



August 13, 2021

WC 21-013

Miller Golf Design
103 Hillcrest Dr., Box 308
Clarksburg, ON N0H 1J0

Attn: Jason Miller
jdwmiller60@gmail.com

Re: Winery Development Bobolink Study

Dear Jason:

As requested, WILD Canada has completed surveys for Bobolink (BOBO) and Eastern Meadowlark (EAME) on the property at 357038 The Blue Mountains-Meaford Townline. It is understood that this work was required by the Ministry of Natural Resources and Forestry (MNRF), Grey-Sauble Conservation Authority (GSCA), and the Town of Meaford as part of your proposal to construct a winery structure on this property.

Study Approach

In order to define existing habitat of Bobolink and Eastern Meadowlark on the subject and adjacent lands (generally within 120m) for assessment of potential impacts of the proposed development of a winery structure on these species and their habitat, WILD Canada completed the following activities:

- Completed a review of background natural heritage information and current and historical mapping (County of Grey, Municipality of Meaford, Ministry of Natural Resources and Forestry (MNRF) and the Ministry of Environment, Conservation and Parks [MECP]) for the subject and adjacent lands to establish the locations and nature of natural heritage features that could provide habitat for these species (*e.g.* - hay field, grassland, prairie, alvar, meadow);
- Completed three (3) morning Grassland Breeding Bird Surveys (S. Martin, Terrestrial Ecologist) during the species' active breeding and nesting season



according to protocols set out by the MNRF (Bobolink Survey Methodology (MNR, Aurora District 2013))

- During site visits for Grassland Breeding Bird Surveys, assessed existing conditions of current and potential Bobolink and Eastern Meadowlark habitat, and;
- Assessed the potential for direct and indirect impact of the proposed development on habitat of Bobolink and/or Eastern Meadowlark on the subject and adjacent lands.

Methodology

Three morning Grassland Breeding Bird surveys were conducted according to MNRF protocols (MNRF Aurora District, 2013). The surveys were conducted on the following dates and within the listed times and weather conditions: June 1, 2021 (Temperature = 14C, Wind = Beaufort 1, Cloud Cover = 30%, Precipitation = Nil, 07:15 – 08:45), June 12, 2021 (Temperature = 16C, Wind = Beaufort 2, Cloud Cover = 50%, Precipitation = Nil, 07:15 – 08:28), and June 26, 2021 (Temperature = 22C, Wind = Beaufort 2, Cloud Cover = 70%, Precipitation = Nil, 06:42 – 07:27).

Surveys comprised a 10-minute point count at each of two (2) stations. Point count circles had a radius of 200m and were located at the following locations (NAD83, Zone 17T): Station 1 – E 539318 N – 4932117; Station 2 – 538932 N – 4932003. The count circles and their immediate surround encompassed all of the subject property as well as a large area of adjacent lands. While protocol calls for point counts separated by 250m (125m circle radius), count circles of this size would have meant placing a count station at the bottom of the creek valley. This would not have been conducive to visual and audible observations of birds in the grassland habitat of the surrounding uplands. The wide-open nature of the property allowed for clear visual and audible observations at a distance from the uplands. The portion of the property beyond the creek valley will not be impacted by development and birds in the southwest upland were visible and easily heard from the upland to the NE of the valley. For these reasons, it was decided that the best results would be achieved from only 2 point count stations, while also conducting 3 transect surveys along east-west lines; between point count stations, and to the north and south adjacent to the property lines. These transect walks enabled accurate mapping of individuals, pairs and potential nest sites. The property was thoroughly surveyed for BOBO and EAME breeding territories and habitats. All bird species encountered were documented and their location mapped on a “Breeding Bird Survey Mapping Card”.

Existing Site Conditions

- The subject property is approximately 20.23ha in size and contains no structures



