

JUNE 11, 2019

PROJECT NO: 0469-5315

SENT VIA EMAIL: KHALE@DUNNCAP.CA

Dunn Capital Corporation
40 Huron Street, Suite 300
Collingwood, ON L9Y 4R3

Attention: Mr. Ken Hale

**RE: PROPOSED RESIDENTIAL DEVELOPMENT 42T-2018-10
THE LORA BAY CORPORATION
PART LOTS 39 CONCESSION 12
TOWN OF THE BLUE MOUNTAINS
GSCA FILE NO. P12497**

Dear Mr. Hale,

Crozier & Associates is in receipt of letter from the Grey Sauble Conservation Authority (GSCA) dated March 4, 2019 (attached) related to the Environment Impact Statement Update dated August 17, 2018 prepared by Hensel Design Group Inc. (HDG) for the proposed Lora Bay Phase 4 development. It should be noted that staff from HDG, namely the author of the report, have since joined Crozier & Associates. It should be noted that a spring 2019 breeding bird survey and SAR investigation was completed to update previously used data referenced in the August 17, 2018 HDG EIS report. Also, as of June 7, 2019, the 2018 Grey County Official Plan is in full effect and as a result only mapping and schedules from the new Official Plan will be used in our response. As such, we respectfully provide our response to the GSCA correspondence, in particular to comments related to natural heritage within and adjacent to the Phase 4 lands.

GSCA Comment *(relating to policy 2.1.1 of the PPS):*

While much of the site was subject to previous agricultural uses long abandoned, there are portions of area that have naturalized and provide habitat for a number of species. Of note, there are deer yarding/bedding on the property during the winter months as evidenced by our site inspection within the Coniferous portion of the woodland. The nesting boxes on site have been utilized and there is a stick nest within the deciduous portion of the property. The original EIS does not provide specific locations or areas that were surveyed for breeding birds or for the area sensitive species noted on the site. The scoped EIS and the original EIS note that a tree retention plan should be completed for this phase and previous phases. No retention plan has been provided. The original EIS indicated that the woodlands on the site were not significant and now the scoped EIS agrees that the woodland is significant.

Crozier Response:

Breeding bird surveys were completed in June 2019 for the subject lands. During these inventories no occupied stick nests were observed on the subject lands. Point count locations for the breeding bird survey inventories are noted on Figure 1 attached. Upon completion of the civil works including grading plans for the subject lands, preparation of a tree preservation plan can be completed. White tail deer are a resilient species. This area of the plan is not a core area deer yard. White tail deer inhabit the Lora Bay golf course and

browse wherever suitable vegetation can be found (including residential landscaping). Numerous deer trails traverse the developed and undeveloped areas of Lora Bay. While observations of trails and opportunistic bedding within coniferous vegetation may be observed in pockets throughout the Lora Bay community, only areas east of Lora Bay have been identified by MNRF as deer wintering areas in the 2016 Town of The Blue Mountains Official Plan.

Contrary to the GSCA comments noted above, the EIS Update does not agree that the woodlands on the subject lands are significant. The EIS states in Table 1 (attached) that based on the OPA 80 policy at the time from Grey County, the woodlands would be considered as "Significant" based only on the size criteria. Table 1 (attached) also states that that the mapping of the Significant Woodlands in Schedule B of the 2012 Official Plan was inaccurate as it did not recognize existing and approved development in Lora Bay and that woodlands had been mapped where woodlands did not exist. Neither the subject or adjacent lands contain Significant Woodlands in the 2018 Grey County Official Plan.

GSCA Comment *(relating to policy 2.1.2 of the PPS):*

The original EIS and the scoped EIS indicates corridors and linkages are more important off the site and these offsite linkages can provide for habitat. Through our site inspections, there are linkages on site between woodland blocks to the south and the north as evidenced by deer movement.

The woodlands within this subject property are identified as significant woodlands under the current approved Grey County Official Plan. However, in the most recent draft version of the plan, the woodlands are no longer mapped significant. The County and the Ministry of Natural Resources and Forestry (MNRF) should explain this change as the authors of the mapping. The EIS consultant has agreed now in the scoped EIS that it would qualify as significant but development was approved on the previous assumption that the woodlands were not significant (EIS 2012).

Crozier Response:

As noted on Schedule C, Natural Heritage System Core Areas and Linkages in the new Grey County Official Plan (2018), no lands in the Lora Bay development, including the Phase 4 lands, are considered to be either a Core Area or part of the linkage system. None of the woodlands within the Lora Bay development, including the Phase 4 lands are considered to be Significant Woodlands under the new Grey County Official Plan. There are also no sustainable wildlife corridors or linkages through the subject lands. While there may be deer movement within the Phase 4 lands, these lands are not designated as Deer Wintering Areas in either the Grey County nor The Blue Mountains Official Plans. Any wildlife movement through the subject lands would be limited in that there are no destinations past the subject lands that would not put wildlife into residential or human use areas (i.e. golf course and roads). Deer Wintering Areas are found east of the Lora Bay development.

The scoped EIS dated August 17, 2018 did not agree that the woodlands on the subject lands were significant but merely stated that the size criteria of the OPA 80 policy at the time would deem the woodlands as significant. Mapping in the current County Official Plan of Significant Woodlands was inaccurate for the subject lands as woodlands were mapped where woodlands do not currently exist. The new County Official Plan has taken the current land use into account and as such there are no Significant Woodlands mapped on or adjacent to the

subject lands. Policy 2.1.2 does not apply to the subject lands as there are no natural heritage systems or linkages on the subject lands.

