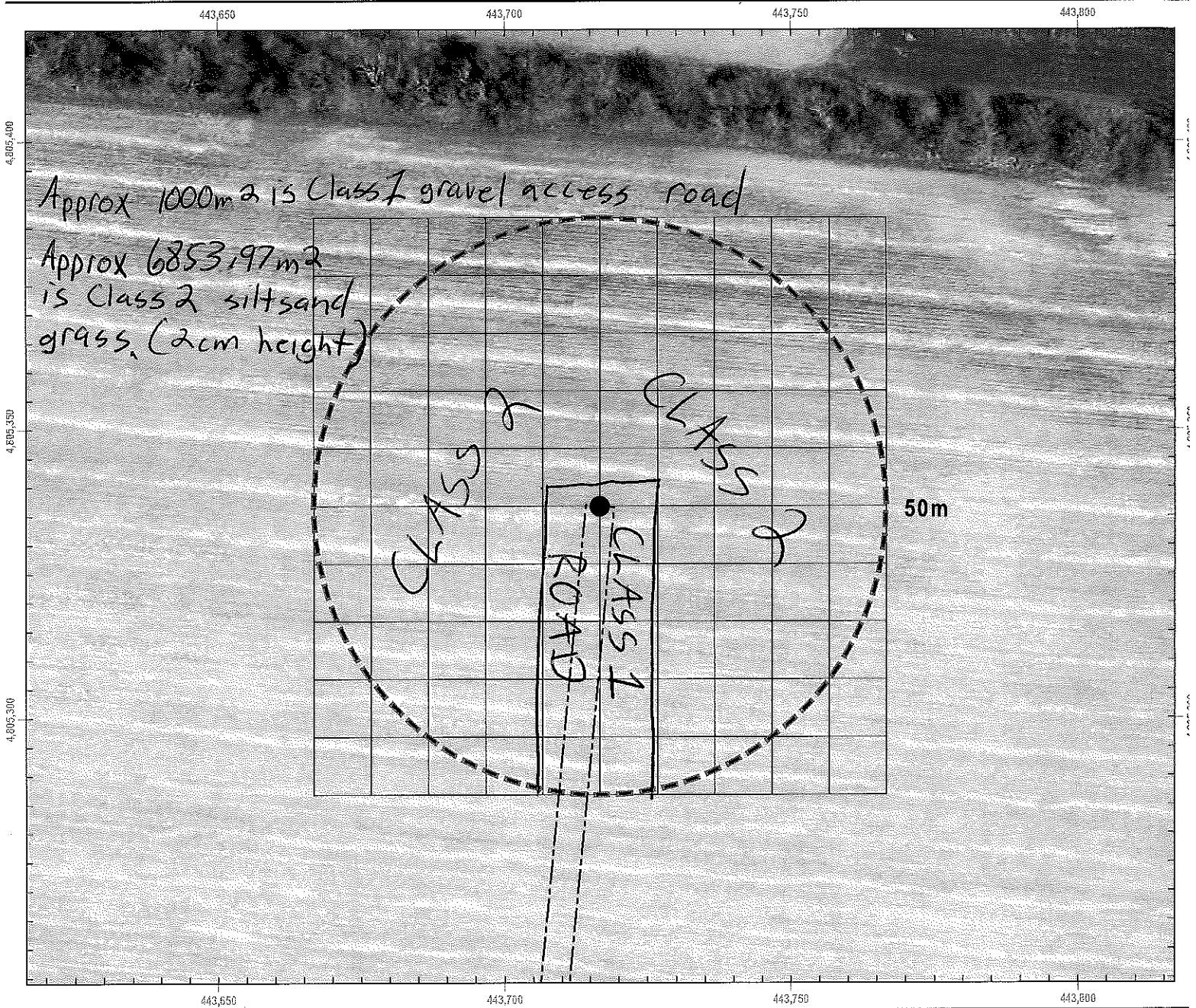
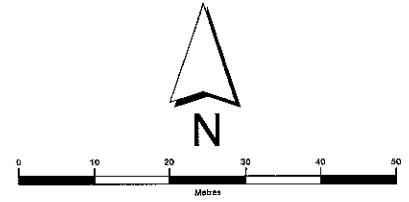
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-18

**Survey Date:** May 2/18

**Actual Searched Area (m<sup>2</sup>):** 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

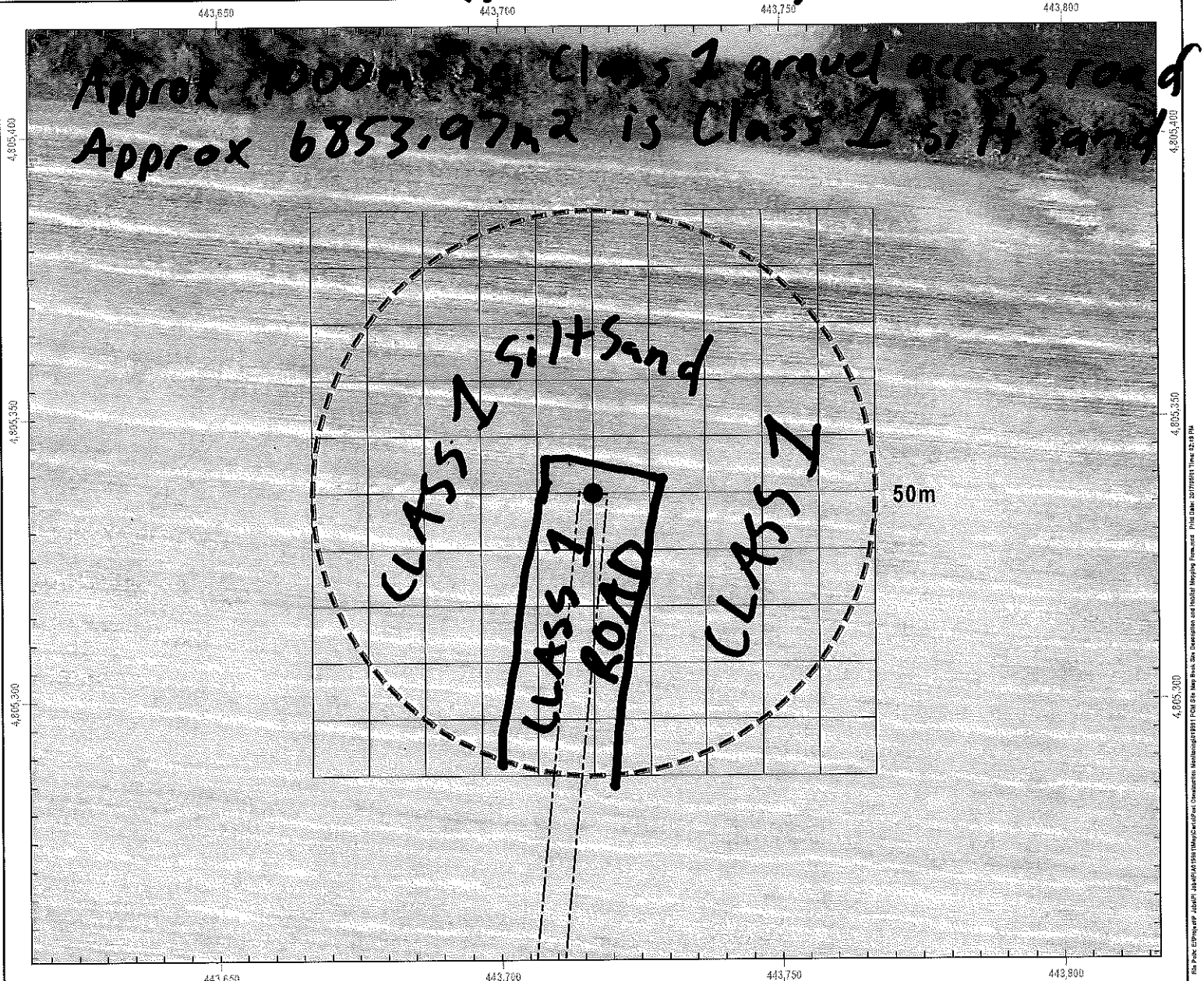
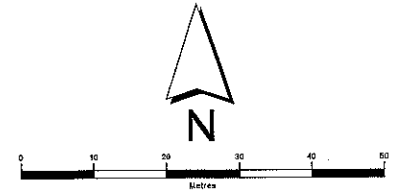
Site Number: T-18

Survey Date: July 10 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



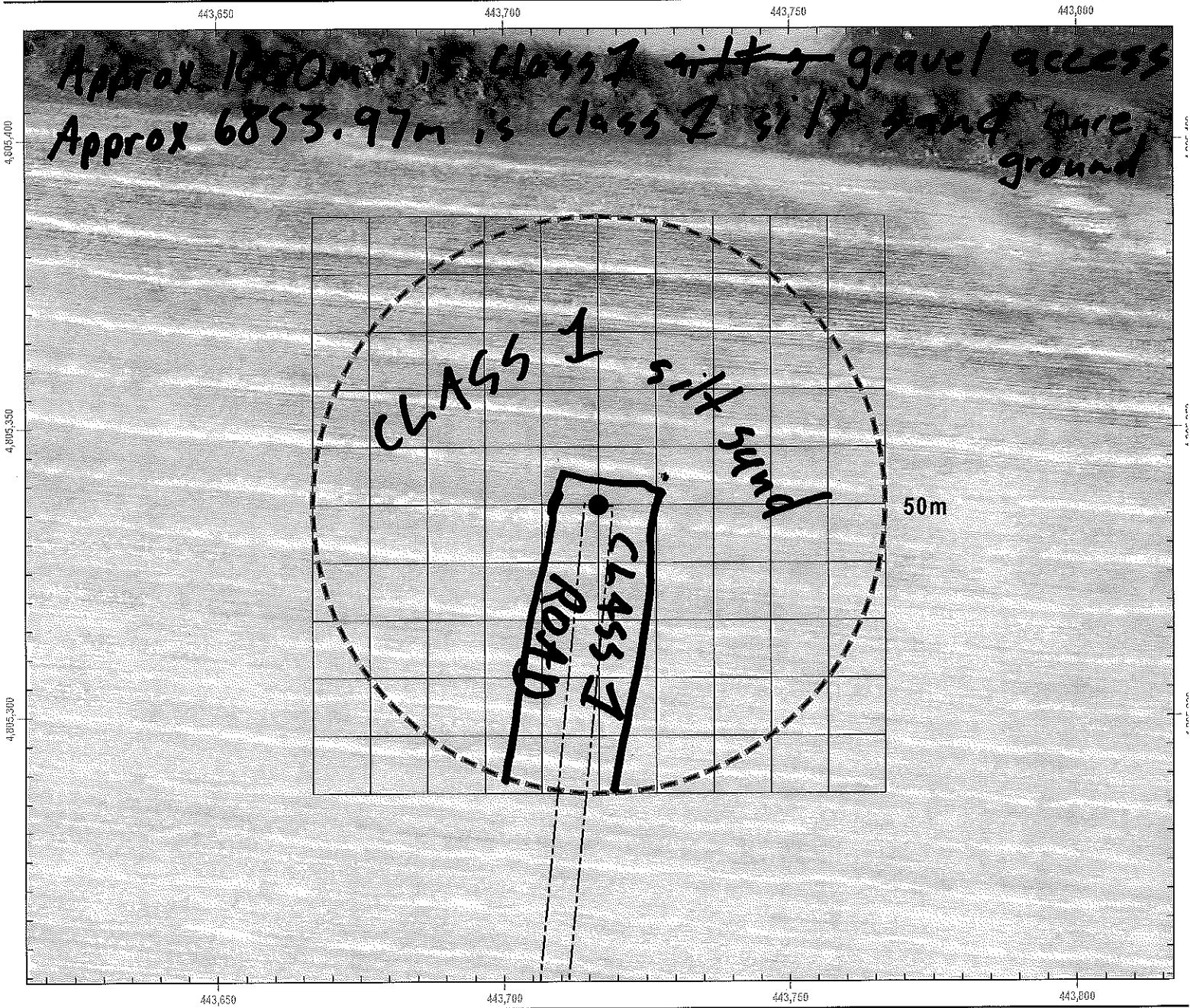
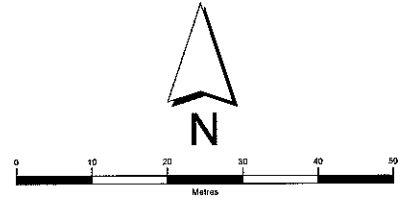
4,805,350  
 4,805,300  
 443,800  
 443,750  
 443,700  
 443,650

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-18  
 Survey Date: Sept 7/18  
 Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

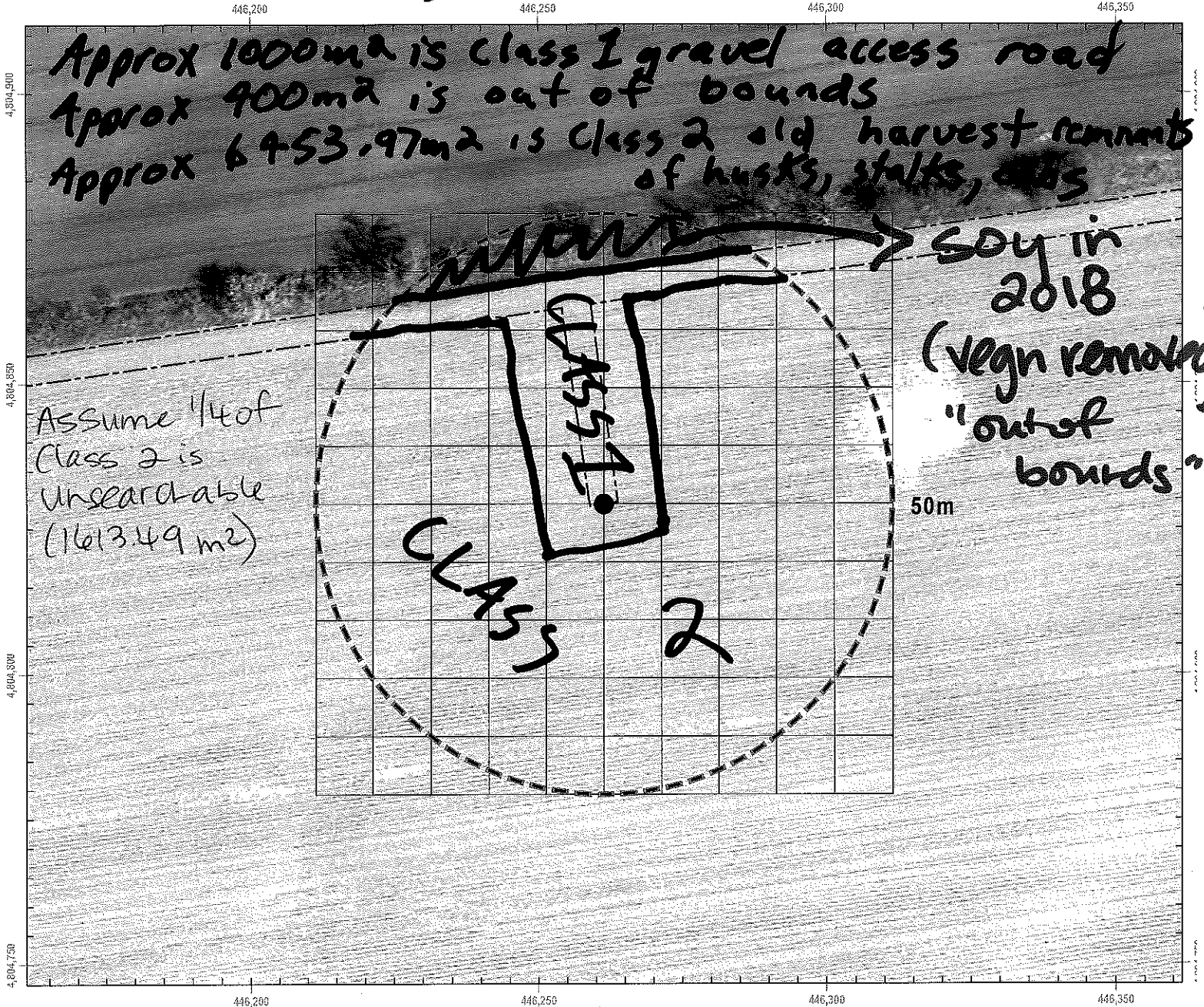
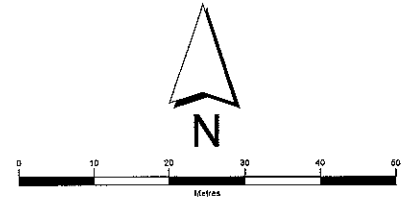
Site Number: T-19

Survey Date: May 16 / 18

Actual Searched Area (m<sup>2</sup>): 5840.48m<sup>2</sup>

(subtract from total search area -7853.97m<sup>2</sup>) 7453.97

Observers: Sara Henry, Sarah Doleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

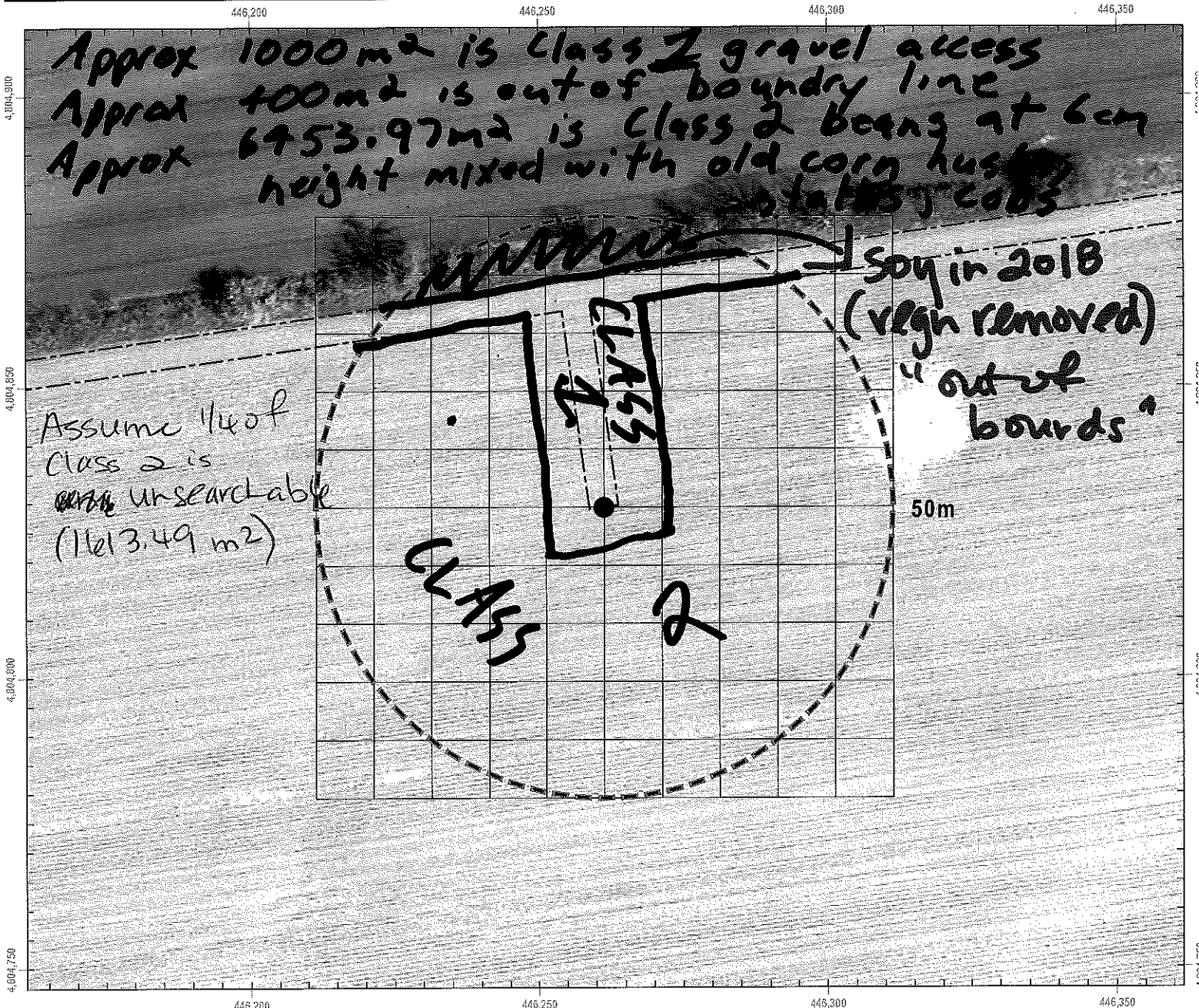
Site Number: T-19

Survey Date: June 13/18

Actual Searched Area (m<sup>2</sup>): 5840.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>) 7453.97

Observers: Sara Henly, Sarah Deloury



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

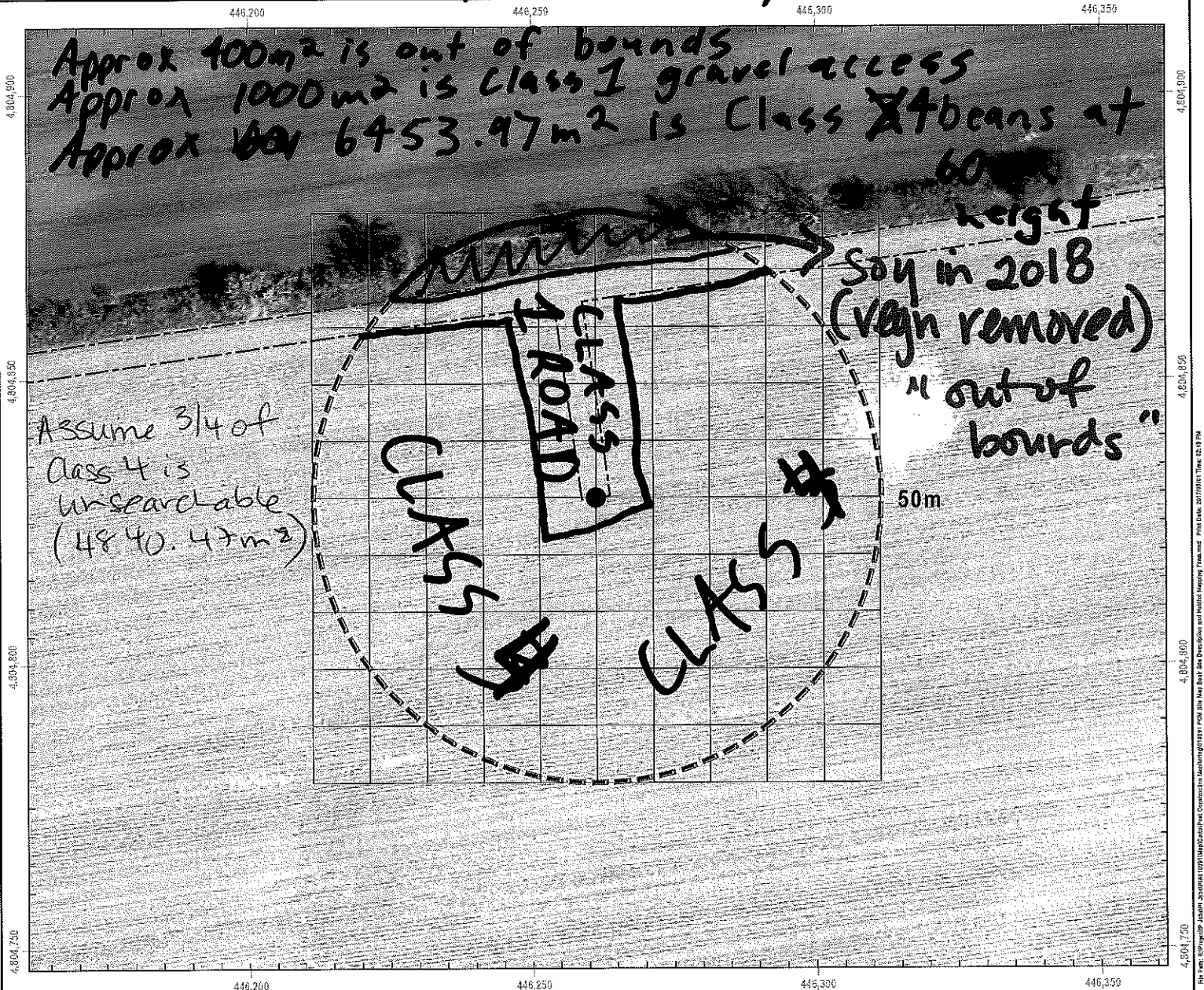
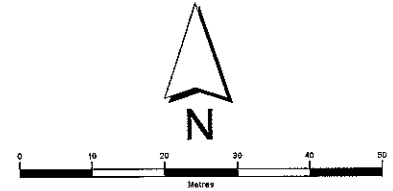
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-19

Survey Date: Aug 15 / 18

Actual Searched Area (m<sup>2</sup>): 2613.50 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

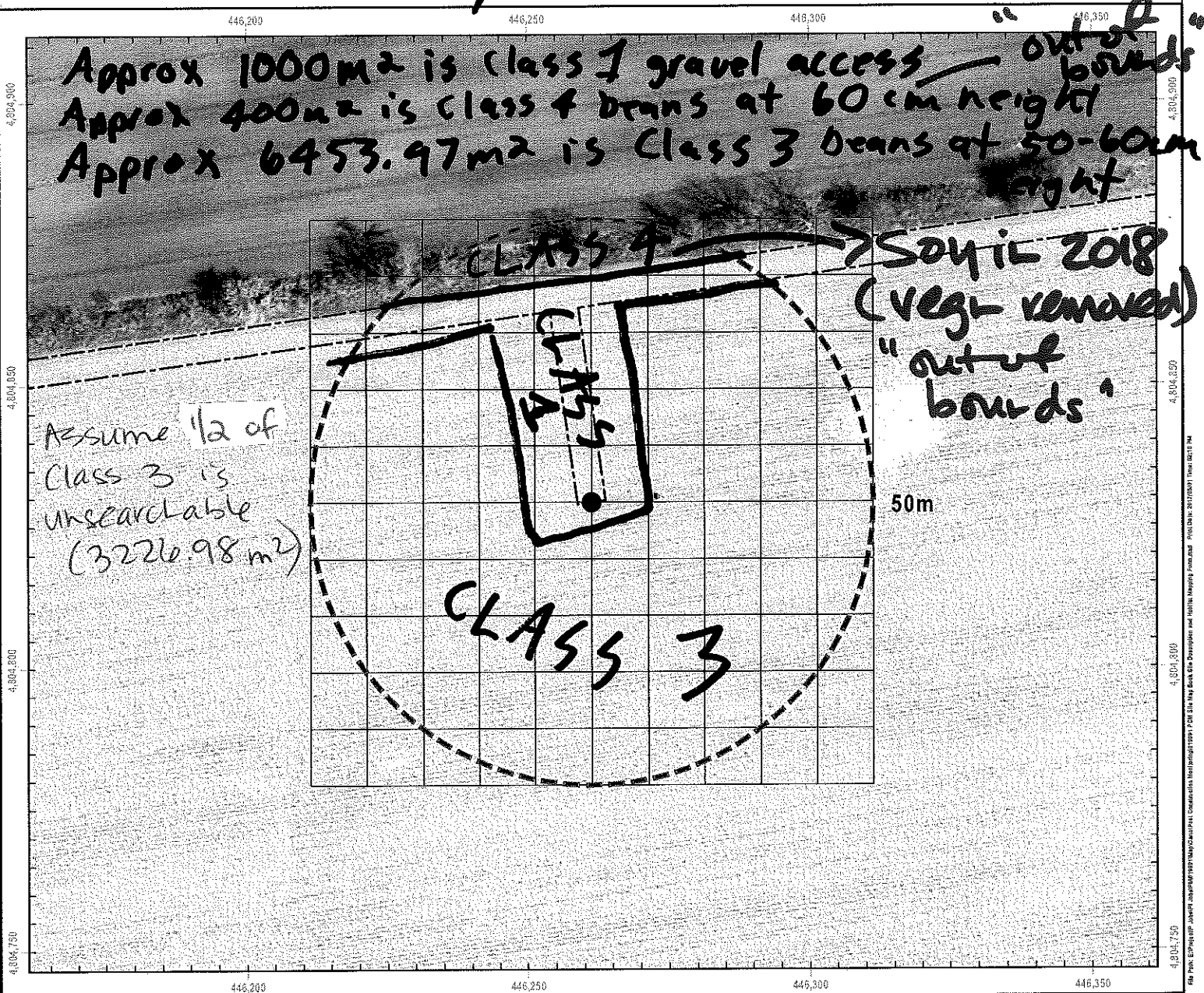
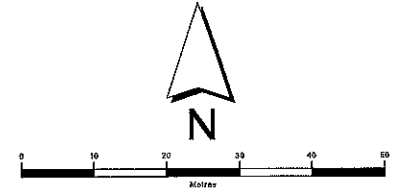
Site Number: T-19

Survey Date: Sept 12 / 18

Actual Searched Area (m<sup>2</sup>): 4226.99

(subtract from total search area ~7853.97m<sup>2</sup>) 7453.97

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

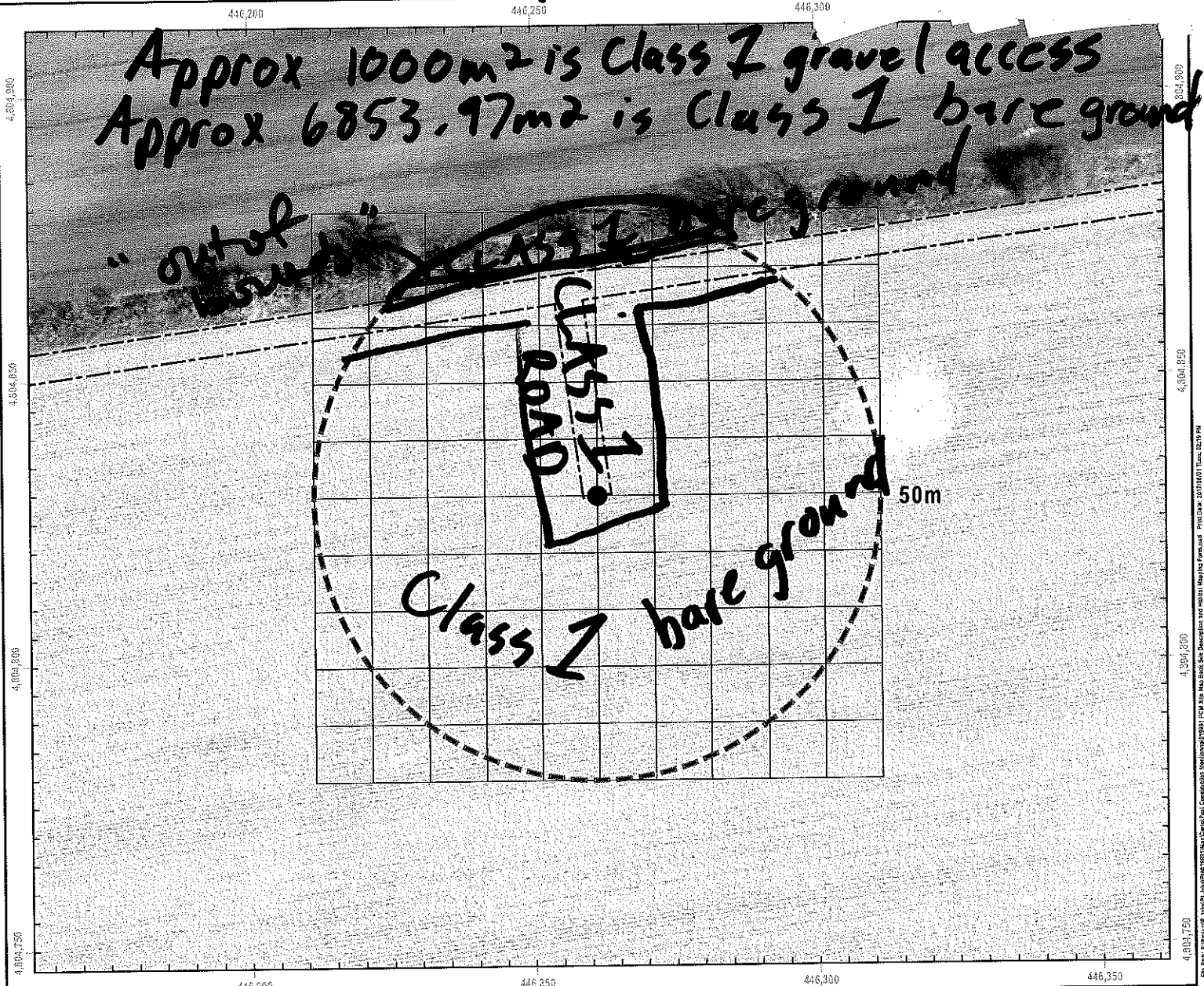
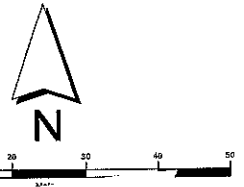
Site Number: T-19

Survey Date: Nov 15 / 18

Actual Searched Area (m<sup>2</sup>): 7453.97m<sup>2</sup>

(subtract from total search area ~7853.97m<sup>2</sup>) 7453.97

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

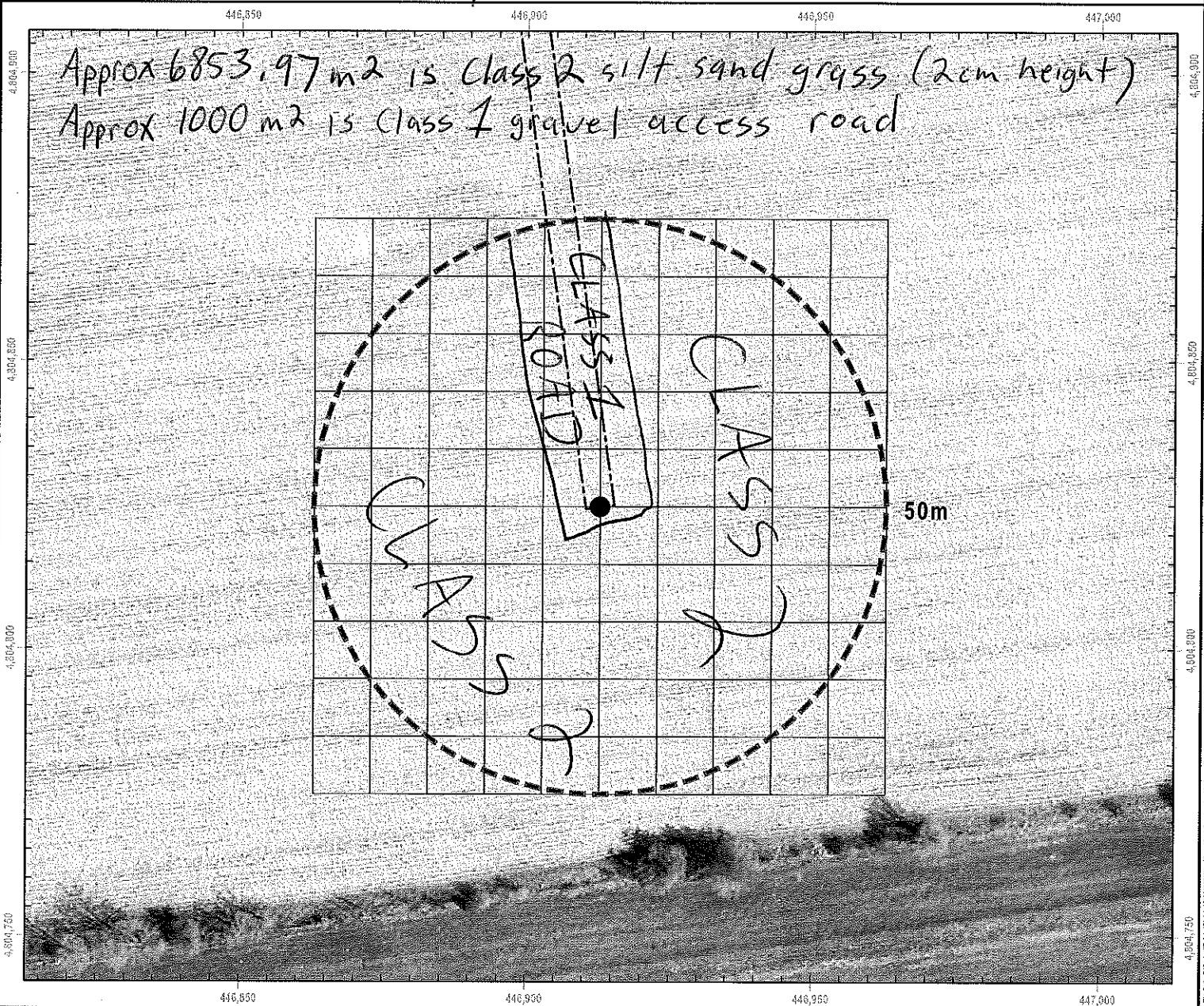
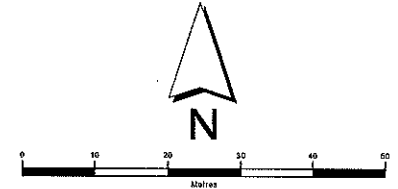
**Site Number:** T-20

**Survey Date:** May 1/18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

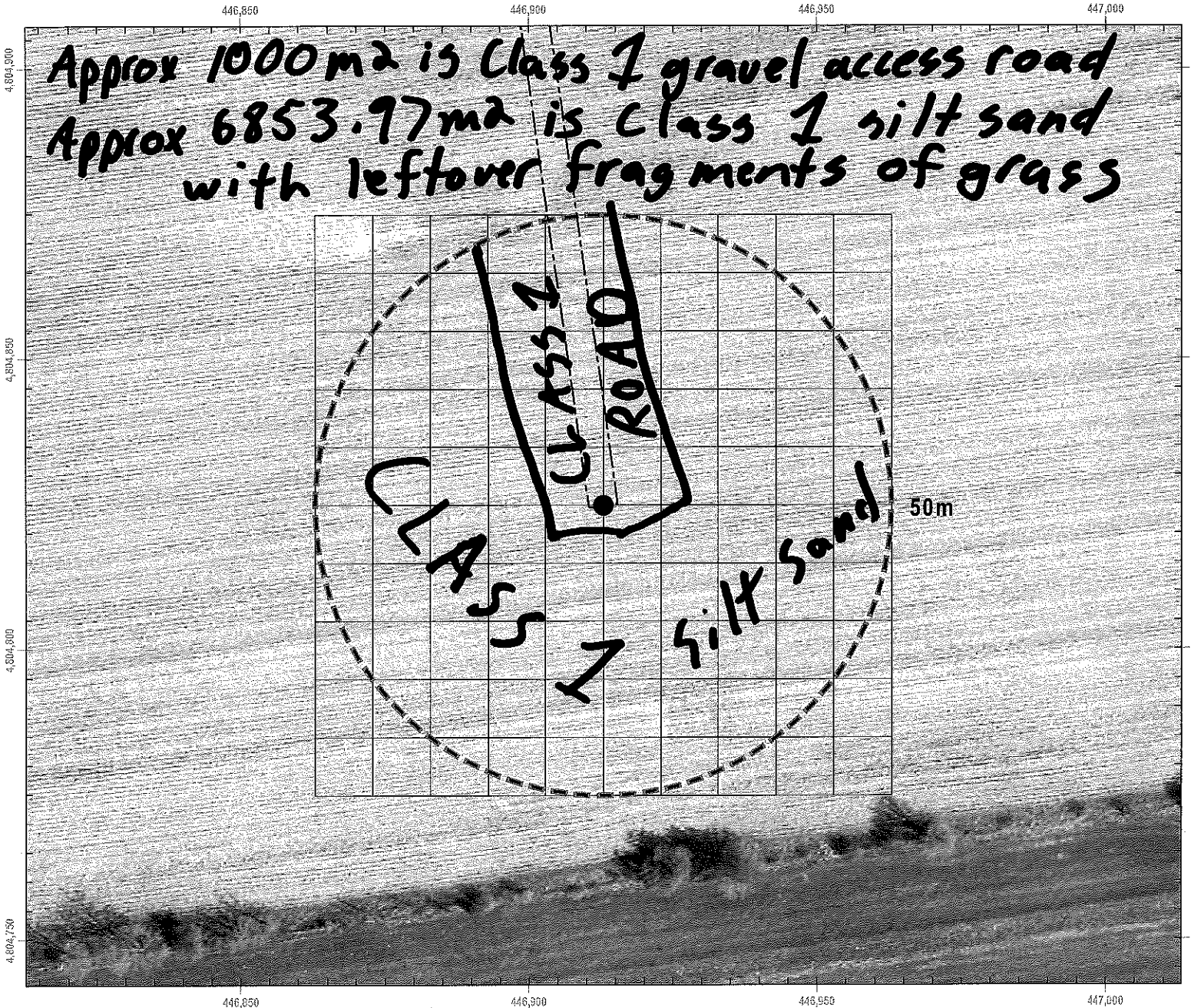
Site Number: T-20

Survey Date: May 17 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sara Deleury



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

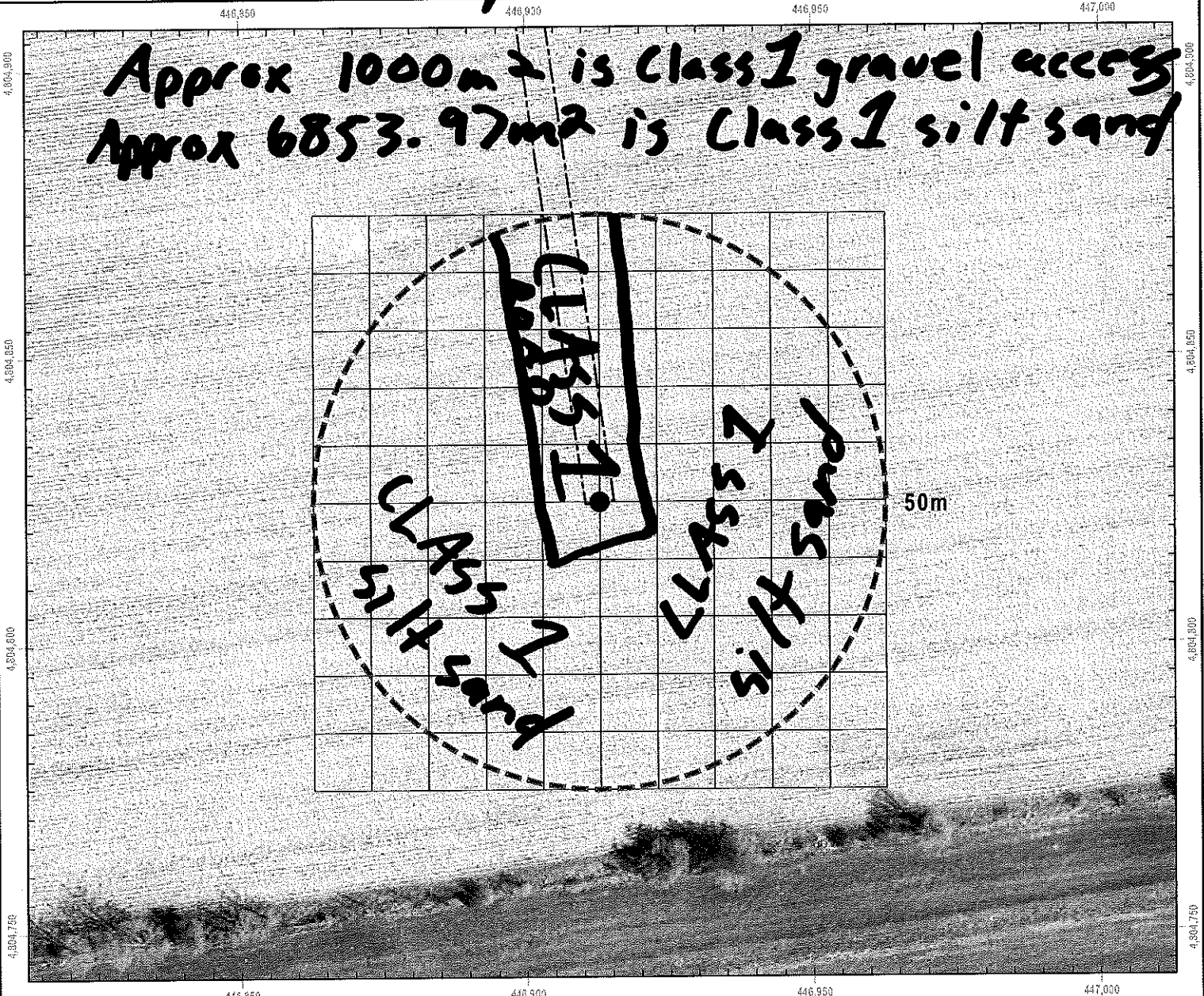
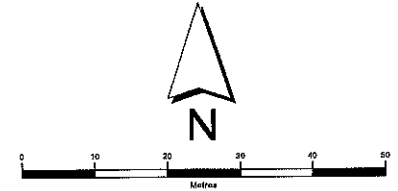
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-20

Survey Date: July 12

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

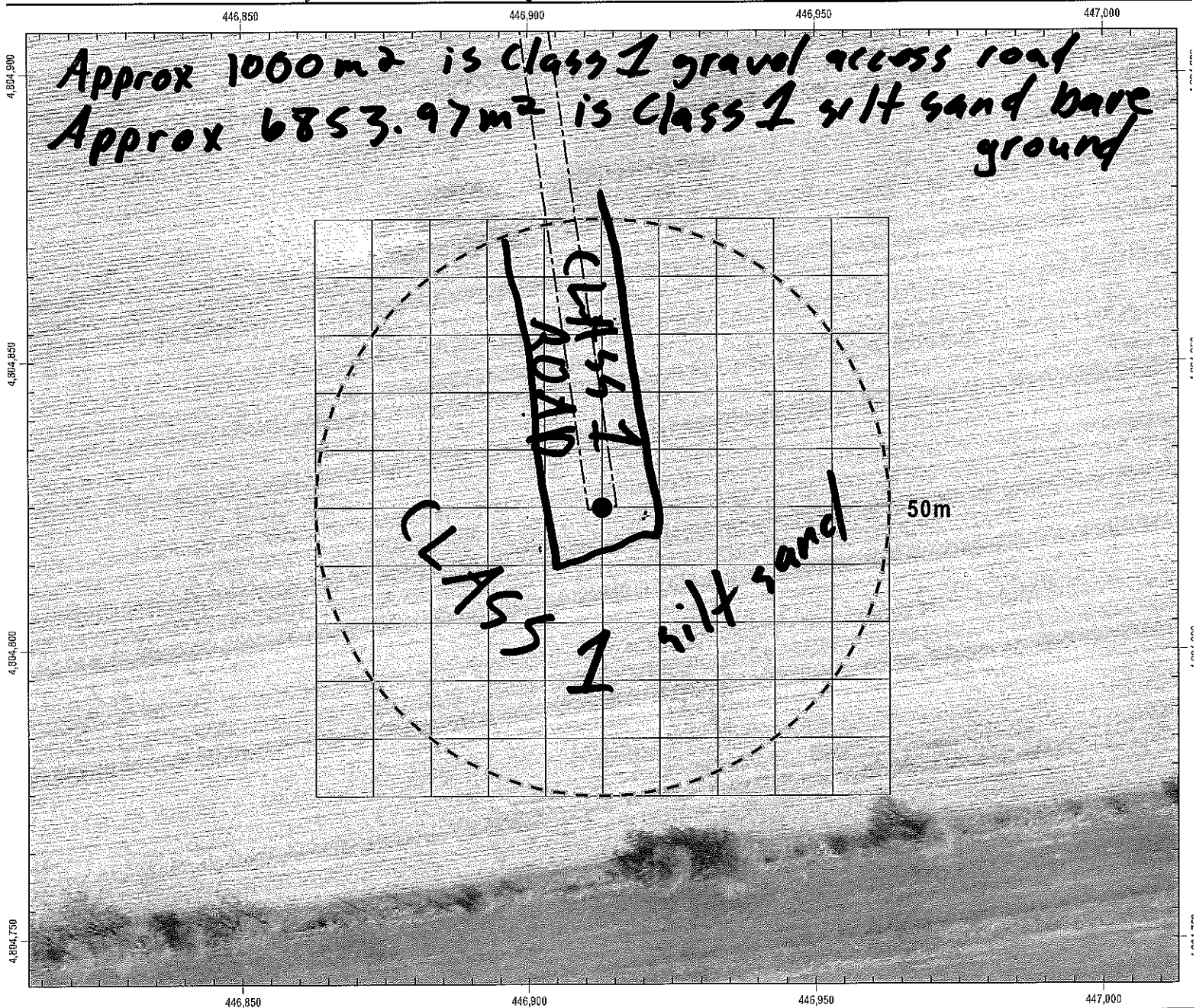
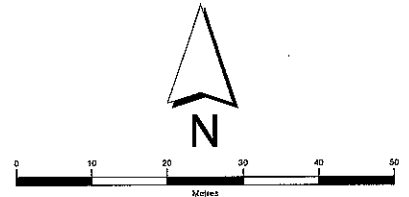
Site Number: T-20

Survey Date: Oct 29 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sarah Deleury



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

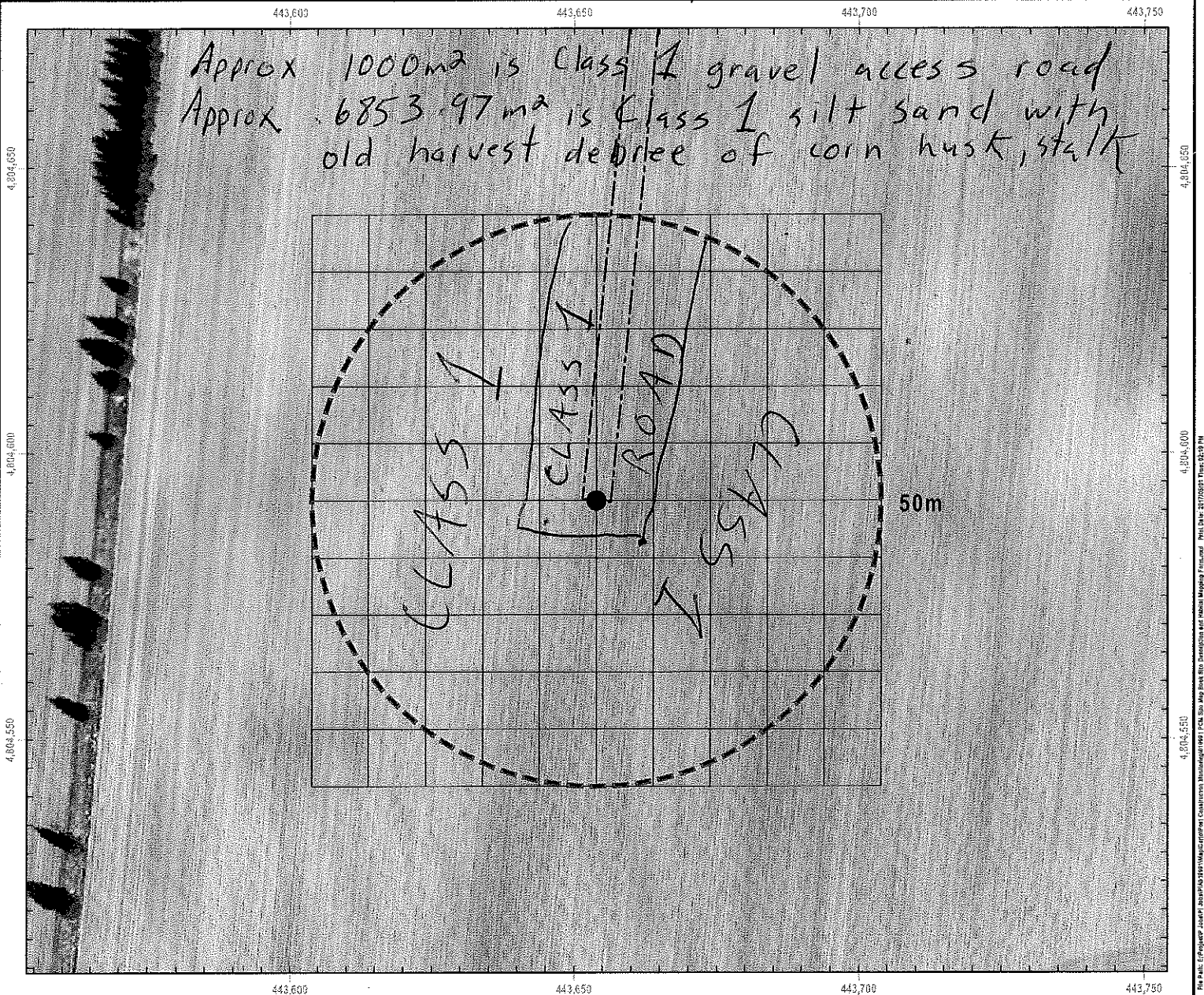
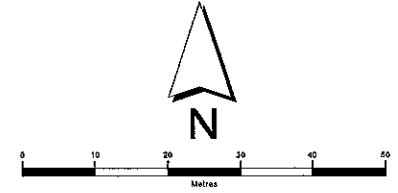
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-21

**Survey Date:** May 8/18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



4,804,650

4,804,600

4,804,550

4,804,650

4,804,600

4,804,550

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-21

**Survey Date:** May 29 / 18

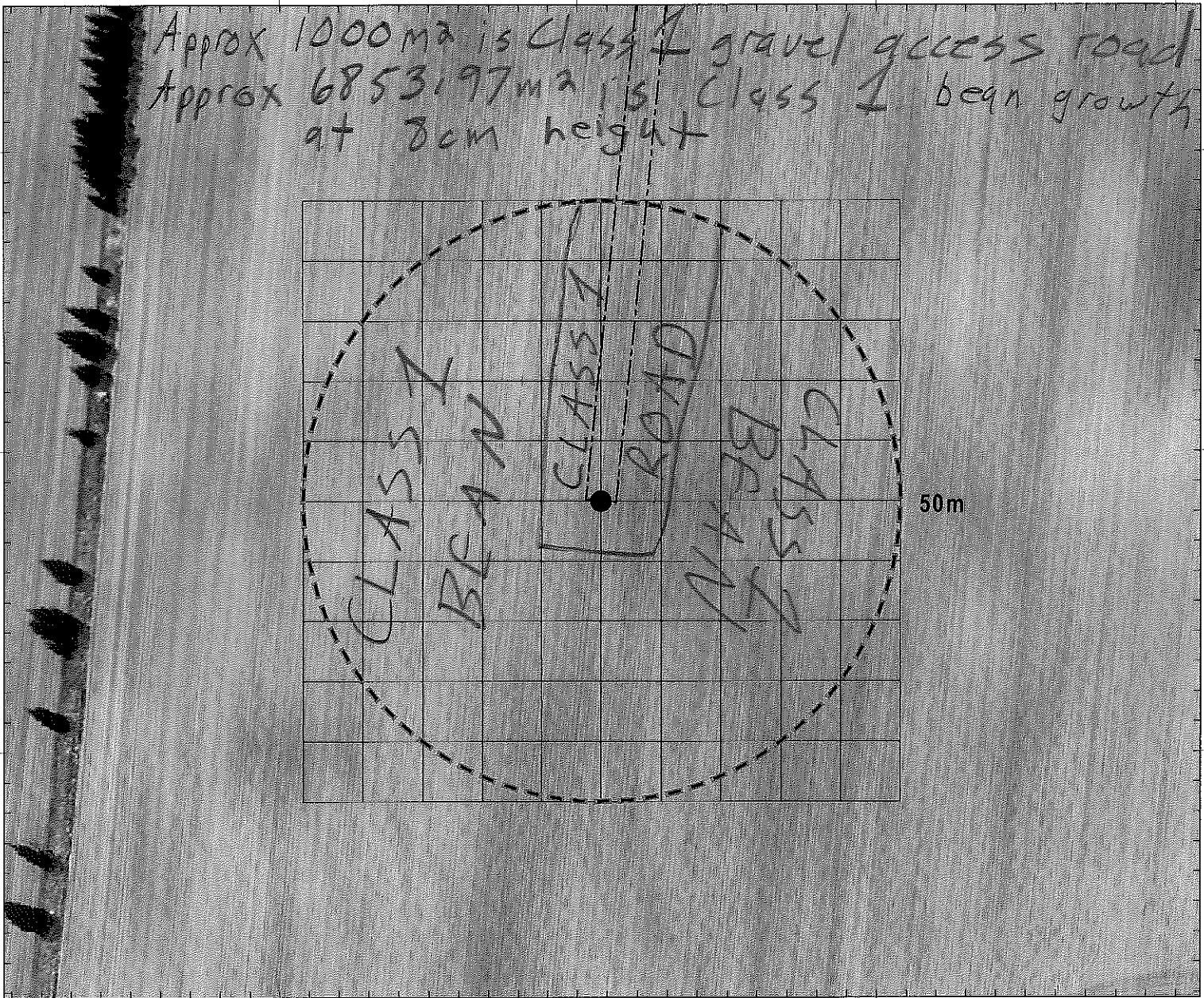
**Actual Searched Area (m<sup>2</sup>):** 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry



443,600                      443,650                      443,700                      443,750



443,600                      443,650                      443,700                      443,750

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

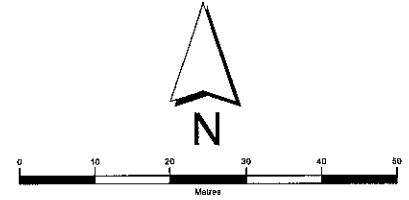
Site Number: T-21

Survey Date: June 12, 18

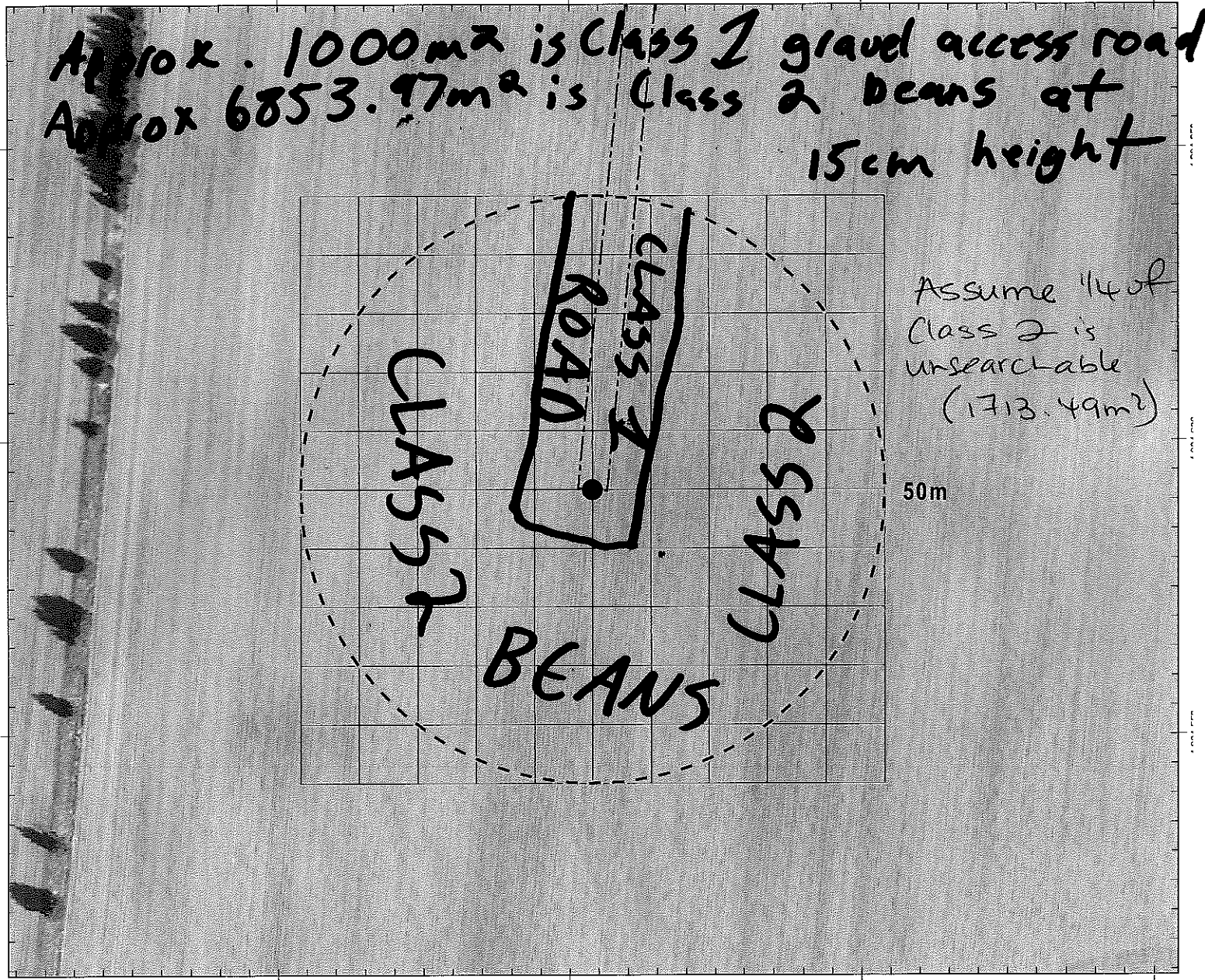
Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



443,600                      443,650                      443,700                      443,750



443,600                      443,650                      443,700                      443,750

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-21

Survey Date: June 23/18

Actual Searched Area (m<sup>2</sup>): 4426.99m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary

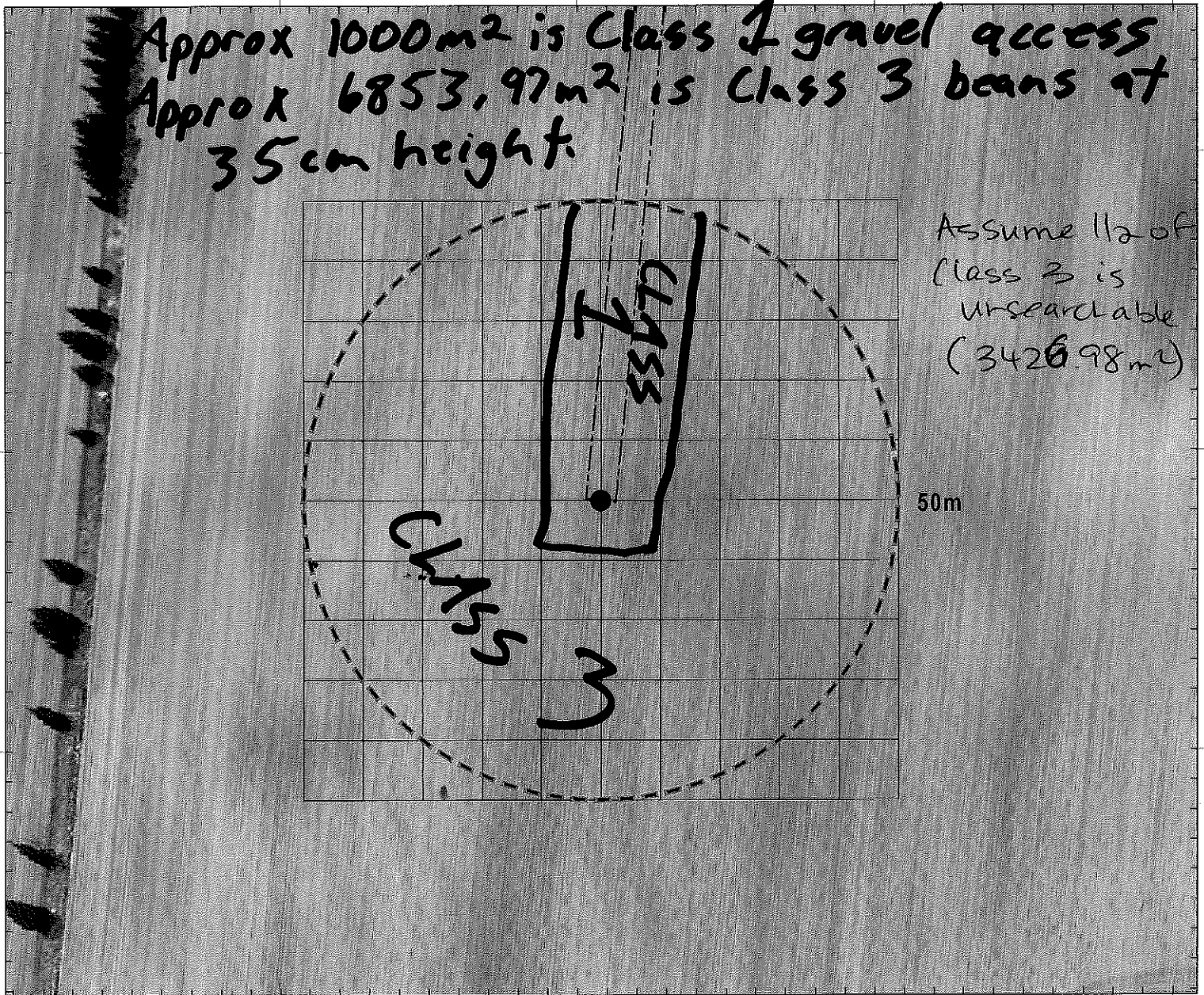


443,600

443,650

443,700

443,750



443,600

443,650

443,700

443,750

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

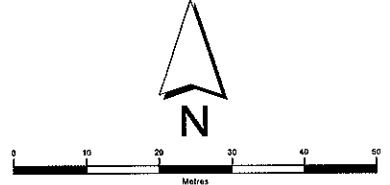
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-21

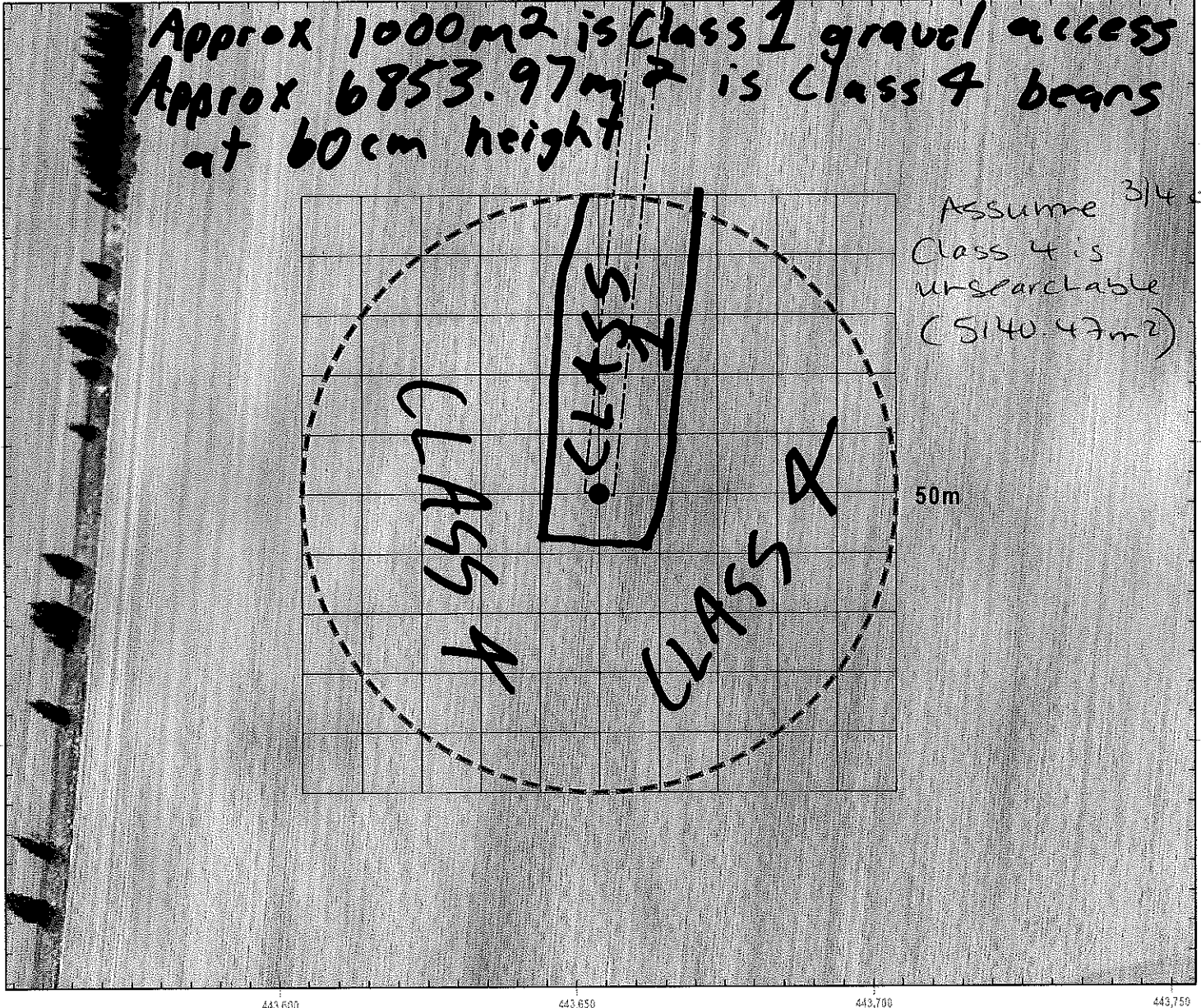
Survey Date: July 6 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Delaney



443,600                      443,650                      443,700                      443,750



443,600                      443,650                      443,700                      443,750

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

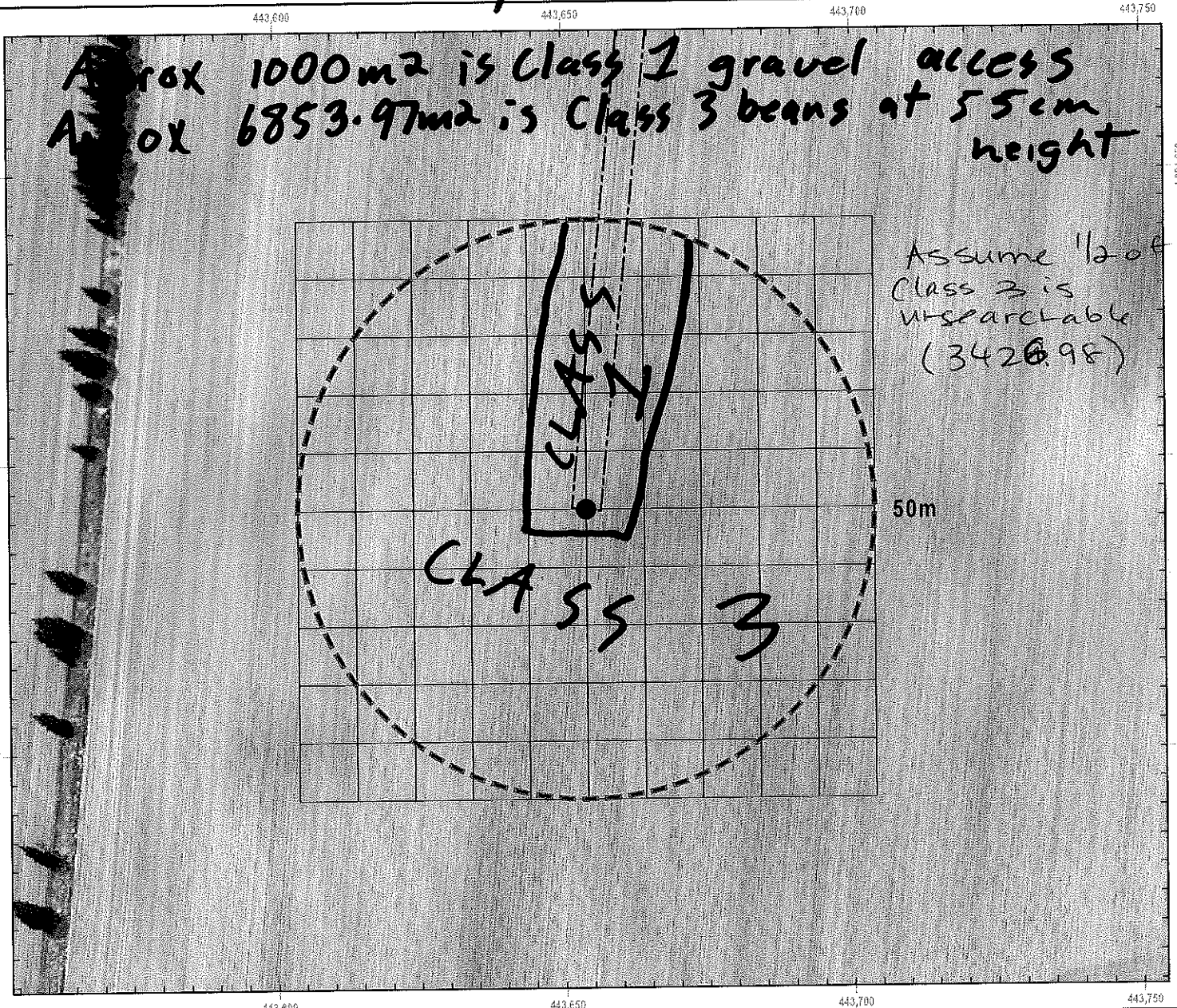
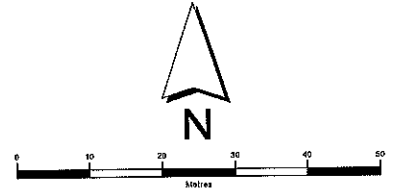
Site Number: T-21

Survey Date: Oct 9 / 18

Actual Searched Area (m<sup>2</sup>): 4426.99m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

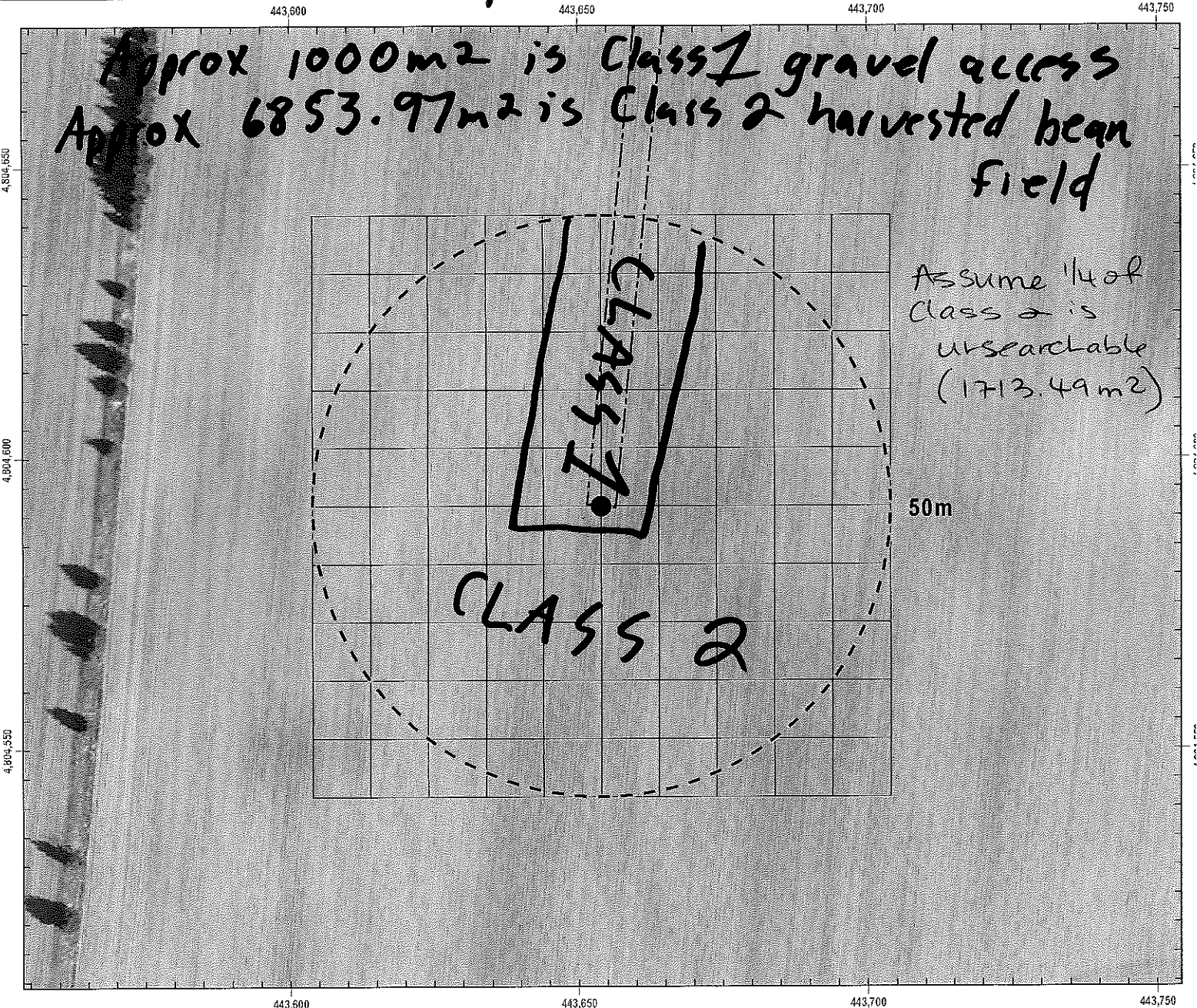
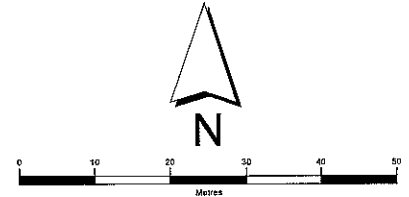
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-21

Survey Date: Oct 12 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-22

Survey Date: May 8/18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



443,900

443,950

444,000

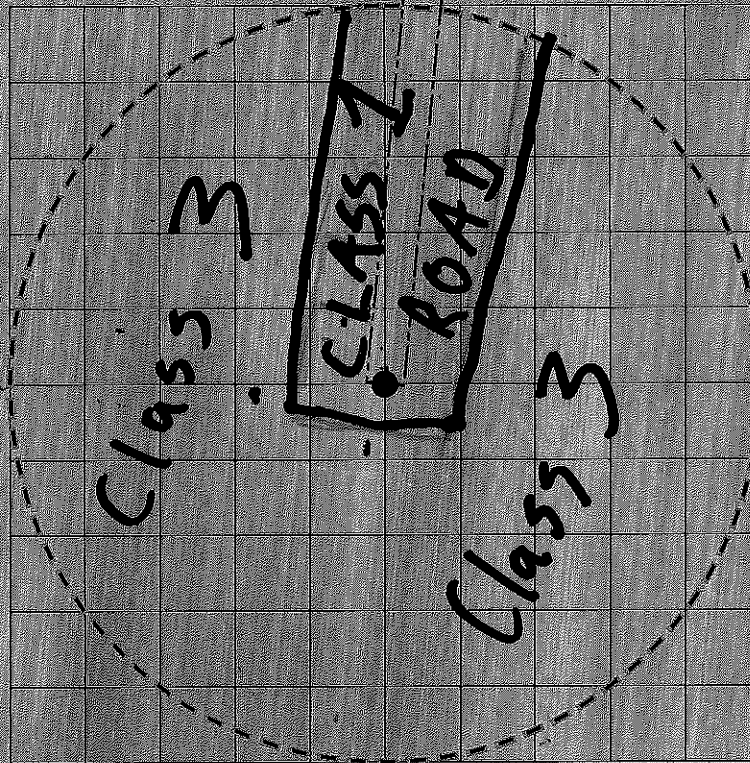
444,050

4,804,700

4,804,650

4,804,600

Approx 1000m<sup>2</sup> is Class 1 gravel access road  
 Approx 6853.97m<sup>2</sup> is Class 3 leftover  
 harvested corn husks and stalks at 30cm  
 height



Assume 1/4 of  
 Class 3 is  
 unsearchable  
 (1713.49m<sup>2</sup>)

50m

443,900

443,950

444,000

444,050

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



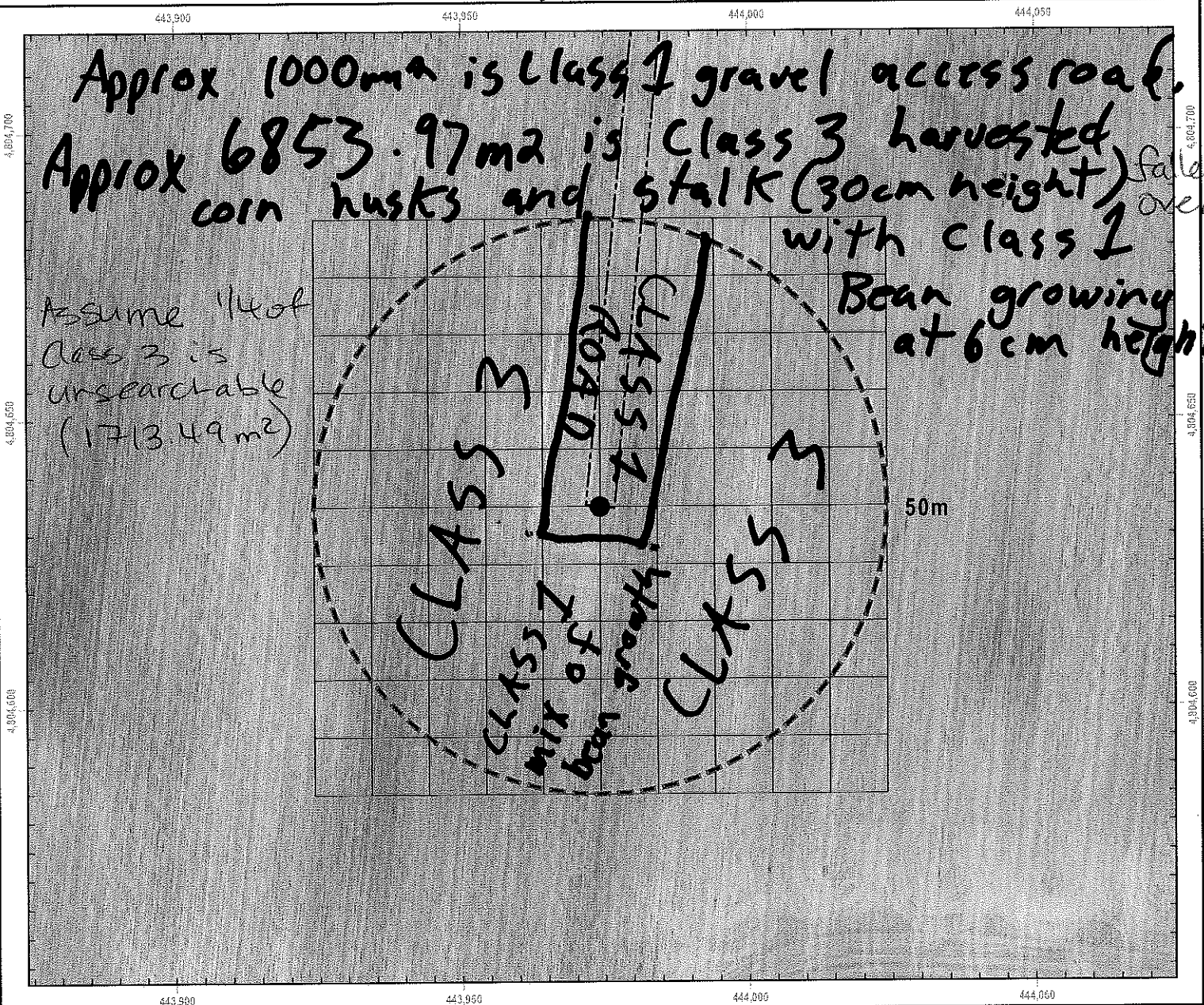
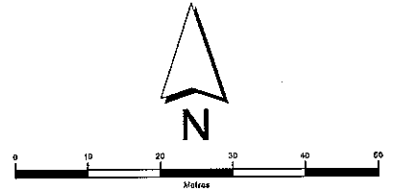


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-22  
 Survey Date: May 29 / 18  
 Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

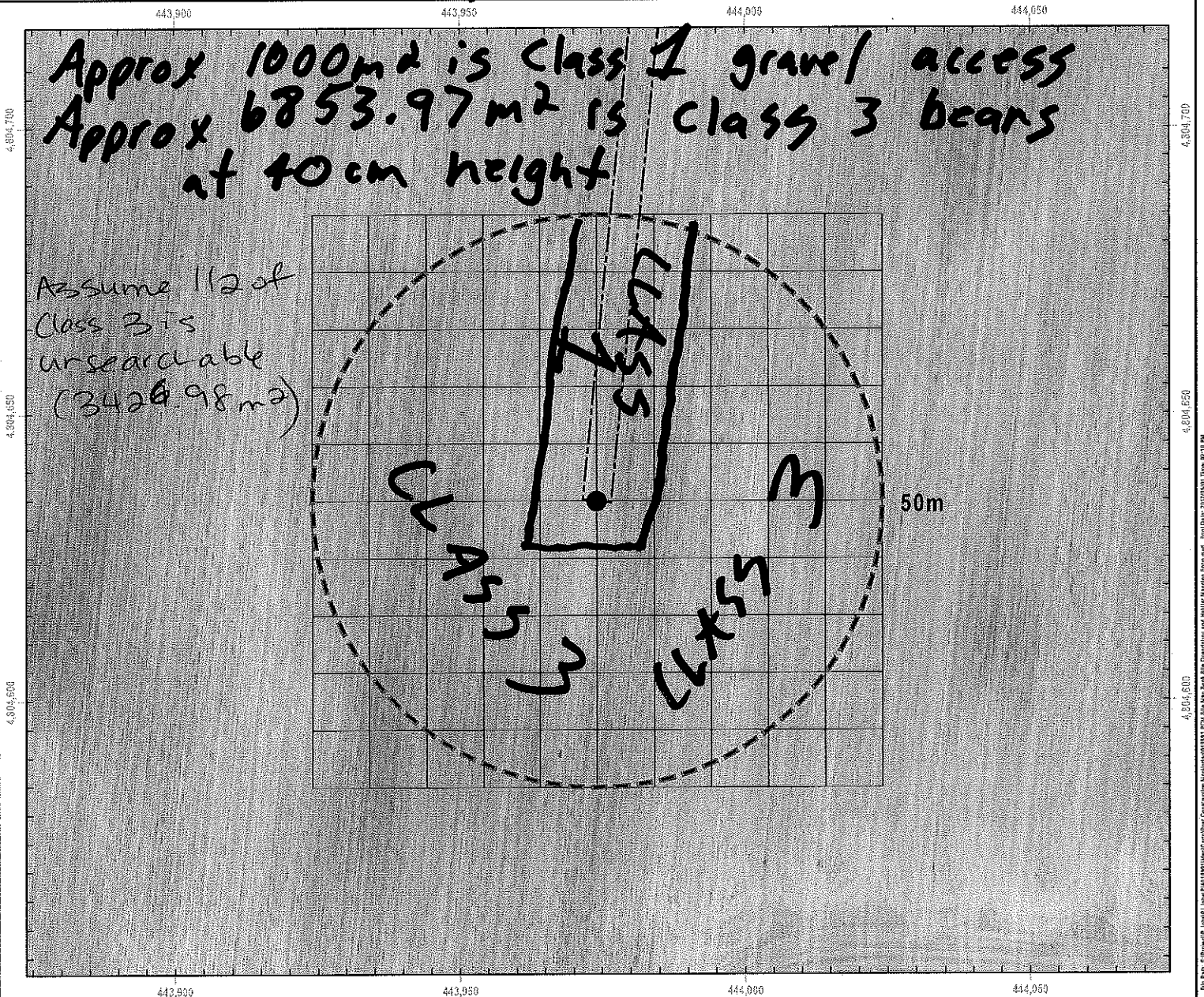
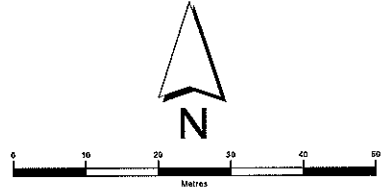
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-22

Survey Date: July 6 / 17

Actual Searched Area (m<sup>2</sup>): 4428.99 m<sup>2</sup>  
*(subtract from total search area - 7853.97 m<sup>2</sup>)*

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



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# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

