

# Thornton Bales Conservation Area Management Plan

## 2020



**Lake Simcoe Region**  
conservation authority



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## Appendices:

A- Excel spreadsheet of Implementation items, projected costs, and timelines

## Executive Summary

The Management Plan has been written in four sections, including: a **Background Report** which summarizes and synthesizes information on the natural heritage of the property and its current levels of development and public use; a **Development of the Revised Plan** section which describes the public consultation process and input received during plan review, as well as outlining the process and timeline for future plan review; a **Management Plan** which identifies long- and short-term goals for the management of the property; and a **Business Plan** which provides a description and schedule of implementation priorities, coupled with projections of revenues and expenses over a five year period.

## Background

Thornton Bales Conservation Area is 20 ha (50 acres) in size, and is located in the Township of King. It is located within the northern margins of the Oak Ridges Moraine, which contributes to the wide variety of habitats on the property, including upland forest, lowland forest, and forested wetlands. This diversity of habitat also supports a wide diversity of species on the property. This property has been identified in the York Region Official Plan and the Township of King Official Plan as an Area of Natural and Scientific Interest (ANSI).

Mr. Thornton J. Bales first purchased the property in 1911 and later donated it to the Township of King with the expectation that it would be maintained as a natural area. Mr. Bales recognized the property's recreational and wildlife potential and wanted to ensure its protection for future years. King Township donated the property to the Holland Valley Conservation Authority in 1961, which then became the South Lake Simcoe Conservation Authority. In 1970 the South Lake Simcoe Conservation Authority changed the name of the property from King Conservation Area to Thornton Bales Conservation Area, to honour the late Mr. Bales. The current Lake Simcoe Region Conservation Authority still owns and manages Thornton Bales Conservation Area.

A Master Plan was prepared in 1979 to guide the management of the property. Since that time a Natural Heritage Inventory was undertaken (2010), which includes a list of the species that utilize the habitat at Thornton Bales Conservation Area (TBCA), with a particular focus on vegetation and breeding birds.

## Consultation

Consultation has played an important role in the development of this Management Plan. The public were provided opportunities to deliver feedback and to voice their thoughts, values and opinions of Thornton Bales Conservation Area. The Public Consultation phase consisted of an online user survey, which was available from September 19<sup>th</sup> to November 23<sup>rd</sup>, 2018.

A Steering Committee was developed in the summer of 2018 to provide direction throughout the Management Plan development process. The Committee met periodically to review the steps of the development process, to review the information collected through the consultation phase, and to assist in developing the direction the final Management Plan would take. The Steering Committee was supported by an Internal Project Team composed of staff experts from various departments within LSRCA.

## Management Plan Goal and Objectives

The goal and objectives of this Management Plan were developed by an Internal Project Team, then reviewed and amended by the Steering Committee before being finalized.

### Goal:

Thornton Bales Conservation Area will be managed to sustain the ecological integrity of the Oak Ridges Moraine and its natural features and functions, while providing for compatible recreational, educational and research activities with our partners.

### Objectives:

1. Continue to provide compatible recreational opportunities through maintenance and refinement of the trail network, while ensuring a balance between recreational uses and conservation of important natural heritage features
2. Develop and implement a signage strategy along with creating updated property and trail maps for users
3. Maintain a healthy forest ecosystem for future generations through the implementation of sustainable/best forest management practices
4. Protect and enhance/restore the natural heritage features located on the property through invasive species monitoring and removal, and through conserving the biodiversity and native species currently present on the property
5. Promote physical and mental well-being by encouraging members of the community to participate in a range of healthy activities including quiet contemplation, nature connection, and recreational activities in this natural setting
6. Enhance opportunities for user engagement, appreciation, and education on the property with our partners

## Management Plan Direction

This Management Plan provides the basis and long-term direction for the management of Thornton Bales Conservation Area. It is based on identification of the constraints and capabilities provided by the property (Section I), and public, internal and stakeholder consultation (Section II).

There are fewer implementation objectives identified in this Management Plan than are generally outlined in other conservation area management plans within the Lake Simcoe Region Conservation Authority landholdings. This may be attributed to a number of factors, including property size, level of infrastructure, desired activities and ideal use levels. Since Thornton Bales Conservation Area is a more ecologically sensitive property, due to its location on the Oak Ridges Moraine and its steep topography, significantly increasing property usage could have negative impacts on the conservation area and the associated natural heritage features. The lack of amenities that are currently offered at TBCA are a result of this, and is also why it has been classified as a Passive Recreation Area in the Conservation Landholding Assessment<sup>1</sup>. More specific information regarding the Management Plan direction can be found in *Section 3: Management Plan*, which describes in more detail some of the activities and implementation

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<sup>1</sup> LSRCA (2016b)

objectives which are included in the five year Business Plan, and provides background information and additional justification for those items.

## Business Plan Direction

The purpose of a conservation area management plan is to establish long- and short-term goals for the management of the property and to identify priorities for implementation. The Business Plan component is a description and schedule of implementation priorities, coupled with projections of revenues and expenses over a five year period.

In addition to revenues and expenses, this Business Plan will identify potential funding sources and provide guidance for LSRCA management in implementing the Thornton Bales Conservation Area Management Plan. To these ends, priorities for investing in amenities and infrastructure for the period of 2020 to 2024 have been identified (Table 1). The items listed in Table 1 are considered outside the scope of regular maintenance and establish a proactive management approach, however, all activities including regular maintenance and monitoring are outlined in the Implementation Schedule.

Implementing all of the objectives outlined in the Business Plan is projected to cost \$79,800 as well as additional staff time (approximately 2.64 FTE).

**Table 1: Implementation Priorities**

<b>2020</b>	<ul style="list-style-type: none"> <li>• Update information on LSRCA’s website</li> <li>• Re-align the trail network</li> <li>• Develop and install new trail way-finding signs at trail intersections</li> <li>• Conduct a forest stand inventory</li> </ul>
<b>2021</b>	<ul style="list-style-type: none"> <li>• Install animal-proof garbage bins</li> <li>• Design and install new trail maps and kiosk</li> <li>• Host a volunteer day</li> </ul>
<b>2022</b>	<ul style="list-style-type: none"> <li>• Add interpretative signage to the conservation area</li> <li>• Conduct a Natural Heritage Inventory</li> <li>• Implement a parking fee at Thornton Bales Conservation Area</li> <li>• Implement Best Management Practices for forest stand health</li> </ul>
<b>2023</b>	<ul style="list-style-type: none"> <li>• Implement a no-smoking policy within the conservation area</li> <li>• Continue to add interpretative signage to the property</li> <li>• Find solutions to expand limited parking spaces</li> <li>• Implement Best Management Practices for forest stand health</li> </ul>
<b>2024</b>	<ul style="list-style-type: none"> <li>• Begin the 5 year Management Plan Evaluation and Review</li> <li>• Continue to implement Best Management Practices for forest stand health</li> <li>• Continue to host annual volunteer day</li> </ul>

## Conservation Authority Resolution

**\*\*Following approval of BOD, aiming for April, 2020\*\***



## Section I: Background Report

### Introduction

Since 1951, Lake Simcoe Region Conservation Authority (LSRCA) and its predecessors have provided a leadership role in the protection and restoration of the environmental health of the Lake Simcoe watershed. LSRCA is mandated under the provincial *Conservation Authorities Act* to “establish and undertake, in the area over which it has jurisdiction, programs and services designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals”.

Conservation areas are an important part of this mandate as they represent the Authority’s opportunity to secure and manage some of the most sensitive natural heritage features in the watershed, demonstrate appropriate approaches to land and water stewardship, provide public education opportunities, and contribute to outdoor recreation. The public view the protection of these lands, as well as the access for public use, as one of the most important contributions of the Authority to the communities it serves. As the watershed continues to urbanize, the role of conservation areas will become even more critical for visitors and mental health well-being.

To date, LSRCA owns, manages, or holds easements over approximately 2,425 hectares (5,992 acres) of conservation lands throughout the watershed. These lands include important natural features such as valleys, forests and wetlands. Conservation areas promote natural heritage protection and offer a range of unique outdoor experiences to the public.

Thornton Bales Conservation Area (TBCA), a property owned and managed by LSRCA, is approximately 20 ha (50 acres) in size, and is located in King Township. Due to its location within the northern margins of the Oak Ridges Moraine, this property contains a wide variety of habitats and floral and faunal species. It is identified in the York Region Official Plan and the Township of King Official Plan as an Area of Natural and Scientific Interest (ANSI).

Thornton Bales Conservation Area was first acquired by LSRCA in 1961, when it was known as King Conservation Area. It was renamed in 1970 to honour the late Mr. Bales, who purchased the property in 1911, then donated it to King Township for a nominal sum. Mr. Bales recognized the property’s recreational and wildlife potential, and wanted to ensure its protection for future years. In 1961, King Township donated the property to the Holland Valley Conservation Authority, which today, is known as the Lake Simcoe Region Conservation Authority. A Master Plan was prepared in 1979 to guide the management of the property, but has since become outdated. The goals and objectives outlined in that Master Plan included:

Goal:

*To manage and conserve the natural quality of the lands, forests and wildlife of Thornton Bales Conservation Area.*

Objectives:

- *To preserve the natural integrity of the area*
- *To protect the natural water recharge value of the area*

Throughout the Master Plan (1979) it was made very clear that the property was a sensitive area with key natural heritage features that must be protected. In order to maintain them, only low intensity, passive day-use recreation was permitted on the property. This condition has remained and will be re-established in this current Management Plan.

Due to changes over time, increased visitation rates, recreational activities, pressures and public expectations, a new goal and objectives were developed for Thornton Bales Conservation Area.

**Goal:**

Thornton Bales Conservation Area will be managed to sustain the ecological integrity of the Oak Ridges Moraine and its natural features and functions, while providing for compatible recreational, educational and research activities with our partners.

**Objectives:**

1. Continue to provide compatible recreational opportunities through maintenance and refinement of the trail network, while ensuring a balance between recreational uses and conservation of important natural heritage features
2. Develop and implement a signage strategy along with creating updated property and trail maps for users
3. Maintain a healthy forest ecosystem for future generations through the implementation of sustainable/best forest management practices
4. Protect and enhance/restore the natural heritage features located on the property through invasive species monitoring and removal, and through conserving the biodiversity and native species currently present on the property
5. Promote physical and mental well-being by encouraging members of the community to participate in a range of healthy activities including quiet contemplation, nature connection, and recreational activities in this natural setting
6. Enhance opportunities for user engagement, appreciation, and education on the property with our partners

The purpose of a conservation area management plan is to establish long- and short-term goals and to develop strategies by which those goals can be achieved. Periodic updates to existing management plans are necessary to ensure the continued relevance of management policies. An up-to-date management plan should be consistent with the Authority's objectives, reflect current site conditions and public uses, and address existing management challenges.

The management plan process was intended to be a collaborative one, building on and fostering partnerships with the conservation area's stakeholder groups through an interactive consultation process. This process was facilitated by the LSRCA Land Management Technician and guided by a Steering Committee.