GSCA Comment *(relating to policies 2.1.3, 2.1.4 and 2.1.5 of the PPS):*

b) The woodlands within this subject property are identified as significant woodlands under the current approved Grey County Official Plan. However, in the most recent draft version of the plan, the woodlands are no longer mapped significant. Even if the woodlands are no longer mapped as significant woodlands, there is still a substantial amount of woodland on the property and there is significant woodland identified adjacent to the subject lands. As such, we recommend that the mitigation measures outlined by HDG in the EIS are followed to include a woodland retention plan. We have provided an area on the attached map for retention.

d) Significant wildlife habitat has not been fully evaluated in the scoped EIS as it does not appear that new field work was completed since 2008 and no location data is listed for the Breeding Bird data.

Crozier Response:

The new 2018 County Official Plan does not identify any Significant Woodlands on or adjacent to the subject lands. The GSCA did not provide any rationale for the area of tree retention that they have recommended in their March 4, 2019 letter. The vegetation species composition within the area noted by the GSCA for proposed retention does not contain any significant species, provide any significant habitat nor does it provide a defined linkage function for wildlife movement. These lands have been the subject of prior review and approval for development and have been designated for residential development accordingly. Upon completion of the civil works including grading plans for the subject lands, preparation of a tree preservation plan can be completed.

As the subject lands are no longer designated as Significant Woodlands, policy 2.1.5b of the PPS does not apply.

Updated breeding bird, incidental wildlife and SAR species presence/absence investigations have concluded that no significant wildlife habitat exists on the subject lands, therefore policy 2.1.5d does not apply.

GSCA Comment *(relating to policy 2.1.6 of the PPS):*

Fish habitat was evaluated within the 2012 EIS and impacts would be considered to downstream fish habitat through the stormwater management review process.

Crozier Response:

Stormwater management (See Stormwater Management and Functional Services Report, Phase 4, August 2018, Crozier & Associates) will address downstream fisheries and receiving waters containing fish habitat. Stormwater management for the Site will comply with the policies and standards of various agencies including the TOBM, Grey Sauble Conservation Authority, and Ministry of the Environment, Conservation & Parks (MOECP).

The stormwater management criteria that will be met within the proposed Site development are listed below:

- Water Quality Control
 - "Enhanced Protection" given Georgian Bay as the ultimate receiver
- Water Quantity / Peak Flow Control
 - No impacts to the downstream drainage network

The basis for the stormwater management strategy for the Site was previously identified by Henderson Paddon in the reports listed in Section 2.0. This report will confirm that the drainage designs for the Site will follow the previously approved strategy and will be in general conformance with the H & P Master Drainage Report (June 2004). It should also be noted that the Town of The Blue Mountains is currently undertaking a peer review of Lora Bay drainage and stormwater management (See Attached).

GSCA Comment (relating to policy 2.1.7 of the PPS):

There were several observations of threatened species or species of concern on and around the subject lands. The EIS identified no suitable habitat on the phase 4 lands for these species and suggested that no negative impacts would result from development on the site. We noted stick nest in the wooded area and this should be further investigated in the breeding season. Again, it is unclear if more recent field work has been completed for the block of woodland subject to the proposal.

Crozier Response:

Dawn Breeding Bird Surveys were completed on the subject lands on June 7 and June 9, 2019. During the surveys 32 bird species displayed evidence of possible or probable breeding on the subject lands (See Table 2 Attached). Only one species, the Eastern Wood-pewee is noted on the Species at Risk in Ontario List (SARO). Although it is considered a Species of Concern (SC) and is also listed as Species of Concern (SC) in the Committee on the Status of Endangered Wildlife in Canada or COSEWIC List, it receives no general or specific habitat protection, nor is there a requirement for habitat off-set. It is anticipated that the Eastern Wood-pewee will be displaced from the Phase 4 lands and will re-locate to larger areas where the desired forest edge habitats can be found. Overall, none of the bird species are considered provincially rare (ie: S Rank is not S1-S3). All are relatively common locally within their respective habitats.

Three species were detected as breeding on adjacent lands only. American Crow (S5B), Black-billed Cuckoo (S5B) and the Ovenbird (S4B). None of these species were seen or heard within the survey site. Both American crows and the Black-billed Cuckoo were calling from the same area, northwest and northeast respectively during both site visits. The Ovenbird was heard calling from the west during the second site visit. All three species were heard from habitat that was situated past the adjacent golf course.

Surveys commenced in and around the start of dawn and lasted 3.5 hours. Ten minutes was allotted for each station and 5 stations were sampled (See Figure 1 attached). Time to navigate the terrain and bush is taken into consideration. Also, any and all problematic bird calls or songs were investigated thoroughly.

Nocturnal Breeding Bird Surveys will be completed on or near (7 days maximum) the next full moon. Eastern Whip-poor-will and Common Nighthawks will be the target species for this survey. This information will be provided as an addendum to this response. To date neither of these species has been identified within the subject lands.

In addition to the breeding bird inventories, incidental wildlife encountered on the subject lands were recorded. White-tailed deer (*Odocoileus virginianus*, S-Rank 5) and Eastern Cottontail (*Sylvilagus floridanus*, S-Rank 5) were observed on the subject lands. None of these species are considered a Species at Risk in Ontario (ie: not END, THR or SC) and none is considered provincially rare (ie: S-Rank not S1-S3). All are relatively common locally within their respective habitats. Observations for Butternut (*Juglans cinerea*) were also completed. Butternut (*Juglans cinerea*) is considered Threatened (THR) under the Species at Risk in Ontario List. No Butternut trees were observed on or adjacent to the subject lands.

As there were no endangered species or threatened species observed on the subject lands, policy 2.1.7 of the PPS does not apply.