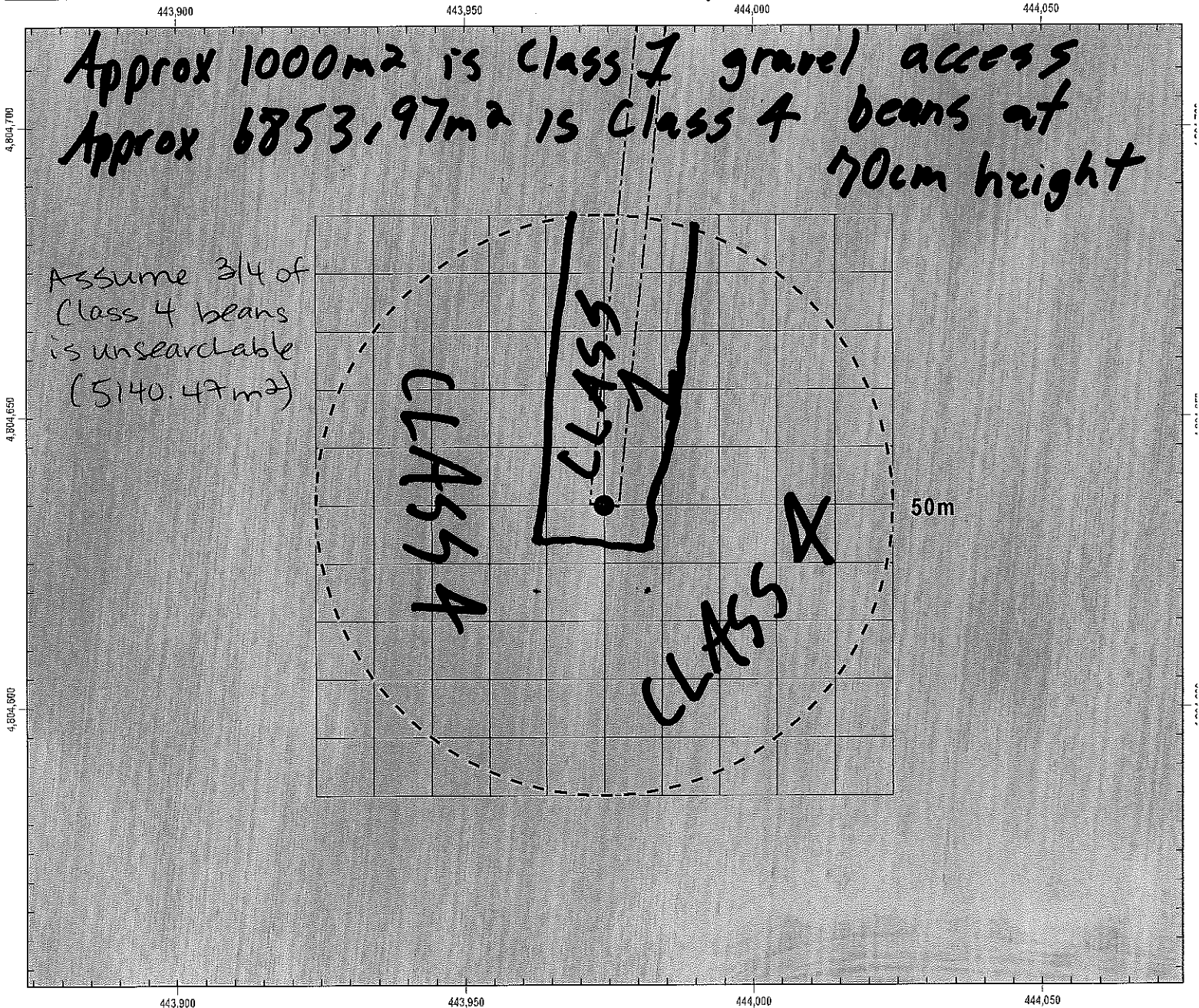
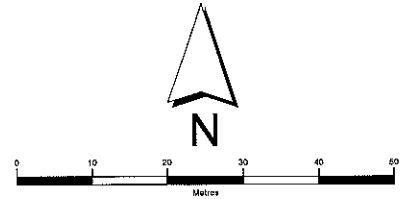
Site Number: T-22

Survey Date: July 20 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

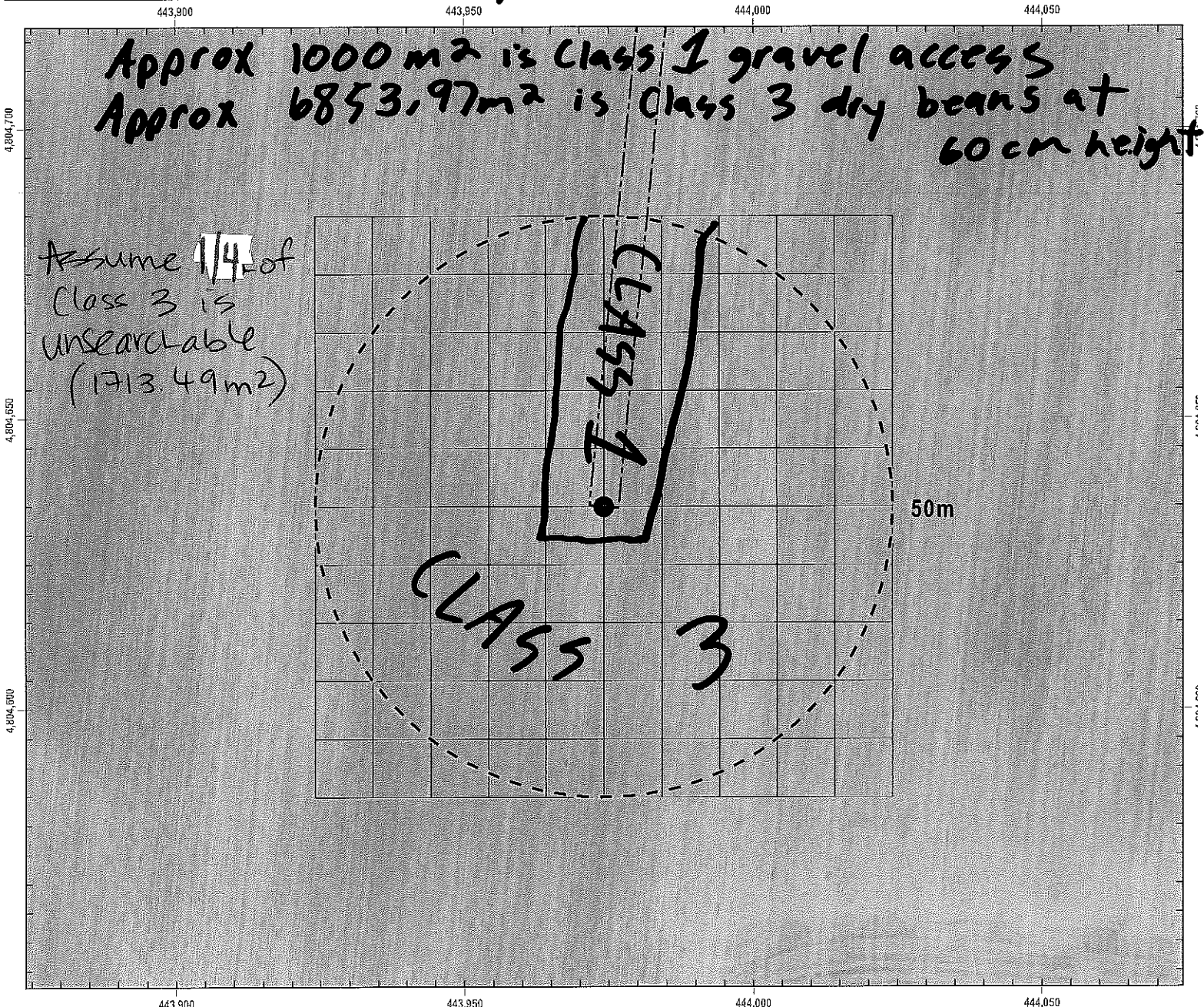
Site Number: T-22

Survey Date: Oct 9/18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

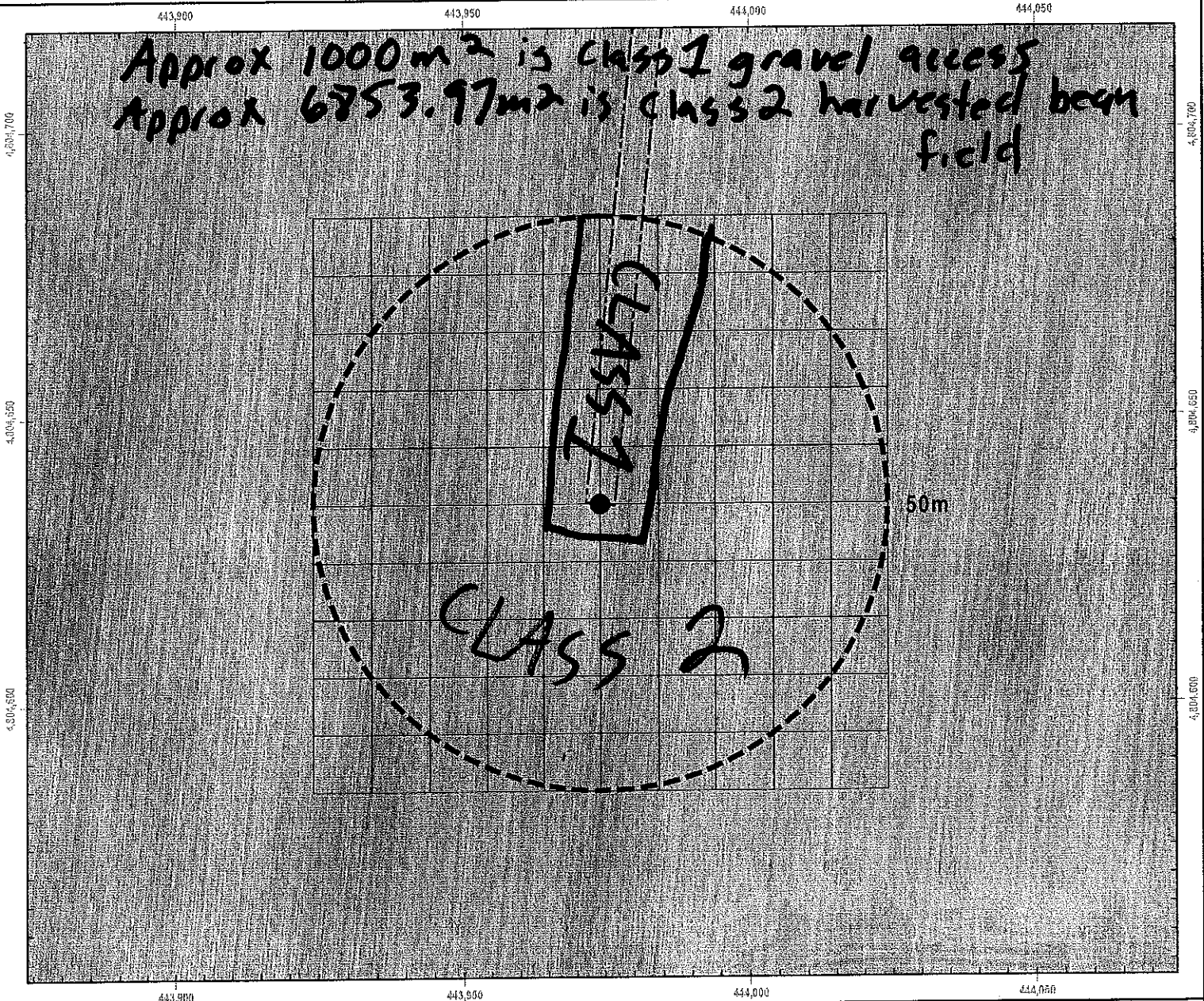
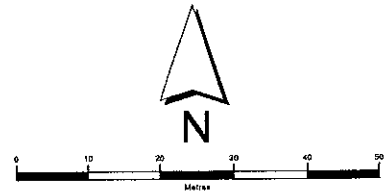


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-22  
 Survey Date: Oct 12/18  
 Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



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 File Name: C:\Program Files\Autodesk\MapGuide\MapGuideServer\bin\MapGuideServer.exe  
 File Size: 26116608 bytes  
 File Date: 2018/10/18 10:28:28 AM



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

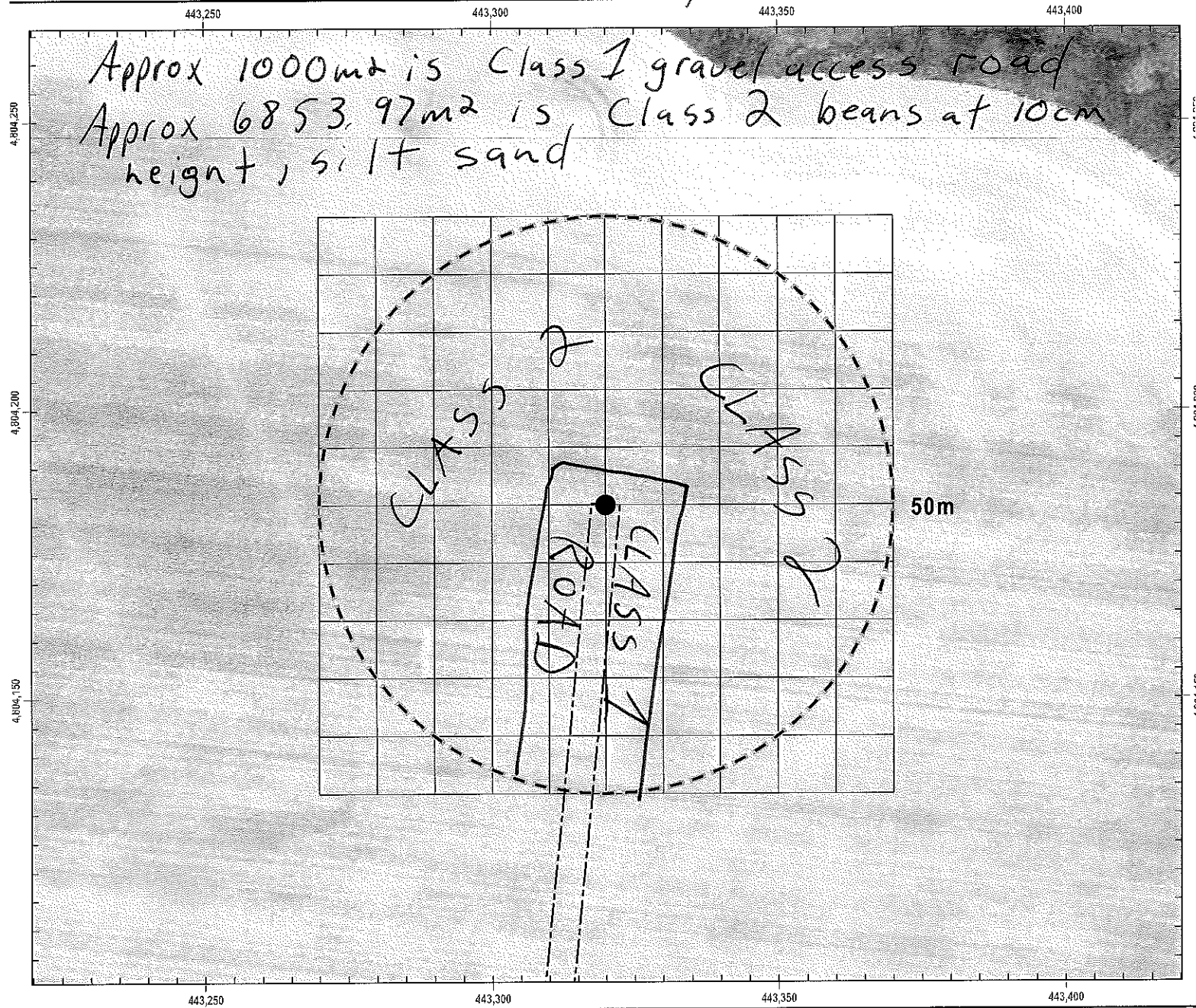
**Site Number:** T-23

**Survey Date:** June 19

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

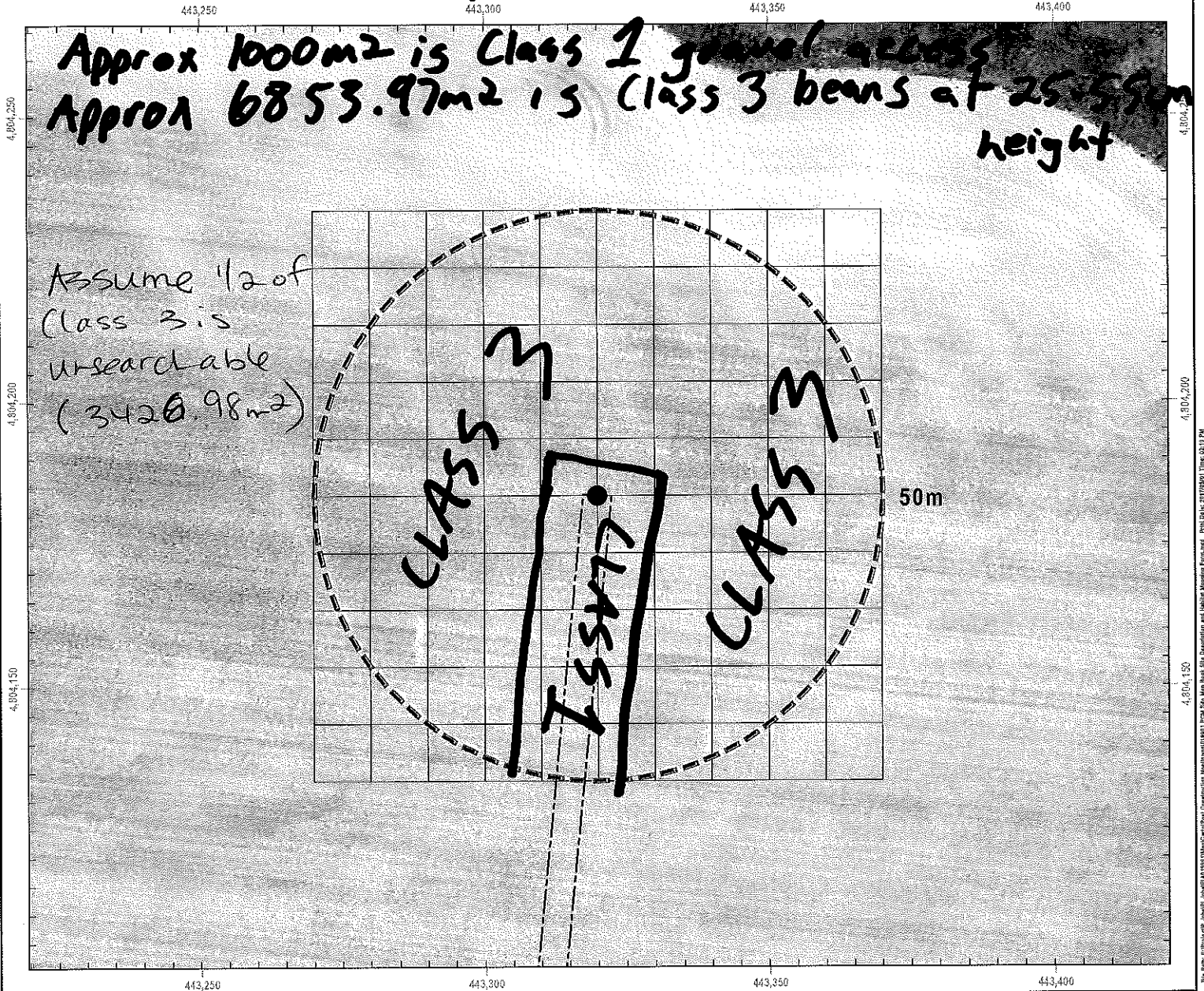
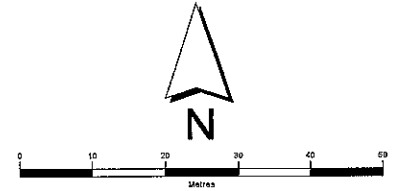
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-23

Survey Date: July 18/18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>  
(subtract from total search area - 6853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

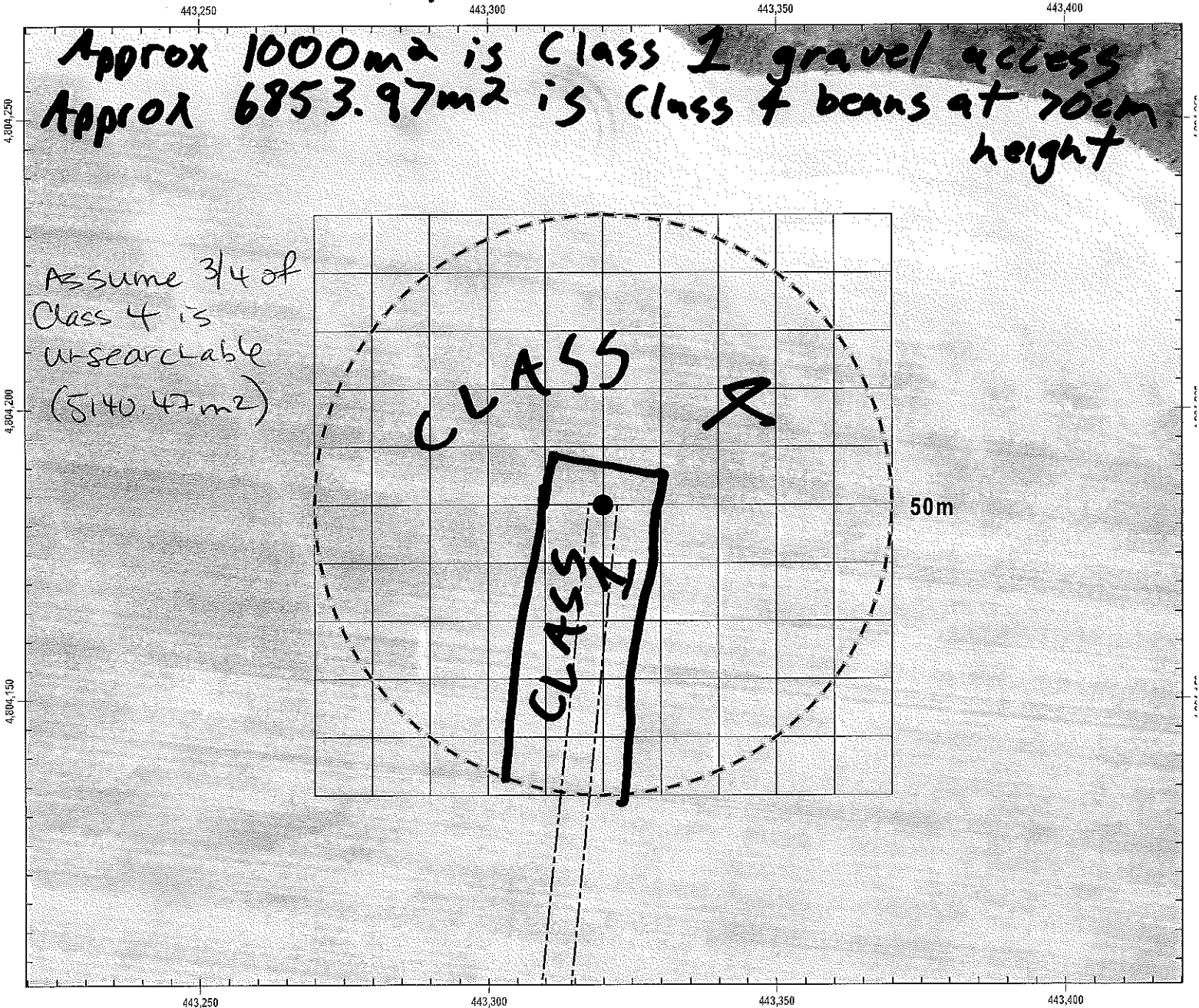
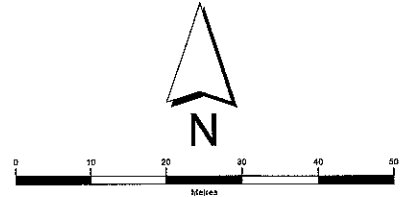


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-23  
 Survey Date: Aug 24/18  
 Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

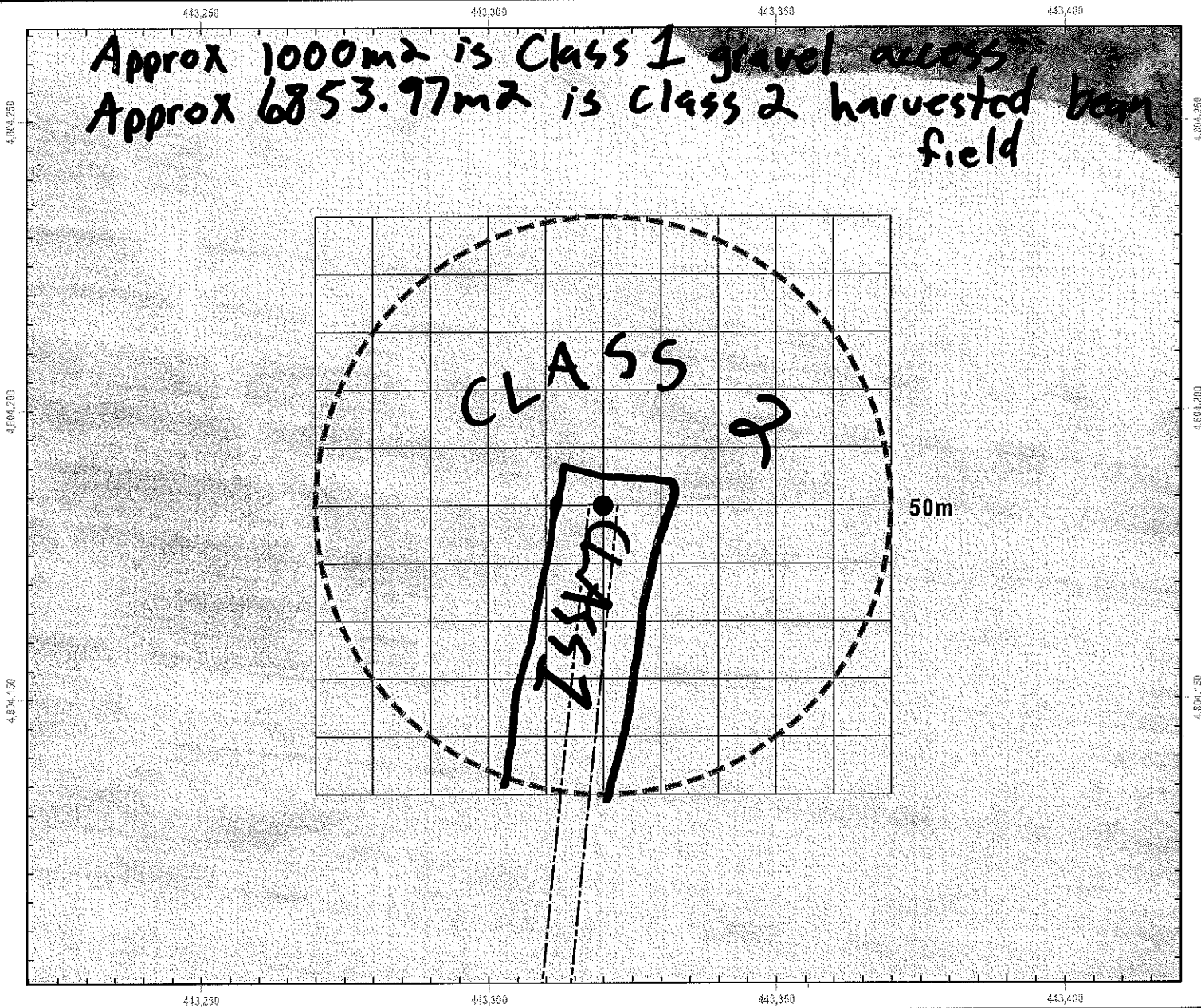
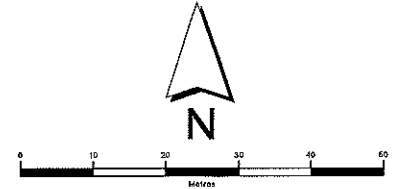
SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-23  
 Survey Date: Oct 17 / 18  
 Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



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 4,344,000

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

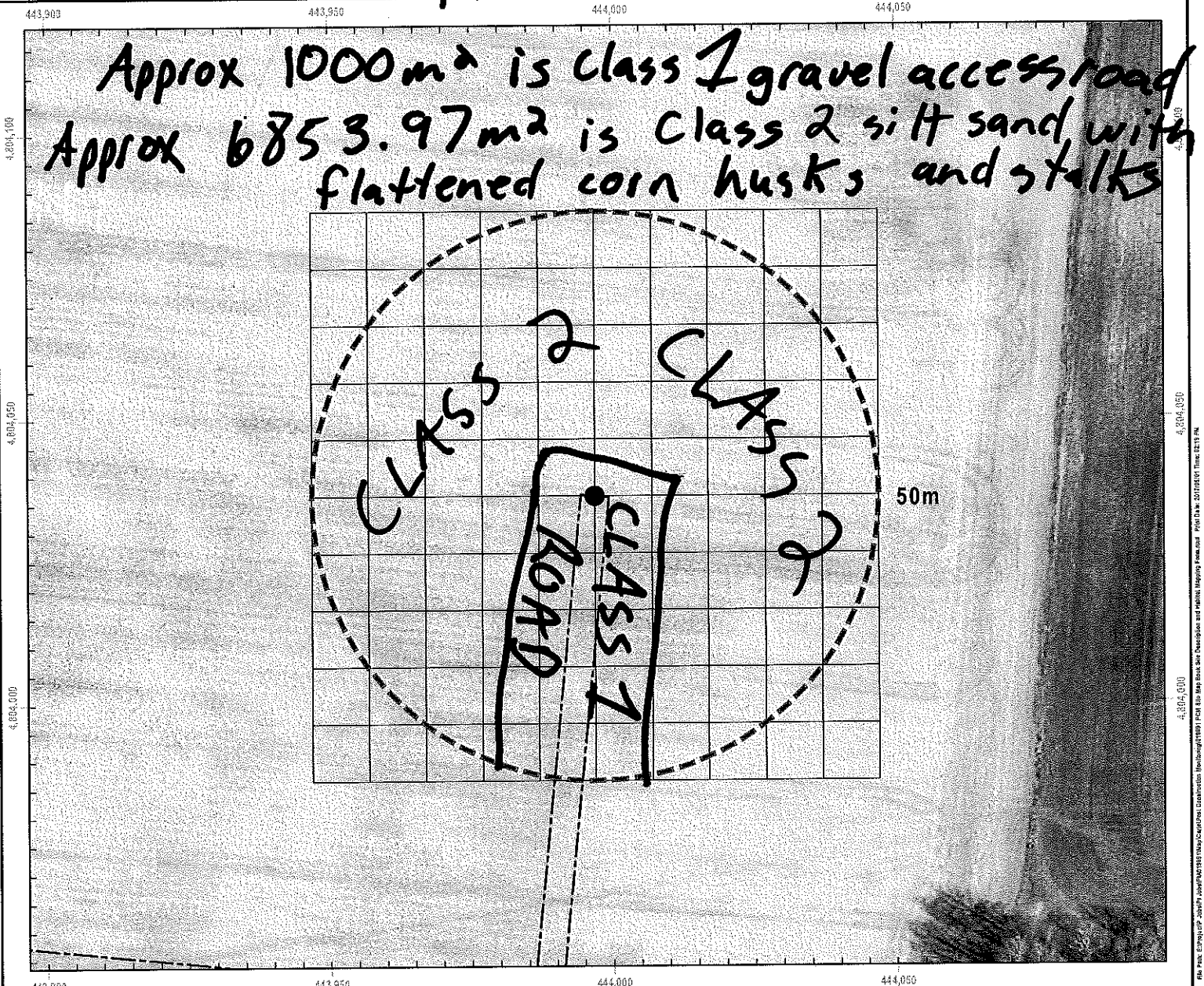
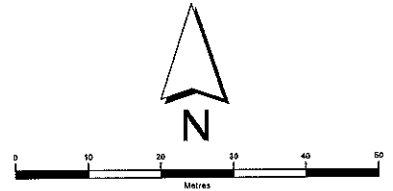
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-25

Survey Date: May 22/18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



File Path: E:\PIA019991\0005 Grand Bend Wind Farm\Site Description and Habitat Mapping Form\PIA019991\_0005\_T-25\_20180522\_180518.mxd  
 Date: 20180522 18:05:18  
 User: sdeleary

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

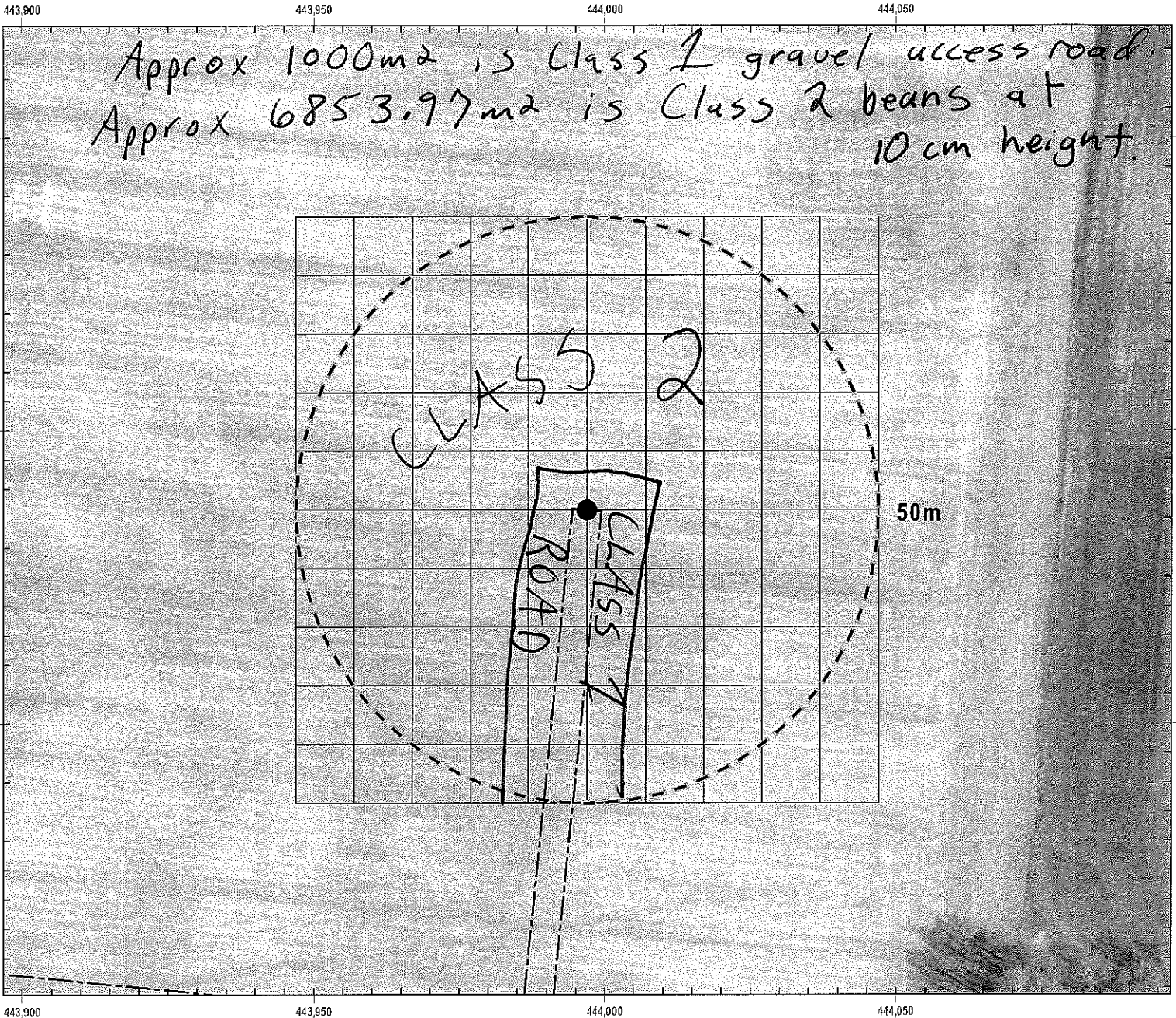
**Site Number:** T-25

**Survey Date:** June 19 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henly, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

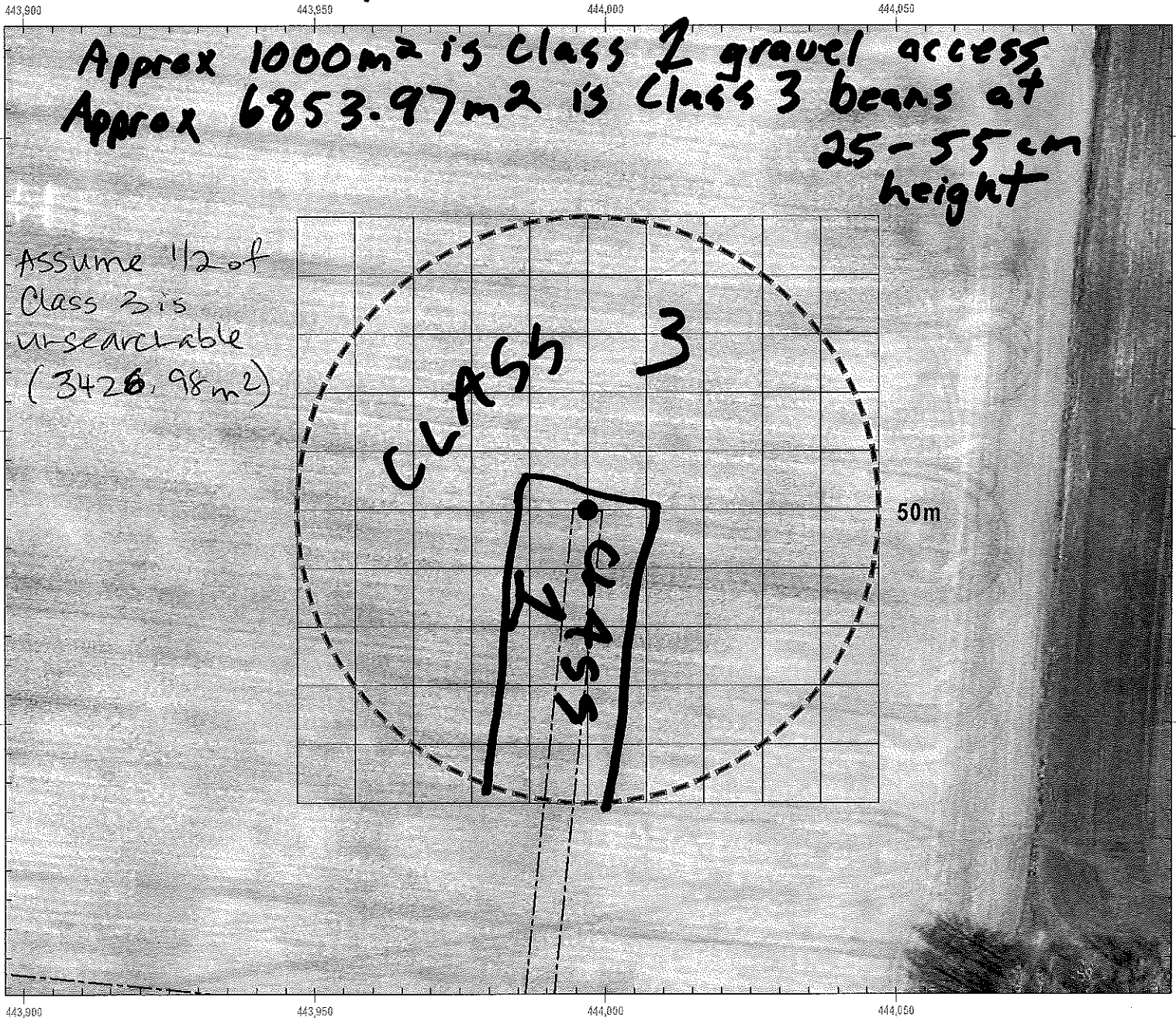
Site Number: T-25

Survey Date: July 18/18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

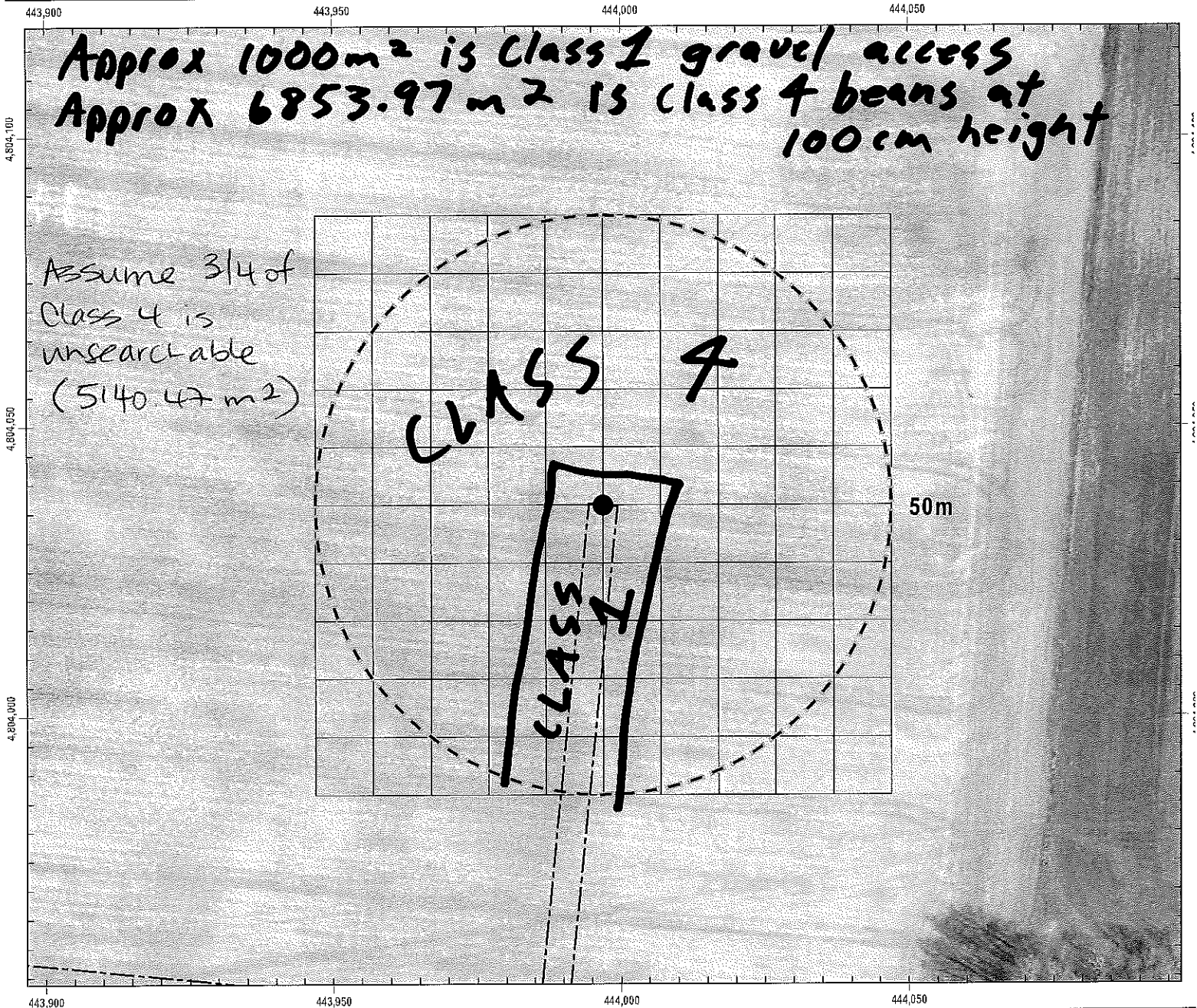
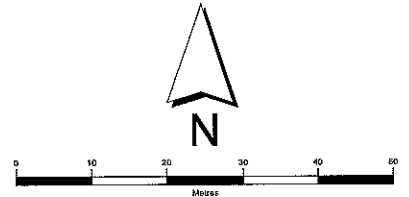
SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-25  
 Survey Date: Aug 23/18  
 Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)  
 Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

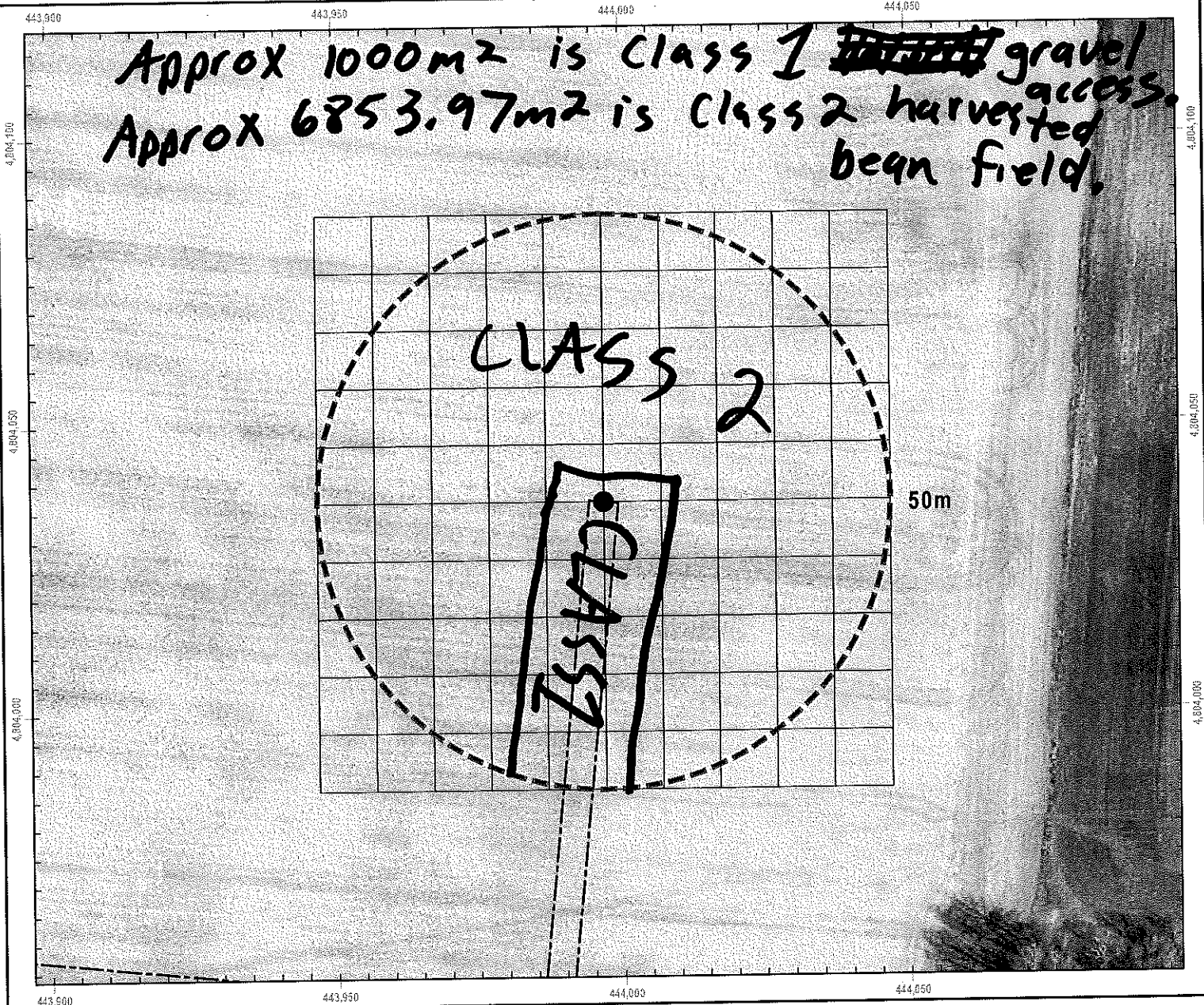
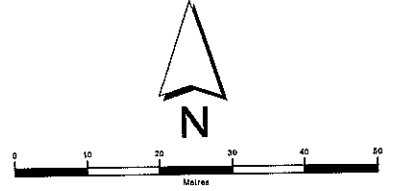


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-25  
 Survey Date: Oct 17 / 18  
 Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

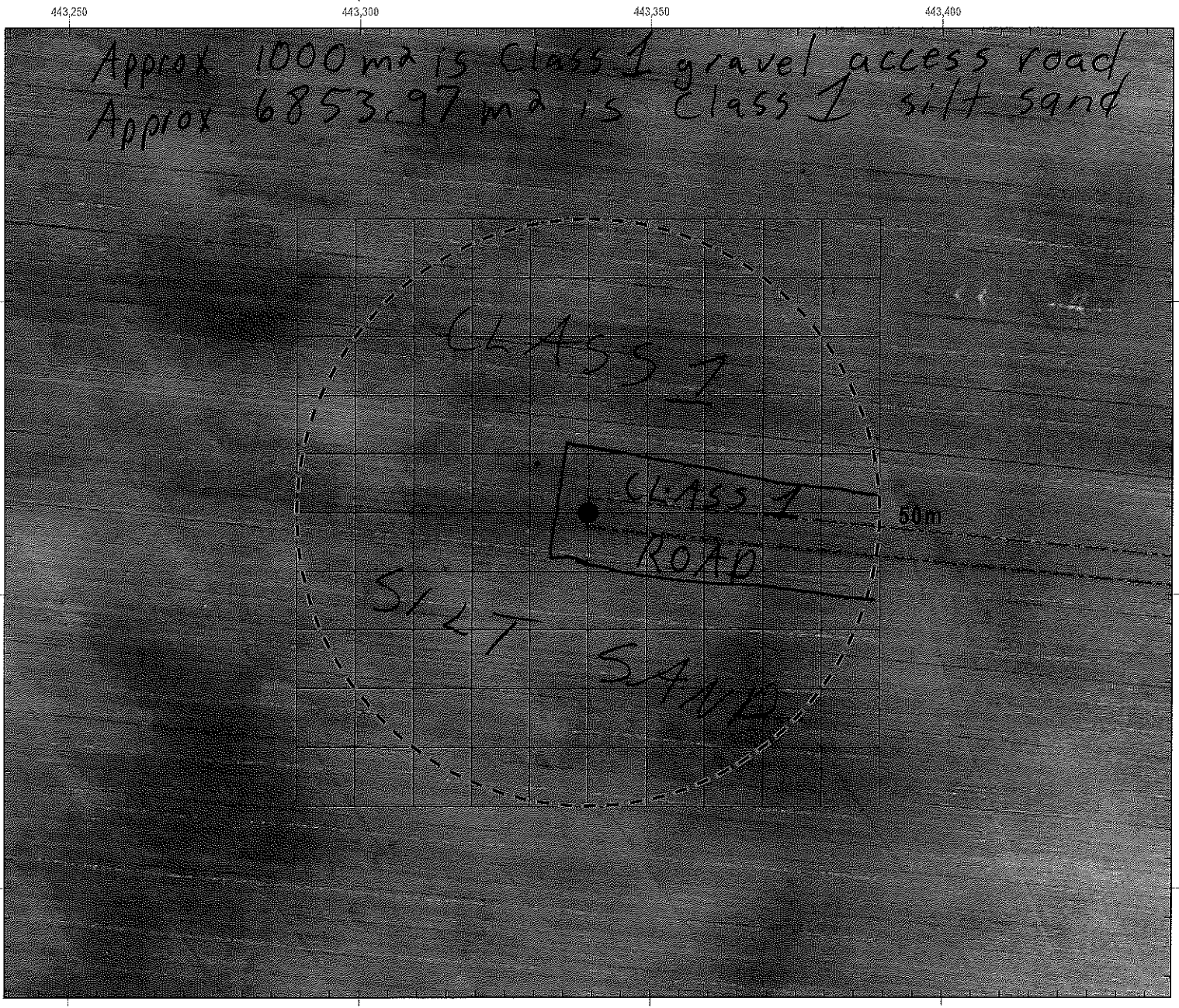
**Site Number:** T-26

**Survey Date:** May 7 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

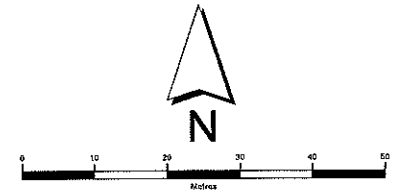
Site Number: T-26

Survey Date: May 31/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

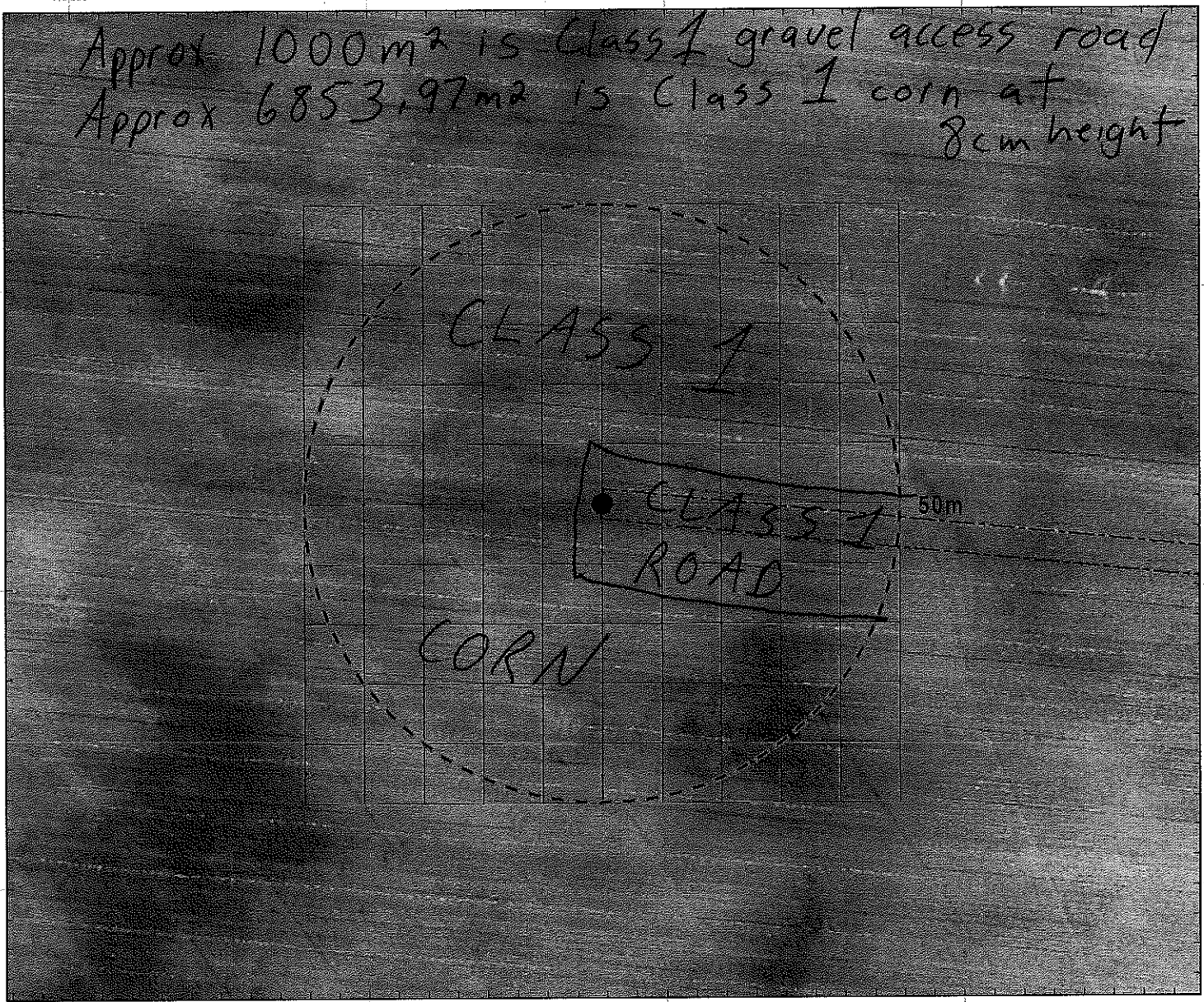
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sarah Deleary



443,250                                      443,300                                      443,350                                      443,400

Approx 1000m<sup>2</sup> is Class 1 gravel access road  
Approx 6853.97m<sup>2</sup> is Class 1 corn at 8cm height



443,250                                      443,300                                      443,350                                      443,400

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

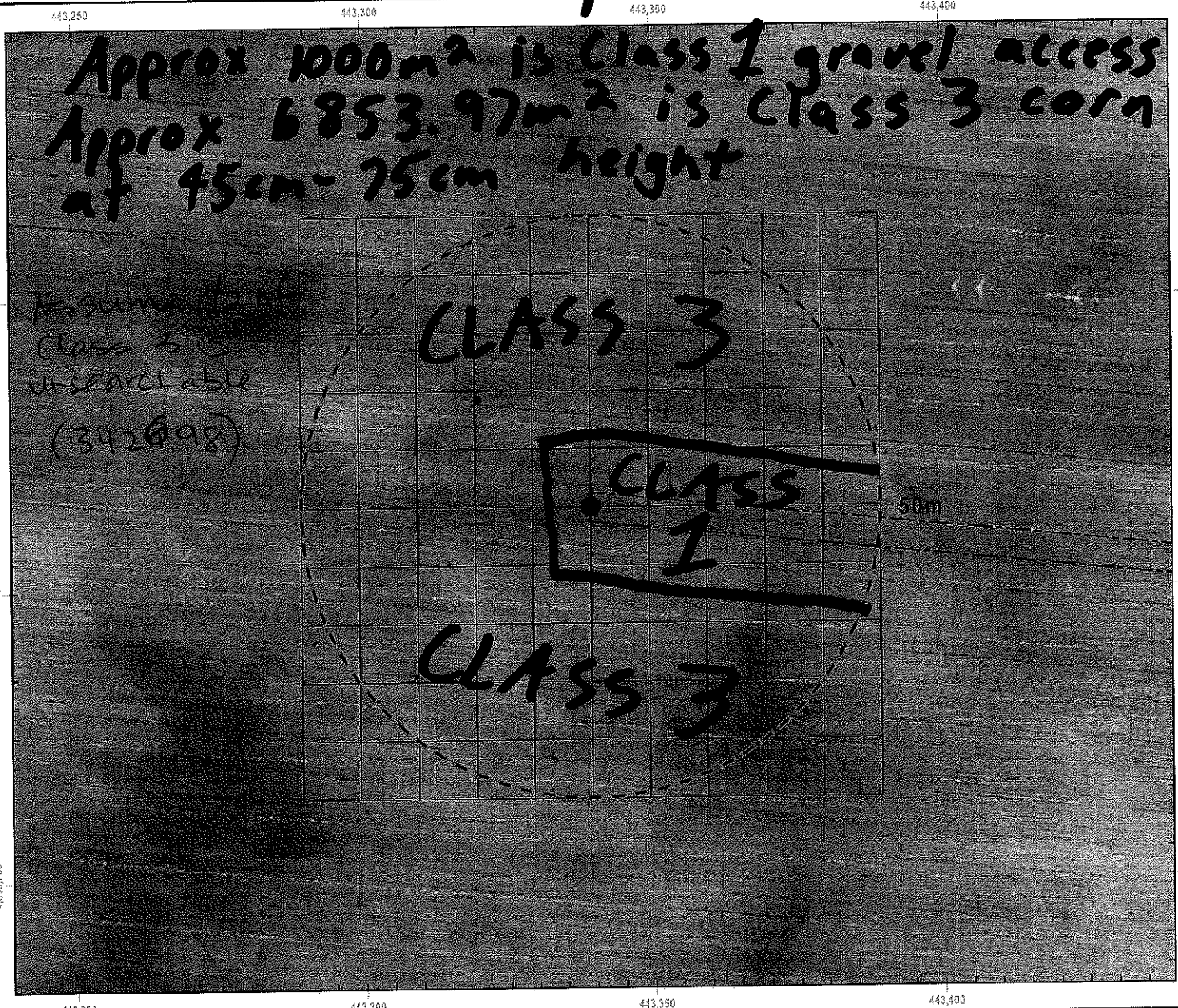
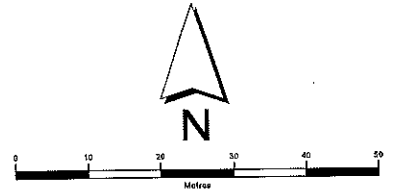
Site Number: T-26

Survey Date: June 25 / 18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

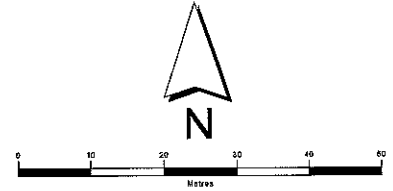
Site Number: T-26

Survey Date: July 6 / 18

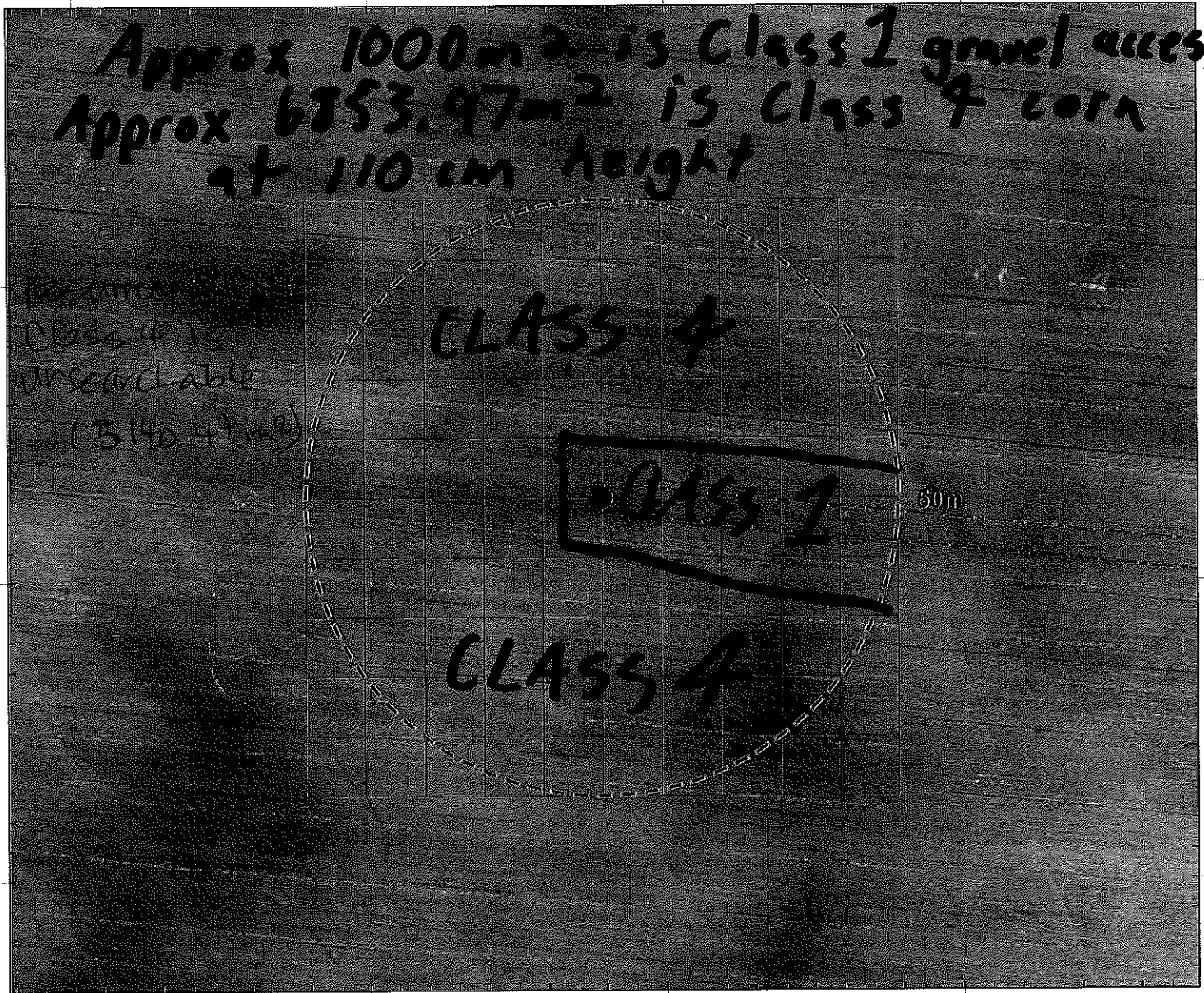
Actual Searched Area (m<sup>2</sup>): 12713.50 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



443,250                      443,300                      443,350                      443,400



4,803,850

4,803,800

4,803,750

4,803,850

4,803,800

4,803,750

The Post-Construction Wind Energy Monitoring Form (PCWEMF) Form was developed by the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, National Renewable Energy Laboratory (NREL).

% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

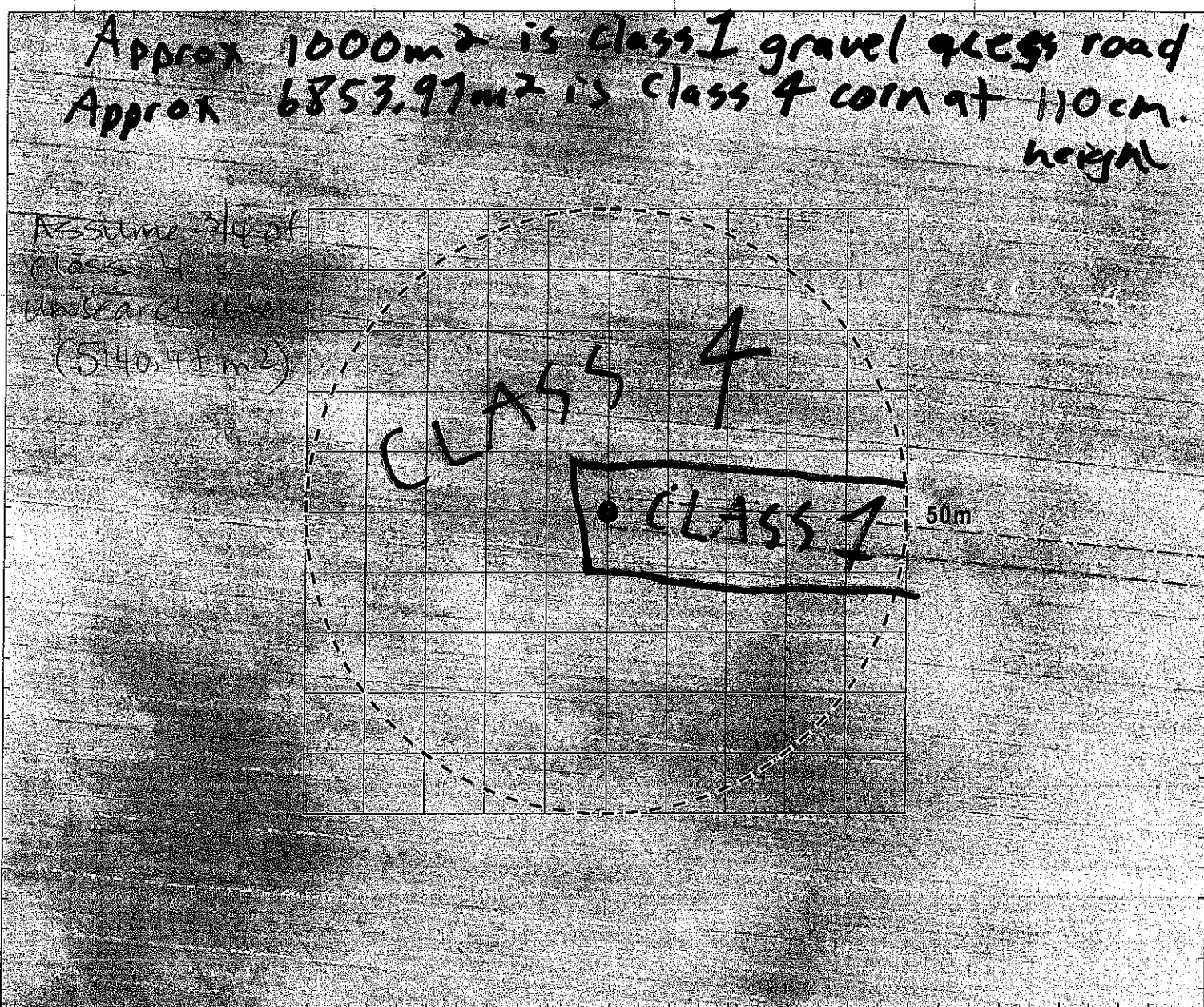
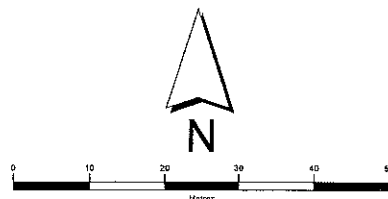
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-26

Survey Date: Oct 18 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
little or no bare ground	> 25% > 30cm tall	Class 4 (Very Difficult)

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

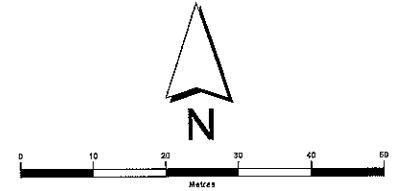
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-27

**Survey Date:** May 1/18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

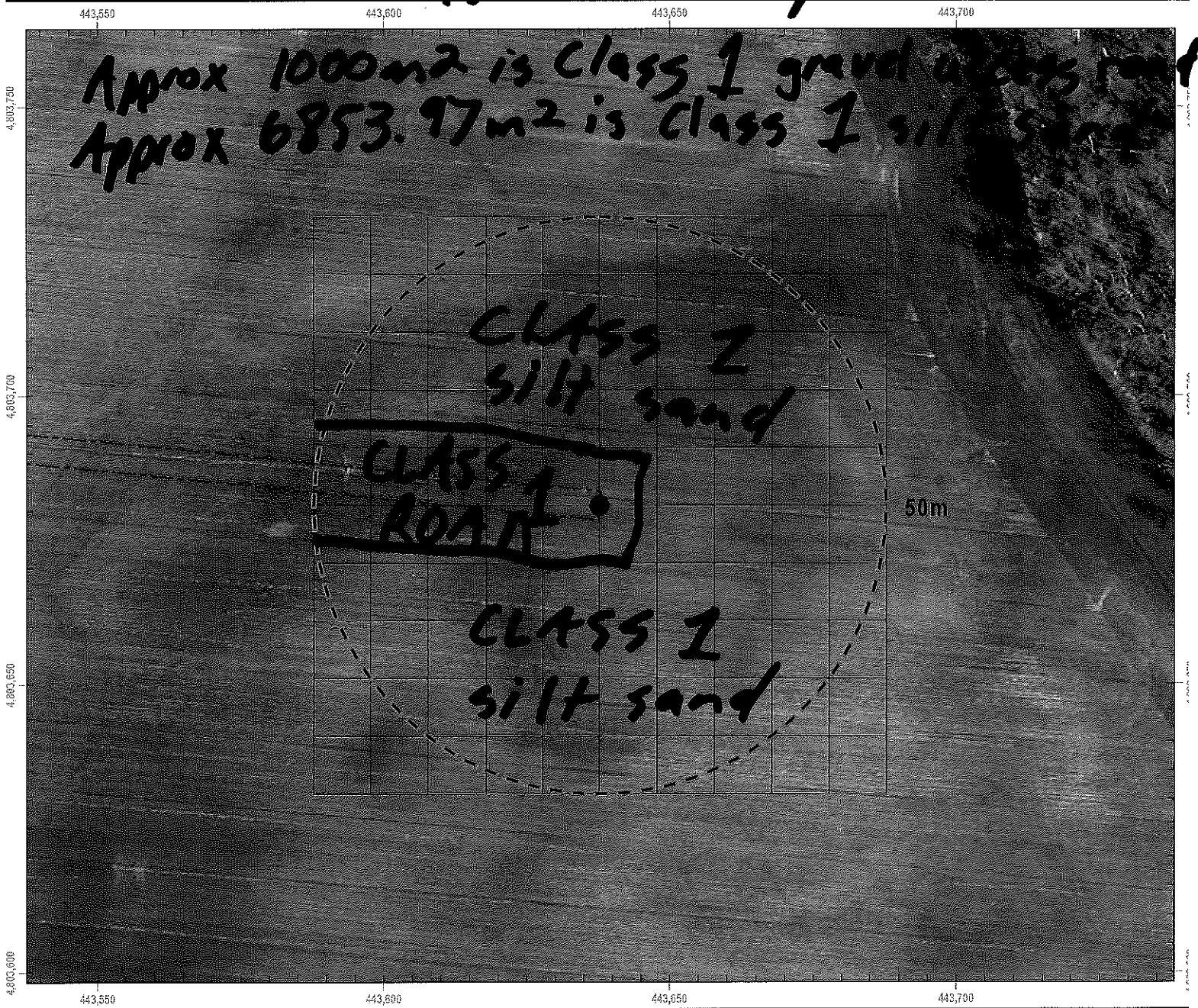
Site Number: T-27

Survey Date: July 12 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

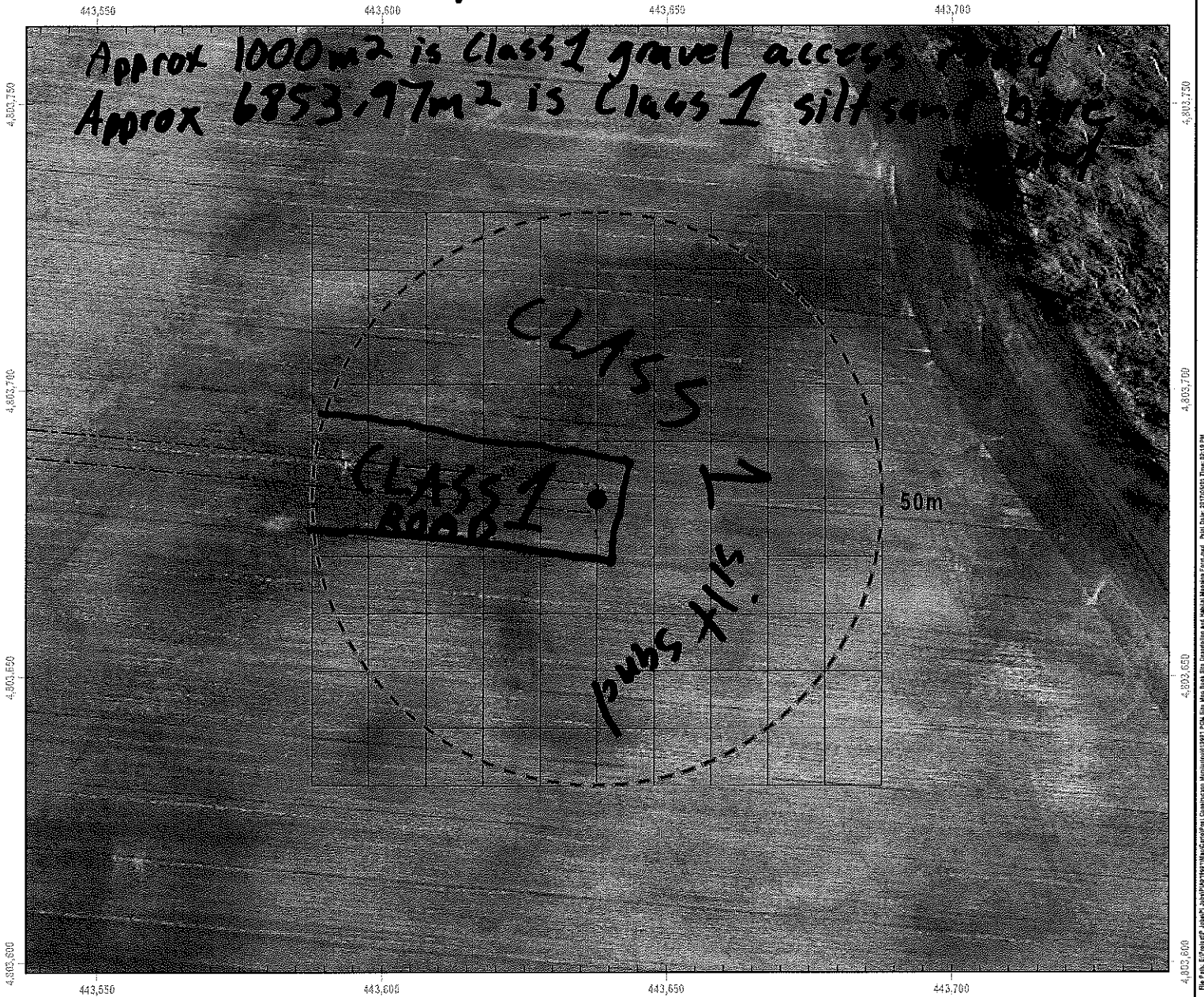
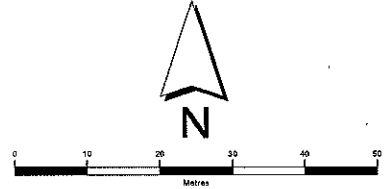
Site Number: T-27

Survey Date: Sept 13 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



4,802,800  
4,802,850  
4,802,900  
4,802,950  
443,550  
443,600  
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# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

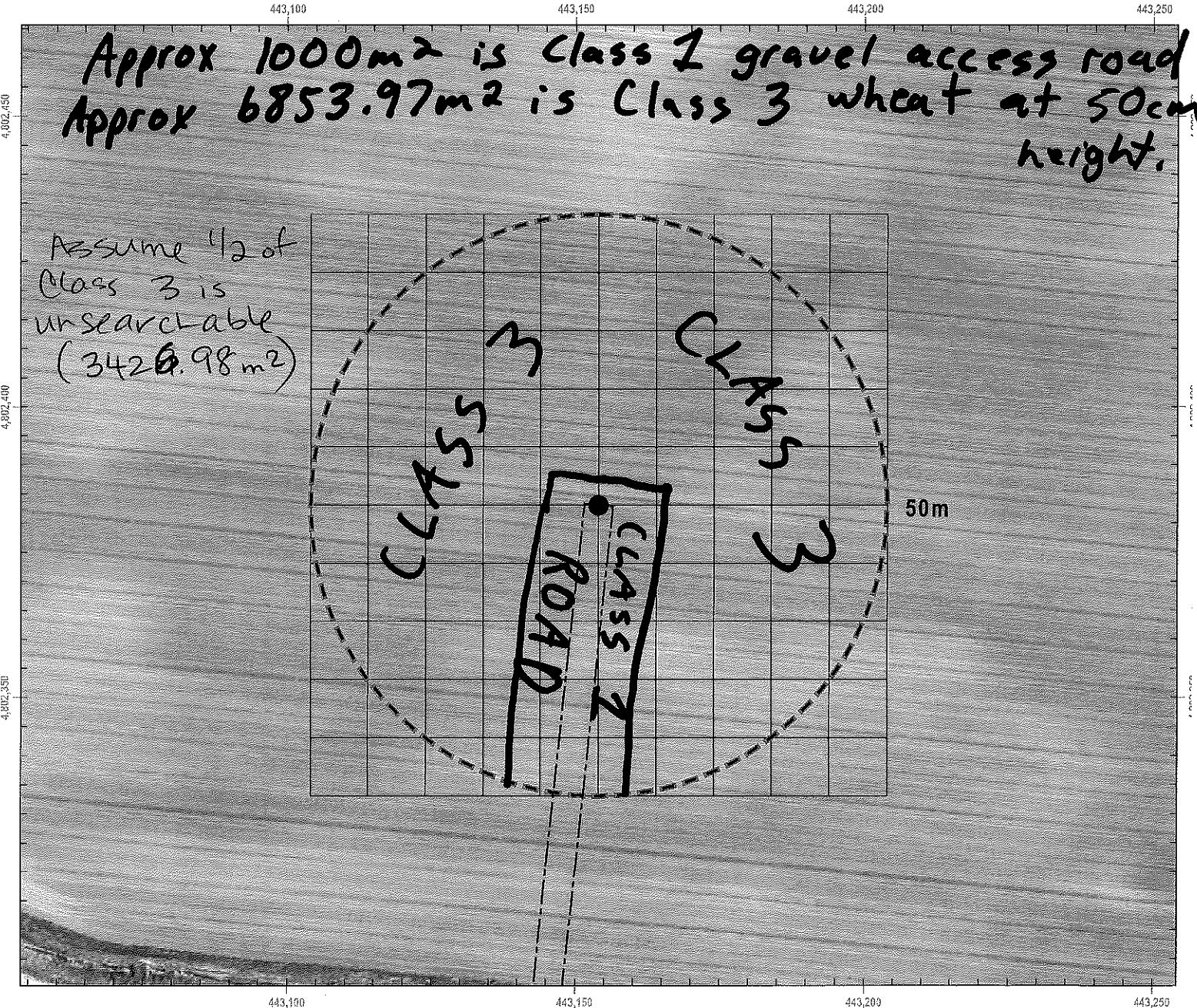
Site Number: T-29

Survey Date: May 29/18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

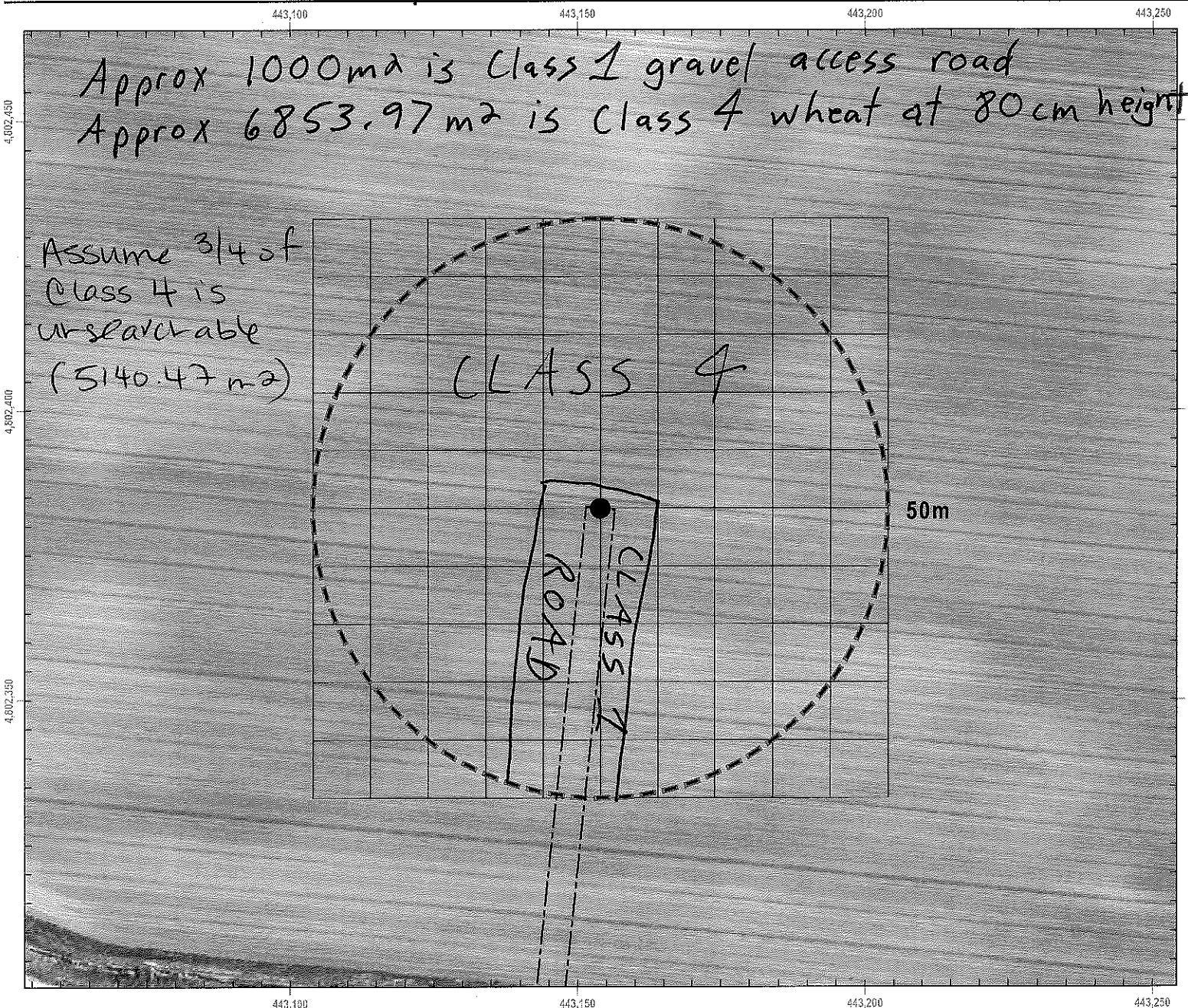
**Site Number:** T-29

**Survey Date:** June 19 / 18

**Actual Searched Area (m<sup>2</sup>):** 2713.50 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

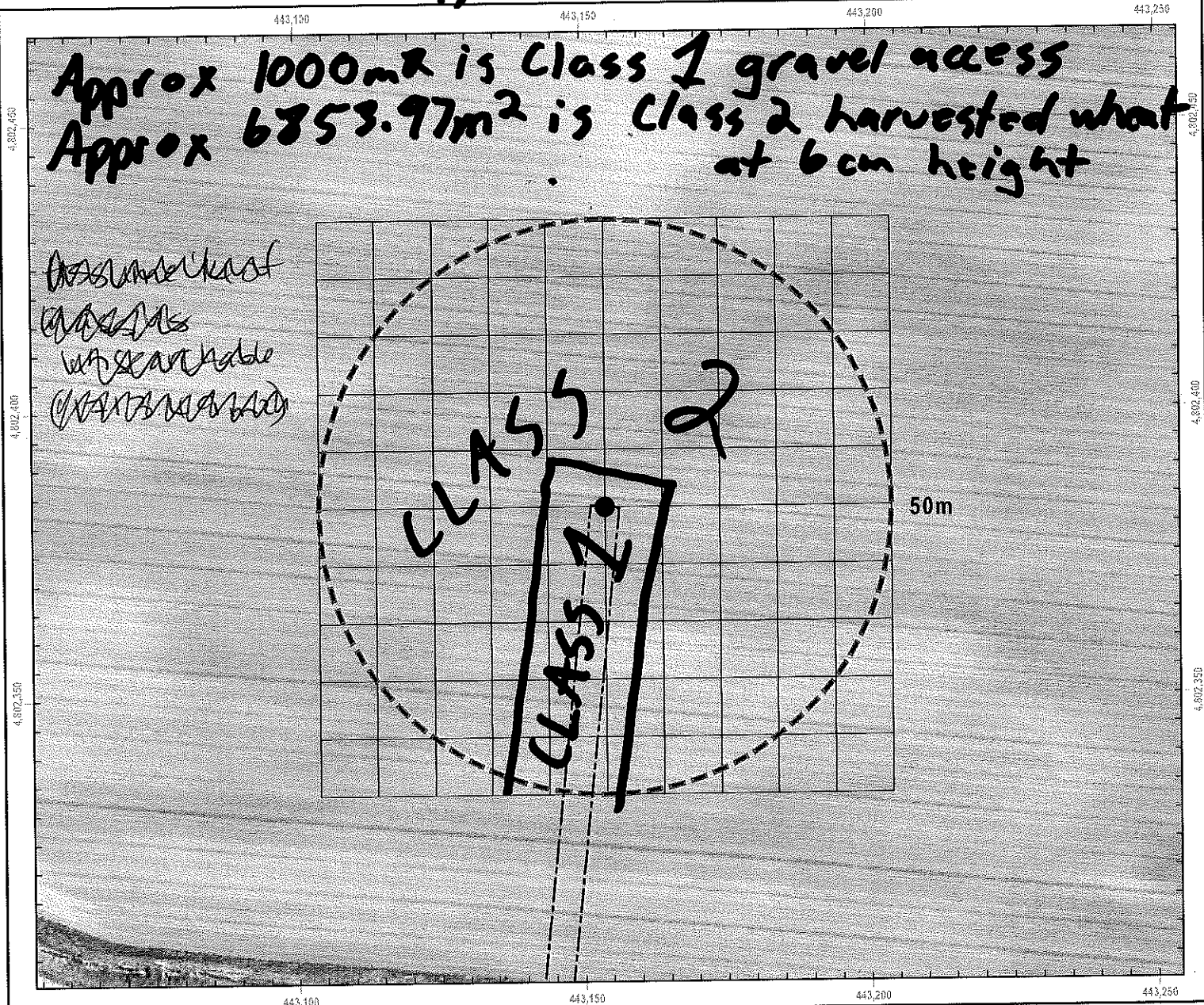
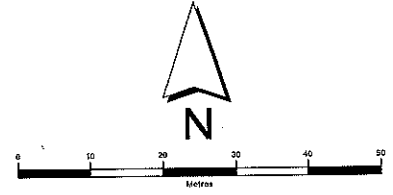
Site Number: T-29