## Site Location and Description

Thornton Bales Conservation Area is located at 1260 19<sup>th</sup> Sideroad, Concession, 2 Part Lots 30 & 31 in the Township of King, within the Regional Municipality of York. The primary access to the property is from the north side of 19<sup>th</sup> Sideroad, approximately 3 km west of Bathurst Street, where a parking lot and trail head are located for access into the property. Other access points are available primarily by foot, through

trail connections to other privately owned lands, including Jokers Hill, owned by the University of Toronto.

The conservation area contains a rolling topography with steep slopes, requiring stairs to access the interior of the property from the parking lot off 19<sup>th</sup> Sideroad, which is where the conservation area received its nickname “The 99 Steps”.

According to both the Regional Municipality of York’s Official Plan<sup>2</sup> and the Township of King’s Official Plan,<sup>3</sup> Thornton Bales Conservation Area has been identified to contain multiple land uses and landscape designations:

#### York Region Official Plan

- Woodland (York Region OP, Map 5)
- Environmentally Significant Area (York Region OP, Map 3)
- Earth Science Areas of Natural and Scientific Interest (York Region OP, Map 3)
- Existing Greenlands System and the Greenlands System Vision (York Region OP, Map 2)
- Oak Ridges Moraine Boundary (York Region Official Plan, Map 1)
- Landform Conservation Area Category 1 and Category 2 (York Region OP, Map 1)

#### Township of King Official Plan<sup>4</sup>

- Environmentally Significant Area (King Township OP; Schedule B3-2)
- Earth Science Areas of Natural and Scientific Interest (King Township OP; Schedule B3-2)
- Landform Conservation Area Category 1 and Category 2 (King Township OP, Schedule B4- Oak Ridges Moraine Landform Conservation Areas)
- Key Natural Heritage and/or Hydrologically Sensitive Feature (Schedule 5- Oak Ridges Moraine Plan Area , Key Natural Heritage and Hydrologically Sensitive Features)
- Along the Greenbelt Cycling Route (King Township OP, Schedule J: Active Transportation)

In addition to these designations, both LSRCA mapping and King Township’s Official Plan identify Thornton Bales CA as Rural and Open Space land uses<sup>5</sup>. These designations support the rural character, significant natural heritage features, and natural linkages contained within the property which are important to protect and preserve.

## Property Acquisition

Mr. Bales first purchased the property in 1911 and later donated it to the Township of King to maintain it as a natural area. Mr. Bales recognized the property’s recreational and wildlife potential and wanted to ensure its protection for future years. King Township donated the property to the Holland Valley Conservation Authority in 1961. In 1970 the South Lake Simcoe Conservation Authority (currently LSRCA) changed the name of the property from King Conservation Area to Thornton Bales Conservation Area, to honour the late Mr. Bales.

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<sup>2</sup> Regional Municipality of York (2010)

<sup>3</sup> Township of King (2017)

<sup>4</sup> Township of King (2017)

<sup>5</sup> LSRCA (2019a)

A Master Plan was prepared in 1979 to guide the management of the property. Over the years LSRCA staff has maintained the low intensity, passive day-use recreational trails and natural heritage features of the property. More recently in 2010, a Natural Heritage inventory was undertaken, which identified a broad list of the flora and fauna species that utilize the various habitats at Thornton Bales Conservation Area, with a particular focus on breeding birds.<sup>6</sup>

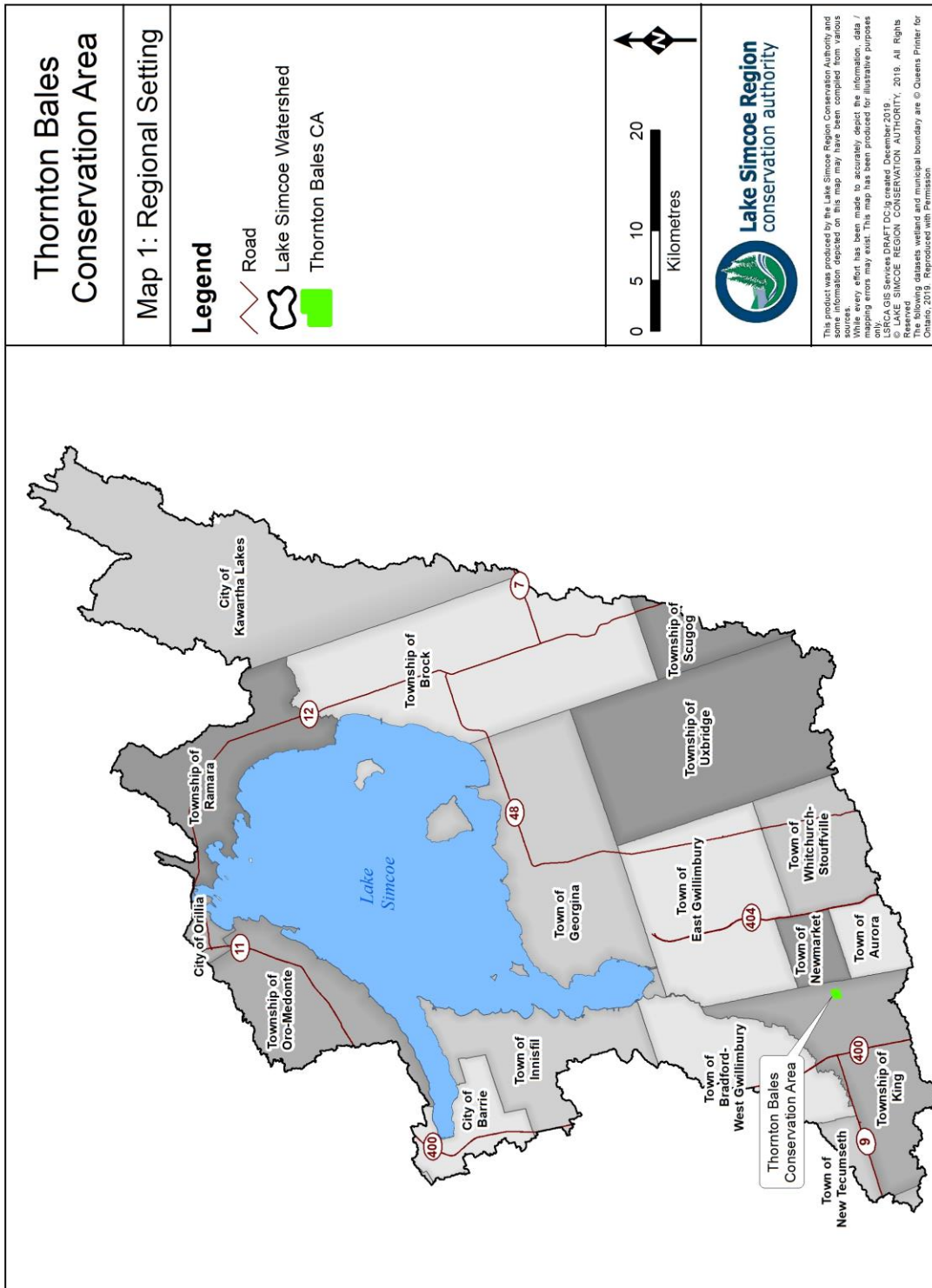
## Human History and Settlement

Archaeological evidence suggests that First Nations peoples have been present on the land, in King Township for many millennia beginning with the Iroquoian and Woodland First Nations. More recently the area in and around Thornton Bales CA is in the traditional territory of the Haudensaunee (Iroquois), Ojibway/Chippewa and Anishnabek. The first permanent settlement in the area dates back to 1804 with the purchase of the land by Rufus Rogers. Numerous individuals succeeded Rogers as owners of the property until in 1911, Thornton J. Bales, a prominent resident of the area, purchased the west half of the lot.

During Bales' later years, his interest in conservation led to a very generous agreement whereby he donated 50 acres of his property to King Township for a nominal sum. The area was to be designated parkland as Bales recognized the recreational and wildlife potential of the area. In July of 1961, the park was turned over to the Holland Valley Conservation Authority. Then in 1970, the area was renamed in honour of the late Thornton Bales and has since been managed by the Lake Simcoe Region Conservation Authority.

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<sup>6</sup> LSRCA (2010)



Map 1. Regional Setting

## Topography and Soils

When determining how best to manage a property, two key factors that are taken into consideration include the topography of the site, and the soil composition. These two factors are a result of the conservation area's location on the Oak Ridges Moraine, making the property more distinctive and providing it with notable natural heritage features, which makes Thornton Bales Conservation Area a very unique property. Below are more detailed descriptions of these factors, including descriptions of how they impact the property and how this may impact the future management of the property.

### Soil

Thornton Bales Conservation Area consists primarily of a single soil type which is classified as Pontypool sandy loam<sup>7</sup>. Pontypool soil types are deep, coarse textured soils with seasonal free water saturation, which allows for a high infiltration rate and low runoff when wet<sup>8</sup>. Sandy loam soils can quickly drain excess water, but cannot hold onto significant amounts of water or nutrients for longer periods of time. Typically plants growing in this type of soil may struggle without additional assistance, such as a variety of groundcover species to aid in maintaining moisture for longer. However, because Thornton Bales Conservation Area contains a mature forest and has abundant plant growth the decomposing leaves and plant matter each year likely supply new plants with enough nutrients to thrive in this natural environment. Pontypool soils are typically found in areas consisting of steep slopes, which is consistent with the topography in TBCA. This type of soil is generally more susceptible to wind erosion, but this is minimized on the property due to the presence of vegetation. It can be assumed that without vegetation at different levels in the canopy, wind erosion would have greater impacts at Thornton Bales Conservation Area. Therefore, the vegetation the property, both tree canopy and ground cover, should be left undisturbed to maintain slope stability, and minimize the impacts of erosion. Restoring locations with reduced vegetative or woody cover will also aid in maintaining slope stability and enhancing the ecological integrity of the property.