GSCA Comment (relating to policy 2.1.8 of the PPS):

These subject lands are adjacent to other significant woodlands as identified in the Grey County Official Plan. The linkages to the adjacent significant woodlands have already been somewhat segmented by the surrounding golf course development. As such, further development on the subject lands will create further negative impacts on the surrounding natural features, linkages and potentially on their ecological functions.

Crozier Response:

As noted above, none of the woodlands within the Lora Bay development, including the Phase 4 lands are considered to be Significant Woodlands under the new Grey County Official Plan (2018). In addition, as noted on Schedule C - Natural Heritage System Core Areas and Linkages in the new Grey County Official Plan, no lands in the Lora Bay development, including the Phase 4 lands, are considered to be either a Natural Heritage System Core Area or part of the linkage system. As such, policy 2.1.8 of the PPS does not apply to the subject lands.

GSCA Comment:

We recommend that a tree retention plan be prepared for the development. The EIS recommended a tree retention plan but no details were provided. This was also noted in the 2012 EIS and was not completed for earlier phases. The enclosed map outlines the more significant forested areas on the property associated with the eastern white cedar area on the property. We recommend additional field work be completed for the scoped site EIS.

As part of any draft plan approval on the subject lands, we will require draft plan conditions for the following:

- 1) That a stormwater management plan be prepared for the proposal to the satisfaction of the Grey Sauble Conservation Authority to be implemented through the subdivision agreement with acceptable wording to the GSCA.
- 2) A tree retention plan be completed for the site to the satisfaction the GSCA.

Crozier Response:

Upon completion of the civil works for the subject lands including site grading and servicing, preparation of the tree preservation plan can be completed. Tree management and related restoration was provided for the earlier Phase 3 lower block and Phase 3b upper block of the Lora Bay Development area.

In summary, there are no Significant Woodlands, significant plant or wildlife species that are located within the Phase 4 Lora Bay lands. Stormwater management design will mitigate potential impacts to any fisheries resources downstream. Tree management plans will be provided once final grading and servicing plans are finalized.

Should you have any questions or require any further information, please do not hesitate to contact the undersigned.

Sincerely,

C.F. CROZIER & ASSOCIATES INC.

A handwritten signature in black ink, appearing to read "Mike Hensel", is written over a horizontal line. The signature is fluid and cursive.

Mike Hensel, OALA, CSLA
Development Manager

Encl.: GSCA Comments Letter, March 4, 2019
Figure 1 – 2019 Breeding Bird Point Count Stations
Table 1: County OPA Compliance Evaluation Review, August 17, 2018
Town of The Blue Mountains Staff Report, January 14, 2019
Table 2: Lora Bay Breeding Bird Data 2019



237897 Inglis Falls Road, R.R.#4, Owen Sound, ON N4K 5N6
Telephone: 519.376.3076 Fax: 519.371.0437
www.greysauble.on.ca

March 4, 2019

Mr. Randy Scherzer, Director of Planning and Development
County of Grey
595 – 9th Avenue East
Owen Sound, ON
N4K 3E3

Dear Mr. Scherzer:

RE: Proposed Residential Development 42T-2018-10
Applicant: The Lora Bay Corporation
Part Lots 39 Concession 12;
Town of the Blue Mountains, formerly Collingwood Township
Our File: P12497 Roll No.: 42-42-000-015-30100

The Grey Sauble Conservation Authority (GSCA) has reviewed this application in accordance with our provincial mandate for natural hazards, our planning agreement with the [Town of The Blue Mountains] in relation to natural heritage issues under the provincial policy statement and relative to our guidelines for the implementation of Ontario Regulation 151/06. We offer the following comments.

Subject Proposal

The subject proposal is for a plan of subdivision known as Lora Bay Phase 4, to create a total of 38 single detached residential units and a future development block for multi-residential units (Block 39). The current zoning on the subject lands is the Development (D) zone and Special Recreational (SR-177) zone, which the applicant is requesting to rezone to the Residential Third Density Zone (R3) and the Residential Sixth Density (R6) Zone in the current Township of Collingwood Zoning By-Law in order to accommodate the future development of the single detached residential units and the future multi-residential units within proposed Block 39.

Site Description

1 of 6



Watershed Municipalities
Arran-Elderslie, Chatsworth, Georgian Bluffs, Grey Highlands
Meaford, Owen Sound, South Bruce Peninsula, Blue Mountains

The property is located at the west end of West Ridge Drive within the Recreation Residential Development of Lora Bay in the Town of The Blue Mountains. The land is currently vacant, and is almost entirely forested, with these woodlands having been identified as significant woodlands under the approved Grey County Official Plan Amendment 80. The woodland feature is noted within the scoped Environmental Impact Study as cultural woodland, cultural meadow and cultural thicket. The species noted in these vegetation communities within the EIS include deciduous species such as green ash, trembling aspen, common buckthorn, elm, red osier dogwood among others. The EIS does not however, recognize the area of more mature coniferous species dominated by eastern white cedar in the south east portion of the lands. It also does not recognize the flowing watercourse at the end of west road or any of the drainage features through the area.

Provincial Policy Statement (2014)

3.1 Natural Hazards

Natural Hazards identified on the site include lands potentially subject to flooding due to a channelized watercourse flowing through the south east portion of the property and into the West Ridge Road drainage system. This watercourse is located on proposed block 40 within the draft plan. There is also interceptor ditch through the subject lands draining towards the 39th side road.

2.1 Natural Heritage

For a planning application under the Planning Act, the following policies under the provincial policy statement ~~the~~ would need to be considered. We have provided comments on the applicable policies based on our site inspections and a review of the Environmental Overview study submitted by the Walter Fedy Partnership in 2001, and the Environmental Impact Study 2012 and subsequent update submitted by the Hensel Design Group Inc. dated August 17, 2018.