Survey Date: July 18 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

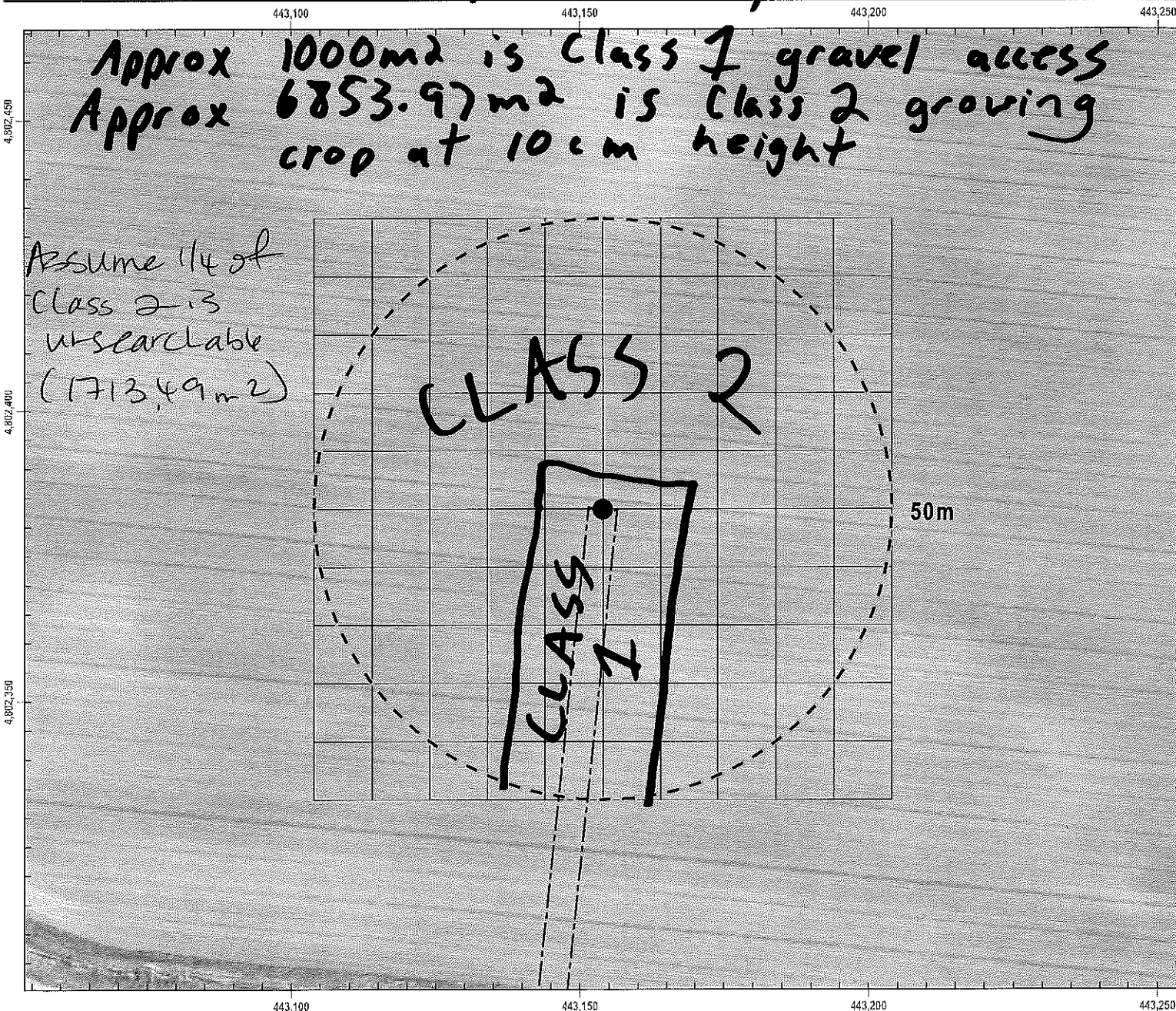
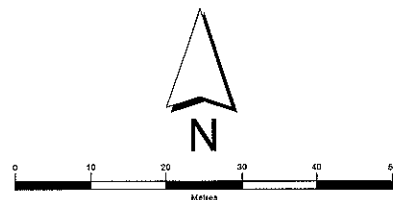
Site Number: T-29

Survey Date: Aug 21/18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

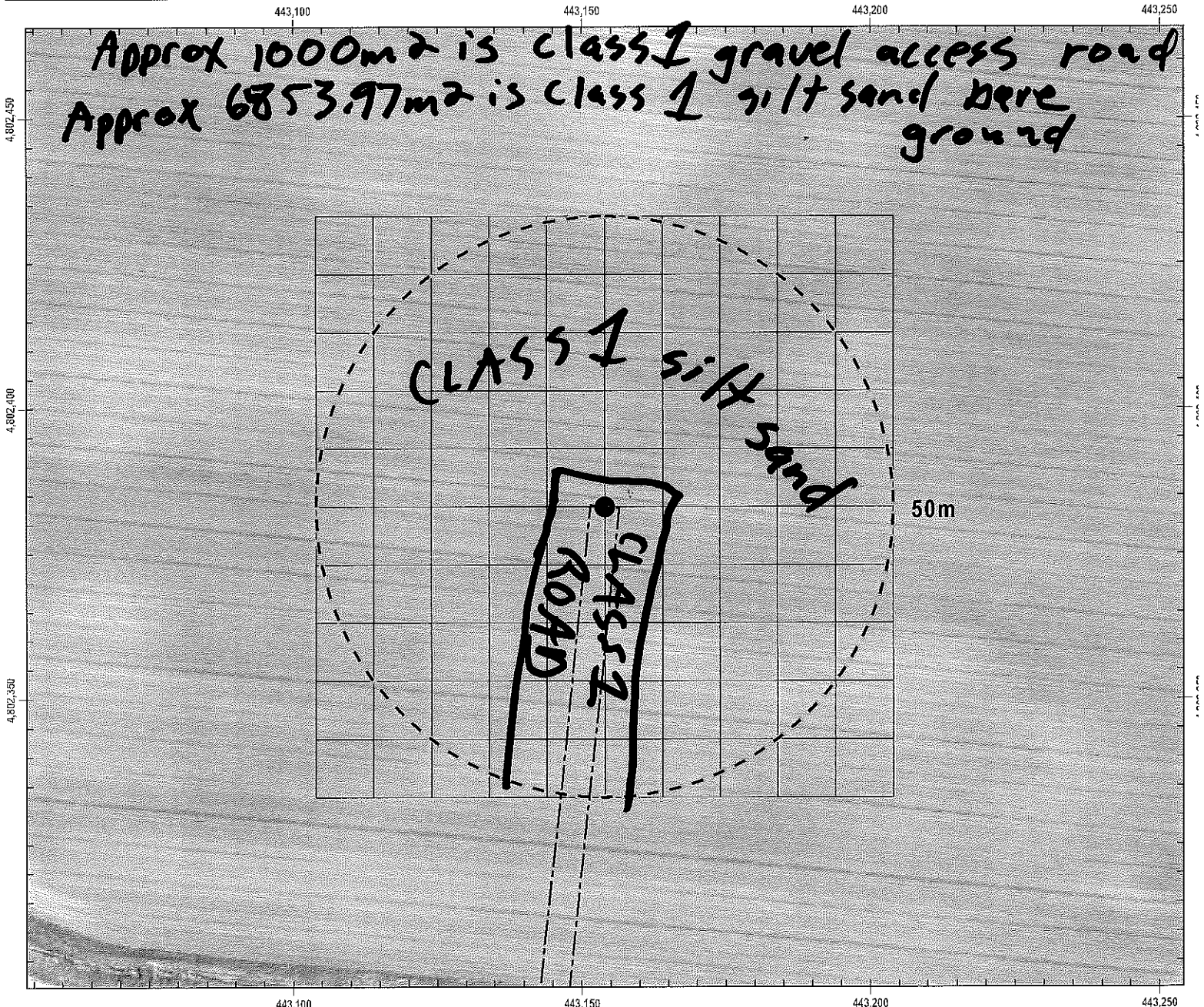
Site Number: T-29

Survey Date: Sept 19 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

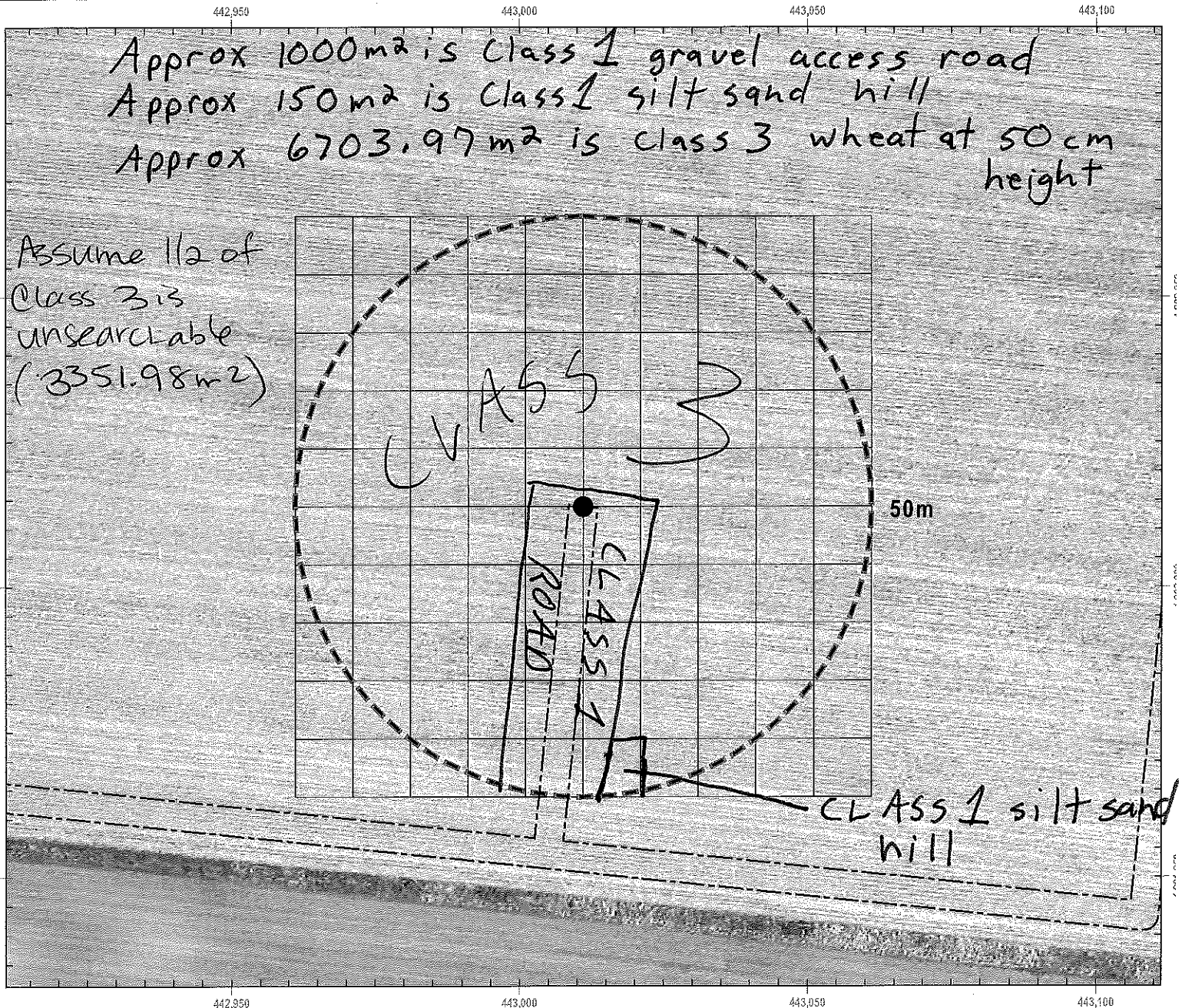
**Site Number:** T-30

**Survey Date:** May 24 / 18

**Actual Searched Area (m<sup>2</sup>):** 4501.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

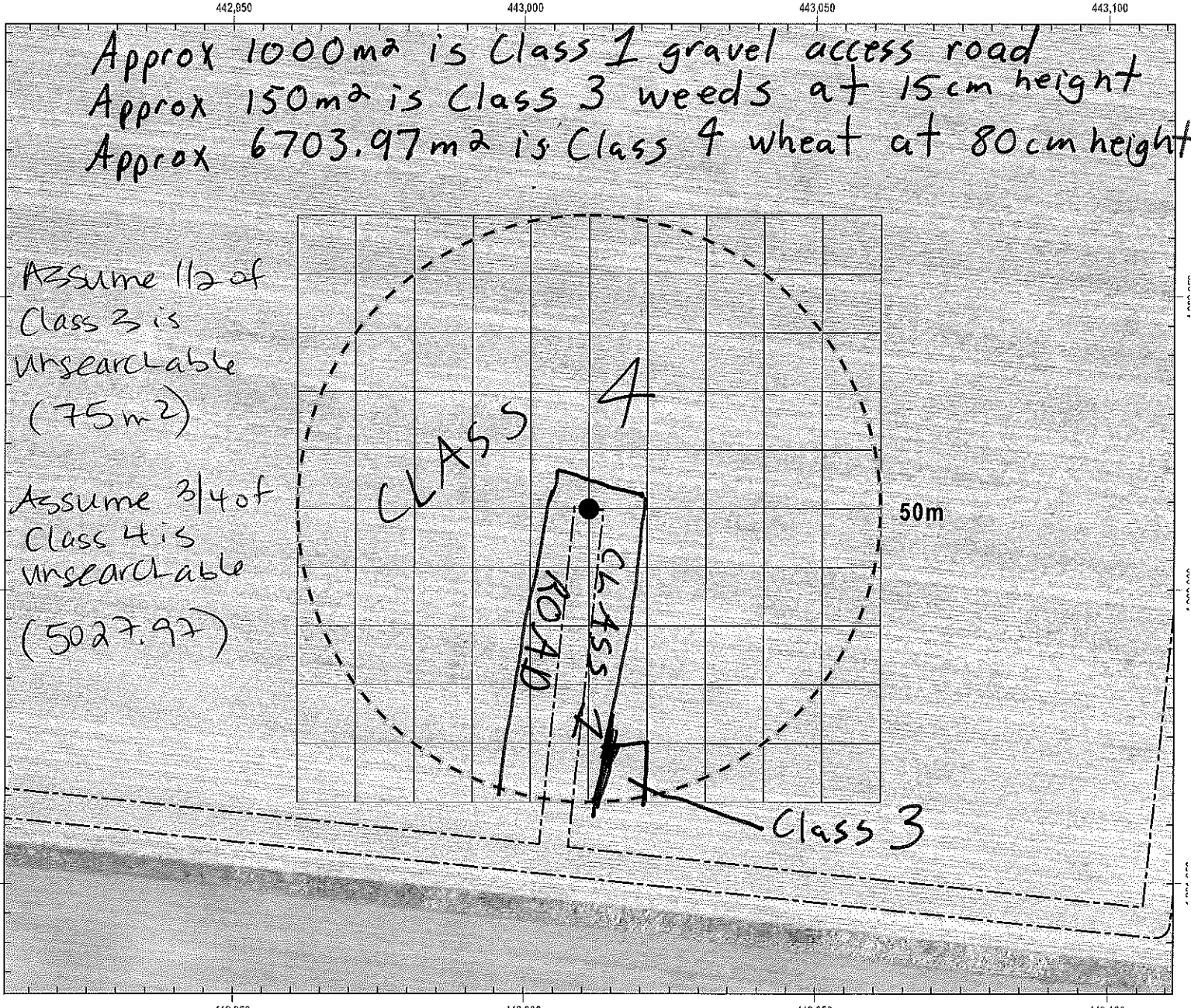
Site Number: T-30

Survey Date: June 19/18

Actual Searched Area (m<sup>2</sup>): 2751 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Delcary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

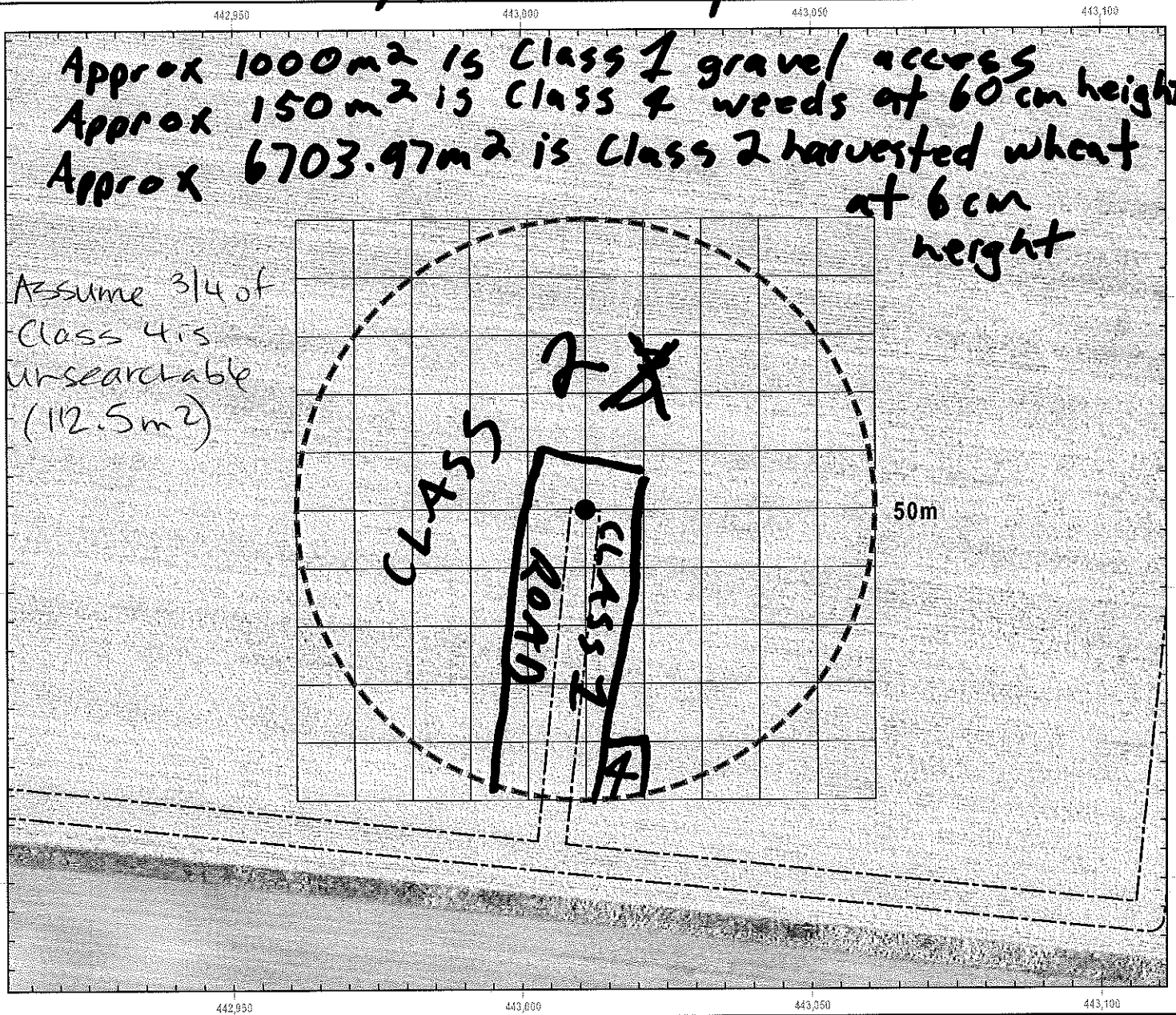
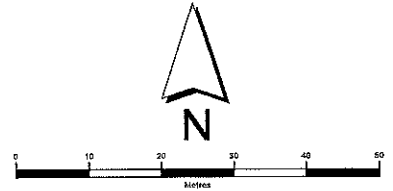
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-30

Survey Date: July 18/17

Actual Searched Area (m<sup>2</sup>): 774.47m<sup>2</sup>  
(subtract from total search area - 7653.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



File Path: E:\Program\Job\PIA019991\Map\Carcasses\_Coverages\_HabitatMapping\19991\_PIA\_019991\_Site\_Overview\_and\_Habitat\_Mapping\_Form.mxd Print Date: 2017/08/05 Time: 02:15 PM



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

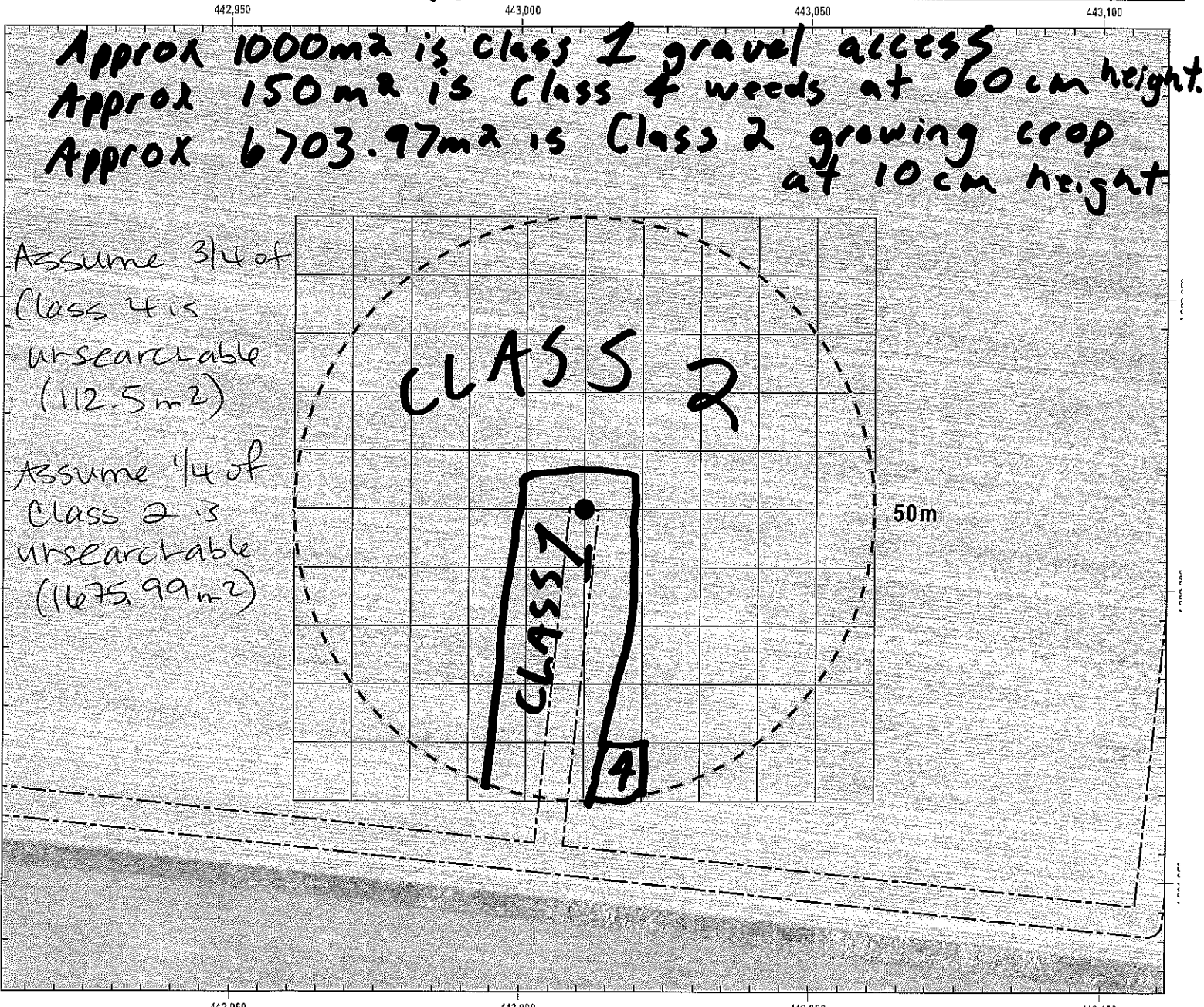
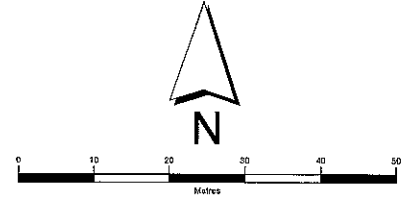
Site Number: T-30

Survey Date: Aug 21 118

Actual Searched Area (m<sup>2</sup>): ~~6065~~ 6065.48 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

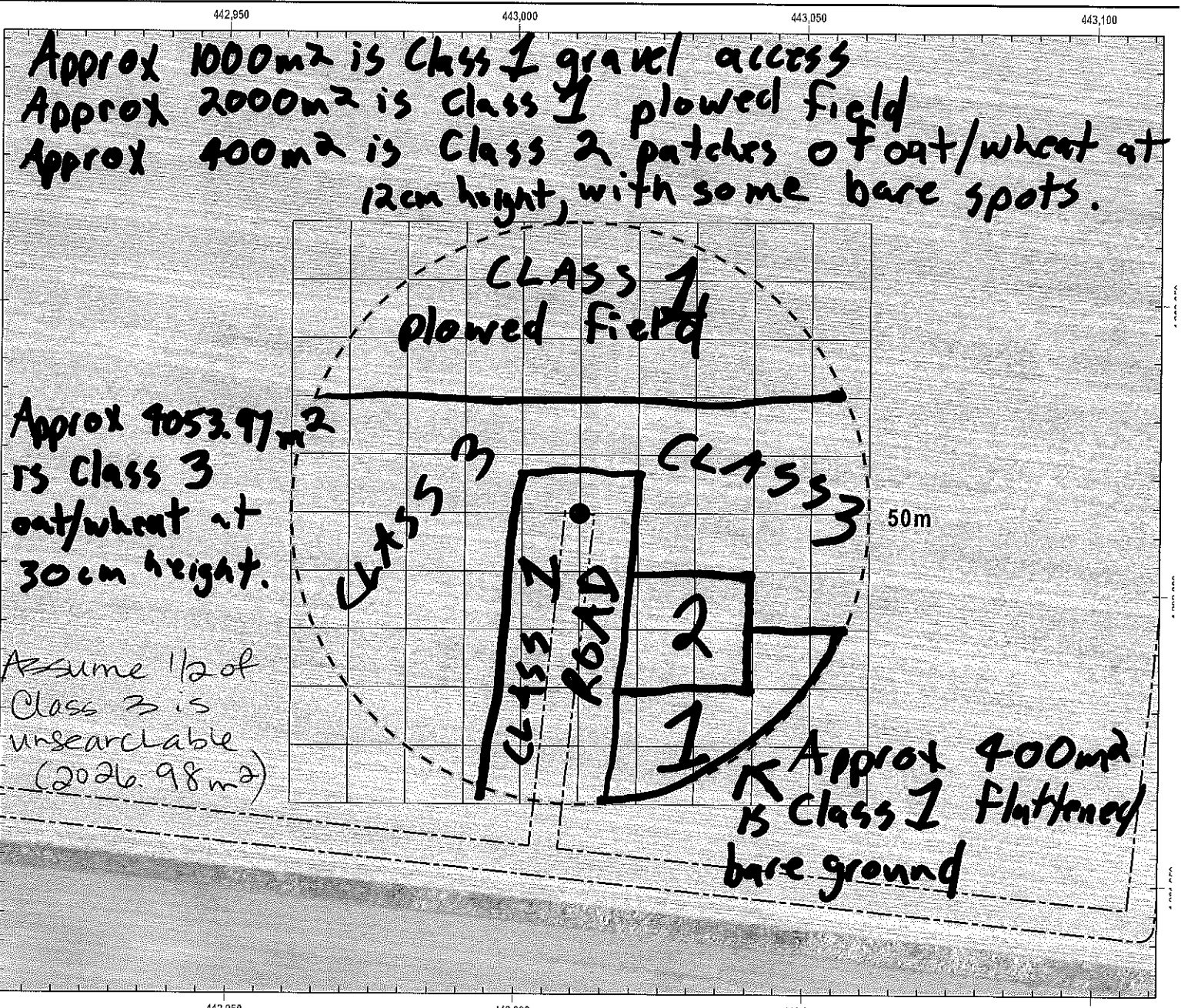
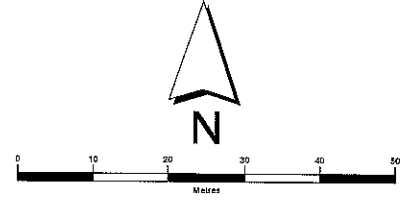
SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-30  
 Survey Date: Sept 19/18  
 Actual Searched Area (m<sup>2</sup>): 5826.99 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

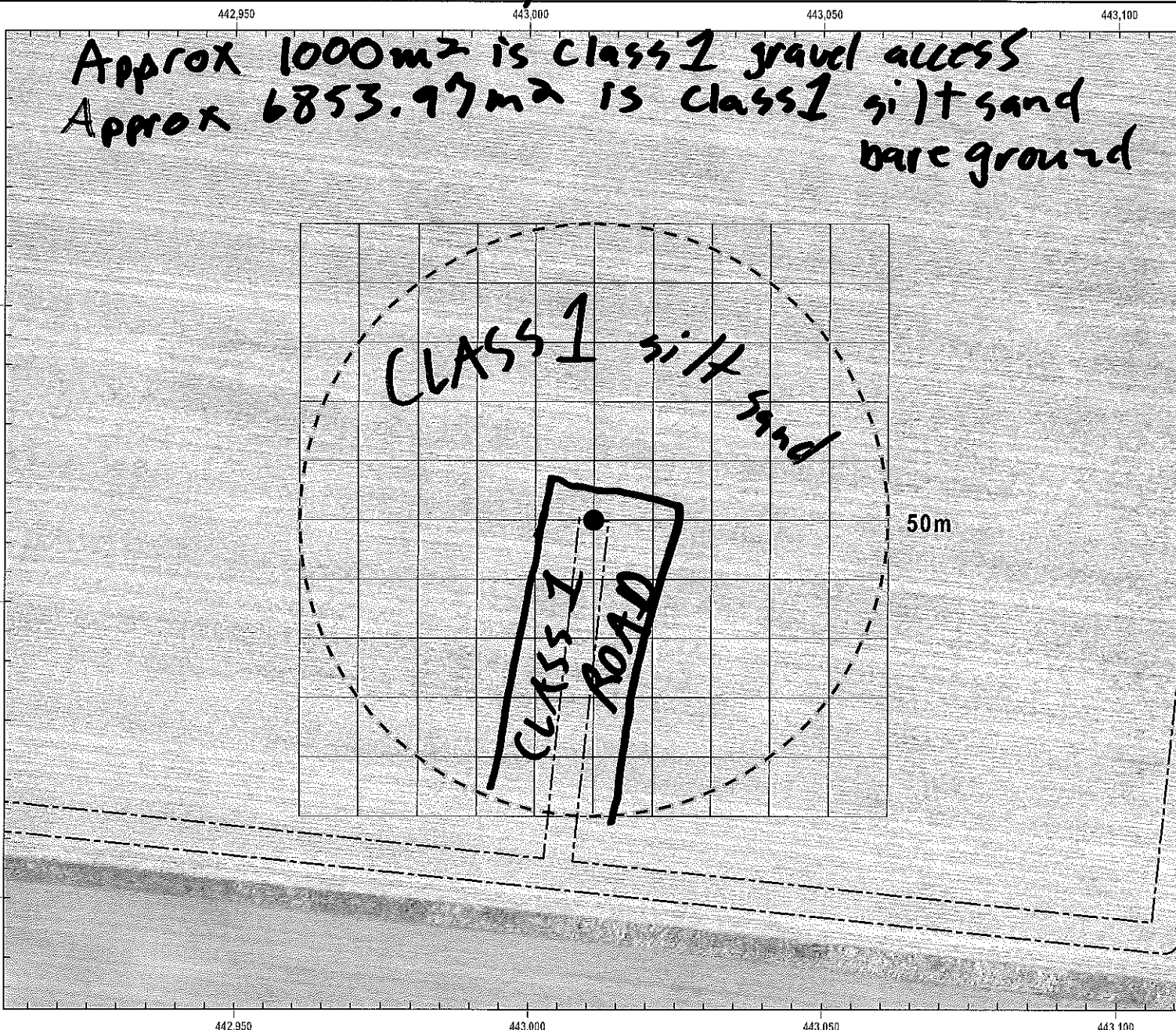
Site Number: T-30

Survey Date: Oct 17/18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

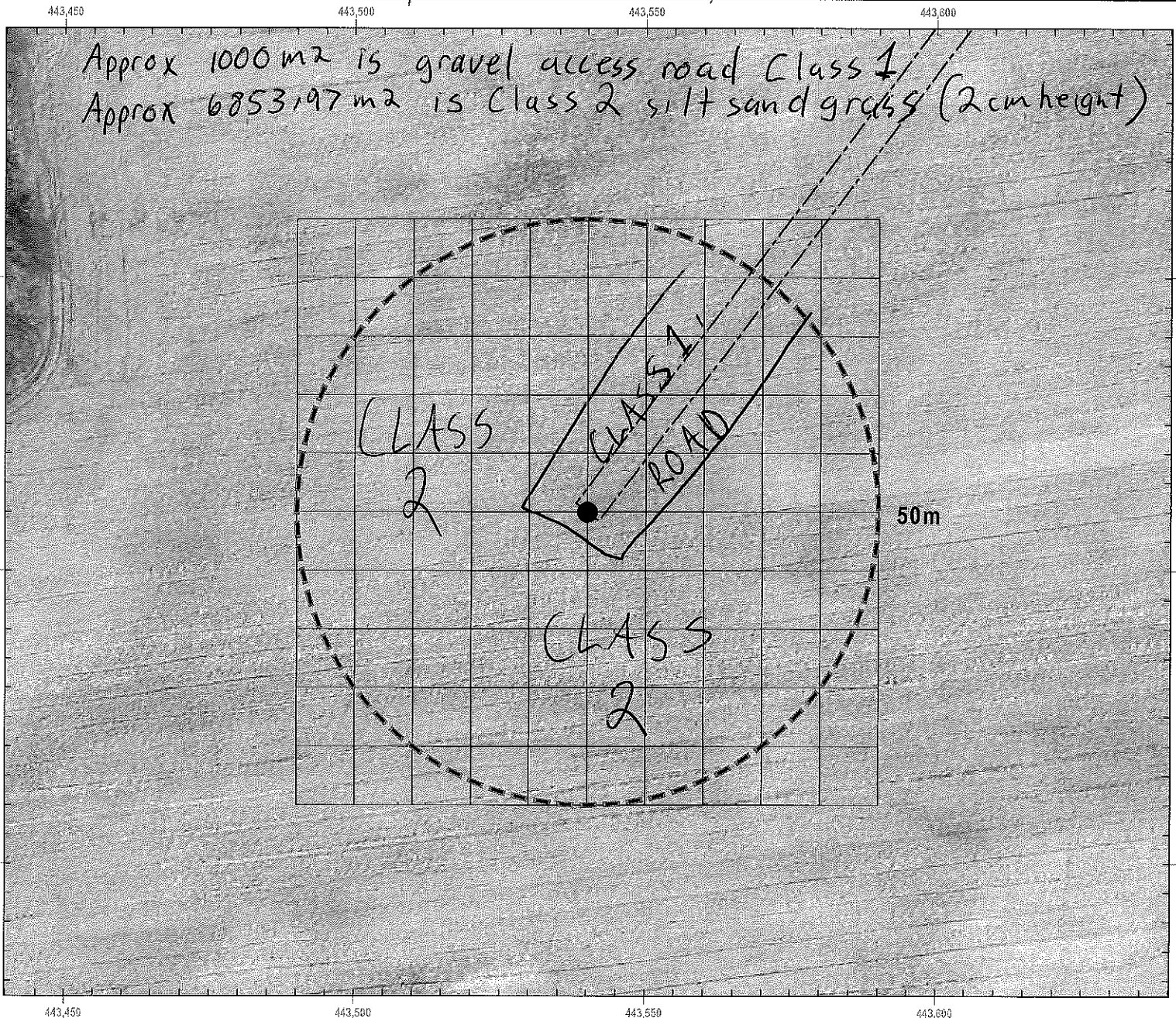
**Site Number:** T-31

**Survey Date:** May 2 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

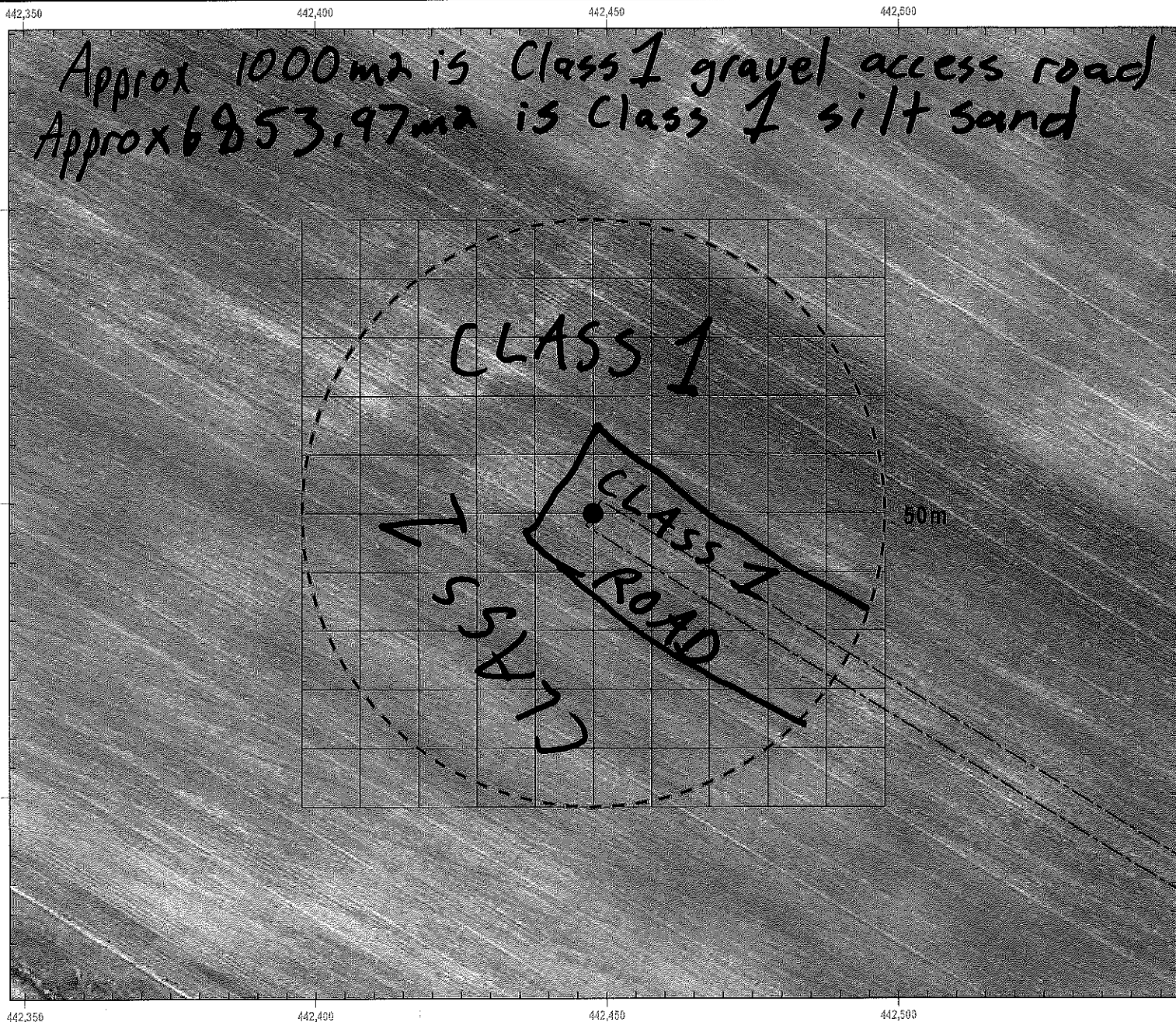
**Site Number:** T-32

**Survey Date:** May 16 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.97m<sup>2</sup>

*(subtract from total search area - 7853.97m<sup>2</sup>)*

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

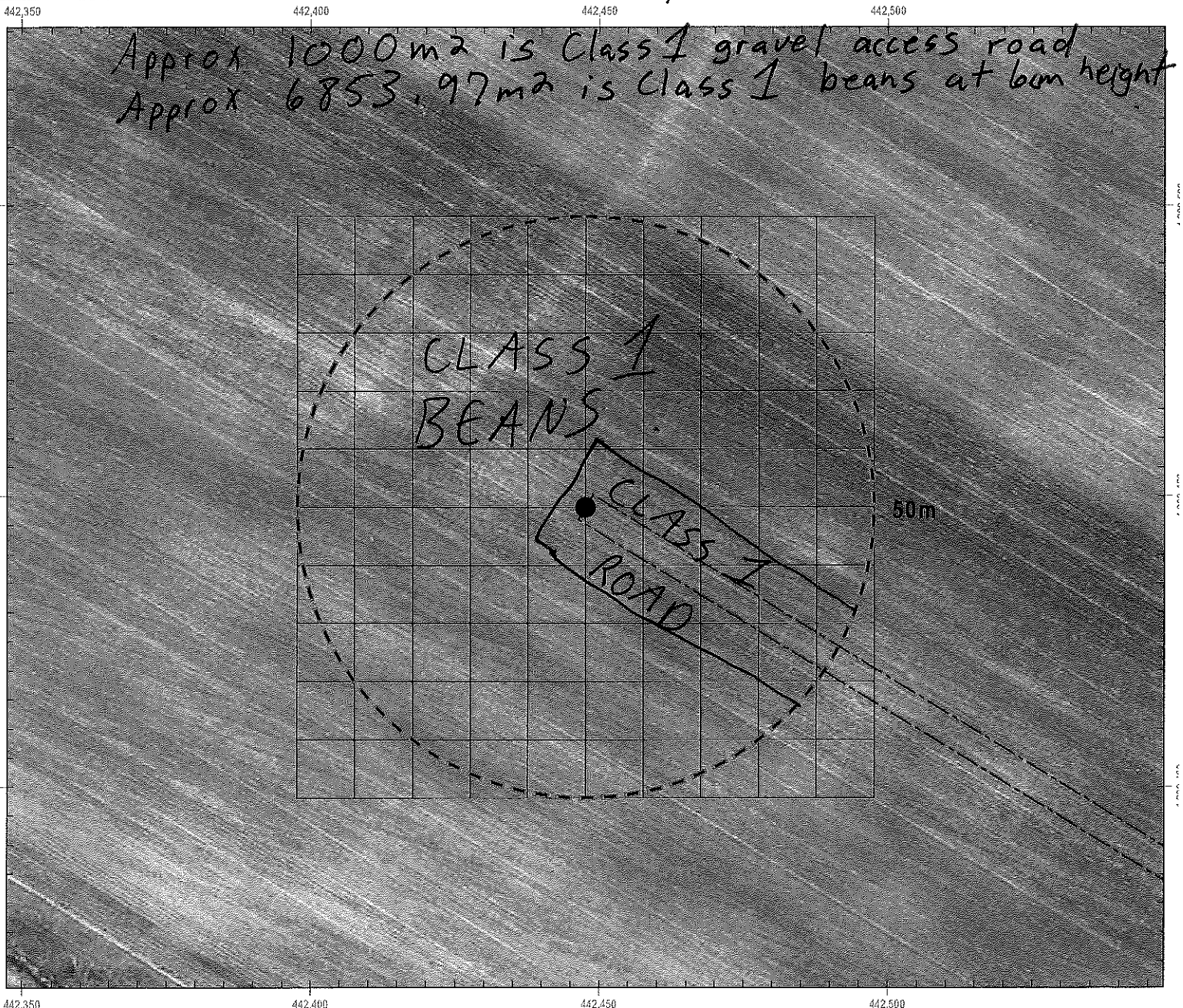
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-32

**Survey Date:** ~~June 12~~ June 13/18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

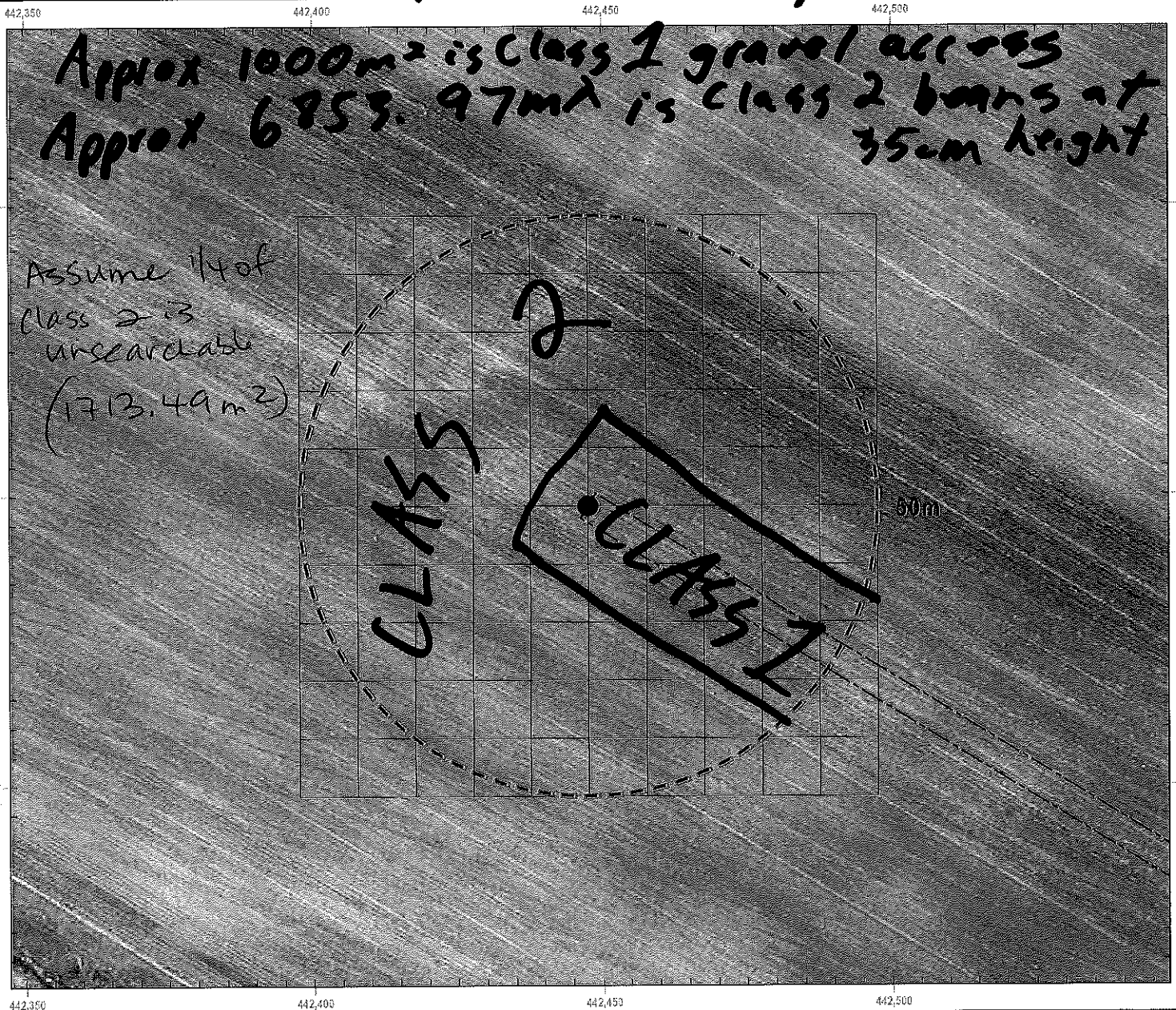
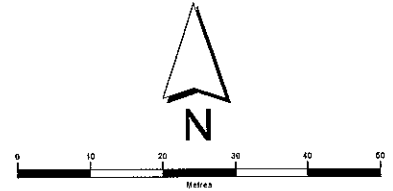
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-32

Survey Date: July 11 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sam Henry Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

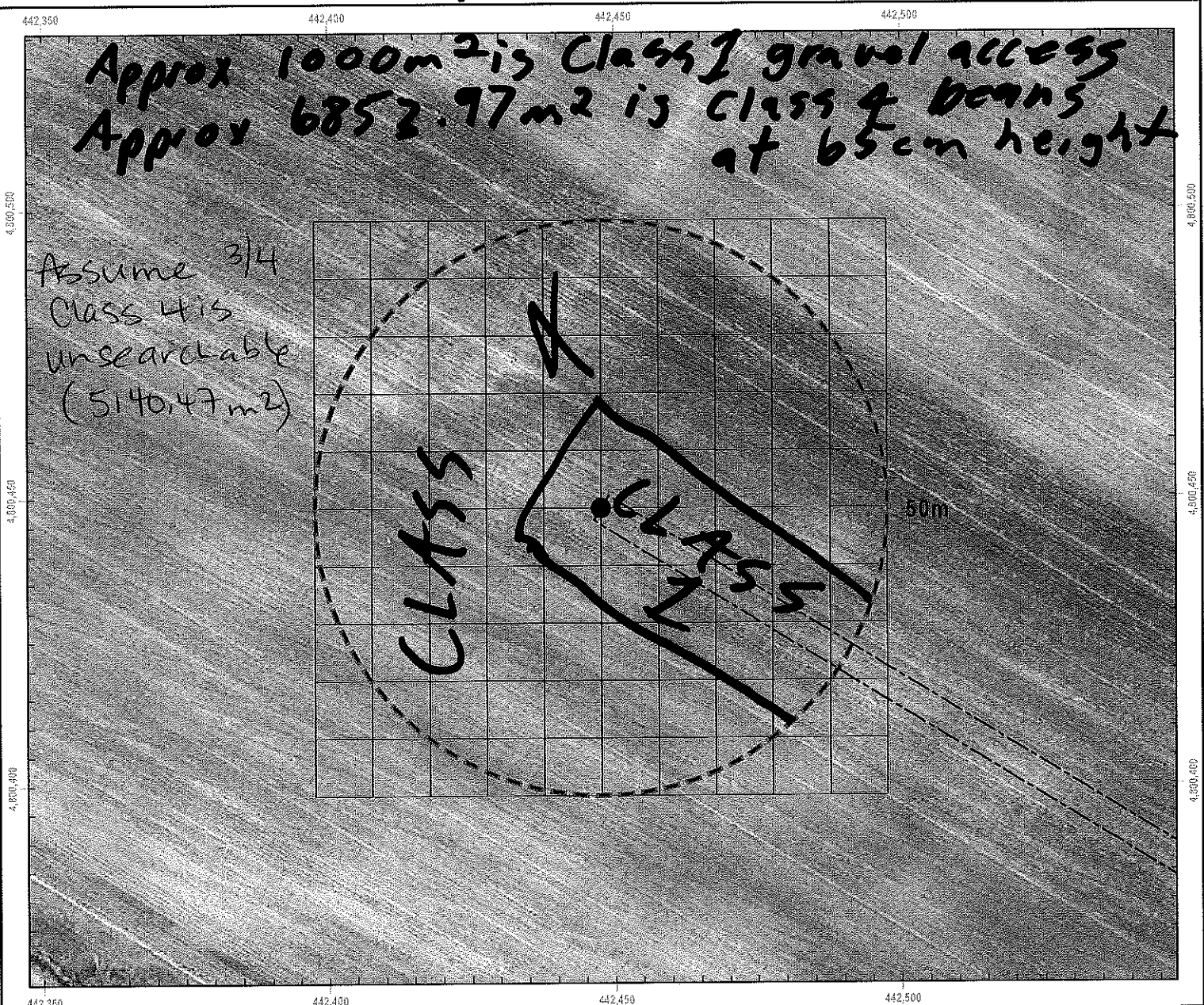
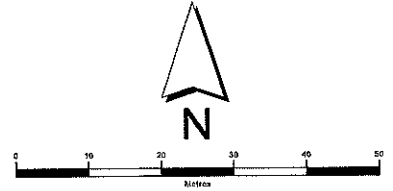
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-32

Survey Date: Aug 15 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry Sarah Delaney



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

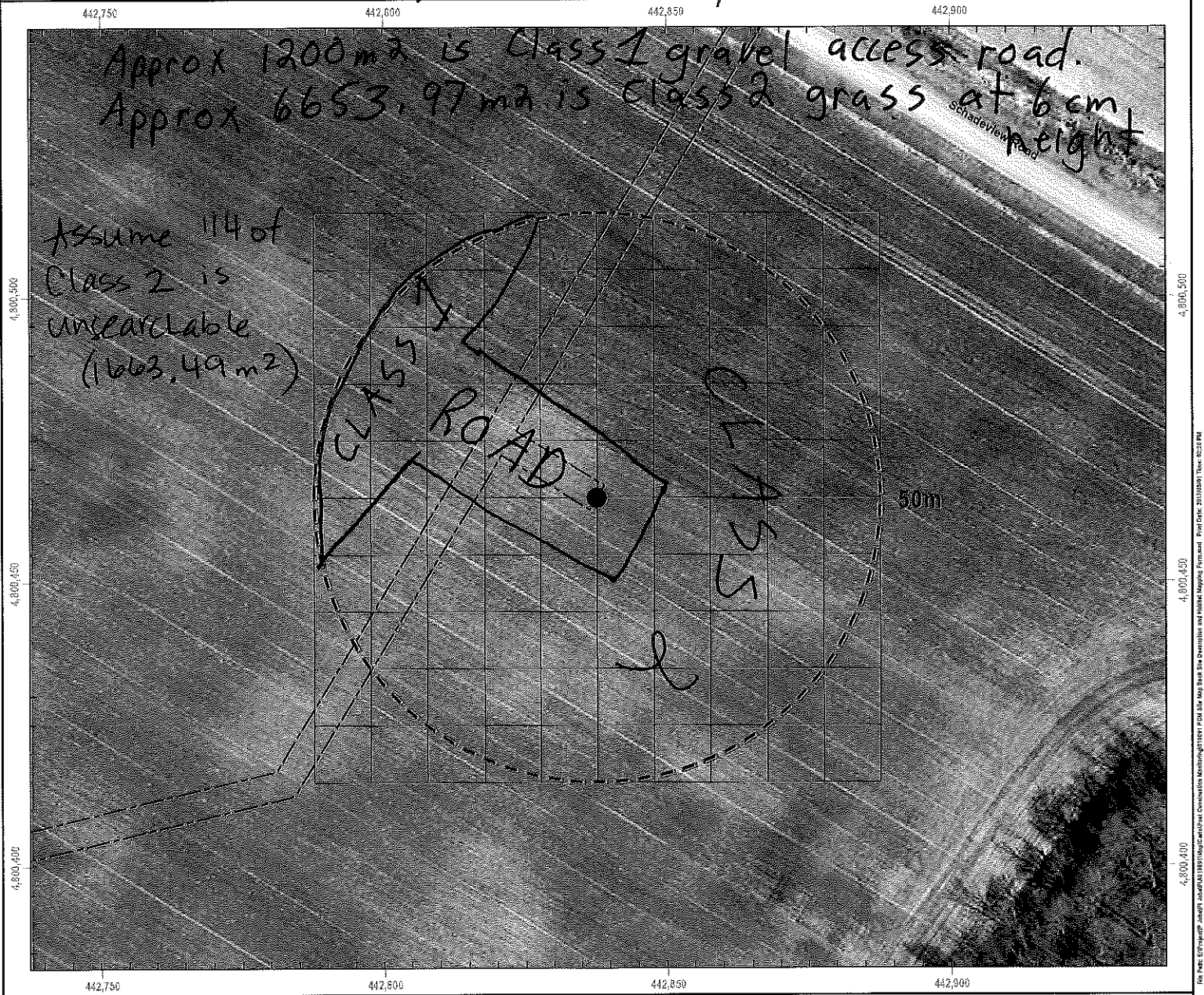
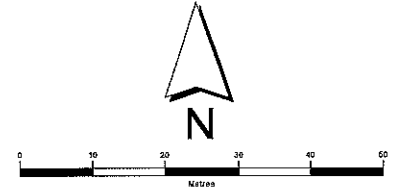
Site Number: T-33

Survey Date: May 2 / 18

Actual Searched Area (m<sup>2</sup>): 6190.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

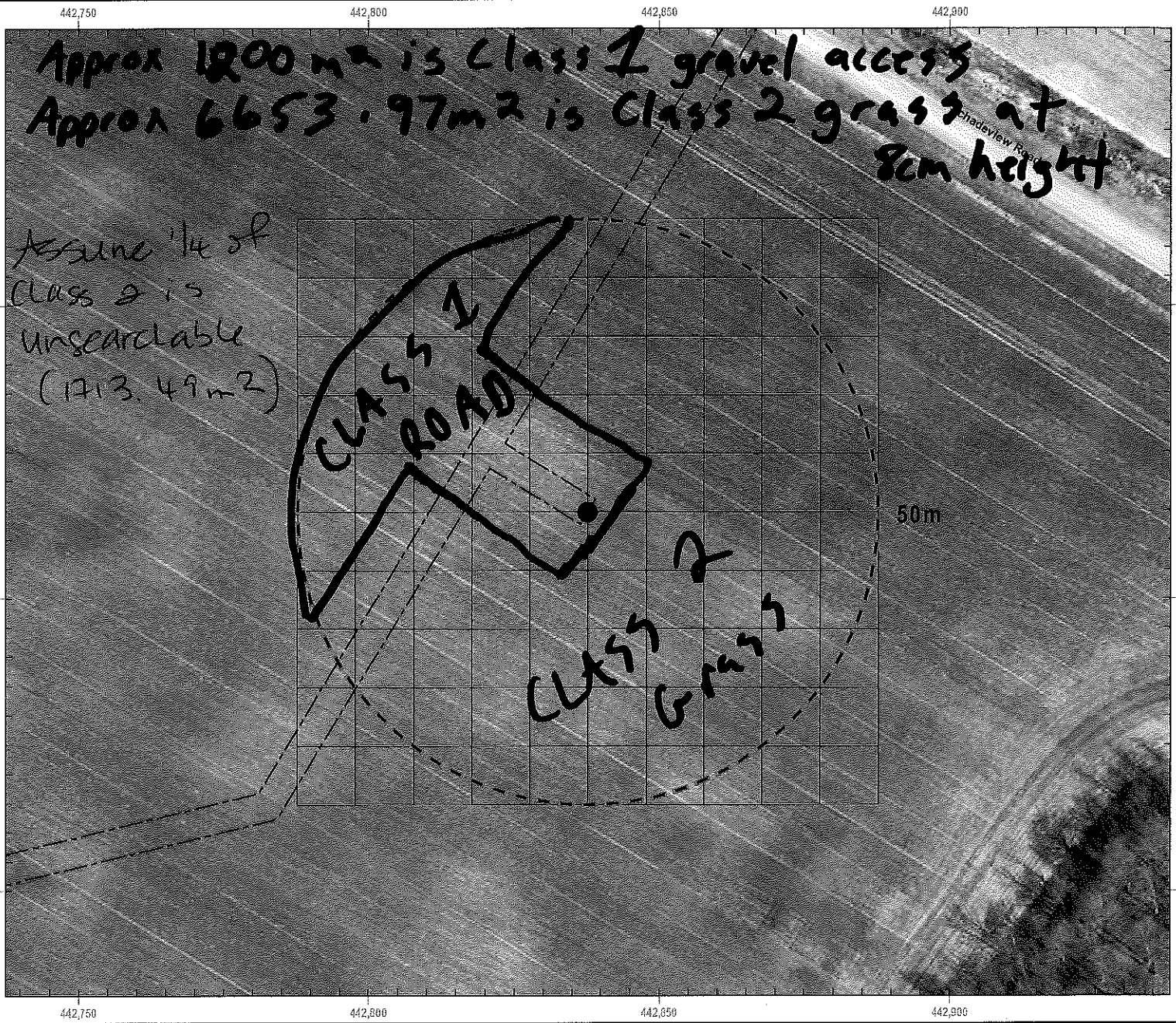
Site Number: T-33

Survey Date: July 13/18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

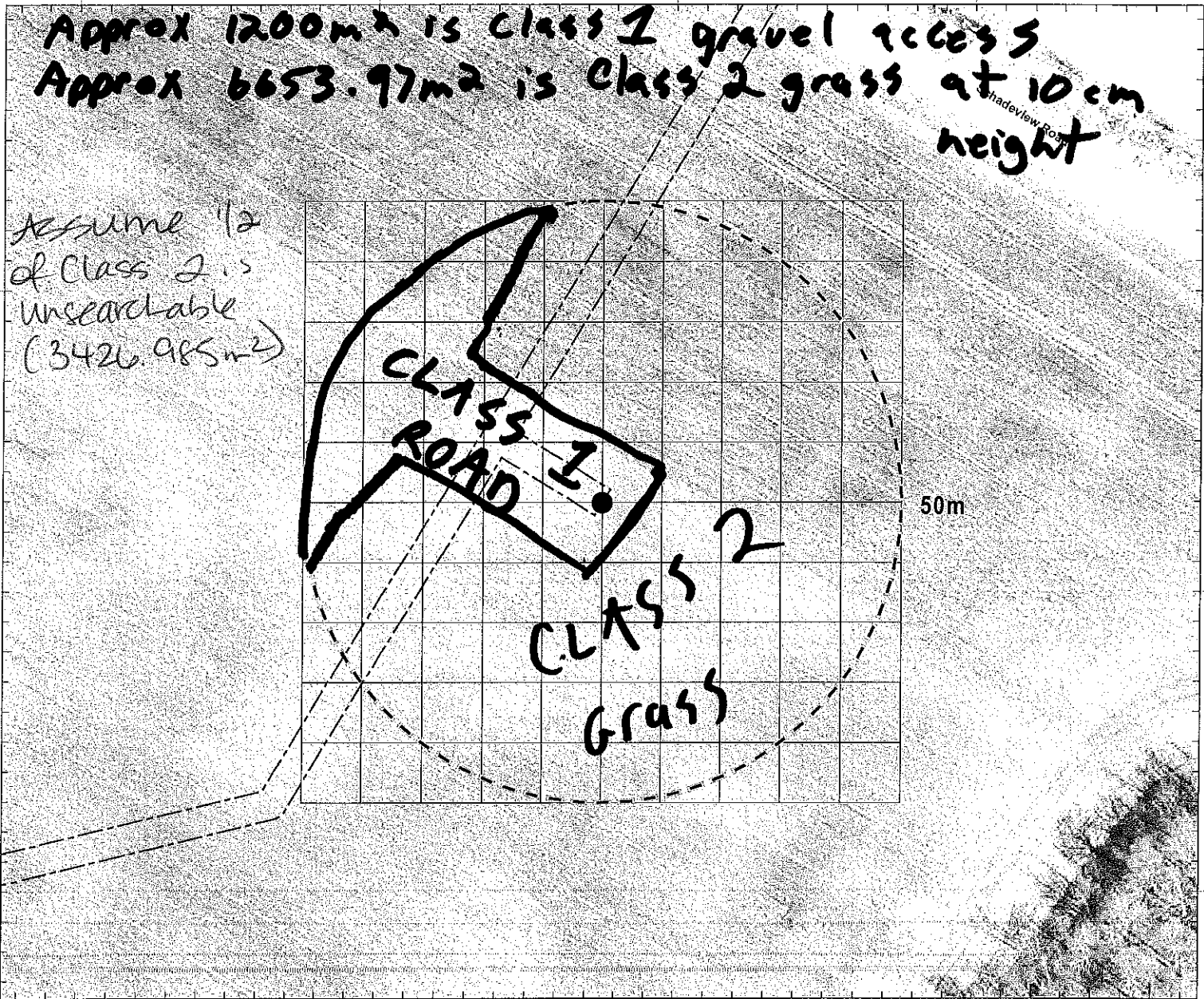
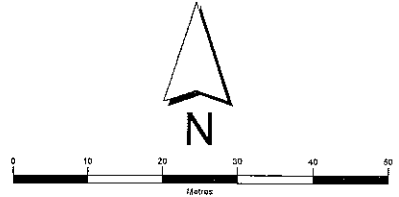
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-33

Survey Date: Sept 7/18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRID

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

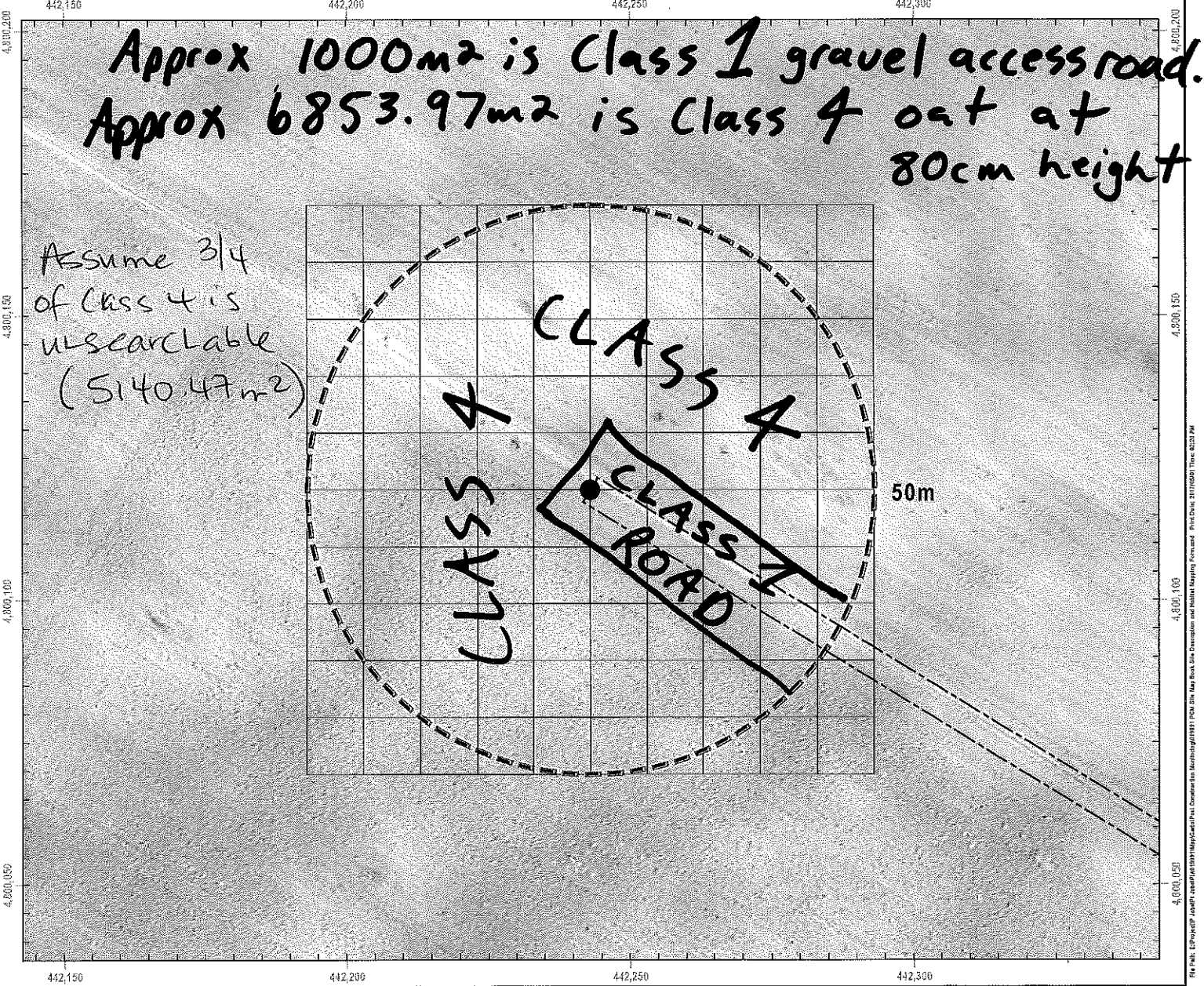
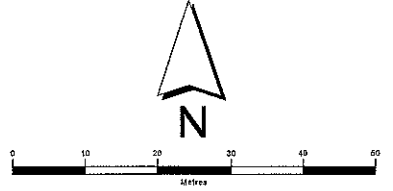
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-34

Survey Date: May 30 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



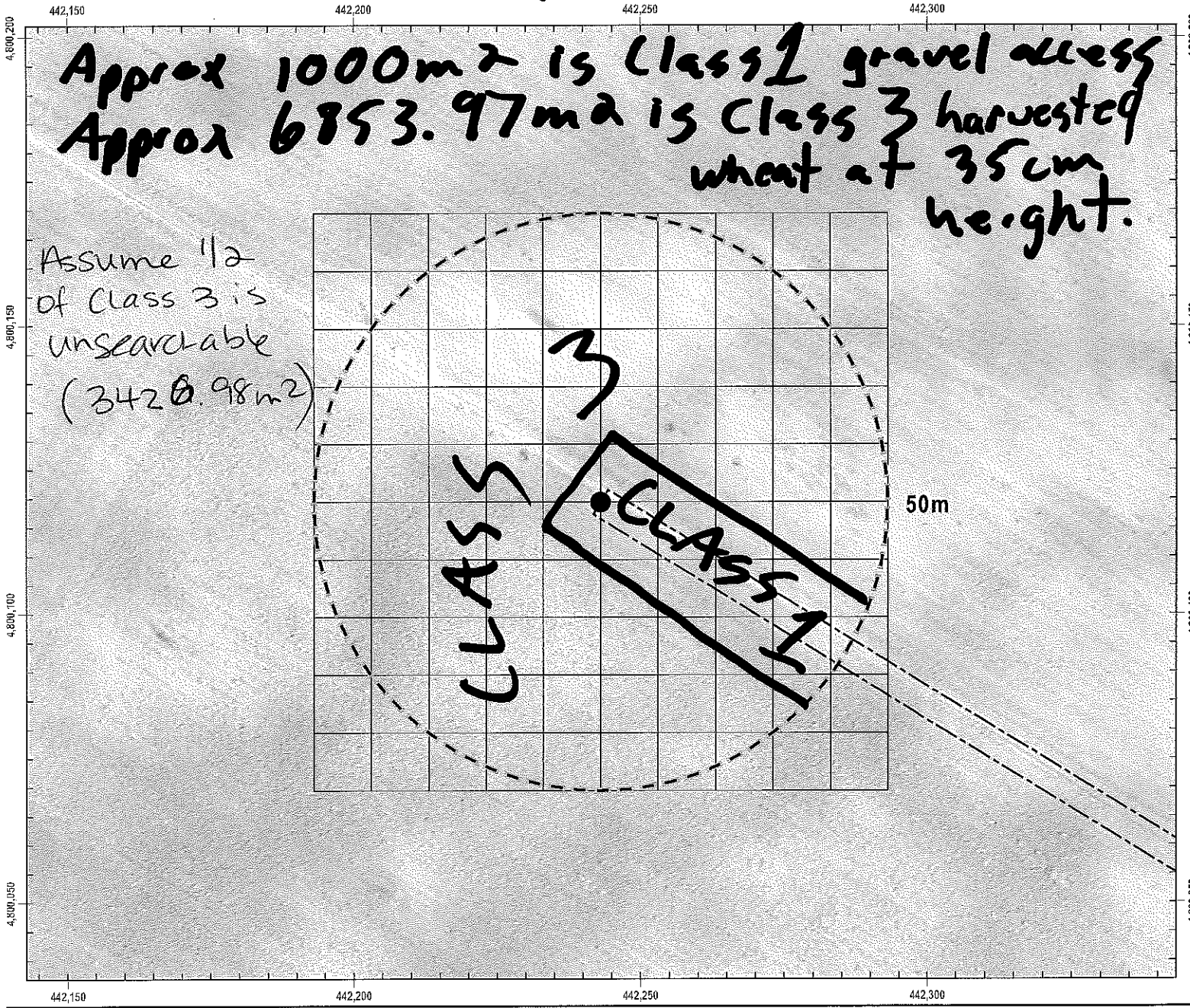
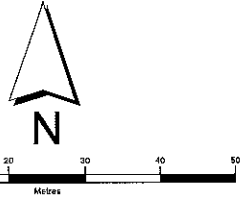
File Path: E:\Project\Job\PIA019991\Map\Map\Map\_Carcass\_Site\_Description\_and\_Habitat\_Mapping\_Form.mxd Print Date: 2017/06/01 Time: 02:20 PM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-34  
 Survey Date: July 25  
 Actual Searched Area (m<sup>2</sup>): 4420.99m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry, Sarah Dolan



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

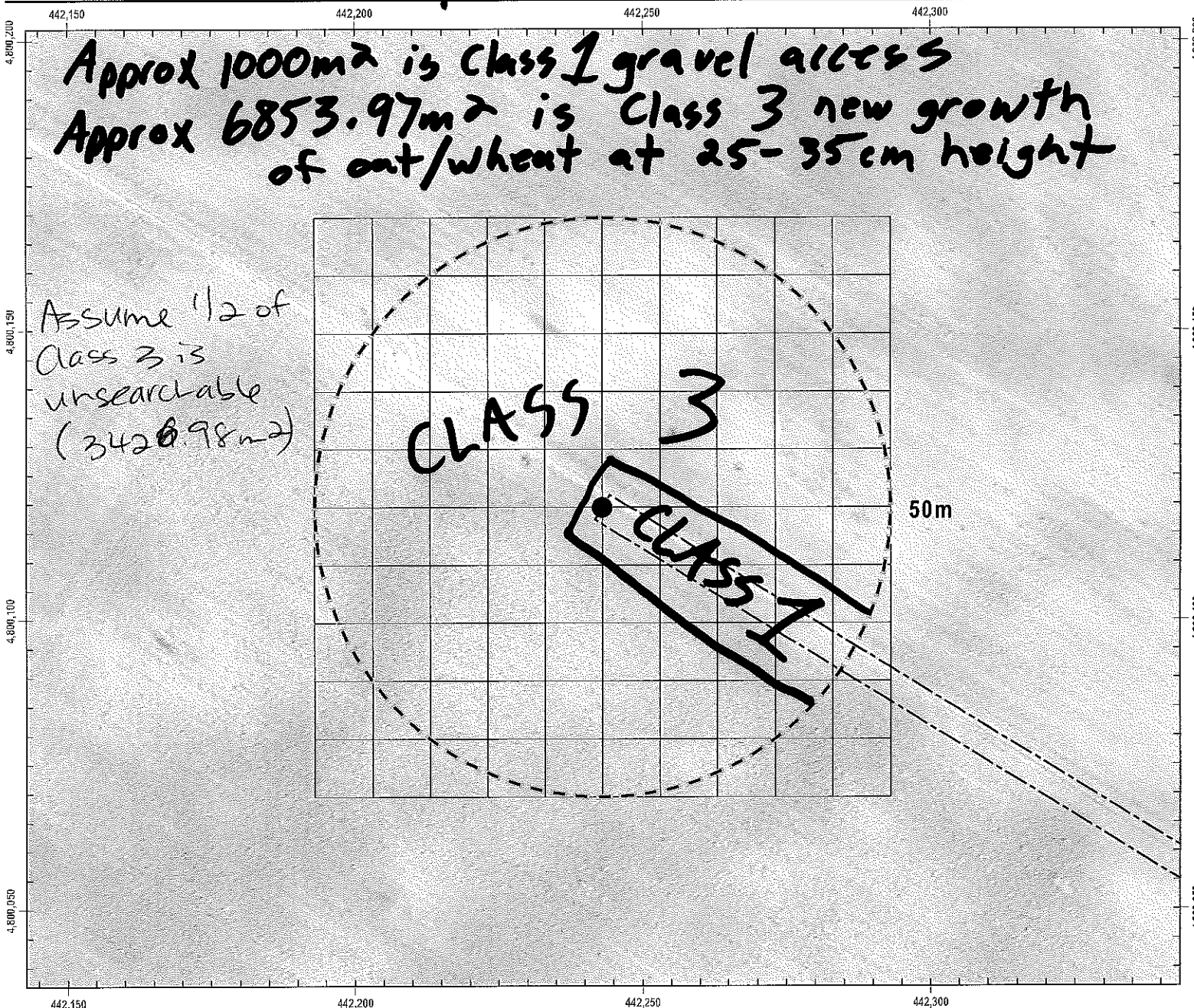
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-34

Survey Date: Sept 27 118

Actual Searched Area (m<sup>2</sup>): 4426.99m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

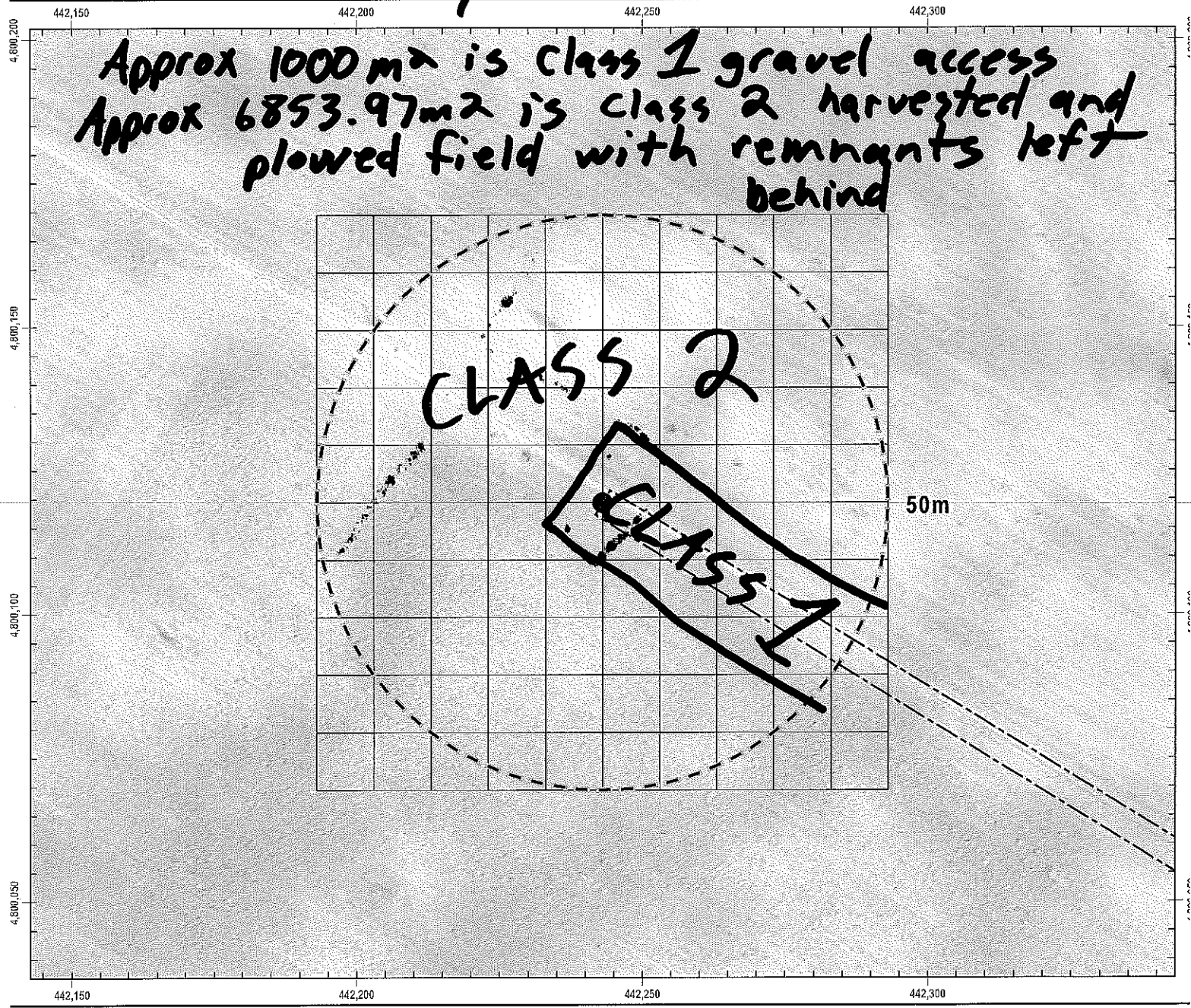
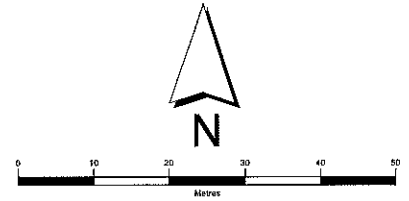
Site Number: T-34

Survey Date: Oct 24/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

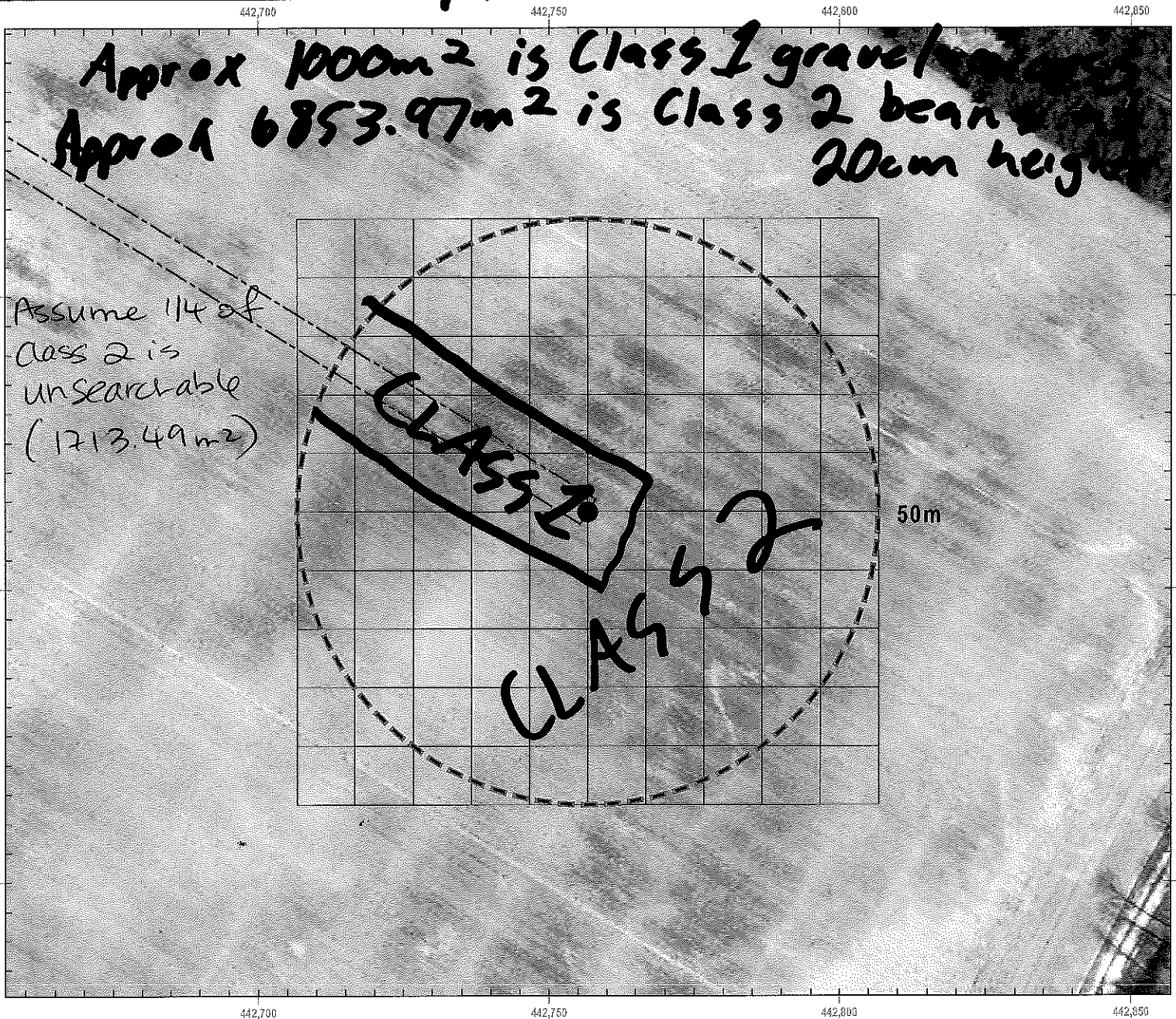
Site Number: T-35

Survey Date: June 26/18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

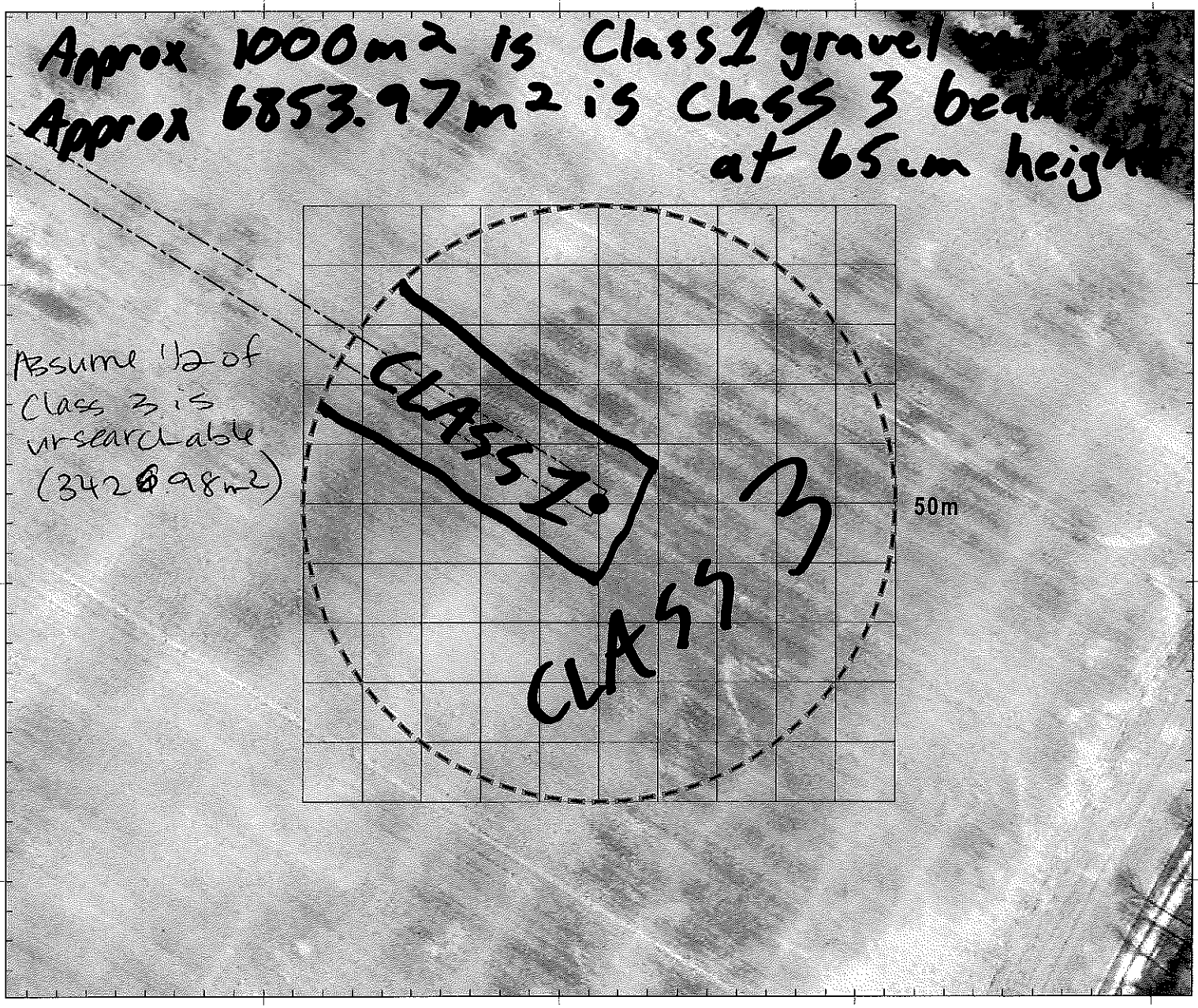
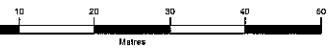
Site Number: T-35

Survey Date: July 25/18

Actual Searched Area (m<sup>2</sup>): 4426.99m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sam Henry Samh O'leary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