### Topography

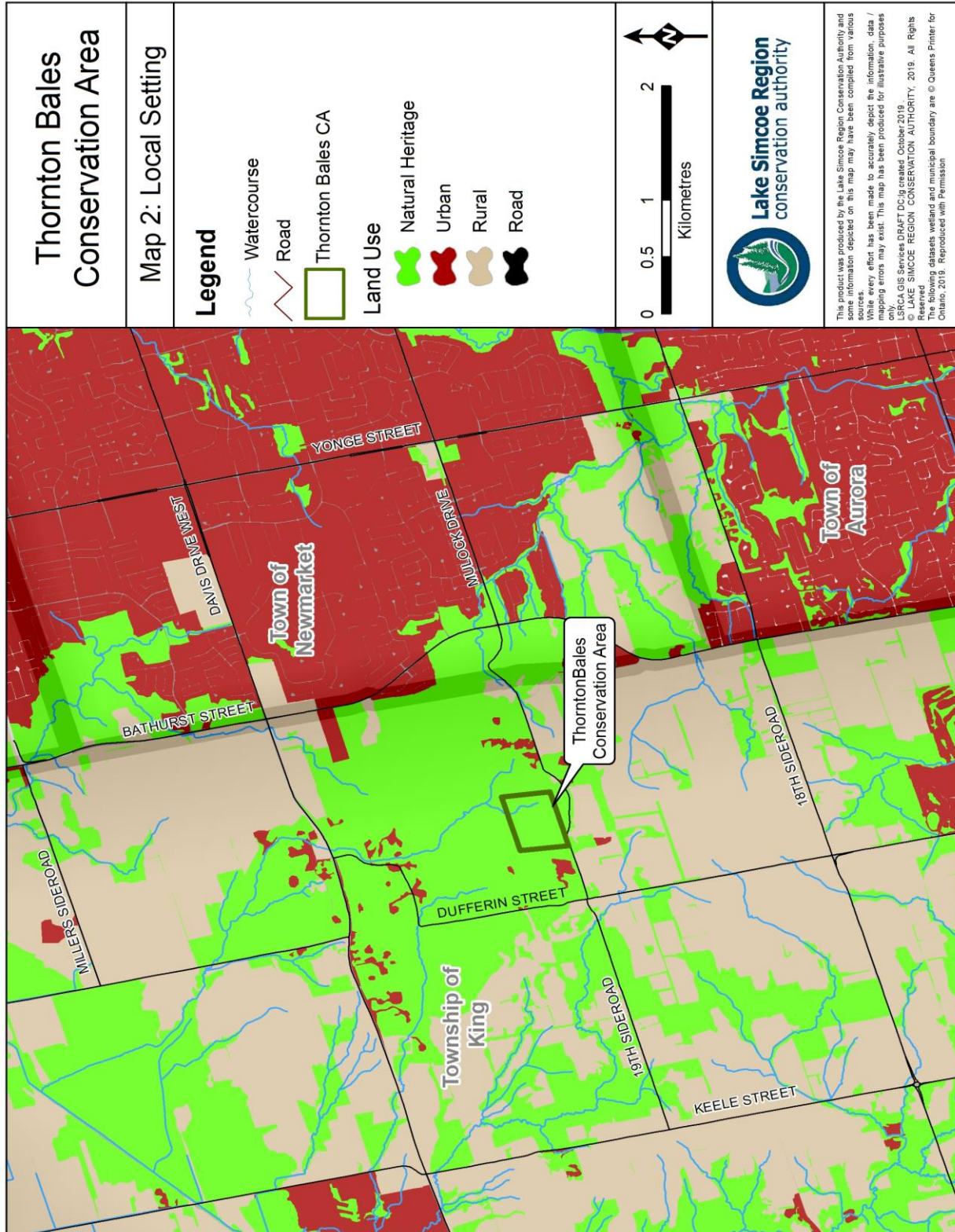
Thornton Bales Conservation Area was nicknamed "99 Steps" due to the stairs that were built in order to minimize erosion on the slope and to make the property more accessible. The stairs were recently rebuilt in order to improve their condition and to allow the safer usage of the property for the public. Although the stairs are challenging, they are necessary to mitigate the negative impacts on the environment from the amount of visitors. According to LSRCA's topographic mapping and survey's, the southwest corner of the property, between the parking lot access and the start of the stairs has an elevation of 350m above sea level. Here there is a dramatic decrease in elevation, as displayed in Map 3. Generally the property slopes downwards towards the northeast corner, where the lowest elevation is approximately 295m above sea level<sup>9</sup>.

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<sup>7</sup> LSRCA (2018b)

<sup>8</sup> Hoffman & Acton (1974)

<sup>9</sup> LSRCA (2019c)



Map 2. Local Setting

## Climate

The closest weather station to Thornton Bales Conservation Area with a consistent and reliable history of records is the Toronto Buttonville Airport weather station, which is approximately 25 km away. On a larger scale, TBCA falls within the Simcoe climatic region<sup>10</sup>.

Using climate data from Environment and Climate Change Canada and the Toronto Buttonville Airport station, climate normals have been derived using data from 1981 to 2010<sup>11</sup>. Over this 30 year period, this station experienced an average of 852.9mm of precipitation per year, with an average of 717.4mm as rainfall, and 142.6cm as snowfall. Annual temperatures over this 30 year period were also taken at the Toronto Buttonville Airport station, and state that the annual daily temperature average is 7.7°C. The average daily maximum was 27.1°C in July, and the minimum daily average was -10.2°C in February.

LSRCA has completed a number of climate projections, on how climate within the Lake Simcoe watershed will change in the future<sup>12</sup>. LSRCA's climate change projections for the Lake Simcoe watershed suggest that in the future there will be a variety of impacts to natural processes and features, as a result of changes in climate. Below is a broad list of changes that are projected to occur in the future in the watershed<sup>13</sup>:

- More extreme heat (+30°C) days, and more extreme cold (-10°C) days
- Increased risk of short-duration intense precipitation
- Warmer and shorter winters
- More winter precipitation falling as rain instead of snow
- More water deficits in the future
- Increased growing season length

Overall, by the year 2050 LSRCA's research suggests a mean temperature increase of 3.3°C for the Lake Simcoe watershed. The mean air temperature increase during the summer is predicted to be 2°C, but the winter increase is predicted to be 4°C<sup>14</sup>. Overall this is likely to impact the conservation area from a shift in species composition, as animals and plants adapt to climate change and adjust their ranges accordingly. For more information regarding climate and its projected impacts on the Lake Simcoe Watershed, and on strategies on adaptation, please see Climate Change Adaptation Strategy (2020) for more details<sup>15</sup>.

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<sup>10</sup> Brown et al. (1981)

<sup>11</sup> Environment Canada (2019)

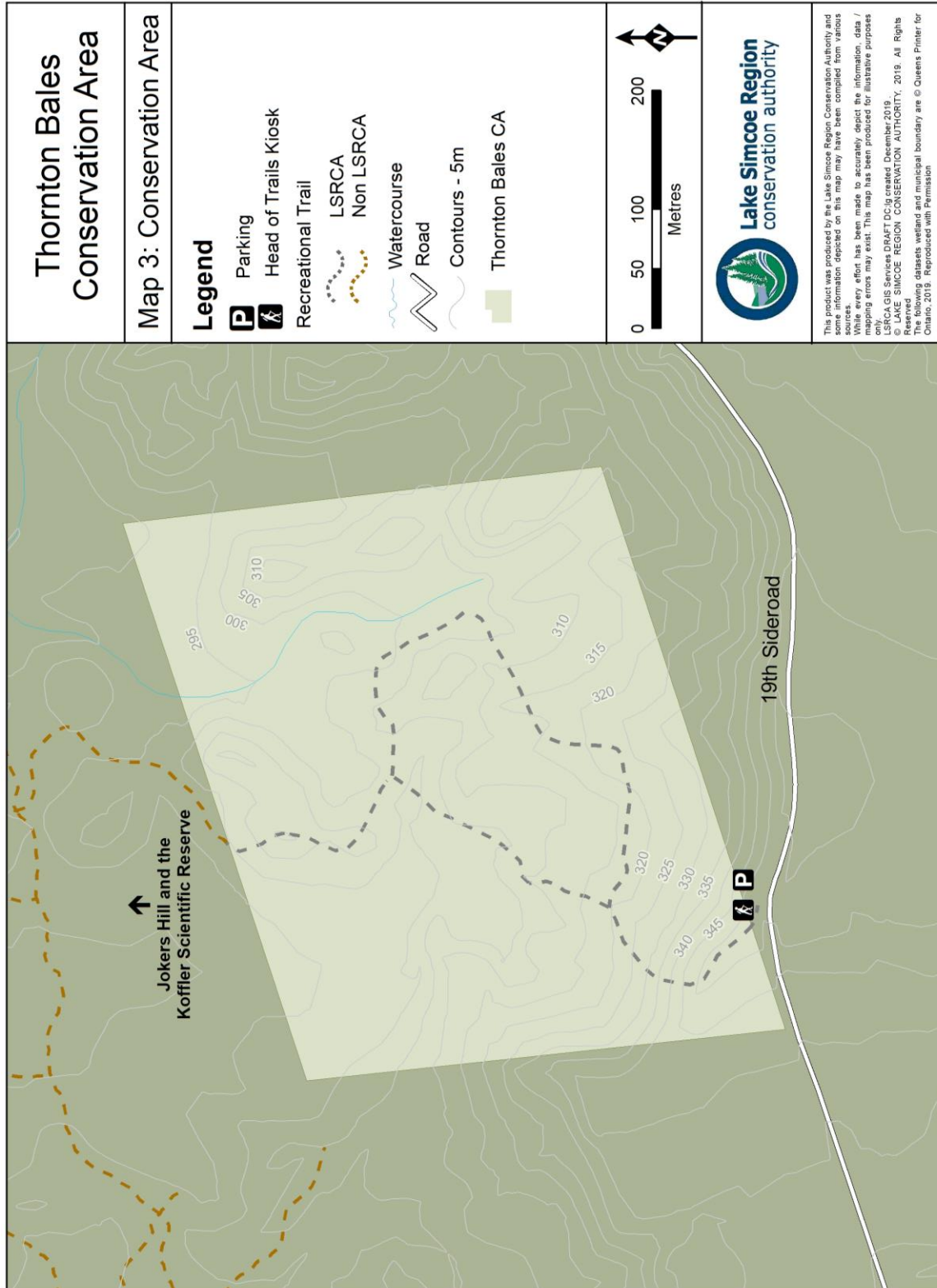
<sup>12</sup> LSRCA (2020)

<sup>13</sup> LSRCA (2019b)

<sup>14</sup> LSRCA (2019b)

<sup>15</sup> LSRCA (2020)





Map 3. Thornton Bales Conservation Area

## Hydrology

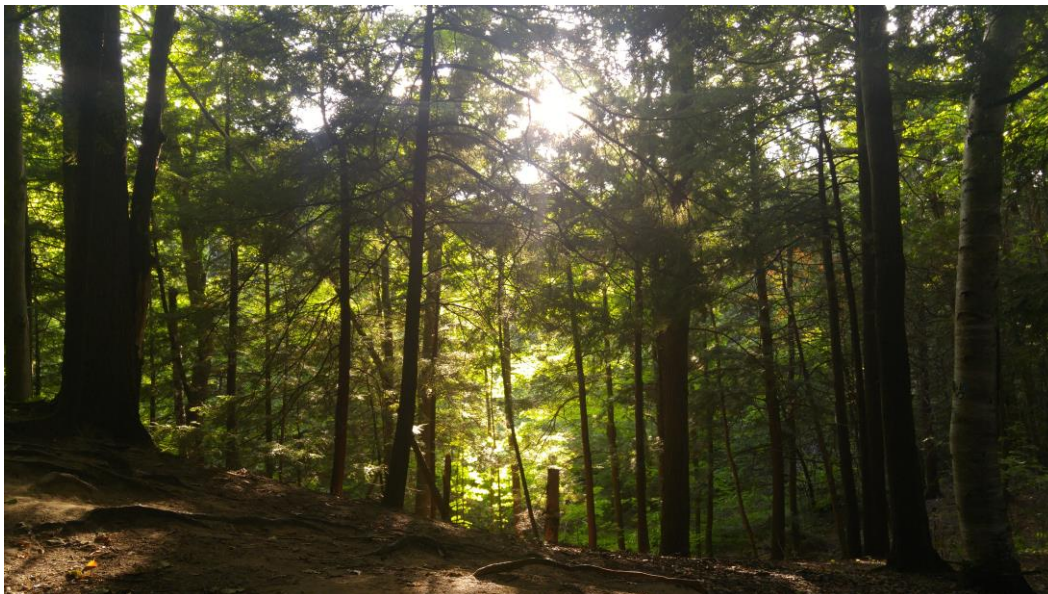
Thornton Bales Conservation Area is located in the West Holland River Subwatershed and lies within the northern margins of the Oak Ridges Moraine. The Oak Ridges Moraine is known as a water recharge and discharge area, which may result in the production of headwater streams, as seen in the conservation area<sup>16</sup>. The headwaters of Glenville Creek start within the boundaries of TBCA, where it is a very small tributary which eventually feeds into the West Holland River.