2.1.1 Natural features and areas shall be protected for the long term.

GSCA Comment: While much of the site was subject to previous agricultural uses long abandoned, there are portions of area that have naturalized and provide habitat for a number of species. Of note, there are deer yarding/bedding on the property during the winter months as evidenced by our site inspection within the Coniferous portion of the woodland. The nesting boxes on site have been utilized and there is a stick nest within the deciduous portion of the property. The original EIS does not provide specific locations or areas that were surveyed for breeding birds or for the area sensitive species noted on the site. The scoped EIS and the original EIS note that a tree retention plan should be completed for this phase and previous phases. No retention plan has been provided. The original EIS indicated that the woodlands on the site were not significant and now the scoped EIS agrees that the woodland is significant.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term *ecological function* and biodiversity of *natural heritage systems*, should be maintained, restored or, where possible, improved, recognizing linkages between and among *natural heritage features and areas*, *surface water features* and *ground water features*.

GSCA Comment: The original EIS and the scoped EIS indicates corridors and linkages are more important off the site and these offsite linkages can provide for habitat. Through our site inspections,

there area linkages on site between woodland blocks to the south and the north as evidenced by deer movement.

The woodlands within this subject property are identified as significant woodlands under the current approved Grey County Official Plan. However, in the most recent draft version of the plan, the woodlands are no longer mapped significant. The County and the Ministry of Natural Resources and Forestry (MNR) should explain this change as the authors of the mapping. The EIS consultant has agreed now in the scoped EIS that it would qualify as significant but development was approved on the previous assumption that the woodlands were not significant (EIS 2012).

2.1.3 *Natural heritage systems* shall be identified in Ecoregions 6E & 7E₁, recognizing that *natural heritage systems* will vary in size and form in *settlement areas, rural areas, and prime agricultural areas*.

2.1.4 *Development and site alteration* shall not be permitted in:

- a) *significant wetlands* in Ecoregions 5E, 6E and 7E₁; and
- b) *significant coastal wetlands*.

2.1.5 *Development and site alteration* shall not be permitted in:

- a) *significant wetlands* in the Canadian Shield north of Ecoregions 5E, 6E and 7E₁;
- b) *significant woodlands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)₁;
- c) *significant valleylands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)₁;
- d) *significant wildlife habitat*;
- e) *significant areas of natural and scientific interest*; and
- f) *coastal wetlands* in Ecoregions 5E, 6E and 7E₁ that are not subject to policy 2.1.4(b)

₁ Ecoregions 5E, 6E and 7E are shown on Figure 1.

unless it has been demonstrated that there will be no *negative impacts* on the natural features or their *ecological functions*.

GSCA Comment: b) The woodlands within this subject property are identified as significant woodlands under the current approved Grey County Official Plan. However, in the most recent draft version of the plan, the woodlands are no longer mapped significant. Even if the woodlands are no longer mapped as significant woodlands, there is still a substantial amount of woodland on the property and there is significant woodland identified adjacent to the subject lands. As such, we recommend that the mitigation measures outlined by HDG in the EIS are followed to include a woodland retention plan. We have provided an area on the attached map for retention.

d) Significant wildlife habitat has not been fully evaluated in the scoped EIS as it does not appear that new field work was completed since 2008 and no location data is listed for the Breeding Bird data.

2.1.6 Development and site alteration shall not be permitted in *fish habitat* except in accordance with *provincial and federal requirements*.

GSCA Comment: Fish habitat was evaluated within the 2012 EIS and impacts would be considered to downstream fish habitat through the stormwater management review process.

2.1.7 Development and site alteration shall not be permitted in *habitat of endangered species and threatened species*, except in accordance with *provincial and federal requirements*.

GSCA Comment: There were several observations of threatened species or species of concern on and around the subject lands. The EIS identified no suitable habitat on the phase 4 lands for these species and suggested that no negative impacts would result from development on the site. We noted stick nest in the wooded area and this should be further investigated in the breeding season. Again, it is unclear if more recent field work has been completed for the block of woodland subject to the proposal.

2.1.8 Development and site alteration shall not be permitted on *adjacent lands to the natural heritage features and areas* identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the *ecological function* of the *adjacent lands* has been evaluated and it has been demonstrated that there will be no *negative impacts* on the natural features or on their *ecological functions*.

GSCA Comment: These subject lands are adjacent to other significant woodlands as identified in the Grey County Official Plan. The linkages to the adjacent significant woodlands have already been somewhat segmented by the surrounding golf course development. As such, further development on the subject lands will create further negative impacts on the surrounding natural features, linkages and potentially on their ecological functions.

Stormwater Management

We have completed a preliminary review of the Stormwater Management and Functional Servicing Report submitted in August 2018 by C.F. Crozier & Associates Inc. for the subject lands. The capacity of the West Ridge Drive Storm Sewer is inadequate and will not be able to convey a 5-year storm event. As such, the minor stormwater management system does not meet the GSCA stormwater management policy of controlling all flows up to the 5-year return period. We generally agree with the report that on-site controls will need to be implemented, however the report did not provide any indication of what these on-site controls might be and how effective they would be in reducing the flow of stormwater from the subject lands. The possibilities for on-site controls need to be assessed to ensure that they can adequately convey a 5-yr return period event and that post-development flows are controlled to pre-development levels. The capacity of Stormwater Pond No. 1 is also inadequate, with the report demonstrating that it would begin to overflow in the 50-year SCS event, even during pre-development conditions. The report concluded that the pond overtopping in both pre- and post- development flow conditions was in line with the original design by H & P, with excess flows spilling onto Hole 2 of the Lora Bay Golf Club. However, GSCA policies state that the major system must be designed to accommodate the Regulatory Flood. With the major system not capable of handling even the 50-year event, we recommend that either plans to upgrade the pond are assessed and

included within the plans for development, or an alternative solution is suggested to accommodate the major system for the development.