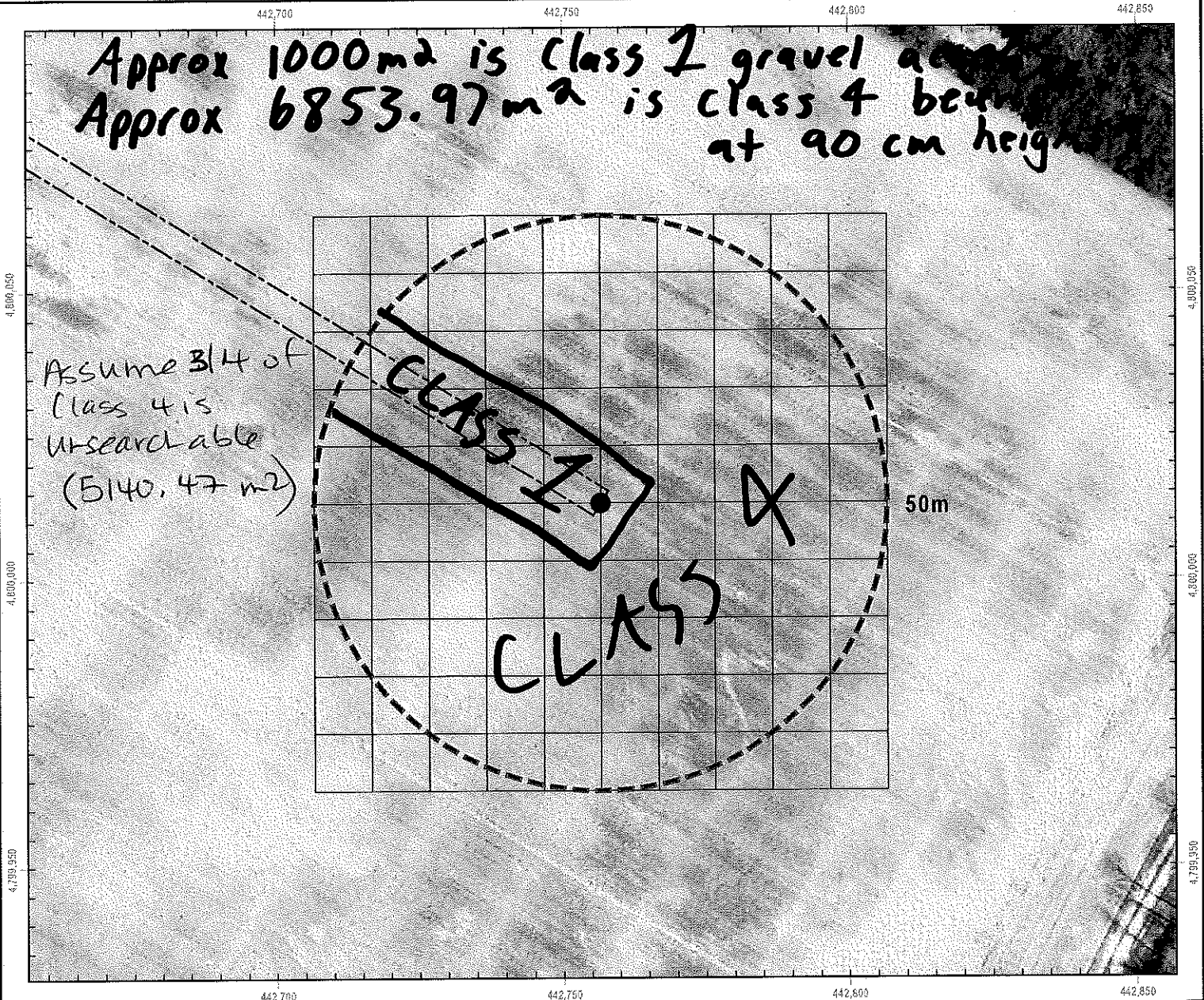
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-35

Survey Date: Aug 29 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sarah Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

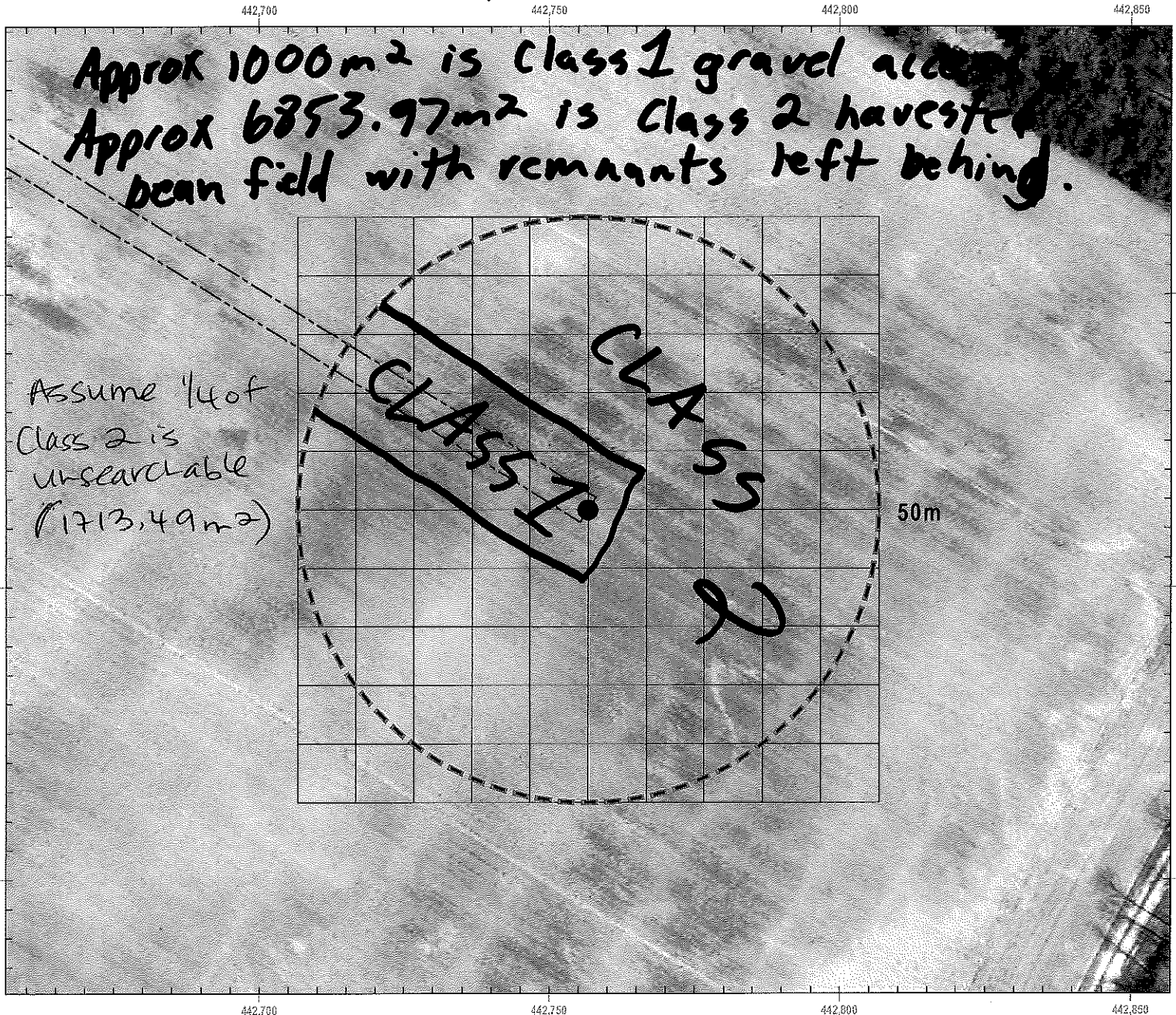
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-35

Survey Date: Oct 25 / 18

Actual Searched Area (m<sup>2</sup>): ~~7853.97m<sup>2</sup>~~ 6140.48m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

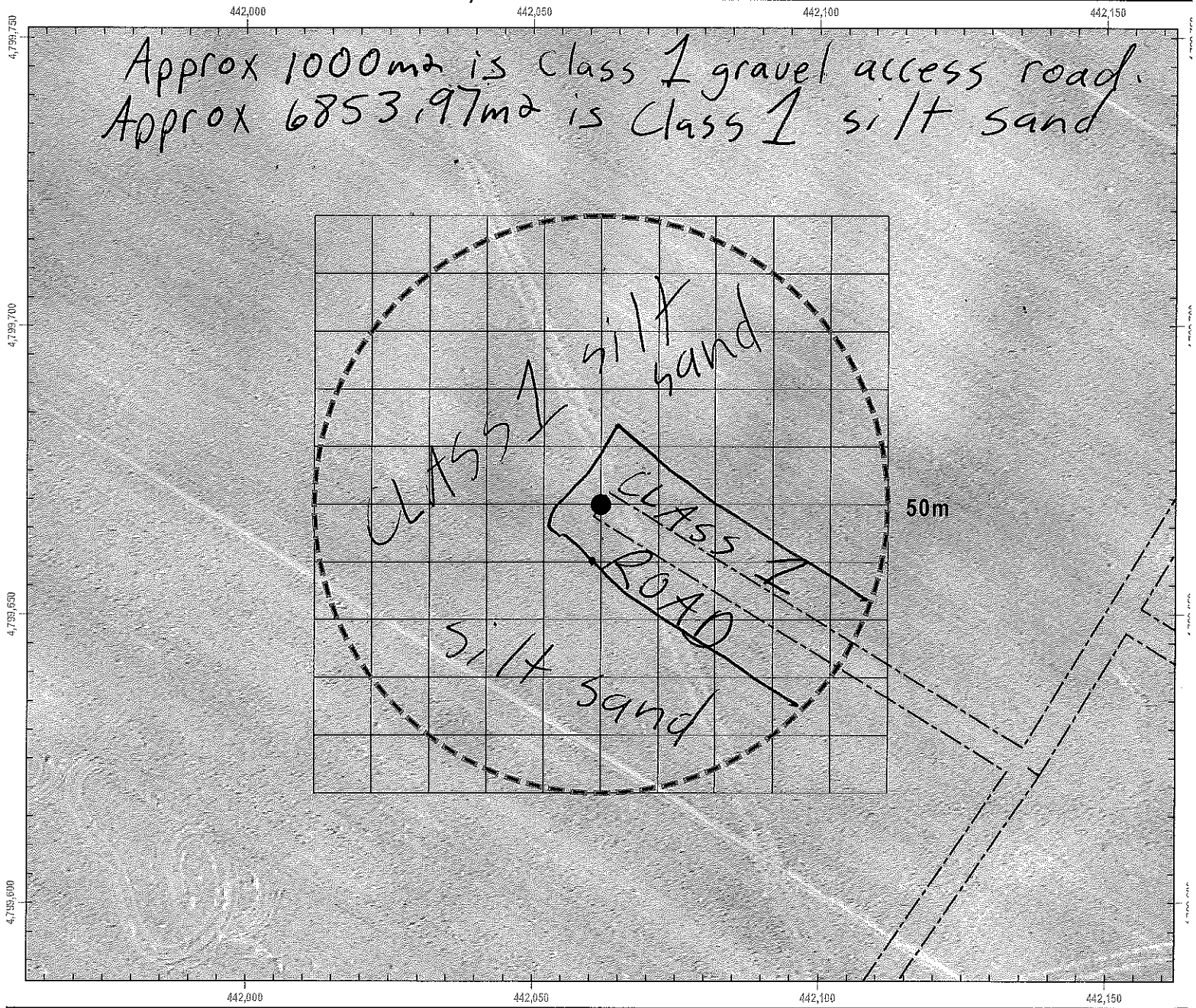
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-37

**Survey Date:** May 31 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.972 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

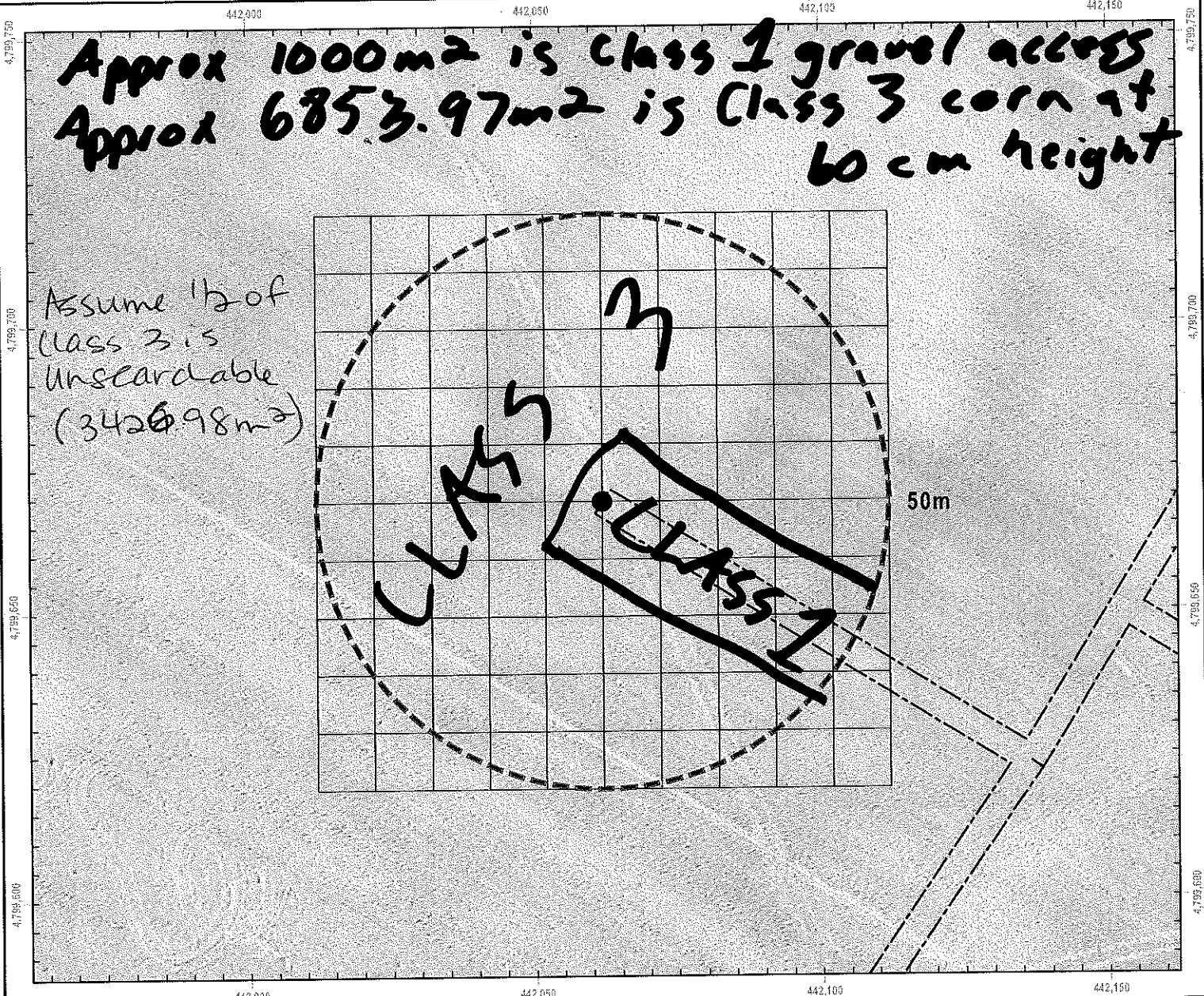
Site Number: T-37

Survey Date: June 26/18

Actual Searched Area (m<sup>2</sup>): 4420.99m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Delaney



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



File Path: E:\Programs\Jedren\Lab\P1918\MapGenerator\CarcassSearchForm.mxd  
 Date: 2017/06/01 11:02:24 AM  
 User: sdelaney



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

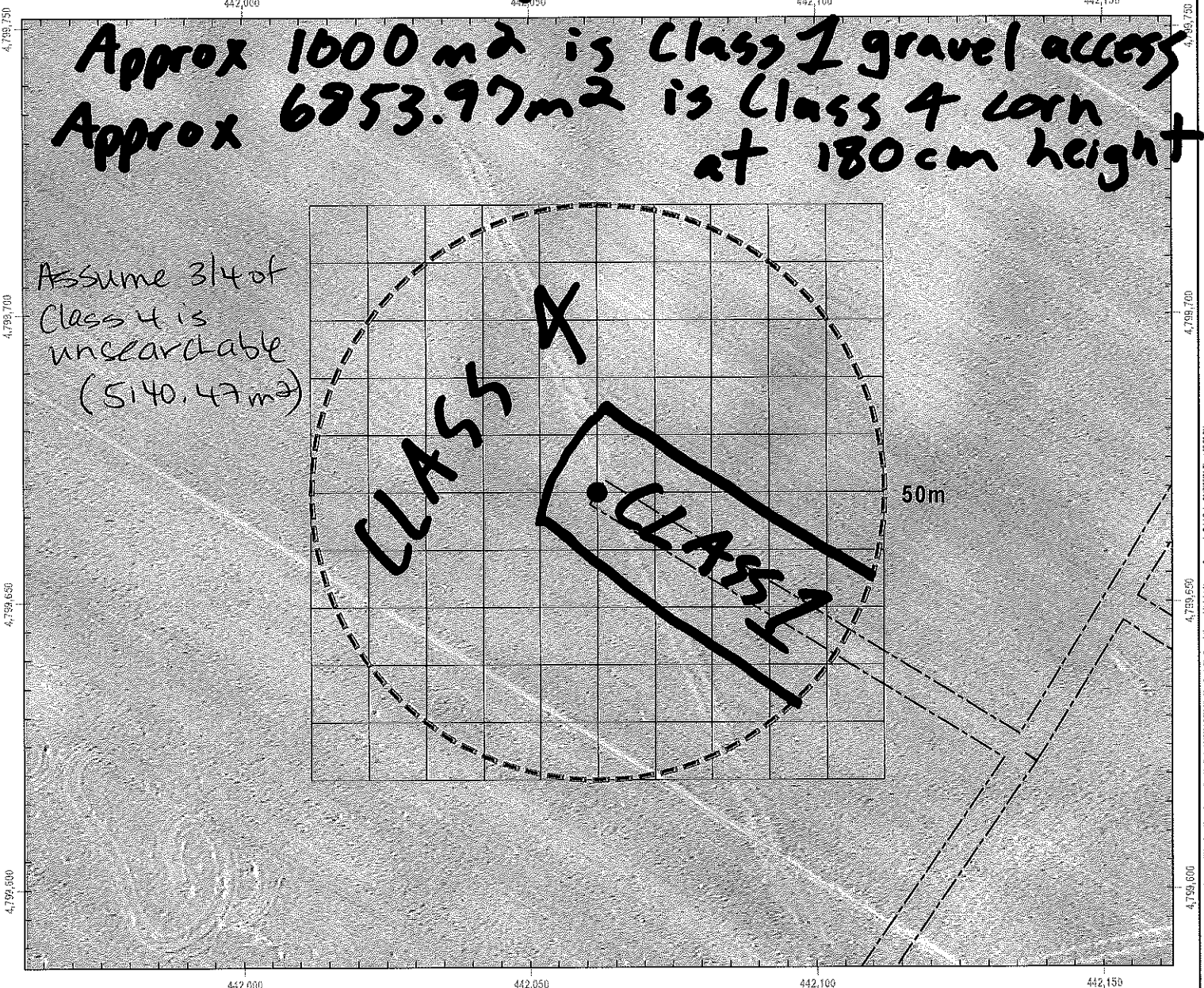
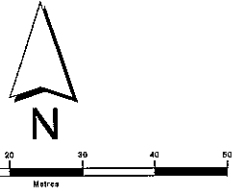
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-37

Survey Date: July 25/18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sam Henry, Sarah DeLeary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

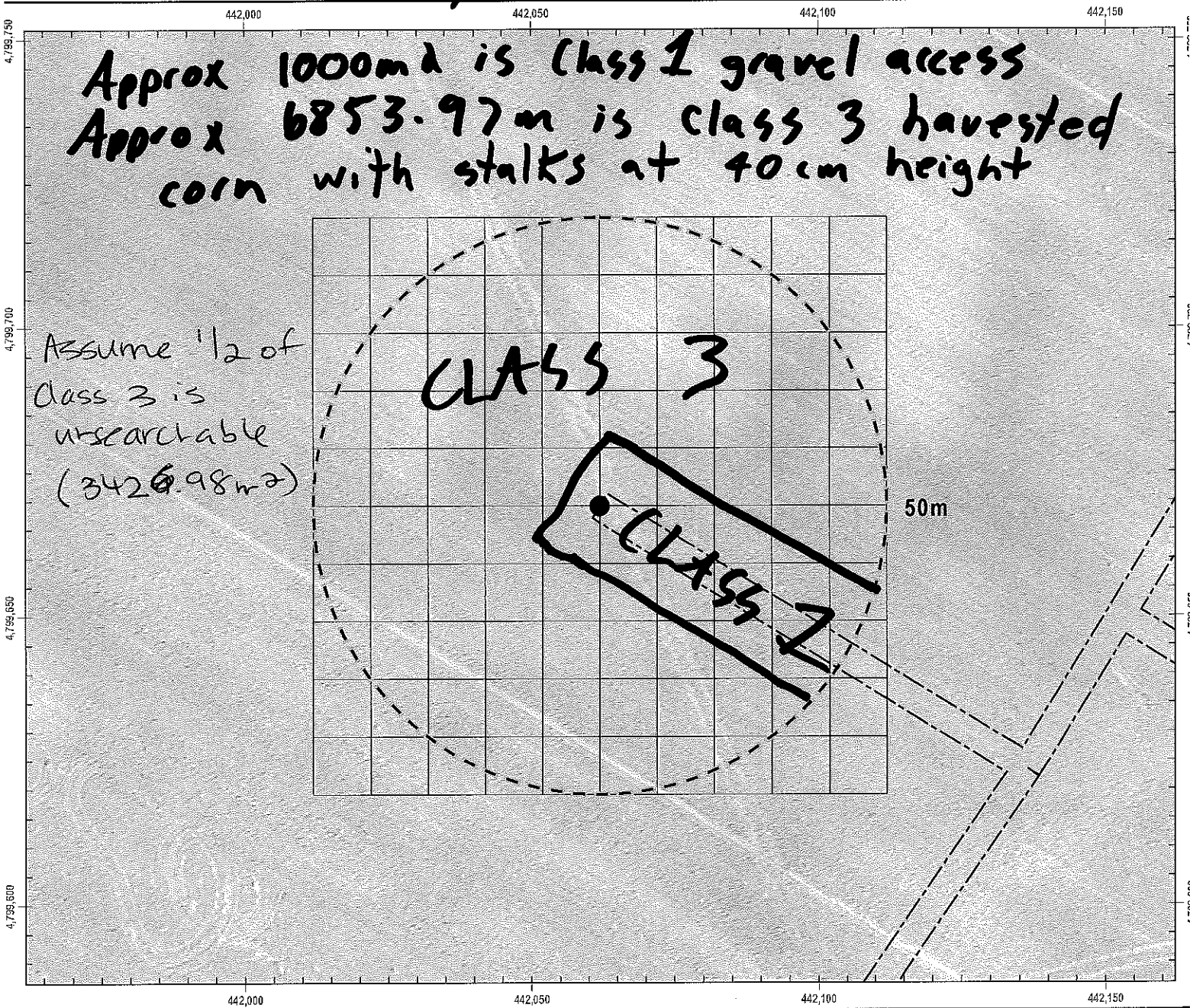
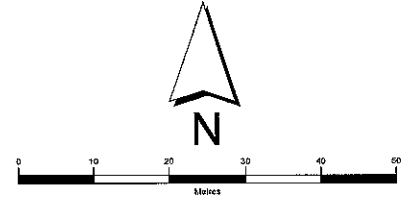
Site Number: T-37

Survey Date: Oct 24 / 18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

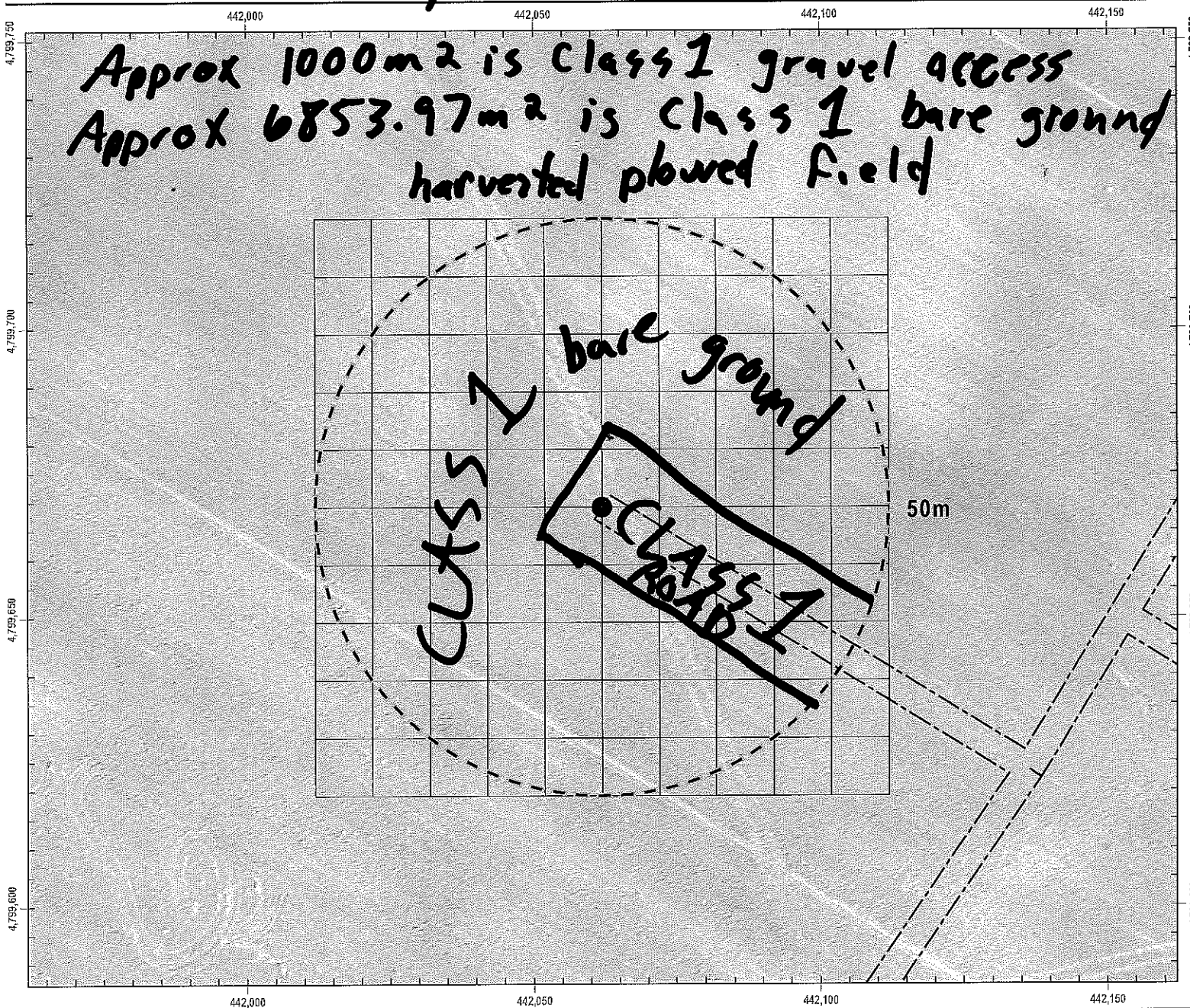
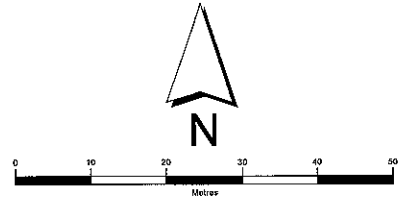
Site Number: T-37

Survey Date: Nov 27/18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

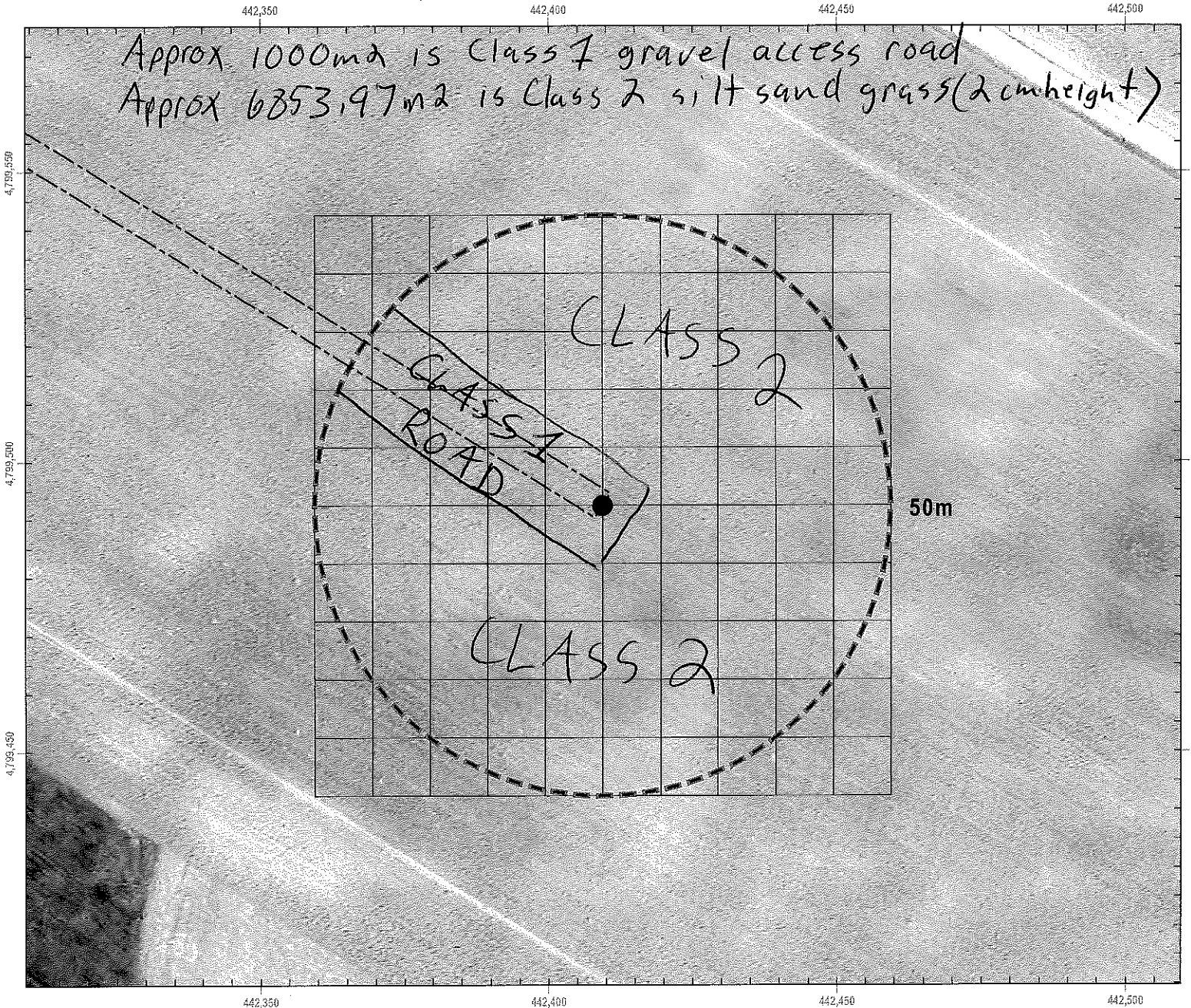
**Site Number:** T-38

**Survey Date:** May 1 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleury



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

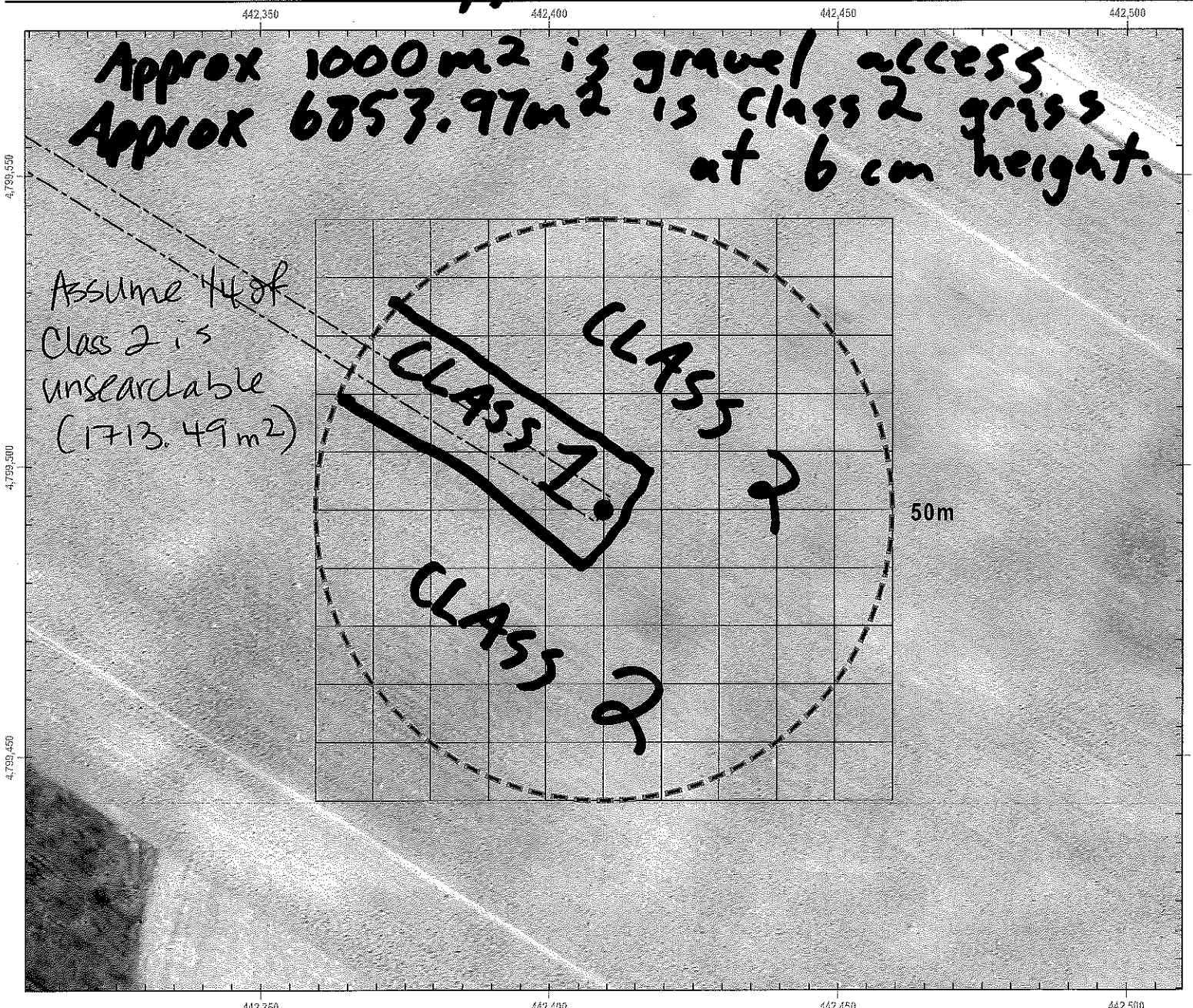
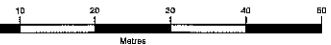
Site Number: T-38

Survey Date: July 12

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

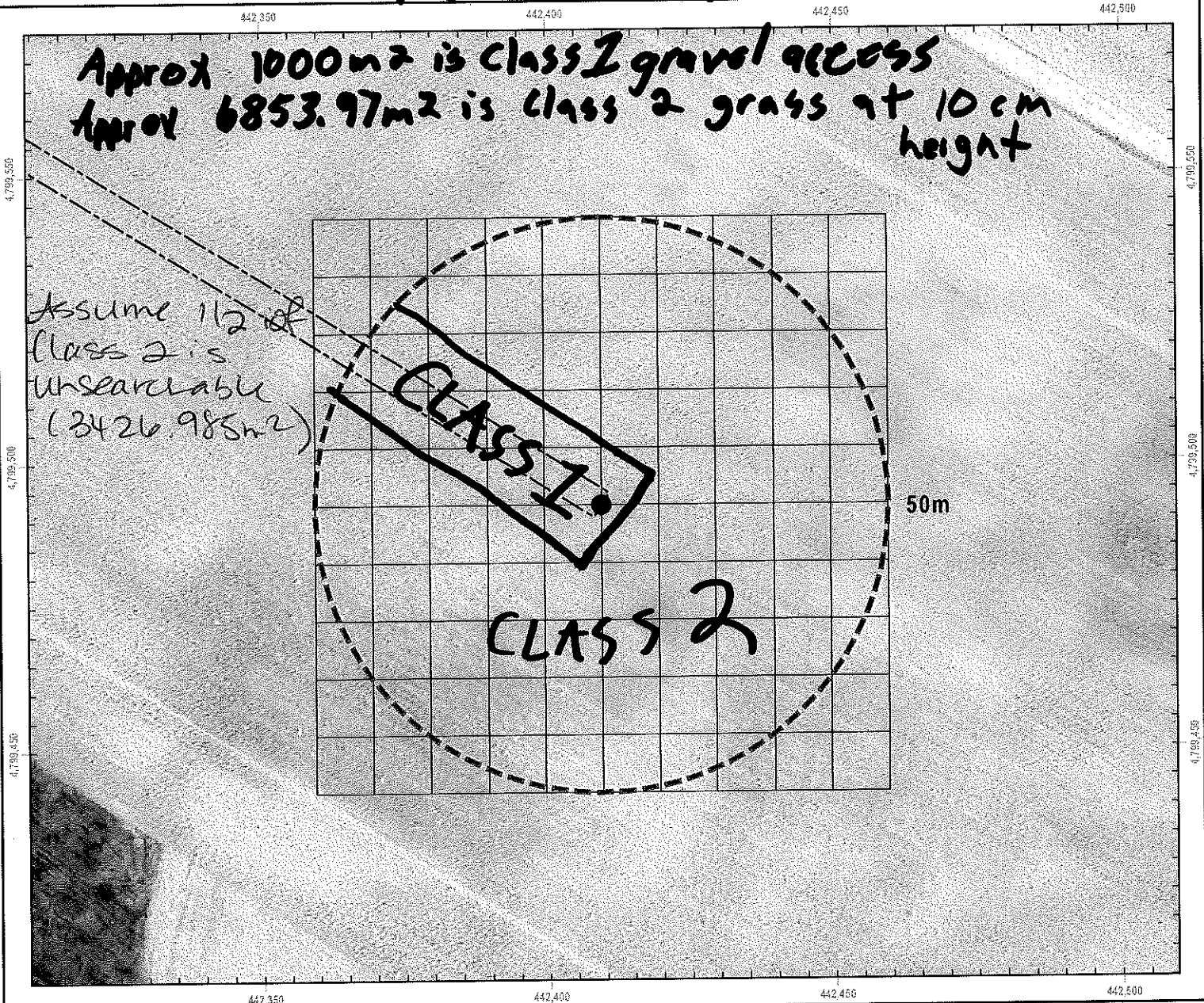
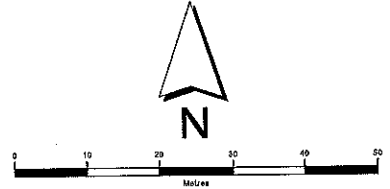
Site Number: T-38

Survey Date: Sept 27 118

Actual Searched Area (m<sup>2</sup>): 4426.99m<sup>2</sup>

(subtract from total search area - 7653.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Delaney



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

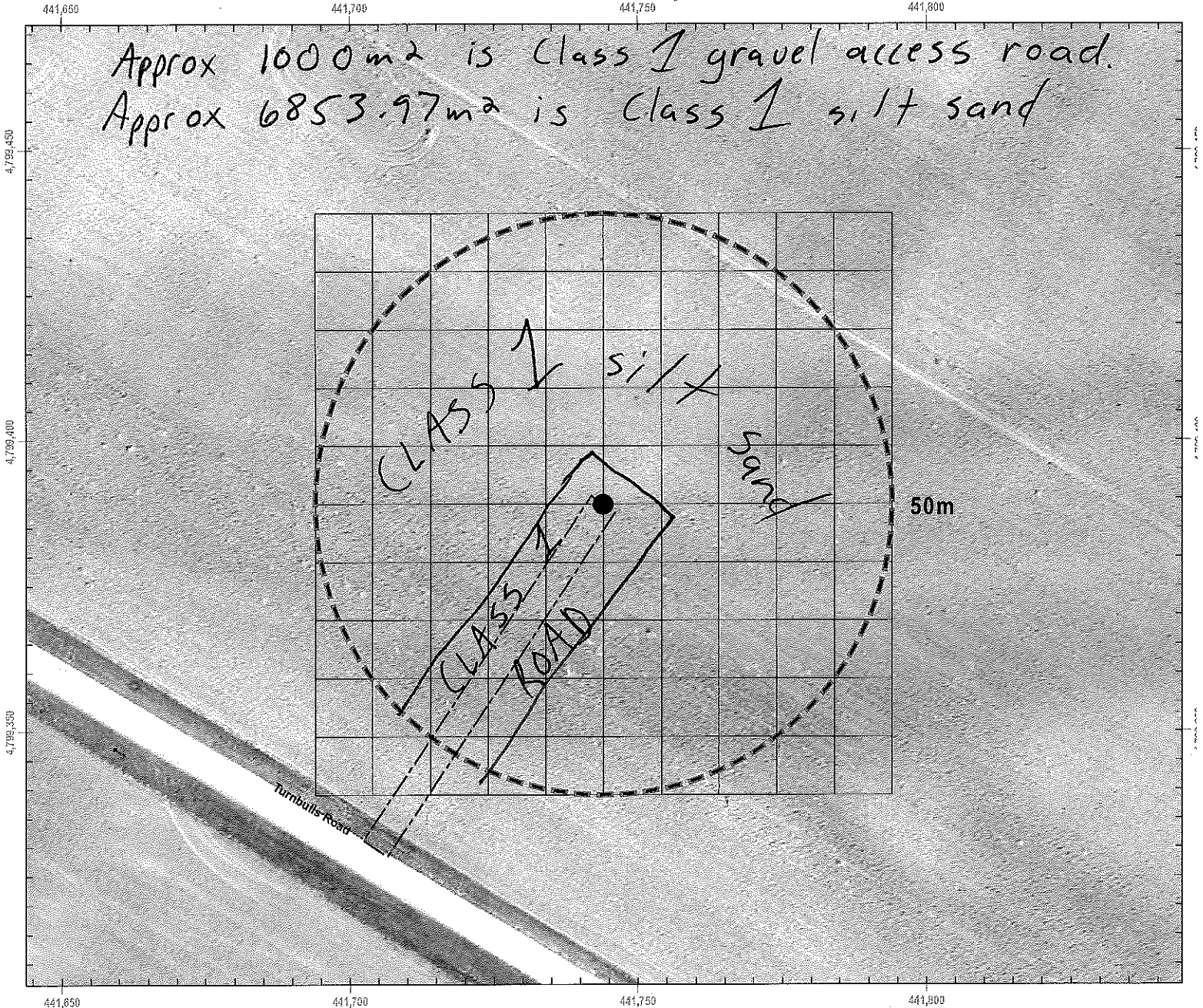
**Site Number:** T-39

**Survey Date:** May 16 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

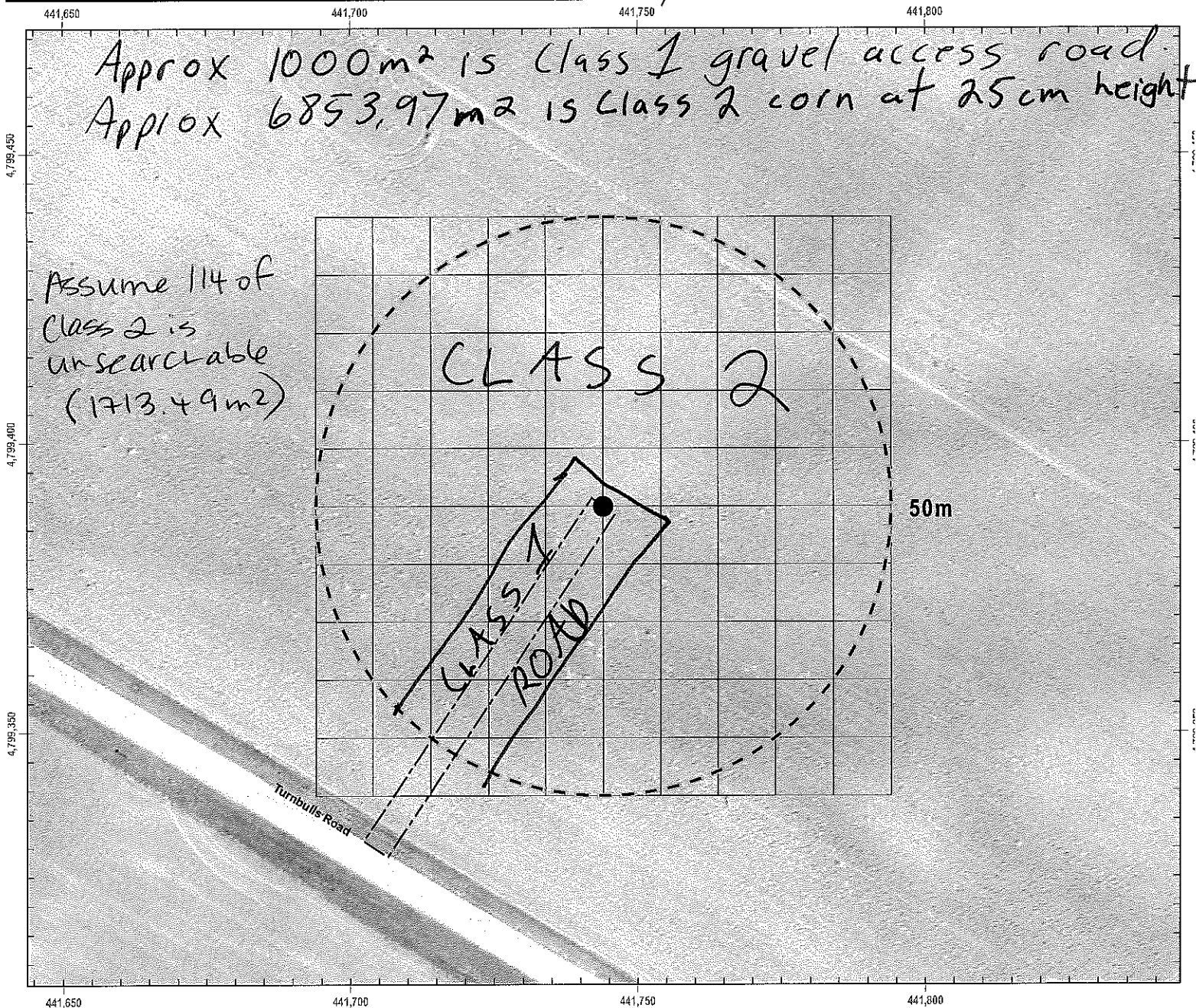
**Project Name:** PIA019991.0005 Grand Bend Wind Farm

**Site Number:** T-39

**Survey Date:** June 13/18

**Actual Searched Area (m<sup>2</sup>):** 6140.48m<sup>2</sup>  
(subtract from total search area - 7863.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

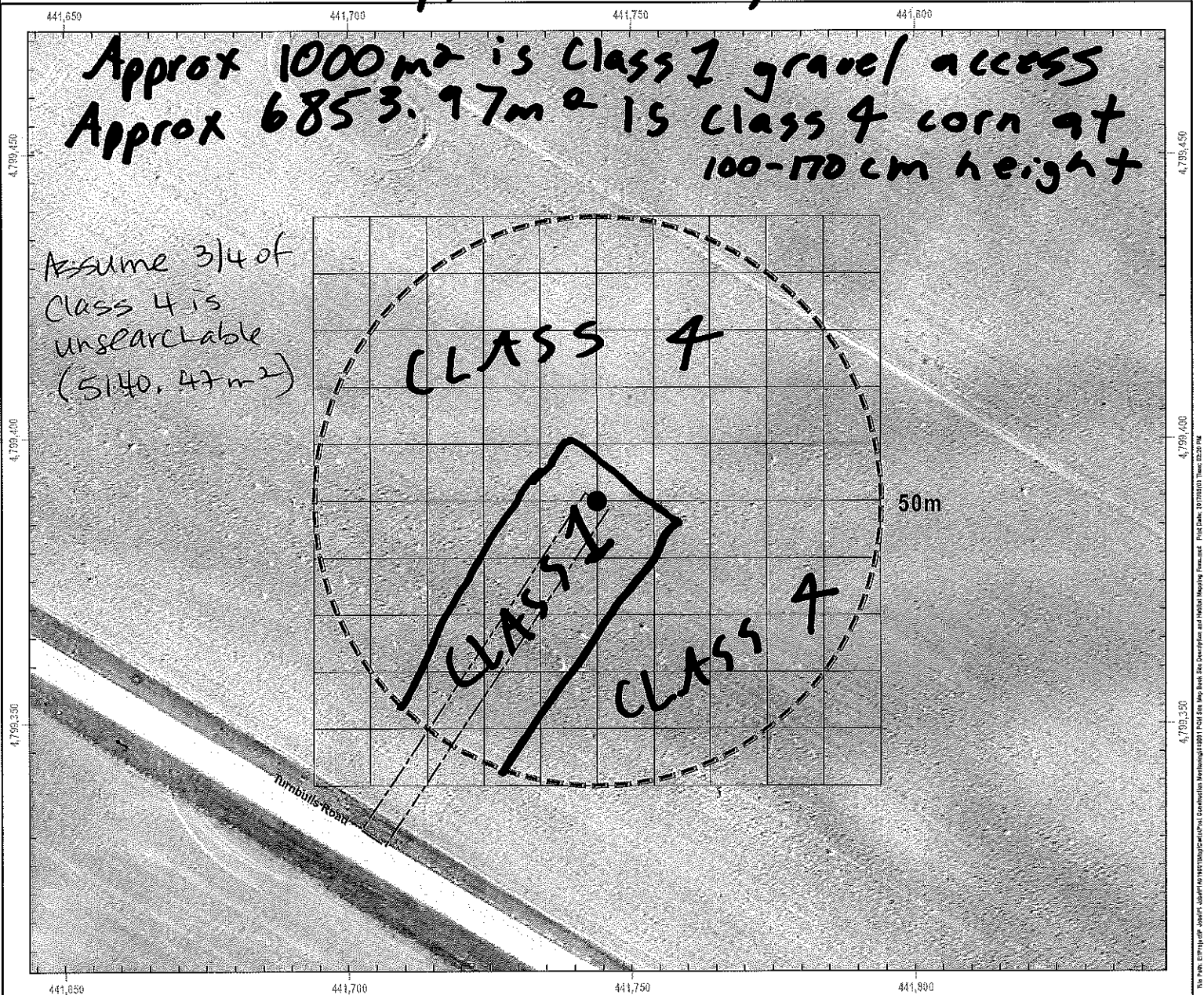
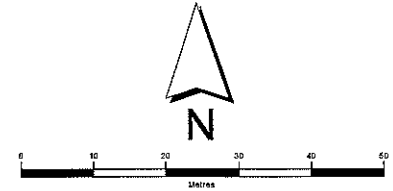
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-39

Survey Date: July 11/18

Actual Searched Area (m<sup>2</sup>): 2713.50 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



4,799,450  
4,799,400  
4,799,350  
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# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

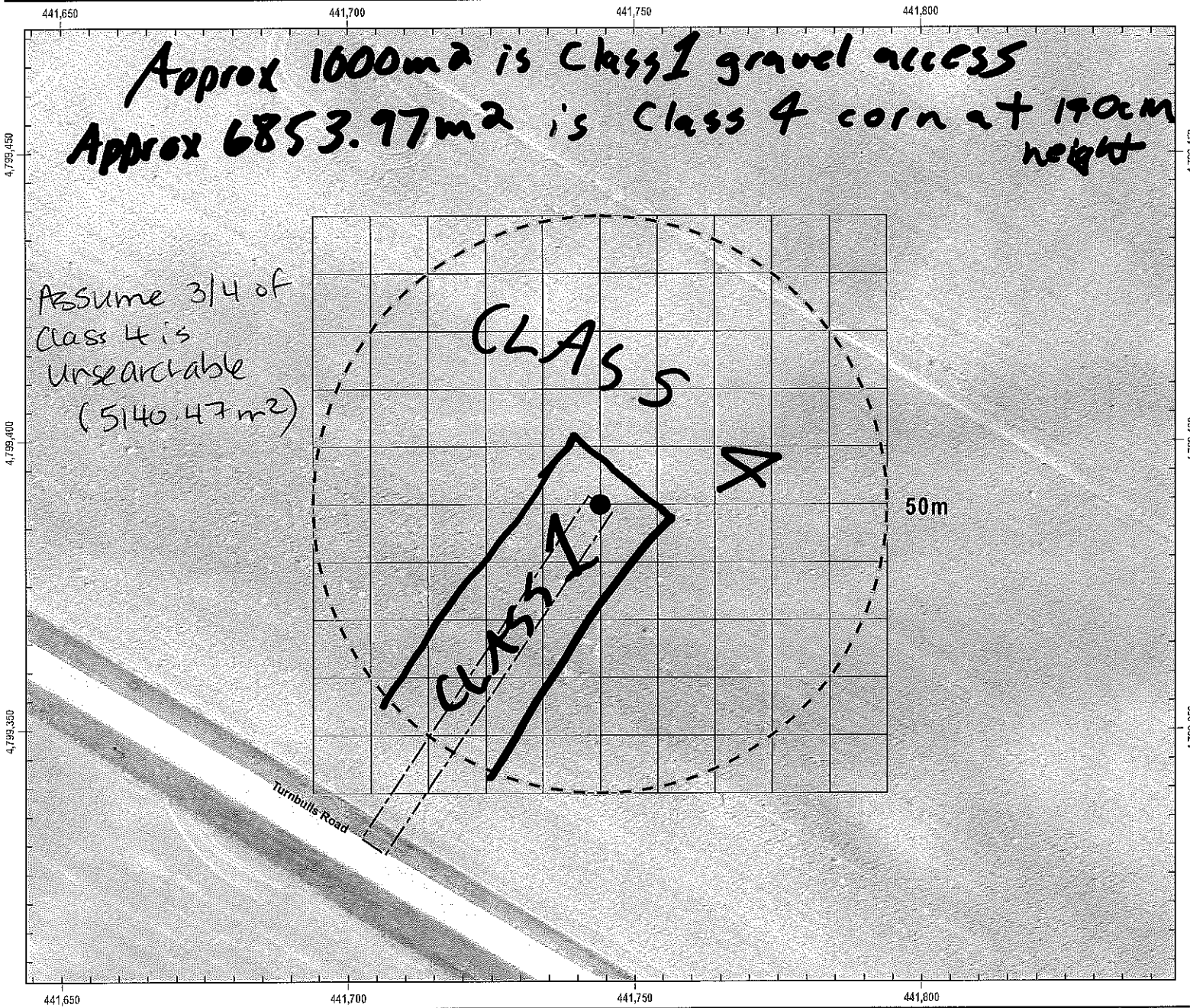
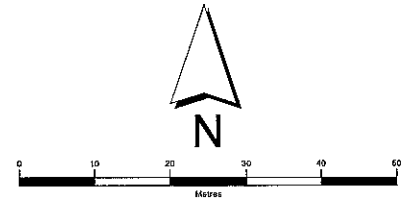
Site Number: T-39

Survey Date: Oct 10 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sam Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

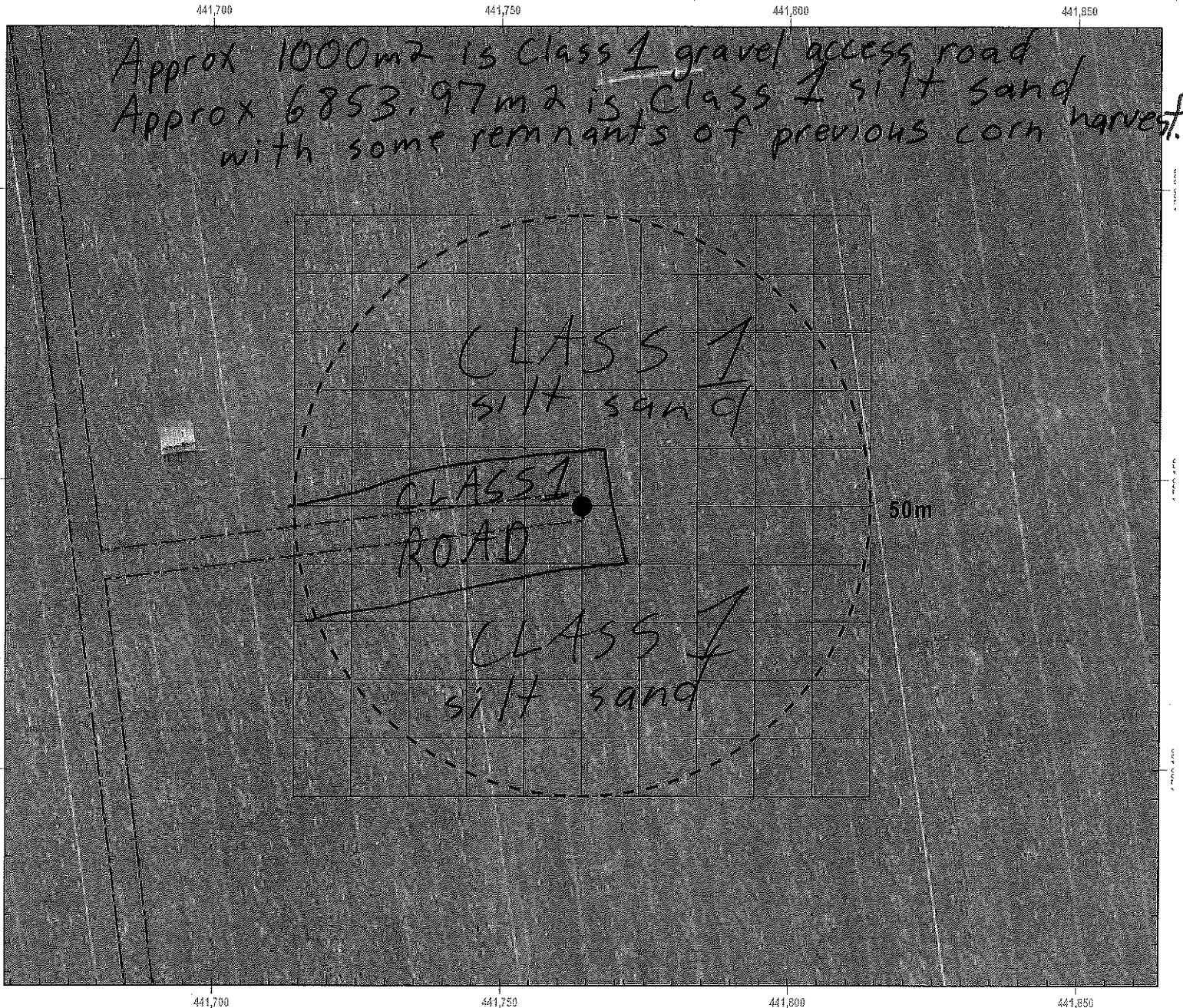
**Site Number:** T-41

**Survey Date:** May 7 / 18

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

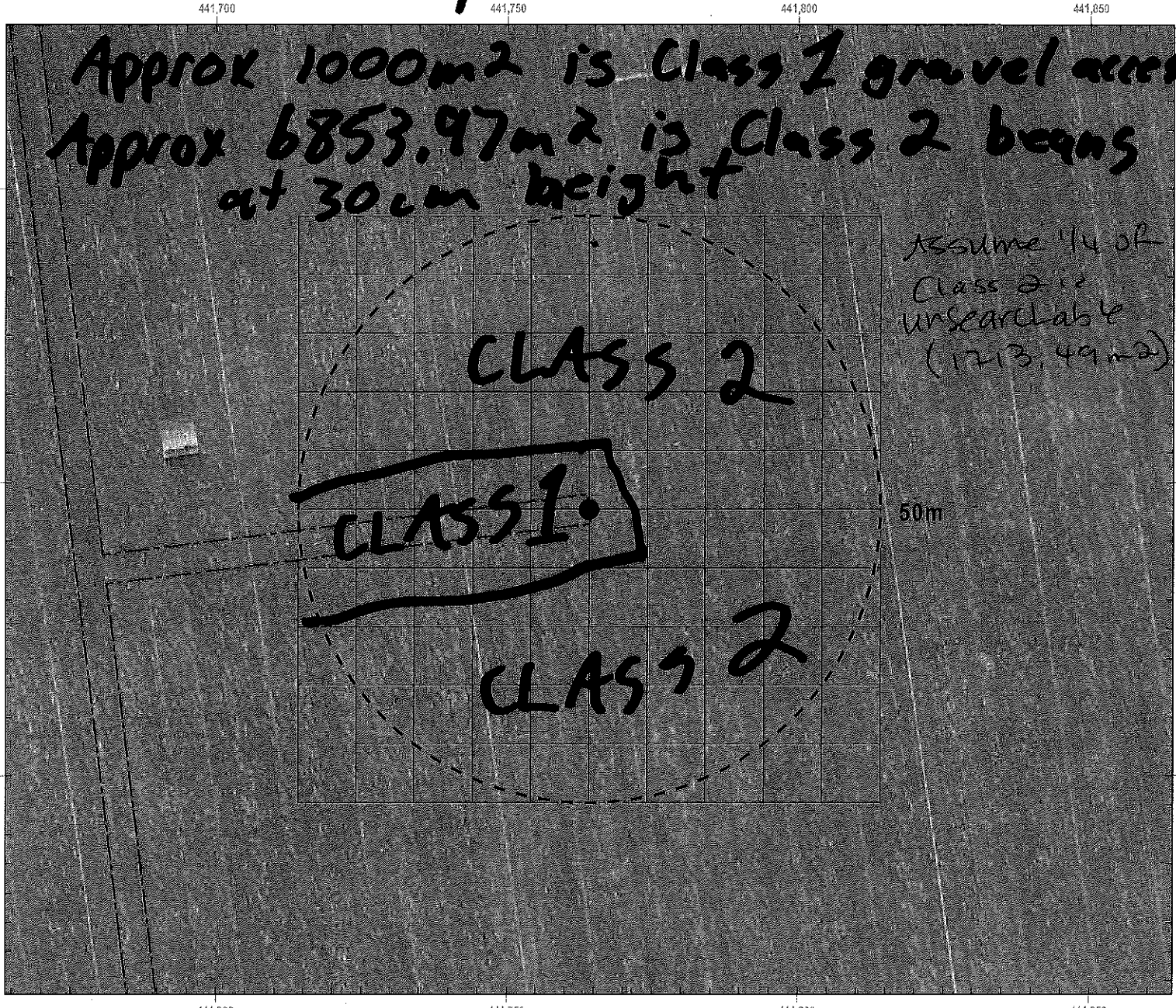
Site Number: T-41

Survey Date: July 23 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

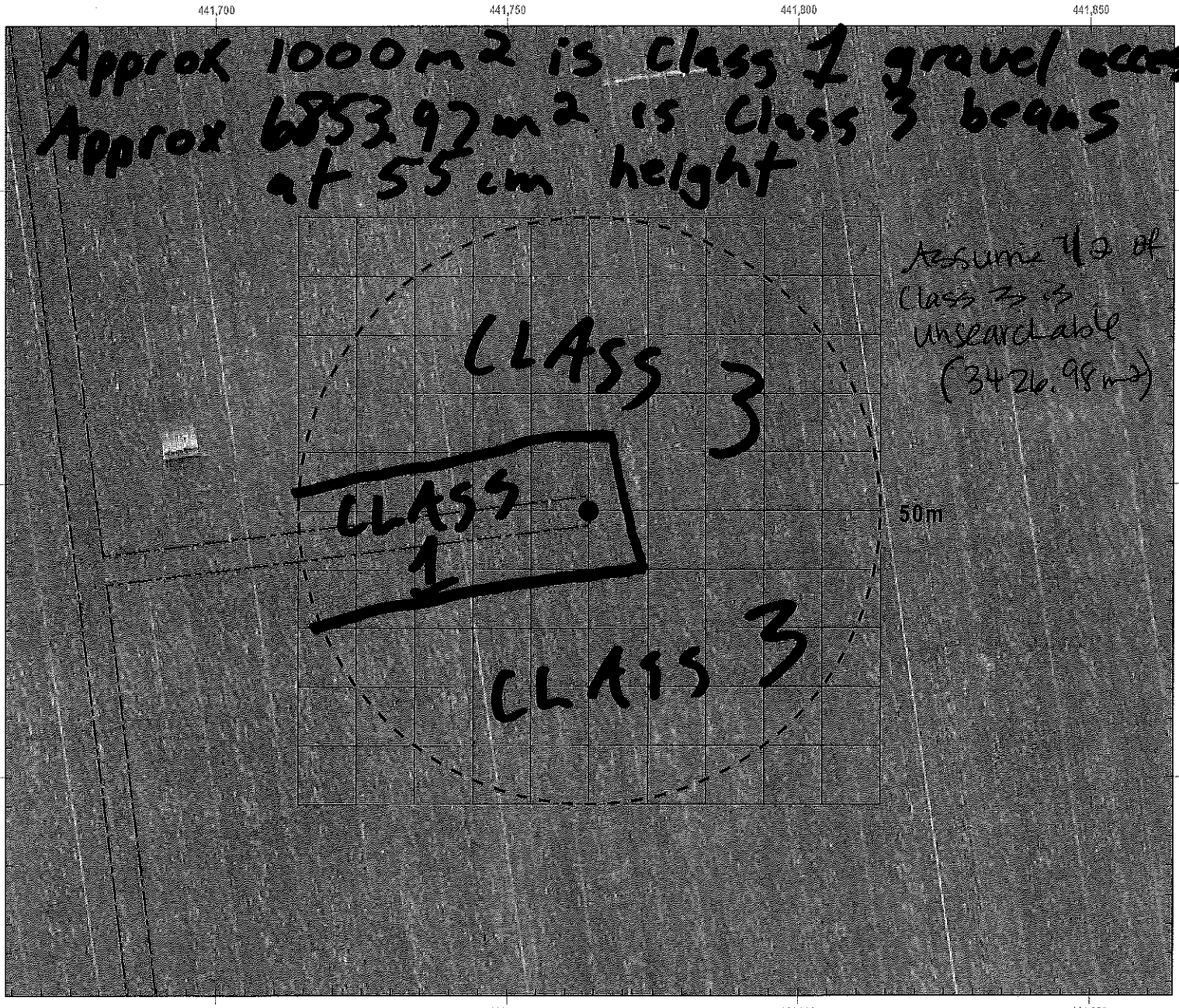
Site Number: T-41

Survey Date: Aug 9/18

Actual Searched Area (m<sup>2</sup>): 4426.99m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

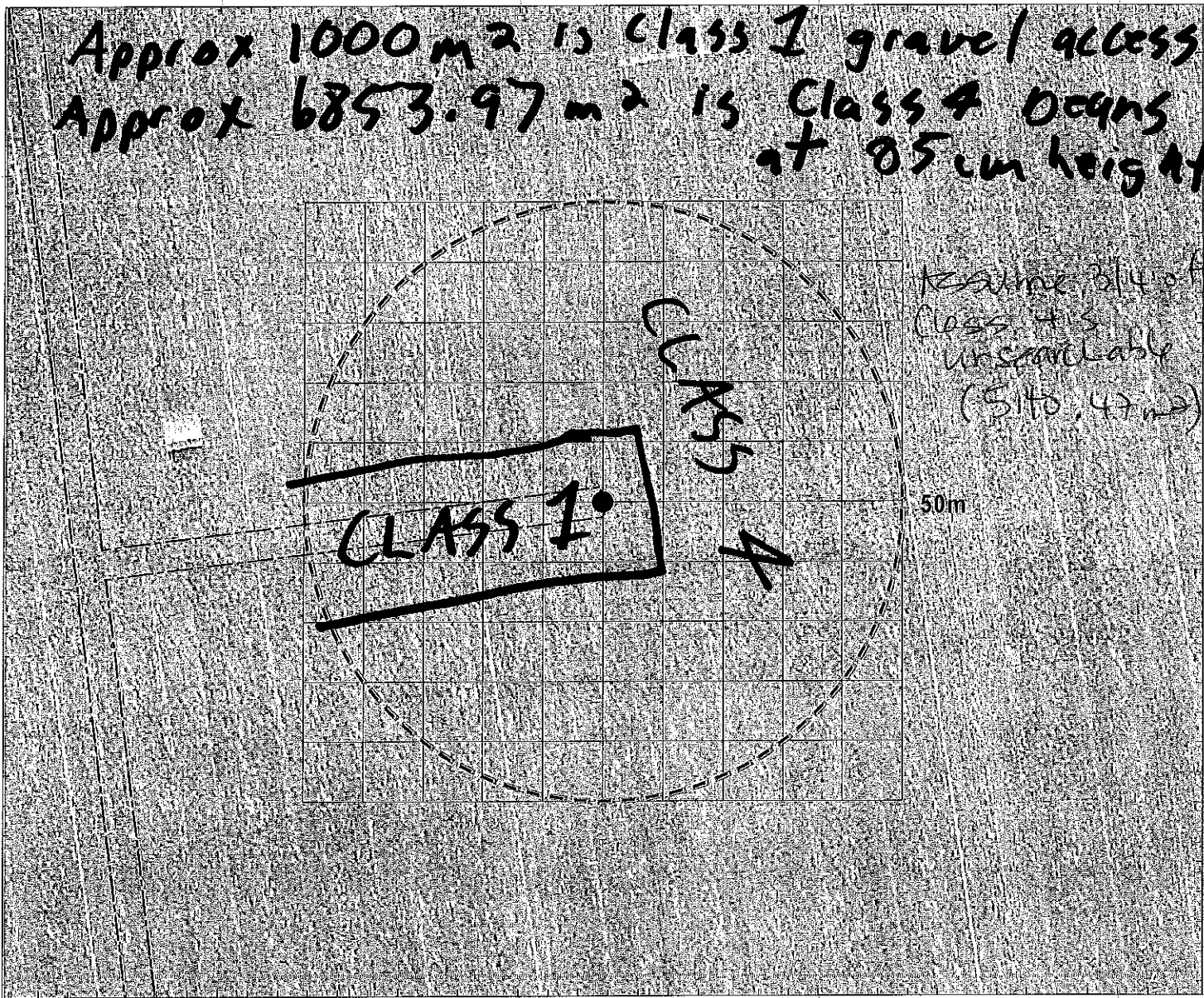
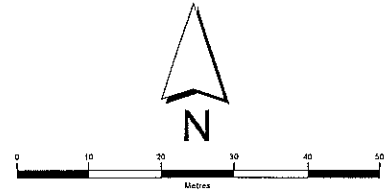
Site Number: T-41

Survey Date: Oct 4/18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

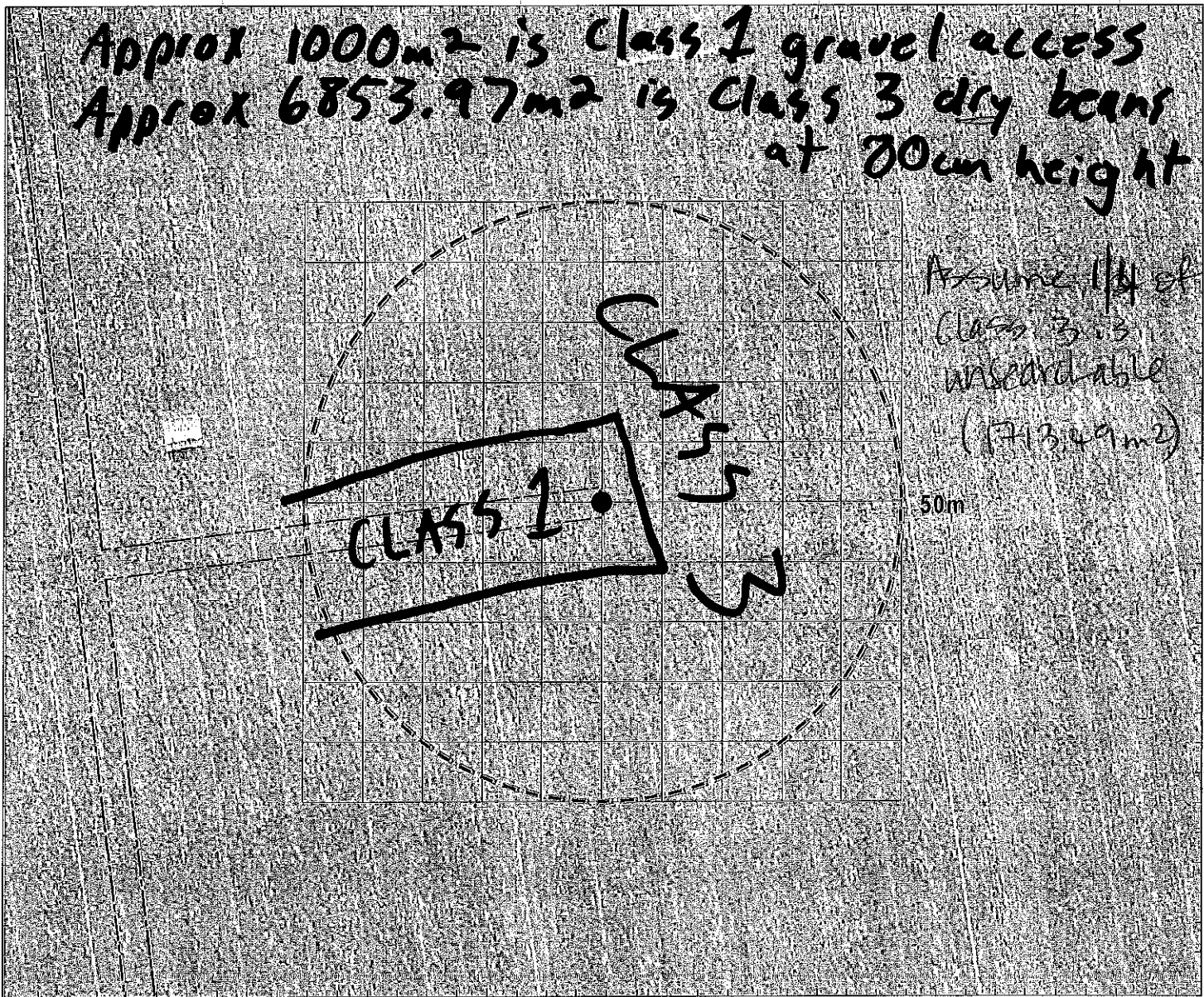
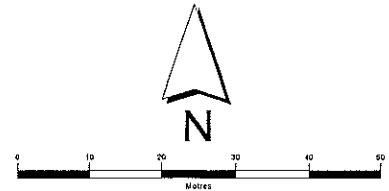


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-41  
 Survey Date: Oct 11 / 18  
 Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

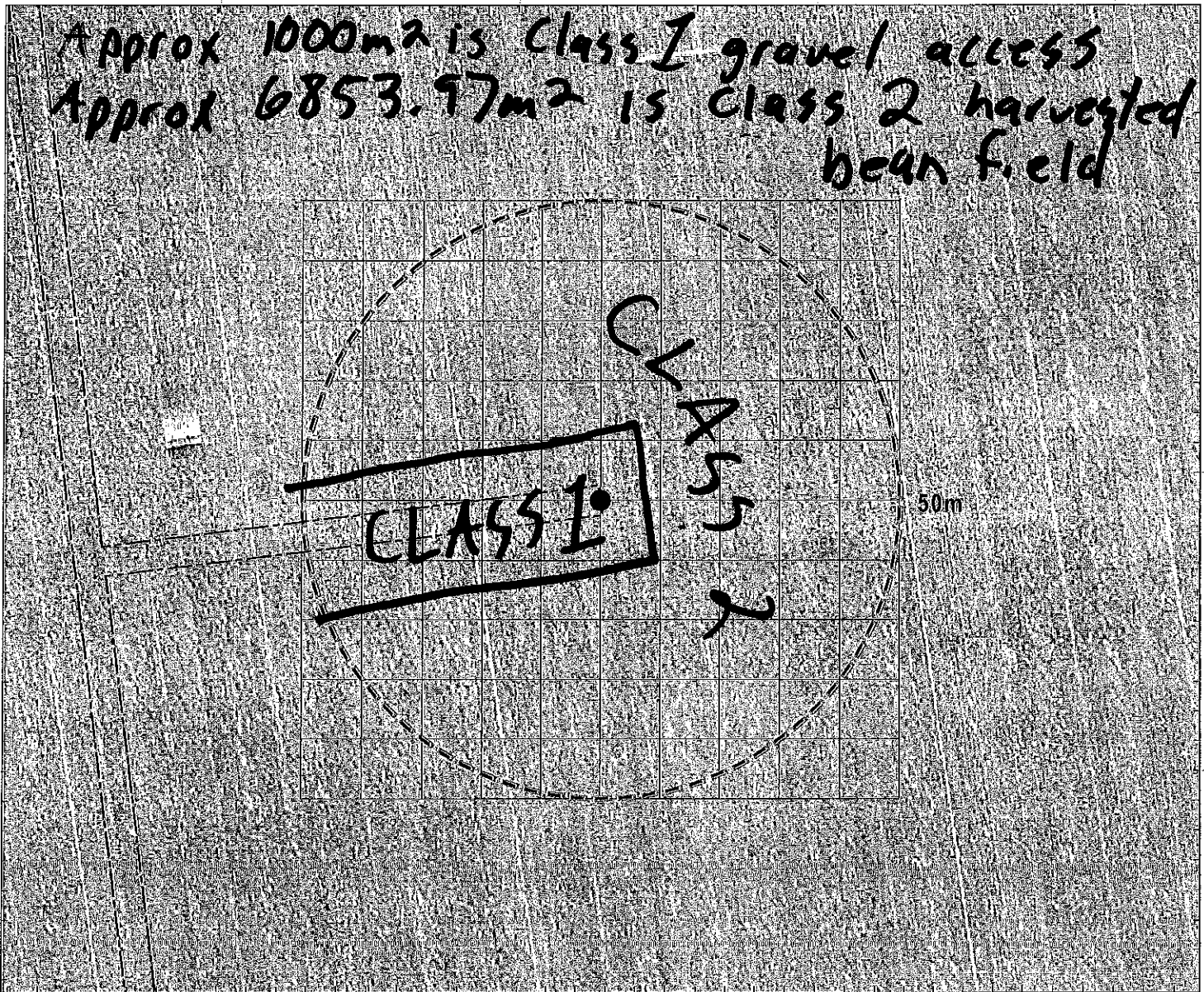
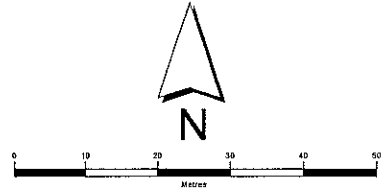
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-41

Survey Date: Oct 22/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

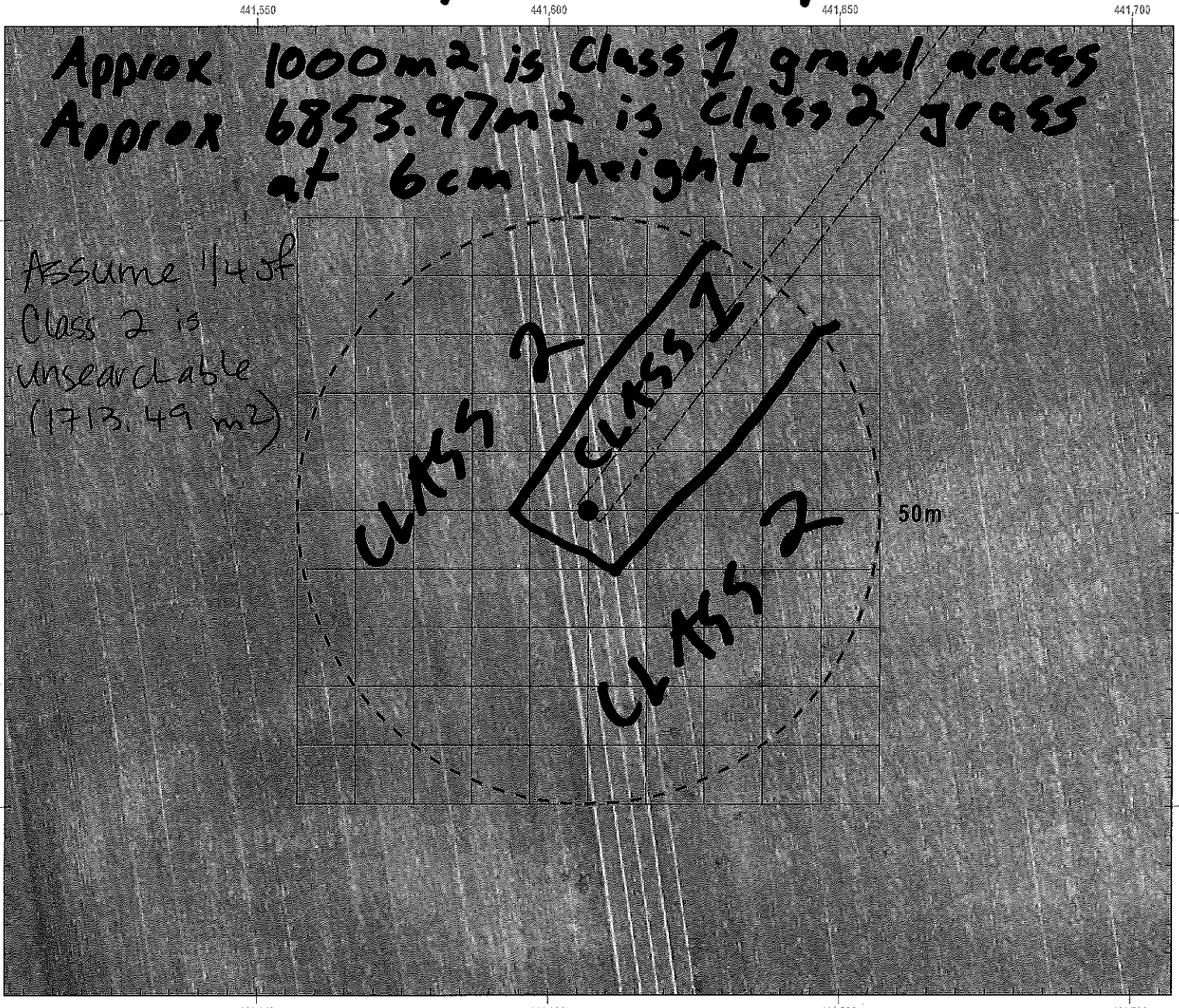
Site Number: T-42

Survey Date: July 12 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm

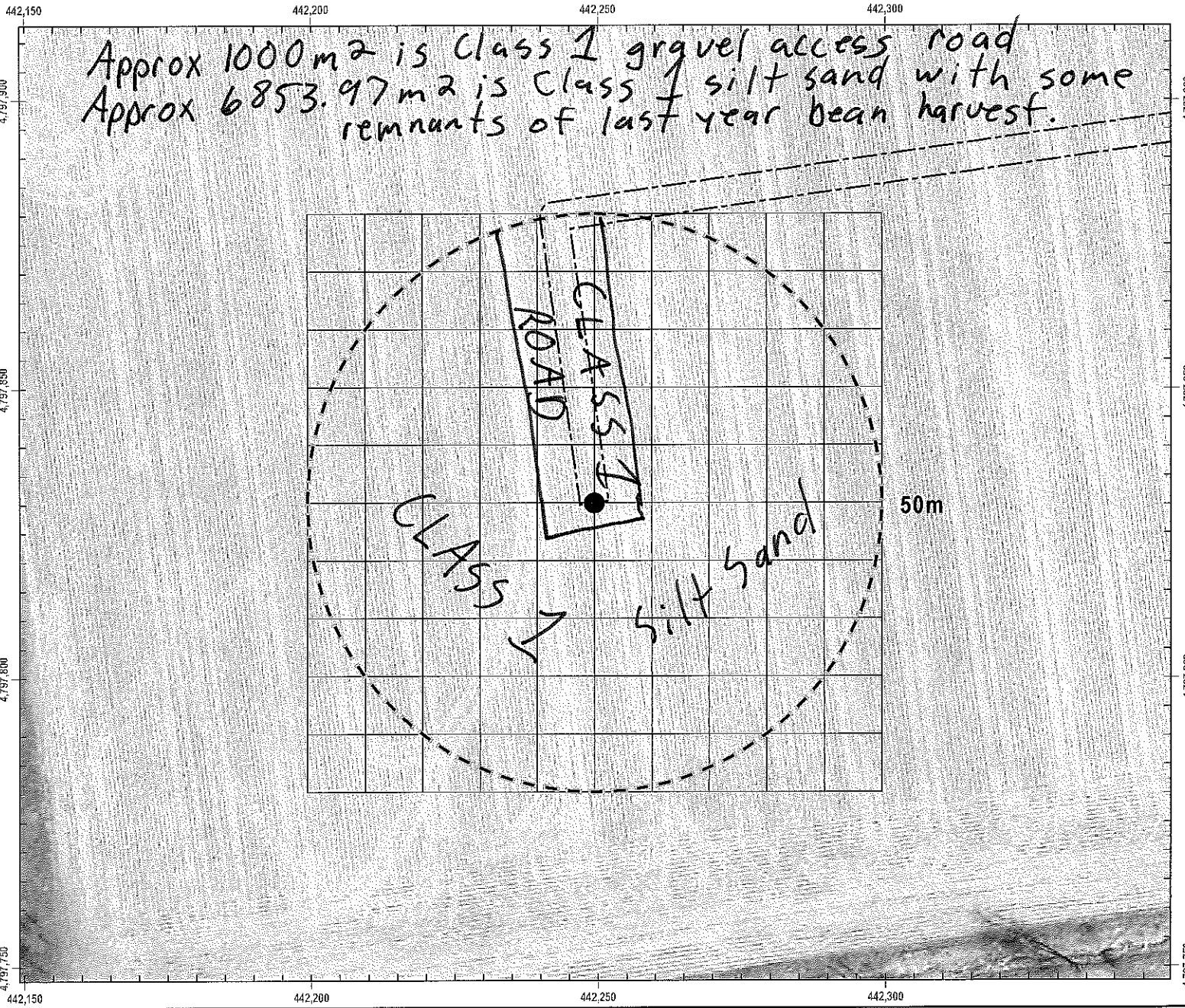
**Site Number:** T-43

**Survey Date:** May 7 118

**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

**Observers:** Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

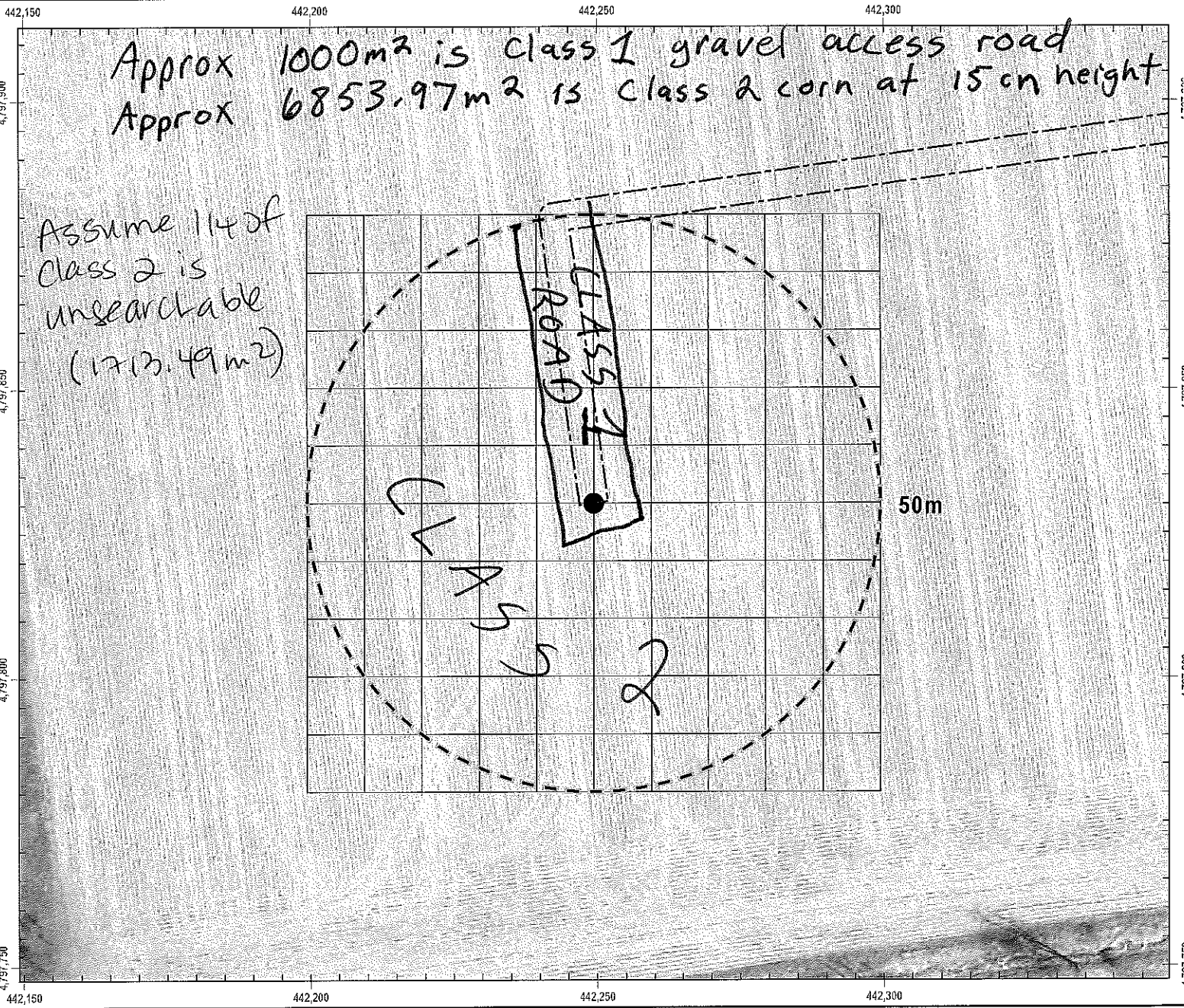
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-43