- The “front” portion of the property (eastern approximately 1/3) along the Blue Mountains-Meaford Townline is occupied mostly by rows of grape vines for use in wine production. There is long grass surrounding the vines, but the grasses under and between the grape vines is mowed (Attachment 5, Photos 1-4)
- An open-wooded stream corridor and valley enters the property at the northwest corner and exits slightly to the southeast (Attachment 5, Photo 6)
- The central and rear (west and southwest beyond the stream) portions of the property (approximately 2/3) are dominated by mature “hay” grassland on lightly rolling terrain (Attachment 5, Photos 5-8)
- Grassland appears to be mature and is mainly comprised of Timothy (*Phleum pratense*), Orchard Grass (*Dactylis glomerata*), Smooth Brome (*Bromus inermis*) and bluegrass (*Poa sp.*) with a small proportion of forbs, including Alfalfa (*Medicago sativa*), Dandelion (*Taraxacum officinale*), Canada Thistle (*Cirsium arvensis*), Yellow Clover (*Melilotus officinalis*) and Goldenrods (*Solidago spp.*). The grasslands in the eastern and far southwest portions of the property are comprised of more thin-leaved grasses with a higher proportion of forbs, while the central/western grassland has wider-leaved grass species and fewer forbs and less thatch. There is also some scattered small tree and shrub (hawthorn, Red-osier Dogwood) growth, particularly in the central and western grassland (east of the creek).
- Several old fence posts provide limited perching opportunities for birds in the eastern grassland, while in the central and western portions, birds were often vocalizing from perches atop small trees or large shrubs
- A pond has been created adjacent to (immediately east of) the proposed winery building site. Including water and banks, it occupies approximately 0.4ha (Attachment 5, Photo 8)
- A mature mainly deciduous hedgerow is located along the northern border, running the length of the property
- Lands adjacent to the east, across The Blue Mountains-Meaford Townline, are occupied by rows of grape vines
- Adjacent lands to the north and south are maintained for agriculture and are occupied by row crop and hay fields.
- South of the property, adjacent to the stream, is a large area of mixed woodland

Survey Results

Several adult Bobolinks and Eastern Meadowlarks were observed on the subject property during the three surveys. Not all adults recorded were successful in establishing breeding territories. A total of 8 Bobolink and 5 Eastern Meadowlark breeding territories were established throughout the property. Only one Eastern Meadowlark territory was



established within 100m of the proposed building site, while all others were more than 150m distant (Attachment 4).

Proposed Development

Proposed Development (Attachment 2) includes construction of a new winery structure and associated infrastructure in the north-central portion of the property, adjacent to the west of the pond, on land that has already been mostly disturbed through creation of the pond (soil compaction and scarification, soil mounds, non-native grass and weed establishment). The location of this proposed structure contains very little grassland bird habitat. The proposed footprint of this development is 0.8ha (2 acres), which is only 4% of the total property size. The development would utilize the established driveway footprint.

Species Background

The nests and area immediately around the nests (to 10m) of Bobolink and Eastern Meadowlark are highly sensitive features supporting the species' reproduction life cycle and have the lowest tolerance to alteration. These are areas the species depends on for life processes including egg laying, incubation, feeding, resting and rearing of young.

For Bobolinks, the area between 10 m and 60 m of the nest or centre of approximated defended territory is included in Category 2, while for Eastern Meadowlarks, Category 2 land is considered to extend between 10 m and 100 m of the nest or centre of approximated defended territory. Category 2 land includes the species' defended territory and is depended on daily for courtship, mating, rearing of young, feeding, resting, and bathing. It is considered to have a moderate level of tolerance to alteration. Beyond Category 2 land, Category 3 is considered to have a high level of tolerance to alteration (MNR, "General Habitat Description for the Bobolink (*Dolichonyx oryzivorus*), 2013, and "General Habitat Description for the Eastern Meadowlark (*Sturnella magna*), 2013).

Bobolinks prefer larger grassland habitat patch sizes, typically >10ha. BOBO and EAME both exhibit high fidelity to grassland habitat sites but will tolerate disturbance and nest in new areas within a particular habitat patch.

Impact Assessment

- The proposed development will occur outside of areas containing high quality grassland habitat for Bobolink and Eastern Meadowlark, and outside of the 60m and 100m Category 1 and 2 lands for BOBO and EAME respectively, based upon nest locations in 2021.



- Only one Eastern Meadowlark territory was recorded within 100m of the proposed winery building development footprint in 2021.
- Development is proposed for land that has been recently disturbed and is dominated by weedy grasses and forbs.
- The proposed development will only remove 0.8ha of low-quality grassland, while maintaining all high quality grassland currently extant on the property, leaving well over the 10ha habitat size preference for BOBO.

Conclusion

The proposed development will result in no negative direct, indirect or cumulative impacts to natural heritage features or functions in regards to habitat of Bobolink or Eastern Meadowlark on the subject property or adjacent lands.

Recommendations

- While there are no trees located within the footprint of the winery building as proposed, should any tree cutting be required for development, it should be limited to outside of the bird active nesting season (April 1 to August 31, annually).
- If hay is to be harvested from the grassland areas, cutting should not occur until after July 15 at the earliest. Waiting until August 1 is preferred, as it will provide more time to ensure that young have had the opportunity to fledge and leave the nest area.
- Bobolinks prefer grassland habitat with no more than 25% woody vegetation cover, while Eastern Meadowlarks are accepting of up to approximately 35% woody plant cover. If hay harvesting is not part of the annual maintenance regime of the grasslands on the property, these areas should be mowed, after bird nesting season, approximately every 4-5 years to assist in limiting woody plant growth so that it does not outcompete the preferred grasses.
- Both Bobolinks and Eastern Meadowlarks prefer grassland habitats dominated by grasses rather than forbs. In the event that the habitat areas require rejuvenation by seeding, it should be ensured that forb species do not comprise more than approximately 20%-30% of the resultant vegetation cover.