With regard to the requirement for an enhanced level of water quality control with Georgian Bay as the receiving body of water, the report did not give adequate evidence that this enhanced level of treatment could be met through Stormwater Pond No.1. We would request that further assessment is done in this regard, as the question of the stormwater pond working efficiently is not guaranteed, particularly given that it is not adequately sized to be accepting pre- or post-development flows from the subject lands. Confirmation that the "enhanced" level of water quality treatment can be provided by Stormwater Pond No. 1 is requested.

It may be beneficial from a drainage standpoint to reduce the amount of development and provide additional open space areas for drainage purposes and utilize an open ditch system to assist in quantity/quality controls.

GSCA Regulations

The subject site is not mapped as regulated under Ontario Regulation 151/06: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses administered by the GSCA. However, we noted a flowing watercourse through a portion of the property and this watercourse and associated meander belt would be considered to be within the regulated area as outlined on the enclosure.

Summary of Recommendation

We have provided some preliminary comments on the stormwater management plan and some comments on natural heritage features for consideration. It is our opinion that draft plan approval is premature at this point, as additional drainage and natural heritage information is warranted as noted in the comments noted above.

We recommend that a tree retention plan be prepared for the development. The EIS recommended a tree retention plan but no details were provided. This was also noted in the 2012 EIS and was not completed for earlier phases. The enclosed map outlines the more significant forested areas on the property associated with the eastern white cedar area on the property. We recommend additional field work be completed for the scoped site EIS.

As part of any draft plan approval on the subject lands, we will require draft plan conditions for the following:

- 1) That a stormwater management plan be prepared for the proposal to the satisfaction of the Grey Sauble Conservation Authority to be implemented through the subdivision agreement with acceptable wording to the GSCA.
- 2) A tree retention plan be completed for the site to the satisfaction the GSCA.

Application for Plan of Subdivision 42T-2018-10
Lot 39, Concession 12, Town of the Blue Mtns. (Collingwood Township)
March 4, 2019
Our File No. P12497

If any questions should arise, please contact the undersigned.

Regards,

A handwritten signature in black ink, appearing to read 'Andrew Sorensen', with a long horizontal flourish extending to the right.

Andrew Sorensen
Environmental Planning Coordinator

enclosure

**Grey Sauble Conservation Authority (GSCA): Regulation of Development, Interference with Wetlands
and Alterations to Shorelines and Watercourses
(Ontario Regulation 151/06)**



**Subject Properties(Approx.)
Suggested minimum Tree Retention Area
ON Regulation 151/06**



Scale = 1:3000
0 1 m

**Draft Plan of Subdivision 42T-2018-10
Lora Bay Phase 4
Block 1 and 2 Plan 16M-8
Part of Lot 39, Concession 12
Town of The Blue Mountains
File: P12497**

March 4, 2019

The included mapping has been compiled from various sources and is for information purposes only. Grey Sauble Conservation Authority (GSCA) disclaims any and all liability for the accuracy of all the information contained within the map. Registration was created by Grey Sauble Conservation Authority (GSCA) using 1:50,000 contour lines interpolated from the Provincial (10 m) Digital Elevation Model Version 1 & 2 at 1:10,000 scale mapping. By accepting this map you agree not to edit the map or derivatives without the written permission of Grey Sauble Conservation Authority. GSCA with Data supplied under license by Members of the Ontario Geospatial Data Exchange. © Queen's Printer for Ontario and its licensors. (2019) May Not be Reproduced without Permission. THIS IS NOT A PLAN OF SURVEY. This mapping contains products of the South Western Ontario Geospatial Project (SOGEP). These images were taken in 2015 or 2016 and are the property of Geo Information Inc. They are the property of Grey Sauble Conservation Authority © 2019.

**Projection: Universal Transverse Mercator - Zone 17 (N)
Datum: North American 1983 (mean for Canada)**



- Significant Woodlands
(2018 Grey County Official Plan)
- 2019 Breeding Bird Point Count
Stations

Project Lora Bay Phase 4, Breeding Bird Point Count Stations		CROZIER CONSULTING ENGINEERS		8 MARKET STREET SUITE 600 TORONTO, ON M5E 1M6 416-477-3392 T WWW.CFCROZIER.CA	
Drawing Figure 1		Drawn By SH Design By _____ Project 0469-5315		Scale NTS Date June 11, 2019 Check By _____ Drawing Figure 1	

Table 1: County OPA 80 Compliance Evaluation Review

OPA 80	Summary Evaluation of Whether the Environmental Overview (2001), Addendum (2002) and Environmental Overview Status for Block 1 (2007) Addresses the OPA 80 Requirements for 2.8.4
Section 2.8.4 Significant Woodlands	
<p>A new Section 2.8.4 entitled Significant Woodlands is hereby inserted after 2.8.3:</p> <p>“2.8.4 SIGNIFICANT WOODLANDS</p> <p>Significant Woodlands are a development constraint shown on Appendix B attached hereto and forming part of the Plan. The criteria for the identification of Significant Woodlands were developed by the County of Grey with assistance from the Ministry of Natural Resources. The identification was primarily a desk-top based Geographic Information Systems (GIS) exercise and the County acknowledges that inaccuracies or omissions in the mapping may be present. As a result site visits by qualified individuals may be required at the application stage to scope any potential studies.</p> <p>In order to be considered significant, a woodland must be either greater than or equal to forty (40) hectares in size outside of settlement areas, or greater than or equal to four (4) hectares in size within settlement area boundaries. If woodlands fails to meet those criteria, a woodland can also be significant if it meets any two of the following three criteria:</p> <p>(a) Proximity to other woodlands i.e. if a woodland was within 30 metres of another significant woodland, or</p>	<p>Based on the new policy the woodlands located within the subject property meet the criteria by being greater than or equal to four (4) hectares in size within settlement area boundaries. Therefore using this criteria alone, the woodlands located within the subject property are considered significant woodlands under OPA 80 policy.</p> <p>The contiguous woodland area within the 2012 existing conditions have been fragmented by previously approved golf course and existing residential development. The Significant Woodlands Schedule B to OPA 80 is inaccurate in that it doesn't recognize approved and existing development (golf course and residential) in this area and maps woodlands where woodland does not presently exist (See Figure OP-1).</p>