Survey Date: June 7 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97 m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

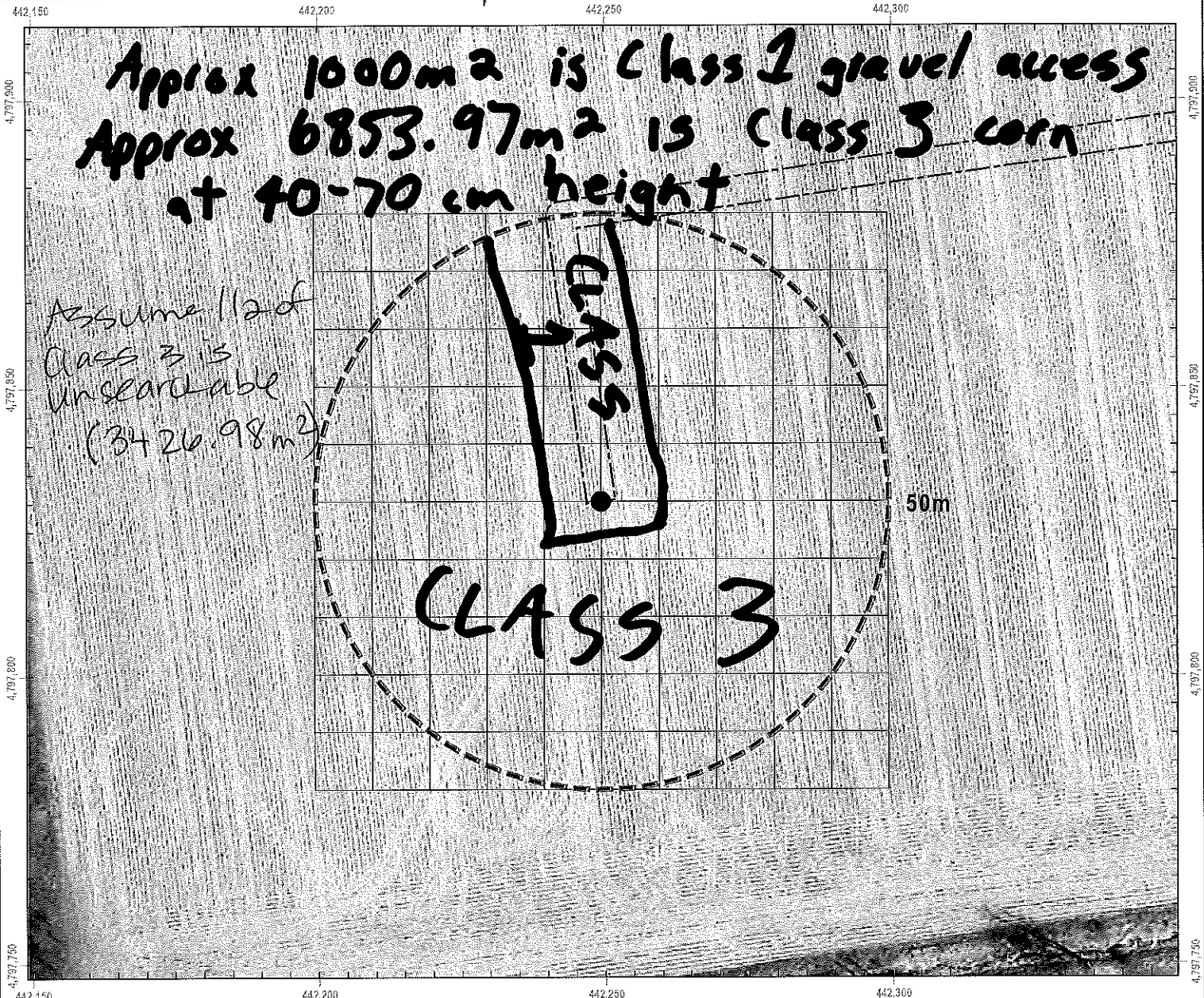
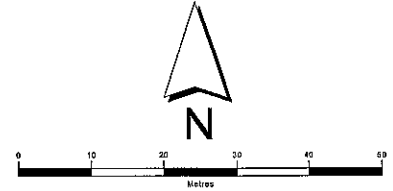
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-43

Survey Date: June 22 / 18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

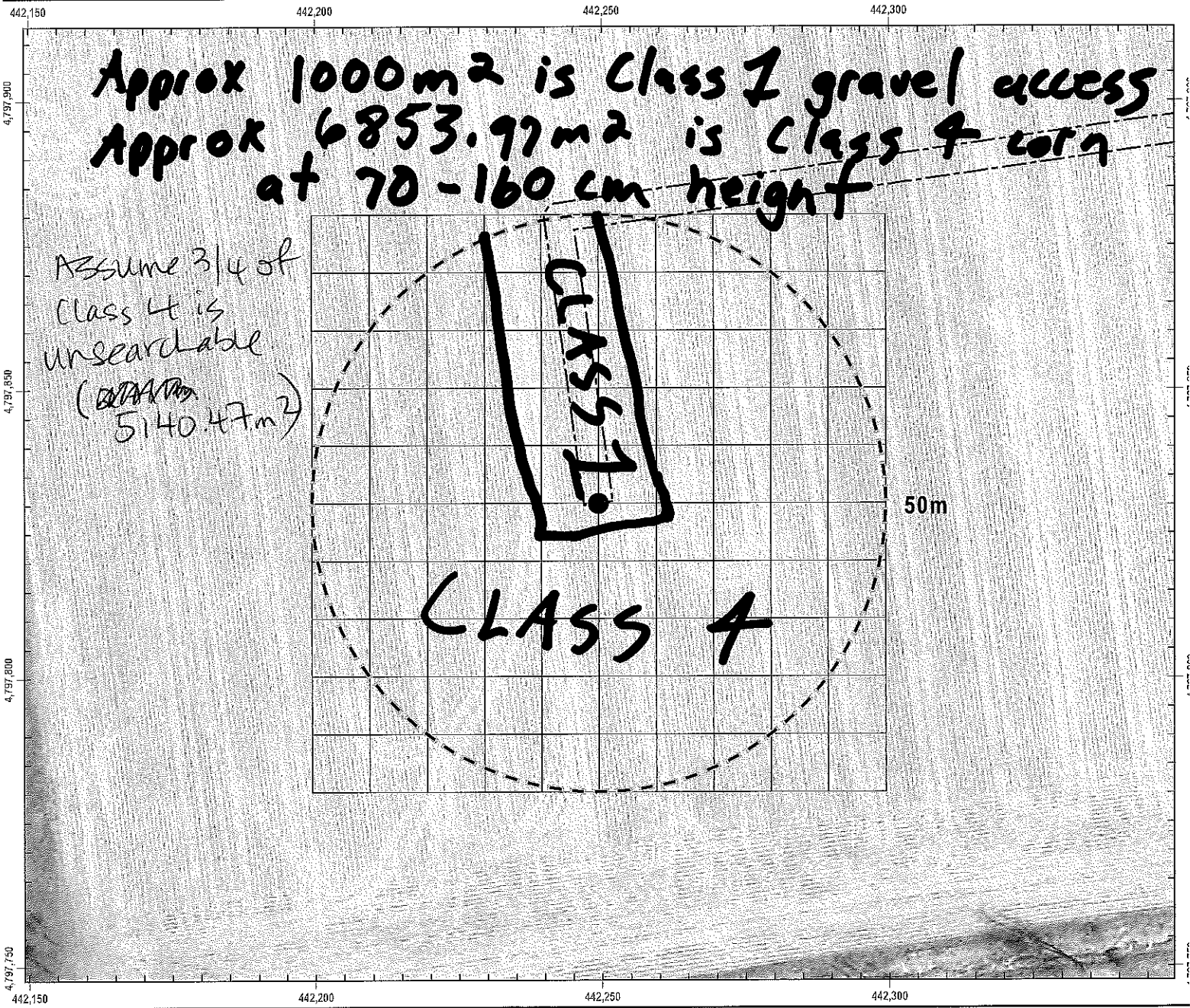
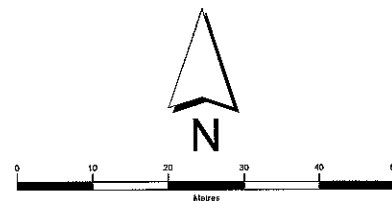


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-43  
 Survey Date: July 6 / 18  
 Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

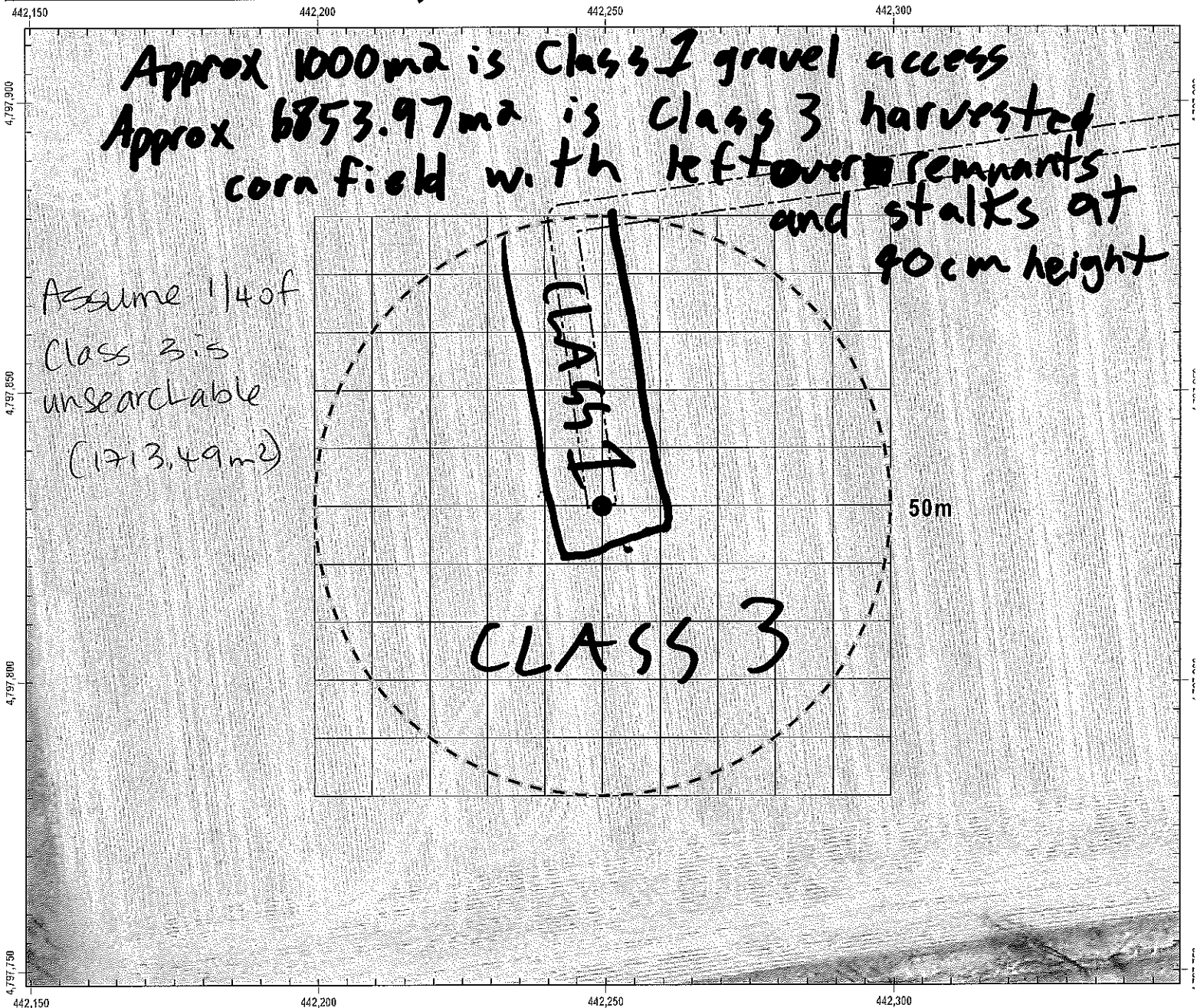
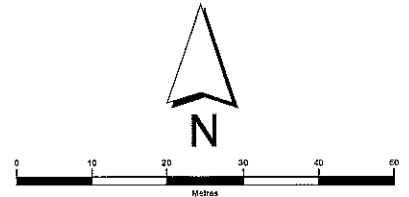
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-43

Survey Date: Oct 22/18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

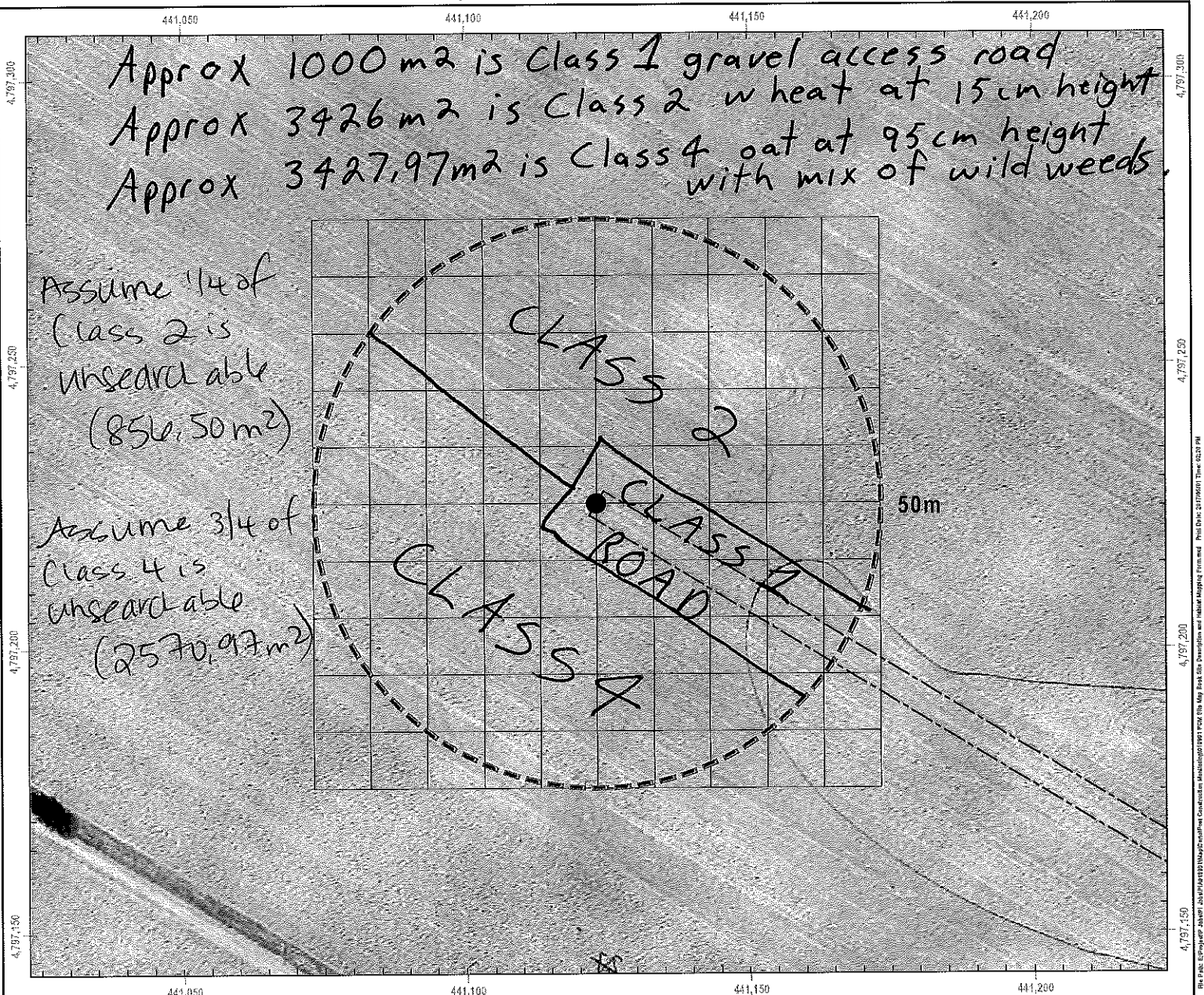
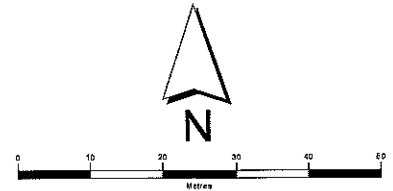
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-44

Survey Date: May 30 / 18

Actual Searched Area (m<sup>2</sup>): 4426.50 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry / Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

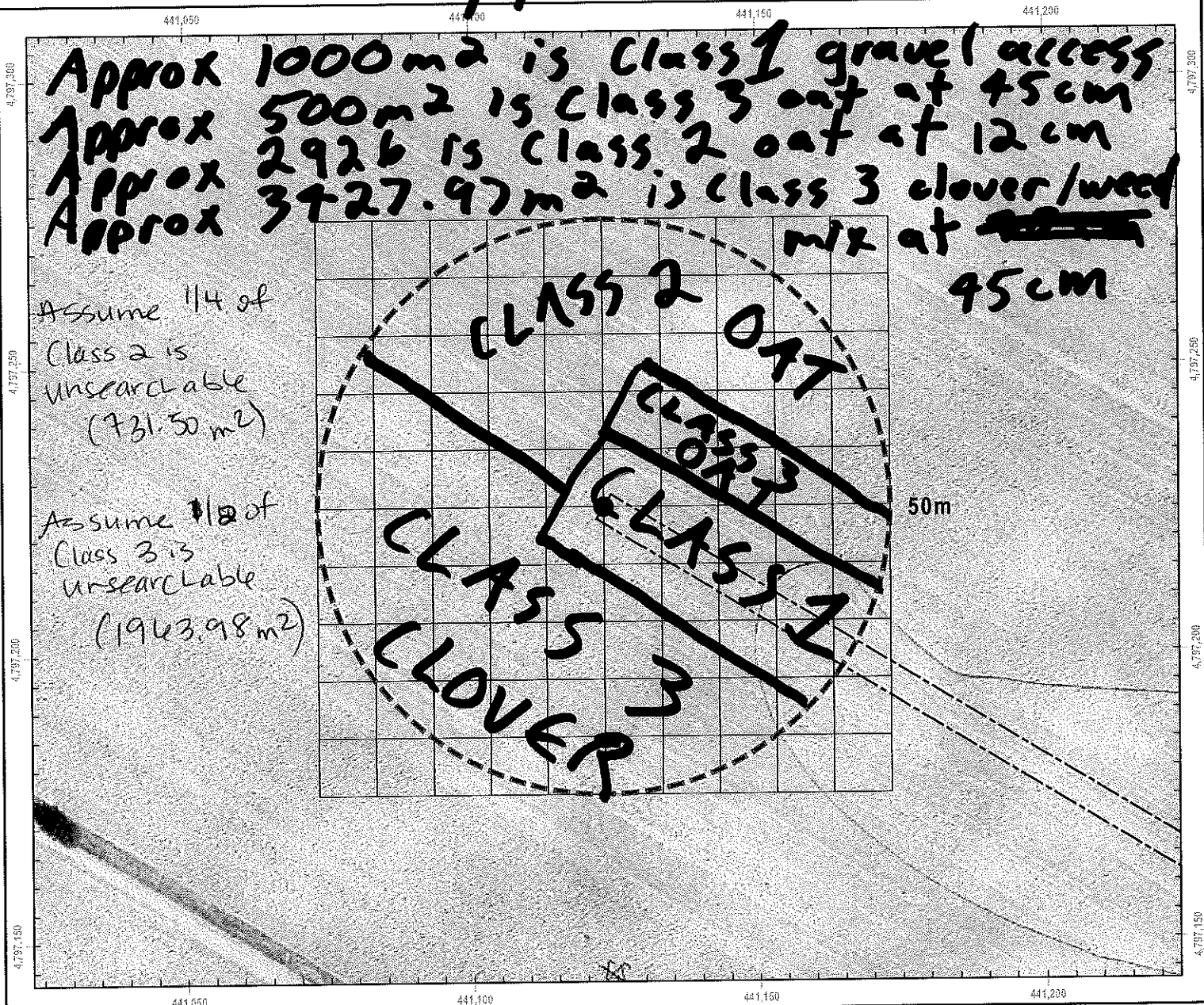
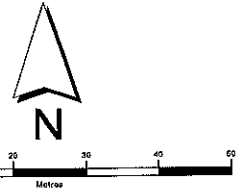
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-44

Survey Date: ~~July 25/18~~ June 28/18

Actual Searched Area (m<sup>2</sup>): 5158.49 m<sup>2</sup>  
(subtract from total search area 7853.97 m<sup>2</sup>)

Observers: Sam Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

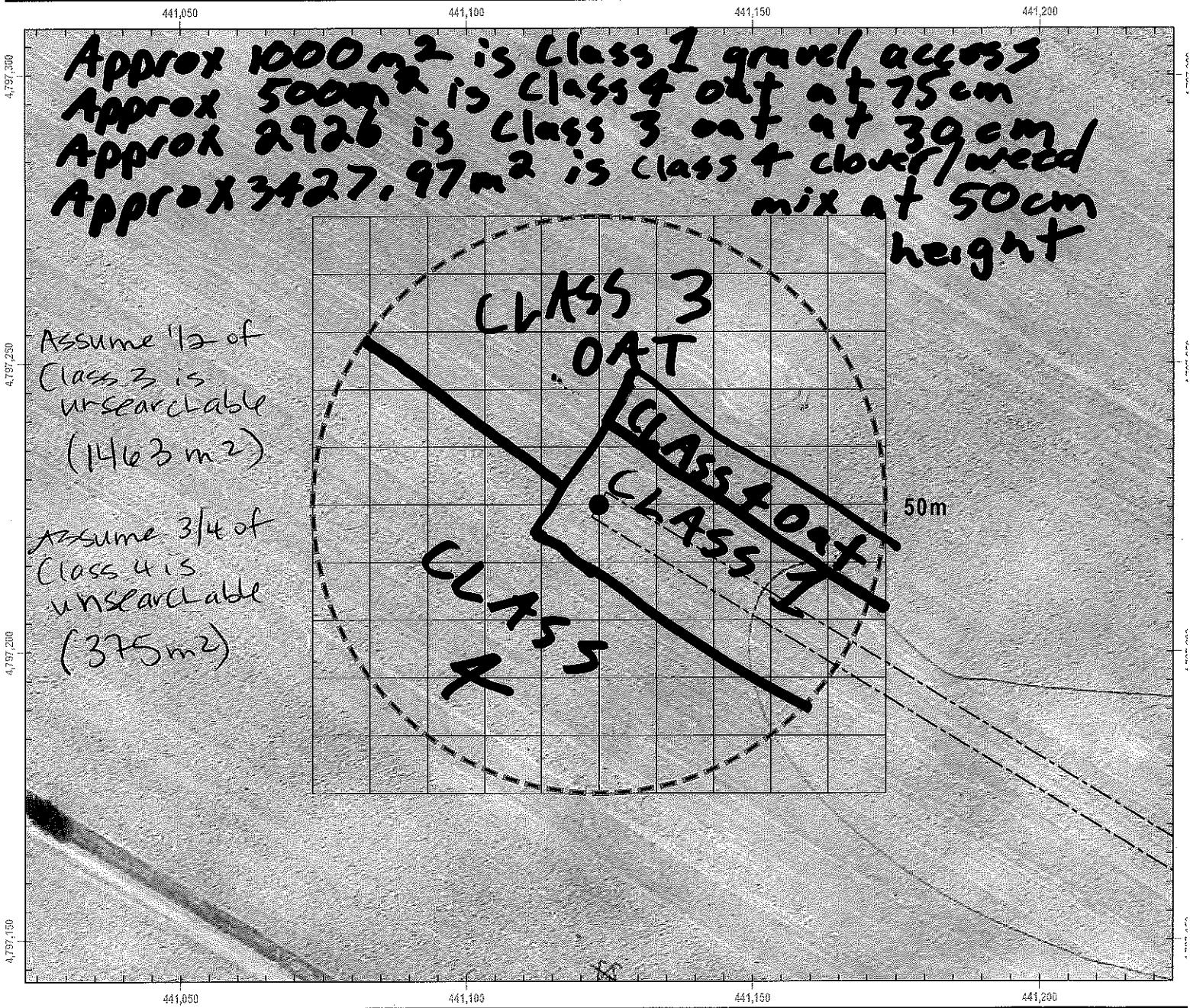
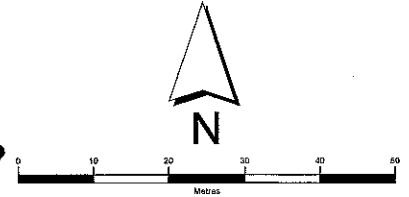


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-44  
 Survey Date: July 25/18  
 Actual Searched Area (m<sup>2</sup>): 0015.97m<sup>2</sup>  
(subtract from total search area - 7053.97m<sup>2</sup>)  
 Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

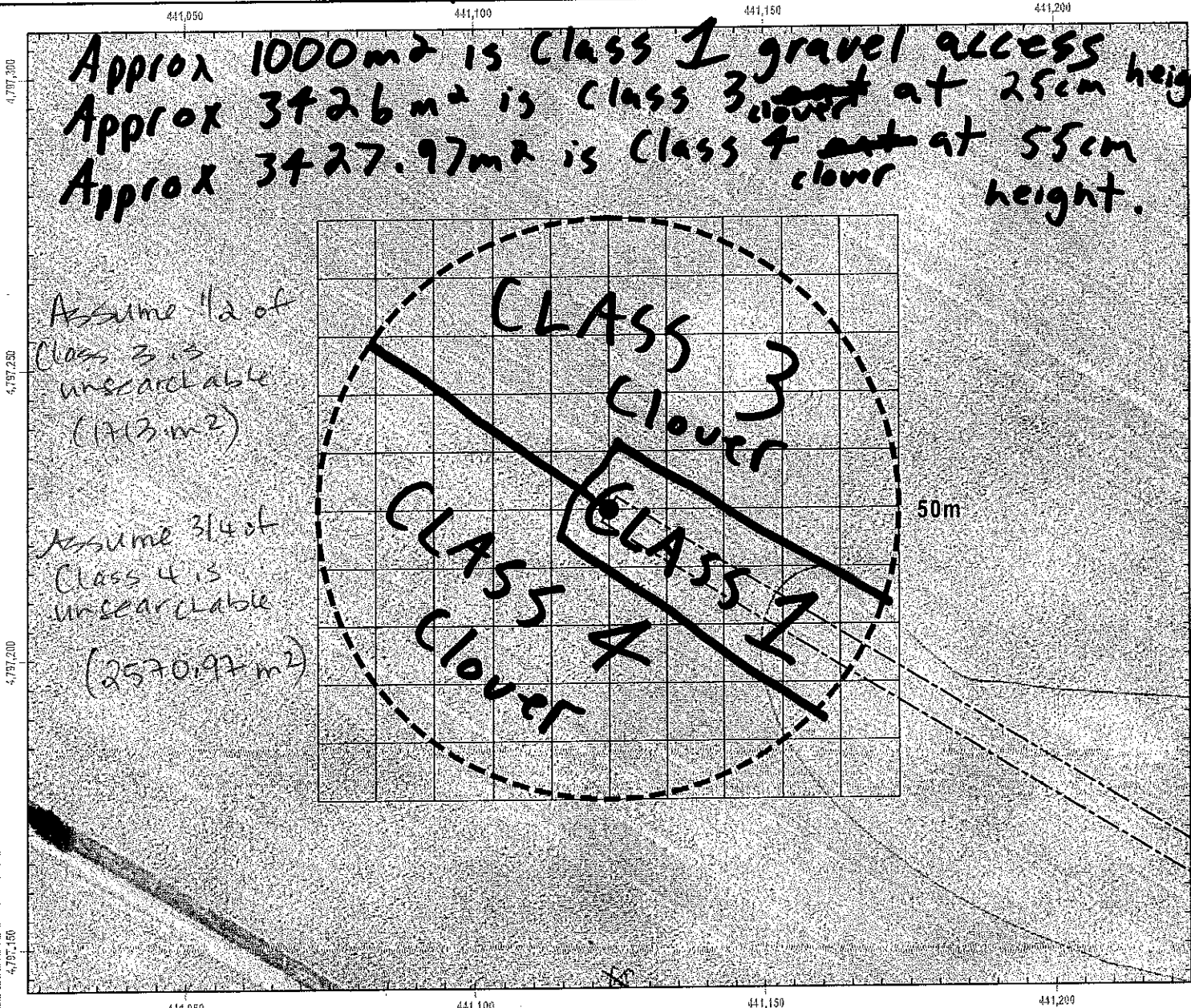
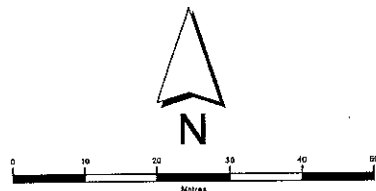
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-44

Survey Date: Aug 29/18

Actual Searched Area (m<sup>2</sup>): 3570 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Doleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.









# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

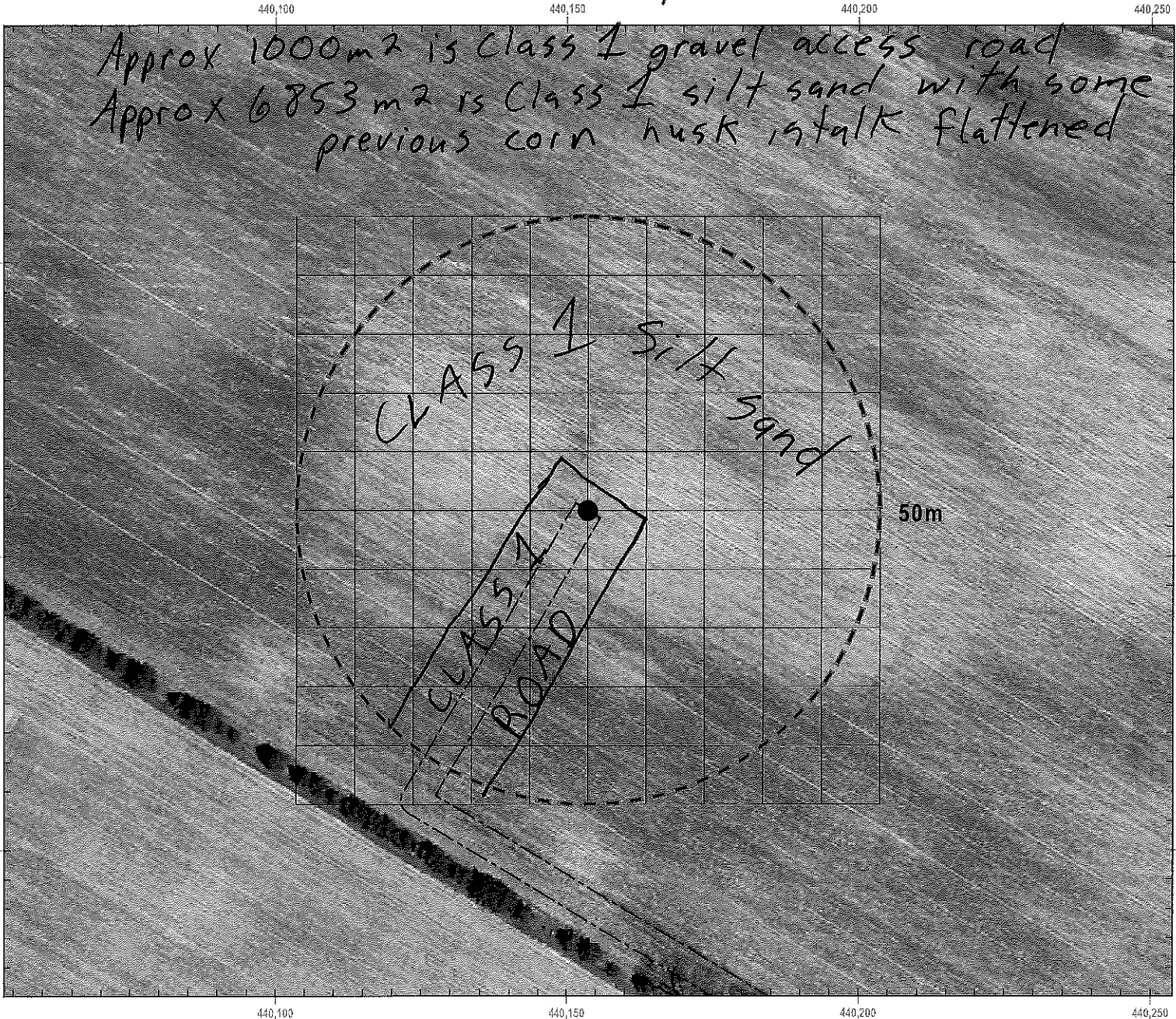
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-45

Survey Date: May 30 / 18

Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

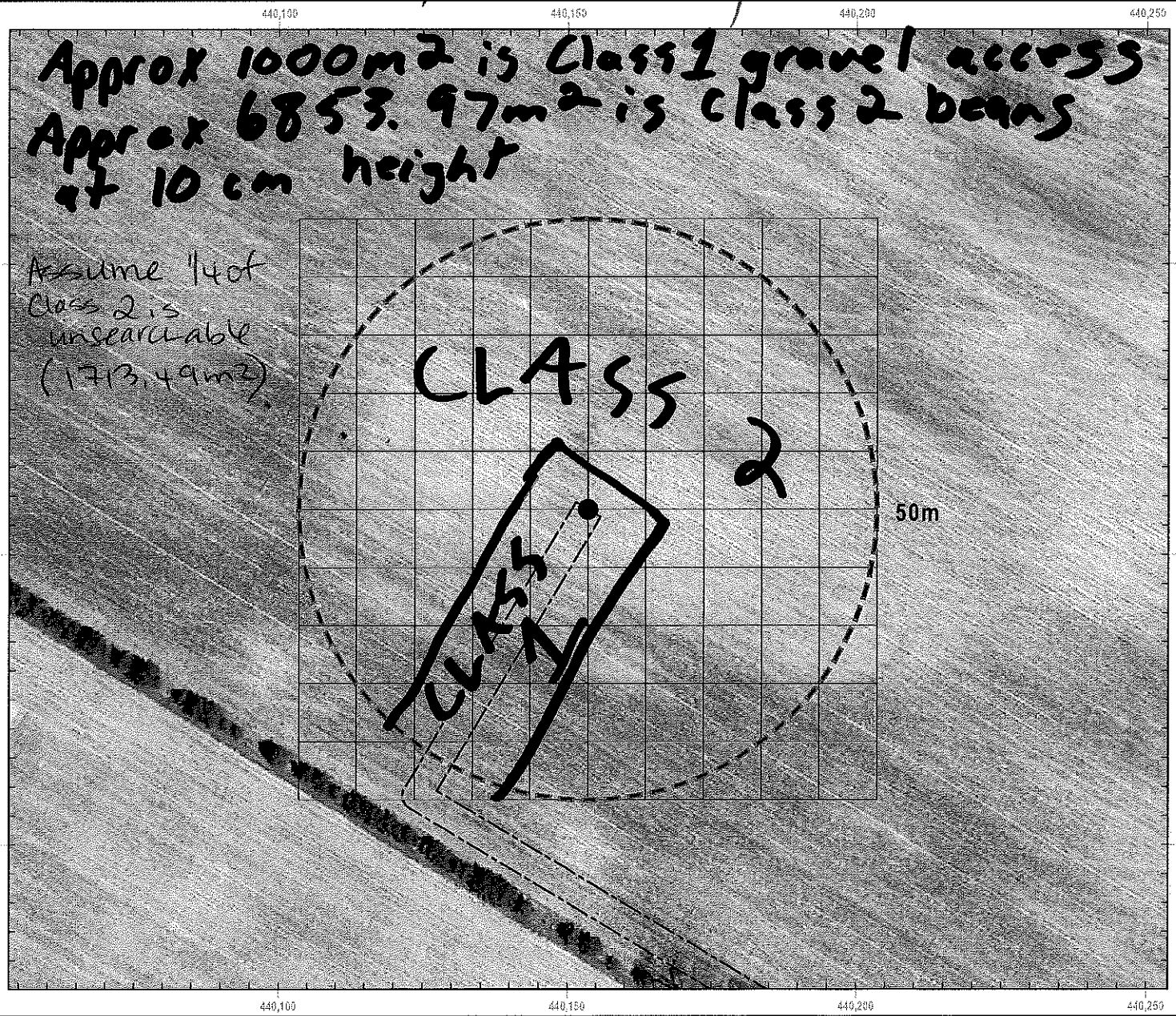
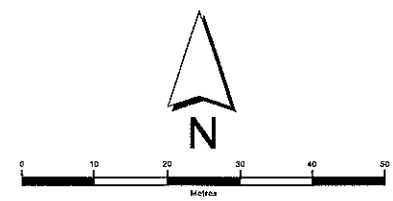
Site Number: T-45

Survey Date: June 28 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



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File Path: E:\Projects\Jobs\PIA019991\Map\Cartoon\Construction\Construction\PIA019991\_PIA019991\_Map\_Site\_Inspection\_and\_Habitat\_Mapping\_Form.mxd Print Date: 20/11/2018 Time: 12:28 PM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

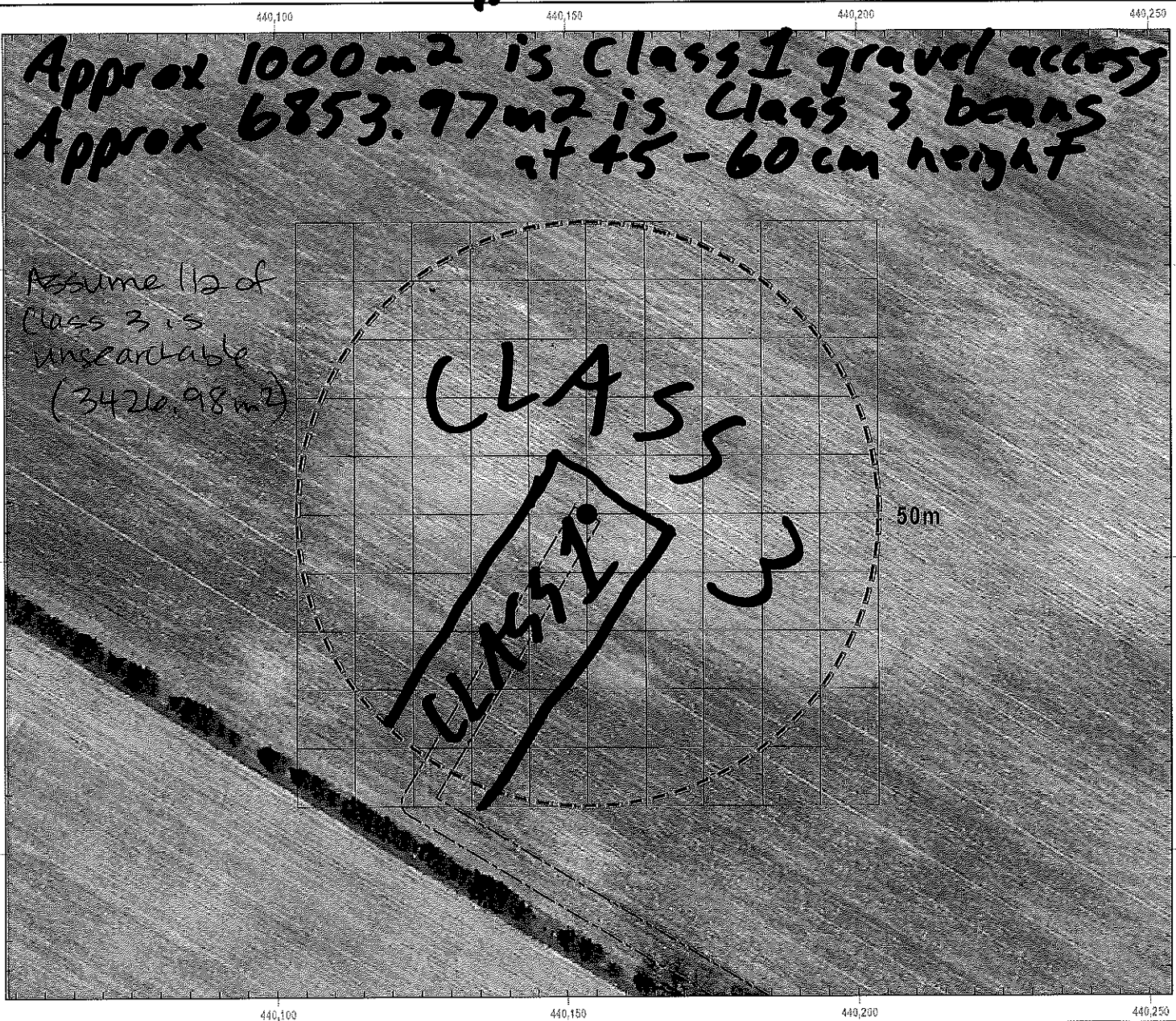
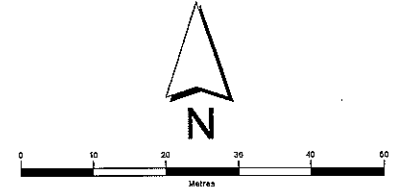
Site Number: T-45

Survey Date: July 25/18

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleany



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



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File Path: C:\ProgramData\Burnside\MapServer\workspace\workspace\1991\_P01\_Site\_Map\_Site\_Description\_and\_Habitat\_Mapping\_Form.mxd Print Date: 2018/07/25 Time: 02:28 PM

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

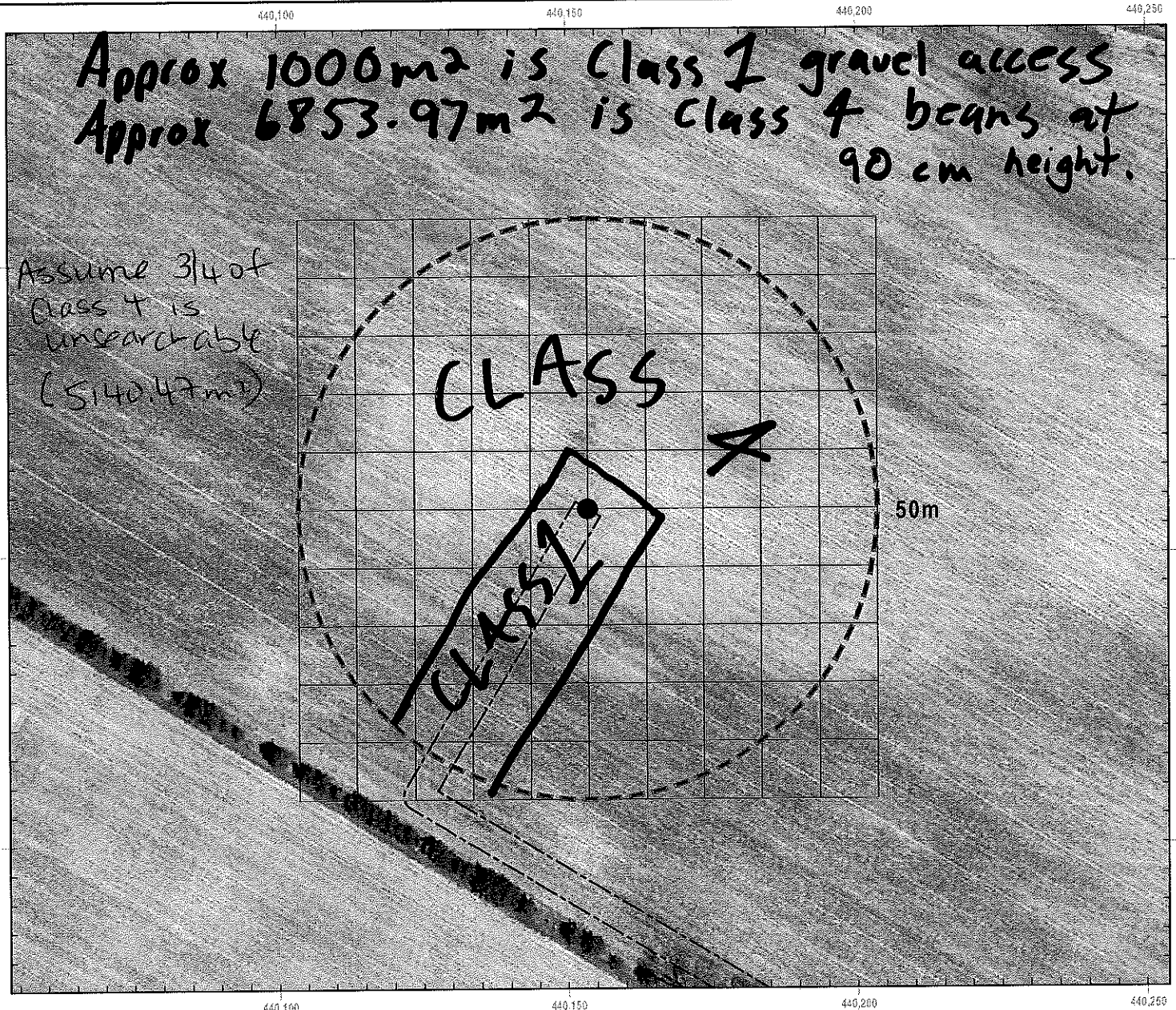
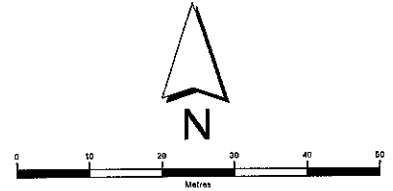
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-45

Survey Date: Aug 29 / 18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

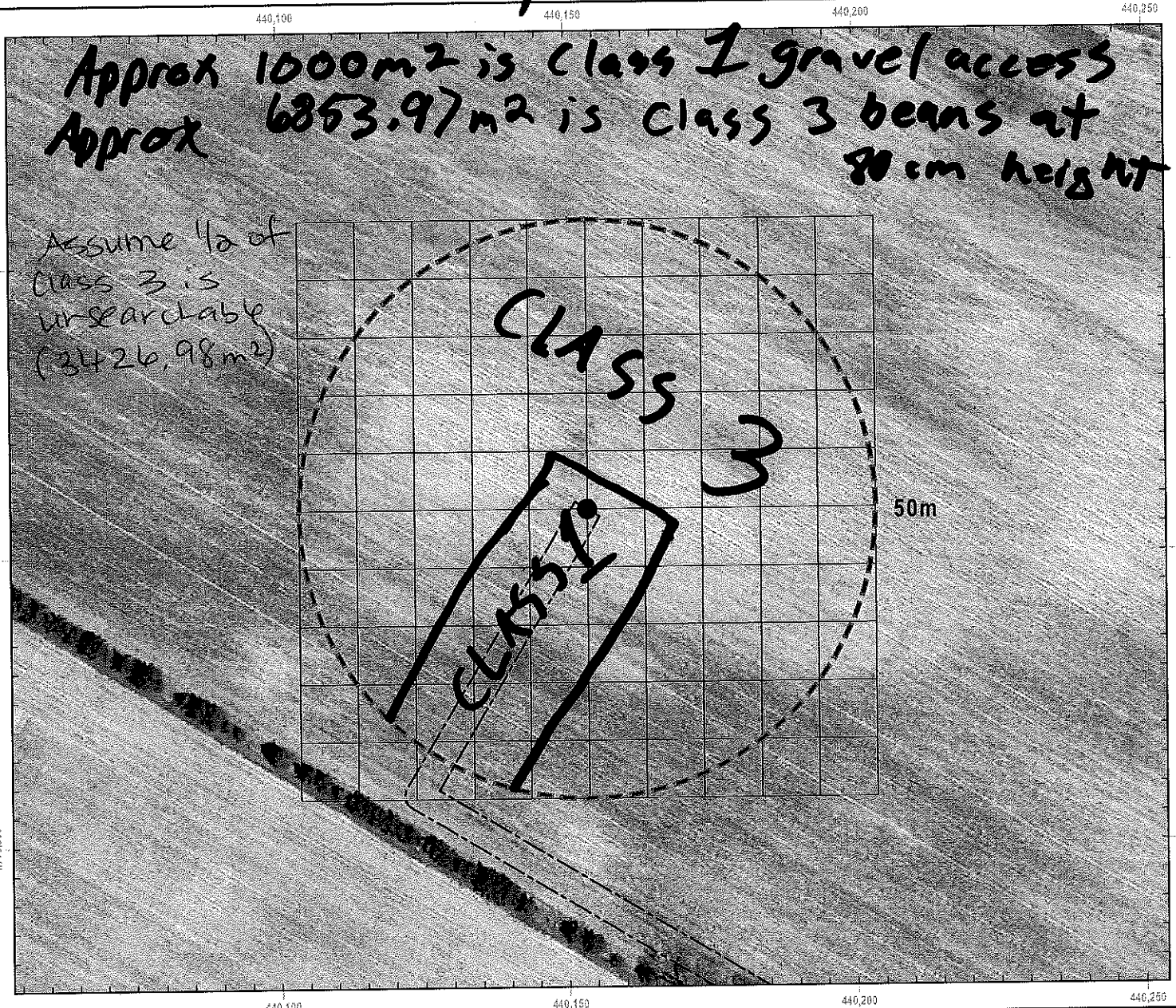
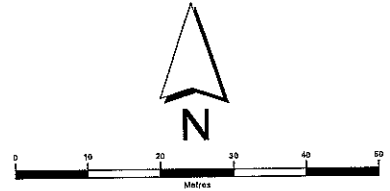
Site Number: T-45

Survey Date: Sept 26 / 2018

Actual Searched Area (m<sup>2</sup>): 4426.99 m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



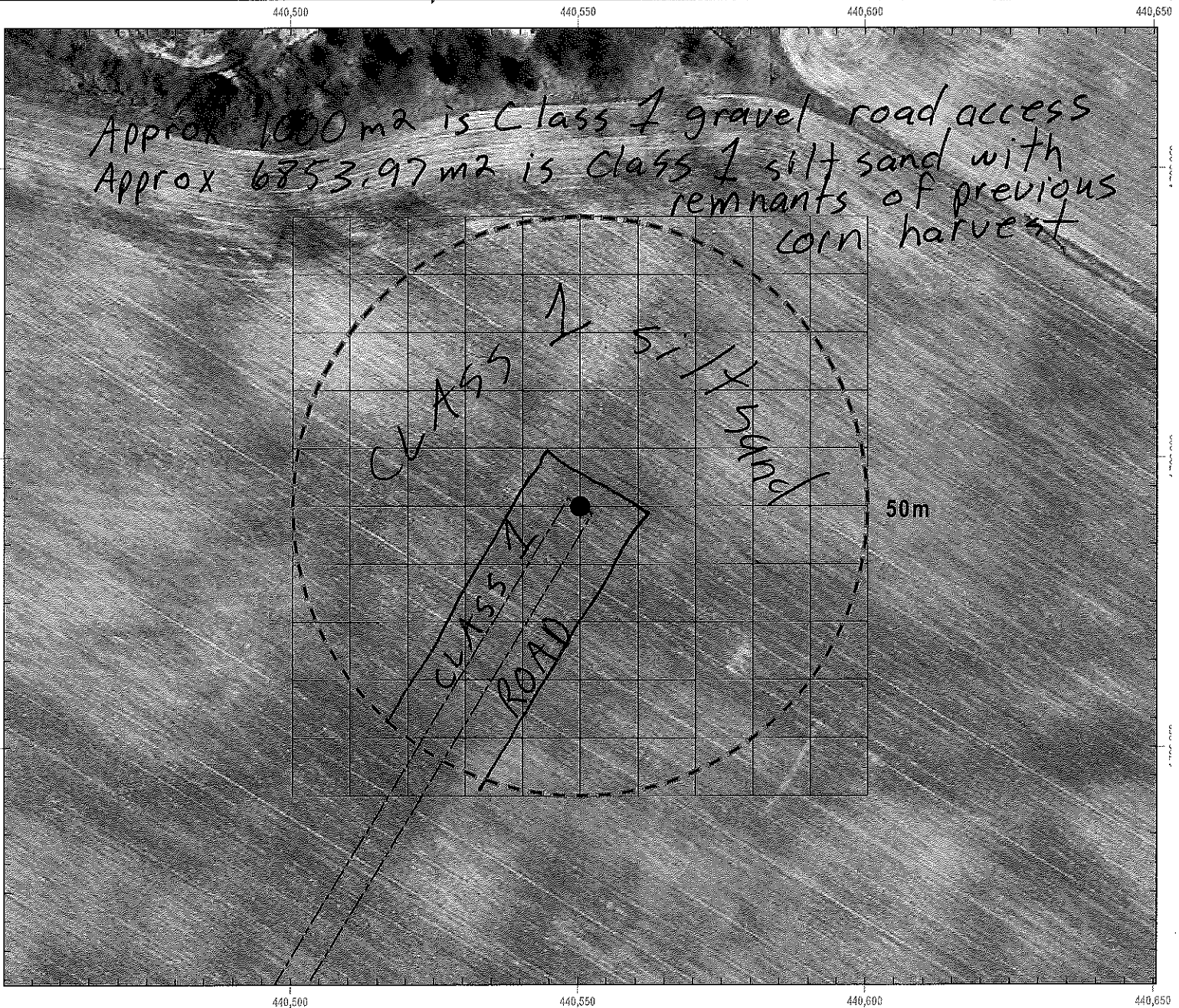
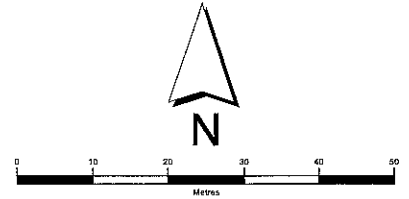


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

**Project Name:** PIA019991.0005 Grand Bend Wind Farm  
**Site Number:** T-46  
**Survey Date:** May 7, 2018  
**Actual Searched Area (m<sup>2</sup>):** 7853.97 m<sup>2</sup>  
*(subtract from total search area - 7853.97 m<sup>2</sup>)*  
**Observers:** Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

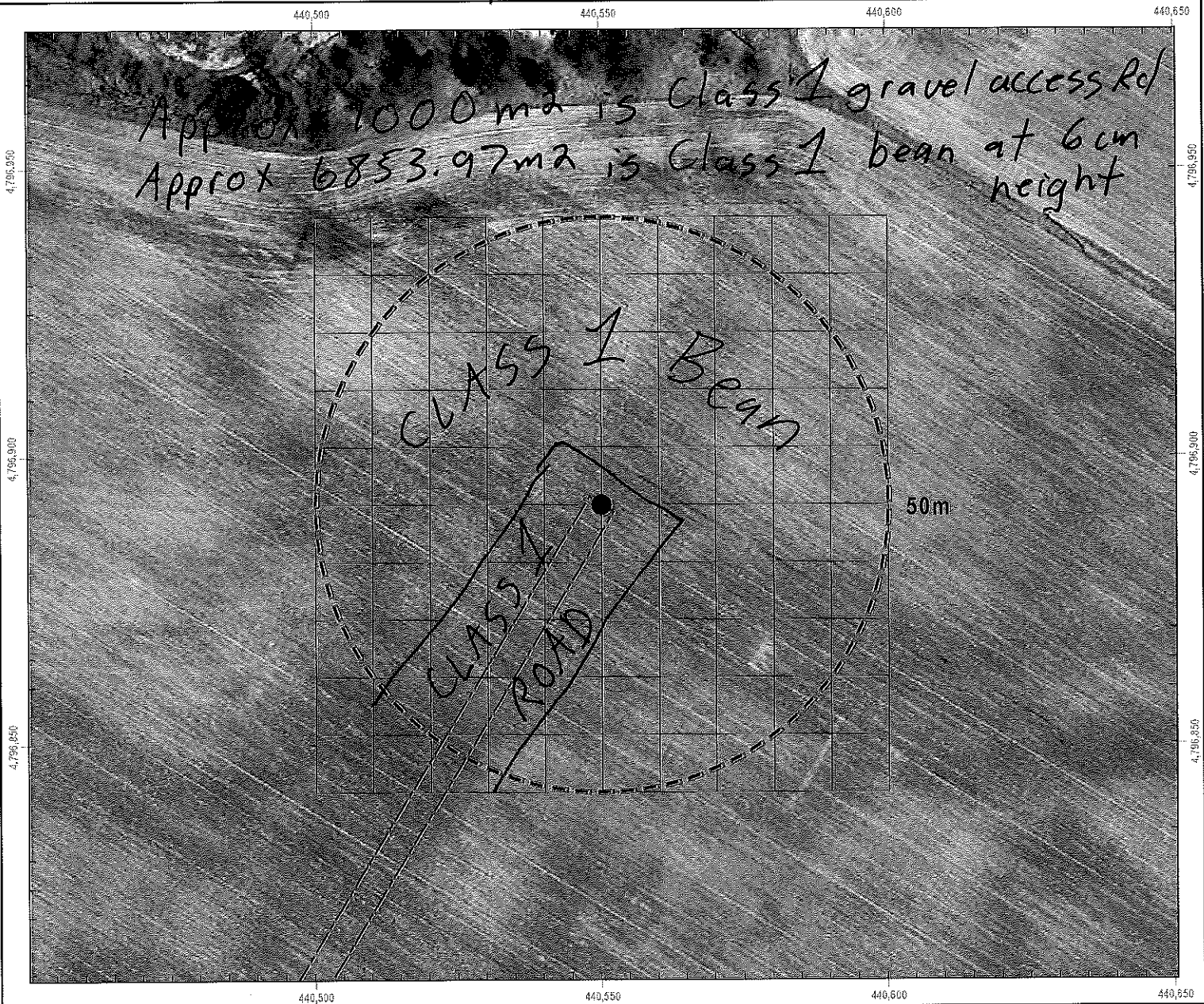
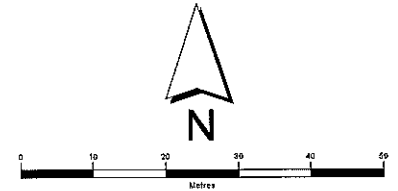


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-46  
 Survey Date: June 18/18  
 Actual Searched Area (m<sup>2</sup>): 7853.97 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

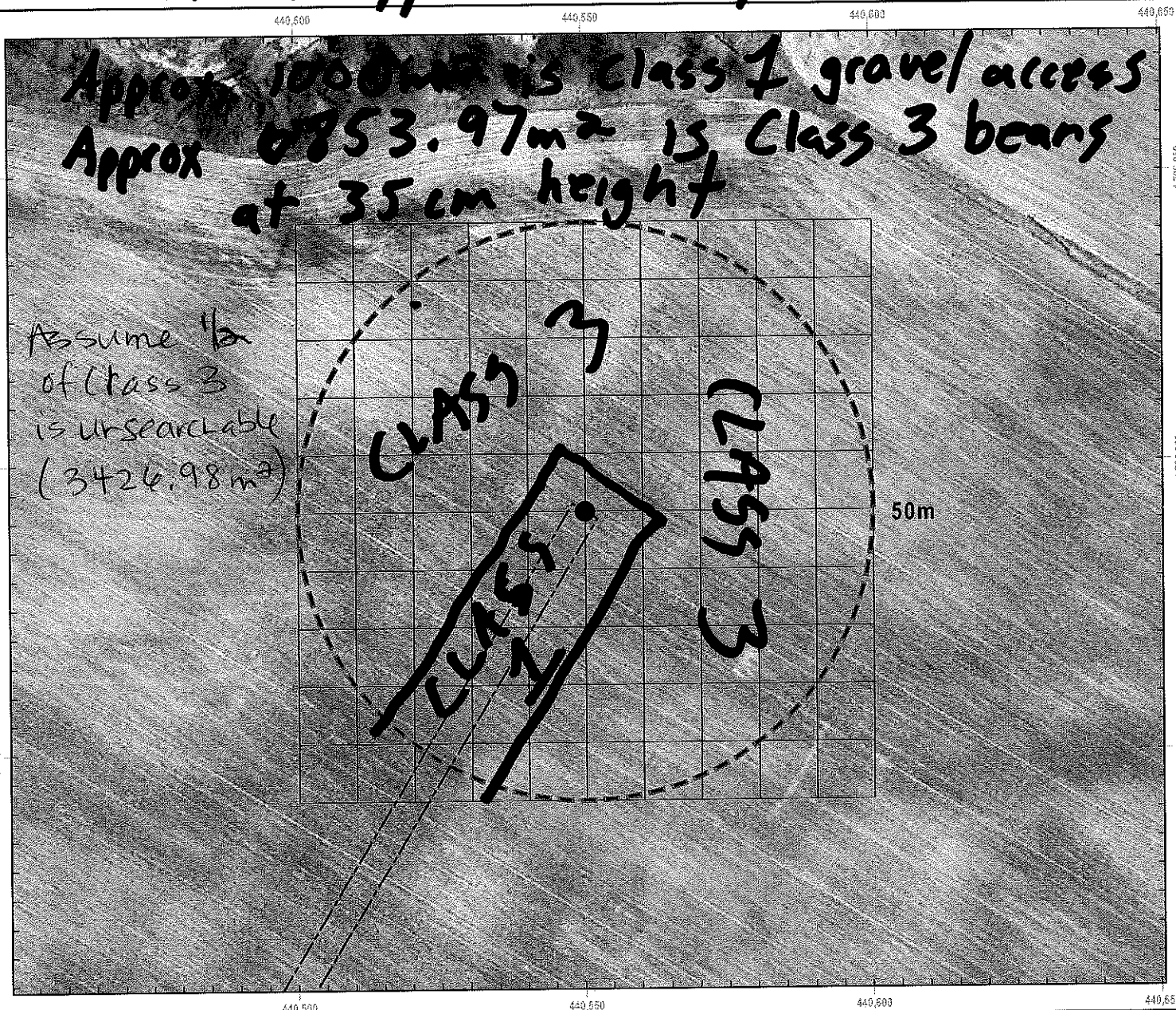
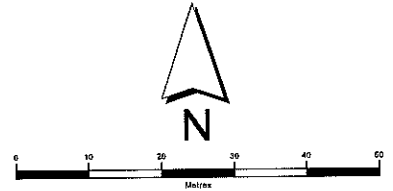
Site Number: T-46

Survey Date: July 23/18

Actual Searched Area (m<sup>2</sup>): 4426.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



The Photo Evidence™ is a registered trademark of Burnside Consulting Inc. © 2018 Burnside Consulting Inc. All rights reserved.

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

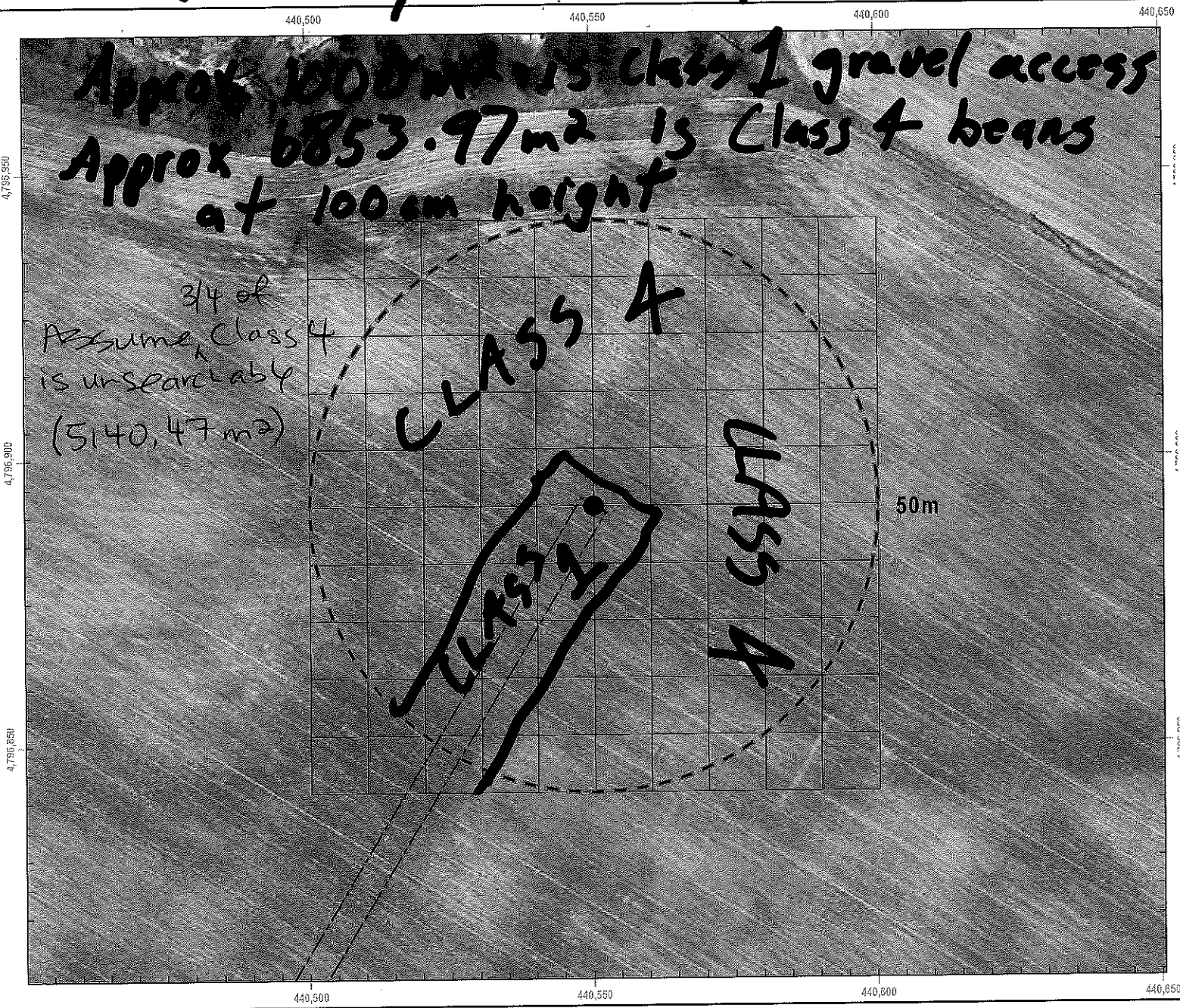
Site Number: T-46

Survey Date: Aug 9/18

Actual Searched Area (m<sup>2</sup>): 2713.50m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry Sarah Delaney



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.

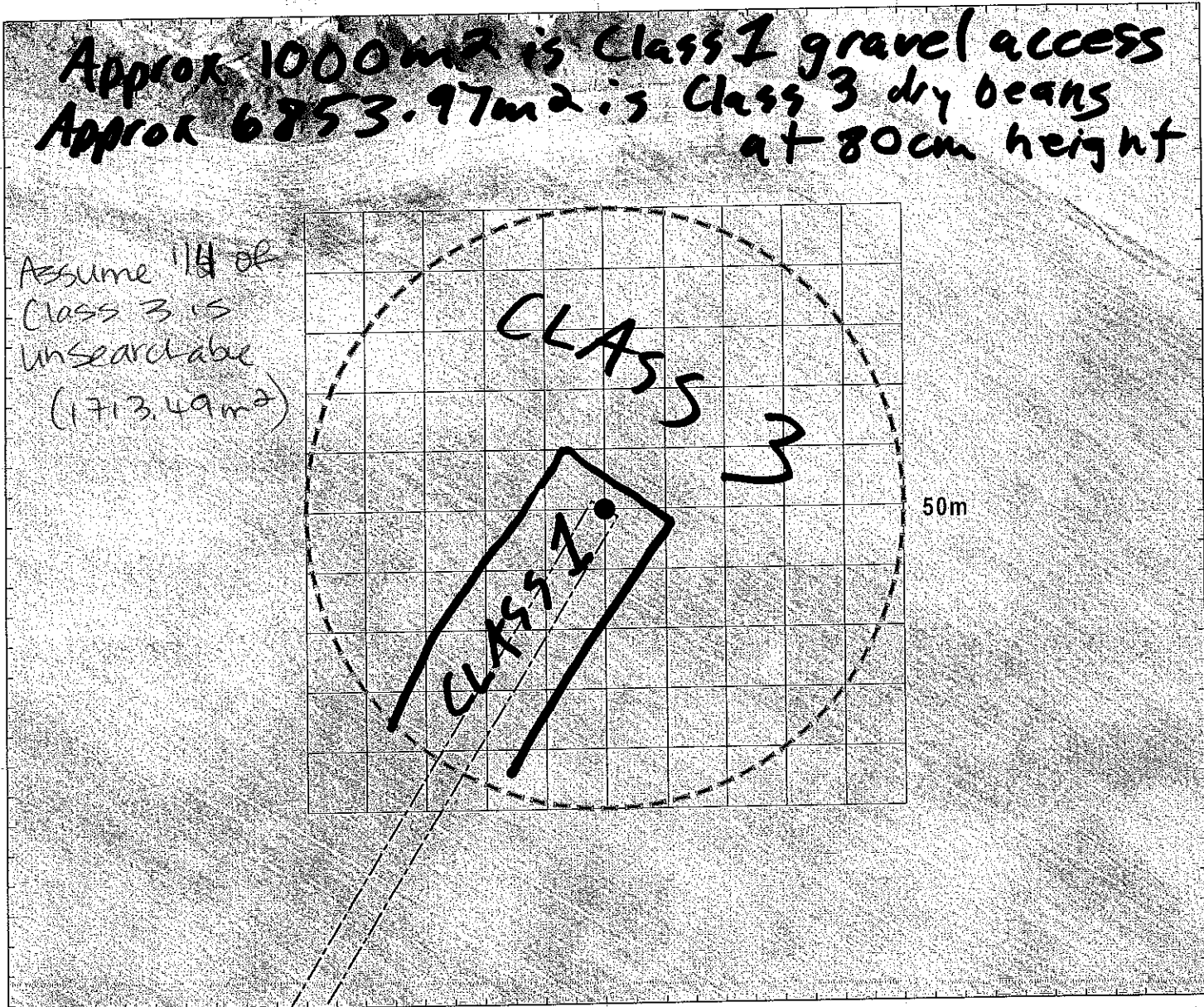
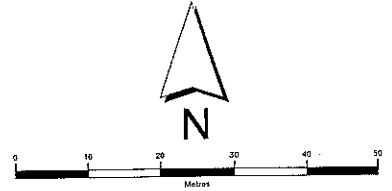


# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm  
 Site Number: T-46  
 Survey Date: Oct 4/13  
 Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)  
 Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



Dr. Paul E. Hester, Project Leader, Burnside Environmental Consulting, 10000 Burnside Drive, Burnside, BC V5A 4K6, Canada, Tel: 250-333-1111, Fax: 250-333-1112

# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

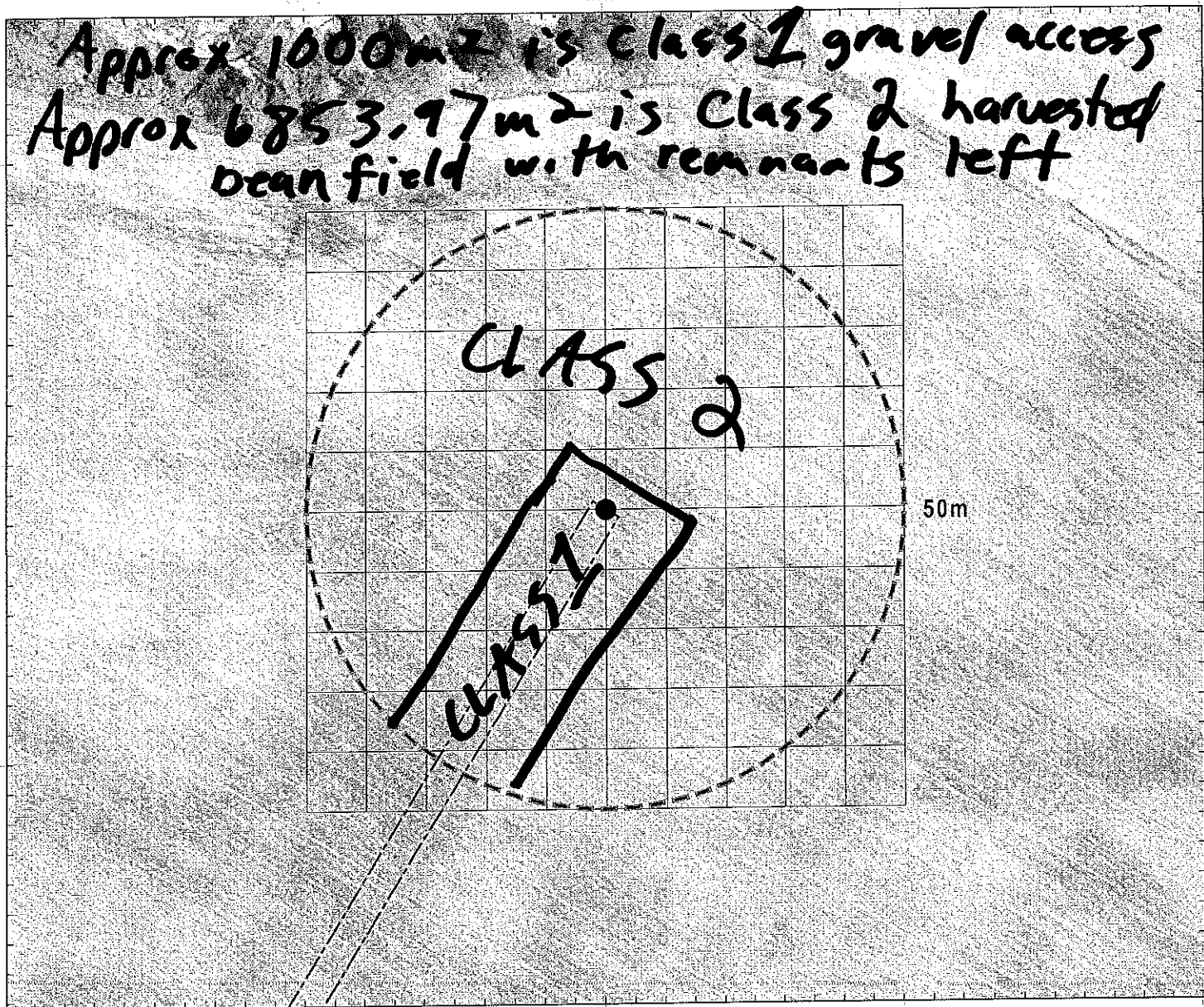
Site Number: T-46

Survey Date: Oct 15/18

Actual Searched Area (m<sup>2</sup>): 7853.97m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

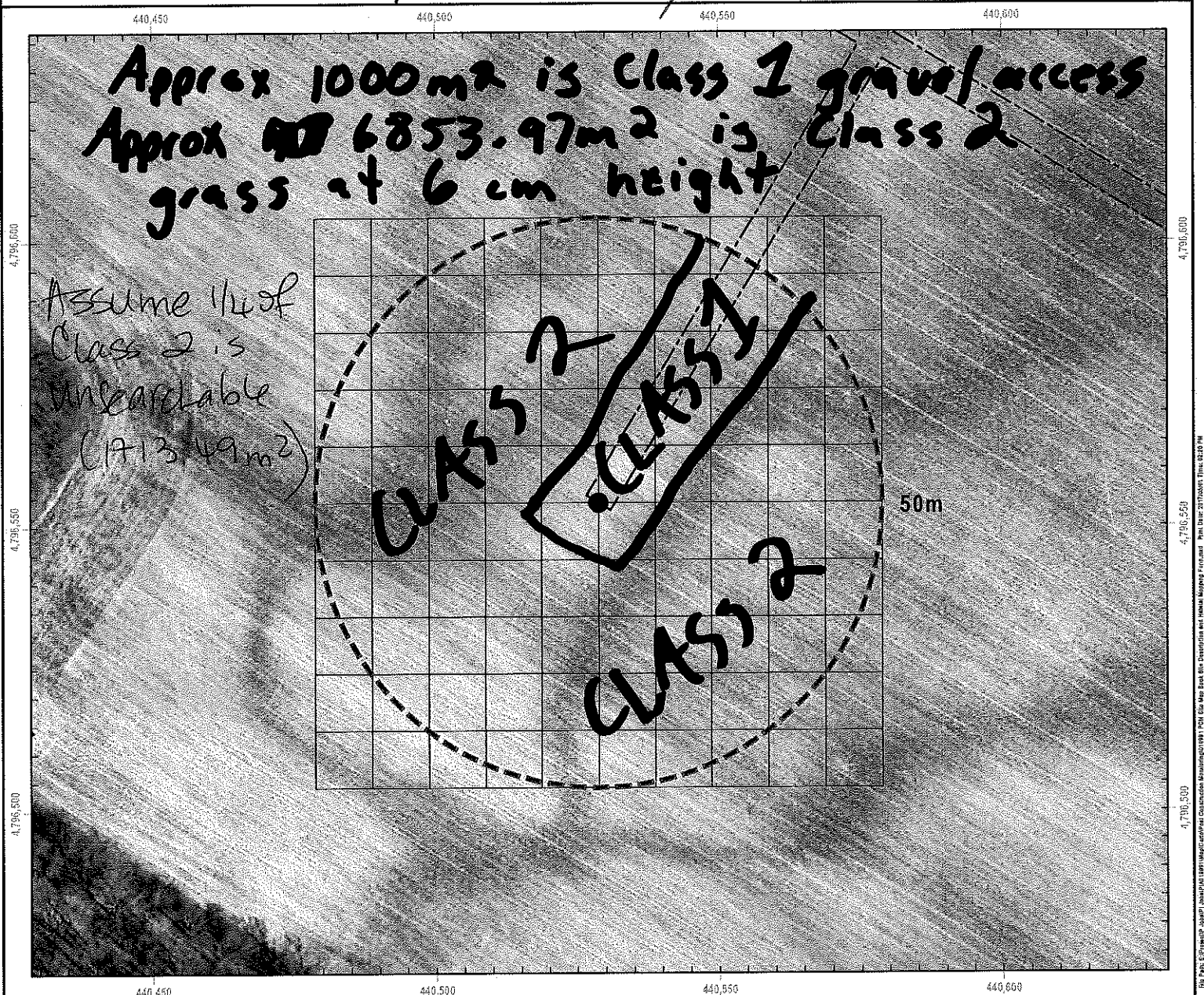
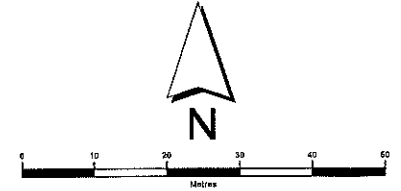
Project Name: PIA019991.0005 Grand Bend Wind Farm

Site Number: T-48

Survey Date: July 9 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48 m<sup>2</sup>  
(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.



File Path: E:\Project\PIA019991\Map\MapData\Classified\_Monitoring\PIA019991\_T-48\_May\_2018\_Bird\_Survey\PIA019991\_T-48\_May\_2018\_Bird\_Survey\_Fullprint\_PostDate\_20180618\_T-48.mxd



# WIND ENERGY BIRD AND BAT MONITORING (POST-CONSTRUCTION)

## Site Description and Habitat Mapping Form (Carcass Searches)

Map the search plot, indicating visibility classes, substrate, and area searched. Include vegetation height and type (i.e. soy, corn). Include photographs that face North, South, East, and West that document current vegetation conditions of the search area.

Project Name: PIA019991.0005 Grand Bend Wind Farm

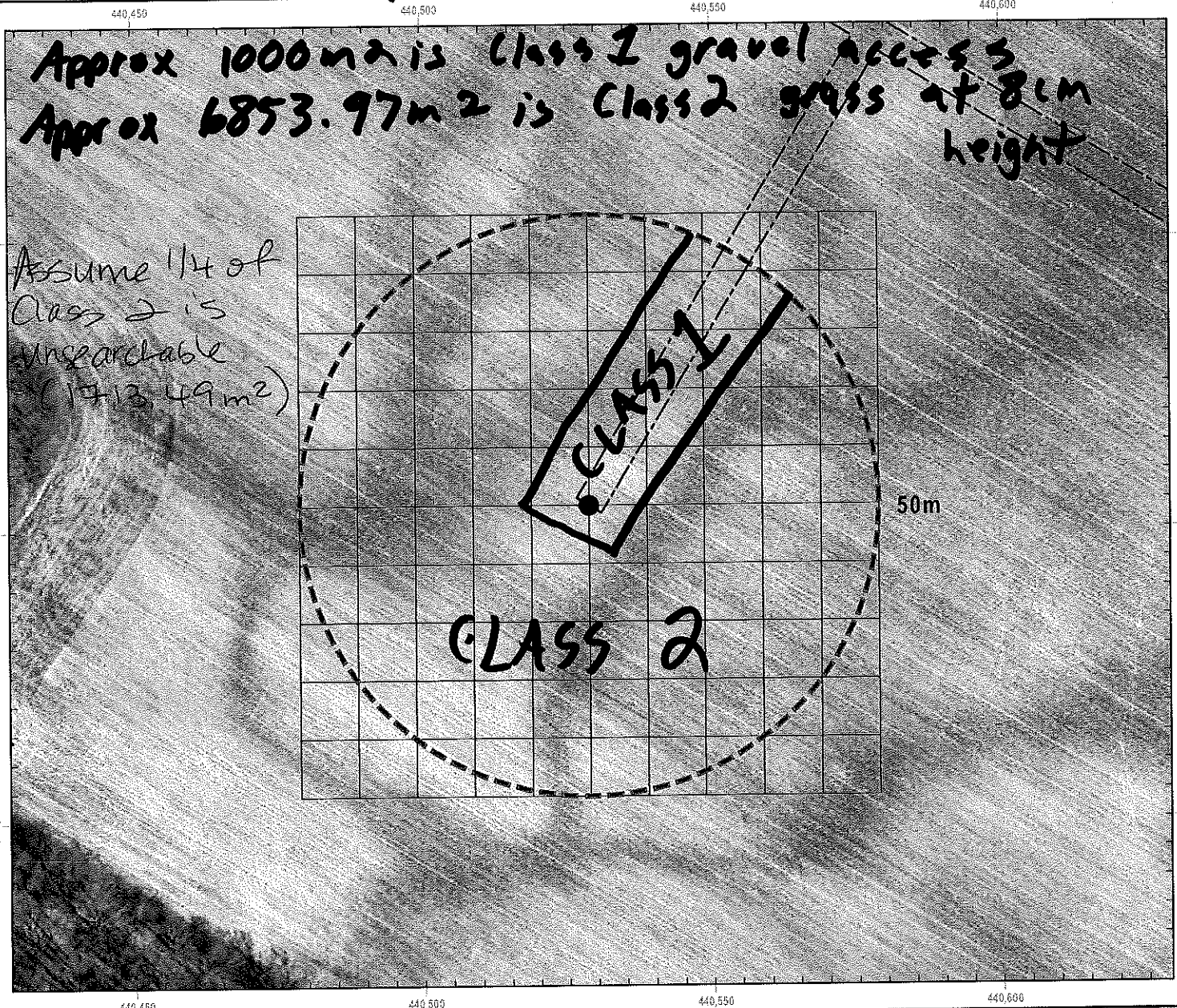
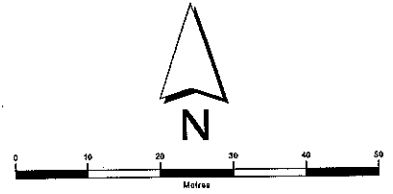
Site Number: T-48

Survey Date: Sept 6 / 18

Actual Searched Area (m<sup>2</sup>): 6140.48m<sup>2</sup>

(subtract from total search area - 7853.97m<sup>2</sup>)

Observers: Sara Henry, Sarah Deleary



% Vegetation Cover	Vegetation Height	Visibility Class
≥ 90% bare ground	≤ 15cm tall	Class 1 (Easy)
≥ 25% bare ground	≤ 15cm tall	Class 2 (Moderate)
≤ 25% bare ground	≤ 25% > 30cm tall	Class 3 (Difficult)
Little or no bare ground	≥ 25% > 30cm tall	Class 4 (Very Difficult)

SEARCH AREA IS DISPLAYED AS 10M BY 10M SQUARE GRIDS.