## Ecosystems<sup>17</sup>

Thornton Bales Conservation Area is primarily a wooded area, with a variety of mature trees and a trail network in the forest. In 2008/ 2009, a Natural Heritage Inventory was undertaken, which focused on identifying habitat types, vascular plants, and breeding birds, and included a vegetation survey and Ecological Land Classification for the property. In 2009 four types of vegetation communities were identified according to the Ecological Land Classification. They are:

- Dry-Fresh Sugar Maple-Beech Deciduous Forest (FOD5-2),
- Fresh-Moist Sugar Maple-Hemlock Mixed Forest (FOM6-1),
- White Cedar-Hardwood Organic Mixed Swamp (SWM4-1),
- Red Pine Coniferous Plantation (CUP3-1).

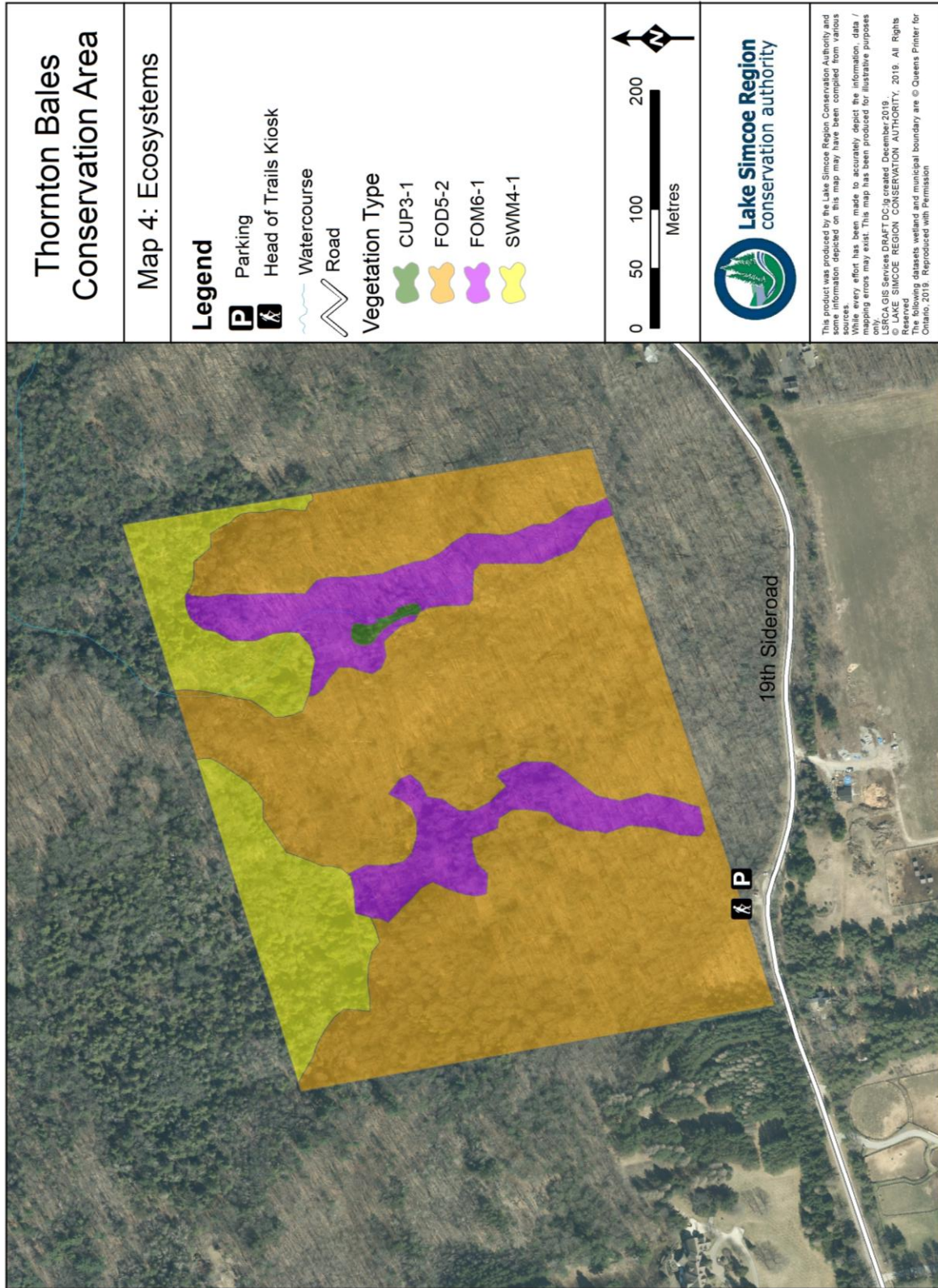
The majority of the property is composed of the Dry-Fresh Sugar Maple- Beech Deciduous Forest (FOD 5-2) community, which is dominated by mature sugar maple trees, with a relatively high component of American beech in the canopy. At the time the inventory was conducted White Ash was the third most dominant tree species, although this may change in the upcoming years due to the infestation of the Emerald Ash Borer (EAB) and the impact it is having on ash trees.



**Figure 1: Image of the forest at Thornton Bales Conservation Area**

<sup>16</sup> Oak Ridges Moraine Land Trust (2019)

<sup>17</sup> LSRCA (2010)



Map 4. Ecosystems

## Wildlife<sup>18</sup>

By itself, Thornton Bales Conservation Area is a smaller sized natural area when compared to other LSRCA landholdings, but when combined with the neighbouring properties which have also been preserved for natural heritage, the area is important. In 2008/2009, a Natural Heritage Inventory was conducted on the property, which focused on breeding birds, and also recorded amphibians and mammals on encounter or from calls. The breeding bird inventory identified 32 bird species, either by sight or sound, on the property. Six of these bird species are considered to be regionally rare to the Lake Simcoe watershed, which highlights the ideal breeding and nesting habitat on this property. Since no major changes have been confirmed to have occurred to the composition of the natural heritage features within the conservation area, it can be assumed that this property, along with the parcels it is connected to, still contain niche habitat requirements for a variety of bird species. The most recent Natural Heritage Inventory identified a number of bird species that are considered rare within the Lake Simcoe watershed, including black-throated green warbler, scarlet tanager, yellow-bellied sapsucker, red-breasted nuthatch, and winter wren.<sup>19</sup>



Figure 2: Image of an Eastern Newt at Thornton Bales Conservation Area

## Development and Infrastructure

Thornton Bales Conservation Area is a day use property, where members of the public can come and enjoy a hike and immerse themselves in nature during the daylight hours, but no one is to be on the property between dusk to dawn. Due to its day use designation, smaller size, and lower carrying capacity

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<sup>18</sup> LSRCA (2010)

<sup>19</sup> LSRCA (2010)

based on site sensitivity, this property contains very limited infrastructure. There is a parking lot located off of 19<sup>th</sup> Sideroad at the south end of the property. There is also the famous “99 steps” located fairly close to the parking lot, and limited signage on the property which is mostly found near the parking lot and the trail entrance.

Thornton Bales Conservation Area contains a trail system with natural surface cover, which is representative of the topography of the moraine, with its steep slopes and low valleys. The trail system is primarily an access trail to the bottom of the property, and then a loop. The loop has a side trail that connects TBCA to Jokers Hill, owned by Koffler Scientific Reserve. This conservation area property is a good fit for those who are physically active and up for a physical challenge.

Since the development of the Master Plan in 1979<sup>20</sup>, this conservation area has been focused on supporting low-intensity, passive day-use recreation, which includes activities such as hiking and nature appreciation. This property is becoming increasingly busy, with more new users visiting each year, and regular visitors returning frequently<sup>21</sup>. In order to accommodate the increase in use, while still providing a unique and rural experience for users, it is recommended that minimal development be supported for Thornton Bales Conservation Area, such as trail improvements, but not the construction of any permanent buildings. Improvements to existing infrastructure are acceptable, such as the entrance signage, parking lot retrofits, and regular monitoring and maintenance. Additional infrastructure with the purpose of improving visitor experience will be reviewed on a case-by-case basis, with a focus of keeping visitors on the trail and reducing impacts. Some of these items may include increased parking spaces, increasing trail accessibility, and providing way finding signage throughout the trail system.

## Public Use

Thornton Bales Conservation Area is known to many as the “99 steps”, even though there never were 99 steps, and is widely used by members of the public. It has two primary access points; one being the parking lot located along 19<sup>th</sup> Sideroad, and the other being the trail connection to Jokers Hill, which can be accessed from Bathurst Street just north of Keith Avenue.

For its size, Thornton Bales Conservation Area receives a reasonably high volume of users, compared to other conservation areas in the watershed. The 20 hectare property contains a limited trail network composed of natural surface trails, along the steep slopes of the Moraine. There are a few limiting factors preventing all members of the general public from utilizing this property, including limited parking spaces, a lack of trail maps and markers, and most notably the extensive staircase resulting from the rugged terrain and change in elevation, which at times may be quite challenging to maneuver. However, it still receives regular use from the public.

Conducting surveys of conservation area visitors is a great way to gain a more in-depth understanding of who is using the property and for what types of activities. To date, three Conservation Area User Surveys have been conducted for Thornton Bales Conservation Area (2007, 2017 and 2018). Below are very short descriptions of the key findings, but more detailed survey results are summarized in Management Plan Development (Section 2), and are attached as Appendices.

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<sup>20</sup> SLSCA (1979)

<sup>21</sup> LSRCA (2018a)

The first conservation area user survey for TBCA was conducted in 2007<sup>22</sup>, where results indicated that the primary user group were males between the ages of 20 and 30, who resided within 10-20 km from the conservation area. They visited once or twice a month on average, participated in multiple activities, primarily hiking, and visit mostly in the summer.

According to the 2017 survey, females were the dominant user group of the property. The most common age category was 21 to 29 year old females who live within 10 km of the conservation area, yet driving personal vehicles is the most common method to arrive at the property. The majority of visits by the public were in the summer, and the majority of activities participated in by users were hiking and nature appreciation.

The 2018 User Survey was specifically focused on TBCA to aid in the development of this management plan. These results changed notably from the results in the 2017 survey. This may be because this survey was conducted later in the fall when school was back in session, which likely reduced some people's ability to visit the property, and therefore not all users were aware of the survey. Best efforts were made to advertise the survey and promote users to complete it, including signage on the property, e-mails out to community groups and the Thornton Bales Conservation Area e-mail group composed of interested members of the public, and sponsored Facebook and Instagram posts. In the 2018 survey, the most common responses were from females between the ages of 45 to 64, who live less than 10 km away, hike, and visit a few times a year. More details regarding the survey results are discussed in *Section II: Management Plan Development*.