<p>(b) Overlap with other natural heritage features i.e. if a woodland overlapped the boundaries of a Provincially Significant Wetland or an Area of Natural and Scientific Interest, or</p> <p>(c) Interior habitat of greater than or equal to eight (8) hectares, with a 100 metre interior buffer on all sides.</p>	
<p>(1) No development or site alteration may occur within Significant Woodlands or their adjacent lands unless it has been demonstrated through an Environmental Impact Study, as per section 2.8.7 of this Plan, that there will be no negative impacts on the natural features or their ecological functions. The adjacent lands are defined in section 6.19 of this Plan.</p> <p>Notwithstanding the above, projects undertaken by a Municipality or Conservation Authority may be exempt from the Environmental Impact Study requirements, provided said project is a public work or conservation project.</p>	<p>An original Environmental Overview was prepared by The Walter Fedy Partnership in 2001, was approved and construction of community infrastructure was completed <i>prior to the Approval of OPA 80</i> (June 25, 2012 and October 9, 2012 by the OMB). The woodland area within Phase 4 is part of the planned, Town OP designated and zoned (See Appendix C) Lora Bay development plan which includes road construction and individual lot servicing in this area. The Phase 4 site area is presently planned for single family home construction. Some mitigation of impacts from tree removal on each lot may be achieved through landscaping/tree planting using native indigenous species. The majority of trees within the Phase 4 area will require removal due to grading and servicing thus the Significant Woodlands policy 2.8.4. cannot be complied with in this situation. Recognition of the prior County and Town development approvals and related existing site alterations creates a unique situation that can only be addressed by acknowledging the present OP designation and zoning of the lands and the inability to conform to 2.8.4.</p>
<p>(2) Notwithstanding paragraph (1), where it can be proven that a woodland identified as significant has ceased to exist, or ceased to exhibit characteristics of significance, prior to November 1, 2006, an</p>	<p>N/A</p>

Environmental Impact Study will not be required. Site photographs or a site visit by a qualified individual may be necessary to determine that a woodland no longer exists.	
(3) Notwithstanding paragraph (1), tree cutting and forestry will be permitted in accordance with the County Forest Management By-law.	N/A
(4) Notwithstanding paragraph (1) and (3), fragmentation of significant woodlands is generally discouraged.”	The Phase 4 lands were OP designated and zoned for residential use prior to the approval of OPA 80. The lands have already been fragmented by previous approved development. The woodland fragment represented by the Phase 4 lands are isolated by golf course and development on all sides.



Staff Report

Planning & Development Services – Development Engineering Division

Report To: Committee of the Whole
Meeting Date: January 14, 2019
Report Number: PDS.19.03
Subject: Lora Bay Drainage & Stormwater Management
Prepared by: Brian Worsley, Manager Development Engineering

A. Recommendations

THAT Council receive Staff Report PDS.19.03, entitled Lora Bay Drainage & Stormwater Management”; and

THAT Council direct staff to continue with efforts to resolve existing drainage issues in the Lora Bay area with the developer and the Grey Sauble Conservation Authority, including an engineering hydrology & hydraulics assessment & review of any previous studies, and negotiation of any required maintenance easements; and,

THAT Council authorize Staff to continue to work with Grey Sauble Conservation Authority to pursue obtaining matching funding from Public Safety Canada through the National Disaster Mitigation Program to facilitate capacity increases within the existing Lora Bay drainage system.

B. Overview

The purpose of this report is to provide background information on drainage & stormwater issues within Lora Bay, such that when subsequent reports requesting direction or solutions come forward, Council will be better positioned to make informed decisions.

Private property flooding and associated damage to private and municipal property associated with “Boulder Creek” adjacent to Lora Bay Drive & Sunset Boulevard, seems to be occurring with increasing frequency. In spring melts and relatively minor rainfall events, flows are not contained within the “Boulder Creek” drainage system. On-going discussions between the Town and the Developer are investigating solutions to resolve the apparent deficiency in the historically approved design.

Additionally, the Town is working with Grey Sauble Conservation through National Disaster Mitigation Program funding to quantify the issue, and apply for funding for remedial measures. Staff are requesting authorization to proceed with completion of an Engineering Hydrology & Hydraulics Assessment, including a review of any previous studies. The information generated

through this work will clarify the approaches and works required to address the existing drainage issues.

C. Background

The watercourse running on the west side of Lora Bay Drive within the Town road allowance (known as Boulder Creek) drains a total area of approximately 280 hectares. The watercourse is conveyed beneath Highway 26 by two 3.1 x 1.2 concrete box culverts, and two 0.9 metre x 0.9 m concrete box culverts (~ 9.2 m² total area). Downstream of Highway 26, water running along Boulder Creek is conveyed through a boulder lined channel to Westridge Drive, where it's directed into a 0.9 by 2.2 (2.0 m² area) concrete box culvert. North of Westridge Drive, Boulder Creek steepens before turning sharply left to proceed through the Golf Course, and then into the Stormwater Management Pond on the 2nd and 3rd holes. Other locations in the area have been, or could be, impacted by similar issues in the future.