**BURNSIDE**

[ THE DIFFERENCE IS OUR PEOPLE ]

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## Appendix E

### Post-Construction Monitoring Raw Data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	<b>Appendix E - Table 1</b>														
2	<b>Grand Bend Wind Farm Year 2 Mortality Monitoring Header Data - 2018</b>														
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
4	T-01	Raptor Mortality	2018-05-09	Spring	09:52	10:50	Sara & Sarah	206	5	20	14	None	0	None	
5	T-01	Raptor Mortality	2018-06-06	Summer	11:25	11:45	Sara & Sarah	28	5	13	14	None	100	None	
6	T-01	Raptor Mortality	2018-07-04	Summer	10:19	11:00	Sara	28	5	29	8	None	0	None	
7	T-01	Raptor Mortality	2018-08-08	Summer	09:46	10:07	Sara & Sarah	35	5	21	10	None	100	Thunderstorm	Overnight
8	T-01	Raptor Mortality	2018-09-05	Fall	09:41	10:03	Sara & Sarah	28	5	28	13	None	10	None	
9	T-01	Raptor Mortality	2018-10-03	Fall	11:09	11:47	Sara	28	5	12	14	None	100	Light rain,Intermittent rain	Sunday through Tuesday
10	T-01	Raptor Mortality	2018-11-08	Fall	13:55	14:35	Sara	35	5	4	18	None	100	None	
11	T-02	Sub-sample	2018-05-01	Spring	09:47	10:43	Sara & Sarah	155	5	20	14	None	0	None	
12	T-02	Sub-sample	2018-05-04	Spring	10:01	10:32	Sara & Sarah	3	5	20	29	None	75	Thunderstorm	
13	T-02	Sub-sample	2018-05-07	Spring	10:03	10:40	Sara & Sarah	3	5	17	14	None	0	None	
14	T-02	Sub-sample	2018-05-10	Spring	10:25	11:00	Sara & Sarah	3	5	19	14	None	15	None	
15	T-02	Sub-sample	2018-05-14	Spring	16:08	16:38	Sara & Sarah	4	5	21	11	None	100	None	
16	T-02	Sub-sample	2018-05-17	Spring	10:20	10:43	Sara & Sarah	3	5	21	10	None	0	None	
17	T-02	Sub-sample	2018-05-21	Spring	09:56	10:19	Sara & Sarah	4	5	15	8	None	50	None	
18	T-02	Sub-sample	2018-05-24	Spring	09:40	10:05	Sara & Sarah	3	5	21	6	None	0	None	
19	T-02	Sub-sample	2018-05-28	Spring	11:23	11:48	Sara & Sarah	4	5	27	8	None	25	None	
20	T-02	Sub-sample	2018-05-31	Spring	11:41	12:05	Sara & Sarah	3	5	27	26	None	40	None	
21	T-02	Sub-sample	2018-06-04	Summer	13:22	13:48	Sara & Sarah	4	5	14	24	None	50	None	
22	T-02	Sub-sample	2018-06-07	Summer	14:25	14:48	Sara & Sarah	3	5	24	13	None	100	None	
23	T-02	Sub-sample	2018-06-11	Summer	13:06	13:27	Sara & Sarah	4	5	26	26	None	0	None	
24	T-02	Sub-sample	2018-06-14	Summer	14:14	14:34	Sara & Sarah	3	5	21	24	None	0	None	
25	T-02	Sub-sample	2018-06-18	Summer	15:37	16:19	Sarah	4	5	27	10	None	100	None	
26	T-02	Sub-sample	2018-06-22	Summer	16:41	17:02	Sara & Sarah	4	5	24	26	None	100	None	
27	T-02	Sub-sample	2018-06-25	Summer	12:10	12:33	Sara & Sarah	3	5	23	14	None	50	None	
28	T-02	Sub-sample	2018-06-28	Summer	10:24	10:49	Sara & Sarah	3	5	17	13	None	100	None	
29	T-02	Sub-sample	2018-07-02	Summer	10:33	10:55	Sara & Sarah	4	5	28	14	None	100	None	
30	T-02	Sub-sample	2018-07-05	Summer	10:59	11:23	Sara & Sarah	3	5	32	11	None	50	None	
31	T-02	Sub-sample	2018-07-09	Summer	16:09	16:33	Sara & Sarah	4	5	25	16	None	0	None	
32	T-02	Sub-sample	2018-07-12	Summer	09:20	10:04	Sarah	3	5	22	10	None	50	None	
33	T-02	Sub-sample	2018-07-16	Summer	09:52	10:34	Sara	4	5	27	11	None	25	None	
34	T-02	Sub-sample	2018-07-19	Summer	15:53	16:14	Sara & Sarah	3	5	26	11	None	15	None	
35	T-02	Sub-sample	2018-07-23	Summer	13:01	13:21	Sara & Sarah	4	5	27	14	None	30	Heavy rain	Yesterday
36	T-02	Sub-sample	2018-07-26	Summer	12:41	13:02	Sara & Sarah	3	5	26	21	None	40	None	
37	T-02	Sub-sample	2018-07-30	Summer	14:14	14:35	Sara & Sarah	4	5	24	11	None	40	None	
38	T-02	Sub-sample	2018-08-02	Summer	14:04	14:25	Sara & Sarah	3	5	27	19	None	25	None	
39	T-02	Sub-sample	2018-08-07	Summer	16:20	16:40	Sara & Sarah	5	5	27	11	None	5	Thunderstorm	Yesterday
40	T-02	Sub-sample	2018-08-09	Summer	14:50	15:50	Sara & Sarah	2	5	27	14	None	100	Thunderstorm	Yesterday
41	T-02	Sub-sample	2018-08-13	Summer	14:52	15:13	Sara & Sarah	4	5	26	16	None	10	None	
42	T-02	Sub-sample	2018-08-16	Summer	16:11	16:31	Sara & Sarah	3	5	23	16	None	100	Light rain,Heavy rain	Late am /early pm today
43	T-02	Sub-sample	2018-08-20	Summer	16:52	17:32	Sara	4	5	26	13	None	40	None	
44	T-02	Sub-sample	2018-08-23	Summer	15:19	15:39	Sara & Sarah	3	5	23	14	None	0	None	
45	T-02	Sub-sample	2018-08-27	Summer	12:45	13:08	Sara & Sarah	4	5	26	18	None	80	Heavy rain,Thunderstorm	During night before
46	T-02	Sub-sample	2018-08-30	Summer	14:39	14:59	Sara & Sarah	3	5	22	11	None	80	None	
47	T-02	Sub-sample	2018-09-03	Fall	13:18	13:38	Sara & Sarah	4	5	26	13	None	85	None	
48	T-02	Sub-sample	2018-09-06	Fall	15:26	15:46	Sara & Sarah	3	5	23	16	None	15	None	
49	T-02	Sub-sample	2018-09-10	Fall	15:03	15:23	Sara & Sarah	4	5	15	21	None	100	Light rain	Overnight/ early am
50	T-02	Sub-sample	2018-09-13	Fall	16:27	17:07	Sara	3	5	27	11	None	40	None	
51	T-02	Sub-sample	2018-09-17	Fall	16:57	17:37	Sara	4	5	29	10	None	0	None	
52	T-02	Sub-sample	2018-09-20	Fall	12:31	12:51	Sara & Sarah	3	5	19	18	None	100	None	
53	T-02	Sub-sample	2018-09-24	Fall	13:56	14:17	Sara & Sarah	4	5	19	29	None	75	None	
54	T-02	Sub-sample	2018-09-27	Fall	13:40	14:00	Sara & Sarah	3	5	17	14	None	100	None	
55	T-02	Sub-sample	2018-10-01	Fall	14:08	14:52	Sarah	4	5	9	18	Light rain	100	None	
56	T-02	Sub-sample	2018-10-04	Fall	10:36	11:14	Sara	3	5	13	29	None	100	None	
57	T-02	Sub-sample	2018-10-08	Fall	11:22	12:00	Sara	4	5	17	16	None	0	None	
58	T-02	Sub-sample	2018-10-11	Fall	13:26	14:18	Sarah	3	5	13	24	None	100	None	
59	T-02	Sub-sample	2018-10-15	Fall	11:24	11:49	Sara & Sarah	4	5	10	24	Heavy rain	100	None	
60	T-02	Sub-sample	2018-10-18	Fall	11:43	12:08	Sara & Sarah	3	5	7	18	None	90	None	Other
61	T-02	Sub-sample	2018-10-22	Fall	11:33	11:54	Sara & Sarah	4	5	8	11	None	1	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
62	T-02	Sub-sample	2018-10-25	Fall	12:38	13:03	Sara & Sarah	3	5	7	13	None	95	None	
63	T-02	Sub-sample	2018-10-29	Fall	12:33	13:16	Sarah	4	5	6	26	None	50	None	
64	T-02	Sub-sample	2018-11-01	Fall	11:30	11:53	Sara & Sarah	3	5	7	11	None	100	Heavy rain,Light rain	Since Tuesday
65	T-02	Sub-sample	2018-11-08	Fall	13:16	13:59	Sarah	7	5	3	18	None	100	None	
66	T-02	Sub-sample	2018-11-14	Fall	14:51	15:26	Sara	6	5	1	16	None	95	Heavy snow	Monday night and Tuesday during day
67	T-02	Sub-sample	2018-11-19	Fall	14:45	15:20	Sara	5	5	3	11	None	50		Freezing temps just below zero
68	T-02	Sub-sample	2018-11-27	Fall	13:22	13:53	Sara	8	5	-1	32	None	100		Rain yesterday and freezing temps just below zero.
69	T-03	Raptor Mortality	2018-05-09	Spring	10:58	11:26	Sara & Sarah	206	5	23	19	None	0	None	
70	T-03	Raptor Mortality	2018-06-06	Summer	11:53	12:15	Sara & Sarah	28	5	13	14	None	100	None	
71	T-03	Raptor Mortality	2018-07-04	Summer	11:22	11:44	Sara & Sarah	28	5	29	8	None	0	None	
72	T-03	Raptor Mortality	2018-08-09	Summer	15:35	15:55	Sara & Sarah	35	5	26	13	Light rain	100	None,Thunderstorm	Yesterday
73	T-03	Raptor Mortality	2018-09-05	Fall	10:21	10:41	Sara & Sarah	27	5	28	14	None	5	None	
74	T-03	Raptor Mortality	2018-10-03	Fall	12:02	12:42	Sara	28	5	14	16	None	80	Intermittent rain	Sunday through Tuesday
75	T-03	Raptor Mortality	2018-11-08	Fall	12:40	13:20	Sara	35	5	4	19	None	100	None	
76	T-05	Raptor Mortality	2018-05-09	Spring	11:38	12:12	Sara & Sarah	206	5	23	19	None	2	None	
77	T-05	Raptor Mortality	2018-06-06	Summer	10:01	10:22	Sara & Sarah	28	5	17	11	None	75	None	
78	T-05	Raptor Mortality	2018-07-04	Summer	11:56	12:18	Sara & Sarah	28	5	33	6	None	0	None	
79	T-05	Raptor Mortality	2018-08-09	Summer	16:11	16:50	Sara	35	5	22	13	Light rain	100	Thunderstorm	Yesterday
80	T-05	Raptor Mortality	2018-09-05	Fall	10:55	11:16	Sara & Sarah	27	5	28	14	None	2	None	
81	T-05	Raptor Mortality	2018-10-03	Fall	13:02	13:35	Sara	28	5	16	18	None	100	Intermittent rain	Sunday through Tuesday
82	T-05	Raptor Mortality	2018-11-07	Fall	11:52	12:32	Sara	34	5	6	29	None	100	Strong winds	Day and night before
83	T-06	Raptor Mortality	2018-05-09	Spring	12:22	12:55	Sara & Sarah	206	5	27	24	None	2	None	
84	T-06	Raptor Mortality	2018-06-06	Summer	10:30	10:53	Sara & Sarah	28	5	17	11	None	100	None	
85	T-06	Raptor Mortality	2018-07-04	Summer	12:47	13:09	Sara & Sarah	28	5	33	6	None	0	None	
86	T-06	Raptor Mortality	2018-08-10	Summer	17:32	17:53	Sara & Sarah	36	5	26	16	None	0	Thunderstorm	Yesterday
87	T-06	Raptor Mortality	2018-09-05	Fall	11:25	12:05	Sara	4	5	29	16	None	0	None	
88	T-06	Raptor Mortality	2018-10-03	Fall	13:50	14:30	Sara	28	5	16	16	None	100	Intermittent rain	Sunday through Tuesday
89	T-06	Raptor Mortality	2018-11-07	Fall	12:50	13:30	Sara	34	5	4	29	None	100	Strong winds	Day and night before
90	T-07	Sub-sample	2018-05-02	Spring	11:21	12:00	Sara & Sarah	155	5	22	29	None	60	None	
91	T-07	Sub-sample	2018-05-05	Spring	10:00	10:34	Sara & Sarah	3	5	18	19	None	0	None,Strong winds	
92	T-07	Sub-sample	2018-05-08	Spring	09:46	10:18	Sara & Sarah	3	5	17	10	None	0	None	
93	T-07	Sub-sample	2018-05-11	Spring	09:29	10:14	Sara & Sarah	3	5	8	14	None	100	None	
94	T-07	Sub-sample	2018-05-15	Spring	10:09	10:49	Sara & Sarah	4	5	14	11	Light rain	100	Thunderstorm	Night before visit
95	T-07	Sub-sample	2018-05-18	Spring	16:13	16:42	Sara & Sarah	3	5	21	31	None	30	None	
96	T-07	Sub-sample	2018-05-22	Spring	09:57	10:29	Sara & Sarah	4	5	17	6	None	100	Light rain	Night before search
97	T-07	Sub-sample	2018-05-25	Spring	11:13	11:36	Sara & Sarah	3	5	26	16	None	10	None	
98	T-07	Sub-sample	2018-05-29	Spring	11:05	11:29	Sara & Sarah	4	5	31	13	None	10	None	
99	T-07	Sub-sample	2018-06-01	Summer	14:23	14:48	Sara & Sarah	3	5	23	16	None	0	None	
100	T-07	Sub-sample	2018-06-05	Summer	14:41	15:01	Sara & Sarah	4	5	11	24	None	100	None	
101	T-07	Sub-sample	2018-06-08	Summer	13:50	14:15	Sara & Sarah	3	5	26	14	None	0	None	
102	T-07	Sub-sample	2018-06-12	Summer	14:58	15:20	Sara & Sarah	4	5	28	16	None	10	None	
103	T-07	Sub-sample	2018-06-15	Summer	10:22	10:58	Sarah	3	5	21	5	None	0	None	
104	T-07	Sub-sample	2018-06-19	Summer	15:39	16:02	Sara & Sarah	4	5	26	14	None	100	None	
105	T-07	Sub-sample	2018-06-23	Summer	15:00	15:20	Sara & Sarah	4	5	22	8	None	100	None	
106	T-07	Sub-sample	2018-06-26	Summer	14:55	15:17	Sara & Sarah	3	5	26	19	None	10	None	
107	T-07	Sub-sample	2018-06-29	Summer	11:46	12:29	Sarah	3	5	29	11	None	0	None	
108	T-07	Sub-sample	2018-07-03	Summer	16:15	16:35	Sara & Sarah	4	5	33	13	None	0	None	
109	T-07	Sub-sample	2018-07-06	Summer	17:16	17:58	Sara	3	5	19	27	None	0	Heavy rain	
110	T-07	Sub-sample	2018-07-10	Summer	14:13	14:35	Sara & Sarah	4	5	23	19	None	0	None	
111	T-07	Sub-sample	2018-07-13	Summer	12:51	13:18	Sara	3	5	26	13	None	90	None	
112	T-07	Sub-sample	2018-07-17	Summer	14:42	15:05	Sara & Sarah	4	5	23	24	None	0	Thunderstorm	Scattered thunderstorms yesterday, hit and miss
113	T-07	Sub-sample	2018-07-20	Summer	14:33	15:05	Sara	3	5	29	27	None	80	None	
114	T-07	Sub-sample	2018-07-24	Summer	13:22	13:43	Sara & Sarah	4	5	24	8	None	60	None	
115	T-07	Sub-sample	2018-07-27	Summer	13:51	14:02	Sara & Sarah	3	5	23	16	None	5	None	
116	T-07	Sub-sample	2018-07-31	Summer	14:25	14:45	Sara & Sarah	4	5	26	6	None	100	None	
117	T-07	Sub-sample	2018-08-03	Summer	15:04	15:35	Sara	3	5	28	11	None	95	None	
118	T-07	Sub-sample	2018-08-07	Summer	16:48	17:09	Sara & Sarah	4	5	27	11	None	10	Thunderstorm	Yesterday
119	T-07	Sub-sample	2018-08-10	Summer	15:58	16:20	Sara & Sarah	3	5	28	11	None	10	Thunderstorm	Yesterday
120	T-07	Sub-sample	2018-08-14	Summer	16:20	16:40	Sara & Sarah	4	5	28	10	None	0	None	
121	T-07	Sub-sample	2018-08-17	Summer	12:39	12:59	Sara & Sarah	3	5	25	11	None	100	None	
122	T-07	Sub-sample	2018-08-21	Summer	10:44	11:06	Sara & Sarah	4	5	23	18	None	100	Thunderstorm,Heavy rain	During night before

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
123	T-07	Sub-sample	2018-08-24	Summer	15:46	16:06	Sara & Sarah	3	5	26	19	None	20	None	
124	T-07	Sub-sample	2018-08-28	Summer	14:55	15:15	Sara & Sarah	4	5	28	16	None	75		Heatwave yesterday, humidex near 40 yesterday
125	T-07	Sub-sample	2018-08-31	Summer	14:38	14:58	Sara & Sarah	3	5	25	6	None	0	None	
126	T-07	Sub-sample	2018-09-04	Fall	15:11	15:31	Sara & Sarah	4	5	30	14	None	0	Heavy rain	Today early am
127	T-07	Sub-sample	2018-09-07	Fall	14:57	14:17	Sara & Sarah	3	5	22	19	None	90	None	
128	T-07	Sub-sample	2018-09-11	Fall	11:37	11:57	Sara & Sarah	4	5	20	8	None	40	None	
129	T-07	Sub-sample	2018-09-14	Fall	13:52	14:32	Sara	3	5	24	6	None	100	None	
130	T-07	Sub-sample	2018-09-18	Fall	14:03	14:23	Sara & Sarah	4	5	21	18	None	80	None	
131	T-07	Sub-sample	2018-09-21	Fall	11:00	11:20	Sara & Sarah	3	5	28	32	None	10	None	
132	T-07	Sub-sample	2018-09-25	Fall	14:05	14:45	Sara	4	5	21	18	None	100	Heavy rain,Light rain	During night before and light rain today
133	T-07	Sub-sample	2018-09-28	Fall	14:23	15:10	Sarah	3	5	16	16	None	100	None	
134	T-07	Sub-sample	2018-10-02	Fall	12:41	13:21	Sara	4	5	17	13	None	100	Heavy rain,Light rain	Day and night before
135	T-07	Sub-sample	2018-10-05	Fall	13:14	13:53	Sara	3	5	12	21	None	100	None	
136	T-07	Sub-sample	2018-10-09	Fall	17:17	17:37	Sara	4	5	28	16	None	5	None	
137	T-07	Sub-sample	2018-10-09	Fall	11:54	12:19	Sarah	4	5	24	18	None	90	Light rain	
138	T-07	Sub-sample	2018-10-12	Fall	12:30	13:20	Sarah	3	5	7	23	None	100	None	
139	T-07	Sub-sample	2018-10-16	Fall	14:55	15:44	Sarah	4	5	11	27	None	95	Intermittent rain	
140	T-07	Sub-sample	2018-10-19	Fall	13:45	14:32	Sarah	3	5	13	23	None	100	None	
141	T-07	Sub-sample	2018-10-23	Fall	10:28	11:08	Sara	4	5	8	26	None	100	None	
142	T-07	Sub-sample	2018-10-26	Fall	13:11	13:52	Sarah	3	5	7	16	None	100	None	
143	T-07	Sub-sample	2018-10-30	Fall	14:25	14:25	Sarah	4	5	11	13	None	10	None	
144	T-07	Sub-sample	2018-11-02	Fall	14:35	14:55	Sara & Sarah	3	5	7	14	None	100	Intermittent rain	
145	T-07	Sub-sample	2018-11-08	Fall	14:12	14:54	Sarah	6	5	3	18	None	100	None	
146	T-07	Sub-sample	2018-11-16	Fall	13:23	13:54	Sara	8	5	-1	26	None	100	Heavy snow,Light snow	
147	T-07	Sub-sample	2018-11-23	Fall	14:59	15:17	Sara & Sarah	7	5	5	23	None	20		Freezing temps just below zero and some snow fall
148	T-07	Sub-sample	2018-11-28	Fall	15:18	15:50	Sara	5	5	1	27	None	100		Freezing drizzle this morning
149	T-08	Raptor Mortality	2018-05-09	Spring	14:04	14:30	Sara & Sarah	206	5	27	19	None	30	None	
150	T-08	Raptor Mortality	2018-06-06	Summer	10:56	11:17	Sara & Sarah	28	5	11	17	None	100	None	
151	T-08	Raptor Mortality	2018-07-04	Summer	13:15	13:40	Sara & Sarah	28	5	32	10	None	0	None	
152	T-08	Raptor Mortality	2018-08-10	Summer	16:29	16:53	Sara & Sarah	35	5	28	14	None	5	Thunderstorm	Yesterday
153	T-08	Raptor Mortality	2018-09-05	Fall	11:25	12:08	Sarah	26	5	30	19	None	2	None	
154	T-08	Raptor Mortality	2018-10-03	Fall	15:39	16:17	Sara	28	5	17	21	None	100	Intermittent rain	Sunday through Tuesday
155	T-08	Raptor Mortality	2018-11-07	Fall	10:55	11:35	Sara	34	5	6	31	None	100	Strong winds	Day and night before
156	T-09	Raptor Mitigation	2018-05-08	Spring	10:32	11:00	Sara & Sarah	207	5	19	11	None	0	None	
157	T-09	Raptor Mitigation	2018-05-11	Spring	10:15	10:40	Sara & Sarah	3	5	9	11	None	100	None	
158	T-09	Raptor Mitigation	2018-05-15	Spring	10:56	11:30	Sara & Sarah	4	5	16	13	Light rain	100	Thunderstorm,Heavy rain	
159	T-09	Raptor Mitigation	2018-05-18	Spring	15:46	16:08	Sara & Sarah	3	5	22	32	None	30	None	
160	T-09	Raptor Mitigation	2018-05-22	Spring	10:32	10:58	Sara & Sarah	4	5	15	6	None	100	Light rain	Light rain night before
161	T-09	Raptor Mitigation	2018-05-25	Spring	11:37	11:55	Sara & Sarah	3	5	26	16	None	10	None	
162	T-09	Raptor Mitigation	2018-05-29	Spring	11:30	11:56	Sara & Sarah	4	5	31	13	None	10	None	
163	T-09	Raptor Mitigation	2018-06-01	Summer	14:52	15:12	Sara & Sarah	3	5	22	19	None	0	None	
164	T-09	Raptor Mitigation	2018-06-05	Summer	15:02	15:22	Sara & Sarah	4	5	11	26	None	100	None	
165	T-09	Raptor Mitigation	2018-06-08	Summer	14:59	15:36	Sarah	3	5	25	16	None	0	None	
166	T-09	Raptor Mitigation	2018-06-12	Summer	15:21	15:40	Sara & Sarah	4	5	29	18	None	10	None	
167	T-09	Raptor Mitigation	2018-06-15	Summer	15:04	15:25	Sara & Sarah	3	5	23	11	None	100	None	
168	T-09	Raptor Mitigation	2018-06-19	Summer	09:55	10:31	Sarah	4	5	23	13	None	0	None	
169	T-09	Raptor Mitigation	2018-06-23	Summer	12:52	13:12	Sara & Sarah	4	5	19	14	None	100	None	
170	T-09	Raptor Mitigation	2018-06-26	Summer	14:26	14:52	Sara & Sarah	3	5	26	19	None	10	None	
171	T-09	Raptor Mitigation	2018-06-29	Summer	11:24	12:02	Sara	3	5	28	11	None	0	None	
172	T-09	Raptor Mitigation	2018-07-03	Summer	15:46	16:06	Sara & Sarah	4	5	32	16	None	0	None	
173	T-09	Raptor Mitigation	2018-07-06	Summer	17:00	17:42	Sarah	3	5	19	21	None	0	None	
174	T-09	Raptor Mitigation	2018-07-10	Summer	13:49	14:10	Sara & Sarah	4	5	23	18	None	0	None	
175	T-09	Raptor Mitigation	2018-07-13	Summer	12:23	12:49	Sara	3	5	26	13	None	25	None	
176	T-09	Raptor Mitigation	2018-07-17	Summer	14:05	14:28	Sara & Sarah	4	5	22	25	None	0	Thunderstorm	Scattered thunderstorms yesterday. Was hit and miss
177	T-09	Raptor Mitigation	2018-07-20	Summer	14:34	15:07	Sarah	3	5	28	26	None	50	None	
178	T-09	Raptor Mitigation	2018-07-24	Summer	13:47	14:29	Sarah	4	5	24	10	Light rain	100	None	
179	T-09	Raptor Mitigation	2018-07-27	Summer	15:29	16:06	Sarah	3	5	23	19	None	0	None	
180	T-09	Raptor Mitigation	2018-07-31	Summer	14:48	15:08	Sara & Sarah	4	5	26	6	None	75	None	
181	T-09	Raptor Mitigation	2018-08-03	Summer	15:06	15:37	Sarah	3	5	28	13	None	100	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
182	T-09	Raptor Mitigation	2018-08-07	Summer	17:12	17:32	Sara & Sarah	4	5	26	11	None	30	Thunderstorm	Yesterday
183	T-09	Raptor Mitigation	2018-08-10	Summer	17:03	17:26	Sara & Sarah	3	5	21	14	None	0	None	
184	T-09	Raptor Mitigation	2018-08-14	Summer	15:51	16:14	Sara & Sarah	4	5	28	10	None	0	None	
185	T-09	Raptor Mitigation	2018-08-17	Summer	13:10	13:30	Sara & Sarah	3	5	25	13	None	100	None	
186	T-09	Raptor Mitigation	2018-08-21	Summer	11:09	11:31	Sara & Sarah	4	5	22	16	None	100	None	
187	T-09	Raptor Mitigation	2018-08-24	Summer	16:10	16:32	Sara & Sarah	3	5	26	19	None	30	None	
188	T-09	Raptor Mitigation	2018-08-28	Summer	15:42	16:02	Sara & Sarah	4	5	28	16	None	5		Heatwave yesterday, humidex near 40 yesterday
189	T-09	Raptor Mitigation	2018-08-31	Summer	15:07	15:27	Sara & Sarah	3	5	26	10	None	0	None	
190	T-09	Raptor Mitigation	2018-09-04	Fall	15:38	15:58	Sara & Sarah	4	5	31	14	None	0	Heavy rain	Today early am
191	T-09	Raptor Mitigation	2018-09-07	Fall	15:31	15:52	Sara & Sarah	3	5	22	18	None	100	None	
192	T-09	Raptor Mitigation	2018-09-11	Fall	10:48	10:28	Sara	4	5	19	8	None	25	None	
193	T-09	Raptor Mitigation	2018-09-14	Fall	14:37	15:17	Sara	3	5	27	6	None	30	None	
194	T-09	Raptor Mitigation	2018-09-18	Fall	14:34	15:14	Sara	4	5	22	18	None	95	None	
195	T-09	Raptor Mitigation	2018-09-21	Fall	14:52	15:12	Sara	3	5	26	31	None	95	None	
196	T-09	Raptor Mitigation	2018-09-22	Fall	11:57	12:17	Sara	4	5	15	13	None	2		8 km lightning but no rain directly yesterday, 30 km winds yesterday
197	T-09	Raptor Mitigation	2018-09-25	Fall	13:11	13:51	Sara	3	5	21	16	None	100	None	
198	T-09	Raptor Mitigation	2018-09-28	Fall	14:26	15:06	Sara	3	5	17	16	None	100	None	
199	T-09	Raptor Mitigation	2018-10-02	Fall	11:26	12:06	Sara	4	5	17	16	Light rain	100	None	
200	T-09	Raptor Mitigation	2018-10-06	Fall	10:25	11:03	Sara	4	5	16	10	None	100	None	
201	T-09	Raptor Mitigation	2018-10-09	Fall	17:40	18:18	Sara	3	5	28	16	None	2	None	
202	T-09	Raptor Mitigation	2018-10-12	Fall	12:22	13:00	Sara	3	5	7	23	None	100	None	
203	T-09	Raptor Mitigation	2018-10-16	Fall	14:54	15:33	Sara	4	5	11	29	None	80	None	
204	T-09	Raptor Mitigation	2018-10-19	Fall	14:03	14:43	Sara	3	5	14	24	None	100	None	
205	T-09	Raptor Mitigation	2018-10-23	Fall	11:17	11:56	Sara	4	5	8	26	None	80	None	
206	T-09	Raptor Mitigation	2018-10-26	Fall	14:41	15:19	Sara	3	5	9	14	None	90	None	
207	T-09	Raptor Mitigation	2018-10-30	Fall	09:35	10:15	Sara	4	5	5	3	None	5	None	
208	T-09	Raptor Mitigation	2018-11-02	Fall	13:17	13:57	Sara	3	5	6	14	None	100	Light rain,Heavy rain,Intermittent rain	Tuesday to Friday morning
209	T-09	Raptor Mitigation	2018-11-08	Fall	11:47	12:27	Sara	6	5	4	19	None	100	None	
210	T-09	Raptor Mitigation	2018-11-16	Fall	12:48	13:18	Sara	8	5	-1	26	Light snow	100	Heavy snow,Light snow	
211	T-09	Raptor Mitigation	2018-11-23	Fall	14:38	14:55	Sara & Sarah	7	5	5	23	None	20		Freezing temps just below zero and some snow fall
212	T-09	Raptor Mitigation	2018-11-28	Fall	15:33	16:05	Sarah	5	5	-1	27	None	100	Light snow,Light rain	
213	T-11	Raptor Mitigation	2018-05-08	Spring	11:15	11:45	Sara & Sarah	207	5	19	11	None	0	None	
214	T-11	Raptor Mitigation	2018-05-11	Spring	11:33	11:58	Sara & Sarah	3	5	11	8	None	100	None	
215	T-11	Raptor Mitigation	2018-05-15	Spring	11:48	12:48	Sara & Sarah	4	5	16	8	Light rain	100	Thunderstorm,Heavy rain	
216	T-11	Raptor Mitigation	2018-05-18	Spring	15:08	15:35	Sara & Sarah	3	5	22	32	None	30	None	
217	T-11	Raptor Mitigation	2018-05-22	Spring	11:10	11:45	Sara & Sarah	4	5	16	11	None	60	Light rain	
218	T-11	Raptor Mitigation	2018-05-25	Spring	12:03	13:03	Sara & Sarah	3	5	28	16	None	10	None	
219	T-11	Raptor Mitigation	2018-05-29	Spring	12:11	12:36	Sara & Sarah	4	5	32	14	None	10	None	
220	T-11	Raptor Mitigation	2018-06-01	Summer	15:25	16:05	Sarah	3	5	22	19	None	0	None	
221	T-11	Raptor Mitigation	2018-06-05	Summer	15:39	15:59	Sara & Sarah	4	5	11	26	None	100	None	
222	T-11	Raptor Mitigation	2018-06-08	Summer	16:25	16:46	Sara & Sarah	3	5	23	19	None	2	None	
223	T-11	Raptor Mitigation	2018-06-12	Summer	15:47	16:07	Sara & Sarah	4	5	29	18	None	5	None	
224	T-11	Raptor Mitigation	2018-06-15	Summer	16:30	16:51	Sara & Sarah	3	5	21	13	None	95	None	
225	T-11	Raptor Mitigation	2018-06-19	Summer	16:08	16:28	Sara & Sarah	4	5	26	14	None	100	None	
226	T-11	Raptor Mitigation	2018-06-23	Summer	14:32	14:52	Sara & Sarah	4	5	21	8	Light rain	100	None	
227	T-11	Raptor Mitigation	2018-06-26	Summer	15:32	15:56	Sara & Sarah	3	5	27	19	None	10	None	
228	T-11	Raptor Mitigation	2018-06-29	Summer	10:27	10:49	Sara & Sarah	3	5	29	6	None	0	None	
229	T-11	Raptor Mitigation	2018-07-03	Summer	15:17	15:37	Sara & Sarah	4	5	32	16	None	0	None	
230	T-11	Raptor Mitigation	2018-07-06	Summer	16:19	17:03	Sara	3	5	19	27	None	0	Heavy rain	
231	T-11	Raptor Mitigation	2018-07-10	Summer	14:55	15:18	Sara & Sarah	4	5	23	19	None	0	None	
232	T-11	Raptor Mitigation	2018-07-13	Summer	13:29	14:00	Sara	3	5	26	13	None	40	None	
233	T-11	Raptor Mitigation	2018-07-17	Summer	15:29	15:50	Sara & Sarah	4	5	22	24	None	0	Thunderstorm	Scattered thunderstorms yesterday. Hit and miss
234	T-11	Raptor Mitigation	2018-07-20	Summer	14:04	14:24	Sara & Sarah	3	5	29	27	None	80	None	
235	T-11	Raptor Mitigation	2018-07-24	Summer	12:26	12:46	Sara & Sarah	4	5	24	8	None	100	None	
236	T-11	Raptor Mitigation	2018-07-27	Summer	16:14	16:51	Sarah	3	5	23	19	None	50	None	
237	T-11	Raptor Mitigation	2018-07-31	Summer	13:53	14:13	Sara & Sarah	4	5	26	6	None	100	None	
238	T-11	Raptor Mitigation	2018-08-03	Summer	14:37	14:52	Sara & Sarah	3	5	29	11	None	100	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
239	T-11	Raptor Mitigation	2018-08-07	Summer	17:43	18:04	Sara & Sarah	4	5	26	11	None	20	Thunderstorm	Yesterday
240	T-11	Raptor Mitigation	2018-08-10	Summer	15:25	15:45	Sara & Sarah	3	5	27	11	None	0	Thunderstorm	Yesterday
241	T-11	Raptor Mitigation	2018-08-14	Summer	14:48	15:08	Sara & Sarah	4	5	27	11	None	0	None	
242	T-11	Raptor Mitigation	2018-08-17	Summer	14:10	14:30	Sara & Sarah	3	5	25	13	None	95	None	
243	T-11	Raptor Mitigation	2018-08-21	Summer	11:53	12:13	Sara & Sarah	4	5	23	18	None	100	None	
244	T-11	Raptor Mitigation	2018-08-24	Summer	15:08	15:29	Sara & Sarah	3	5	26	19	None	25	None	
245	T-11	Raptor Mitigation	2018-08-28	Summer	13:55	14:15	Sara & Sarah	4	5	29	19	None	15		Heatwave yesterday, humidex near 40
246	T-11	Raptor Mitigation	2018-08-31	Summer	14:07	14:28	Sara & Sarah	3	5	25	6	None	0	None	
247	T-11	Raptor Mitigation	2018-09-04	Fall	14:35	14:55	Sara & Sarah	4	5	30	16	None	0	Heavy rain	Today early am
248	T-11	Raptor Mitigation	2018-09-07	Fall	13:30	14:13	Sarah	3	5	24	13	None	100	None	
249	T-11	Raptor Mitigation	2018-09-11	Fall	12:21	12:41	Sara & Sarah	4	5	20	10	None	0	None	
250	T-11	Raptor Mitigation	2018-09-14	Fall	12:58	13:38	Sara	3	5	24	6	None	100	None	
251	T-11	Raptor Mitigation	2018-09-18	Fall	15:30	16:15	Sarah	4	5	22	19	None	0	None	
252	T-11	Raptor Mitigation	2018-09-22	Fall	11:02	11:42	Sara	4	5	15	13	None	30		Lightning 8 kms away yesterday but not directly hit with rain, also high winds of approx 30 km
253	T-11	Raptor Mitigation	2018-09-25	Fall	12:06	12:46	Sara	3	5	21	16	Light rain	100	Light rain,Heavy rain	During night before
254	T-11	Raptor Mitigation	2018-09-28	Fall	15:45	16:25	Sara	3	5	14	14	None	100	None	
255	T-11	Raptor Mitigation	2018-10-02	Fall	10:29	11:09	Sara	4	5	16	10	Heavy rain	100	Heavy rain,Light rain	Yesterday and overnight
256	T-11	Raptor Mitigation	2018-10-05	Fall	08:54	09:32	Sara	3	5	6	16	None	85	None	
257	T-11	Raptor Mitigation	2018-10-09	Fall	16:29	17:07	Sara	4	5	28	19	None	0	None	
258	T-11	Raptor Mitigation	2018-10-12	Fall	10:44	11:30	Sara	3	5	7	24	None	100	None	
259	T-11	Raptor Mitigation	2018-10-16	Fall	15:56	16:36	Sara	4	5	11	29	None	0	None	
260	T-11	Raptor Mitigation	2018-10-19	Fall	15:09	15:49	Sara	3	5	13	23	None	100	None	
261	T-11	Raptor Mitigation	2018-10-23	Fall	12:08	12:47	Sara	4	5	9	31	None	100	None	
262	T-11	Raptor Mitigation	2018-10-26	Fall	13:50	14:29	Sara	3	5	9	14	None	90	None	
263	T-11	Raptor Mitigation	2018-10-30	Fall	10:28	11:08	Sara	4	5	6	5	None	25	None	
264	T-11	Raptor Mitigation	2018-11-02	Fall	12:20	13:00	Sara	3	5	6	16	None	100	Heavy rain,Light rain,Intermittent rain	Tuesday to Friday morning
265	T-11	Raptor Mitigation	2018-11-08	Fall	11:20	10:40	Sara	6	5	4	21	None	100	None	
266	T-11	Raptor Mitigation	2018-11-16	Fall	14:07	14:38	Sara	8	5	1	29	Light snow	100	Heavy snow,Light snow	
267	T-11	Raptor Mitigation	2018-11-23	Fall	14:10	14:27	Sara & Sarah	7	5	4	23	None	5		Freezing temps just below zero and some snow fall
268	T-11	Raptor Mitigation	2018-11-28	Fall	14:49	15:21	Sarah	5	5	-1	29	None	100	Light rain,Light snow	
269	T-12	Raptor Mortality	2018-05-16	Spring	10:07	10:45	Sara & Sarah	199	5	19	5	None	5	None	
270	T-12	Raptor Mortality	2018-06-13	Summer	12:04	12:25	Sara & Sarah	28	5	24	23	None	100	None	
271	T-12	Raptor Mortality	2018-07-11	Summer	10:35	11:00	Sara & Sarah	28	5	22	8	None	0	None	
272	T-12	Raptor Mortality	2018-08-15	Summer	11:55	12:15	Sara & Sarah	35	5	27	11	None	40	None	
273	T-12	Raptor Mortality	2018-09-12	Fall	12:45	13:25	Sara	28	5	22	6	None	90	None	
274	T-12	Raptor Mortality	2018-10-16	Fall	16:41	17:21	Sara	34	5	12	29	None	80	None	
275	T-12	Raptor Mortality	2018-11-16	Fall	14:43	15:16	Sara	31	5	1	29	None	100	Heavy snow,Light snow	
276	T-13	Raptor Mortality	2018-05-16	Spring	10:47	11:13	Sara & Sarah	199	5	21	5	None	5	None	
277	T-13	Raptor Mortality	2018-06-13	Summer	12:31	12:50	Sara & Sarah	28	5	24	23	None	100	None	
278	T-13	Raptor Mortality	2018-07-11	Summer	09:57	10:20	Sara & Sarah	28	5	22	6	None	0	None	
279	T-13	Raptor Mortality	2018-08-15	Summer	12:26	12:46	Sara & Sarah	35	5	26	10	None	25	None	
280	T-13	Raptor Mortality	2018-09-12	Fall	13:30	14:10	Sara	28	5	23	8	None	40	None	
281	T-13	Raptor Mortality	2018-10-17	Fall	13:15	13:55	Sara	35	5	6	29	None	100	None	
282	T-13	Raptor Mortality	2018-11-16	Fall	16:05	16:40	Sara	30	5	2	26	None	100	Heavy snow,Light snow	
283	T-14	Raptor Mitigation	2018-05-08	Spring	11:56	12:30	Sara & Sarah	207	5	20	11	None	0	None	
284	T-14	Raptor Mitigation	2018-05-11	Spring	12:05	12:30	Sara & Sarah	3	5	11	10	None	100	None	
285	T-14	Raptor Mitigation	2018-05-15	Spring	12:25	12:49	Sara & Sarah	4	5	16	8	None	100	Heavy rain,Thunderstorm	
286	T-14	Raptor Mitigation	2018-05-18	Spring	14:43	15:04	Sara & Sarah	3	5	22	32	None	30	None	
287	T-14	Raptor Mitigation	2018-05-22	Spring	11:48	12:32	Sara & Sarah	4	5	16	11	None	100	Light rain	
288	T-14	Raptor Mitigation	2018-05-25	Spring	12:39	12:59	Sara & Sarah	3	5	28	16	None	10	None	
289	T-14	Raptor Mitigation	2018-05-29	Spring	12:43	13:02	Sara & Sarah	4	5	32	14	None	10	None	
290	T-14	Raptor Mitigation	2018-06-01	Summer	16:07	16:28	Sara & Sarah	3	5	21	19	None	0	None	
291	T-14	Raptor Mitigation	2018-06-05	Summer	16:05	16:27	Sara & Sarah	4	5	12	23	None	100	None	
292	T-14	Raptor Mitigation	2018-06-08	Summer	16:53	17:13	Sara & Sarah	3	5	22	21	None	20	None	
293	T-14	Raptor Mitigation	2018-06-12	Summer	16:11	16:30	Sara & Sarah	4	5	28	19	None	100	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
294	T-14	Raptor Mitigation	2018-06-15	Summer	16:55	17:17	Sara & Sarah	3	5	21	13	None	95	None	
295	T-14	Raptor Mitigation	2018-06-19	Summer	16:30	16:51	Sara & Sarah	4	5	24	13	None	100	None	
296	T-14	Raptor Mitigation	2018-06-23	Summer	14:10	14:30	Sara & Sarah	4	5	21	8	Light rain	100	None	
297	T-14	Raptor Mitigation	2018-06-26	Summer	16:02	16:25	Sara & Sarah	3	5	27	19	None	100	None	
298	T-14	Raptor Mitigation	2018-06-29	Summer	09:43	10:24	Sarah	3	5	28	5	None	0	None	
299	T-14	Raptor Mitigation	2018-07-03	Summer	14:45	15:10	Sara & Sarah	4	5	32	18	None	0	None	
300	T-14	Raptor Mitigation	2018-07-06	Summer	15:19	15:44	Sara & Sarah	3	5	19	27	None	0	Heavy rain	
301	T-14	Raptor Mitigation	2018-07-10	Summer	15:22	15:50	Sara & Sarah	4	5	23	23	None	0	None	
302	T-14	Raptor Mitigation	2018-07-13	Summer	19:59	20:28	Sara	3	5	30	18	None	0	None	
303	T-14	Raptor Mitigation	2018-07-17	Summer	15:57	16:18	Sara & Sarah	4	5	23	26	None	0	Thunderstorm	Scattered thunderstorms yesterday. Was hit and miss
304	T-14	Raptor Mitigation	2018-07-20	Summer	13:27	13:47	Sara & Sarah	3	5	29	26	None	15	None	
305	T-14	Raptor Mitigation	2018-07-24	Summer	11:58	12:19	Sara & Sarah	4	5	23	11	None	100	None	
306	T-14	Raptor Mitigation	2018-07-27	Summer	12:31	12:51	Sara & Sarah	3	5	22	14	None	0	None	
307	T-14	Raptor Mitigation	2018-07-31	Summer	13:28	13:48	Sara & Sarah	4	5	26	8	None	100	None	
308	T-14	Raptor Mitigation	2018-08-03	Summer	14:11	14:32	Sara & Sarah	3	5	28	11	None	40	None	
309	T-14	Raptor Mitigation	2018-08-07	Summer	18:09	18:29	Sara & Sarah	4	5	27	11	None	5	Thunderstorm	Yesterday
310	T-14	Raptor Mitigation	2018-08-10	Summer	14:40	15:02	Sara & Sarah	3	5	27	10	None	10	Thunderstorm	Yesterday
311	T-14	Raptor Mitigation	2018-08-14	Summer	14:14	14:34	Sara & Sarah	4	5	27	11	None	0	None	
312	T-14	Raptor Mitigation	2018-08-17	Summer	14:36	14:57	Sara & Sarah	3	5	26	11	None	100	None	
313	T-14	Raptor Mitigation	2018-08-21	Summer	12:19	12:39	Sara & Sarah	4	5	24	19	Light rain	100	Heavy rain, Thunderstorm	During night before
314	T-14	Raptor Mitigation	2018-08-24	Summer	14:40	15:00	Sara & Sarah	3	5	26	23	None	25	None	
315	T-14	Raptor Mitigation	2018-08-28	Summer	13:26	13:48	Sara & Sarah	4	5	29	19	None	5		Heatwave yesterday, humidex near 40 yesterday
316	T-14	Raptor Mitigation	2018-08-31	Summer	13:39	13:59	Sara & Sarah	3	5	24	6	None	5	None	
317	T-14	Raptor Mitigation	2018-09-04	Fall	14:07	14:27	Sara & Sarah	4	5	29	16	None	0	Heavy rain	Today early am
318	T-14	Raptor Mitigation	2018-09-07	Fall	13:28	14:08	Sara	3	5	24	14	None	75	None	
319	T-14	Raptor Mitigation	2018-09-11	Fall	13:18	13:38	Sara & Sarah	4	5	20	10	None	0	None	
320	T-14	Raptor Mitigation	2018-09-14	Fall	12:10	12:50	Sara	3	5	23	6	None	100	None	
321	T-14	Raptor Mitigation	2018-09-18	Fall	15:49	16:29	Sara	4	5	21	19	None	20	None	
322	T-14	Raptor Mitigation	2018-09-22	Fall	10:12	10:52	Sara	4	5	14	14	None	50		8 km lightning but no direct rain yesterday, also high winds of approx 30 km yesterday
323	T-14	Raptor Mitigation	2018-09-25	Fall	11:15	11:55	Sara	3	5	21	16	Light rain	100	Heavy rain, Light rain	During night before
324	T-14	Raptor Mitigation	2018-09-28	Fall	13:33	14:13	Sara	3	5	17	18	None	100	None	
325	T-14	Raptor Mitigation	2018-10-02	Fall	09:44	10:24	Sara	4	5	15	11	Light rain	100	Light rain	Yesterday and overnight
326	T-14	Raptor Mitigation	2018-10-05	Fall	12:03	12:43	Sara	3	5	11	23	None	100	None	
327	T-14	Raptor Mitigation	2018-10-09	Fall	15:45	16:24	Sara	4	5	28	19	None	5	None	
328	T-14	Raptor Mitigation	2018-10-12	Fall	10:00	10:39	Sara	3	5	7	24	None	100	None	
329	T-14	Raptor Mitigation	2018-10-16	Fall	14:02	14:41	Sara	4	5	10	29	None	75	None	
330	T-14	Raptor Mitigation	2018-10-19	Fall	12:53	13:33	Sara	3	5	14	23	None	100	None	
331	T-14	Raptor Mitigation	2018-10-23	Fall	12:55	13:35	Sara	4	5	9	31	None	100	None	
332	T-14	Raptor Mitigation	2018-10-26	Fall	13:04	13:44	Sara	3	5	9	18	None	100	None	
333	T-14	Raptor Mitigation	2018-10-30	Fall	11:20	12:00	Sara	4	5	10	10	None	10	None	
334	T-14	Raptor Mitigation	2018-11-02	Fall	11:25	12:05	Sara	3	5	8	16	None	100	Heavy rain, Light rain, Intermittent rain	Tuesday to Friday morning
335	T-14	Raptor Mitigation	2018-11-08	Fall	09:52	10:31	Sara	6	5	7	19	None	100	None	
336	T-14	Raptor Mitigation	2018-11-15	Fall	12:04	12:39	Sara	7	5	-1	19	None	100		Freezing temps just below zero
337	T-14	Raptor Mitigation	2018-11-23	Fall	13:49	14:06	Sara & Sarah	8	5	4	23	None	0		Freezing temps just below zero and some snow fall
338	T-14	Raptor Mitigation	2018-11-27	Fall	15:01	15:31	Sara	4	5	-1	32	None	100		Rain yesterday and freezing temps just below zero
339	T-16	Sub-sample	2018-05-02	Spring	12:12	13:12	Sara & Sarah	155	5	22	26	None	60	None	
340	T-16	Sub-sample	2018-05-05	Spring	10:45	11:15	Sara & Sarah	3	5	18	19	None	0	None, Strong winds	
341	T-16	Sub-sample	2018-05-08	Spring	12:35	13:00	Sara & Sarah	3	5	20	11	None	0	None	
342	T-16	Sub-sample	2018-05-11	Spring	12:35	13:00	Sara & Sarah	3	5	11	10	None	100	None	
343	T-16	Sub-sample	2018-05-15	Spring	13:01	13:35	Sara & Sarah	4	5	14	8	None	100	None	
344	T-16	Sub-sample	2018-05-18	Spring	14:15	14:40	Sara & Sarah	3	5	21	34	None	30	None	
345	T-16	Sub-sample	2018-05-22	Spring	12:44	13:15	Sara & Sarah	4	5	13	14	None	100	Light rain	
346	T-16	Sub-sample	2018-05-25	Spring	13:04	13:24	Sara & Sarah	3	5	28	18	None	10	None	
347	T-16	Sub-sample	2018-05-29	Spring	13:05	14:28	Sara & Sarah	4	5	32	14	None	10	None	
348	T-16	Sub-sample	2018-06-01	Summer	16:33	16:58	Sara & Sarah	3	5	21	19	None	0	None	
349	T-16	Sub-sample	2018-06-05	Summer	11:10	11:35	Sara & Sarah	4	5	10	24	None	100	None	
350	T-16	Sub-sample	2018-06-08	Summer	17:17	17:39	Sara & Sarah	3	5	25	16	None	50	None	



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
351	T-16	Sub-sample	2018-06-12	Summer	16:35	17:00	Sara & Sarah	4	5	28	19	None	50	None	
352	T-16	Sub-sample	2018-06-15	Summer	16:05	16:25	Sara & Sarah	3	5	22	14	None	100	None	
353	T-16	Sub-sample	2018-06-19	Summer	16:55	17:16	Sara & Sarah	4	5	24	13	None	100	None	
354	T-16	Sub-sample	2018-06-23	Summer	13:45	14:05	Sara & Sarah	4	5	19	14	None	100	None	
355	T-16	Sub-sample	2018-06-26	Summer	16:27	16:47	Sara & Sarah	3	5	27	19	None	100	None	
356	T-16	Sub-sample	2018-06-29	Summer	10:53	11:14	Sara & Sarah	3	5	29	6	None	0	None	
357	T-16	Sub-sample	2018-07-03	Summer	14:20	14:41	Sara & Sarah	4	5	31	14	None	0	None	
358	T-16	Sub-sample	2018-07-06	Summer	14:46	15:08	Sara & Sarah	3	5	19	26	None	0	Heavy rain	
359	T-16	Sub-sample	2018-07-10	Summer	15:55	16:16	Sara & Sarah	4	5	23	23	None	0	None	
360	T-16	Sub-sample	2018-07-13	Summer	19:27	19:55	Sara	3	5	30	18	None	0	None	
361	T-16	Sub-sample	2018-07-17	Summer	16:24	16:44	Sara & Sarah	4	5	23	24	None	0	Thunderstorm	Scattered thunderstorms yesterday, was hit and miss
362	T-16	Sub-sample	2018-07-20	Summer	12:58	13:22	Sara & Sarah	3	5	28	26	None	10	None	
363	T-16	Sub-sample	2018-07-24	Summer	11:32	11:52	Sara & Sarah	4	5	23	11	None	100	None	
364	T-16	Sub-sample	2018-07-27	Summer	12:04	12:24	Sara & Sarah	3	5	22	14	None	0	None	
365	T-16	Sub-sample	2018-07-31	Summer	13:00	13:20	Sara & Sarah	4	5	26	8	None	95	None	
366	T-16	Sub-sample	2018-08-03	Summer	13:45	14:05	Sara & Sarah	3	5	28	11	None	20	None	
367	T-16	Sub-sample	2018-08-07	Summer	18:34	18:54	Sara & Sarah	4	5	27	11	None	2	Thunderstorm	Yesterday
368	T-16	Sub-sample	2018-08-10	Summer	14:08	14:28	Sara & Sarah	3	5	27	10	None	10	Thunderstorm	Yesterday
369	T-16	Sub-sample	2018-08-14	Summer	13:38	14:00	Sara & Sarah	4	5	27	11	None	0	None	
370	T-16	Sub-sample	2018-08-17	Summer	12:06	12:26	Sara & Sarah	3	5	24	11	None	100	None	
371	T-16	Sub-sample	2018-08-21	Summer	12:43	13:03	Sara & Sarah	4	5	24	19	Light rain	100	Heavy rain,Thunderstorm	During night before
372	T-16	Sub-sample	2018-08-24	Summer	14:13	14:34	Sara & Sarah	3	5	25	21	None	20	None	
373	T-16	Sub-sample	2018-08-28	Summer	12:55	13:15	Sara & Sarah	4	5	28	23	None	5		Heatwave yesterday, humidex near 40 yesterday
374	T-16	Sub-sample	2018-08-31	Summer	13:14	13:34	Sara & Sarah	3	5	24	6	None	5	None	
375	T-16	Sub-sample	2018-09-04	Fall	13:42	14:02	Sara & Sarah	4	5	29	16	None	2	Heavy rain	Today early am
376	T-16	Sub-sample	2018-09-07	Fall	14:21	14:41	Sara & Sarah	3	5	24	16	None	90	None	
377	T-16	Sub-sample	2018-09-11	Fall	12:49	13:09	Sara & Sarah	4	5	20	10	None	0	None	
378	T-16	Sub-sample	2018-09-14	Fall	11:23	12:03	Sara	3	5	23	10	None	100	None	
379	T-16	Sub-sample	2018-09-18	Fall	14:43	15:26	Sarah	4	5	22	18	None	2	None	
380	T-16	Sub-sample	2018-09-21	Fall	11:34	11:54	Sara & Sarah	3	5	28	34	None	25	None	
381	T-16	Sub-sample	2018-09-25	Fall	11:12	11:53	Sarah	4	5	20	16	None	100	None	
382	T-16	Sub-sample	2018-09-28	Fall	13:31	14:13	Sarah	3	5	17	18	None	100	None	
383	T-16	Sub-sample	2018-10-02	Fall	12:19	12:40	Sarah	4	5	17	13	None	100	None	
384	T-16	Sub-sample	2018-10-02	Fall	13:54	14:14	Sara	4	5	16	10	Light rain	100	Heavy rain,Light rain	Overnight and day before
385	T-16	Sub-sample	2018-10-05	Fall	12:01	12:52	Sarah	3	5	11	21	None	100	None	
386	T-16	Sub-sample	2018-10-09	Fall	11:22	11:48	Sarah	4	5	24	18	None	2	Light rain	
387	T-16	Sub-sample	2018-10-09	Fall	14:22	14:42	Sara	4	5	28	18	None	20	None	
388	T-16	Sub-sample	2018-10-12	Fall	11:32	12:23	Sarah	3	5	7	23	None	100	None	
389	T-16	Sub-sample	2018-10-16	Fall	13:55	14:47	Sarah	4	5	9	29	None	100	Intermittent rain	
390	T-16	Sub-sample	2018-10-19	Fall	12:51	13:38	Sarah	3	5	12	23	None	100	None	
391	T-16	Sub-sample	2018-10-23	Fall	13:43	14:23	Sara	4	5	8	34	None	95	None	
392	T-16	Sub-sample	2018-10-26	Fall	12:20	13:01	Sarah	3	5	7	16	None	100	None	
393	T-16	Sub-sample	2018-10-30	Fall	13:38	14:18	Sarah	4	5	10	11	None	100	None	
394	T-16	Sub-sample	2018-11-02	Fall	13:19	14:01	Sarah	3	5	6	11	None	100	Intermittent rain	
395	T-16	Sub-sample	2018-11-05	Fall	11:58	12:40	Sarah	3	5	11	21	Light rain	100	Intermittent rain	
396	T-16	Sub-sample	2018-11-14	Fall	15:37	16:07	Sara	9	5	1	14	None	95	Heavy snow	Monday night and Tuesday during day
397	T-16	Sub-sample	2018-11-23	Fall	13:25	13:43	Sara & Sarah	8	5	4	23	None	0		Freezing temps just below zero and some snow
398	T-16	Sub-sample	2018-11-27	Fall	14:25	14:55	Sara	4	5	-1	32	None	100		Rain yesterday and freezing temps just below zero
399	T-17	Sub-sample	2018-05-02	Spring	13:41	14:11	Sara & Sarah	155	5	23	31	None	70	None	
400	T-17	Sub-sample	2018-05-05	Spring	11:30	12:00	Sara & Sarah	2	5	18	19	None	0	Strong winds	
401	T-17	Sub-sample	2018-05-08	Spring	13:40	14:23	Sarah	3	5	21	14	None	0	None	
402	T-17	Sub-sample	2018-05-11	Spring	13:40	14:15	Sara & Sarah	3	5	7	16	None	100	None	
403	T-17	Sub-sample	2018-05-15	Spring	14:15	14:55	Sara & Sarah	4	5	17	10	None	100	Heavy rain,Thunderstorm	
404	T-17	Sub-sample	2018-05-18	Spring	10:58	11:29	Sara	3	5	17	32	None	5	None	
405	T-17	Sub-sample	2018-05-22	Spring	14:17	14:47	Sara & Sarah	4	5	13	14	None	100	Light rain	
406	T-17	Sub-sample	2018-05-25	Spring	14:00	14:25	Sara & Sarah	3	5	29	21	None	10	None	
407	T-17	Sub-sample	2018-05-29	Spring	15:17	15:39	Sara & Sarah	4	5	30	18	None	10	None	
408	T-17	Sub-sample	2018-06-01	Summer	11:11	11:36	Sara & Sarah	3	5	21	14	None	75	None	
409	T-17	Sub-sample	2018-06-05	Summer	11:47	12:09	Sara & Sarah	4	5	10	24	None	100	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
410	T-17	Sub-sample	2018-06-08	Summer	10:53	11:16	Sara & Sarah	3	5	24	8	None	75	None	
411	T-17	Sub-sample	2018-06-12	Summer	10:55	11:22	Sara & Sarah	3	5	23	14	None	40	None	
412	T-17	Sub-sample	2018-06-15	Summer	11:28	11:50	Sara & Sarah	3	5	22	8	None	0	None	
413	T-17	Sub-sample	2018-06-19	Summer	10:58	11:21	Sara & Sarah	4	5	24	11	None	0	None	
414	T-17	Sub-sample	2018-06-23	Summer	11:48	12:14	Sara & Sarah	4	5	18	16	None	100	None	
415	T-17	Sub-sample	2018-06-26	Summer	10:52	11:32	Sarah	3	5	21	21	None	100	None	
416	T-17	Sub-sample	2018-06-29	Summer	12:40	13:02	Sara & Sarah	3	5	29	13	None	0	None	
417	T-17	Sub-sample	2018-07-03	Summer	09:59	10:38	Sara	4	5	27	10	None	0	None	
418	T-17	Sub-sample	2018-07-06	Summer	18:15	18:57	Sara	3	5	18	26	None	0	Heavy rain	
419	T-17	Sub-sample	2018-07-10	Summer	13:15	13:38	Sara & Sarah	4	5	23	18	None	0	None	
420	T-17	Sub-sample	2018-07-13	Summer	11:11	11:44	Sara	3	5	26	14	None	5	None	
421	T-17	Sub-sample	2018-07-17	Summer	13:05	13:48	Sarah	4	5	23	21	None	0	None	
422	T-17	Sub-sample	2018-07-20	Summer	11:52	12:13	Sara & Sarah	3	5	27	24	None	30	None	
423	T-17	Sub-sample	2018-07-24	Summer	10:39	10:58	Sara & Sarah	4	5	23	11	None	100	None	
424	T-17	Sub-sample	2018-07-27	Summer	10:43	11:23	Sarah	3	5	21	14	None	0	Intermittent rain,Thunderstorm	
425	T-17	Sub-sample	2018-07-31	Summer	11:14	11:34	Sara & Sarah	4	5	24	10	None	100	None	
426	T-17	Sub-sample	2018-08-03	Summer	12:29	12:48	Sara & Sarah	3	5	28	11	None	10	None	
427	T-17	Sub-sample	2018-08-07	Summer	14:12	14:32	Sara & Sarah	4	5	26	10	None	0	Thunderstorm	Yesterday
428	T-17	Sub-sample	2018-08-10	Summer	13:08	13:28	Sara & Sarah	3	5	24	14	None	0	Thunderstorm	Yesterday
429	T-17	Sub-sample	2018-08-14	Summer	12:11	12:33	Sara & Sarah	4	5	27	5	None	0	None	
430	T-17	Sub-sample	2018-08-17	Summer	11:08	11:28	Sara & Sarah	3	5	24	11	None	100	None	
431	T-17	Sub-sample	2018-08-21	Summer	09:40	10:03	Sara & Sarah	4	5	22	16	None	100	Heavy rain,Thunderstorm	During night before
432	T-17	Sub-sample	2018-08-24	Summer	12:37	13:05	Sara & Sarah	3	5	24	19	None	10	None	
433	T-17	Sub-sample	2018-08-28	Summer	10:26	10:46	Sara & Sarah	4	5	26	19	None	80		Heatwave yesterday, humidex near 40
434	T-17	Sub-sample	2018-08-31	Summer	10:01	10:21	Sara & Sarah	3	5	19	5	None	0	None	
435	T-17	Sub-sample	2018-09-04	Fall	12:14	12:34	Sara & Sarah	4	5	26	14	None	0	Heavy rain	Today early am
436	T-17	Sub-sample	2018-09-07	Fall	10:55	11:15	Sara & Sarah	3	5	21	11	None	10	None	
437	T-17	Sub-sample	2018-09-11	Fall	14:12	14:32	Sara & Sarah	4	5	19	11	None	0	None	
438	T-17	Sub-sample	2018-09-14	Fall	15:31	16:11	Sara	3	5	27	10	None	5	None	
439	T-17	Sub-sample	2018-09-18	Fall	10:53	11:13	Sara & Sarah	4	5	21	13	None	100	None	
440	T-17	Sub-sample	2018-09-21	Fall	12:07	12:27	Sara & Sarah	3	5	28	34	None	100	None	
441	T-17	Sub-sample	2018-09-24	Fall	15:13	15:33	Sara & Sarah	3	5	19	27	None	95	None	
442	T-17	Sub-sample	2018-09-28	Fall	12:12	12:32	Sara & Sarah	4	5	17	21	None	95	None	
443	T-17	Sub-sample	2018-10-02	Fall	14:58	15:20	Sara & Sarah	4	5	14	11	None	100	Heavy rain,Light rain	Overnight and day before
444	T-17	Sub-sample	2018-10-05	Fall	10:56	11:36	Sara	3	5	11	21	None	60	None	
445	T-17	Sub-sample	2018-10-09	Fall	13:15	13:35	Sara	4	5	27	18	None	20	None	
446	T-17	Sub-sample	2018-10-09	Fall	10:48	11:14	Sarah	4	5	22	16	None	90	Light rain	
447	T-17	Sub-sample	2018-10-12	Fall	13:39	14:30	Sarah	3	5	7	23	None	100	None	
448	T-17	Sub-sample	2018-10-16	Fall	12:36	13:16	Sara	4	5	9	27	None	80	None	
449	T-17	Sub-sample	2018-10-19	Fall	11:53	12:40	Sarah	3	5	12	23	None	2	None	
450	T-17	Sub-sample	2018-10-23	Fall	11:13	11:56	Sarah	4	5	8	27	None	100	None	
451	T-17	Sub-sample	2018-10-26	Fall	11:40	12:20	Sara	3	5	8	16	None	100	None	
452	T-17	Sub-sample	2018-10-30	Fall	12:49	13:30	Sarah	4	5	9	10	None	90	None	
453	T-17	Sub-sample	2018-11-02	Fall	12:26	13:09	Sarah	3	5	4	16	None	100	Intermittent rain	
454	T-17	Sub-sample	2018-11-08	Fall	12:25	13:06	Sarah	6	5	3	19	Light rain	100	None	
455	T-17	Sub-sample	2018-11-15	Fall	11:08	11:45	Sara	7	5	-1	22	None	100		Freezing temps just below zero
456	T-17	Sub-sample	2018-11-23	Fall	11:03	11:21	Sara & Sarah	8	5	2	23	None	0		Freezing temps just below zero and some snow
457	T-17	Sub-sample	2018-11-27	Fall	15:43	16:13	Sara	4	5	-1	32	None	100		Rain yesterday and freezing temps just below
458	T-18	Sub-sample	2018-05-02	Spring	14:26	14:56	Sara & Sarah	155	5	25	29	None	50	None	
459	T-18	Sub-sample	2018-05-05	Spring	12:05	12:35	Sara & Sarah	3	5	21	21	None	0	None	
460	T-18	Sub-sample	2018-05-08	Spring	13:42	14:25	Sara	3	5	20	13	None	0	None	
461	T-18	Sub-sample	2018-05-11	Spring	14:24	14:47	Sara & Sarah	3	5	7	14	None	100	None	
462	T-18	Sub-sample	2018-05-15	Spring	15:00	15:30	Sara & Sarah	4	5	14	11	None	20	Thunderstorm	Night before visit
463	T-18	Sub-sample	2018-05-18	Spring	12:03	12:23	Sara & Sarah	3	5	17	34	None	2	None	
464	T-18	Sub-sample	2018-05-22	Spring	14:50	15:20	Sara & Sarah	4	5	13	13	None	100	Light rain	
465	T-18	Sub-sample	2018-05-25	Spring	14:30	14:50	Sara & Sarah	3	5	28	21	None	10	None	
466	T-18	Sub-sample	2018-05-29	Spring	15:06	15:42	Sara & Sarah	4	5	30	18	None	10	None	
467	T-18	Sub-sample	2018-06-01	Summer	11:38	11:58	Sara & Sarah	3	5	21	14	None	75	None	
468	T-18	Sub-sample	2018-06-05	Summer	12:12	12:38	Sara & Sarah	4	5	10	24	None	100	None	
469	T-18	Sub-sample	2018-06-08	Summer	11:21	11:44	Sara & Sarah	3	5	24	8	None	75	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
470	T-18	Sub-sample	2018-06-12	Summer	11:25	11:47	Sara & Sarah	3	5	24	13	None	10	None	
471	T-18	Sub-sample	2018-06-15	Summer	11:53	12:15	Sara & Sarah	3	5	22	8	None	0	None	
472	T-18	Sub-sample	2018-06-19	Summer	11:23	11:43	Sara & Sarah	4	5	24	11	None	35	None	
473	T-18	Sub-sample	2018-06-23	Summer	12:16	12:41	Sara & Sarah	4	5	19	14	None	100	None	
474	T-18	Sub-sample	2018-06-26	Summer	10:09	10:50	Sarah	3	5	21	21	None	100	None	
475	T-18	Sub-sample	2018-06-29	Summer	09:35	10:14	Sara	3	5	27	5	None	0	None	
476	T-18	Sub-sample	2018-07-03	Summer	12:52	13:35	Sara & Sarah	4	5	31	14	None	0	None	
477	T-18	Sub-sample	2018-07-06	Summer	17:51	18:33	Sarah	3	5	19	21	None	0	None	
478	T-18	Sub-sample	2018-07-10	Summer	12:47	13:10	Sara & Sarah	4	5	23	18	None	0	None	
479	T-18	Sub-sample	2018-07-13	Summer	11:47	12:17	Sara	3	5	26	14	None	25	None	
480	T-18	Sub-sample	2018-07-17	Summer	13:03	13:46	Sara	4	5	22	25	None	0	Thunderstorm	Scattered thunderstorms yesterday. Was hit and miss
481	T-18	Sub-sample	2018-07-20	Summer	11:25	11:47	Sara & Sarah	3	5	27	24	None	10	None	
482	T-18	Sub-sample	2018-07-24	Summer	11:00	11:20	Sara & Sarah	4	5	23	11	None	100	None	
483	T-18	Sub-sample	2018-07-27	Summer	11:30	11:50	Sara & Sarah	3	5	21	14	None	0	None	
484	T-18	Sub-sample	2018-07-31	Summer	10:16	10:57	Sara	4	5	23	10	None	75	None	
485	T-18	Sub-sample	2018-08-03	Summer	13:01	13:22	Sara & Sarah	3	5	28	10	None	25	None	
486	T-18	Sub-sample	2018-08-07	Summer	14:37	14:57	Sara & Sarah	4	5	26	10	None	10	Thunderstorm	Yesterday
487	T-18	Sub-sample	2018-08-10	Summer	13:32	13:52	Sara & Sarah	3	5	24	14	None	2	Thunderstorm	Yesterday
488	T-18	Sub-sample	2018-08-14	Summer	12:41	13:01	Sara & Sarah	4	5	26	11	None	0	None	
489	T-18	Sub-sample	2018-08-17	Summer	11:32	11:52	Sara & Sarah	3	5	24	11	None	100	None	
490	T-18	Sub-sample	2018-08-21	Summer	10:09	10:29	Sara & Sarah	4	5	22	16	None	100	Heavy rain,Thunderstorm	During night before
491	T-18	Sub-sample	2018-08-24	Summer	13:09	13:29	Sara & Sarah	3	5	25	21	None	25	None	
492	T-18	Sub-sample	2018-08-28	Summer	10:59	11:19	Sara & Sarah	4	5	26	19	None	100		Heatwave yesterday, humidex near 40
493	T-18	Sub-sample	2018-08-31	Summer	09:29	09:49	Sara & Sarah	3	5	19	5	None	0	None	
494	T-18	Sub-sample	2018-09-04	Fall	12:41	13:01	Sara & Sarah	4	5	27	16	None	0	Heavy rain	Today early am
495	T-18	Sub-sample	2018-09-07	Fall	11:21	11:41	Sara & Sarah	3	5	21	11	None	5	None	
496	T-18	Sub-sample	2018-09-11	Fall	14:38	14:58	Sara & Sarah	4	5	19	11	None	0	None	
497	T-18	Sub-sample	2018-09-14	Fall	10:23	11:03	Sara	3	5	22	10	None	100	None	
498	T-18	Sub-sample	2018-09-18	Fall	11:25	11:45	Sara & Sarah	4	5	21	13	None	95	None	
499	T-18	Sub-sample	2018-09-21	Fall	12:35	12:55	Sara & Sarah	3	5	28	34	None	100	None	
500	T-18	Sub-sample	2018-09-24	Fall	15:37	15:57	Sara & Sarah	3	5	19	27	None	100	None	
501	T-18	Sub-sample	2018-09-28	Fall	12:37	12:57	Sara & Sarah	4	5	17	19	None	100	None	
502	T-18	Sub-sample	2018-10-02	Fall	15:35	16:00	Sara & Sarah	4	5	14	19	None	100	Light rain,Heavy rain	Day before and overnight
503	T-18	Sub-sample	2018-10-05	Fall	10:54	11:47	Sarah	3	5	10	21	None	90	None	
504	T-18	Sub-sample	2018-10-09	Fall	10:20	10:46	Sarah	4	5	22	16	None	50	Light rain	
505	T-18	Sub-sample	2018-10-09	Fall	13:42	14:02	Sara	4	5	27	18	None	10	None	
506	T-18	Sub-sample	2018-10-12	Fall	10:31	11:20	Sarah	3	5	7	23	None	100	None	
507	T-18	Sub-sample	2018-10-16	Fall	12:33	13:24	Sarah	4	5	8	27	None	90	Intermittent rain	
508	T-18	Sub-sample	2018-10-19	Fall	11:48	12:27	Sara	3	5	9	19	None	5	None	
509	T-18	Sub-sample	2018-10-23	Fall	14:33	15:11	Sara	4	5	8	34	None	75	None	
510	T-18	Sub-sample	2018-10-26	Fall	11:27	12:09	Sarah	3	5	6	13	None	100	None	
511	T-18	Sub-sample	2018-10-30	Fall	11:50	12:40	Sarah	4	5	9	6	None	0	None	
512	T-18	Sub-sample	2018-11-02	Fall	11:24	12:07	Sarah	3	5	4	16	None	100	Intermittent rain	
513	T-18	Sub-sample	2018-11-08	Fall	11:41	12:23	Sarah	6	5	4	19	None	100	None	
514	T-18	Sub-sample	2018-11-15	Fall	10:23	11:00	Sara	7	5	-2	23	None	100		Freezing temps just below zero
515	T-18	Sub-sample	2018-11-23	Fall	10:41	11:15	Sara & Sarah	8	5	-1	24	None	0		Freezing temps just below zero and some snowfall
516	T-18	Sub-sample	2018-11-27	Fall	16:16	16:44	Sara	4	5	-1	32	None	100		Rain yesterday and freezing temps just below zero
517	T-19	Raptor Mortality	2018-05-16	Spring	11:25	11:55	Sara & Sarah	199	5	22	5	None	0	None	
518	T-19	Raptor Mortality	2018-06-13	Summer	09:56	10:21	Sara & Sarah	28	5	20	14	None	100	None	
519	T-19	Raptor Mortality	2018-07-11	Summer	11:19	11:40	Sara & Sarah	28	5	23	11	None	0	None	
520	T-19	Raptor Mortality	2018-08-15	Summer	11:03	11:25	Sara & Sarah	35	5	26	13	None	5	None	
521	T-19	Raptor Mortality	2018-09-12	Fall	11:28	12:08	Sara	28	5	20	8	None	80	None	
522	T-19	Raptor Mortality	2018-10-16	Fall	11:30	12:10	Sara	34	5	8	27	None	10	None	
523	T-19	Raptor Mortality	2018-11-15	Fall	13:57	14:35	Sara	30	5	-1	19	Light snow	100		Freezing temps just below zero
524	T-20	Sub-sample	2018-05-01	Spring	11:23	12:10	Sara & Sarah	155	5	23	18	None	0	None	Cooler April temps
525	T-20	Sub-sample	2018-05-04	Spring	10:53	11:30	Sara & Sarah	3	5	21	34	None	75	Thunderstorm	
526	T-20	Sub-sample	2018-05-07	Spring	10:45	11:40	Sara & Sarah	3	5	16	14	None	0	None	
527	T-20	Sub-sample	2018-05-10	Spring	11:12	11:45	Sara & Sarah	3	5	14	16	None	100	None	
528	T-20	Sub-sample	2018-05-14	Spring	15:31	15:55	Sara & Sarah	4	5	21	11	None	100	None	
529	T-20	Sub-sample	2018-05-17	Spring	11:05	11:40	Sara & Sarah	3	5	21	11	None	0	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
530	T-20	Sub-sample	2018-05-21	Spring	10:39	11:04	Sara & Sarah	4	5	19	8	None	50	None	
531	T-20	Sub-sample	2018-05-24	Spring	10:20	10:48	Sara & Sarah	3	5	21	10	None	0	None	
532	T-20	Sub-sample	2018-05-28	Spring	11:54	12:17	Sara & Sarah	4	5	27	8	None	25	None	
533	T-20	Sub-sample	2018-05-31	Spring	12:19	12:45	Sara & Sarah	3	5	29	26	None	40	None	
534	T-20	Sub-sample	2018-06-04	Summer	14:05	14:25	Sara & Sarah	4	5	17	23	None	0	None	
535	T-20	Sub-sample	2018-06-07	Summer	15:12	15:36	Sara & Sarah	3	5	25	10	None	100	None	
536	T-20	Sub-sample	2018-06-11	Summer	14:16	14:37	Sara & Sarah	4	5	26	23	None	0	None	
537	T-20	Sub-sample	2018-06-14	Summer	15:00	15:27	Sara & Sarah	3	5	22	21	None	0	None	
538	T-20	Sub-sample	2018-06-18	Summer	14:31	15:10	Sarah	4	5	27	10	Light rain	100	None	
539	T-20	Sub-sample	2018-06-22	Summer	12:15	12:35	Sara & Sarah	4	5	21	26	None	100	None	
540	T-20	Sub-sample	2018-06-25	Summer	11:20	11:45	Sara & Sarah	3	5	22	14	None	90	None	
541	T-20	Sub-sample	2018-06-28	Summer	11:04	11:24	Sara & Sarah	3	5	18	11	None	100	None	
542	T-20	Sub-sample	2018-07-02	Summer	15:01	15:22	Sara & Sarah	4	5	28	16	None	10	None	
543	T-20	Sub-sample	2018-07-05	Summer	09:35	10:19	Sarah	3	5	29	8	None	90	None	
544	T-20	Sub-sample	2018-07-09	Summer	14:49	15:15	Sara & Sarah	4	5	28	18	None	0	None	
545	T-20	Sub-sample	2018-07-12	Summer	16:53	17:36	Sara	3	5	27	11	None	20	None	
546	T-20	Sub-sample	2018-07-16	Summer	11:12	11:33	Sara & Sarah	4	5	28	11	None	2	None	
547	T-20	Sub-sample	2018-07-19	Summer	15:15	15:36	Sara & Sarah	3	5	24	10	None	10	None	
548	T-20	Sub-sample	2018-07-23	Summer	13:36	13:57	Sara & Sarah	4	5	27	14	None	50	Heavy rain	Yesterday
549	T-20	Sub-sample	2018-07-26	Summer	13:16	13:36	Sara & Sarah	3	5	27	19	None	40	None	
550	T-20	Sub-sample	2018-07-30	Summer	15:06	15:29	Sara & Sarah	4	5	26	10	None	100	None	
551	T-20	Sub-sample	2018-08-02	Summer	15:09	15:32	Sara & Sarah	3	5	27	19	None	100	None	
552	T-20	Sub-sample	2018-08-07	Summer	15:18	15:38	Sara & Sarah	5	5	26	10	None	15	Thunderstorm	Yesterday
553	T-20	Sub-sample	2018-08-10	Summer	11:12	11:32	Sara & Sarah	3	5	24	14	None	2	Thunderstorm	Yesterday
554	T-20	Sub-sample	2018-08-13	Summer	16:11	16:32	Sara & Sarah	3	5	26	16	None	40	None	
555	T-20	Sub-sample	2018-08-16	Summer	12:11	12:41	Sara & Sarah	3	5	24	16	Heavy rain	100	None	
556	T-20	Sub-sample	2018-08-20	Summer	15:44	16:24	Sara	4	5	26	14	None	25	None	
557	T-20	Sub-sample	2018-08-23	Summer	14:47	15:07	Sara & Sarah	3	5	23	14	None	0	None	
558	T-20	Sub-sample	2018-08-27	Summer	13:50	14:10	Sara & Sarah	4	5	28	21	None	95	Heavy rain, Thunderstorm	During night before
559	T-20	Sub-sample	2018-08-30	Summer	15:22	15:42	Sara & Sarah	3	5	22	11	None	90	None	
560	T-20	Sub-sample	2018-09-03	Fall	13:50	14:10	Sara & Sarah	4	5	26	13	None	25	None	
561	T-20	Sub-sample	2018-09-06	Fall	15:59	16:19	Sara & Sarah	3	5	23	16	None	90	None	
562	T-20	Sub-sample	2018-09-10	Fall	15:38	15:58	Sara & Sarah	4	5	15	21	None	100	Light rain	Overnight/ early am
563	T-20	Sub-sample	2018-09-13	Fall	17:25	18:05	Sara	3	5	26	13	None	50	None	
564	T-20	Sub-sample	2018-09-17	Fall	17:56	17:56	Sara	4	5	29	10	None	0	None	
565	T-20	Sub-sample	2018-09-20	Fall	13:05	13:25	Sara & Sarah	3	5	19	16	None	100	None	
566	T-20	Sub-sample	2018-09-24	Fall	14:33	14:53	Sara & Sarah	4	5	19	29	None	100	None	
567	T-20	Sub-sample	2018-09-27	Fall	14:21	15:03	Sarah	3	5	17	13	None	100	None	
568	T-20	Sub-sample	2018-10-01	Fall	14:29	15:09	Sara	4	5	9	16	None	100	Light rain, Heavy rain	Overnight
569	T-20	Sub-sample	2018-10-04	Fall	17:33	17:53	Sara	3	5	10	27	None	20	None	
570	T-20	Sub-sample	2018-10-04	Fall	11:15	11:38	Sarah	3	5	13	29	None	100	None	
571	T-20	Sub-sample	2018-10-08	Fall	12:12	12:51	Sara	4	5	19	19	None	5	None	
572	T-20	Sub-sample	2018-10-11	Fall	14:46	15:47	Sarah	3	5	12	23	None	100	None	
573	T-20	Sub-sample	2018-10-15	Fall	12:34	12:58	Sara & Sarah	4	5	10	26	None	100	None	
574	T-20	Sub-sample	2018-10-18	Fall	12:27	12:52	Sara & Sarah	3	5	6	16	None	100	None	
575	T-20	Sub-sample	2018-10-22	Fall	12:14	12:40	Sara & Sarah	4	5	9	11	None	0	None	
576	T-20	Sub-sample	2018-10-25	Fall	13:51	14:16	Sara & Sarah	3	5	8	13	None	10	None	
577	T-20	Sub-sample	2018-10-29	Fall	13:40	14:23	Sarah	4	5	8	26	None	5	None	
578	T-20	Sub-sample	2018-11-01	Fall	12:08	12:30	Sara & Sarah	3	5	7	10	None	100	Heavy rain, Light rain, Intermittent rain	Since Tuesday
579	T-20	Sub-sample	2018-11-08	Fall	10:03	10:45	Sarah	7	5	4	16	None	100	None	
580	T-20	Sub-sample	2018-11-15	Fall	13:13	13:48	Sara	7	5	-1	19	None	100		Freezing temps just below zero
581	T-20	Sub-sample	2018-11-23	Fall	12:22	12:39	Sara & Sarah	8	5	3	23	None	0		Freezing temps just below zero and some snow fall
582	T-20	Sub-sample	2018-11-28	Fall	14:33	15:05	Sara	5	5	0	29	None	100		Freezing drizzle this morning
583	T-21	Raptor Mitigation	2018-05-08	Spring	15:10	15:36	Sara & Sarah	207	5	22	11	None	0	None	
584	T-21	Raptor Mitigation	2018-05-11	Spring	15:20	15:45	Sara & Sarah	3	5	7	14	None	100	None	
585	T-21	Raptor Mitigation	2018-05-15	Spring	15:57	16:18	Sara & Sarah	4	5	18	14	None	10	Heavy rain, Thunderstorm	
586	T-21	Raptor Mitigation	2018-05-18	Spring	12:27	12:46	Sara & Sarah	3	5	19	32	None	20	None	
587	T-21	Raptor Mitigation	2018-05-22	Spring	16:26	16:45	Sara & Sarah	4	5	13	13	None	100	Light rain	

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588	T-21	Raptor Mitigation	2018-05-25	Spring	09:39	10:10	Sara	3	5	23	13	None	5	None	
589	T-21	Raptor Mitigation	2018-05-29	Spring	09:35	10:05	Sara	4	5	27	13	None	2	None	
590	T-21	Raptor Mitigation	2018-06-01	Summer	10:02	10:34	Sara	3	5	17	13	None	95	None	
591	T-21	Raptor Mitigation	2018-06-05	Summer	09:33	10:05	Sarah	4	5	11	18	None	100	None	
592	T-21	Raptor Mitigation	2018-06-08	Summer	09:10	09:40	Sarah	3	5	21	8	None	25	None	
593	T-21	Raptor Mitigation	2018-06-12	Summer	09:44	10:26	Sara	4	5	21	16	None	5	None	
594	T-21	Raptor Mitigation	2018-06-15	Summer	09:33	10:10	Sara	3	5	0	0	None	2	None	
595	T-21	Raptor Mitigation	2018-06-19	Summer	11:50	12:15	Sara & Sarah	4	5	26	10	None	15	None	
596	T-21	Raptor Mitigation	2018-06-23	Summer	10:40	11:18	Sara	4	5	18	16	None	100	Heavy rain	
597	T-21	Raptor Mitigation	2018-06-26	Summer	10:34	11:12	Sara	3	5	20	21	None	15	None	
598	T-21	Raptor Mitigation	2018-06-29	Summer	13:11	13:31	Sara & Sarah	3	5	29	13	None	0	None	
599	T-21	Raptor Mitigation	2018-07-03	Summer	12:04	12:24	Sara & Sarah	4	5	31	14	None	0	None	
600	T-21	Raptor Mitigation	2018-07-06	Summer	13:35	13:57	Sara & Sarah	3	5	19	26	None	0	Heavy rain	
601	T-21	Raptor Mitigation	2018-07-10	Summer	09:23	10:08	Sara	4	5	21	13	None	0	None	
602	T-21	Raptor Mitigation	2018-07-13	Summer	10:12	10:37	Sara	3	5	24	11	None	50	None	
603	T-21	Raptor Mitigation	2018-07-17	Summer	12:13	12:55	Sara	4	5	22	23	None	0	Thunderstorm	Hit and miss thunderstorms in area yesterday
604	T-21	Raptor Mitigation	2018-07-20	Summer	10:28	10:48	Sara & Sarah	3	5	25	21	None	20	None	
605	T-21	Raptor Mitigation	2018-07-24	Summer	09:44	10:25	Sarah	4	5	22	10	Light rain	100	None	
606	T-21	Raptor Mitigation	2018-07-27	Summer	09:36	10:16	Sara	3	5	0	0	None	5	None	
607	T-21	Raptor Mitigation	2018-07-31	Summer	09:40	10:22	Sarah	4	5	22	10	None	100	None	
608	T-21	Raptor Mitigation	2018-08-03	Summer	11:59	12:21	Sara & Sarah	3	5	27	13	None	2	None	
609	T-21	Raptor Mitigation	2018-08-07	Summer	13:15	13:37	Sara & Sarah	4	5	25	11	None	25	Thunderstorm	Yesterday
610	T-21	Raptor Mitigation	2018-08-10	Summer	12:25	12:45	Sara & Sarah	3	5	24	14	None	0	Thunderstorm	Yesterday
611	T-21	Raptor Mitigation	2018-08-14	Summer	10:37	10:57	Sara & Sarah	4	5	26	8	None	0	None	
612	T-21	Raptor Mitigation	2018-08-17	Summer	15:49	16:09	Sara & Sarah	3	5	24	11	None	100	None	
613	T-21	Raptor Mitigation	2018-08-21	Summer	13:37	13:59	Sara & Sarah	4	5	24	14	None	100	Heavy rain,Thunderstorm	During night before
614	T-21	Raptor Mitigation	2018-08-24	Summer	12:02	12:24	Sara & Sarah	3	5	24	18	None	10	None	
615	T-21	Raptor Mitigation	2018-08-28	Summer	11:50	12:10	Sara & Sarah	4	5	26	21	None	25		Heatwave yesterday, humidex near 40
616	T-21	Raptor Mitigation	2018-08-31	Summer	10:28	10:50	Sara & Sarah	3	5	21	6	None	0	None	
617	T-21	Raptor Mitigation	2018-09-04	Fall	09:44	10:24	Sara	4	5	22	11	Light rain	100		This morning early am
618	T-21	Raptor Mitigation	2018-09-07	Fall	09:39	10:20	Sara	3	5	18	10	None	25	None	
619	T-21	Raptor Mitigation	2018-09-11	Fall	10:36	11:19	Sarah	3	5	18	10	None	30	None	
620	T-21	Raptor Mitigation	2018-09-14	Fall	09:34	10:14	Sara	3	5	19	6	None	100	None	
621	T-21	Raptor Mitigation	2018-09-18	Fall	09:53	10:35	Sara	4	5	19	11	None	100	None	
622	T-21	Raptor Mitigation	2018-09-21	Fall	09:24	10:04	Sara	3	5	26	29	None	0	None	
623	T-21	Raptor Mitigation	2018-09-25	Fall	09:32	10:12	Sara	4	5	19	14	Light rain	100	Heavy rain,Light rain	Throughout night before
624	T-21	Raptor Mitigation	2018-09-28	Fall	10:21	10:59	Sara	3	5	16	19	None	75	None	
625	T-21	Raptor Mitigation	2018-10-01	Fall	16:08	16:46	Sara	3	5	9	19	Light rain	100	Heavy rain,Light rain	Overnight and today
626	T-21	Raptor Mitigation	2018-10-05	Fall	14:00	14:37	Sara	4	5	12	21	None	100	None	
627	T-21	Raptor Mitigation	2018-10-09	Fall	10:58	11:37	Sara	4	5	24	18	None	30	None	
628	T-21	Raptor Mitigation	2018-10-12	Fall	13:33	14:13	Sara	3	5	8	21	None	100	None	
629	T-21	Raptor Mitigation	2018-10-16	Fall	10:01	10:40	Sara	4	5	4	19	None	0	None	
630	T-21	Raptor Mitigation	2018-10-19	Fall	09:45	10:25	Sara	3	5	7	16	None	5	None	
631	T-21	Raptor Mitigation	2018-10-23	Fall	09:39	10:18	Sara	4	5	8	26	None	95	None	
632	T-21	Raptor Mitigation	2018-10-26	Fall	09:42	10:22	Sara	3	5	5	14	None	100	None	
633	T-21	Raptor Mitigation	2018-10-30	Fall	13:04	13:44	Sara	4	5	10	11	None	75	None	
634	T-21	Raptor Mitigation	2018-11-02	Fall	09:36	10:16	Sara	3	5	7	18	None	100	Intermittent rain,Heavy rain,Light rain	Tuesday to Friday morning
635	T-21	Raptor Mitigation	2018-11-05	Fall	13:53	14:33	Sara	3	5	12	18	None	25	Intermittent rain	Overnight
636	T-21	Raptor Mitigation	2018-11-14	Fall	13:40	14:15	Sara	9	5	1	16	None	100	Heavy snow	Monday night and Tuesday during day
637	T-21	Raptor Mitigation	2018-11-23	Fall	11:30	11:48	Sara & Sarah	9	5	2	23	None	0		Freezing temps just below zero and some snow fall
638	T-21	Raptor Mitigation	2018-11-27	Fall	13:39	14:11	Sarah	4	5	-1	31	Light snow	100	None	
639	T-22	Raptor Mitigation	2018-05-08	Spring	14:35	15:05	Sara & Sarah	207	5	23	11	None	0	None	
640	T-22	Raptor Mitigation	2018-05-11	Spring	14:52	15:15	Sara & Sarah	3	5	7	14	None	100	None	
641	T-22	Raptor Mitigation	2018-05-15	Spring	15:34	15:54	Sara & Sarah	4	5	18	14	None	0	Thunderstorm,Heavy rain	
642	T-22	Raptor Mitigation	2018-05-18	Spring	12:48	13:08	Sara & Sarah	3	5	19	32	None	20	None	
643	T-22	Raptor Mitigation	2018-05-22	Spring	15:45	16:13	Sara & Sarah	4	5	13	13	None	100	Light rain	
644	T-22	Raptor Mitigation	2018-05-25	Spring	10:15	10:42	Sara	3	5	23	14	None	5	None	
645	T-22	Raptor Mitigation	2018-05-29	Spring	10:08	10:39	Sara	4	5	29	13	None	5	None	