Comparisons of these results show that consistently, users of Thornton Bales Conservation Area live within 10 km of the property, primarily participate in hiking, and visit mostly in the summer.

Additional user groups who frequent the property are members of the Oak Ridges Trail Association (ORTA). A portion of the ORTA trail previously ran through Thornton Bales Conservation Area and connected it to Jokers Hill. ORTA members regularly organized hikes across the moraine utilizing ORTA trails and staged them out of specific locations, such as the parking lot at TBCA. This parking lot off 19<sup>th</sup> Sideroad is also an official stop on the Greenbelt cycling route. This provides cyclists a destination where they can stop and rest. Both the Oak Ridges Trail and the Greenbelt Cycling Route likely encourage visitors who typically may not visit the property with a reason to visit. Both of these trail networks are significantly larger and more extensive than the conservation area's portion of trail. Thornton Bales Conservation Area also has a number of Geocaches located within its boundaries, which entices a different user group to visit the property as well.

In order to gain a more accurate count of how many people are utilizing the trails at Thornton Bales Conservation Area, a trail counter program is currently underway which will quantify the amount of people using the trails, and will continue for the foreseeable future, or until at minimum one full year of data is collected. It is recommended that a minimum of three or four trail counters be installed: one at the kiosk, one at the soon to be developed bike station, one at the top of the steps and one at the trail intersection near the bottom of the steps. Having trail counters in these locations should collect accurate data on all users of the property, as well as provide information on where they are coming from (eg. the parking lot off 19<sup>th</sup> Sideroad, cycling to the property, or entering from the trails at Jokers Hill. This information would complement the user surveys nicely and would allow LSRCA to determine a fairly accurate estimate of how many people are visiting the property.

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<sup>22</sup> LSRCA (2007)

## Landscape Influences

The Oak Ridges Moraine itself is the factor that has the largest single influence over Thornton Bales Conservation Area and its natural processes. Thornton Bales Conservation Area sits just within the northern margins of the Moraine, and is therefore characterized by many of its features. The Moraine is essentially a deposition of material that was scraped from surrounding areas and was deposited when the glaciers either retreated or melted. The Oak Ridges Moraine generally runs parallel to the northern shore of Lake Ontario, and spans about 200 kilometres from the Niagara Escarpment to the Trent River. The Moraine acts as a watershed boundary between Lake Ontario and Lake Simcoe, and filters rainwater through its porous soils to form approximately 30 rivers between both watersheds<sup>23</sup>. The steep slopes requiring the stairs and undulating hills within Thornton Bales Conservation Area are key characteristics of the Moraine, as well as the headwaters of Glenville Creek, which eventually flows into the West Holland River.

The surrounding land uses also influence the conservation area. The property boundaries to the north and east are connected to a larger network of greenspace, owned by the University of Toronto and previously used for scientific research. These areas are now open to the public and are used as a hiking trail network. The connection of greenspace between Jokers Hill, Koffler Scientific Reserve, and TBCA creates an ideal, connected, natural corridor, which allow for the safer movement of animals through this area. Within close proximity are a number of large estate lots and houses. Although these properties do not have the same natural heritage significance, they are a lower impact and less intensive landuse, which has limited impacts on the conservation area, since the private properties that border the conservation area are typically natural, not manicured landscape, which provides a buffer to the conservation area.

Over recent years the population living within close proximity to the conservation area has increased. In 2011 the population in King was 19,899<sup>24</sup>, Newmarket was 79,978<sup>25</sup>, and was 1,032,524 in York Region<sup>26</sup>. This has grown to be 24,512 in 2016 in King Township, 84,224 in Newmarket, and 1,109,909 in York Region. Since there are many new housing developments within close proximity to the property, it can safely be assumed that there will be increased visitation on the existing properties. This increasing usage and visitation could have significant negative impacts on Thornton Bales Conservation Area, which is why proactively managing this property is crucial, by accounting for the expected increased usage is managed in a proactive way to support the natural environment and features.

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<sup>23</sup> Oak Ridges Trail Association (2019)

<sup>24</sup> Statistics Canada (2016a)

<sup>25</sup> Statistics Canada (2016c)

<sup>26</sup> Statistics Canada (2016b)

## Section II: Management Plan Development

### Introduction

The first plan to provide direction for the management of Thornton Bales Conservation Area was the Master Plan, developed in 1979. This plan focused on preserving the natural heritage values of the property while balancing it with day-use recreation.

The only other guiding document for Thornton Bales Conservation Area was a Natural Heritage Inventory which was conducted in 2008 and 2009, and focused on Ecological Land Classification, vegetation and breeding bird inventories, and noted incidental observations of mammals and amphibians. The data from this inventory was used to aid in the development of this Management Plan.

In 2009 LSRCA began developing Management Plans for some of the more actively used conservation area properties. Scanlon Creek Conservation Area was the first property to have a Management Plan developed (2009, updated 2015); Sheppard's Bush Conservation Area (2009, updated 2017); and the Beaver River Wetland Conservation Area (2010, updated 2019). In 2018/2019 funds were dedicated to develop an updated Management Plan for Thornton Bales Conservation Area.

Thornton Bales Conservation Area is classified in the Conservation Landholding Assessment as a Passive Recreation Area, which is defined as "conservation landholdings that provide an opportunity for the public to experience, appreciate, and enjoy nature, but where infrastructure is more limited. These properties may include trails, parking areas, public washrooms and picnic pavilions." Although the majority of Passive Recreation Areas do not have Management Plans, Thornton Bales Conservation Area was selected due to the volume of people that use the property, as well as its connection to a larger piece of greenspace; Jokers Hill.

One of the most crucial factors in developing a management plan is consultation with members of the public, key stakeholders, and partners. Consultation is critical as it provides the public, conservation area users, neighbours, and those interested in the property, an opportunity to participate in the process and comment on what they think and how they feel about the conservation area. Since this Management Plan is the first to be developed for this conservation area, it was determined that a Steering Committee should be struck to direct the process. Additionally, due to the lack of previous management plans or guiding documents for this property, there was limited consultation background information available to inform this planning process. However, TBCA users were broadly surveyed through the standard Conservation Area User Surveys, in both 2007 and 2017. In 2018 a more focused and specific Conservation Area User Survey was created specifically to gain feedback to aid in the development of this Management Plan. A brief summary of these results are included here, along with the composition and purpose of the Steering Committee and Internal Project Team, both of which also aided in guiding the creation of this document.

### Steering Committee

In July 2018, a Steering Committee was struck to provide direction to the development of the first management plan for Thornton Bales Conservation Area. This committee met periodically between September 2018 and February 2020 to assist with guiding the direction of the Management Plan. Members of the Steering Committee were selected and invited to join the committee based on their involvement in the property, or as the representative of an organization who uses the conservation area or shares a boundary with it. The Steering Committee members were responsible for attending committee meetings, providing critical review and feedback on planning documents, assisting with public consultation, including ranking items listed on the



Implementation Evaluation Matrix, and assisting in the development of the management plan ensuring that regard is given to all public input received.

The Steering Committee was composed of the following members:

- Avia Eek (Chair), LSRCA Board Member, Councilor – York Region
- Ed Millar, Oak Ridges Trail Association Representative – King Chapter
- John Stinchcombe, Professor and Director – University of Toronto, Koffler Scientific Reserve
- Kate Brown, Station Manager – Koffler Scientific Reserve
- Kevin Reese, Program Manager, Forest Conservation – York Region
- Carol Karner, York Region Community and Health Services Department – York Region
- Brian Kemp, General Manager, Conservation Lands – LSRCA

LSRCA's Land Management Technician was responsible for the preparation of all documents and maps associated with the development of the management plan, coordinating public consultation, preparing ads and public notices, maintaining a record of all comments received, and liaising with other staff within the Conservation Authority and partner agencies as required.

## Internal Project Team

The Project Team was responsible for reviewing and providing feedback on related documents, assisting with public and internal consultation, representing their departments, and ensuring that the management plan is consistent with the organization's goals and objectives. The primary and most intensive task for this group was reviewing and prioritizing feedback from the public during the consultation phase and determining which actions are realistic and feasible. This was done using an Implementation Evaluation Matrix, using seven different categories, with the total outcome dictating the priorities for LSRCA.

The Steering Committee operated with the assistance of the LSRCA staff Project Team (and others as required):

- Lauren Grzywniak (Project Lead), Land Management Technician
- Wanda Black (Project Support), Senior Administrative Assistant, Conservation Lands
- Dan Andrews, Land and Resource Planning Technician
- Phil Davies, Manager of Forestry and Greenspace Services
- Shauna Fernandes Chagani, Natural Heritage Planning Coordinator
- Jessica Chan, Natural Heritage Ecologist
- Dave Price, Greenspace Services Technician
- Cory Byron, Forestry Program Coordinator

The Lake Simcoe Region Conservation Authority Board of Directors will have final approval of the Thornton Bales Conservation Area Management Plan. It is anticipated that the management plan will be approved in the first quarter of 2020, at which point the Steering Committee will be disbanded, and the implementation of the Management Plan will begin.

## Past Public Consultation Information

A series of public consultation exercises and surveys focused on Thornton Bales Conservation Area have been undertaken in the past. Notably, TBCA has been included in two of the three Conservation Area User Surveys, which focus on a specific number of properties, and occur on a five year term. Thornton Bales Conservation Area was one of the focus properties in both 2007 and 2017 surveys. This property was also surveyed in 2018

specifically to gain detailed information to assist in the development of this management plan. The results of these surveys have been summarized in more formal reports.<sup>27</sup>

The results of each survey have been summarized, below, along with comparisons and conclusions drawn for each. These surveys provide LSRCA with a deeper understanding of who the conservation area users are, along with the main activities they participate in while visiting the property. Understanding how people use the conservation area and how their expectations and experiences have changed over time is important information which aids in helping LSRCA recognize how the property is being used, and how to adequately manage it for these uses.

### **2007 Conservation Area User Survey**

The 2007 visitor survey was conducted in-person at the conservation area. A total of 91 visitor surveys were conducted during the summer of 2007. In 2007 the property users were 63% male and 37% female, which is true for all age groups except the 31-40 age range, where females were the dominant user. The number of users significantly dropped off in the 65+ category, which may be attributed to the technical trails and steep terrain.

Most respondents travelled between 10 – 20 km to reach the property, and over 25% of the visitors had been going to the property for more than 10 years. The most frequent responses indicated users visited the property once or twice a month, followed by more frequent visits, such as once a week, three times a week, and twice a week. The majority of visits occurred on both the weekends and weekdays. This indicates that Thornton Bales Conservation Area has a very regular and dedicated user base, even though 53% of users only visit in the summer, with just under half (47%) of all people surveyed also visiting in the winter. Overall, people visit Thornton Bales Conservation Area to enjoy the quiet, peaceful, nature that the conservation area has to offer, and they least enjoyed the garbage on the trails and in the forest, followed by dogs off leash. In order to improve their experience, 22% of people recommended adding trails maps to the property, with an additional 14% also wanting trail signs to be added.