In spring rain or snow-melt events, flows have spilled from the channel south of Westridge Drive to wash-out the trail both above and below the roundabout. Additionally, driveway culvert washouts on Sunset Boulevard, just north of Lora Bay Drive, have become increasingly frequent, as has runoff from the golf course channel, inundating the Sunset Boulevard drainage system. Attachment 1, Photos of Flooding, illustrates the issue.

Insufficient information is available to assess the probability of reoccurrence of the observed snow-melt events causing flooding, however data obtained from Grey Sauble Conservation Authority indicated that rainfall associated with flooding did not exceed the intensities that would be expected to occur on average every 5 years. (i.e. a 1:5-year return storm), raising concerns as to potential flooding in a more significant rainfall event. Damages thus far have been limited to driveway culverts, and in the most recent incident, flooding of one basement, however, more significant flooding, and associated damages, cannot be discounted.

Calculated flows (to the Pond) from the original 2004 report, and an update report requested by Town staff and prepared by C.F. Crozier & Associates Inc., are as shown in the table below.

Table 1 – Theoretical Flows

Rainfall Event	Original (2004) Report (m³/s) (Estimated)	Update (2018) Report (m³/s) (Observed)
1:2-year storm	1.1	4.0
1:5-year storm	2.9	6.9
1:10-year storm	4.2	8.8
1:25-year storm	7.5	11.8
1:50-year storm	7.9	14.0
1:100-year storm	10.0	16.7
Regional	N.A.	18.7

As is illustrated above, the updated (2018) flows are significantly greater than the originally calculated (2004) flows.

Sufficient information is not yet available to accurately verify the hydraulic capacity of the existing drainage system. However, based upon data inferred from the Town's CityView GIS system, the following capacities have been estimated by Town staff.

Table 2 - Hydraulic Capacity (values to be verified by peer review study)

Location	Capacity (m ³ /s) (1: return years)	Comments
Beneath Highway # 26	2004 ~ 1:100 2018 ~ 1:25	Combined capacity all culverts
Beneath Westridge	2004 < 1:25 2018 ~1:5	Flow over Road, and damage to Road probable in events exceeding
North of Westridge	2004 ~1:25 2018 < 1:10	Capacity to Sunset Blvd
Through Golf Course	2004 < 1:5 2018 < 1:2 - 1:5	Channel obstructed with Phragmites

As may be seen, while the Highway 26 culverts should convey flows (without overtopping the Highway) up to and including the 2018 (updated) 1:25-year storm flow, the drainage system through the golf course appears inadequate for a 2018 (updated) 1:2-year flow if the channel is obstructed with Phragmites, and 1:5 if clear. (The points referenced above are shown on Attachment 2, Location Plan).

Additionally, topographic mapping provided by GSCA as part of the NDMP study, indicates that unlike a natural flood plain, flows spilling from the channel, proceed towards Sunset Blvd, rather than returning to the channel.

In summary: based upon the observed flooding frequency, the originally calculated (2004) flows are not representative, as the frequency of flooding is more consistent with the 2018 flows. Overtopping of Westridge Drive in a relatively minor event such as a 1:10 year event is probable, while overtopping of Sunset Boulevard below the pond may be expected in more significant events.

D. Analysis

An engineering hydrology & hydraulics assessment and a review of previous studies in Lora Bay is required to better understand the current situation and identify the most appropriate solutions. The assessment & review will verify any required capacity increases within the existing drainage system drainage to mitigate increasingly frequent flooding events in Lora Bay. Additionally, the feasibility of other alternatives such as attenuation, diversion, and re-absorption will also be examined. Collaborative discussions, involving Town staff, Grey Sauble

Conservation Authority, and the Developer, are ongoing, considering the roles each party may have in any future suite of solutions. Town staff will provide updated information to Committee/Council setting out options to rectify the issues in a future report. Staff will also continue to work with Grey Sauble Conservation Authority to pursue obtaining funding from the Province and Public Safety Canada, through the National Disaster Mitigation Program (NDMP) for flood mitigation works in Lora Bay to assist with offsetting any associated works. It should also be noted that other drainage issues impact various areas of the Town. Staff are committed to also working to better understand the drainage characteristics of these areas and potential solutions that would address them. These will be the subject of continuing efforts and future reports / studies.

E. The Blue Mountains Strategic Plan

Goal #2: Engage Our Communities and Partners
Goal #5: Ensure Our Infrastructure is Sustainable

F. Environmental Impacts

Reduction of Flood Potential.

G. Financial Impact

The costs associated with the proposed engineering hydrology & hydraulics assessment & review of previous studies can be accommodated within the Planning & Development Services consulting budget. However, subsequent reports are expected to have financial impacts.

H. In consultation with

Shawn Everitt, Interim CAO
Ruth Prince, Director of Finance and IT Services
John Metras, Town Solicitor
Sonya Skinner, CAO Grey Sauble Conservation Authority

I. Attached

1. Photos of flooding
2. Location Plan

Respectfully submitted,

Brian Worsley
Manager Development Engineering

Nathan Westendorp
Director of Planning and Development Services

For more information, please contact:

Brian Worsley
planning@thebluemountains.ca
519-599-3131 extension 224







Table 2

SCIENTIFIC NAME	COMMON NAME	Point Count Station					Breeding Evidence ¹	Relative Location	Conservation Rank Information ²			
		1	2	3	4	5			S-RANK	G-RANK	SARO STATUS	COSEWIC Status
<i>Anas platyrhynchos</i>	Mallard	FO,					Possible	On-site	S5	G5		
<i>Branta canadensis</i>	Canada Goose	,FO					Possible	On-site	S5	G5		
<i>Bombycilla cedorum</i>	Cedar Waxwing			FO,		,S	Possible	On-site	S5B	G5		
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak			,S			Possible	On-site	S4B	G5		
<i>Corvus brachyrhynchos</i>	American Crow	S,S		S,S		S,	Probable	Adjacent Lands only (northwest)	S5B	G5		
<i>Cyanocitta cristata</i>	Blue Jay	H,H					Probable	On-site	S5	G5		
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	S	,S			S,	Probable	Adjacent Lands only (northeast)	S5B	G5		
<i>Melospiza melodia</i>	Song Sparrow	,H		H,	,S		Probable	On-site	S5B	G5		
<i>Spizella pusilla</i>	Field Sparrow			S,	S,	S,	Possible	On-site	S4B	G5		
<i>Zonotrichia albicollis</i>	White-throated Sparrow	S,	S,S	S,	,S	S,S	Possible	On-site	S5B	G5		
<i>Carduelis tristis</i>	American Goldfinch	S,S	S,		S,	S,S	Probable	On-site	S5B	G5		
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	S,S	S,	S,	S,		Probable	On-site	S4	G5		
<i>Molothrus ater</i>	Brown-headed Cowbird		S,		,S	,S	Possible	On-site	S4B	G5		
<i>Quiscalus quisula</i>	Common Grackle	H,H		H,			Probable	On-site	S5B	G5		
<i>Larus argentatus</i>	Herring Gull	FO,			FO		Possible	On-site	S5B	G5		
<i>Dumetella carolinensis</i>	Gray Catbird	S,					Possible	On-site	S4B	G5		
<i>Toxostoma rufum</i>	Brown Thrasher	,S	,S				Possible	On-site	S4B	G5		
<i>Poecile atricapillus</i>	Black-capped Chickadee	,H	,H			S,S	Probable	On-site	S5	G5		
<i>Vermivora ruficapilla</i>	Nashville Warbler		S,D	,S			Probable	On-site	S5B	G5		
<i>Dendroica pinus</i>	Pine Warbler		,S				Possible	On-site	S5B	G5		
<i>Geothlypis trichas</i>	Common Yellowthroat		,S		,S		Probable	On-site	S5B	G5		
<i>Dendroica petechia</i>	Yellow Warbler	,H	H,H		S,		Probable	On-site	S5B	G5		
<i>Setophaga ruticilla</i>	American Redstat	H,H	,H		S,		Probable	On-site	S5B	G5		
<i>Mniotiltava varia</i>	Black-and-white Warbler					S,S	Probable	On-site	S5B	G5		
<i>Seiurus aurocapillus</i>	Ovenbird			S,			Possible	Adjacent Lands only (west)	S4B	G5		
<i>Dryocopus pileatus</i>	Pileated Woodpecker		S,S				Possible	On-site	S5	G5		
<i>Sitta carolinensis</i>	White-breasted Nuthatch				,S		Possible	On-site	S5	G5		
<i>Sturnus vulgaris</i>	European Starling	FO,					Possible	On-site	SNA	G5		
<i>Troglodytes aedon</i>	House Wren	,H			P,P	S,S	Probable	On-site	S5B	G5		
<i>Turdus migratorius</i>	American Robin	,S		S,	S,S		Probable	On-site	S5B	G5		
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	S,S	S, S			,S	Probable	On-site	S4B	G5		
<i>Empidonax alnorum</i>	Alder Flycatcher				S,		Possible	On-site	S5B	G5		
<i>Contopus virens</i>	Eastern Wood-pewee		S,	S,	,S		Possible	On-site	S4B	G5	SC	SC
<i>Vireo olivaceus</i>	Red-eyed Vireo	S,S	S,S	S,	S,	S,S	Possible	On-site	S5B	G5		

Survey's Condition:

June 7, 2019; Start Time 0535hr/End time 0841hr; Start Temp. +8°C/End Temp. +14°C; Start Wind B0/End Wind B1; Cloud Cover Start 0%, End 0%; Precipitation NIL; Observer: A. Major

June 9, 2019; Start Time 0525hr/End time 0844hr; Start Temp. +8°C/End Temp. +13°C; Start Wind B0/End Wind B1; Cloud Cover Start 0%, End 0%; Precipitation NIL; Observer: A. Major

Point Count Survey Duration- 10 minutes/station.

Any call or song that proved difficult was sought out and identified.

¹Highest level of breeding evidence detected based on Ontario Breeding Bird Atlas (OBBA) criteria and Breeding Evidence Codes

²Conservation Rank-from Ontario Ministry of Natural Resources & Forestry, Natural Heritage Information Centre, Species at Risk in Ontario Lists and Environmental Canada/COSEWIC Lists

S-rank: S1-Extremely Rare, S2-Very Rare, S3-Rare to Uncommon, S4-Common, S5-Very Common NAR-Not at Risk

G-rank: G1-Critically Imperiled, G2-Imperiled, G3-Vulnerable, G4-Apparently Secure, G5-Secure

Breeding Evidence Codes: Entry examples S,S- singing Male detected during first survey and second survey; S, Singing male detected during first survey only; ,S Singing Male detected on second survey only

None FO-Species observed flying over showing no signs of use of subject or adjacent land

Observed X- Species observed in its breeding season (no breeding evidence)

Possible H- Species observed in its breeding season in suitable nesting habitat

Note, S or C - Singing male(s) present (S) or breeding calls heard (C) in suitable nesting habitat in breeding season

Probable D- Courtship or display, including interaction between a male and a female or two males, including courtship feeding or copulation

Probable P- Pair observed in suitable nesting habitat in nesting season

Probable A- Agitated behaviour or anxiety calls of an adult