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646	T-22	Raptor Mitigation	2018-06-01	Summer	09:25	09:59	Sara	3	5	16	13	None	90	None	
647	T-22	Raptor Mitigation	2018-06-05	Summer	10:07	10:37	Sarah	4	5	11	18	None	100	None	
648	T-22	Raptor Mitigation	2018-06-08	Summer	09:45	10:14	Sarah	3	5	21	8	None	25	None	
649	T-22	Raptor Mitigation	2018-06-12	Summer	12:04	12:25	Sara & Sarah	4	5	26	14	None	50	None	
650	T-22	Raptor Mitigation	2018-06-15	Summer	10:18	10:56	Sara	3	5	0	0	None	2	None	
651	T-22	Raptor Mitigation	2018-06-19	Summer	12:18	12:42	Sara & Sarah	4	5	27	10	None	10	None	
652	T-22	Raptor Mitigation	2018-06-23	Summer	11:19	11:43	Sara & Sarah	4	5	18	16	None	100	None	
653	T-22	Raptor Mitigation	2018-06-26	Summer	09:46	10:26	Sara	3	5	20	21	None	10	None	
654	T-22	Raptor Mitigation	2018-06-29	Summer	13:35	13:56	Sara & Sarah	3	5	31	14	None	0	None	
655	T-22	Raptor Mitigation	2018-07-03	Summer	12:26	12:46	Sara & Sarah	4	5	31	14	None	0	None	
656	T-22	Raptor Mitigation	2018-07-06	Summer	13:40	14:08	Sara & Sarah	3	5	19	26	None	0	Heavy rain	
657	T-22	Raptor Mitigation	2018-07-10	Summer	12:16	12:37	Sara & Sarah	4	5	23	18	None	0	None	
658	T-22	Raptor Mitigation	2018-07-13	Summer	10:39	11:05	Sara	3	5	25	11	None	30	None	
659	T-22	Raptor Mitigation	2018-07-17	Summer	12:13	12:57	Sarah	4	5	23	21	None	0	None	
660	T-22	Raptor Mitigation	2018-07-20	Summer	10:53	11:14	Sara & Sarah	3	5	27	24	None	40	None	
661	T-22	Raptor Mitigation	2018-07-24	Summer	09:57	10:34	Sara	4	5	22	11	None	80	None	
662	T-22	Raptor Mitigation	2018-07-27	Summer	10:23	11:03	Sara	3	5	21	14	None	10	None	
663	T-22	Raptor Mitigation	2018-07-31	Summer	10:24	11:05	Sarah	4	5	24	10	None	100	None	
664	T-22	Raptor Mitigation	2018-08-03	Summer	11:34	11:54	Sara & Sarah	3	5	27	11	None	5	None	
665	T-22	Raptor Mitigation	2018-08-07	Summer	13:04	13:43	Sara & Sarah	4	5	25	10	None	5	Thunderstorm	Yesterday
666	T-22	Raptor Mitigation	2018-08-10	Summer	11:59	12:20	Sara & Sarah	3	5	24	14	None	0	Thunderstorm	Yesterday
667	T-22	Raptor Mitigation	2018-08-14	Summer	09:39	10:19	Sara	4	5	26	5	None	5	None	
668	T-22	Raptor Mitigation	2018-08-17	Summer	15:25	15:45	Sara & Sarah	3	5	24	10	None	90	None	
669	T-22	Raptor Mitigation	2018-08-21	Summer	13:14	13:34	Sara & Sarah	4	5	24	18	Light rain	100	Heavy rain,Thunderstorm	During night before
670	T-22	Raptor Mitigation	2018-08-24	Summer	11:37	11:59	Sara & Sarah	3	5	24	18	None	10	None	
671	T-22	Raptor Mitigation	2018-08-28	Summer	12:14	12:34	Sara & Sarah	4	5	27	24	None	2		Heatwave yesterday, humidex near 40 yesterday
672	T-22	Raptor Mitigation	2018-08-31	Summer	10:56	11:16	Sara & Sarah	3	5	22	6	None	0	None	
673	T-22	Raptor Mitigation	2018-09-04	Fall	10:29	10:49	Sara & Sarah	4	5	23	13	None	15	Heavy rain	This morning early am
674	T-22	Raptor Mitigation	2018-09-07	Fall	10:28	10:48	Sara & Sarah	3	5	21	11	None	10	None	
675	T-22	Raptor Mitigation	2018-09-11	Fall	09:53	10:34	Sarah	3	5	16	8	None	90	None	
676	T-22	Raptor Mitigation	2018-09-14	Fall	16:29	17:10	Sara	3	5	26	10	None	25	None	
677	T-22	Raptor Mitigation	2018-09-18	Fall	10:00	10:45	Sarah	4	5	19	11	None	100	None	
678	T-22	Raptor Mitigation	2018-09-21	Fall	10:10	10:50	Sara	3	5	27	31	None	0	None	
679	T-22	Raptor Mitigation	2018-09-25	Fall	10:20	11:00	Sara	4	5	19	14	None	100	None	
680	T-22	Raptor Mitigation	2018-09-28	Fall	16:38	17:18	Sara	3	5	13	13	Light rain	100	None	
681	T-22	Raptor Mitigation	2018-10-01	Fall	15:24	16:03	Sara	3	5	9	19	Light rain	100	Heavy rain,Light rain	Overnight
682	T-22	Raptor Mitigation	2018-10-05	Fall	14:46	15:26	Sara	4	5	12	23	None	100	None	
683	T-22	Raptor Mitigation	2018-10-09	Fall	11:43	12:23	Sara	4	5	24	18	None	15	None	
684	T-22	Raptor Mitigation	2018-10-12	Fall	14:21	15:01	Sara	3	5	8	21	None	100	None	
685	T-22	Raptor Mitigation	2018-10-16	Fall	10:45	11:24	Sara	4	5	7	24	None	0	None	
686	T-22	Raptor Mitigation	2018-10-19	Fall	10:28	11:08	Sara	3	5	9	19	None	5	None	
687	T-22	Raptor Mitigation	2018-10-23	Fall	15:22	16:01	Sara	4	5	8	32	None	100	None	
688	T-22	Raptor Mitigation	2018-10-26	Fall	10:27	11:07	Sara	3	5	6	14	None	100	None	
689	T-22	Raptor Mitigation	2018-10-30	Fall	12:19	12:59	Sara	4	5	11	10	None	10	None	
690	T-22	Raptor Mitigation	2018-11-02	Fall	10:23	11:01	Sara	3	5	5	18	None	100	Heavy rain,Light rain,Intermittent rain	Tuesday to Friday morning
691	T-22	Raptor Mitigation	2018-11-05	Fall	12:49	13:29	Sara	3	5	11	19	None	90	Intermittent rain	Overnight
692	T-22	Raptor Mitigation	2018-11-14	Fall	13:00	13:37	Sara	9	5	1	18	None	100	Heavy snow	Monday night and Tuesday during day
693	T-22	Raptor Mitigation	2018-11-23	Fall	11:55	12:13	Sara & Sarah	9	5	2	23	None	0		Freezing temps just below zero and some snow fall
694	T-22	Raptor Mitigation	2018-11-27	Fall	14:13	14:45	Sarah	4	5	-2	29	None	100	None	
695	T-23	Raptor Mortality	2018-05-22	Spring	18:31	19:00	Sara & Sarah	193	5	13	13	None	100	Light rain	
696	T-23	Raptor Mortality	2018-06-19	Summer	17:39	18:05	Sara & Sarah	28	5	26	14	None	100	None	
697	T-23	Raptor Mortality	2018-07-18	Summer	10:08	10:32	Sara & Sarah	29	5	19	8	None	0	None	
698	T-23	Raptor Mortality	2018-08-24	Summer	16:41	17:01	Sara & Sarah	36	5	24	19	None	80	None	
699	T-23	Raptor Mortality	2018-09-19	Fall	10:37	11:17	Sara	26	5	19	8	None	0	None	
700	T-23	Raptor Mortality	2018-10-17	Fall	12:16	12:54	Sara	28	5	5	27	None	100	None	
701	T-23	Raptor Mortality	2018-11-20	Fall	16:14	16:49	Sara	34	5	-3	19	None	90	Light snow	Freezing temps just below zero
702	T-25	Raptor Mortality	2018-05-22	Spring	19:17	19:50	Sara & Sarah	193	5	11	16	None	100	Light rain	
703	T-25	Raptor Mortality	2018-06-19	Summer	18:08	18:34	Sara & Sarah	28	5	25	14	None	100	None	
704	T-25	Raptor Mortality	2018-07-18	Summer	10:42	11:02	Sara & Sarah	29	5	9	8	None	0	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
705	T-25	Raptor Mortality	2018-08-23	Summer	15:54	16:14	Sara & Sarah	35	5	23	14	None	0	None	
706	T-25	Raptor Mortality	2018-09-19	Fall	09:41	10:21	Sara	27	5	17	8	None	0	None	
707	T-25	Raptor Mortality	2018-10-17	Fall	11:10	11:50	Sara	28	5	6	27	None	100	None	
708	T-25	Raptor Mortality	2018-11-20	Fall	15:34	16:09	Sara	34	5	-3	23	None	75	Light snow	Freezing temps just below zero
709	T-26	Raptor Mitigation	2018-05-07	Spring	12:00	12:32	Sara & Sarah	208	5	16	10	None	0	None	
710	T-26	Raptor Mitigation	2018-05-10	Spring	12:47	13:11	Sara & Sarah	3	5	14	14	None	100	None	
711	T-26	Raptor Mitigation	2018-05-14	Spring	14:45	15:08	Sara & Sarah	4	5	20	13	None	100	None	
712	T-26	Raptor Mitigation	2018-05-17	Spring	12:27	12:49	Sara & Sarah	3	5	21	14	None	0	None	
713	T-26	Raptor Mitigation	2018-05-21	Spring	11:48	12:06	Sara & Sarah	4	5	18	8	None	10	None	
714	T-26	Raptor Mitigation	2018-05-24	Spring	11:29	11:49	Sara & Sarah	3	5	20	11	None	0	None	
715	T-26	Raptor Mitigation	2018-05-28	Spring	10:22	10:57	Sarah	4	5	24	6	None	10	None	
716	T-26	Raptor Mitigation	2018-05-31	Spring	09:50	10:28	Sarah	3	5	26	26	None	50	None	
717	T-26	Raptor Mitigation	2018-06-04	Summer	14:39	15:07	Sara & Sarah	4	5	17	23	None	0	None	
718	T-26	Raptor Mitigation	2018-06-07	Summer	15:51	16:10	Sara & Sarah	3	5	25	10	None	50	None	
719	T-26	Raptor Mitigation	2018-06-11	Summer	14:51	15:11	Sara & Sarah	4	5	27	23	None	0	None	
720	T-26	Raptor Mitigation	2018-06-14	Summer	13:16	13:37	Sara & Sarah	3	5	21	24	None	0	None	
721	T-26	Raptor Mitigation	2018-06-18	Summer	13:49	14:19	Sarah	4	5	27	23	None	100	None	
722	T-26	Raptor Mitigation	2018-06-22	Summer	13:21	13:43	Sara & Sarah	4	5	22	26	None	100	None	
723	T-26	Raptor Mitigation	2018-06-25	Summer	09:35	10:22	Sarah	3	5	19	14	None	0	None	
724	T-26	Raptor Mitigation	2018-06-28	Summer	11:39	12:01	Sara & Sarah	3	5	19	11	None	100	None	
725	T-26	Raptor Mitigation	2018-07-02	Summer	11:03	11:25	Sara & Sarah	4	5	27	14	None	100	None	
726	T-26	Raptor Mitigation	2018-07-06	Summer	12:55	13:20	Sara & Sarah	4	5	19	26	None	0	Heavy rain	
727	T-26	Raptor Mitigation	2018-07-09	Summer	14:08	14:35	Sara & Sarah	4	5	28	18	None	0	None	
728	T-26	Raptor Mitigation	2018-07-12	Summer	15:59	16:21	Sara & Sarah	3	5	27	10	None	80	None	
729	T-26	Raptor Mitigation	2018-07-16	Summer	12:12	12:35	Sara & Sarah	4	5	29	13	None	5	None	
730	T-26	Raptor Mitigation	2018-07-19	Summer	14:24	14:50	Sara & Sarah	3	5	24	10	None	10	None	
731	T-26	Raptor Mitigation	2018-07-23	Summer	14:40	15:09	Sara & Sarah	4	5	26	14	None	90	None	
732	T-26	Raptor Mitigation	2018-07-26	Summer	11:12	11:38	Sara & Sarah	3	5	25	19	None	30	None	
733	T-26	Raptor Mitigation	2018-07-30	Summer	12:42	13:07	Sara & Sarah	4	5	25	5	None	30	None	
734	T-26	Raptor Mitigation	2018-08-02	Summer	13:26	13:49	Sara & Sarah	3	5	26	18	None	25	None	
735	T-26	Raptor Mitigation	2018-08-07	Summer	12:37	13:03	Sara & Sarah	5	5	25	8	None	20	Thunderstorm	Yesterday
736	T-26	Raptor Mitigation	2018-08-09	Summer	14:13	14:37	Sara & Sarah	2	5	23	10	None	35	None	
737	T-26	Raptor Mitigation	2018-08-13	Summer	14:12	14:36	Sara & Sarah	4	5	26	14	None	15	None	
738	T-26	Raptor Mitigation	2018-08-16	Summer	15:26	15:49	Sara & Sarah	3	5	23	18	None	100	Light rain,Heavy rain	Late am/early pm today
739	T-26	Raptor Mitigation	2018-08-20	Summer	14:43	15:26	Sara	4	5	25	16	None	25	None	
740	T-26	Raptor Mitigation	2018-08-23	Summer	14:08	14:32	Sara & Sarah	3	5	23	14	None	0	None	
741	T-26	Raptor Mitigation	2018-08-27	Summer	13:56	14:25	Sara & Sarah	4	5	28	19	None	85	Heavy rain,Thunderstorm	During night before
742	T-26	Raptor Mitigation	2018-08-30	Summer	13:57	14:21	Sara & Sarah	3	5	21	10	None	75	None	
743	T-26	Raptor Mitigation	2018-09-03	Fall	15:06	15:50	Sara	4	5	26	11	None	25	None	
744	T-26	Raptor Mitigation	2018-09-06	Fall	14:21	14:43	Sara & Sarah	3	5	22	13	None	70	None	
745	T-26	Raptor Mitigation	2018-09-10	Fall	14:27	14:49	Sara & Sarah	4	5	14	23	None	100	Light rain	Early am, overnight
746	T-26	Raptor Mitigation	2018-09-13	Fall	15:30	16:12	Sara	3	5	24	14	None	100	None	
747	T-26	Raptor Mitigation	2018-09-17	Fall	15:39	16:23	Sara	4	5	28	10	None	0	None	
748	T-26	Raptor Mitigation	2018-09-20	Fall	11:58	12:18	Sara	3	5	19	18	None	100	None	
749	T-26	Raptor Mitigation	2018-09-20	Fall	13:44	14:04	Sara	3	5	19	16	None	100	None	
750	T-26	Raptor Mitigation	2018-09-24	Fall	09:18	10:00	Sara	4	5	14	26	None	0	None	
751	T-26	Raptor Mitigation	2018-09-27	Fall	14:52	15:32	Sara	3	5	17	14	None	75	None	
752	T-26	Raptor Mitigation	2018-10-01	Fall	12:19	12:59	Sara	4	5	9	19	Light rain	100	Light rain,Heavy rain	Overnight
753	T-26	Raptor Mitigation	2018-10-04	Fall	09:19	10:00	Sara	3	5	15	27	None	100	None	
754	T-26	Raptor Mitigation	2018-10-08	Fall	09:35	10:15	Sara	4	5	14	21	None	60	None	
755	T-26	Raptor Mitigation	2018-10-11	Fall	13:40	14:17	Sara	3	5	13	24	None	100		Warmer temps for past 3 days
756	T-26	Raptor Mitigation	2018-10-15	Fall	13:14	13:54	Sara	4	5	10	29	None	100	Light rain	This morning
757	T-26	Raptor Mitigation	2018-10-18	Fall	13:06	13:46	Sara	3	5	6	16	None	50	None	
758	T-26	Raptor Mitigation	2018-10-22	Fall	13:13	13:53	Sara	4	5	9	11	None	0	None	
759	T-26	Raptor Mitigation	2018-10-25	Fall	11:34	12:14	Sara	3	5	7	11	None	90	None	
760	T-26	Raptor Mitigation	2018-10-29	Fall	13:54	14:34	Sara	4	5	8	27	None	40	Intermittent rain	Day and night before
761	T-26	Raptor Mitigation	2018-11-02	Fall	15:09	15:49	Sara	4	5	7	16	None	80	Heavy rain,Light rain,Intermittent rain	Tuesday to Friday morning
762	T-26	Raptor Mitigation	2018-11-05	Fall	11:28	12:08	Sara	3	5	11	19	None	100	Intermittent rain	Overnight
763	T-26	Raptor Mitigation	2018-11-14	Fall	12:20	12:51	Sara	9	5	1	19	None	50	Heavy snow	Monday night and Tuesday during day

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
764	T-26	Raptor Mitigation	2018-11-19	Fall	16:15	16:50	Sara	5	5	2	10	None	50		Freezing temps just below zero
765	T-26	Raptor Mitigation	2018-11-27	Fall	12:24	12:58	Sarah	8	5	-1	31	Light snow	100	None	
766	T-27	Sub-sample	2018-05-01	Spring	13:02	13:20	Sara & Sarah	155	5	25	21	None	0	None	Cooler April temps
767	T-27	Sub-sample	2018-05-02	Spring	10:09	11:00	Sara & Sarah	156	5	22	29	None	60	Strong winds	Warm
768	T-27	Sub-sample	2018-05-04	Spring	11:48	12:20	Sara & Sarah	3	5	22	35	None	80	Thunderstorm	Yesterday
769	T-27	Sub-sample	2018-05-07	Spring	12:35	13:05	Sara & Sarah	3	5	17	10	None	0	None	
770	T-27	Sub-sample	2018-05-10	Spring	12:00	12:35	Sara & Sarah	3	5	13	13	None	100	None	
771	T-27	Sub-sample	2018-05-14	Spring	14:22	14:44	Sara & Sarah	4	5	20	13	None	100	None	
772	T-27	Sub-sample	2018-05-17	Spring	11:59	12:22	Sara & Sarah	3	5	21	14	None	0	None	
773	T-27	Sub-sample	2018-05-21	Spring	11:24	11:46	Sara & Sarah	4	5	20	10	None	50	None	
774	T-27	Sub-sample	2018-05-24	Spring	11:00	11:25	Sara & Sarah	3	5	21	10	None	0	None	
775	T-27	Sub-sample	2018-05-28	Spring	09:40	10:15	Sarah	4	5	19	3	None	7	None	
776	T-27	Sub-sample	2018-05-31	Spring	10:28	11:05	Sarah	3	5	27	26	None	40	None	
777	T-27	Sub-sample	2018-06-04	Summer	15:09	15:40	Sara & Sarah	4	5	18	19	None	0	None	
778	T-27	Sub-sample	2018-06-07	Summer	16:13	16:34	Sara & Sarah	3	5	25	10	None	0	None	
779	T-27	Sub-sample	2018-06-11	Summer	15:13	15:33	Sara & Sarah	4	5	27	21	None	0	None	
780	T-27	Sub-sample	2018-06-14	Summer	13:39	14:02	Sara & Sarah	3	5	21	24	None	0	None	
781	T-27	Sub-sample	2018-06-18	Summer	13:07	13:47	Sarah	4	5	27	23	None	100	None	
782	T-27	Sub-sample	2018-06-22	Summer	12:51	13:16	Sara & Sarah	4	5	21	26	None	100	None	
783	T-27	Sub-sample	2018-06-25	Summer	10:32	11:02	Sara & Sarah	3	5	19	13	None	100	None	
784	T-27	Sub-sample	2018-06-28	Summer	12:03	12:25	Sara & Sarah	3	5	19	11	None	100	None	
785	T-27	Sub-sample	2018-07-02	Summer	11:27	11:49	Sara & Sarah	4	5	27	14	None	100	None	
786	T-27	Sub-sample	2018-07-05	Summer	11:35	11:59	Sara & Sarah	3	5	33	13	None	0	None	
787	T-27	Sub-sample	2018-07-09	Summer	13:39	14:06	Sara & Sarah	4	5	27	16	None	0	None	
788	T-27	Sub-sample	2018-07-12	Summer	15:32	15:55	Sara & Sarah	3	5	27	10	None	20	None	
789	T-27	Sub-sample	2018-07-16	Summer	11:47	12:08	Sara & Sarah	4	5	29	13	None	2	None	
790	T-27	Sub-sample	2018-07-19	Summer	13:55	14:16	Sara & Sarah	3	5	24	10	None	5	None	
791	T-27	Sub-sample	2018-07-23	Summer	14:15	14:35	Sara & Sarah	4	5	26	14	None	75	Heavy rain	Yesterday
792	T-27	Sub-sample	2018-07-26	Summer	11:44	12:08	Sara & Sarah	3	5	25	19	None	25	None	
793	T-27	Sub-sample	2018-07-30	Summer	13:15	13:36	Sara & Sarah	4	5	27	10	None	40	None	
794	T-27	Sub-sample	2018-08-02	Summer	12:58	13:19	Sara & Sarah	3	5	26	14	None	30	None	
795	T-27	Sub-sample	2018-08-07	Summer	12:07	12:28	Sara & Sarah	5	5	25	8	None	5	Thunderstorm	Yesterday
796	T-27	Sub-sample	2018-08-09	Summer	13:48	14:08	Sara & Sarah	2	5	23	10	None	0	Thunderstorm	Yesterday
797	T-27	Sub-sample	2018-08-13	Summer	13:44	14:05	Sara & Sarah	4	5	25	14	None	25	None	
798	T-27	Sub-sample	2018-08-16	Summer	15:01	15:21	Sara & Sarah	3	5	23	19	None	100	Light rain,Heavy rain	Today late am/early pm
799	T-27	Sub-sample	2018-08-20	Summer	14:00	14:40	Sara	4	5	25	16	None	50	None	
800	T-27	Sub-sample	2018-08-23	Summer	13:42	14:04	Sara & Sarah	3	5	22	14	None	0	None	
801	T-27	Sub-sample	2018-08-27	Summer	12:12	12:32	Sara & Sarah	4	5	24	16	None	80	Heavy rain,Thunderstorm	During night before
802	T-27	Sub-sample	2018-08-30	Summer	13:31	13:51	Sara & Sarah	3	5	21	11	None	75	None	
803	T-27	Sub-sample	2018-09-03	Fall	12:39	12:59	Sara & Sarah	4	5	26	11	None	85	None	
804	T-27	Sub-sample	2018-09-06	Fall	13:46	14:06	Sara & Sarah	3	5	22	11	None	95	None	
805	T-27	Sub-sample	2018-09-10	Fall	14:01	14:21	Sara & Sarah	4	5	14	23	Light rain	100	Light rain	Early am/ overnight
806	T-27	Sub-sample	2018-09-13	Fall	14:40	15:20	Sara	3	5	24	16	None	100	None	
807	T-27	Sub-sample	2018-09-17	Fall	14:46	15:26	Sara	4	5	28	10	None	0	None	
808	T-27	Sub-sample	2018-09-20	Fall	11:33	11:53	Sara & Sarah	3	5	18	16	Light rain	100	None	
809	T-27	Sub-sample	2018-09-24	Fall	13:18	13:38	Sara & Sarah	4	5	19	29	None	80	None	
810	T-27	Sub-sample	2018-09-27	Fall	13:09	13:29	Sara & Sarah	3	5	17	14	None	100	None	
811	T-27	Sub-sample	2018-10-01	Fall	13:05	13:45	Sara	4	5	9	19	Light rain	100	Light rain,Heavy rain	Overnight
812	T-27	Sub-sample	2018-10-04	Fall	11:54	12:14	Sara & Sarah	3	5	12	31	None	75	None	
813	T-27	Sub-sample	2018-10-08	Fall	13:26	14:05	Sara	4	5	21	16	None	15	None	
814	T-27	Sub-sample	2018-10-11	Fall	12:05	12:56	Sarah	3	5	13	24	None	100	None	
815	T-27	Sub-sample	2018-10-15	Fall	13:13	14:04	Sarah	4	5	10	24	None	100	None	
816	T-27	Sub-sample	2018-10-18	Fall	13:03	13:54	Sarah	3	5	5	14	None	30	None	
817	T-27	Sub-sample	2018-10-22	Fall	12:52	13:43	Sarah	4	5	10	11	None	0	None	
818	T-27	Sub-sample	2018-10-25	Fall	11:32	12:13	Sarah	3	5	7	11	None	95	None	
819	T-27	Sub-sample	2018-10-29	Fall	11:35	12:17	Sarah	4	5	5	26	None	100	None	
820	T-27	Sub-sample	2018-11-01	Fall	10:48	11:11	Sara & Sarah	3	5	7	11	None	100	Heavy rain,Light rain	Since Tuesday
821	T-27	Sub-sample	2018-11-08	Fall	10:55	11:36	Sarah	7	5	4	18	None	100	None	
822	T-27	Sub-sample	2018-11-16	Fall	12:04	12:33	Sara	8	5	-1	21	Light snow	100	Light snow,Heavy snow	
823	T-27	Sub-sample	2018-11-19	Fall	15:37	16:12	Sara	3	5	3	10	None	90		Freezing temps just below zero



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
824	T-27	Sub-sample	2018-11-27	Fall	13:00	13:32	Sarah	8	5	-1	31	Light snow	100	None	
825	T-29	Raptor Mortality	2018-05-24	Spring	16:15	16:45	Sara & Sarah	191	5	27	11	None	0	None	
826	T-29	Raptor Mortality	2018-06-19	Summer	14:05	14:25	Sara & Sarah	26	5	26	11	None	100	None	
827	T-29	Raptor Mortality	2018-07-18	Summer	11:14	11:34	Sara & Sarah	29	5	19	8	None	0	None	
828	T-29	Raptor Mortality	2018-08-21	Summer	15:16	15:36	Sara & Sarah	34	5	23	11	None	100	None	
829	T-29	Raptor Mortality	2018-09-19	Fall	11:30	12:10	Sara	29	5	21	8	None	5	None	
830	T-29	Raptor Mortality	2018-10-17	Fall	09:32	10:10	Sara	28	5	8	24	None	100	None	
831	T-29	Raptor Mortality	2018-11-23	Fall	09:47	10:05	Sara & Sarah	35	5	-1	21	None	0		Freezing temps, some snow
832	T-30	Raptor Mortality	2018-05-24	Spring	16:53	17:23	Sara & Sarah	191	5	27	11	None	0	None	
833	T-30	Raptor Mortality	2018-06-19	Summer	14:28	14:50	Sara & Sarah	26	5	26	11	None	100	None	
834	T-30	Raptor Mortality	2018-07-18	Summer	12:51	13:12	Sara & Sarah	29	5	21	11	None	0	None	
835	T-30	Raptor Mortality	2018-08-21	Summer	15:42	16:02	Sara & Sarah	34	5	23	11	None	100	Heavy rain,Thunderstorm	During night before
836	T-30	Raptor Mortality	2018-09-19	Fall	12:19	12:46	Sara	29	5	21	8	None	5	None	
837	T-30	Raptor Mortality	2018-10-17	Fall	10:18	10:56	Sara	28	5	7	29	None	100	None	
838	T-30	Raptor Mortality	2018-11-23	Fall	10:12	10:30	Sara & Sarah	35	5	-1	24	None	0		Freezing temps just below zero and snowfall
839	T-31	Sub-sample	2018-05-02	Spring	16:40	17:40	Sara & Sarah	155	5	26	26	None	40	None	
840	T-31	Sub-sample	2018-05-05	Spring	13:25	14:10	Sara & Sarah	3	5	23	23	None	0	Strong winds	
841	T-31	Sub-sample	2018-05-08	Spring	16:40	17:42	Sara & Sarah	3	5	24	13	None	0	None	
842	T-31	Sub-sample	2018-05-11	Spring	15:55	16:21	Sara & Sarah	3	5	7	13	None	100	None	
843	T-31	Sub-sample	2018-05-15	Spring	17:07	17:29	Sara & Sarah	4	5	17	18	None	30	Heavy rain,Thunderstorm	
844	T-31	Sub-sample	2018-05-18	Spring	10:10	10:45	Sara	3	5	16	32	None	5	None	
845	T-31	Sub-sample	2018-05-22	Spring	17:59	18:59	Sara & Sarah	4	5	13	13	None	100	Light rain	
846	T-31	Sub-sample	2018-05-25	Spring	16:10	16:45	Sara & Sarah	3	5	31	19	None	10	None	
847	T-31	Sub-sample	2018-05-29	Spring	14:45	15:05	Sara & Sarah	4	5	30	16	None	10	None	
848	T-31	Sub-sample	2018-06-01	Summer	12:08	12:32	Sara & Sarah	3	5	23	16	None	75	None	
849	T-31	Sub-sample	2018-06-05	Summer	13:28	13:51	Sara & Sarah	4	5	11	26	None	100	None	
850	T-31	Sub-sample	2018-06-08	Summer	12:01	12:22	Sara & Sarah	3	5	26	10	None	50	None	
851	T-31	Sub-sample	2018-06-12	Summer	13:04	13:27	Sara & Sarah	4	5	27	16	None	10	None	
852	T-31	Sub-sample	2018-06-15	Summer	14:15	14:35	Sara & Sarah	3	5	23	13	None	100	None	
853	T-31	Sub-sample	2018-06-19	Summer	12:56	13:23	Sarah	4	5	27	10	None	10	None	
854	T-31	Sub-sample	2018-06-23	Summer	09:51	10:29	Sara	4	5	18	16	None	100	Heavy rain	
855	T-31	Sub-sample	2018-06-26	Summer	12:22	13:19	Sara & Sarah	3	5	24	21	None	100	None	
856	T-31	Sub-sample	2018-06-29	Summer	14:14	14:52	Sara & Sarah	3	5	31	14	None	0	None	
857	T-31	Sub-sample	2018-07-03	Summer	11:08	11:28	Sara & Sarah	4	5	30	14	None	0	None	
858	T-31	Sub-sample	2018-07-06	Summer	19:14	19:56	Sara	3	5	19	21	None	0	Heavy rain	
859	T-31	Sub-sample	2018-07-10	Summer	10:41	11:03	Sara & Sarah	4	5	22	14	None	0	None	
860	T-31	Sub-sample	2018-07-13	Summer	09:35	10:00	Sara	3	5	23	10	None	50	None	
861	T-31	Sub-sample	2018-07-17	Summer	11:06	11:26	Sara & Sarah	4	5	22	19	None	0	Thunderstorm	Scattered thunderstorms with lightning yesterday. Was hit and miss
862	T-31	Sub-sample	2018-07-20	Summer	09:54	10:15	Sara & Sarah	3	5	25	21	None	10	None	
863	T-31	Sub-sample	2018-07-24	Summer	14:45	15:16	Sarah	4	5	24	10	Heavy rain	100	None	
864	T-31	Sub-sample	2018-07-27	Summer	14:53	15:14	Sara & Sarah	3	5	22	16	None	90	None	
865	T-31	Sub-sample	2018-07-31	Summer	12:17	12:40	Sara & Sarah	4	5	25	11	None	100	None	
866	T-31	Sub-sample	2018-08-03	Summer	10:33	10:54	Sara & Sarah	3	5	26	11	None	0	None	
867	T-31	Sub-sample	2018-08-07	Summer	11:29	11:49	Sara & Sarah	4	5	24	5	None	20	Thunderstorm	Yesterday
868	T-31	Sub-sample	2018-08-10	Summer	10:32	10:52	Sara & Sarah	3	5	23	16	None	5	Thunderstorm	Yesterday
869	T-31	Sub-sample	2018-08-14	Summer	11:35	11:55	Sara & Sarah	4	5	26	10	None	0	None	
870	T-31	Sub-sample	2018-08-17	Summer	09:32	10:16	Sarah	3	5	23	10	Light rain	100	None	
871	T-31	Sub-sample	2018-08-21	Summer	14:35	14:56	Sara & Sarah	4	5	23	13	None	100	Heavy rain,Thunderstorm	During night before
872	T-31	Sub-sample	2018-08-24	Summer	09:55	10:37	Sarah	3	5	22	10	None	0	None	
873	T-31	Sub-sample	2018-08-28	Summer	09:52	10:13	Sara & Sarah	4	5	26	19	None	80		Heatwave yesterday, humidex near 40
874	T-31	Sub-sample	2018-08-31	Summer	11:52	12:13	Sara & Sarah	3	5	22	3	None	5	None	
875	T-31	Sub-sample	2018-09-04	Fall	11:40	12:00	Sara & Sarah	4	5	26	14	None	2	Heavy rain	Today early am
876	T-31	Sub-sample	2018-09-07	Fall	12:39	12:59	Sara & Sarah	3	5	23	14	None	30	None	
877	T-31	Sub-sample	2018-09-11	Fall	15:35	15:55	Sara & Sarah	4	5	19	11	None	0	None	
878	T-31	Sub-sample	2018-09-14	Fall	17:40	18:20	Sara	3	5	24	10	None	5	None	
879	T-31	Sub-sample	2018-09-18	Fall	13:17	13:37	Sara & Sarah	4	5	21	18	None	0	None	
880	T-31	Sub-sample	2018-09-21	Fall	13:35	13:55	Sara & Sarah	3	5	26	29	None	100	None	
881	T-31	Sub-sample	2018-09-25	Fall	10:15	10:57	Sarah	4	5	19	14	Light rain	100	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
882	T-31	Sub-sample	2018-09-28	Fall	11:36	12:56	Sara & Sarah	3	5	17	21	None	100	None	
883	T-31	Sub-sample	2018-10-02	Fall	12:55	13:37	Sarah	4	5	17	13	None	100	None	
884	T-31	Sub-sample	2018-10-05	Fall	10:19	10:43	Sara & Sarah	3	5	9	19	None	85	None	
885	T-31	Sub-sample	2018-10-09	Fall	10:00	10:40	Sara	4	5	22	16	None	20	None	
886	T-31	Sub-sample	2018-10-12	Fall	09:27	10:19	Sarah	3	5	7	23	None	100	None	
887	T-31	Sub-sample	2018-10-16	Fall	10:34	11:26	Sarah	4	5	6	21	None	0	Intermittent rain	
888	T-31	Sub-sample	2018-10-19	Fall	8:48	09:40	Sarah	3	5	7	14	None	25	None	
889	T-31	Sub-sample	2018-10-23	Fall	09:35	10:17	Sarah	4	5	8	23	None	100	None	
890	T-31	Sub-sample	2018-10-26	Fall	09:45	10:27	Sarah	3	5	4	14	None	100	None	
891	T-31	Sub-sample	2018-10-30	Fall	10:15	10:56	Sarah	4	5	6	3	None	50	None	
892	T-31	Sub-sample	2018-11-02	Fall	09:50	10:31	Sarah	3	5	4	18	Light rain	100	Intermittent rain	
893	T-31	Sub-sample	2018-11-05	Fall	13:37	14:18	Sarah	3	5	12	18	None	100	Intermittent rain	
894	T-31	Sub-sample	2018-11-14	Fall	11:34	12:07	Sara	9	5	0	21	None	80	Heavy snow	Monday night and Tuesday during day
895	T-31	Sub-sample	2018-11-20	Fall	14:40	15:15	Sara	6	5	-3	23	None	40	Light snow	
896	T-31	Sub-sample	2018-11-27	Fall	15:32	16:05	Sarah	7	5	-2	29	Light snow	100	None	
897	T-32	Raptor Mortality	2018-05-16	Spring	12:12	12:36	Sara & Sarah	199	5	19	6	None	0	None	
898	T-32	Raptor Mortality	2018-06-13	Summer	10:47	11:07	Sara & Sarah	28	5	21	16	None	75	None	
899	T-32	Raptor Mortality	2018-07-11	Summer	11:57	12:20	Sara & Sarah	28	5	21	13	None	0	None	
900	T-32	Raptor Mortality	2018-08-15	Summer	10:19	10:43	Sara & Sarah	35	5	26	11	None	10	None	
901	T-32	Raptor Mortality	2018-09-12	Fall	10:31	11:11	Sara	28	5	18	10	None	0	None	
902	T-32	Raptor Mortality	2018-10-10	Fall	11:11	11:51	Sara	28	5	24	21	None	0	None	
903	T-32	Raptor Mortality	2018-11-14	Fall	10:10	10:46	Sara	34	5	-2	21	None	50	Heavy snow	Night and day before
904	T-33	Sub-sample	2018-05-02	Spring	15:55	16:25	Sara & Sarah	155	5	26	29	None	40	None	
905	T-33	Sub-sample	2018-05-05	Spring	14:20	14:50	Sara & Sarah	3	5	24	24	None	0	Strong winds	
906	T-33	Sub-sample	2018-05-08	Spring	16:02	16:30	Sara & Sarah	3	5	22	11	None	0	None	
907	T-33	Sub-sample	2018-05-11	Spring	16:36	17:05	Sara & Sarah	3	5	7	10	None	100	None	
908	T-33	Sub-sample	2018-05-15	Spring	16:43	17:05	Sara & Sarah	4	5	18	18	None	10	Heavy rain,Thunderstorm	
909	T-33	Sub-sample	2018-05-18	Spring	09:35	10:05	Sara	3	5	15	35	None	5	None	
910	T-33	Sub-sample	2018-05-22	Spring	17:12	17:55	Sara & Sarah	4	5	13	13	None	100	Light rain	
911	T-33	Sub-sample	2018-05-25	Spring	15:39	16:03	Sara & Sarah	3	5	29	21	None	10	None	
912	T-33	Sub-sample	2018-05-29	Spring	14:17	14:40	Sara & Sarah	4	5	30	16	None	10	None	
913	T-33	Sub-sample	2018-06-01	Summer	12:41	13:04	Sara & Sarah	3	5	23	16	None	100	None	
914	T-33	Sub-sample	2018-06-05	Summer	12:49	13:13	Sara & Sarah	4	5	10	24	None	100	None	
915	T-33	Sub-sample	2018-06-08	Summer	12:35	12:56	Sara & Sarah	3	5	20	8	None	10	None	
916	T-33	Sub-sample	2018-06-12	Summer	12:38	13:00	Sara & Sarah	4	5	27	16	None	10	None	
917	T-33	Sub-sample	2018-06-15	Summer	12:57	13:23	Sara & Sarah	3	5	23	11	None	0	None	
918	T-33	Sub-sample	2018-06-19	Summer	13:36	13:58	Sara & Sarah	4	5	26	11	None	50	None	
919	T-33	Sub-sample	2018-06-23	Summer	09:01	09:44	Sara	4	5	18	16	None	100	Heavy rain	
920	T-33	Sub-sample	2018-06-26	Summer	13:25	13:46	Sara & Sarah	3	5	24	21	None	90	None	
921	T-33	Sub-sample	2018-06-29	Summer	14:24	14:45	Sara & Sarah	3	5	31	14	None	0	None	
922	T-33	Sub-sample	2018-07-03	Summer	11:33	11:51	Sara & Sarah	4	5	30	14	None	0	None	
923	T-33	Sub-sample	2018-07-06	Summer	18:54	19:35	Sarah	3	5	19	21	None	0	None	
924	T-33	Sub-sample	2018-07-10	Summer	11:44	12:04	Sara & Sarah	4	5	23	14	None	0	None	
925	T-33	Sub-sample	2018-07-13	Summer	08:40	09:20	Sara	3	5	20	8	None	50	None	
926	T-33	Sub-sample	2018-07-17	Summer	10:35	10:56	Sara & Sarah	4	5	22	19	None	0	Thunderstorm	Day before. Was hit and miss
927	T-33	Sub-sample	2018-07-20	Summer	09:25	09:45	Sara & Sarah	3	5	24	21	None	20	None	
928	T-33	Sub-sample	2018-07-24	Summer	14:47	15:20	Sara	4	5	24	11	Light rain	100	None	
929	T-33	Sub-sample	2018-07-27	Summer	14:25	14:45	Sara & Sarah	3	5	22	16	None	80	None	
930	T-33	Sub-sample	2018-07-31	Summer	11:48	12:09	Sara & Sarah	4	5	25	11	None	100	None	
931	T-33	Sub-sample	2018-08-03	Summer	09:43	10:04	Sara & Sarah	3	5	23	11	None	0	None	
932	T-33	Sub-sample	2018-08-07	Summer	10:59	11:21	Sara & Sarah	4	5	23	8	None	10	Thunderstorm	Yesterday
933	T-33	Sub-sample	2018-08-10	Summer	09:27	10:11	Sarah	3	5	21	14	None	0	None	
934	T-33	Sub-sample	2018-08-14	Summer	11:08	11:28	Sara & Sarah	4	5	26	8	None	0	None	
935	T-33	Sub-sample	2018-08-17	Summer	10:33	10:53	Sara & Sarah	3	5	23	11	None	40	None	
936	T-33	Sub-sample	2018-08-21	Summer	14:07	14:27	Sara & Sarah	4	5	24	14	None	90	Heavy rain,Thunderstorm,Intermittent rain	During night before
937	T-33	Sub-sample	2018-08-24	Summer	10:40	11:08	Sara & Sarah	3	5	24	16	None	5	None	
938	T-33	Sub-sample	2018-08-28	Summer	09:21	09:42	Sara & Sarah	4	5	26	19	None	30	None	Heatwave yesterday, humidex near 40
939	T-33	Sub-sample	2018-08-31	Summer	11:24	11:44	Sara & Sarah	3	5	22	3	None	5	None	
940	T-33	Sub-sample	2018-09-04	Fall	11:08	11:28	Sara & Sarah	4	5	24	14	None	5	Heavy rain	Today early am

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
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941	T-33	Sub-sample	2018-09-07	Fall	12:06	12:26	Sara & Sarah	3	5	22	13	None	10	None	
942	T-33	Sub-sample	2018-09-11	Fall	15:07	15:27	Sara & Sarah	4	5	19	13	None	0	None	
943	T-33	Sub-sample	2018-09-14	Fall	18:32	19:12	Sara	3	5	23	8	None	0	None	
944	T-33	Sub-sample	2018-09-18	Fall	12:33	12:53	Sara & Sarah	4	5	20	14	None	0	None	
945	T-33	Sub-sample	2018-09-21	Fall	14:07	14:27	Sara & Sarah	3	5	26	27	None	100	None	
946	T-33	Sub-sample	2018-09-25	Fall	8:40	09:28	Sarah	4	5	18	14	Light rain	100	None	
947	T-33	Sub-sample	2018-09-28	Fall	11:07	11:27	Sara & Sarah	3	5	17	21	None	95	None	
948	T-33	Sub-sample	2018-10-02	Fall	14:03	14:45	Sarah	4	5	16	11	Light rain	100	None	
949	T-33	Sub-sample	2018-10-05	Fall	09:47	10:13	Sara & Sarah	3	5	8	18	None	80	None	
950	T-33	Sub-sample	2018-10-09	Fall	09:15	09:55	Sara	4	5	22	16	None	75	None	
951	T-33	Sub-sample	2018-10-12	Fall	14:41	15:32	Sarah	3	5	7	21	None	100	None	
952	T-33	Sub-sample	2018-10-16	Fall	11:31	12:21	Sarah	4	5	6	21	None	25	Intermittent rain	
953	T-33	Sub-sample	2018-10-19	Fall	10:48	11:48	Sarah	3	5	10	19	None	20	None	
954	T-33	Sub-sample	2018-10-23	Fall	10:22	11:03	Sarah	4	5	8	24	None	100	None	
955	T-33	Sub-sample	2018-10-26	Fall	10:32	11:12	Sarah	3	5	6	13	None	100	None	
956	T-33	Sub-sample	2018-10-30	Fall	11:02	11:43	Sarah	4	5	9	6	None	0	None	
957	T-33	Sub-sample	2018-11-02	Fall	10:35	11:17	Sarah	4	5	4	16	None	100	Intermittent rain	
958	T-33	Sub-sample	2018-11-05	Fall	12:52	13:34	Sarah	3	5	11	19	None	100	Intermittent rain	
959	T-33	Sub-sample	2018-11-14	Fall	09:32	10:06	Sara	9	5	-3	21	None	100	Heavy snow	Night before and yesterday
960	T-33	Sub-sample	2018-11-20	Fall	13:54	14:30	Sara	5	5	-2	24	None	20	Light snow	
961	T-33	Sub-sample	2018-11-27	Fall	14:53	15:27	Sarah	7	5	-2	29	Light snow	100	None	
962	T-34	Raptor Mortality	2018-05-30	Spring	10:42	11:06	Sara & Sarah	185	5	27	21	None	40	None	
963	T-34	Raptor Mortality	2018-06-26	Summer	16:55	17:29	Sara & Sarah	27	5	27	18	None	100	None	
964	T-34	Raptor Mortality	2018-07-25	Summer	12:29	12:49	Sara & Sarah	29	5	22	13	None	25	Intermittent rain	Yesterday
965	T-34	Raptor Mortality	2018-08-29	Summer	11:55	12:17	Sara & Sarah	35	5	22	14	None	90	None	
966	T-34	Raptor Mortality	2018-09-27	Fall	09:25	10:05	Sara	29	5	11	6	None	35	None	
967	T-34	Raptor Mortality	2018-10-24	Fall	12:35	13:15	Sara	27	5	6	14	None	100	Light rain	Overnight
968	T-34	Raptor Mortality	2018-11-28	Fall	13:34	13:51	Sara & Sarah	35	5	0	31	None	100	None	Freezing drizzle
969	T-35	Raptor Mortality	2018-05-30	Spring	10:18	10:40	Sara & Sarah	185	5	27	21	None	40	None	
970	T-35	Raptor Mortality	2018-06-28	Summer	16:38	17:04	Sara & Sarah	29	5	27	10	None	0	None	
971	T-35	Raptor Mortality	2018-07-25	Summer	12:57	13:17	Sara & Sarah	27	5	22	13	None	2	Intermittent rain	Yesterday
972	T-35	Raptor Mortality	2018-08-29	Summer	12:23	12:48	Sara & Sarah	34	5	23	16	None	100	None	
973	T-35	Raptor Mortality	2018-09-27	Fall	10:15	10:55	Sara	29	5	13	6	None	15	None	
974	T-35	Raptor Mortality	2018-10-25	Fall	14:34	15:14	Sara	28	5	8	10	None	50	None	
975	T-35	Raptor Mortality	2018-11-28	Fall	13:59	14:16	Sara & Sarah	34	5	0	31	None	100		Freezing drizzle
976	T-37	Raptor Mortality	2018-05-31	Spring	13:29	13:58	Sara	184	5	29	24	None	40	None	
977	T-37	Raptor Mortality	2018-06-26	Summer	18:03	18:23	Sara & Sarah	27	5	26	16	None	100	None	
978	T-37	Raptor Mortality	2018-07-25	Summer	11:47	12:15	Sara & Sarah	29	5	21	31	None	75	Intermittent rain	Yesterday
979	T-37	Raptor Mortality	2018-08-29	Summer	11:20	11:45	Sara & Sarah	35	5	23	13	None	25	None	
980	T-37	Raptor Mortality	2018-09-26	Fall	11:45	12:25	Sara	28	5	16	24	None	95	Thunderstorm	Overnight
981	T-37	Raptor Mortality	2018-10-24	Fall	11:48	12:28	Sara	28	5	6	16	None	100	Light rain	Overnight
982	T-37	Raptor Mortality	2018-11-27	Fall	12:26	12:58	Sara	33	5	-1	31	None	100		Rain yesterday and freezing temps just below zero
983	T-38	Sub-sample	2018-05-01	Spring	13:45	14:40	Sara & Sarah	155	5	27	21	None	0		Cooler April temps
984	T-38	Sub-sample	2018-05-04	Spring	12:33	13:05	Sara & Sarah	3	5	19	37	None	30	None, Thunderstorm	
985	T-38	Sub-sample	2018-05-07	Spring	13:20	13:45	Sara & Sarah	3	5	19	10	None	10	None	
986	T-38	Sub-sample	2018-05-10	Spring	13:31	14:05	Sara & Sarah	3	5	14	14	None	100	None	
987	T-38	Sub-sample	2018-05-14	Spring	13:42	14:42	Sara & Sarah	4	5	18	14	None	100	None	
988	T-38	Sub-sample	2018-05-17	Spring	13:05	14:27	Sara & Sarah	3	5	22	18	None	0	None	
989	T-38	Sub-sample	2018-05-21	Spring	12:13	12:34	Sara & Sarah	4	5	21	10	None	20	None	
990	T-38	Sub-sample	2018-05-24	Spring	11:59	12:24	Sara & Sarah	3	5	20	11	None	0	None	
991	T-38	Sub-sample	2018-05-28	Spring	12:32	12:55	Sara & Sarah	4	5	29	11	None	25	None	
992	T-38	Sub-sample	2018-05-31	Spring	13:33	13:58	Sarah	3	5	29	26	None	40	None	
993	T-38	Sub-sample	2018-06-04	Summer	12:49	13:10	Sara & Sarah	4	5	13	21	None	100	None	
994	T-38	Sub-sample	2018-06-07	Summer	11:12	11:34	Sara & Sarah	3	5	21	16	None	100	None	
995	T-38	Sub-sample	2018-06-11	Summer	10:00	10:20	Sara & Sarah	4	5	22	27	None	0	None	
996	T-38	Sub-sample	2018-06-14	Summer	12:47	13:08	Sara & Sarah	3	5	21	23	None	0	None	
997	T-38	Sub-sample	2018-06-18	Summer	12:15	12:47	Sarah	4	5	28	19	Light rain	100	None	
998	T-38	Sub-sample	2018-06-22	Summer	13:40	14:12	Sara & Sarah	4	5	22	26	None	100	None	
999	T-38	Sub-sample	2018-06-25	Summer	13:34	14:00	Sara & Sarah	3	5	25	13	None	50	None	
1000	T-38	Sub-sample	2018-06-28	Summer	16:16	16:36	Sara & Sarah	3	5	27	10	None	0	None	
1001	T-38	Sub-sample	2018-07-02	Summer	11:56	12:17	Sara & Sarah	4	5	27	14	None	50	None	
1002	T-38	Sub-sample	2018-07-05	Summer	12:32	12:58	Sara & Sarah	3	5	33	13	None	0	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
1003	T-38	Sub-sample	2018-07-09	Summer	13:07	13:28	Sara & Sarah	4	5	27	16	None	0	None	
1004	T-38	Sub-sample	2018-07-12	Summer	14:54	15:17	Sara & Sarah	3	5	26	10	None	30	None	
1005	T-38	Sub-sample	2018-07-16	Summer	12:46	13:06	Sara & Sarah	4	5	29	30	None	20	None	
1006	T-38	Sub-sample	2018-07-19	Summer	12:47	13:10	Sara & Sarah	3	5	24	10	None	15	None	
1007	T-38	Sub-sample	2018-07-23	Summer	12:23	12:43	Sara & Sarah	4	5	26	14	None	75	None	
1008	T-38	Sub-sample	2018-07-26	Summer	14:04	14:27	Sara & Sarah	3	5	27	19	None	100	None	
1009	T-38	Sub-sample	2018-07-30	Summer	10:20	10:40	Sara & Sarah	4	5	24	8	None	30	None	
1010	T-38	Sub-sample	2018-08-02	Summer	12:20	12:42	Sara & Sarah	3	5	26	14	None	40	None	
1011	T-38	Sub-sample	2018-08-07	Summer	10:30	10:50	Sara & Sarah	5	5	24	6	None	15	Thunderstorm	Yesterday
1012	T-38	Sub-sample	2018-08-09	Summer	13:06	13:26	Sara & Sarah	2	5	23	10	None	0	Thunderstorm	Yesterday
1013	T-38	Sub-sample	2018-08-13	Summer	12:15	12:46	Sara & Sarah	4	5	27	11	None	5	None	
1014	T-38	Sub-sample	2018-08-16	Summer	13:05	13:25	Sara & Sarah	3	5	23	18	Light rain	100	None	
1015	T-38	Sub-sample	2018-08-20	Summer	09:31	10:13	Sarah	4	5	19	10	None	100	None	
1016	T-38	Sub-sample	2018-08-23	Summer	13:06	13:27	Sara & Sarah	3	5	23	14	None	0	None	
1017	T-38	Sub-sample	2018-08-27	Summer	11:38	11:59	Sara & Sarah	4	5	23	16	None	100	None,Heavy rain,Thunderstorm	During night before
1018	T-38	Sub-sample	2018-08-30	Summer	12:45	13:05	Sara & Sarah	3	5	19	14	None	40	None	
1019	T-38	Sub-sample	2018-09-03	Fall	12:05	12:25	Sara & Sarah	4	5	26	11	None	80	None	
1020	T-38	Sub-sample	2018-09-06	Fall	13:05	13:25	Sara & Sarah	3	5	22	11	None	100	None	
1021	T-38	Sub-sample	2018-09-10	Fall	13:24	13:44	Sara & Sarah	4	5	14	23	None	100	Light rain	Early am/ overnight
1022	T-38	Sub-sample	2018-09-13	Fall	13:28	14:08	Sara	3	5	24	18	None	90	None	
1023	T-38	Sub-sample	2018-09-17	Fall	12:44	13:24	Sara	4	5	27	8	None	5	None	
1024	T-38	Sub-sample	2018-09-20	Fall	10:57	11:17	Sara & Sarah	3	5	18	16	None	100	None	
1025	T-38	Sub-sample	2018-09-24	Fall	12:15	12:35	Sara & Sarah	4	5	19	29	None	2	None	
1026	T-38	Sub-sample	2018-09-27	Fall	12:34	12:54	Sara & Sarah	3	5	16	14	None	100	None	
1027	T-38	Sub-sample	2018-10-01	Fall	12:45	13:26	Sarah	4	5	9	19	Light rain	100	None	
1028	T-38	Sub-sample	2018-10-04	Fall	12:40	13:00	Sara & Sarah	3	5	12	34	None	75	None	
1029	T-38	Sub-sample	2018-10-08	Fall	14:33	15:11	Sara	4	5	24	14	None	0	None	
1030	T-38	Sub-sample	2018-10-11	Fall	12:28	13:08	Sara	3	5	13	26	None	100		Warmer temps for past 3 days
1031	T-38	Sub-sample	2018-10-15	Fall	14:14	14:34	Sara	4	5	10	29	None	100	Intermittent rain	Through out morning
1032	T-38	Sub-sample	2018-10-15	Fall	10:36	10:56	Sara	4	5	11	19	Light rain	100	None	
1033	T-38	Sub-sample	2018-10-18	Fall	15:14	15:54	Sara	3	5	7	19	None	0	None	
1034	T-38	Sub-sample	2018-10-22	Fall	15:01	15:21	Sara	4	5	11	13	None	0	None	
1035	T-38	Sub-sample	2018-10-22	Fall	09:27	09:47	Sara	4	5	9	16	None	2	None	
1036	T-38	Sub-sample	2018-10-25	Fall	15:25	16:05	Sara	3	5	8	10	None	50	None	
1037	T-38	Sub-sample	2018-10-29	Fall	10:32	11:12	Sara	4	5	6	26	None	100	Intermittent rain	Day and night before
1038	T-38	Sub-sample	2018-11-01	Fall	14:32	15:12	Sara	3	5	7	8	Light rain	100	Heavy rain,Light rain,Intermittent rain	Tuesday and Wednesday
1039	T-38	Sub-sample	2018-11-05	Fall	10:28	11:08	Sara	4	5	11	16	None	50	Intermittent rain	Overnight
1040	T-38	Sub-sample	2018-11-14	Fall	10:53	11:23	Sara	9	5	-2	21	None	50	Heavy snow	Monday night and Tuesday during day
1041	T-38	Sub-sample	2018-11-19	Fall	13:18	13:53	Sara	5	5	3	11	None	50		Freezing temps just below zero
1042	T-38	Sub-sample	2018-11-27	Fall	11:48	12:18	Sara	8	5	-1	31	None	100		Rain yesterday and freezing temps just below zero
1043	T-39	Raptor Mortality	2018-05-16	Spring	12:40	13:06	Sara & Sarah	199	5	20	10	None	5	None	
1044	T-39	Raptor Mortality	2018-06-13	Summer	11:12	11:33	Sara & Sarah	28	5	24	18	None	100	None	
1045	T-39	Raptor Mortality	2018-07-11	Summer	12:30	12:58	Sara & Sarah	28	5	22	16	None	0	None	
1046	T-39	Raptor Mortality	2018-08-15	Summer	09:46	10:10	Sara & Sarah	35	5	24	11	None	10	None	
1047	T-39	Raptor Mortality	2018-09-12	Fall	09:40	10:20	Sara	28	5	16	8	None	0	None	
1048	T-39	Raptor Mortality	2018-10-10	Fall	10:15	10:55	Sara	28	5	22	21	None	0	None	
1049	T-39	Raptor Mortality	2018-11-15	Fall	09:31	10:11	Sara	36	5	-2	18	None	100		Cold temps, just below freezing
1050	T-41	Raptor Mitigation	2018-05-07	Spring	14:45	15:10	Sara & Sarah	208	5	19	10	None	0	None	
1051	T-41	Raptor Mitigation	2018-05-10	Spring	14:19	14:48	Sara	3	5	14	13	None	100	None	
1052	T-41	Raptor Mitigation	2018-05-14	Spring	11:33	12:31	Sara	4	5	14	11	None	100	None	
1053	T-41	Raptor Mitigation	2018-05-17	Spring	14:08	14:30	Sara & Sarah	3	5	22	18	None	0	None	
1054	T-41	Raptor Mitigation	2018-05-21	Spring	12:40	13:00	Sara & Sarah	4	5	21	10	None	40	None	
1055	T-41	Raptor Mitigation	2018-05-24	Spring	12:54	13:25	Sara & Sarah	3	5	20	11	None	0	None	
1056	T-41	Raptor Mitigation	2018-05-28	Spring	13:40	14:03	Sara & Sarah	4	5	30	13	None	25	None	
1057	T-41	Raptor Mitigation	2018-05-31	Spring	15:32	16:20	Sara	3	5	28	21	None	75	None	
1058	T-41	Raptor Mitigation	2018-06-04	Summer	10:09	10:38	Sara & Sarah	4	5	14	18	None	100	None	
1059	T-41	Raptor Mitigation	2018-06-07	Summer	12:05	12:25	Sara & Sarah	3	5	21	16	None	100	None	
1060	T-41	Raptor Mitigation	2018-06-11	Summer	10:25	10:49	Sara & Sarah	4	5	22	29	None	0	None	
1061	T-41	Raptor Mitigation	2018-06-14	Summer	10:05	10:35	Sara & Sarah	3	5	18	23	None	0	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
1062	T-41	Raptor Mitigation	2018-06-18	Summer	11:15	12:06	Sarah	4	5	29	19	None	80	None	
1063	T-41	Raptor Mitigation	2018-06-22	Summer	14:22	14:42	Sara & Sarah	4	5	25	26	None	100	None	
1064	T-41	Raptor Mitigation	2018-06-25	Summer	14:12	14:32	Sara & Sarah	3	5	22	14	None	50	None	
1065	T-41	Raptor Mitigation	2018-06-28	Summer	15:51	16:11	Sara & Sarah	3	5	26	13	None	0	None	
1066	T-41	Raptor Mitigation	2018-07-02	Summer	12:21	12:40	Sara & Sarah	4	5	28	14	None	100	None	
1067	T-41	Raptor Mitigation	2018-07-06	Summer	11:29	11:54	Sara & Sarah	4	5	19	26	None	0	Heavy rain	
1068	T-41	Raptor Mitigation	2018-07-09	Summer	11:26	12:07	Sarah	3	5	25	16	None	0	None	
1069	T-41	Raptor Mitigation	2018-07-12	Summer	14:21	14:44	Sara & Sarah	3	5	26	10	None	50	None	
1070	T-41	Raptor Mitigation	2018-07-16	Summer	15:13	15:31	Sara & Sarah	4	5	31	11	None	20	None	
1071	T-41	Raptor Mitigation	2018-07-19	Summer	11:49	12:09	Sara & Sarah	3	5	23	10	None	50	None	
1072	T-41	Raptor Mitigation	2018-07-23	Summer	09:24	10:04	Sara	4	5	22	18	None	40	Heavy rain	Yesterday
1073	T-41	Raptor Mitigation	2018-07-26	Summer	10:03	10:25	Sara & Sarah	3	5	24	14	None	60	None	
1074	T-41	Raptor Mitigation	2018-07-30	Summer	09:53	10:13	Sara & Sarah	4	5	22	10	None	5	None	
1075	T-41	Raptor Mitigation	2018-08-02	Summer	11:51	12:12	Sara & Sarah	3	5	24	14	None	20	None	
1076	T-41	Raptor Mitigation	2018-08-07	Summer	09:58	10:22	Sara & Sarah	5	5	23	5	None	30	Thunderstorm	Yesterday
1077	T-41	Raptor Mitigation	2018-08-09	Summer	12:08	12:28	Sara & Sarah	2	5	23	10	None	0	None	
1078	T-41	Raptor Mitigation	2018-08-13	Summer	11:42	12:03	Sara & Sarah	4	5	27	10	None	0	None	
1079	T-41	Raptor Mitigation	2018-08-16	Summer	14:24	14:46	Sara & Sarah	3	5	23	19	None	100	Heavy rain,Light rain	Late morning,early afternoon
1080	T-41	Raptor Mitigation	2018-08-20	Summer	11:56	12:36	Sara	4	5	23	13	None	40	None	
1081	T-41	Raptor Mitigation	2018-08-23	Summer	12:30	12:52	Sara & Sarah	3	5	22	14	None	0	None	
1082	T-41	Raptor Mitigation	2018-08-27	Summer	15:51	16:13	Sara & Sarah	4	5	29	21	None	15	Thunderstorm,Heavy rain	During night before
1083	T-41	Raptor Mitigation	2018-08-30	Summer	11:21	11:42	Sara & Sarah	3	5	19	14	None	5	None	
1084	T-41	Raptor Mitigation	2018-09-03	Fall	17:54	18:15	Sara	4	5	26	6	None	10	None	
1085	T-41	Raptor Mitigation	2018-09-03	Fall	10:59	11:19	Sara	4	5	27	13	None	80	None	
1086	T-41	Raptor Mitigation	2018-09-06	Fall	11:52	12:12	Sara & Sarah	3	5	21	11	None	100	None	
1087	T-41	Raptor Mitigation	2018-09-10	Fall	12:39	13:00	Sara & Sarah	4	5	14	23	None	100	Light rain	Early am/ overnight
1088	T-41	Raptor Mitigation	2018-09-13	Fall	11:00	11:40	Sara	3	5	21	18	None	75	None	
1089	T-41	Raptor Mitigation	2018-09-17	Fall	11:07	11:47	Sara	4	5	25	11	None	0	None	
1090	T-41	Raptor Mitigation	2018-09-20	Fall	15:37	16:17	Sara	3	5	20	18	None	100	None	
1091	T-41	Raptor Mitigation	2018-09-24	Fall	16:16	16:36	Sara	4	5	19	29	None	100	None	
1092	T-41	Raptor Mitigation	2018-09-24	Fall	12:43	13:03	Sara	4	5	19	29	None	80	None	
1093	T-41	Raptor Mitigation	2018-09-27	Fall	15:54	16:34	Sara	3	5	17	16	None	100	None	
1094	T-41	Raptor Mitigation	2018-10-01	Fall	10:19	10:56	Sara	4	5	9	14	Light rain	100	Heavy rain,Light rain	Overnight
1095	T-41	Raptor Mitigation	2018-10-04	Fall	13:15	13:53	Sara	3	5	12	35	None	75	None	
1096	T-41	Raptor Mitigation	2018-10-08	Fall	13:42	14:27	Sarah	4	5	22	14	None	10	Light rain	
1097	T-41	Raptor Mitigation	2018-10-11	Fall	11:34	12:13	Sara	3	5	13	26	None	100		Warm temps for past 3 days
1098	T-41	Raptor Mitigation	2018-10-15	Fall	14:41	15:21	Sara	4	5	9	29	None	100	Intermittent rain	This morning
1099	T-41	Raptor Mitigation	2018-10-18	Fall	14:10	14:50	Sara	3	5	6	16	None	5	None	
1100	T-41	Raptor Mitigation	2018-10-22	Fall	14:09	14:49	Sara	4	5	10	11	None	0	None	
1101	T-41	Raptor Mitigation	2018-10-25	Fall	10:36	11:16	Sara	3	5	4	8	None	5	None	
1102	T-41	Raptor Mitigation	2018-10-29	Fall	09:39	10:19	Sara	4	5	5	24	None	100	Intermittent rain	Day and night before
1103	T-41	Raptor Mitigation	2018-11-01	Fall	12:50	13:30	Sara	3	5	7	10	None	100	Heavy rain,Light rain,Intermittent rain	Since Tuesday
1104	T-41	Raptor Mitigation	2018-11-08	Fall	15:26	16:04	Sara	7	5	4	18	None	100	None	
1105	T-41	Raptor Mitigation	2018-11-12	Fall	10:26	11:05	Sara	4	5	2	10	None	50	None	
1106	T-41	Raptor Mitigation	2018-11-19	Fall	11:48	12:23	Sara	7	5	3	11	None	50		Freezing temps just below zero
1107	T-41	Raptor Mitigation	2018-11-27	Fall	11:35	12:07	Sarah	8	5	-1	31	Light rain	100	None	
1108	T-42	Sub-sample	2018-05-01	Spring	16:16	16:52	Sara & Sarah	155	5	28	27	None	0		Cooler April temps
1109	T-42	Sub-sample	2018-05-04	Spring	13:40	14:25	Sara & Sarah	3	5	25	42	None	75	None,Thunderstorm	
1110	T-42	Sub-sample	2018-05-07	Spring	14:15	14:40	Sara & Sarah	3	5	16	10	None	0	None	
1111	T-42	Sub-sample	2018-05-10	Spring	14:13	14:50	Sarah	3	5	16	14	None	100	None	
1112	T-42	Sub-sample	2018-05-14	Spring	10:59	11:31	Sara	4	5	14	11	None	100	None	
1113	T-42	Sub-sample	2018-05-17	Spring	14:34	15:05	Sara & Sarah	3	5	22	18	None	0	None	
1114	T-42	Sub-sample	2018-05-21	Spring	13:07	13:30	Sara & Sarah	4	5	23	11	None	40	None	
1115	T-42	Sub-sample	2018-05-24	Spring	12:29	12:50	Sara & Sarah	3	5	20	11	None	0	None	
1116	T-42	Sub-sample	2018-05-28	Spring	13:02	13:29	Sara & Sarah	4	5	30	13	None	25	None	
1117	T-42	Sub-sample	2018-05-31	Spring	15:30	16:00	Sarah	3	5	28	21	None	60	None	
1118	T-42	Sub-sample	2018-06-04	Summer	10:39	11:03	Sara & Sarah	4	5	14	18	Light rain	100	None	
1119	T-42	Sub-sample	2018-06-07	Summer	11:38	12:02	Sara & Sarah	3	5	21	16	None	100	None	
1120	T-42	Sub-sample	2018-06-11	Summer	10:52	11:13	Sara & Sarah	4	5	22	27	None	0	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
1121	T-42	Sub-sample	2018-06-14	Summer	09:36	10:00	Sara & Sarah	3	5	18	21	None	0	None	
1122	T-42	Sub-sample	2018-06-18	Summer	10:20	10:56	Sarah	4	5	29	19	None	25	None	
1123	T-42	Sub-sample	2018-06-22	Summer	14:45	15:06	Sara & Sarah	4	5	25	26	None	100	None	
1124	T-42	Sub-sample	2018-06-25	Summer	14:39	15:05	Sara & Sarah	3	5	22	14	None	50	None	
1125	T-42	Sub-sample	2018-06-28	Summer	15:08	15:28	Sara & Sarah	3	5	26	13	None	0	None	
1126	T-42	Sub-sample	2018-07-02	Summer	12:42	13:02	Sara & Sarah	4	5	28	14	None	25	None	
1127	T-42	Sub-sample	2018-07-06	Summer	12:00	12:27	Sara & Sarah	4	5	19	26	None	0	Heavy rain	
1128	T-42	Sub-sample	2018-07-09	Summer	12:24	12:45	Sara & Sarah	3	5	26	16	None	0	None	
1129	T-42	Sub-sample	2018-07-12	Summer	13:18	13:40	Sara & Sarah	3	5	26	11	None	20	None	
1130	T-42	Sub-sample	2018-07-16	Summer	15:34	15:41	Sara & Sarah	4	5	31	11	None	100	None	
1131	T-42	Sub-sample	2018-07-17	Summer	09:19	09:55	Sara	1	5	21	18	None	0	Light rain,Thunderstorm	Lightning yesterday during search so had to stop
1132	T-42	Sub-sample	2018-07-19	Summer	12:12	12:35	Sara & Sarah	3	5	24	10	None	60	None	
1133	T-42	Sub-sample	2018-07-23	Summer	10:15	10:35	Sara & Sarah	4	5	22	14	None	60	Heavy rain	Yesterday
1134	T-42	Sub-sample	2018-07-26	Summer	14:33	14:54	Sara & Sarah	3	5	26	19	None	80	None	
1135	T-42	Sub-sample	2018-07-30	Summer	09:27	09:47	Sara & Sarah	4	5	22	10	None	5	None	
1136	T-42	Sub-sample	2018-08-02	Summer	11:26	11:46	Sara & Sarah	3	5	24	14	None	15	None	
1137	T-42	Sub-sample	2018-08-07	Summer	09:29	09:50	Sara & Sarah	5	5	23	5	None	40	Thunderstorm	Day before
1138	T-42	Sub-sample	2018-08-09	Summer	11:38	12:00	Sara & Sarah	2	5	23	10	None	0	Thunderstorm	Yesterday
1139	T-42	Sub-sample	2018-08-13	Summer	12:08	12:28	Sara & Sarah	4	5	27	11	None	0	None	
1140	T-42	Sub-sample	2018-08-16	Summer	11:26	11:46	Sara & Sarah	3	5	25	11	None	11	None	
1141	T-42	Sub-sample	2018-08-20	Summer	11:32	11:52	Sara & Sarah	4	5	22	13	None	100	None	
1142	T-42	Sub-sample	2018-08-23	Summer	11:54	12:15	Sara & Sarah	3	5	21	11	None	0	None	
1143	T-42	Sub-sample	2018-08-27	Summer	11:08	11:30	Sara & Sarah	4	5	23	14	None	100	Heavy rain,Thunderstorm	During night before
1144	T-42	Sub-sample	2018-08-30	Summer	11:45	12:05	Sara & Sarah	3	5	19	14	None	0	None	
1145	T-42	Sub-sample	2018-09-03	Fall	16:57	17:37	Sara	4	5	26	13	None	60	None	
1146	T-42	Sub-sample	2018-09-06	Fall	12:16	12:36	Sara & Sarah	3	5	22	11	None	100	None	
1147	T-42	Sub-sample	2018-09-10	Fall	12:11	12:31	Sara & Sarah	4	5	14	23	None	100	Light rain	Early am/ overnight
1148	T-42	Sub-sample	2018-09-13	Fall	11:45	12:25	Sara	3	5	21	18	None	100	None	
1149	T-42	Sub-sample	2018-09-17	Fall	11:54	12:34	Sara	4	5	25	11	None	5	None	
1150	T-42	Sub-sample	2018-09-20	Fall	10:23	10:43	Sara & Sarah	3	5	18	14	None	100	None	
1151	T-42	Sub-sample	2018-09-24	Fall	11:39	11:59	Sara & Sarah	4	5	18	29	None	0	None	
1152	T-42	Sub-sample	2018-09-27	Fall	12:05	12:25	Sara & Sarah	3	5	16	14	None	100	None	
1153	T-42	Sub-sample	2018-10-01	Fall	11:56	12:38	Sarah	4	5	9	18	Light rain	100	None	
1154	T-42	Sub-sample	2018-10-04	Fall	13:25	14:14	Sarah	3	5	12	32	None	100	None	
1155	T-42	Sub-sample	2018-10-08	Fall	12:45	13:40	Sarah	4	5	20	16	None	90	Light rain	
1156	T-42	Sub-sample	2018-10-11	Fall	11:08	11:28	Sara	3	5	13	26	Hail	10		Warm temps for past 3 days
1157	T-42	Sub-sample	2018-10-11	Fall	11:14	11:41	Sarah	3	5	13	23	None	90	None	
1158	T-42	Sub-sample	2018-10-15	Fall	14:35	15:33	Sarah	4	5	9	27	None	100	None	
1159	T-42	Sub-sample	2018-10-18	Fall	14:06	14:57	Sarah	3	5	6	21	None	0	None	
1160	T-42	Sub-sample	2018-10-22	Fall	13:56	14:37	Sarah	4	5	10	11	None	0	None	
1161	T-42	Sub-sample	2018-10-25	Fall	10:35	11:20	Sarah	3	5	4	10	None	0	None	
1162	T-42	Sub-sample	2018-10-29	Fall	10:32	11:15	Sarah	4	5	4	24	Light rain	100	None	
1163	T-42	Sub-sample	2018-11-01	Fall	12:50	13:32	Sarah	3	5	7	10	None	100	None	
1164	T-42	Sub-sample	2018-11-05	Fall	10:55	11:37	Sarah	4	5	10	18	Light rain	100	Intermittent rain	
1165	T-42	Sub-sample	2018-11-12	Fall	09:43	10:23	Sara	7	5	2	8	None	60	None	
1166	T-42	Sub-sample	2018-11-19	Fall	12:32	13:07	Sara	7	5	2	13	None	30		Freezing temps just below zero
1167	T-42	Sub-sample	2018-11-27	Fall	11:01	11:33	Sarah	8	5	-1	31	Light rain	100	None	
1168	T-43	Raptor Mitigation	2018-05-07	Spring	15:20	15:42	Sara & Sarah	208	5	19	10	None	0	None	
1169	T-43	Raptor Mitigation	2018-05-10	Spring	14:57	15:20	Sara & Sarah	3	5	14	13	None	100	None	
1170	T-43	Raptor Mitigation	2018-05-14	Spring	13:08	13:33	Sara & Sarah	4	5	18	14	None	100	None	
1171	T-43	Raptor Mitigation	2018-05-17	Spring	15:18	15:43	Sara & Sarah	3	5	22	19	None	0	None	
1172	T-43	Raptor Mitigation	2018-05-21	Spring	13:33	13:55	Sara & Sarah	4	5	23	11	None	75	None	
1173	T-43	Raptor Mitigation	2018-05-24	Spring	14:25	14:50	Sara & Sarah	3	5	20	11	None	0	None	
1174	T-43	Raptor Mitigation	2018-05-28	Spring	15:28	15:49	Sara & Sarah	4	5	32	13	None	25	None	
1175	T-43	Raptor Mitigation	2018-05-31	Spring	16:28	16:55	Sara & Sarah	3	5	27	18	None	50	None	
1176	T-43	Raptor Mitigation	2018-06-04	Summer	11:09	11:33	Sara & Sarah	4	5	13	18	None	100	None	
1177	T-43	Raptor Mitigation	2018-06-07	Summer	12:35	13:12	Sara & Sarah	3	5	21	16	None	100	None	
1178	T-43	Raptor Mitigation	2018-06-11	Summer	11:21	11:42	Sara & Sarah	4	5	23	26	None	0	None	
1179	T-43	Raptor Mitigation	2018-06-14	Summer	10:45	11:10	Sara & Sarah	3	5	18	23	None	0	None	
1180	T-43	Raptor Mitigation	2018-06-18	Summer	10:47	11:24	Sara	4	5	28	19	None	40	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
1181	T-43	Raptor Mitigation	2018-06-22	Summer	11:02	11:42	Sara	4	5	21	27	None	100	None	
1182	T-43	Raptor Mitigation	2018-06-25	Summer	15:12	15:37	Sara & Sarah	3	5	22	16	None	50	None	
1183	T-43	Raptor Mitigation	2018-06-28	Summer	14:42	15:04	Sara & Sarah	3	5	25	13	None	0	None	
1184	T-43	Raptor Mitigation	2018-07-02	Summer	14:30	14:50	Sara & Sarah	4	5	28	14	None	100	None	
1185	T-43	Raptor Mitigation	2018-07-06	Summer	09:27	10:16	Sara	4	5	19	24	None	0	Heavy rain	
1186	T-43	Raptor Mitigation	2018-07-09	Summer	11:17	12:01	Sara	3	5	25	16	None	0	None	
1187	T-43	Raptor Mitigation	2018-07-12	Summer	11:54	12:21	Sara & Sarah	3	5	26	11	None	10	None	
1188	T-43	Raptor Mitigation	2018-07-16	Summer	14:37	15:03	Sara & Sarah	4	5	31	14	None	75	None	
1189	T-43	Raptor Mitigation	2018-07-19	Summer	11:06	11:34	Sara & Sarah	3	5	24	10	None	15	None	
1190	T-43	Raptor Mitigation	2018-07-23	Summer	16:00	16:25	Sara & Sarah	4	5	26	14	None	100	Heavy rain	Yesterday
1191	T-43	Raptor Mitigation	2018-07-26	Summer	10:31	10:57	Sara & Sarah	3	5	25	18	None	10	None	
1192	T-43	Raptor Mitigation	2018-07-30	Summer	10:50	11:10	Sara & Sarah	4	5	25	8	None	10	None	
1193	T-43	Raptor Mitigation	2018-08-02	Summer	09:35	10:18	Sara	3	5	21	11	None	10	None	
1194	T-43	Raptor Mitigation	2018-08-06	Summer	11:22	11:46	Sara & Sarah	4	5	27	13	None	95	None	
1195	T-43	Raptor Mitigation	2018-08-09	Summer	09:37	10:19	Sara	3	5	23	10	None	2	Thunderstorm	Yesterday
1196	T-43	Raptor Mitigation	2018-08-13	Summer	11:09	11:34	Sara & Sarah	4	5	27	6	None	0	None	
1197	T-43	Raptor Mitigation	2018-08-16	Summer	09:36	10:20	Sara	3	5	24	8	None	25	None	
1198	T-43	Raptor Mitigation	2018-08-20	Summer	10:23	10:46	Sara & Sarah	4	5	22	11	None	0	None	
1199	T-43	Raptor Mitigation	2018-08-23	Summer	09:55	10:42	Sara	3	5	21	11	None	0		Cooler temps and wind yesterday
1200	T-43	Raptor Mitigation	2018-08-27	Summer	15:15	15:40	Sara & Sarah	4	5	29	23	None	80	Heavy rain,Thunderstorm	During night before
1201	T-43	Raptor Mitigation	2018-08-30	Summer	09:39	10:21	Sara	3	5	18	11	None	25	None	
1202	T-43	Raptor Mitigation	2018-09-03	Fall	16:07	16:50	Sara	4	5	26	14	None	50	None	
1203	T-43	Raptor Mitigation	2018-09-06	Fall	09:34	10:15	Sarah	3	5	19	8	Light rain	100	None	
1204	T-43	Raptor Mitigation	2018-09-10	Fall	09:44	10:29	Sara	4	5	13	24	None	100	Light rain	Early am /overnight
1205	T-43	Raptor Mitigation	2018-09-13	Fall	12:36	13:19	Sara	3	5	24	18	None	75	None	
1206	T-43	Raptor Mitigation	2018-09-17	Fall	13:35	14:19	Sara	4	5	27	8	None	2	None	
1207	T-43	Raptor Mitigation	2018-09-20	Fall	14:48	15:28	Sara	3	5	19	13	None	100	None	
1208	T-43	Raptor Mitigation	2018-09-24	Fall	16:51	17:31	Sara	4	5	19	29	None	100	None	
1209	T-43	Raptor Mitigation	2018-09-27	Fall	16:41	17:21	Sara	3	5	17	14	None	100	None	
1210	T-43	Raptor Mitigation	2018-10-01	Fall	11:03	11:43	Sara	4	5	9	16	Light rain	100	Heavy rain,Light rain	Overnight
1211	T-43	Raptor Mitigation	2018-10-04	Fall	16:07	16:47	Sara	3	5	12	34	None	75	None	
1212	T-43	Raptor Mitigation	2018-10-08	Fall	10:25	11:04	Sara	4	5	16	19	None	100	None	
1213	T-43	Raptor Mitigation	2018-10-11	Fall	09:25	10:05	Sara	3	5	14	26	None	40		Warmer temperatures over the past couple days
1214	T-43	Raptor Mitigation	2018-10-15	Fall	16:54	17:34	Sara	4	5	9	31	None	80	Intermittent rain	This morning
1215	T-43	Raptor Mitigation	2018-10-18	Fall	16:05	16:45	Sara	3	5	7	19	None	0	None	
1216	T-43	Raptor Mitigation	2018-10-22	Fall	09:57	10:37	Sara	4	5	6	13	None	5	None	
1217	T-43	Raptor Mitigation	2018-10-25	Fall	16:52	17:32	Sara	3	5	9	8	None	50	None	
1218	T-43	Raptor Mitigation	2018-10-29	Fall	11:44	12:24	Sara	4	5	6	27	None	100	Intermittent rain	Day and night before
1219	T-43	Raptor Mitigation	2018-11-01	Fall	13:37	14:16	Sara	3	5	7	10	None	100	Intermittent rain,Light rain,Heavy rain	Tuesday and Wednesday
1220	T-43	Raptor Mitigation	2018-11-05	Fall	09:35	10:15	Sara	4	5	9	18	None	75	Intermittent rain	Overnight
1221	T-43	Raptor Mitigation	2018-11-12	Fall	11:12	11:52	Sara	7	5	4	10	None	20	None	
1222	T-43	Raptor Mitigation	2018-11-19	Fall	10:59	11:39	Sara	7	5	-1	11	None	50		Freezing temps just below zero
1223	T-43	Raptor Mitigation	2018-11-27	Fall	10:59	11:30	Sara	8	5	-1	32	None	100		Rain yesterday and freezing temps just below zero
1224	T-44	Raptor Mortality	2018-05-30	Spring	11:19	11:42	Sara & Sarah	185	5	28	23	None	40	None	
1225	T-44	Raptor Mortality	2018-06-28	Summer	14:08	14:35	Sara & Sarah	29	5	23	11	None	0	None	
1226	T-44	Raptor Mortality	2018-07-25	Summer	11:03	11:25	Sara & Sarah	27	5	21	13	None	75	Intermittent rain	Yesterday
1227	T-44	Raptor Mortality	2018-08-29	Summer	10:22	10:45	Sara & Sarah	35	5	23	13	None	10	Thunderstorm	Last night
1228	T-44	Raptor Mortality	2018-09-26	Fall	10:40	11:20	Sara	28	5	16	24	None	100	Thunderstorm	Night before
1229	T-44	Raptor Mortality	2018-10-24	Fall	09:55	10:35	Sara	28	5	4	13	None	100	Light rain	Night before
1230	T-44	Raptor Mortality	2018-11-27	Fall	10:19	10:50	Sara	34	5	-1	32	None	100		Rain yesterday and freezing temps just below zero
1231	T-45	Raptor Mortality	2018-05-30	Spring	11:54	12:54	Sara & Sarah	185	5	28	23	None	40	None	
1232	T-45	Raptor Mortality	2018-06-28	Summer	13:13	13:33	Sara & Sarah	29	5	22	11	None	0	None	
1233	T-45	Raptor Mortality	2018-07-25	Summer	10:28	10:53	Sara & Sarah	27	5	21	13	None	2	Intermittent rain	Yesterday
1234	T-45	Raptor Mortality	2018-08-29	Summer	09:40	10:03	Sara & Sarah	34	5	22	14	None	100	None	
1235	T-45	Raptor Mortality	2018-09-26	Fall	09:42	10:22	Sara	28	5	16	24	None	100	Thunderstorm	Night before
1236	T-45	Raptor Mortality	2018-10-24	Fall	10:47	11:26	Sara	28	5	5	14	None	100	Light rain	Overnight
1237	T-45	Raptor Mortality	2018-11-27	Fall	10:20	10:53	Sarah	45	5	-1	31	None	100	None	
1238	T-46	Raptor Mitigation	2018-05-07	Spring	16:08	16:42	Sara	208	5	16	10	None	0	None	
1239	T-46	Raptor Mitigation	2018-05-10	Spring	16:05	16:35	Sara & Sarah	3	5	14	14	None	100	None	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
1240	T-46	Raptor Mitigation	2018-05-14	Spring	10:01	10:45	Sara	4	5	14	8	None	100	None	
1241	T-46	Raptor Mitigation	2018-05-17	Spring	16:42	17:07	Sara & Sarah	3	5	21	19	None	10	None	
1242	T-46	Raptor Mitigation	2018-05-21	Spring	14:23	14:48	Sara & Sarah	4	5	23	11	None	75	None	
1243	T-46	Raptor Mitigation	2018-05-24	Spring	15:08	15:35	Sara & Sarah	3	5	27	13	None	0	None	
1244	T-46	Raptor Mitigation	2018-05-28	Spring	15:05	15:25	Sara & Sarah	4	5	32	13	None	25	None	
1245	T-46	Raptor Mitigation	2018-05-31	Spring	14:40	15:15	Sara	3	5	28	23	None	25	None	
1246	T-46	Raptor Mitigation	2018-06-04	Summer	11:40	12:00	Sara & Sarah	4	5	13	18	None	100	None	
1247	T-46	Raptor Mitigation	2018-06-07	Summer	09:06	09:43	Sara	3	5	17	16	None	100	None	
1248	T-46	Raptor Mitigation	2018-06-11	Summer	12:29	12:49	Sara & Sarah	4	5	24	27	None	0	None	
1249	T-46	Raptor Mitigation	2018-06-14	Summer	11:25	11:45	Sara & Sarah	3	5	20	26	None	0	None	
1250	T-46	Raptor Mitigation	2018-06-18	Summer	09:13	09:55	Sara	4	5	29	18	None	10	None	
1251	T-46	Raptor Mitigation	2018-06-22	Summer	15:51	16:18	Sara & Sarah	4	5	24	26	None	100	None	
1252	T-46	Raptor Mitigation	2018-06-25	Summer	16:06	16:26	Sara & Sarah	3	5	21	16	None	50	None	
1253	T-46	Raptor Mitigation	2018-06-28	Summer	13:35	13:56	Sara & Sarah	3	5	22	11	None	0	None	
1254	T-46	Raptor Mitigation	2018-07-02	Summer	13:34	13:54	Sara & Sarah	4	5	28	14	None	100	None	
1255	T-46	Raptor Mitigation	2018-07-06	Summer	10:09	10:51	Sarah	3	5	19	21	None	0	Heavy rain	
1256	T-46	Raptor Mitigation	2018-07-09	Summer	10:32	10:54	Sara & Sarah	3	5	24	14	None	0	None	
1257	T-46	Raptor Mitigation	2018-07-12	Summer	11:07	11:28	Sara & Sarah	3	5	25	11	None	100	None	
1258	T-46	Raptor Mitigation	2018-07-16	Summer	13:43	14:27	Sarah	4	5	32	14	Light rain	100	None	
1259	T-46	Raptor Mitigation	2018-07-19	Summer	10:12	11:00	Sarah	3	5	22	8	None	0	None	
1260	T-46	Raptor Mitigation	2018-07-23	Summer	11:35	11:55	Sara & Sarah	4	5	24	11	None	100	Heavy rain	Yesterday
1261	T-46	Raptor Mitigation	2018-07-26	Summer	09:26	09:50	Sara & Sarah	3	5	23	14	None	75	None	
1262	T-46	Raptor Mitigation	2018-07-30	Summer	12:02	12:24	Sara & Sarah	4	5	25	5	None	35	None	
1263	T-46	Raptor Mitigation	2018-08-02	Summer	15:56	16:16	Sara & Sarah	3	5	26	10	None	15	None	
1264	T-46	Raptor Mitigation	2018-08-06	Summer	10:11	11:06	Sarah	4	5	27	13	None	90	None	
1265	T-46	Raptor Mitigation	2018-08-09	Summer	10:56	11:18	Sara & Sarah	3	5	23	10	None	0	Thunderstorm	Yesterday
1266	T-46	Raptor Mitigation	2018-08-13	Summer	10:32	10:54	Sara & Sarah	3	5	29	6	None	0	None	
1267	T-46	Raptor Mitigation	2018-08-16	Summer	10:31	10:51	Sara & Sarah	3	5	25	10	None	100	None	
1268	T-46	Raptor Mitigation	2018-08-20	Summer	13:03	13:43	Sara & Sarah	4	5	25	11	None	40	None	
1269	T-46	Raptor Mitigation	2018-08-23	Summer	10:51	11:14	Sara & Sarah	3	5	21	11	None	0	None	
1270	T-46	Raptor Mitigation	2018-08-27	Summer	16:24	16:46	Sara & Sarah	4	5	31	21	None	15	Heavy rain,Thunderstorm	During night before
1271	T-46	Raptor Mitigation	2018-08-30	Summer	09:47	10:31	Sarah	3	5	17	11	None	30	None	
1272	T-46	Raptor Mitigation	2018-09-03	Fall	10:42	11:23	Sarah	4	5	28	14	None	100	None	
1273	T-46	Raptor Mitigation	2018-09-06	Fall	10:35	10:55	Sara & Sarah	3	5	20	10	None	100	None	
1274	T-46	Raptor Mitigation	2018-09-10	Fall	10:55	11:37	Sara	4	5	14	26	None	100	Light rain	Early am/ overnight
1275	T-46	Raptor Mitigation	2018-09-13	Fall	09:13	09:53	Sara	3	5	18	11	None	95	None	
1276	T-46	Raptor Mitigation	2018-09-17	Fall	09:21	10:00	Sara	4	5	22	10	None	2	None	
1277	T-46	Raptor Mitigation	2018-09-20	Fall	09:20	09:40	Sara	3	5	17	13	None	95	None	
1278	T-46	Raptor Mitigation	2018-09-20	Fall	16:30	16:50	Sara	3	5	21	21	None	100	None	
1279	T-46	Raptor Mitigation	2018-09-24	Fall	10:32	10:53	Sara	4	5	17	27	None	0	None	
1280	T-46	Raptor Mitigation	2018-09-24	Fall	17:43	18:03	Sara	4	5	20	27	None	100	None	
1281	T-46	Raptor Mitigation	2018-09-28	Fall	09:23	10:03	Sara	4	5	13	13	None	2	None	
1282	T-46	Raptor Mitigation	2018-10-01	Fall	09:28	10:08	Sara	3	5	9	14	None	100	Heavy rain,Light rain	Overnight
1283	T-46	Raptor Mitigation	2018-10-04	Fall	15:09	16:00	Sara	3	5	12	35	None	25	None	
1284	T-46	Raptor Mitigation	2018-10-08	Fall	11:56	12:40	Sarah	4	5	17	16	None	10	Light rain	
1285	T-46	Raptor Mitigation	2018-10-11	Fall	10:22	10:59	Sara	3	5	14	23	None	100		Warm temperatures for past 3 days
1286	T-46	Raptor Mitigation	2018-10-15	Fall	15:55	16:33	Sara	4	5	9	32	None	70	Intermittent rain	This morning
1287	T-46	Raptor Mitigation	2018-10-18	Fall	17:13	17:53	Sara	3	5	8	19	None	0	None	
1288	T-46	Raptor Mitigation	2018-10-22	Fall	15:40	16:20	Sara	4	5	11	11	None	0	None	
1289	T-46	Raptor Mitigation	2018-10-25	Fall	09:40	10:20	Sara	3	5	2	6	None	5	None	
1290	T-46	Raptor Mitigation	2018-10-29	Fall	12:37	13:17	Sara	4	5	6	27	None	100	Intermittent rain	Day and night before
1291	T-46	Raptor Mitigation	2018-11-01	Fall	09:53	10:33	Sara	3	5	6	8	None	100	Light rain,Heavy rain	Since Tuesday night
1292	T-46	Raptor Mitigation	2018-11-08	Fall	16:11	16:51	Sara	7	5	4	18	None	100	None	
1293	T-46	Raptor Mitigation	2018-11-12	Fall	13:15	13:54	Sara	4	5	5	11	None	100	None	
1294	T-46	Raptor Mitigation	2018-11-19	Fall	09:28	10:03	Sara	7	5	-1	10	None	20		Freezing temps just below zero
1295	T-46	Raptor Mitigation	2018-11-27	Fall	09:46	10:18	Sarah	6	5	-1	32	Light rain	100	None	Rain and freezing temperatures
1296	T-48	Sub-sample	2018-05-01	Spring	15:34	16:04	Sara & Sarah	155	5	28	26	None	0		Cooler April temps
1297	T-48	Sub-sample	2018-05-04	Spring	15:10	15:45	Sara & Sarah	3	5	17	53	None	25	None,Thunderstorm	
1298	T-48	Sub-sample	2018-05-07	Spring	15:50	16:35	Sarah	365	5	19	10	None	0	None	
1299	T-48	Sub-sample	2018-05-10	Spring	15:29	16:00	Sara & Sarah	3	5	16	16	None	100	None	
1300	T-48	Sub-sample	2018-05-14	Spring	09:21	09:58	Sara	4	5	14	8	None	100	None	