The 2007 survey results solidifies the conclusion that the Thornton Bales Conservation Area functions as a recreational area in which a variety of activities such as hiking, dog-walking, running, bird-watching and a number of other activities in which users are involved in at this area. For more information about the 2007 survey results, please review the 2007 Conservation Area User Survey Report.<sup>28</sup>

### **2017 Conservation Area User Survey**

The 2017 survey was conducted in a different way than the 2007 survey, which may have resulted in a shift in some of the responses people were willing to provide. In 2017 the user survey was conducted online, and not in person at the conservation area. As with any survey, there is generally some form of bias. Asking conservation area users questions in-person at a property can sometimes skew their responses, as people generally tend to be happier when visiting a conservation area and are more polite when speaking face-to-face with someone else. However, when the survey was placed online, due to staff and resource limitations, this not only provides people with more time to think about their responses, but also allows them to be more critical of the conservation area, because they aren't speaking directly to a person, and therefore are less concerned about coming off to strong. The survey was promoted using a variety of methods, including social media, e-mail blasts to community groups, and signage on the property, and received responses from 35 people who had completed the 2017 survey.

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<sup>27</sup> LSRCA (2007; 2017a; 2018a)

<sup>28</sup> LSRCA (2007)

In 2017 the majority of users were Female (66%), which is very different than the 2007 survey results. The most common age group to utilize the property is between 21 to 29, with the two least common age ranges being less than 20 years old and over 60 years old, which aligns with both the 2007 and 2018 survey results.

The majority of users in 2017 live within 10 km of the conservation area, which differs slightly from the 2007 results, where most users (65%) came from 10 to 20 km away. This change may be due to a variety of factors, including new housing developments within 10 km of TBCA, overall higher visitation rates, or because public landowners have increased advertising or promotion of other greenspaces, which may be closer to home for other visitors.

Based on the 2017 user survey results, overall visitor frequency has declined from 2007 to 2017. In 2017 the majority of visitors said they only visit about once a year, with the second most frequent response being once a month. It should be noted that the 2017 survey was conducted in the summer/ fall, which is when people enjoy the shade of the forest from the heat and the nice fall colours at Thornton Bales Conservation Area, meaning maybe some of the people who completed the survey only visit the property a few times a year, but since the survey was open during the busiest time of year the majority of respondents could have been “one-offs” who are not regular users. This aligns with the results that indicate the majority of users in 2017 responded that they only visit the property on weekends, with the option for both weekends and weekdays being the second most popular.

A notable difference from the 2007 results is the number of people who are visiting the property year-round. Although summer was the busiest time in both surveys, followed by fall, an increasing number of people responded in 2017 that they visit the conservation area more frequently in the spring and winter. Although people may not be visiting the property as frequently, they are visiting year-round, which increases visits to the conservation area.

The features that people most enjoy about Thornton Bales Conservation Area have not changed significantly over the past decade. The quiet, peacefulness and natural state of the property are still what people most enjoy. Visitors least enjoy the lack of signage and trail markers, followed by the parking lot, and the litter and garbage on the property, which is also consistent with both the 2007 and 2018 results.

Some ways to improve visitor experience at Thornton Bales Conservation Area would be to improve property maps, and trail or way-finding signage. The trails from TBCA connect to Jokers Hill, and defining the boundary and providing a trail map of one or both properties would significantly increase visitor satisfaction. A second item that should be a priority is to find creative solutions to getting more people to the property without using vehicles. The parking lot for Thornton Bales Conservation Area off 19<sup>th</sup> Sideroad is very limited, and due to the topography of the area, expanding the parking lot is not a feasible option. Increasing trail connectivity, or promoting other methods of arriving at Thornton Bales Conservation Area such as through the Greenbelt Cycling route, may increase the number of visitors, while ideally not increasing pressure on the current parking lot.

Overall the survey respondents indicated that they were happy with the natural experience that Thornton Bales Conservation Area provides them, and enjoy the trails and their time spent at the property. For more detailed information regarding these results, please consult the 2017 Conservation Area User Survey Report.<sup>29</sup>

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<sup>29</sup> LSRCA (2017a)

## 2018 Conservation Area User Survey

In 2018 a separate survey was developed specifically for Thornton Bales Conservation Area, with the specific goal to provide information and feedback for the development of this management plan. This survey was conducted online, from mid-September to the end of November 2018 and was completed a total of 168 times.

Overall, many of the results from this survey were comparable with the results of the 2017 user survey, which may be expected as they were conducted only 11 months apart. There were approximately 5 times more respondents to this survey than that in 2017, which is expected to provide a more representative sample of the users of Thornton Bales Conservation Area.

In 2018 67% of the survey respondents were Female, which is very different than the 2007 results, but lines up almost perfectly with the 2017 results. Differing from both previous surveys was the distribution in the age category. The most common age category was 45 to 64, with a notable drop off in users 65+, which is consistent with the 2007 user survey results, and can likely be partially attributed to the steep slopes and technical terrain, and also possibly to the fact that the 2018 survey was conducted online. 80% of users live in Newmarket, which is less than 10 km away, which means more people who live closer to the conservation area are visiting, unlike in 2007 when the majority of people were coming from 10 to 20 km away. In the last 12 years there have been a number of housing developments within 10 km of TBCA, which may also have contributed to bringing new people to the area.

In 2007 the majority of visitors had been coming to the property for more than 10 years, which is still consistent with the 2018 survey results. However, in 2018 the second most popular response was people visiting the conservation area for the first time, which is promising and hopefully will lead to more return trips to the conservation area. It's also worth noting that the majority of survey respondents in 2018 only visit the property a "few times a year", which is less frequently than the 2007 results.

The main reason people visit Thornton Bales Conservation Area is very similar to both the 2007 and 2017 results, which is they enjoy nature and the scenery, followed by using the trail and to engage in recreational activities. The aspects conservation area users most enjoy are still consistent with previous results, which is they enjoy the trails, nature, and the peace and quiet. The aspects people least enjoy are the lack of signage and trail maps, which is also consistent with both previous surveys. In order to improve their experience when visiting the conservation area, the vast majority of users recommended improving the maps, signs, and trail markers throughout TBCA, which is consistent with previous consultation comments. For more detailed results regarding this survey, please consult the 2018 Thornton Bales Conservation Area User Survey Report.<sup>30</sup>

## General Conclusions

The results from all three of these user surveys provide very important information to LSRCA, which help to guide the management direction of the property. Overall, there have not been many significant changes, but there are also some things that have not changed at all over the 12 years the surveys were conducted. Two examples of consistent responses in all three versions are what people most and least enjoy, which has always been an open-ended question which has allowed participants to use their own words to respond. Conservation area visitors have always enjoyed the nature, scenery, and naturalness of the property. Thornton Bales Conservation Area users least enjoy the garbage and litter on the trails, dogs off leash, and most significantly the lack of trail signage and mapping. This information has been used to aid in developing this management plan and the recommendations moving forward.

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<sup>30</sup> LSRCA (2018a)

All thoughts, ideas, and suggestions mentioned during the Consultation Phase were taken into consideration and consolidated into a list of items that were considered for implementation, depending on its ranking in the Implementation Evaluation Criteria matrix. Some of the main ideas or themes heard throughout the survey were that the majority of users would like to see increased signage and mapping, an improved parking area, and that overall people visit the property mainly to enjoy nature and the scenery and to use the trail. These are a few of the major items mentioned throughout the survey, and along with other comments, will be used to determine the feasibility of implementing each item, such as the benefit to LSRCA, the community, other partners, the impact on the property's natural heritage ecosystems, the financial implications, and the staff time which may be associated with completing each initiative. These results formed the basis of the Implementation Evaluation Criteria Matrix, which involved an internal project team to get involved and rank each item against the criteria in the framework (ex: financial implications, environmental impact, staff time, persistence, health and safety, and visitor experience, etc.). This then provided justification for which items were selected to be implemented within this management plan.

### **Future Evaluation and Review of Management Plans**

The Business Plan section of this Management Plan extends to and includes the year 2024. At the beginning of 2024 a review should be initiated to determine which objectives were completed, and to understand the rationale why other tasks were not completed.

Since this Management Plan has been created for this property, there will be no need for the development of a new Steering Committee for the update of the Management Plan, unless significant changes are made to the property over the next five years. In keeping with LSRCA's approach, a Stakeholder Committee will be formed and engaged early on in the Management Plan review and update process of determining areas of concern or improvement with the property that should be included in the next Management Plan. Another Internal Project Team will be formed to assist in decision making and aid in determining the tasks which should be implemented on the property.

The success of the Business Plan will be measured by the amount of implementation items that were properly executed, resulting in positive benefits to the conservation area and/ or its users, which will assist in making the next management plan more achievable. The items listed in the Implementation Schedule will be examined to determine if they were completed, and if so, the financial and other resources required. The result of this on-going tracking is scheduled to occur every quarter, or at-minimum every 6 months to accurately track which resources were required to complete each item.

## Section III: Management Plan

### Introduction

This Management Plan provides the basis and long-term direction for the management of Thornton Bales Conservation Area. It is based on identification of the constraints and capabilities provided by the property (Section I), and public, internal, and stakeholder consultation (Section II).

There are fewer implementation objectives identified in this management plan than are generally outlined in other conservation area management plans. This may be attributed to a number of factors, including property size, level of infrastructure, desired activities and ideal use levels. Thornton Bales Conservation Area contains a number of ecologically sensitive habitats, due to its location on the Oak Ridges Moraine and its steep topography. Since protecting the ecological integrity of the property is the primary objective of management, significantly increasing usage would likely result in negative impacts, undermining that intent. The lack of amenities that are currently offered at TBCA is a result of wanting to keep usage to an amount that would not have negative impacts on the property, and is also why it has been classified as a Passive Recreation Area in the Conservation Landholding Assessment<sup>31</sup>. This section describes more details relating to the activities in each category and the implementation objectives which are included in the five year Business Plan (Section 4), and provides background information and additional justification for those items.

### Selection of the Implementation Items

The objectives described in this section, as well as in the Business Plan (Section 4), began as recommendations identified during the consultation period, and were run through a specific and comprehensive set of criteria in order to be identified as an implementation objective in this management plan. During the consultation phase (Section 2), a number of items or recommendations were brought forward by members of the public, the Steering Committee, and LSRCA staff through the Internal Project Group. All these recommendations on how to improve the property and enhance conservation area user experience were added into the newly redeveloped Criteria Implementation Evaluation Matrix. In this matrix, each recommendation was provided with one or more solutions on how to address the item listed. All possible solutions were then individually ranked by all members of the Internal Project Team, then were discussed and assigned a final value for each item. An image of the Implementation Evaluation Criteria Matrix is included below (Figure 3), and shows the categories that each solution was ranked against. All items were ranked from -3 (having a large, negative impact) to +3 (having a large, positive impact) against each of the categories.