If you have questions or require additional information please do not hesitate to contact the undersigned.



Yours truly,
WILD Canada Ecological Consulting

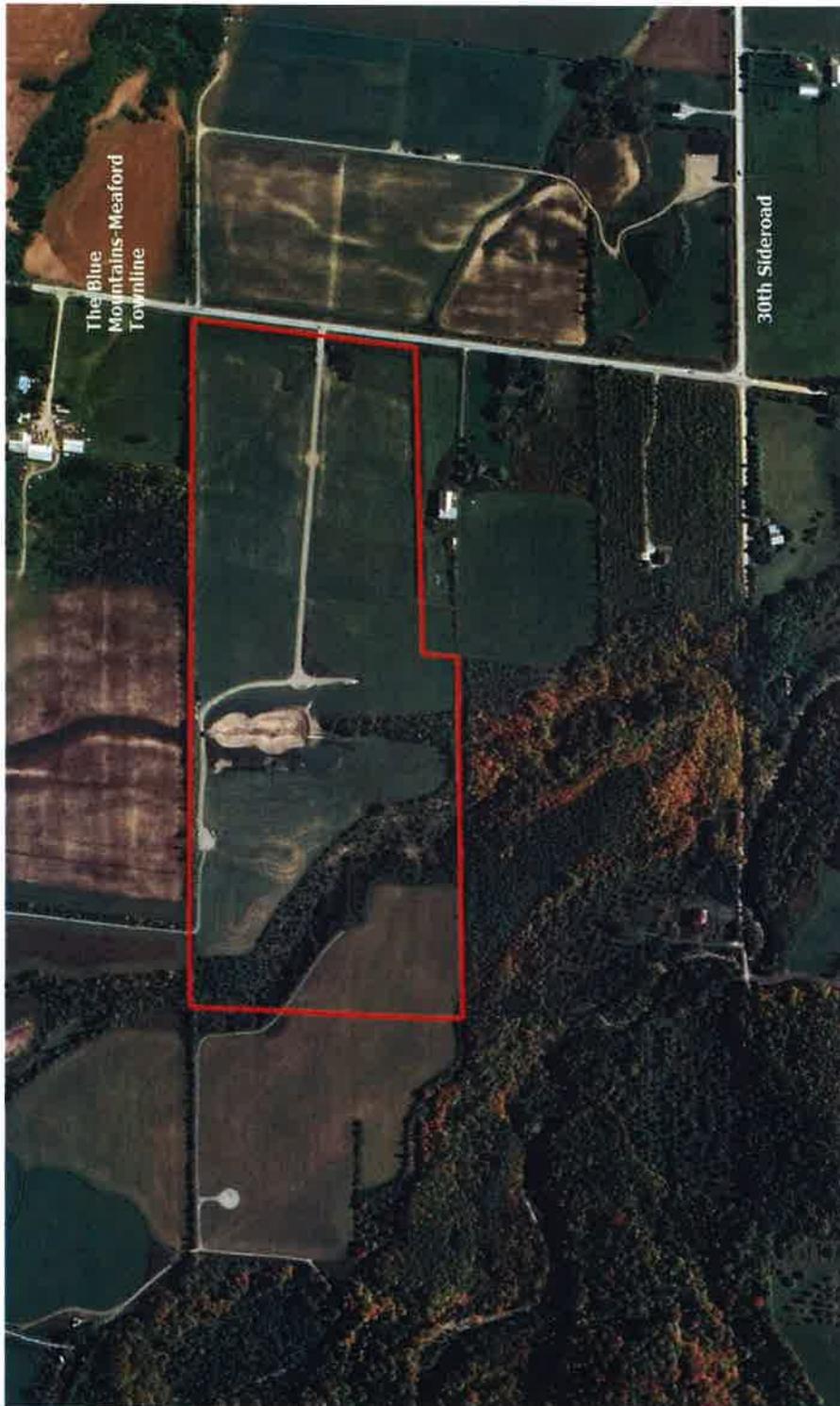
A handwritten signature in black ink that reads "Scott Martin".