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
3	Turbine ID	Survey Type	Date of Search	Season	Start Time (24 hr)	End Time (24 hr)	Searcher ID	Days Since Last Search	Transect Separation (m)	Temperature (°C)	Wind Speed (km/hr)	Precipitation	Cloud Cover (%)	Significant Weather Before Visit	Significant Weather Before Visit - Other
1301	T-48	Sub-sample	2018-05-17	Spring	15:51	16:25	Sara & Sarah	3	5	17	19	None	0	None	
1302	T-48	Sub-sample	2018-05-21	Spring	14:00	14:23	Sara & Sarah	4	5	23	11	None	75	None	
1303	T-48	Sub-sample	2018-05-24	Spring	15:17	15:37	Sara & Sarah	3	5	27	13	None	0	None	
1304	T-48	Sub-sample	2018-05-28	Spring	14:40	15:03	Sara & Sarah	4	5	29	14	None	25	None	
1305	T-48	Sub-sample	2018-05-31	Spring	14:31	15:03	Sarah	3	5	28	24	None	40	None	
1306	T-48	Sub-sample	2018-06-04	Summer	12:02	12:22	Sara & Sarah	4	5	13	21	None	100	None	
1307	T-48	Sub-sample	2018-06-07	Summer	09:48	10:24	Sara	3	5	17	16	None	75	None	
1308	T-48	Sub-sample	2018-06-11	Summer	12:07	12:28	Sara & Sarah	4	5	24	27	None	0	None	
1309	T-48	Sub-sample	2018-06-14	Summer	11:46	12:05	Sara & Sarah	3	5	20	23	None	0	None	
1310	T-48	Sub-sample	2018-06-18	Summer	10:00	10:38	Sara	4	5	28	19	None	10	None	
1311	T-48	Sub-sample	2018-06-22	Summer	15:23	16:45	Sara & Sarah	4	5	24	26	None	100	None	
1312	T-48	Sub-sample	2018-06-25	Summer	15:45	16:05	Sara & Sarah	3	5	22	16	None	50	None	
1313	T-48	Sub-sample	2018-06-28	Summer	12:49	13:11	Sara & Sarah	3	5	19	11	None	100	None	
1314	T-48	Sub-sample	2018-07-02	Summer	13:55	14:19	Sara & Sarah	4	5	28	15	None	25	None	
1315	T-48	Sub-sample	2018-07-06	Summer	10:56	11:18	Sara & Sarah	4	5	19	23	None	0	Heavy rain	
1316	T-48	Sub-sample	2018-07-09	Summer	09:52	10:16	Sara & Sarah	3	5	24	13	None	0	None	
1317	T-48	Sub-sample	2018-07-12	Summer	10:42	11:03	Sara & Sarah	3	5	25	11	None	100	None	
1318	T-48	Sub-sample	2018-07-16	Summer	13:46	14:25	Sara	4	5	24	13	None	80	None	
1319	T-48	Sub-sample	2018-07-19	Summer	09:21	10:04	Sarah	3	5	20	6	None	0	None	
1320	T-48	Sub-sample	2018-07-23	Summer	11:10	11:30	Sara & Sarah	4	5	24	11	None	100	Heavy rain	Yesterday
1321	T-48	Sub-sample	2018-07-26	Summer	15:06	15:30	Sara & Sarah	3	5	25	14	None	20	None	
1322	T-48	Sub-sample	2018-07-30	Summer	11:38	11:58	Sara & Sarah	4	5	24	5	None	10	None	
1323	T-48	Sub-sample	2018-08-02	Summer	10:49	11:10	Sara & Sarah	3	5	23	11	None	15	None	
1324	T-48	Sub-sample	2018-08-06	Summer	10:19	11:00	Sara	4	5	27	13	None	75	None	
1325	T-48	Sub-sample	2018-08-09	Summer	10:28	10:51	Sara & Sarah	3	5	23	10	None	0	None	
1326	T-48	Sub-sample	2018-08-13	Summer	09:48	10:28	Sarah	3	5	27	5	None	0	None	
1327	T-48	Sub-sample	2018-08-16	Summer	13:42	14:02	Sara & Sarah	3	5	23	19	Light rain	100	None	
1328	T-48	Sub-sample	2018-08-20	Summer	11:01	11:21	Sara & Sarah	4	5	23	13	None	35	None	
1329	T-48	Sub-sample	2018-08-23	Summer	11:23	11:43	Sara & Sarah	3	5	21	11	None	0	None	
1330	T-48	Sub-sample	2018-08-27	Summer	09:45	10:12	Sara & Sarah	4	5	20	10	None	100	Heavy rain,Thunderstorm	During night before
1331	T-48	Sub-sample	2018-08-30	Summer	10:36	10:56	Sara & Sarah	3	5	19	11	None	20	None	
1332	T-48	Sub-sample	2018-09-03	Fall	11:30	11:50	Sara & Sarah	4	5	26	11	None	95	None	
1333	T-48	Sub-sample	2018-09-06	Fall	11:07	11:27	Sara & Sarah	3	5	20	10	None	100	None	
1334	T-48	Sub-sample	2018-09-10	Fall	11:39	11:59	Sara & Sarah	4	5	14	26	None	100	Light rain	Early am/ overnight
1335	T-48	Sub-sample	2018-09-13	Fall	09:57	10:37	Sara	3	5	18	11	None	100	None	
1336	T-48	Sub-sample	2018-09-17	Fall	10:12	10:52	Sara	4	5	23	11	None	2	None	
1337	T-48	Sub-sample	2018-09-20	Fall	09:50	10:10	Sara & Sarah	3	5	17	13	None	95	None	
1338	T-48	Sub-sample	2018-09-24	Fall	11:01	11:21	Sara & Sarah	4	5	17	27	None	0	None	
1339	T-48	Sub-sample	2018-09-27	Fall	11:23	11:43	Sara & Sarah	3	5	15	14	None	100	None	
1340	T-48	Sub-sample	2018-10-01	Fall	11:03	11:45	Sarah	4	5	9	18	Light rain	100	None	
1341	T-48	Sub-sample	2018-10-04	Fall	14:24	15:13	Sarah	3	5	12	32	None	100	None	
1342	T-48	Sub-sample	2018-10-08	Fall	11:12	11:54	Sarah	4	5	16	18	None	2	Light rain	
1343	T-48	Sub-sample	2018-10-11	Fall	10:14	11:05	Sarah	3	5	14	26	None	100	None	
1344	T-48	Sub-sample	2018-10-15	Fall	15:54	16:45	Sarah	4	5	8	29	None	55	None	
1345	T-48	Sub-sample	2018-10-18	Fall	10:54	11:20	Sara & Sarah	3	5	5	16	None	100	None	
1346	T-48	Sub-sample	2018-10-22	Fall	10:49	11:14	Sara & Sarah	4	5	7	11	None	0	None	
1347	T-48	Sub-sample	2018-10-25	Fall	09:45	10:27	Sarah	3	5	3	8	None	0	None	
1348	T-48	Sub-sample	2018-10-29	Fall	09:42	10:23	Sarah	4	5	4	23	None	100	None	
1349	T-48	Sub-sample	2018-11-01	Fall	09:42	10:23	Sarah	3	5	10	8	None	100	None	
1350	T-48	Sub-sample	2018-11-05	Fall	09:47	10:32	Sarah	4	5	9	19	None	100	Intermittent rain	
1351	T-48	Sub-sample	2018-11-12	Fall	12:12	12:52	Sara	7	5	4	10	None	100	None	
1352	T-48	Sub-sample	2018-11-19	Fall	10:10	10:45	Sara	7	5	-1	11	None	60		Freezing temps just below zero
1353	T-48	Sub-sample	2018-11-27	Fall	09:38	10:10	Sara	8	5	-1	32	None	100		Rain yesterday and freezing temps just below zero

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	<b>Appendix E - Table 2</b>																
2	<b>Grand Bend Wind Farm Year 2 - Avian (Non-Raptor) Mortalities - 2018</b>																
3	Turbine ID	Date Recorded	Season	Carcass Type	Species Common Name	Sex	Carcass Condition	Carcass Injuries	Est. Time Since Death (Hours)	Visibility Class	Substrate	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing	Latitude	Longitude
4	T-02	2018-05-10	Spring	Avian	Lincoln's Sparrow	Unknown	Fresh	None visible	12	1	Bare ground/soil	47	46	444410.2408	4811792.595	43.45698513	-81.68712993
5	T-02	2018-07-19	Summer	Avian	Bird spp. (unknown)	Unknown	Scavenged	None visible	24	1	Bare ground/soil	40	310	444345.3092	4811786.284	43.45692348	-81.68793183
6	T-02	2018-08-09	Summer	Avian	American Goldfinch	Unknown	Fresh	Broken neck	6	1	Bare ground/soil,Gravel	35	156	444389.5741	4811728.107	43.45640296	-81.68737879
7	T-02	2018-08-13	Summer	Avian	Purple Martin	Unknown	Scavenged	None visible	48	1	Bare ground/soil	26	75	444401.2185	4811766.769	43.45675193	-81.68723881
8	T-02	2018-10-25	Fall	Avian	Song Sparrow	Unknown	Fresh	Cut in half	24	1	Bare ground/soil	26	155	444386.5232	4811736.427	43.45647764	-81.68741735
9	T-07	2018-05-11	Spring	Avian	Eastern Towhee	Unknown	Scavenged	None visible	72	2	Gravel,Mown vegetation	49	133	443989.4896	4809113.79	43.43283452	-81.69205531
10	T-07	2018-10-16	Fall	Avian	Blue-headed Vireo	Unknown	Moderate decomposition	Head injury	72	1	Gravel,Bare ground/soil	16	106	443969.3175	4809142.905	43.43309516	-81.69230752
11	T-11	2018-10-19	Fall	Avian	Golden-crowned Kinglet	Unknown	Fresh	None visible	12	1	Gravel	3	174	444330.0127	4808457.693	43.42695256	-81.68778129
12	T-14	2018-05-22	Spring	Avian	Northern Parula	Unknown	Fresh	None visible	12	1	Bare ground/soil	51	255	443752.0913	4807888.878	43.42178792	-81.69486215
13	T-14	2018-07-03	Summer	Avian	Purple Martin	Unknown	Scavenged	None visible	72	1	Bare ground/soil	19	353	443799.7235	4807920.384	43.42207517	-81.69427701
14	T-14	2018-10-05	Fall	Avian	Brown Creeper	Unknown	Fresh	None visible	10	3	Bare ground/soil,Growing crop	35	268	443766.9665	4807900.437	43.42189312	-81.6946796
15	T-14	2018-10-19	Fall	Avian	Dark-eyed Junco	Unknown	Scavenged	None visible	24	1	Bare ground/soil	31	78	443832.2495	4807907.718	43.42196357	-81.69387393
16	T-16	2018-05-02	Spring	Avian	Winter Wren	Unknown	Advanced decomposition	None visible	48	2	Gravel	44	24	443914.5705	4807651.287	43.41966089	-81.69283072
17	T-16	2018-10-09	Fall	Avian	Nashville Warbler	Unknown	Early decomposition	None visible	24	2	Mown vegetation	33	18	443906.5907	4807642.337	43.41957971	-81.69292836
18	T-17	2018-08-24	Summer	Avian	Purple Martin	Unknown	Early decomposition	None visible	48	1	Bare ground/soil	29	145	443393.3195	4805330.762	43.39872822	-81.69902897
19	T-17	2018-10-05	Fall	Avian	Golden-crowned Kinglet	Unknown	Fresh	None visible	10	1	Bare ground/soil	49	250	443330.6604	4805338.274	43.39879112	-81.69980345
20	T-18	2018-05-08	Spring	Avian	Bird spp. (unknown)	Unknown	Complete decomposition	None visible	9999	2	Mown vegetation	13	312	443707.384	4805345.303	43.39888278	-81.69515242
21	T-18	2018-06-05	Summer	Avian	Red-winged Blackbird	Unknown	Scavenged	None visible	9999	1	Bare ground/soil	5	306	443712.6048	4805339.688	43.39883261	-81.69508738
22	T-18	2018-10-19	Fall	Avian	Golden-crowned Kinglet	Unknown	Fresh	None visible	12	1	Bare ground/soil	40	139	443742.6142	4805306.194	43.3985333	-81.69471337
23	T-18	2018-10-30	Fall	Avian	Bird spp. (unknown)	Unknown	Scavenged	None visible	72	1	Gravel,Bare ground/soil	41	199	443703.242	4805297.921	43.39845585	-81.69519869
24	T-18	2018-10-30	Fall	Avian	Golden-crowned Kinglet	Unknown	Scavenged	None visible	72	1	Bare ground/soil	47	107	443761.8057	4805322.668	43.39868306	-81.69447809
25	T-19	2018-06-13	Summer	Avian	Bird spp. (unknown)	Unknown	Scavenged	None visible	9999	2	Growing crop	31	228	446238.1334	4804808.763	43.39423753	-81.66384995
26	T-20	2018-09-24	Fall	Avian	Bird spp. (unknown)	Unknown	Advanced decomposition	None visible	96	1	Bare ground/soil	27	193	446906.6947	4804798.032	43.39418854	-81.65559411
27	T-20	2018-09-27	Fall	Avian	Bird spp. (unknown)	Unknown	Scavenged	None visible	96	1	Gravel,Bare ground/soil	28	16	446920.6922	4804851.527	43.39467119	-81.65542647
28	T-20	2018-10-11	Fall	Avian	Golden-crowned Kinglet	Unknown	Early decomposition	None visible	36	1	Gravel,Bare ground/soil	15	216	446904.3137	4804812.936	43.39432256	-81.65562496
29	T-22	2018-10-26	Fall	Avian	Golden-crowned Kinglet	Unknown	Complete decomposition	None visible	9999	2	Cultivated crop	37	146	443994.9689	4804603.764	43.39222763	-81.6915254
30	T-22	2018-11-05	Fall	Avian	Golden-crowned Kinglet	Unknown	Complete decomposition	None visible	9999	2	Cultivated crop	27	42	443992.3907	4804654.702	43.39268608	-81.69156245
31	T-25	2018-10-17	Fall	Avian	Golden-crowned Kinglet	Unknown	Fresh	None visible	12	2	Low shrub	29	149	444011.613	4804011.309	43.38689452	-81.69125928
32	T-27	2018-05-02	Spring	Avian	Golden-crowned Kinglet	Female	Fresh	None visible	12	1	Gravel	53	35	443668.7453	4803723.687	43.38427916	-81.69546255
33	T-27	2018-06-04	Summer	Avian	Bird spp. (unknown)	Unknown	Scavenged	Severed wing	9999	1	Bare ground/soil	46	65	443679.8373	4803699.772	43.38406466	-81.69532316
34	T-27	2018-10-22	Fall	Avian	Swamp Sparrow	Unknown	Scavenged	None visible	72	1	Bare ground/soil	22	324	443625.0969	4803698.786	43.38405167	-81.69599882
35	T-31	2018-05-02	Spring	Avian	American Goldfinch	Unknown	Fresh	None visible	12	1	Gravel	19	46	443554.0547	4801123.405	43.36085802	-81.69661037
36	T-31	2018-08-03	Summer	Avian	Bird spp. (unknown)	Unknown	Scavenged	None visible	24	2	Mown vegetation	37	131	443567.7929	4801085.639	43.36051902	-81.69643695
37	T-31	2018-10-19	Fall	Avian	Golden-crowned Kinglet	Unknown	Scavenged	None visible	72	2	Mown vegetation	36	301	443509.2357	4801128.717	43.36090249	-81.69716399
38	T-33	2018-05-22	Spring	Avian	Mallard	Male	Early decomposition	Decapitated	24	2	Mown vegetation	47	356	442834.7436	4800511.723	43.35529613	-81.70542302
39	T-33	2018-08-03	Summer	Avian	Purple Martin	Unknown	Fresh	Wound to abdomen	12	2	Mown vegetation	53	55	442881.1839	4800494.447	43.35514411	-81.70484819
40	T-38	2018-05-01	Spring	Avian	Purple Martin	Unknown	Fresh	None visible	12	2	Silt sand grass	13	73	442421.8759	4799496.091	43.34612	-81.71041075
41	T-38	2018-05-14	Spring	Avian	House Wren	Unknown	Fresh	Cut in half	12	2	Mown vegetation	37	318	442384.8672	4799520.61	43.34633793	-81.71086991
42	T-38	2018-07-19	Summer	Avian	Cliff Swallow	Unknown	Fresh	None visible	12	1	Gravel	9	261	442400.3843	4799491.042	43.34607289	-81.71067537
43	T-38	2018-10-25	Fall	Avian	Golden-crowned Kinglet	Unknown	Scavenged	None visible	72	2	Mown vegetation	35	149	442427.432	4799462.4	43.34581708	-81.71033867
44	T-38	2018-10-25	Fall	Avian	Black-capped Chickadee	Unknown	Fresh	None visible	12	1	Gravel	16	282	442394.0176	4799495.751	43.3461148	-81.71075441
45	T-38	2018-10-29	Fall	Avian	Dark-eyed Junco	Unknown	Early decomposition	Wound to abdomen	96	1	Gravel	1	110	442410.1498	4799492.146	43.34608358	-81.710555
46	T-41	2018-06-18	Summer	Avian	Horned Lark	Unknown	Moderate decomposition	Head injury	48	2	Cultivated crop	48	337	441745.4926	4798189.269	43.33430143	-81.71861663
47	T-41	2018-10-15	Fall	Avian	Swamp Sparrow	Unknown	Early decomposition	Cut in half	24	3	Growing crop	37	90	441801.0568	4798144.883	43.3339061	-81.71792655
48	T-42	2018-07-12	Summer	Avian	Bird spp. (unknown)	Unknown	Advanced decomposition	None visible	72	2	Mown vegetation	38	249	441571.1642	4797837.299	43.3311882	-81.72072946
49	T-43	2018-08-20	Summer	Avian	Barn Swallow	Unknown	Early decomposition	None visible	72	1	Gravel	12	229	442240.2131	4797822.257	43.33103509	-81.71247572
50	T-48	2018-11-12	Fall	Avian	Golden-crowned Kinglet	Unknown	Scavenged	None visible	9999	2	Mown vegetation	44	324	440503.1956	4796590.296	43.31980723	-81.73376676

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	<b>Appendix E - Table 3</b>																
2	<b>Grand Bend Wind Farm Year 2 - Raptor Mortality Turbine Mortalities - 2018</b>																
3	Turbine ID	Survey Type	Date Recorded	Season	Species Common Name	Sex	Carcass Condition	Carcass Injuries	Est. Time Since Death (Hours)	Visibility Class	Substrate	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
4	T-01	Raptor Mortality	2018-05-09	Spring	Hawk spp.	Unknown	Scavenged	None visible	9999	3	Silt, sand, harvested corn stalk and cob	31	82	444067.2512	4811882.024	43.45776477	-81.69137838
5	T-25	Raptor Mortality	2018-05-22	Spring	Red-tailed Hawk	Unknown	Advanced decomposition	None visible	9999	2	Harvested corn husks, stalks, cobs, silt sand	33	88	444030.1515	4804037.124	43.38712833	-81.69103305
6	T-30	Raptor Mortality	2018-07-18	Summer	Red-tailed Hawk	Unknown	Advanced decomposition	None visible	72	2	Cultivated crop	28	173	443014.1001	4801985.894	43.36858295	-81.70336325
7	T-45	Raptor Mortality	2018-05-30	Spring	Turkey Vulture	Unknown	Advanced decomposition	None visible	9999	1	Bare ground/soil	28	320	440135.9309	4796978.847	43.32327655	-81.73833816

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<b>Appendix E - Table 4</b>															
2	<b>Grand Bend Wind Farm Year 2 - Bat Mortalities - 2018</b>															
3	Turbine ID	Date Recorded	Season	Species Common Name	Sex	Carcass Condition	Carcass Injuries	Est. Time Since Death (Hours)	Visibility Class	Substrate	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
4	T-42	2018-05-04	Spring	Eastern Red Bat	Unknown	Moderate decomposition	None visible	48	2	Silt sand grass	18	138	441619.0542	4797836.607	43.33111631	-81.7201387
5	T-41	2018-05-14	Spring	Hoary Bat	Unknown	Fresh	None visible	6	1	Cultivated crop,Bare ground/soil	47	301	441724.3797	4798169.57	43.33412244	-81.71887496
6	T-18	2018-05-22	Spring	Silver-haired Bat	Unknown	Fresh	None visible	12	1	Bare ground/soil	17	142	443727.1878	4805322.842	43.39868203	-81.69490557
7	T-41	2018-05-31	Spring	Little Brown Myotis	Unknown	Early decomposition	None visible	48	1	Gravel,Bare ground/soil	17	147	441773.2208	4798131.206	43.33378079	-81.71826845
8	T-03	2018-06-06	Summer	Silver-haired Bat	Unknown	Complete decomposition	None visible	9999	2	Gravel	21	299	445863.219	4810077.373	43.44164817	-81.66900113
9	T-43	2018-06-07	Summer	Big Brown Bat	Unknown	Advanced decomposition	None visible	9999	2	Growing crop	14	208	442242.8684	4797818.055	43.33099745	-81.71244252
10	T-18	2018-06-15	Summer	Big Brown Bat	Unknown	Fresh	None visible	12	1	Bare ground/soil	11	55	443726.0053	4805343.039	43.39886379	-81.69492225
11	T-02	2018-06-18	Summer	Big Brown Bat	Unknown	Fresh	None visible	24	1	Bare ground/soil	51	339	444357.8801	4811807.375	43.45711431	-81.68777861
12	T-31	2018-06-26	Summer	Silver-haired Bat	Unknown	Early decomposition	None visible	24	2	Mown vegetation	25	266	443514.5811	4801108.37	43.36071968	-81.69709593
13	T-31	2018-06-26	Summer	Hoary Bat	Unknown	Moderate decomposition	None visible	48	2	Mown vegetation	42	196	443528.084	4801069.297	43.36036889	-81.69692528
14	T-18	2018-07-03	Summer	Little Brown Myotis	Unknown	Fresh	None visible	24	1	Gravel	34	188	443711.7922	4805303.28	43.39850474	-81.69509366
15	T-18	2018-07-03	Summer	Eastern Red Bat	Unknown	Fresh	None visible	12	1	Gravel	15	175	443717.9765	4805321.234	43.39866686	-81.69501915
16	T-14	2018-07-06	Summer	Bat spp. (unknown)	Unknown	Scavenged	None visible	72	1	Bare ground/soil,Growing crop	41	323	443777.4534	4807934.217	43.42219805	-81.69455353
17	T-14	2018-07-10	Summer	Hoary Bat	Unknown	Early decomposition	None visible	24	2	Bare ground/soil,Growing crop	35	308	443774.4604	4807923.564	43.42210191	-81.69458941
18	T-43	2018-07-12	Summer	Big Brown Bat	Unknown	Complete decomposition	None visible	72	1	Gravel	26	33	442264.0755	4797852.048	43.33130515	-81.71218453
19	T-31	2018-07-17	Summer	Eastern Red Bat	Unknown	Fresh	None visible	48	1	Concrete (turbine pad)	6	107	443545.6823	4801108.254	43.36072098	-81.69671212
20	T-42	2018-07-17	Summer	Big Brown Bat	Unknown	Complete decomposition	None visible	9999	2	Bare ground/soil,Mown vegetation	38	111	441642.3619	4797836.434	43.33111656	-81.71985121
21	T-42	2018-07-23	Summer	Little Brown Myotis	Unknown	Fresh	None visible	12	2	Mown vegetation	20	208	441597.2136	4797832.748	43.33107986	-81.72040768
22	T-17	2018-08-03	Summer	Hoary Bat	Unknown	Fresh	None visible	12	1	Bare ground/soil	10	324	443370.6341	4805363.194	43.39901851	-81.69931244
23	T-11	2018-08-14	Summer	Hoary Bat	Unknown	Fresh	None visible	36	2	Bare ground/soil,Growing crop	33	43	444352.2413	4808484.15	43.42719243	-81.68750938
24	T-18	2018-08-14	Summer	Hoary Bat	Unknown	Advanced decomposition	None visible	9999	1	Bare ground/soil	27	281	443690.122	4805342.063	43.39885231	-81.69536524
25	T-18	2018-08-14	Summer	Hoary Bat	Unknown	Fresh	Broken neck	36	1	Bare ground/soil	47	286	443671.6734	4805350.368	43.3989257	-81.69559389
26	T-22	2018-08-14	Summer	Eastern Red Bat	Unknown	Moderate decomposition	None visible	48	1	Gravel	7	11	443975.6178	4804641.869	43.39256928	-81.69176823
27	T-42	2018-08-16	Summer	Eastern Red Bat	Unknown	Fresh	None visible	7	2	Mown vegetation,Bare ground/soil	15	332	441599.9357	4797863.913	43.33136068	-81.72037742
28	T-42	2018-08-16	Summer	Hoary Bat	Unknown	Early decomposition	Severed wing	24	2	Mown vegetation	10	317	441599.9596	4797858.02	43.33130762	-81.7203765
29	T-46	2018-08-16	Summer	Hoary Bat	Unknown	Fresh	None visible	12	4	Growing crop	53	51	440591.4891	4796924.272	43.32282128	-81.73271407
30	T-09	2018-08-17	Summer	Hoary Bat	Unknown	Early decomposition	None visible	36	1	Gravel	13	279	444309.8421	4808857.22	43.43054831	-81.68807122
31	T-18	2018-08-17	Summer	Eastern Red Bat	Unknown	Fresh	None visible	12	1	Gravel	9	208	443712.5079	4805328.885	43.39873534	-81.69508746
32	T-02	2018-08-20	Summer	Silver-haired Bat	Unknown	Advanced decomposition	None visible	96	1	Bare ground/soil	16	350	444373.2673	4811776.134	43.45683417	-81.68758524
33	T-02	2018-08-20	Summer	Eastern Red Bat	Unknown	Fresh	None visible	12	1	Bare ground/soil	24	261	444352.5973	4811756.461	43.45665551	-81.68783871
34	T-20	2018-08-20	Summer	Eastern Red Bat	Unknown	Early decomposition	None visible	24	1	Gravel	40	333	446895.0032	4804859.988	43.39474556	-81.65574448
35	T-20	2018-08-20	Summer	Silver-haired Bat	Unknown	Early decomposition	None visible	12	1	Bare ground/soil	46	247	446870.9819	4804806.891	43.39426578	-81.65603592
36	T-26	2018-08-20	Summer	Hoary Bat	Unknown	Early decomposition	None visible	36	1	Gravel	3	175	443339.5474	4803810.544	43.38503642	-81.69953548
37	T-41	2018-08-20	Summer	Big Brown Bat	Unknown	Moderate decomposition	None visible	72	1	Gravel	12	220	441756.4331	4798136.368	43.33382597	-81.71847607
38	T-46	2018-08-23	Summer	Hoary Bat	Unknown	Scavenged	None visible	72	1	Concrete (turbine pad)	2	46	440551.6357	4796892.763	43.32253444	-81.73320215
39	T-18	2018-08-24	Summer	Hoary Bat	Unknown	Fresh	None visible	9999	1	Bare ground/soil	51	50	443755.81	4805368.903	43.3990989	-81.69455688
40	T-18	2018-08-24	Summer	Silver-haired Bat	Unknown	Fresh	None visible	12	1	Bare ground/soil	31	86	443748.0276	4805338.369	43.39882339	-81.69464984
41	T-48	2018-08-27	Summer	Big Brown Bat	Unknown	Fresh	None visible	12	2	Mown vegetation	55	277	440473.9167	4796561.192	43.31954287	-81.73412466
42	T-07	2018-08-28	Summer	Eastern Red Bat	Unknown	Fresh	None visible	9999	1	Bare ground/soil	7	259	443947.0104	4809146.119	43.43312243	-81.69258345
43	T-07	2018-08-28	Summer	Bat spp. (unknown)	Unknown	Complete decomposition	None visible	9999	1	Bare ground/soil	55	335	443930.9152	4809197.176	43.43358092	-81.69278755
44	T-17	2018-08-28	Summer	Eastern Red Bat	Unknown	Fresh	None visible	12	1	Bare ground/soil	32	59	443404.1011	4805371.498	43.39909581	-81.69890005
45	T-45	2018-08-29	Summer	Hoary Bat	Unknown	Fresh	None visible	12	1	Gravel	26	240	440131.1103	4796944.824	43.32296982	-81.7383939
46	T-38	2018-08-30	Summer	Silver-haired Bat	Unknown	Scavenged	None visible	72	1	Gravel	20	307	442393.3339	4799504.814	43.34619635	-81.7107638
47	T-20	2018-09-03	Fall	Silver-haired Bat	Unknown	Early decomposition	None visible	12	1	Bare ground/soil	40	254	446873.8964	4804814.078	43.39433069	-81.65600063
48	T-27	2018-09-03	Fall	Bat spp. (unknown)	Unknown	Moderate decomposition	None visible	24	1	Bare ground/soil	38	54	443668.7563	4803703.016	43.38409304	-81.69546029
49	T-27	2018-09-03	Fall	Eastern Red Bat	Unknown	Fresh	Head injury	36	1	Bare ground/soil	43	54	443672.438	4803705.661	43.38411713	-81.69541511
50	T-42	2018-09-03	Fall	Hoary Bat	Unknown	Advanced decomposition	None visible	72	2	Mown vegetation	28	241	441582.2436	4797836.799	43.33111518	-81.72059275
51	T-18	2018-09-04	Fall	Eastern Red Bat	Unknown	Fresh	None visible	12	1	Gravel	6	173	443717.3389	4805331.07	43.39875537	-81.69502803
52	T-42	2018-09-06	Fall	Hoary Bat	Unknown	Fresh	Head injury	12	1	Gravel	4	104	441611.1388	4797849.394	43.33123083	-81.72023769
53	T-42	2018-09-06	Fall	Eastern Red Bat	Unknown	Fresh	None visible	12	2	Mown vegetation	44	89	441651.1517	4797850.96	43.33124803	-81.71974434
54	T-46	2018-09-06	Fall	Hoary Bat	Unknown	Early decomposition	None visible	48	1	Bare ground/soil	26	244	440527.0315	4796880.355	43.32242077	-81.73350424
55	T-07	2018-09-07	Fall	Hoary Bat	Unknown	Scavenged	None visible	48	1	Bare ground/soil	41	294	443916.4374	4809164.509	43.43328571	-81.69296307
56	T-09	2018-09-11	Fall	Silver-haired Bat	Unknown	Early decomposition	None visible	36	1	Gravel	50	266	444273.1077	4808851.943	43.43049806	-81.68852451
57	T-20	2018-09-13	Fall	Eastern Red Bat	Unknown	Advanced decomposition	None visible	48	1	Bare ground/soil	22	106	446933.8118	4804818.364	43.39437352	-81.65526127
58	T-33	2018-09-18	Fall	Eastern Red Bat	Unknown	Advanced decomposition	None visible	9999	2	Mown vegetation	50	354	442833.2831	4800514.129	43.35531768	-81.70544129
59	T-07	2018-09-28	Fall	Bat spp. (unknown)	Unknown	Complete decomposition	None visible	9999	1	Bare ground/soil	46	307	443917.786	4809175.756	43.43338708	-81.69294756
60	T-42	2018-10-15	Fall	Hoary Bat	Unknown	Fresh	None visible	24	2	Mown vegetation	44	281	441563.9825	4797859.498	43.33131813	-81.7208204
61	Red denotes sub-sample turbine															

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	<b>Appendix E - Table 5</b>																	
2	<b>Grand Bend Wind Farm Year 2 - Incidental Mortalities (found outside of the 50 m search radius or found incidentally during other tasks)</b>																	
3	Turbine ID	Survey Type	Date Recorded	Season	Carcass Type	Species Common Name	Sex	Carcass Condition	Carcass Injuries	Est. Time Since Death (Hours)	Visibility Class	Substrate	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
4	T-09	Raptor Mitigation	2018-10-19	Fall	Incidental (Avian)	Hermit Thrush	Unknown	Scavenged	None visible	9999	2	Cultivated crop	58	124	444371.1645	4808822.293	43.43023839	-81.68731006
5	T-11	Raptor Mitigation	2018-10-12	Fall	Incidental (Avian)	Golden-crowned Kinglet	Unknown	Moderate decomposition	None visible	48	4	Growing crop	71	58	444390.0302	4808497.763	43.4273178	-81.68704393
6	T-16	Sub-sample	2018-10-05	Fall	Incidental (Avian)	Chipping Sparrow	Unknown	Fresh	None visible	24	2	Gravel	56	228	443854.0947	4807574.495	43.41896494	-81.69356983
7	T-22	Raptor Mitigation	2018-10-05	Fall	Incidental (Avian)	Philadelphia Vireo	Unknown	Fresh	None visible	12	1	Gravel	103	8	443989.5094	4804736.22	43.39341983	-81.69160637
8	T-27	Sub-sample	2018-11-15	Fall	Incidental (Raptor)	Red-tailed Hawk	Unknown	Fresh	None visible	6	3	Cultivated crop	64	243	443580.6392	4803651.824	43.38362549	-81.69654281
9	T-31	Sub-sample	2018-06-12	Summer	Incidental (Raptor)	Turkey Vulture	Unknown	Fresh	None visible	24	2	Growing crop	61	18	443559.882	4801168.091	43.36126081	-81.69654306

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	<b>Appendix E - Table 6</b>																			
2	<b>Grand Bend Wind Farm Year 2 - Searcher Efficiency Trial Results - 2018</b>																			
3	Turbine ID	Date Placed	Season	Tester	Searcher	Species Common Name	Visibility Class	Condition	Substrate	Marking	Weather	Air Temperature (°C)	Scavenged	Found	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
4	T-20	2018-05-07	Spring	Sara	Sarah	Hoary Bat	2	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	no	21	13	446917.8264	4804845.347	43.39461534	-81.65546126
5	T-20	2018-05-07	Spring	Sara	Sarah	Silver-haired Bat	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	yes	21	3	446914.3559	4804846.003	43.394621	-81.65550417
6	T-27	2018-05-07	Spring	Sara	Sarah	European Starling	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	yes	30	298	443611.5569	4803695.38	43.38401999	-81.69616562
7	T-27	2018-05-10	Spring	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil		Sky: Cloudy, Temp.: Cold, Wind: Strong		no	no	18	246	443621.4727	4803673.751	43.38382599	-81.69604098
8	T-38	2018-05-10	Spring	Sarah	Sara	Ruby-throated Hummingbird	1	Thawed	Gravel	Orange Paint	Wind: Light, Sky: Cloudy		no	yes	7	130	442415.003	4799487.622	43.34604322	-81.71049465
9	T-38	2018-05-10	Spring	Sarah	Sara	Silver-haired Bat	2	Thawed	Bare ground/soil	Orange Paint	Wind: Light, Temp.: Cold		no	yes	19	215	442398.266	4799476.85	43.34594494	-81.71070001
10	T-07	2018-05-15	Spring	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light		no	no	13	239	443942.9844	4809140.861	43.43307478	-81.69263265
11	T-16	2018-05-15	Spring	Sara	Sarah	Hoary Bat	1	Thawed	Gravel	Orange Paint	Percip.: Light Rain, Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light		no	yes	14	303	443884.2337	4807618.933	43.41936731	-81.69320212
12	T-16	2018-05-15	Spring	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Yellow Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light		no	no	18	250	443879.1912	4807604.983	43.41924133	-81.69326297
13	T-42	2018-05-17	Spring	Sarah	Sara	Eastern Red Bat	2	Thawed	Bare ground/soil	Yellow Paint	Temp.: Cold, Wind: Light		no	yes	32	11	441613.4198	4797881.424	43.33151939	-81.72021297
14	T-48	2018-05-17	Spring	Sarah	Sara	Golden-crowned Kinglet	2	Thawed	Bare ground/soil, Mown vegetation	Orange Paint	Wind: Light, Temp.: Cold		no	no	13	324	440520.9588	4796565.07	43.31958151	-81.73354497
15	T-48	2018-05-17	Spring	Sarah	Sara	Eastern Red Bat	2	Thawed	Bare ground/soil, Mown vegetation	Orange Paint	Temp.: Cold, Wind: Light		no	yes	22	350	440524.9834	4796576.001	43.31968025	-81.73349652
16	T-17	2018-05-22	Spring	Sara	Sarah	Golden-crowned Kinglet	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light	17°C, 6 km wind	no	no	13	213	443369.0125	4805343.85	43.39884422	-81.69933046
17	T-17	2018-05-22	Spring	Sara	Sarah	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light	17°C, 6 km wind	no	yes	21	205	443367.6439	4805336.074	43.39877411	-81.69934656
18	T-18	2018-05-22	Spring	Sara	Sarah	Bird spp. (unknown)	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Sky: Overcast, Wind: Light	17°C, 6 km wind	no	yes	13	304	443706.367	4805343.817	43.39886933	-81.69516482
19	T-31	2018-05-25	Spring	Sarah	Sara	Silver-haired Bat	2	Thawed	Bare ground/soil, Mown vegetation	Orange Paint	Sky: Overcast, Temp.: Warm, Wind: Light		no	no	5	10	443540.9992	4801115.187	43.36078305	-81.69677063
20	T-31	2018-05-25	Spring	Sarah	Sara	Purple Martin	2	Thawed	Bare ground/soil, Mown vegetation	Orange Paint	Temp.: Warm, Wind: Light, Sky: Overcast		no	yes	16	14	443543.8055	4801125.078	43.36087232	-81.69673702
21	T-38	2018-05-28	Spring	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	24°C, 8 km wind	no	no	24	349	442405.0943	4799515.988	43.34629786	-81.71061988
22	T-42	2018-05-28	Spring	Sara	Sarah	Red-breasted Nuthatch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	24°C, 8 km wind	no	yes	34	52	441633.8971	4797871.412	43.33143084	-81.71995933

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
3	Turbine ID	Date Placed	Season	Tester	Searcher	Species Common Name	Visibility Class	Condition	Substrate	Marking	Weather	Air Temperature (°C)	Scavenged	Found	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
23	T-42	2018-05-28	Spring	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	24°C, 8 km wind	no	no	33	65	441636.7958	4797863.963	43.33136399	-81.71992279
24	T-16	2018-05-29	Spring	Sarah	Sara	Silver-haired Bat	2	Thawed	Mown vegetation	Yellow Paint	Sky: Clear, Wind: Light, Temp.: Hot	Temp. 28°C, wind 13	no	no	9	162	443898.8937	4807602.106	43.4192169	-81.69301931
25	T-16	2018-05-29	Spring	Sarah	Sara	Red-breasted Nuthatch	2	Thawed	Mown vegetation	Yellow Paint	Sky: Clear, Wind: Light, Temp.: Hot, Sky: Cloudy	Temp 28c ; wind 13	no	yes	19	82	443915.1109	4807613.431	43.41932008	-81.69282015
26	T-18	2018-05-29	Spring	Sarah	Sara	Eastern Red Bat	1	Thawed	Gravel	Yellow Paint	Temp.: Hot, Wind: Light	Temp 28°C, wind 13km	no	no	11	169	443718.8599	4805325.42	43.39870462	-81.69500867
27	T-02	2018-05-31	Spring	Sara	Sarah	Red-breasted Nuthatch	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm	26°C, 24 km wind	no	no	26	208	444363.5164	4811737.646	43.45648691	-81.68770183
28	T-48	2018-05-31	Spring	Sara	Sarah	Bird spp. (unknown)	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Hot, Wind: Light	28°C, 24 km wind	no	no	40	87	440569.0087	4796556.009	43.31950373	-81.73295145
29	T-48	2018-05-31	Spring	Sara	Sarah	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Hot, Wind: Light	28°C, 26 km wind	no	no	30	71	440556.9958	4796563.455	43.31956982	-81.7331004
30	T-07	2018-06-01	Spring	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil,Gravel	Yellow Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	10	327	443948.9406	4809155.511	43.43320713	-81.69256057
31	T-02	2018-06-04	Spring	Sarah	Sara	American Goldfinch	1	Thawed	Bare ground/soil	Orange Paint	Temp.: Cold, Wind: Light	Temp 13°C, wind 18km	no	no	8	131	444381.8923	4811754.614	43.45664105	-81.68747644
32	T-02	2018-06-04	Spring	Sarah	Sara	Silver-haired Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Wind: Light	Temp 13°C, wind 18km	no	no	30	181	444375.3356	4811730.105	43.45641989	-81.68755498
33	T-31	2018-06-05	Spring	Sara	Sarah	Red-breasted Nuthatch	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Cold, Wind: Light	10°C, 23 km wind	no	no	38	66	443574.7405	4801125.401	43.36087755	-81.69635531
34	T-33	2018-06-05	Spring	Sara	Sarah	Silver-haired Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Cold, Wind: Light	10°C, 23 km wind	no	yes	23	357	442836.7775	4800487.944	43.35508218	-81.70539544
35	T-33	2018-06-05	Spring	Sara	Sarah	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Cold, Wind: Light	10°C, 23 km wind	no	no	9	354	442836.783	4800474.129	43.35495779	-81.70539393
36	T-02	2018-06-07	Spring	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Yellow Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	6	344	444374.193	4811765.857	43.4567417	-81.68757275
37	T-20	2018-06-07	Spring	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	7	245	446906.4462	4804821.686	43.3944015	-81.65559947
38	T-20	2018-06-07	Spring	Sarah	Sara	Silver-haired Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	9	243	446904.9727	4804820.777	43.39439321	-81.65561758
39	T-07	2018-06-08	Spring	Sara	Sarah	Silver-haired Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	20°C, 8 km wind	yes	no	19	92	443972.9582	4809146.696	43.43312956	-81.69226293
40	T-16	2018-06-08	Spring	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	20°C, 8 km wind	yes	no	12	210	443889.6637	4807600.325	43.41920018	-81.69313313
41	T-16	2018-06-08	Spring	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	20°C, 8 km wind	yes	no	18	219	443884.3489	4807596.883	43.41916879	-81.69319843

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
3	Turbine ID	Date Placed	Season	Tester	Searcher	Species Common Name	Visibility Class	Condition	Substrate	Marking	Weather	Air Temperature (°C)	Scavenged	Found	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
42	T-07	2018-06-12	Spring	Sarah	Sara	American Goldfinch	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	6	51	443959.1586	4809151.535	43.4331721	-81.69243392
43	T-07	2018-06-12	Spring	Sarah	Sara	Golden-crowned Kinglet	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	8	310	443947.61	4809152.956	43.43318403	-81.69257674
44	T-17	2018-06-12	Spring	Sarah	Sara	Silver-haired Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	yes	-1	1	442818.6277	4805302.384	43.39842911	-81.70612223
45	T-17	2018-06-15	Spring	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Yellow Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	no	4	40	443378.8697	4805357.717	43.39896983	-81.69921018
46	T-17	2018-06-15	Spring	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	no	-1	1	442979.5359	4805288.121	43.39831294	-81.70413388
47	T-18	2018-06-15	Spring	Sarah	Sara	American Goldfinch	1	Thawed	Bare ground/soil	Yellow Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	yes	15	202	443371.0088	4805341.497	43.39882318	-81.69930557
48	T-18	2018-06-19	Spring	Sara	Sarah	Red-breasted Nuthatch	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	yes	24	206	443706.0098	4805315.622	43.39861544	-81.69516633
49	T-31	2018-06-19	Spring	Sara	Sarah	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	yes	17	98	443557.107	4801107.428	43.3607144	-81.69657106
50	T-31	2018-06-19	Spring	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	no	30	113	443567.117	4801098.245	43.36063247	-81.69644658
51	T-42	2018-06-22	Spring	Sarah	Sara	Red-breasted Nuthatch	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 21c ; wind 26km	no	no	28	337	441595.9884	4797876.622	43.3314748	-81.72042746
52	T-42	2018-06-22	Spring	Sarah	Sara	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 21°C, wind 26km	no	yes	23	340	441599.3728	4797871.923	43.33143276	-81.72038522
53	T-48	2018-06-22	Spring	Sarah	Sara	Eastern Red Bat	2	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 21°C, wind 26km	no	yes	27	359	440528.5932	4796581.477	43.31972985	-81.7334526
54	T-38	2018-06-25	Spring	Sara	Sarah	Red-breasted Nuthatch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	yes	30	6	442412.7103	4799522.37	43.34635591	-81.71052659
55	T-38	2018-06-25	Spring	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	yes	28	340	442400.1002	4799518.326	43.34631852	-81.71068174
56	T-16	2018-06-26	Spring	Sarah	Sara	Eastern Red Bat	2	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	Temp 23c ; wind 21k	no	no	41	157	443911.4119	4807573.342	43.41895886	-81.69286173
57	T-33	2018-06-26	Spring	Sarah	Sara	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 19°C, wind 21km	no	yes	18	287	442820.4938	4800470.159	43.3549208	-81.70559451
58	T-33	2018-06-26	Spring	Sarah	Sara	Red-breasted Nuthatch	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 19°C, wind 21km	no	yes	15	252	442823.154	4800460.199	43.35483133	-81.70556065
59	T-02	2018-06-28	Spring	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Fog, Sky: Overcast, Temp.: Mild, Wind: Light		no	no	29	199	444366.3367	4811732.609	43.45644177	-81.68766646
60	T-02	2018-06-28	Spring	Sara	Sarah	Red-breasted Nuthatch	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Fog, Sky: Overcast, Temp.: Mild, Wind: Light		no	no	7	197	444373.6389	4811752.955	43.4566255	-81.68757828



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61	T-27	2018-06-28	Spring	Sara	Sarah	American Goldfinch	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Fog, Sky: Overcast, Temp.: Mild, Wind: Light		yes	no	19	297	443620.6353	4803689.751	43.38396999	-81.69605297
62	T-16	2018-06-29	Spring	Sarah	Sara	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Hot, Wind: Light	Temp 28°C, wind 5km	no	no	16	140	443906.2207	4807598.647	43.41918631	-81.69292845
63	T-17	2018-06-29	Spring	Sara	Sarah	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	no	26	205	443365.5175	4805331.814	43.39873559	-81.69937237
64	T-07	2018-07-03	Summer	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Yellow Paint	Sky: Clear, Temp.: Hot, Wind: Light	Temp 29; wind 10km	no	no	21	34	443965.9417	4809164.465	43.43328903	-81.69235144
65	T-16	2018-07-03	Summer	Sarah	Sara	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Hot, Wind: Light	Temp 29°C, wind 10km	no	no	36	117	443928.4364	4807594.436	43.41915005	-81.69265361
66	T-16	2018-07-03	Summer	Sarah	Sara	Red-breasted Nuthatch	2	Thawed	Mown vegetation	Yellow Paint	Sky: Clear, Temp.: Hot, Wind: Light	Temp 29°C, wind 10km	no	yes	20	142	443908.2255	4807594.925	43.41915295	-81.6929033
67	T-02	2018-07-05	Summer	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Hot, Wind: Light		no	yes	10	199	444372.5914	4811750.934	43.45660723	-81.68759102
68	T-27	2018-07-05	Summer	Sara	Sarah	Red-breasted Nuthatch	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Hot, Wind: Light		no	yes	13	289	443625.8939	4803685.267	43.38393001	-81.69598759
69	T-48	2018-07-06	Summer	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Wind: Strong, Temp.: Warm, Sky: Clear		no	yes	9	148	440533.3833	4796546.449	43.31941484	-81.73338974
70	T-17	2018-07-10	Summer	Sarah	Sara	Hoary Bat	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	Temp 21°C, wind 13km	no	no	7	91	443383.2573	4805354.776	43.39894367	-81.6991557
71	T-17	2018-07-10	Summer	Sarah	Sara	Winter Wren	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	Temp 21°C, wind 13km	no	yes	21	154	443385.6385	4805335.985	43.39877466	-81.69912435
72	T-18	2018-07-10	Summer	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	Temp 21°C, 13km	no	no	20	166	443721.3045	4805317.378	43.39863239	-81.69497766
73	T-38	2018-07-12	Summer	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	24°C, 10 km wind	no	no	42	359	442409.3929	4799534.114	43.34646139	-81.71056875
74	T-38	2018-07-12	Summer	Sara	Sarah	Winter Wren	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	24!degrees, 10 km wind	no	yes	32	350	442404.2137	4799523.485	43.34636529	-81.71063153
75	T-42	2018-07-12	Summer	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	24°C. 10 km wind	no	yes	14	183	441606.1036	4797836.044	43.33111023	-81.72029838
76	T-31	2018-07-17	Summer	Sarah	Sara	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Wind: Light, Temp.: Mild	Temp 23°C, wind 18km	no	no	28	344	443532.5319	4801136.672	43.36097586	-81.69687733
77	T-31	2018-07-17	Summer	Sarah	Sara	Winter Wren	2	Thawed	Mown vegetation	Orange Paint	Temp.: Mild, Sky: Clear, Wind: Light	Temp 23°C, 18km	no	no	25	324	443525.3714	4801130.808	43.36092252	-81.69696509
78	T-33	2018-07-17	Summer	Sarah	Sara	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	Temp 23°C, wind 18km	no	yes	8	171	442838.9662	4800456.762	43.35480159	-81.70536518
79	T-20	2018-07-19	Summer	Sara	Sarah	Winter Wren	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	yes	22	11	446917.1662	4804845.985	43.39462104	-81.65546947

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80	T-38	2018-07-19	Summer	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	no	30	313	442387.7144	4799512.692	43.34626685	-81.71083395
81	T-42	2018-07-19	Summer	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	no	39	65	441642.7706	4797866.495	43.33138725	-81.71984936
82	T-27	2018-07-23	Summer	Sarah	Sara	Hoary Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Overcast, Temp.: Mild, Wind: Light	Temp 23°C, wind 16km	no	yes	14	242	443625.0496	4803674.399	43.38383209	-81.6959969
83	T-27	2018-07-23	Summer	Sarah	Sara	Winter Wren	1	Thawed	Gravel	Orange Paint	Sky: Overcast, Temp.: Mild, Wind: Light	Temp 23°C, wind 16km	no	yes	5	100	443642.4788	4803680.083	43.38388458	-81.69578232
84	T-17	2018-07-24	Summer	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Warm	22°C	no	no	41	198	443363.5217	4805316.429	43.39859691	-81.69939542
85	T-17	2018-07-24	Summer	Sara	Sarah	Cliff Swallow	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Overcast, Wind: Light, Temp.: Warm	22°C	no	no	30	200	443366.286	4805327.139	43.39869356	-81.6993624
86	T-18	2018-07-24	Summer	Sara	Sarah	Horned Lark	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Warm, Wind: Light	22°C	no	yes	17	217	443706.5914	4805323.503	43.39868643	-81.69515996
87	T-31	2018-07-27	Summer	Sarah	Sara	Horned Lark	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 20°C, wind 14km	no	yes	26	347	443534.2703	4801135.807	43.3609682	-81.69685579
88	T-33	2018-07-27	Summer	Sarah	Sara	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 20c ; wind 14km	no	no	21	222	442823.685	4800449.094	43.35473138	-81.70555294
89	T-33	2018-07-27	Summer	Sarah	Sara	Winter Wren	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 20°C, wind 14km	no	no	28	210	442823.3999	4800440.282	43.35465202	-81.70555553
90	T-31	2018-07-31	Summer	Sara	Sarah	Winter Wren	2	Thawed	Mown vegetation	Orange Paint	Sky: Overcast, Temp.: Warm, Wind: Light	23°C, 10 km wind	no	no	27	68	443564.831	4801119.768	43.36082609	-81.69647701
91	T-33	2018-07-31	Summer	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	23°C, 10 km wind	no	no	26	347	442832.2254	4800490.259	43.35510267	-81.70545185
92	T-33	2018-07-31	Summer	Sara	Sarah	Horned Lark	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Warm, Wind: Light	23°C, 10 km wind	no	yes	22	328	442826.1295	4800483.529	43.35504161	-81.70552637
93	T-27	2018-08-02	Summer	Sarah	Sara	Hoary Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 21°C, wind 11km	no	no	17	245	443622.5486	4803674.122	43.38382941	-81.69602774
94	T-38	2018-08-02	Summer	Sarah	Sara	Horned Lark	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 22°C, wind 11km	no	yes	29	277	442380.7881	4799496.364	43.3461193	-81.71091769
95	T-38	2018-08-02	Summer	Sarah	Sara	Winter Wren	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 22°C, wind 11 km	no	no	28	235	442386.4818	4799476.452	43.34594046	-81.71084535
96	T-02	2018-08-09	Summer	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	Temp 23°C, wind 8mm	no	yes	32	161	444385.806	4811730.053	43.4564202	-81.68742556
97	T-02	2018-08-09	Summer	Sarah	Sara	Winter Wren	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	Temp 23°C, wind 8km	yes	no	10	351	444374.3647	4811770.234	43.45678113	-81.68757107
98	T-27	2018-08-09	Summer	Sarah	Sara	Horned Lark	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	Temp 23°C, wind 10km	no	yes	9	99	443646.548	4803679.524	43.38387985	-81.69573203

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99	T-16	2018-08-10	Summer	Sara	Sarah	Eastern Red Bat	2	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	22°C, 13 km wind	no	yes	33	248	443865.4547	4807599.028	43.41918668	-81.69343203
100	T-16	2018-08-10	Summer	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	22°C, 13 km wind	no	no	29	247	443869.2141	4807599.858	43.41919444	-81.69338568
101	T-20	2018-08-10	Summer	Sara	Sarah	American Goldfinch	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light		no	no	19	0	446912.9272	4804843.882	43.39460181	-81.65552161
102	T-02	2018-08-13	Summer	Sara	Sarah	Horned Lark	1	Thawed	Bare ground/soil,Gravel	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	28°C, 6 km wind	no	yes	28	192	444369.6779	4811732.358	43.45643976	-81.68762513
103	T-02	2018-08-13	Summer	Sara	Sarah	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	28°C, 6km wind	yes	no	40	199	444362.2727	4811722.542	43.45635083	-81.68771566
104	T-27	2018-08-13	Summer	Sara	Sarah	American Goldfinch	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	27°C,5 km wind	no	yes	5	359	443637.7887	4803685.982	43.38393734	-81.69584082
105	T-07	2018-08-14	Summer	Sarah	Sara	Northern Parula	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	Temp 27°C, wind 5km	no	no	36	59	443985.2737	4809165.731	43.43330186	-81.69211272
106	T-16	2018-08-14	Summer	Sarah	Sara	Silver-haired Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Wind: Light, Temp.: Hot	Temp 27°C, wind 5km	no	yes	18	47	443909.1105	4807623.02	43.41940597	-81.69289526
107	T-16	2018-08-14	Summer	Sarah	Sara	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	Temp 27°C, wind 5km	no	yes	26	96	443922.124	4807608.117	43.41927276	-81.69273298
108	T-20	2018-08-16	Summer	Sarah	Sara	Purple Martin	1	Thawed	Bare ground/soil	Orange Paint	Temp.: Warm, Sky: Cloudy, Wind: Light	Temp 25; wind 8km	no	yes	25	332	446901.6257	4804846.647	43.3946259	-81.65566142
109	T-20	2018-08-16	Summer	Sarah	Sara	Hoary Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	Temp 25 °C, wind 8km	no	no	14	303	446901.1264	4804832.361	43.39449724	-81.65566619
110	T-42	2018-08-16	Summer	Sarah	Sara	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	Temp 25°C, wind 10km	no	no	24	325	441593.2722	4797870.567	43.33142008	-81.72046032
111	T-07	2018-08-17	Summer	Sara	Sarah	Purple Martin	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light	22°C, 10 km wind	no	yes	28	94	443981.9546	4809145.118	43.43311602	-81.69215161
112	T-07	2018-08-17	Summer	Sara	Sarah	Hoary Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light	22°C, 10 km wind	no	yes	7	92	443961.2326	4809147.221	43.43313341	-81.69240785
113	T-33	2018-08-17	Summer	Sara	Sarah	American Goldfinch	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light	22°C, 10 km wind	no	yes	10	80	442847.5788	4800466.293	43.35488806	-81.7052599
114	T-42	2018-08-20	Summer	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	21°C, 10 km wind	no	yes	43	109	441647.7105	4797835.685	43.33111023	-81.71978516
115	T-42	2018-08-20	Summer	Sara	Sarah	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Wind: Light, Temp.: Warm	21°C, 10 km wind	no	yes	29	86	441635.4797	4797852.403	43.33125981	-81.71993779
116	T-48	2018-08-20	Summer	Sara	Sarah	American Goldfinch	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	21°C, 10 km wind	no	no	20	76	440548.6158	4796558.883	43.31952799	-81.73320324
117	T-42	2018-08-23	Summer	Sarah	Sara	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	Temp 20°C, wind 11km	no	yes	18	226	441593.7042	4797837.933	43.33112628	-81.72045152

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118	T-42	2018-08-23	Summer	Sarah	Sara	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	Temp 20°C, wind 11km	no	no	30	248	441579.107	4797839.507	43.33113932	-81.72063173
119	T-48	2018-08-23	Summer	Sarah	Sara	Eastern Red Bat	1	Thawed	Concrete (turbine pad)	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light	Temp 20°C, wind 11km	no	yes	7	321	440524.6185	4796559.216	43.31952909	-81.73349921
120	T-17	2018-08-24	Summer	Sara	Sarah	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	22°C, 11 km wind	no	yes	31	204	443363.2256	4805326.448	43.3986871	-81.69940012
121	T-17	2018-08-24	Summer	Sara	Sarah	Hoary Bat	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Warm, Wind: Light	22°C, 11 km	no	yes	5	237	443371.9731	4805352.069	43.39891844	-81.69929476
122	T-33	2018-08-24	Summer	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint			no	no	14	341	442833.4575	4800477.704	43.35498973	-81.70543534
123	T-42	2018-08-30	Summer	Sarah	Sara	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 21°C, wind 13km	no	yes	6	101	441613.2027	4797849.164	43.33122892	-81.72021221
124	T-02	2018-09-03	Fall	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Temp.: Hot, Wind: Light, Sky: Overcast		no	yes	4	1	444375.9705	4811763.488	43.45672051	-81.68755054
125	T-38	2018-09-03	Fall	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Overcast, Temp.: Hot, Wind: Light		no	no	38	331	442391.6362	4799525.654	43.34638386	-81.71078693
126	T-38	2018-09-03	Fall	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Overcast, Temp.: Hot, Wind: Light		no	no	28	324	442393.5765	4799514.955	43.34628768	-81.71076187
127	T-17	2018-09-04	Fall	Sarah	Sara	Purple Martin	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Percip.: Light Rain, Temp.: Mild, Wind: Light	Temp 22°C, 11km	no	no	6	120	443381.4553	4805351.975	43.39891832	-81.69917766
128	T-17	2018-09-04	Fall	Sarah	Sara	American Goldfinch	1	Thawed	Gravel	Orange Paint	Percip.: Light Rain, Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 22°C, wind 11km	no	yes	6	3	443376.902	4805361.067	43.39899983	-81.69923482
129	T-18	2018-09-04	Fall	Sarah	Sara	Eastern Red Bat	1	Thawed	Concrete (turbine pad)	Orange Paint	Sky: Cloudy, Temp.: Mild	Temp 22°C, wind 11km	no	yes	2	67	443718.58	4805337.45	43.39881292	-81.69501336
130	T-20	2018-09-06	Fall	Sara	Sarah	Purple Martin	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Temp.: Warm		no	no	16	10	446915.9043	4804840.903	43.39457519	-81.65548456
131	T-20	2018-09-06	Fall	Sara	Sarah	American Goldfinch	1	Thawed	Gravel	Orange Paint	Temp.: Mild, Wind: Light, Sky: Cloudy		no	yes	4	67	446916.5831	4804826.217	43.39444301	-81.65547475
132	T-27	2018-09-06	Fall	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Temp.: Mild, Percip.: Light Rain	Light sprinkle	yes	no	19	301	443621.8601	4803690.876	43.38398022	-81.69603797
133	T-31	2018-09-07	Fall	Sarah	Sara	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 19°C, wind 8km	no	no	17	277	443523.1578	4801112.189	43.36075472	-81.69699049
134	T-33	2018-09-07	Fall	Sarah	Sara	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 19°C, wind 8km	no	no	14	221	442828.5926	4800454.268	43.35477834	-81.70549292
135	T-33	2018-09-07	Fall	Sarah	Sara	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 19°C, wind 8km	no	no	15	245	442824.5598	4800458.561	43.35481668	-81.70554313
136	T-27	2018-09-10	Fall	Sarah	Sara	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Percip.: Intermittent Rain, Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 13°C, wind 27km	no	no	8	120	443644.4557	4803676.961	43.38385663	-81.69575759

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
3	Turbine ID	Date Placed	Season	Tester	Searcher	Species Common Name	Visibility Class	Condition	Substrate	Marking	Weather	Air Temperature (°C)	Scavenged	Found	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
137	T-27	2018-09-10	Fall	Sarah	Sara	Hoary Bat	1	Thawed	Bare ground/soil	Orange Paint	Percip.: Intermittent Rain, Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 13°C, wind 26km	no	no	11	168	443640.1386	4803669.78	43.38379164	-81.69581015
138	T-38	2018-09-10	Fall	Sarah	Sara	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Percip.: Intermittent Rain, Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 13km; wind 26km	no	yes	14	283	442396.0014	4799495.747	43.34611492	-81.71072993
139	T-16	2018-09-11	Fall	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	no	22	243	443876.1744	4807601.247	43.41920747	-81.69329985
140	T-31	2018-09-11	Fall	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	no	17	41	443551.2231	4801122.689	43.36085136	-81.69664524
141	T-31	2018-09-11	Fall	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	yes	21	54	443557.2181	4801122.373	43.36084897	-81.69657122
142	T-17	2018-09-18	Fall	Sara	Sarah	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Light		no	no	54	201	443357.1289	4805304.483	43.39848887	-81.69947312
143	T-33	2018-09-18	Fall	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Fog, Temp.: Mild, Wind: Light		no	no	7	349	442836.5226	4800471.451	43.35493365	-81.70539686
144	T-33	2018-09-18	Fall	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	18	8	442840.2761	4800482.343	43.35503201	-81.70535169
145	T-07	2018-09-21	Fall	Sarah	Sara	Barn Swallow	1	Thawed	Bare ground/soil	Orange Paint	Temp.: Warm, Wind: Strong, Sky: Cloudy	Temp 27°C, wind 31km	no	yes	10	347	443951.9066	4809157.301	43.43322347	-81.69252411
146	T-16	2018-09-21	Fall	Sarah	Sara	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Strong	Temp 27°C, wind 31km	no	yes	25	125	443916.0046	4807596.862	43.41917097	-81.69280741
147	T-16	2018-09-21	Fall	Sarah	Sara	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Wind: Strong, Temp.: Warm	Temp 27°C, wind 31km	no	no	17	102	443912.3744	4807607.495	43.41926643	-81.69285335
148	T-027	2018-09-24	Fall	Sara	Sarah	Hoary Bat	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Strong	16°C, 29 km wind	no	yes	38	281	443600.184	4803688.87	43.38396052	-81.69630535
149	T-42	2018-09-24	Fall	Sara	Sarah	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Strong		no	no	11	107	441617.4387	4797847.066	43.33121035	-81.72015974
150	T-42	2018-09-24	Fall	Sara	Sarah	Barn Swallow	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Strong		no	no	19	129	441621.7386	4797838.194	43.33113081	-81.72010576
151	T-27	2018-09-27	Fall	Sarah	Sara	Hoary Bat	1	Thawed	Concrete (turbine pad)	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 14°C, wind 10km	no	yes	11	135	443645.3822	4803673.255	43.38382332	-81.69574577
152	T-27	2018-09-27	Fall	Sarah	Sara	Barn Swallow	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 14°C, wind 10km	no	yes	6	193	443636.3992	4803674.869	43.38383718	-81.69585683
153	T-42	2018-09-27	Fall	Sarah	Sara	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 14°C, wind 10km	no	no	14	230	441596.0662	4797841.534	43.33115888	-81.72042277
154	T-07	2018-10-02	Fall	Sarah	Sara	Hoary Bat	1	Thawed	Concrete (turbine pad)	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light, Percip.: Light Rain	Temp 17°C, wind 13km	no	yes	7	338	443951.448	4809154.357	43.43319693	-81.69252947
155	T-16	2018-10-02	Fall	Sarah	Sara	Barn Swallow	2	Thawed	Mown vegetation	Orange Paint	Percip.: Light Rain, Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 17°C, wind 13km	no	yes	16	95	443911.9834	4807609.445	43.41928396	-81.69285838

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
3	Turbine ID	Date Placed	Season	Tester	Searcher	Species Common Name	Visibility Class	Condition	Substrate	Marking	Weather	Air Temperature (°C)	Scavenged	Found	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
156	T-16	2018-10-02	Fall	Sarah	Sara	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Percip.: Light Rain, Sky: Cloudy, Temp.: Mild, Wind: Light	Temp 17°C, wind 13km	no	no	23	126	443914.4614	4807597.335	43.41917511	-81.69282652
157	T-38	2018-10-04	Fall	Sara	Sarah	Barn Swallow	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Strong	14°C, 32 km wind	no	yes	25	318	442392.7962	4799511.089	43.34625281	-81.71077109
158	T-48	2018-10-04	Fall	Sara	Sarah	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Strong	14°C, 32 km wind	no	no	37	97	440565.7812	4796549.158	43.31944178	-81.73299051
159	T-48	2018-10-04	Fall	Sara	Sarah	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Sky: Overcast, Temp.: Mild, Wind: Strong	14°C, 13 km wind	no	no	25	85	440554.02	4796555.856	43.31950117	-81.73313627
160	T-16	2018-10-05	Fall	Sara	Sarah	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Overcast, Temp.: Mild, Wind: Light		yes	no	14	274	443882.4457	4807611.999	43.41930474	-81.69322349
161	T-18	2018-10-05	Fall	Sara	Sarah	Barn Swallow	1	Thawed	Bare ground/soil	Orange Paint	Sky: Overcast, Temp.: Mild, Wind: Light		no	no	49	210	443691.4907	4805294.546	43.39842458	-81.69534344
162	T-18	2018-10-05	Fall	Sara	Sarah	Hoary Bat	1	Thawed	Gravel	Orange Paint	Sky: Overcast, Temp.: Mild, Wind: Light		no	yes	10	259	443706.8899	4805334.89	43.39878899	-81.69515745
163	T-16	2018-10-09	Fall	Sarah	Sara	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	Temp 22°C, wind 14km	no	yes	14	66	443909.2488	4807616.798	43.41934996	-81.69289291
164	T-16	2018-10-09	Fall	Sarah	Sara	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	Temp 22°C, wind 14km	no	yes	25	76	443920.3774	4807616.786	43.41935069	-81.69275545
165	T18	2018-10-09	Fall	Sarah	Sara	Barn Swallow	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Warm, Wind: Light	Temp 22°C, 16km	no	no	5	76	443721.4473	4805337.777	43.39881607	-81.69497799
166	T-38	2018-10-11	Fall	Sarah	Sara	Purple Martin	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 14°C, wind 26km	no	no	21	268	442388.3583	4799491.777	43.34607859	-81.71082381
167	T-42	2018-10-11	Fall	Sarah	Sara	Golden-crowned Kinglet	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 14°C, wind 26km	no	no	9	257	441597.9476	4797848.506	43.3312218	-81.7204003
168	T-42	2018-10-11	Fall	Sarah	Sara	Hoary Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Strong	Temp 14°C, wind 26km	no	no	17	234	441593.0943	4797840.476	43.33114913	-81.72045931
169	T-07	2018-10-12	Fall	Sara	Sarah	Hoary Bat	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Temp.: Cold, Wind: Strong	7°C, 24 km wind	no	no	5	207	443951.7808	4809142.98	43.43309452	-81.69252419
170	T-17	2018-10-12	Fall	Sara	Sarah	Purple Martin	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Cold, Wind: Strong	7°C, 24 km wind	yes	no	46	193	443366.1404	4805310.589	43.39854453	-81.69936248
171	T-17	2018-10-12	Fall	Sara	Sarah	Golden-crowned Kinglet	1	Thawed	Bare ground/soil	Orange Paint	Temp.: Cold, Sky: Overcast, Wind: Strong	7°C, 24 km wind	yes	no	37	203	443361.9334	4805321.306	43.39864071	-81.69941554
172	T-42	2018-10-15	Fall	Sara	Sarah	Brown Creeper	1	Thawed	Gravel	Orange Paint	Sky: Cloudy, Temp.: Mild, Wind: Light		no	no	40	36	441630.2198	4797882.34	43.33152895	-81.72000585
173	T-42	2018-10-15	Fall	Sara	Sarah	Swamp Sparrow	1	Thawed	Gravel	Orange Paint	Percip.: Light Rain, Sky: Cloudy, Temp.: Mild, Wind: Light	11°C, 16 km wind	no	yes	19	46	441620.6664	4797863.576	43.33135926	-81.72012169
174	T-48	2018-10-15	Fall	Sara	Sarah	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	Percip.: Light Rain, Sky: Cloudy, Temp.: Mild, Wind: Light		no	yes	4	87	440533.1056	4796554.309	43.31948558	-81.73339401

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
3	Turbine ID	Date Placed	Season	Tester	Searcher	Species Common Name	Visibility Class	Condition	Substrate	Marking	Weather	Air Temperature (°C)	Scavenged	Found	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	Latitude	Longitude
175	T-07	2018-10-16	Fall	Sara	Sarah	Swamp Sparrow	1	Thawed	Gravel	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	yes	7	224	443949.0416	4809142.356	43.4330887	-81.69255797
176	T-31	2018-10-16	Fall	Sara	Sarah	Brown Creeper	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	no	25	105	443564.5786	4801103.358	43.36067832	-81.69647844
177	T-31	2018-10-16	Fall	Sara	Sarah	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Mild, Wind: Light		no	no	18	85	443557.866	4801111.29	43.36074923	-81.69656209
178	T-02	2018-10-18	Fall	Sarah	Sara	Brown Creeper	1	Thawed	Bare ground/soil,Gravel	Orange Paint	Temp.: Cold, Wind: Light, Sky: Cloudy	Temp 4°C, wind 14km	no	yes	10	113	444384.5843	4811756.229	43.45665579	-81.68744333
179	T-02	2018-10-18	Fall	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil	Orange Paint	Sky: Cloudy, Temp.: Cold, Wind: Light	Temp 4°C, wind 14km	no	yes	8	27	444379.5741	4811767.083	43.45675314	-81.68750636
180	T-20	2018-10-18	Fall	Sarah	Sara	Swamp Sparrow	1	Thawed	Bare ground/soil,Gravel	Orange Paint	Sky: Cloudy, Temp.: Cold, Wind: Light	Temp 4°C, wind 14km	no	no	6	244	446907.7945	4804822.223	43.39440642	-81.65558288
181	T-20	2018-10-22	Fall	Sarah	Sara	Eastern Red Bat	1	Thawed	Bare ground/soil,Gravel	Orange Paint	Sky: Clear, Temp.: Cold, Wind: Light	Temp 6°C, wind 11km	no	no	7	334	446910.1278	4804830.613	43.39448214	-81.65555488
182	T-48	2018-10-22	Fall	Sarah	Sara	Eastern Red Bat	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Cold, Wind: Light	Temp 6°C, wind 11km	no	no	20	329	440518.5244	4796571.136	43.31963593	-81.73357565
183	T-48	2018-10-22	Fall	Sarah	Sara	Brown Creeper	2	Thawed	Mown vegetation	Orange Paint	Sky: Clear, Temp.: Cold, Wind: Light	Temp 6°C, wind 11km	no	no	7	264	440522.019	4796553.452	43.31947699	-81.73353064

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	<b>Appendix E - Table 7</b>																		
2	<b>Grand Bend Wind Farm Year 2 -Scavenger (Carcass) Removal Trial Results - 2018</b>																		
3	<b>Spring Trial (May/June)</b>																		
4														Visit 0	Visit 1	Visit 2	Visit 3	Visit 4	
5	<b>Turbine ID</b>	<b>Date Placed</b>	<b>Species Common Name</b>	<b>Visibility Class</b>	<b>Condition</b>	<b>Substrate</b>	<b>Marking</b>	<b>Time Placed</b>	<b>Weather Placed</b>	<b>Distance from TB (m)</b>	<b>Direction from TB (degrees)</b>	<b>Carcass Easting (NAD83)</b>	<b>Carcass Northing (NAD83)</b>	<b># Carcasses Placed</b>	<b># Remaining</b>	<b># Remaining2</b>	<b># Remaining3</b>	<b># Remaining4</b>	<b>Scavenged</b>
6	T-19	2018-05-08	Silver-haired Bat	1	Thawed	Gravel	Orange Paint	17:43	24C; Sky: Clear,Temp.: Warm,Wind: Light	4	351	446260.7501	4804833.158	1	1	1	1	1	No
7	T-19	2018-05-08	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	17:41	24C; Sky: Clear,Temp.: Warm,Wind: Light	16	4	446262.7544	4804845.319	1	1	1	1	1	No
8	T-19	2018-05-08	Hoary Bat	2	Thawed	Slit,sand,grass	Orange Paint	17:38	24C; Temp.: Warm,Wind: Light,Sky: Clear	21	355	446259.6406	4804849.845	1	0	-	-	-	Yes
9														<b>TOTAL</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
10	T-32	2018-05-08	European Starling	1	Thawed	Gravel	Other	17:16	24C; Sky: Clear,Temp.: Warm,Wind: Light	5	335	442445.7205	4800452.302	1	0	-	-	-	Yes
11	T-32	2018-05-08	European Starling	1	Thawed	Silt, soil	Orange Paint	17:19	24C; Temp.: Warm,Wind: Light	6	185	442447.0639	4800442.53	1	0	-	-	-	Yes
12														<b>TOTAL</b>	<b>2</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>
13	T-35	2018-05-15	Golden-crowned Kinglet	2	Thawed	Silt sand harvested corn stalk, husks and cob	Orange Paint	16:38	18C; Sky: Clear,Temp.: Mild,Wind: Light	16	260	442741.1194	4800010.611	1	1	1	0	-	Yes
14	T-35	2018-05-15	Hoary Bat	2	Thawed	Silt, sand, soil, harvested corn husk and cob	Yellow Paint	16:30	18C; Sky: Clear,Wind: Light,Temp.: Mild	14	129	442767.8039	4800004.157	1	1	0	-	-	Yes
15	T-35	2018-05-15	Hoary Bat	2	Thawed	Silt sand harvested corn husks, stalk and cobs	Orange Paint	16:36	18C; Sky: Clear,Temp.: Mild,Wind: Light	20	255	442737.526	4800008.236	1	1	0	-	-	Yes
16														<b>TOTAL</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>-</b>
17	T-23	2018-05-25	Golden-crowned Kinglet	2	Thawed	Silt sand harvested corn stalk and husks	Orange Paint	16:56	29C; Sky: Clear,Wind: Light,Temp.: Hot	14	262	443306.5484	4804181.713	1	1	1	0	-	Yes
18														<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>-</b>
19	T-28	2018-05-25	Purple Martin	2	Thawed	Silt, sand, harvested corn corn and cobs	Orange Paint	16:55	31C; Sky: Clear,Temp.: Hot,Wind: Light	15	334	443313.5936	4804196.842	1	0	-	-	-	Yes
20														<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>
21	T-05	2018-06-05	Eastern Red Bat	2	Thawed	Silt, sand and beans	Orange Paint	17:25	12C; Sky: Cloudy,Temp.: Cold,Wind: Strong	16	137	444217.2325	4809856.957	1	1	0	-	-	Yes
22	T-05	2018-06-05	Sharp-shinned Hawk	2	Thawed	Silt sand beans	Orange Paint	17:27	12C; Sky: Cloudy,Sky: Overcast,Temp.: Cold,Wind: Strong	18	209	444197.7522	4809853.101	1	1	0	-	-	Yes
23														<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>-</b>	<b>-</b>
24	T-06	2018-06-05	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	17:14	12C; Sky: Cloudy,Sky: Overcast,Temp.: Cold,Wind: Strong	5	126	444039.6274	4809530.176	1	1	1	1	1	No



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
4														Visit 0	Visit 1	Visit 2	Visit 3	Visit 4		
5	Turbine ID	Date Placed	Species Common Name	Visibility Class	Condition	Substrate	Marking	Time Placed	Weather Placed	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	# Carcasses Placed	# Remaining	# Remaining2	# Remaining3	# Remaining4	Scavenged	
25	T-06	2018-06-05	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	17:12	12C; Temp.: Cold,Wind: Strong,Sky: Overcast,Sky: Cloudy	7	68	444041.8667	4809535.971	1	0	-	-	-	Yes	
26	T-06	2018-06-05	Red-tailed Hawk	2	Thawed	Silt, sand and beans	Orange Paint	17:08	12C; Sky: Cloudy,Temp.: Cold,Wind: Strong	46	121	444074.8783	4809509.127	1	1	1	1	1	No	
27														<b>TOTAL</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	
28	<b>Summer Trial (July/August)</b>																			
29														Visit 0	Visit 1	Visit 2	Visit 3	Visit 4		
30	Turbine ID	Date Placed	Species Common Name	Visibility Class	Condition	Substrate	Marking	Time Placed	Weather Placed	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	# Carcasses Placed	# Remaining	# Remaining2	# Remaining3	# Remaining4	Scavenged	
31	T-44	2018-07-05	Horned Lark	2	Thawed	Silt sand cut oat	Orange Paint	20:47	22C; Sky: Cloudy,Temp.: Warm,Wind: Light	22	74	441144.3181	4797231.335	1	1	1	1	0	Yes	
32	T-44	2018-07-05	Hoary Bat	2	Thawed	Silt sand cut oat	Orange Paint	20:50	22C; Sky: Cloudy,Wind: Light,Temp.: Warm	28	57	441146.4166	4797240.533	1	1	1	1	1	No	
33														<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	
34	T-45	2018-07-05	Pine Siskin	2	Thawed	Silt sand beans	Orange Paint	21:01	22C; Sky: Cloudy,Wind: Light,Temp.: Warm	13	154	440159.3251	4796945.821	1	1	0	-	-	Yes	
35	T-45	2018-07-05	American Goldfinch	2	Thawed	Silt sand beans	Orange Paint	21:03	22C; Wind: Light,Temp.: Warm,Sky: Cloudy	12	40	440161.4076	4796966.893	1	0	-	-	-	Yes	
36	T-45	2018-07-05	Golden-crowned Kinglet	2	Thawed	Sit sand beans	Orange Paint	21:07	22C; Sky: Cloudy,Wind: Light,Temp.: Warm	12	285	440142.4529	4796960.856	1	0	-	-	-	Yes	
37														<b>TOTAL</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>-</b>	<b>-</b>	
38	T-03	2018-07-24	Cliff Swallow	1	Thawed	Gravel	Orange Paint	14:00	Sky: Cloudy,Sky: Overcast,Temp.: Warm,Wind: Light	47	180	445881.2119	4810019.515	1	1	1	0	-	Yes	
39	T-03	2018-07-24	Hoary Bat	1	Thawed	Gravel	Orange Paint	13:56	Sky: Cloudy,Sky: Overcast,Temp.: Warm,Wind: Light	46	163	445894.9534	4810022.696	1	1	1	1	0	Yes	
40														<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	
41	T-13	2018-07-24	Cliff Swallow	2	Thawed	Harvested wheat	Orange Paint	14:21	Percip.: Light Rain,Sky: Cloudy,Sky: Overcast,Temp.: Warm,Wind: Light	21	95	444248.4691	4808038.701	1	1	0	-	-	Yes	
42	T-13	2018-07-24	Eastern Red Bat	2	Thawed	Harvested wheat	Orange Paint	14:18	Sky: Cloudy,Sky: Overcast,Temp.: Warm,Wind: Light	18	95	444246.2391	4808038.99	1	1	0	-	-	Yes	
43	T-13	2018-07-24	Eastern Red Bat	2	Thawed	Harvested wheat	Orange Paint	14:16	Sky: Cloudy,Sky: Overcast,Temp.: Warm,Wind: Light	11	113	444237.8584	4808036.434	1	0	-	-	-	Yes	
44														<b>TOTAL</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>-</b>	<b>-</b>	
45	T-29	2018-08-10	Red-tailed Hawk	1	Thawed	Gravel	Orange Paint	18:46	24C; Sky: Clear,Temp.: Warm,Wind: Light	4	24	443155.6366	4802386.676	1	1	1	1	1	No	
46	T-29	2018-08-10	Red-tailed Hawk	1	Thawed	Gravel	Orange Paint	18:43	24C; Sky: Clear,Wind: Light,Temp.: Warm	7	49	443159.3182	4802387.581	1	1	1	1	1	No	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
4														Visit 0	Visit 1	Visit 2	Visit 3	Visit 4		
5	Turbine ID	Date Placed	Species Common Name	Visibility Class	Condition	Substrate	Marking	Time Placed	Weather Placed	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	# Carcasses Placed	# Remaining	# Remaining2	# Remaining3	# Remaining4	Scavenged	
47														<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	
48	T-30	2018-08-10	Hoary Bat	1	Thawed	Gravel	Orange Paint	18:38	25C; Sky: Clear,Temp.: Warm,Wind: Light	4	18	443012.1633	4802017.168	1	1	1	1	1	1	No
49	T-30	2018-08-10	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	18:42	25C; Sky: Clear,Temp.: Warm,Wind: Light	5	322	443007.7769	4802018.083	1	1	1	1	0	0	Yes
50	T-30	2018-08-10	Hoary Bat	1	Thawed	Gravel	Orange Paint	18:44	25C; Sky: Clear,Temp.: Warm,Wind: Light	6	32	443014.5036	4802019.264	1	1	1	1	1	1	No
51														<b>TOTAL</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	
52	<b>Fall Trial (September/October)</b>																			
53														Visit 0	Visit 1	Visit 2	Visit 3	Visit 4		
54	Turbine ID	Date Placed	Species Common Name	Visibility Class	Condition	Substrate	Marking	Time Placed	Weather Placed	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	# Carcasses Placed	# Remaining	# Remaining2	# Remaining3	# Remaining4	Scavenged	
55	T-30	2018-09-06	Purple Martin	2	Thawed	Growing vegetation	Orange Paint	16:35	22C; Sky: Cloudy,Temp.: Mild,Wind: Light	44	159	443026.8347	4801972.271	1	1	1	0	-	-	Yes
56	T-30	2018-09-06	American Goldfinch	2	Thawed	Growing vegetation	Orange Paint	16:38	22C; Sky: Cloudy,Temp.: Mild,Wind: Light	23	132	443028.3277	4801997.921	1	1	0	-	-	-	Yes
57														<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>		
58	T-44	2018-09-06	Eastern Red Bat	2	Thawed	Harvested clover	Orange Paint	16:58	21C; Sky: Cloudy,Temp.: Mild,Wind: Light	6	273	441117.3837	4797225.793	1	0	-	-	-	-	Yes
59	T-44	2018-09-06	Hoary Bat	2	Thawed	Harvested clover	Orange Paint	17:10	21C; Sky: Cloudy,Temp.: Mild,Wind: Light	29	286	441095.841	4797233.786	1	0	-	-	-	-	Yes
60	T-44	2018-09-06	Purple Martin	2	Thawed	Harvested clover	Orange Paint	17:05	21C; Sky: Cloudy,Temp.: Mild,Wind: Light	22	277	441101.36	4797228.367	1	0	-	-	-	-	Yes
61														<b>TOTAL</b>	<b>3</b>	<b>0</b>				
62	T-32	2018-09-27	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	17:32	16C; Sky: Overcast,Temp.: Mild,Wind: Light	29	133	442468.5095	4800428.141	1	1	1	1	1	1	No
63														<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
64	T-34	2018-09-27	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	17:37	16C; Sky: Overcast,Temp.: Mild,Wind: Light	33	111	442273.3742	4800107.671	1	0	-	-	-	-	Yes
65	T-34	2018-09-27	Hoary Bat	1	Thawed	Gravel	Orange Paint	17:41	16C; Sky: Overcast,Temp.: Mild,Wind: Light	37	133	442269.7531	4800094.111	1	1	1	0	-	-	Yes
66														<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>		
67	T-37	2018-09-27	Eastern Red Bat	1	Thawed	Gravel	Orange Paint	17:48	16C; Sky: Overcast,Temp.: Mild,Wind: Light	28	134	442081.7529	4799649.86	1	1	1	1	1	1	No
68	T-37	2018-09-27	Hoary Bat	1	Thawed	Gravel	Orange Paint	17:46	16C; Sky: Overcast,Temp.: Mild,Wind: Light	36	107	442096.4319	4799658.295	1	1	0	-	-	-	Yes
69														<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	
70	T-01	2018-10-12	Purple Martin	1	Thawed	Gravel	Orange Paint	15:35	8C; Sky: Cloudy,Temp.: Cold,Wind: Strong	3	333	444034.5933	4811880.606	1	1	1	1	1	1	No
71	T-01	2018-10-12	Hoary Bat	1	Thawed	Gravel	Orange Paint	15:38	8C; Sky: Cloudy,Temp.: Cold,Wind: Strong	11	28	444041.6029	4811887.655	1	1	1	1	1	1	No
72	T-01	2018-10-12	Golden-crowned Kinglet	1	Thawed	Gravel	Orange Paint	15:37	8C; Sky: Cloudy,Temp.: Cold,Wind: Strong	6	221	444031.8917	4811872.953	1	0	-	-	-	-	Yes
73														<b>TOTAL</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
4														Visit 0	Visit 1	Visit 2	Visit 3	Visit 4	
5	Turbine ID	Date Placed	Species Common Name	Visibility Class	Condition	Substrate	Marking	Time Placed	Weather Placed	Distance from TB (m)	Direction from TB (degrees)	Carcass Easting (NAD83)	Carcass Northing (NAD83)	# Carcasses Placed	# Remaining	# Remaining2	# Remaining3	# Remaining4	Scavenged
74	T-44	2018-10-12	Red-tailed Hawk	2	Thawed	Clover	Orange Paint	16:23	8C; Sky: Cloudy,Temp.: Cold,Wind: Strong	11	41	441130.5162	4797233.838	1	1	0	-	-	Yes
75	T-44	2018-10-12	Red-tailed Hawk	2	Thawed	Clover	Orange Paint	16:27	8C; Sky: Cloudy,Temp.: Cold,Wind: Strong	23	312	441106.4238	4797240.927	1	0	-	-	-	Yes
76														<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>0</b>		