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<sup>31</sup> LSRCA (2016b)

**Figure 3: Implementation Evaluation Criteria Matrix**

Recommendation	Description	Possible Solution(s)	Level of Impact (-3 to 3)									Score
			Financial Impact	Environmental Impact	Human Resource Requirements	Synergy/ Scope	Persistence/ Maintenance	Number of Years to Implement	Health & Safety/ Liability	Increase Public Use	Document Alignment	

The items that had a final ranking of a positive number (anything above a score of 0), were then selected for implementation in this Management Plan. There were a total of 30 items that had positive rankings (scores above 0). After combining solutions that were repetitive or very similar, a total of 20 implementation objectives remained. Additional mandatory items were then added to the list of implementation objectives, which included basic property management and maintenance tasks, such as paying property taxes and insurance. Items in LSRCA’s Conservation Lands Maintenance Guidelines document<sup>32</sup> that were not identified through the Implementation Evaluation Criteria Matrix were also then added. This was done to ensure LSRCA follows the maintenance guidelines that have been set by the organization, as well as to reduce the risk and liability to conservation area users, staff, and the Authority.

Once included in the Implementation Schedule, the dollar cost and FTE were projected to gain a better understanding of the resources required to complete each task. This information is displayed more specifically in the Business Plan (Section 4), and also provides a summary of where the funding to implement each task is coming from.

## Administration

As with any property, there are always administrative tasks that are required, such as property taxes and property insurance. Other important considerations include property enforcement, duty of care, and liability protection, to ensure all conservation area and municipal rules and by-laws are being followed; and communication and marketing of the property. However, due to the sensitive nature of the site, limited marketing and advertising of the property should be undertaken. These types of items are included under the Administration category, as they deal with items that are not physically being installed on the property, and are projected over the five year term of this management plan. For this conservation area, having large groups of users through the property may result in negative impacts on the flora and fauna, and on the ecological integrity and diversity of the property as a whole. Included in this section is also the implementation of an Education/ Awareness Campaign, that will aim to help educate conservation area users about the property, and about best use practices to ensure their visits are enjoyable, and still respect the natural flor and fauna of this property.

There is also the opportunity to implement a parking fee at the parking lot off 19<sup>th</sup> Sideroad in the future. The revenue from this would go directly back into property maintenance and implementing the items identified in this management plan.

Occasionally, funding or grant opportunities are made available through different avenues (such as provincial grants, etc.). These funding opportunities are inconsistent, and are not necessarily scheduled on a regular basis.

<sup>32</sup> LSRCA (2016a)

This presents a challenge when developing a timeline for when specific implementation objectives can be physically implemented. When presented with additional funding opportunities or grant programs, LSRCA will take advantage of these. When the funding requirements align with the management plan implementation objectives, LSRCA will submit the necessary applications to access a portion of the available funding.

## Asset Management/ Monitoring

In order to maintain Thornton Bales Conservation Area to the outlined Maintenance Guidelines<sup>33</sup> regular monitoring and assessments of the property must occur. The following sections list some of the assets that currently exist on the property, or are included within this management plan, and are projected to be constructed and installed within the next five years. Items in this category include trails, signage and mapping, and accessibility features.

Any additional infrastructure that LSRCA constructs will be to support the goals and objectives described in this management plan. Any future development would be subject to the requirements of the *Environmental Protection Act (1990)*, *Conservation Authorities Act (1990)*, *Oak Ridges Moraine Conservation Act (2001)*, *Greenbelt Protection Act (2004)* and other relevant federal, provincial and municipal legislation. All new infrastructure will be designed, constructed and built to be durable and fit with the surroundings as much as possible.

### Trails

Currently Thornton Bales Conservation Area has an existing trail network, which contains a primary loop trail and secondary off-property connector trails. The primary loop trail will remain, although some portion may be rerouted to avoid wet spots and areas with extensive amounts of hazard trees. The secondary trails or unsanctioned trails, which were not created by LSRCA, and generally lead past conservation area boundaries onto private property, will be closed. Following the formalization of the trail network, a trail map will be posted, along with way-finding signage along the length of the trail. All trails will remain natural surface, as they are currently, to align with the natural ruggedness of the property.

### Maintenance

Property maintenance for Thornton Bales Conservation Area is primarily guided by LSRCA's Conservation Lands Maintenance Guidelines<sup>34</sup>. This document outlines which tasks must be completed, and the frequency of them. Items included under this guiding document are: boundary management, due diligence inspections (trail inspections, infrastructure conditions), hazard tree management, waste removal, parking lot maintenance, and signage.

Regular property maintenance will enhance visitor experience at the conservation area, as well as provide an overall kept appearance, which shows the property is cared for, which generally discourages unwanted activities from occurring on the property.

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<sup>33</sup> LSRCA (2016a)

<sup>34</sup> LSRCA (2016a)



## Visitor Experience Management

Ensuring people enjoy their experience when visiting a conservation area is important to LSRCA, which makes visitor experience management a key goal for staff. Some of the primary ways to enhance visitor experience at TBCA are to increase the signage and mapping, so users feel more confident about where they are on the property; have washroom facilities available, and to ban all smoking products on the property. Other items such as trail inspections and maintenance were already addressed in the Asset Management section.

Signage will be installed on the property in accordance with LSRCA's Signage Strategy, which is currently being developed. This strategy outlines which types of signs should be installed in which locations, and what content will be provided on them.

## Smoking

Many people enjoy visiting conservation areas to take in fresh air and spend time in nature. Many users state that people smoking in the conservation area negatively impacts their visit to the property<sup>3536</sup>. In order to improve air quality, reduce the possibility of fires starting, and reduce litter, LSRCA is proposing that all types and forms of smoking should be banned on LSRCA lands. This would be aligned with King Township's Municipal By-law #2016-103, which states that

*"No Person shall Smoke, hold lighted tobacco product or use any Tobacco product: a) on or in any Park whether or not a "No Smoking" sign is Posted;"<sup>37</sup>*

The implementation of this plan would occur at Thornton Bales Conservation Area in 2023, and will ban smoking in any form on the property. Enforcement of this policy will be consistent with the Municipal approach.

## Washrooms

One of the most common recommendations from the public was to install washrooms on the property. Installing permanent washrooms was one of the possible solutions in the Implementation Evaluation Criteria Matrix, as was renting port-a-potties seasonally to have on the property. The financial expense, constant need for maintenance, and requiring both staff time and financial resources made installing a permanent washroom facility unfeasible at this time. Renting a portable washroom from a company who would be required to maintain it frequently would be a more feasible option. This was also selected partly due to the more remote location of the property, and the tendency for items to become vandalized and abused. Therefore, a pilot of portable washrooms will be conducted, and based on the results and feedback, it may continue, be removed, or a more permanent solution may be implemented.

## Signage Strategy

The lack of trail mapping and signage was the most commonly cited item that users most disliked<sup>3839</sup>. It was also the most commonly mentioned item for something that could be changed to improve their experience when at

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<sup>35</sup> LSRCA (2017a)

<sup>36</sup> LSRCA (2018)

<sup>37</sup> King Township (2016)

<sup>38</sup> LSRCA (2017a)

<sup>39</sup> LSRCA (2018)

Thornton Bales Conservation Area<sup>40</sup>. LSRCA is currently undergoing an Authority wide conservation lands signage strategy, which will inform the types of signs required for each property, as well as the design template for each sign type. The signage strategy is expected to be completed by early 2020, with a phased implementation approach between 2020 and 2021 at Thornton Bales Conservation Area. This ensures enough time for trails to be rerouted when necessary, mapping to be updated, and the signs to be ordered and installed. Included in the Business Plan are projections of the types of signs that will be officially recommended for Thornton Bales Conservation Area through the Signage Strategy. These projections are subject to change, based on the final outcome of the Signage Strategy process.

## Boundary Management

Ensuring the property boundaries of Thornton Bales Conservation Area are monitored, maintained, and signed appropriately will be scheduled to follow the Conservation Landholding Classification System Maintenance Guideline document<sup>41</sup>. This document states that Passive Recreation Properties including Thornton Bales Conservation Area will be monitored regularly for encroachments, and all boundaries will be marked with yellow dots, according to the Trespass to Property Act<sup>42</sup>.

Any encroachment issues will be addressed and managed on a case-by-case basis, and if necessary additional fencing may be installed.

## Natural Heritage Feature Management

One of the features that make this property so unique is its location on the crest of the Oak Ridges Moraine, which contributes to the wide variety of species, including rare species, on the property. Steps should be taken to protect and preserve these species, as well as to maintain the integrity of the moraine. This will be done through a variety of methods, including specific trail placement to avoid sensitive areas, conducting forest management activities to maintain the ecological integrity of the forest stand, continue monitoring and removal of invasive species, and assist the property in adapting to climate change.

## Forest Management

In order to best manage the forest within Thornton Bales Conservation Area, a stand inventory will first be conducted. This would allow the development of recommendations on how to implement best management practices to promote and protect stand ecological integrity, mitigate tree risk, and promote tree stand health. The primary focus of forest management will be on maintaining or enhancing the ecological integrity of the stand, promoting forest regeneration, along with investigating the feasibility for harvest and revenue generation when recommended, appropriate, or prescribed.

Overall the forest management of Thornton Bales Conservation Area will align with the Tree Risk Assessment and Management Strategy<sup>43</sup>, and will follow the broader Forest Management directive outlined in the Conservation Landholding Assessment<sup>44</sup>. LSRCA is also in the beginning stages of developing a Forest

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<sup>40</sup> LSRCA (2018)

<sup>41</sup> LSRCA (2016a)

<sup>42</sup> Government of Ontario (1990)

<sup>43</sup> LSRCA (2017b)

<sup>44</sup> LSRCA (2016b)

Management Strategy, and once finalized, TBCA will follow the guidelines in this document to ensure stand ecological integrity is maintained.

### **Invasive Species**

Monitoring and removal of invasive species, specifically garlic mustard and dog-strangling vine, have been occurring at Thornton Bales Conservation Area since 2013. Due to the sensitive nature of the property, and its location on the Oak Ridges Moraine, maintaining biodiversity and preventing or delaying the spread of invasive species is critical for protecting the ecological integrity of the property. Therefore, monitoring and removal of terrestrial invasive species, focusing on garlic mustard and dog-strangling vine, are scheduled to continue annually throughout this Management Plan. This is a low cost action that requires a moderate staff time commitment, but has a high benefit on preserving the biodiversity and ecological integrity of the conservation area.

### **Climate Change Adaptation**

The warming associated with climate change has already begun affecting Thornton Bales Conservation Area and the surrounding land, and the impacts of climate change are projected to intensify. The two critical responses to addressing the impacts of climate change are mitigation and adaptation. Mitigation addresses the root causes of climate change by reducing greenhouse gas emissions or promoting sequestration. Adaptation seeks to lower the risks associated with the shifting weather patterns that are caused by increasing greenhouse gas concentrations. LSRCA is currently developing strategies to mitigate and to adapt to the unavoidable impacts of climate change over the coming decades. Any reasonable actions to adapt to the unavoidable impacts of climate change on Thornton Bales Conservation Area will be taken into serious consideration. Objectives that may impact visitor safety and ecological health of the area will be given priority over other items.

Some anticipated impacts of climate change include the increased spread of invasive species, change of species ranges and northern migration, increased flooding, more frequent and severe storms, more rainfall in the winter, and drier and hotter summers resulting in lower water levels.

Initial investigations state that the most suitable recommendation for Thornton Bales Conservation Area to adapt to climate change is improving trail locations and conditions, to reduce the impact that severe storms and rainfall events can have on the natural surface trails. When coupled with the steep elevation changes in the conservation area, these trails can quickly develop gullies, which have the potential to make them unsafe and a risk to users. The spread of invasive species, as well as the seasonal changes will have impacts on the forest and tree stand. Maintaining the natural features and the ecological integrity of the area will continue to remain a priority for LSRCA.