Scott Martin; B.Sc., H.B.O.R.
Senior Ecologist, President

Attach:

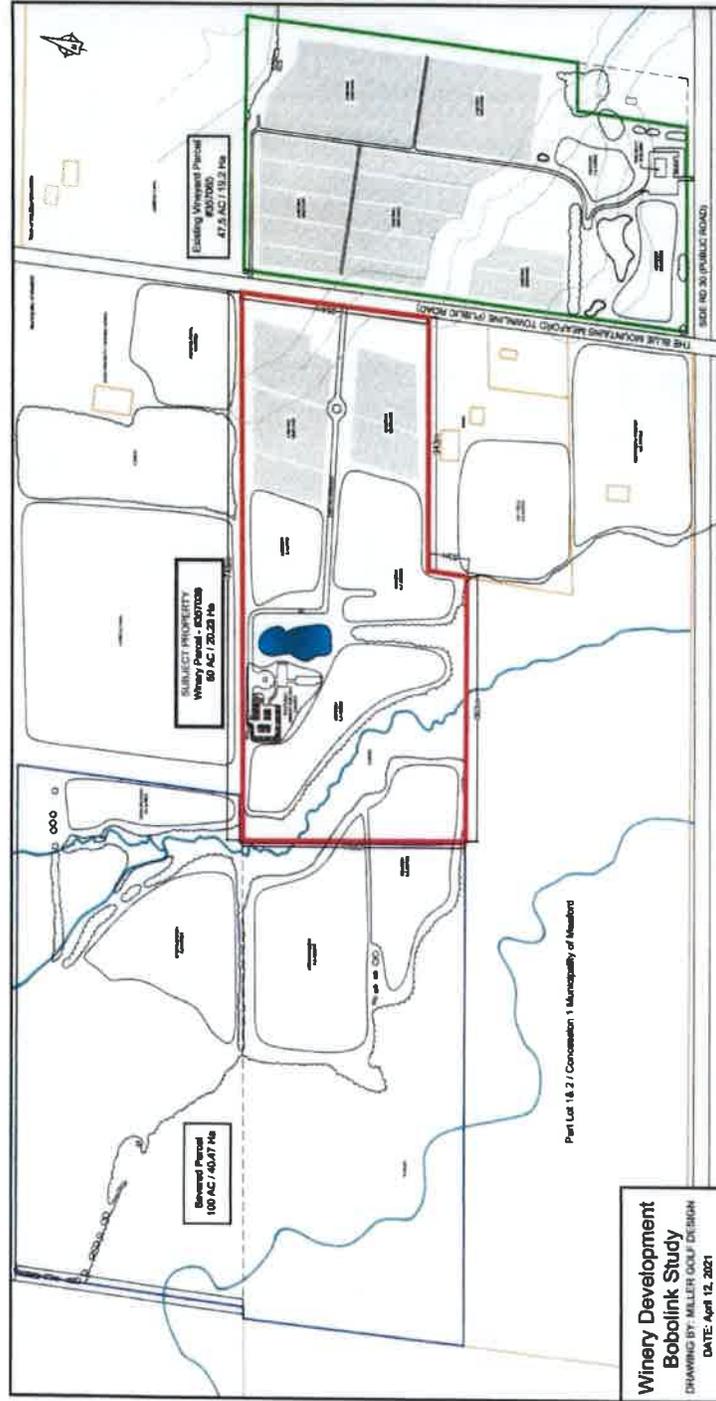
- Attachment 1: Property Location Map
- Attachment 2: Proposed Development
- Attachment 3: Grassland Breeding Bird Point Count Locations
- Attachment 4: Bobolink and Meadowlark Breeding Territories
- Attachment 5: Site Photos

Attachment 1: Property Location Map





Attachment 2: Proposed Development



Attachment 3: Grassland Breeding Bird Point Count Locations



Attachment 4: Bobolink and Meadowlark Breeding Territories



-  Grassland Breeding Bird Survey Point Count Circle
-  Category 1 Habitat (0-10m for BOBO and EAME)
-  Category 2 Habitat (10-60m for BOBO; 10-100m for EAME)
-  BOBO - Bobolink Breeding Territory Centre
-  EAME - Eastern Meadowlark Breeding Territory Centre
-  Approximate Proposed Development Limit

Attachment 5: Site Photos



Photo 1: Grassland Breeding Bird Station #1, looking north



Photo 2: Grassland Breeding Bird Station #1, looking south



Photo 1: Grassland Breeding Bird Station #1, looking west



Photo 1: Grassland Breeding Bird Station #1, looking west



Photo 2: Grassland Breeding Bird Station #1, looking south



Photo 2: Grassland Breeding Bird Station #1, looking WSW over creek valley



Photo 7: Grassland Breeding Bird Station #2, looking NNW



Photo 8: Grassland Breeding Bird Station #2, looking NE to pond and proposed development site