The LSRCA Climate Change Adaptation Strategy will provide conservation management recommendations that address any gaps in the current projects and programs, as well as recommend new actions that address anticipated changes in watershed features that will affect the work undertaken by the Conservation Lands team. Adaptation recommendations are designed to enhance the overall resilience of Thornton Bales Conservation Area. This document will be the primary guide for LSRCA to follow when determining how to adapt the conservation area to climate change. Upon the finalization and release of this document, the Conservation Lands team will meet and determine which actions to pursue during the remainder of this Management Plan.

## Partnership Development/ Engagement

Management of Thornton Bales Conservation Area will primarily be conducted by Lake Simcoe Region Conservation Authority, but when feasible, partnerships with other groups or organizations will be relied upon to complete tasks. Building on existing partnerships and developing new partnerships is one of the objectives of this Management Plan. Some of the partnerships LSRCA is most interested in furthering are with King Township, the Greenbelt Foundation, and the University of Toronto Koffler Scientific Reserve (KSR). Koffler Scientific Reserve and Jokers Hill are owned and managed by the University of Toronto, and is the property adjacent to Thornton Bales Conservation Area that is connected by a trail. Since these two properties are connected, providing users with a consistent experience, through trail maintenance, signage, and level of management, would likely improve users experience while hiking the overall trail system.

Further developing LSRCA's relationship with KSR would be beneficial in developing more consistent approaches to addressing certain challenges, such as enforcement, trail maintenance, signage, etc. and developing a consistent approach to dealing with those challenges.

Increasing partnership opportunities with King Township and the Greenbelt Foundation would primarily be through in-kind work on the property, general trail monitoring and maintenance, inventorying signage, invasive species removals, and parking lot maintenance.

This section also includes investigating sponsorship opportunities, that has the goal of bringing in revenue that will be put back into the maintenance and management of Thornton Bales Conservation Area specifically. This sponsorship or donation program has yet to be developed, but will likely include a donation system, or a system where an individual may "sponsor" a piece of infrastructure or a sign, to aid in covering the costs of amenities that will be added to the property.

## Section IV: Business Plan

### Introduction

The purpose of a conservation area management plan is to establish long- and short-term goals for the management of the property, and identify priorities for implementation. The Business Plan component is a description and schedule of implementation priorities, coupled with projections of revenues and expenses over a five year period.

In addition to revenues and expenses, this Business Plan will identify potential funding sources and will provide guidance for LSRCA management in implementing the Thornton Bales Conservation Area Management Plan. To these ends, priorities for investing in amenities and infrastructure for the period of 2020 to 2024 have been identified (Table 2). The items listed in Table 2 are considered above the scope of regular maintenance and establish a proactive management approach, however, all activities including regular maintenance and monitoring are outlined in the Implementation Schedule.

**Table 2: Implementation Priorities**

<b>2020</b>	<ul style="list-style-type: none"> <li>• Update information on LSRCA’s website</li> <li>• Re-align the trail network</li> <li>• Develop and install new trail way-finding signs at trail intersections</li> <li>• Conduct a forest stand inventory</li> </ul>
<b>2021</b>	<ul style="list-style-type: none"> <li>• Install animal-proof garbage bins</li> <li>• Design and install new trail maps and kiosk</li> <li>• Host a volunteer day</li> </ul>
<b>2022</b>	<ul style="list-style-type: none"> <li>• Add interpretative signage to the conservation area</li> <li>• Conduct a Natural Heritage Inventory</li> <li>• Implement a parking fee at Thornton Bales Conservation Area</li> <li>• Implement Best Management Practices for forest stand health</li> </ul>
<b>2023</b>	<ul style="list-style-type: none"> <li>• Implement a no-smoking policy within the conservation area</li> <li>• Continue to add interpretative signage to the property</li> <li>• Find solutions to expand limited parking spaces</li> <li>• Implement Best Management Practices for forest stand health</li> </ul>
<b>2024</b>	<ul style="list-style-type: none"> <li>• Begin the 5 year Management Plan Evaluation and Review</li> <li>• Continue to implement Best Management Practices for forest stand health</li> <li>• Continue to host annual volunteer day</li> </ul>

## Budget Projection

The budget projection model predicts a five-year financial outlook for Thornton Bales Conservation Area. The model predicts the cost (both staff time and dollar value) to conduct all tasks listed in this management plan. It also includes the predicted revenue sources to fund these implementation objectives. Table 3 below breaks down the projected revenues and expenses required to implement the outlined objectives. It is estimated that to complete all the tasks listed in this management plan, it will cost a total of approximately \$79,800 over the five year period. It is also predicted that it will require a Full Time Equivalent (FTE) of 2.64 over the five years to adequately deal with this workload.

**Table 3: Balanced Projection of Revenues and Expenses**

\$	2020	2021	2022	2023	2024	Total
<b>Revenues</b>	\$13,600	\$15,330	\$16,140	\$20,210	\$14,520	<b>\$79,800</b>
<b>Expenses</b>	\$13,600	\$15,330	\$16,140	\$20,210	\$14,520	<b>\$79,800</b>

LSRCA will continue to make fiscally responsible management decisions for the conservation area, prioritize objectives and will implement them once the resources to complete them have been secured.

## Projected Expenses

Operational expenses at Thornton Bales Conservation Area have been divided into six categories: Administration, Asset Management/ Monitoring, Visitor Experience/ Management, Boundary Management, Natural Heritage Feature Management, and Partnership Development/ Engagement. Table 4 below shows the projected expenses for each category to implement the objectives in this Management Plan. It also includes the Full Time Equivalent (FTE) which considered the projected amount of staff time to implement the outlined tasks. The level of resources required varies annually, depending on the tasks outlined each year. More details regarding which tasks are scheduled for completion in specific years can be found in the Implementation Schedule or in Appendix A.

Although the expenses listed in this Business Plan are projected to be approximately \$79,800 this is subject to change as the true cost of equipment charge-outs are yet to be finalized. LSRCA is in the process of determining more representative charge-out costs for equipment in order to accurately incorporate their value over the lifetime of the piece of equipment. This management plan included lumped sum charge out costs for small equipment and large equipment. For the purposes of this management plan it was determined that the small equipment charge-out cost would be \$70 per day, for hand-held pieces of equipment such as string trimmers, chainsaws, pole saws, and other hand tools. Large equipment charge out rates were set at \$150 per day, which includes larger equipment such as the tractor, wood chipper, trailers, and the riding lawn mower. These rates were chosen based on other charge out costs from various municipal partners, as well as the cost of replacing a piece of equipment and how much usage it sees. LSRCA is looking into this with more detail in the upcoming months, and any changes in equipment charge out costs will be reflected in the management plan once the rates are finalized.

## Full Time Equivalent (FTE)

This budget projects that the implementation of all tasks associated with this management plan would require an FTE of 2.64 over the five year implementation period, from 2020 to 2024. The Conservation Lands division

currently has staff resources, and this projection fits within the scope of the work that can be completed in a calendar year, given there aren't other significant requirements at other conservation areas. The basis of including FTE in the Business Plan is to assist with annual work-planning, to understand the expectations being put on staff to complete all tasks for this management plan, and also to showcase how much staff time is involved with managing and maintaining a conservation area. This reference to FTE in the Business Plan is not a request for additional staff at this time. If there is a time when additional staff resources are required, a formal Business Case will be developed and submitted to LSRCA's Board of Directors, as per LSRCA protocol. Currently, salaries in the Conservation Lands division are funded through existing Municipal Levy.

**Table 4: Projected Annual Expenses per Category**

**Projected Annual Expenses and FTE Per Category**

5 Year Projection	2020		2021		2022		2023		2024	
	Project Expenses	FTE	Project Expenses	FTE	Project Expenses	FTE	Project Expenses	FTE	Project Expenses	FTE
Administration	\$1,330	0.09	\$1,340	0.08	\$1,760	0.1	\$1,800	0.09	\$3,810	0.5
Asset Management/ Monitoring	\$9,130	0.20	\$9,490	0.14	\$8,280	0.08	\$8,290	0.13	\$8,280	0.08
Visitor Experience/ Management	\$2,610	0.04	\$4,350	0.03	\$3,240	0.05	\$4,760	0.1	\$2,070	0.07
Boundary Management	\$170	0.02	\$0	0.01	\$0	0.01	\$0	0.01	\$0	0.01
Natural Heritage Features Management	\$210	0.06	\$0	0.06	\$2,710	0.13	\$210	0.06	\$210	0.06
Partnership Development/ Engagement	\$150	0.08	\$150	0.08	\$150	0.08	\$5,150	0.11	\$150	0.08
<b>Annual Totals</b>	<b>\$13,600</b>	<b>0.49</b>	<b>\$15,330</b>	<b>0.4</b>	<b>\$16,140</b>	<b>0.45</b>	<b>\$20,210</b>	<b>0.5</b>	<b>\$14,520</b>	<b>0.8</b>
5-year \$\$ Total:	<b>\$79,800</b>									
5-year FTE Total:	<b>2.64</b>									

## Projected Revenues

In order to implement any tasks, the resources to do so must first be identified and obtained. LSRCA will work with partners and existing identified budgets to source the funds required to implement the tasks identified in this Management Plan. Some of the primary funding sources and partners LSRCA will continue to look to for assistance (both financially and in-kind) are:

- Municipal levy
- Special capital
- Grants
- Greenbelt Foundation
- University of Toronto/ Jokers Hill
- Central Counties Tourism (RTO #6)
- King Township

Staff projections to achieve these implementation priorities also represent a workload increase, approximately ½ a staff person annually on average. Table 5 shows the proposed breakdown of projected revenue sources by each funding partner. Specific objectives were projected to be funded by specific sources based on the types of projects or items that source generally supports, or past activities that were successful in receiving funding in the past, representing which items that organization would likely be most interested in.

For a further breakdown of the items to be funded by each organization, please refer to the Implementation Schedule. Some of these items will be funded through in-kind work, or donations of staff time. These specific items have still been given a dollar amount to ensure the projected numbers accurately reflect how much it costs to manage and maintain this conservation area.

**Table 5: Projected Revenues Sources**

### **Projected Revenue Summary**

<b>Category</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>Category Total:</b>
Municipal Levy	\$3,820	\$3,760	\$3,920	\$3,260	\$5,150	<b>\$19,910</b>
Special Capital	\$1,980	\$3,970	\$1,920	\$6,850	\$570	<b>\$15,290</b>
Grants	\$400	\$200	\$2,900	\$1,700	\$400	<b>\$5,600</b>
Property Revenue (Sponsorship)	\$0	\$0	\$0	\$1,000	\$1,000	<b>\$2,000</b>
King Township (in-kind)	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400	<b>\$37,000</b>
<b>Total Revenues:</b>	<b>\$13,600</b>	<b>\$15,330</b>	<b>\$16,140</b>	<b>\$20,210</b>	<b>\$14,520</b>	<b>\$79,800</b>
<b>5 Year Total: \$79,800</b>						

### **Municipal Levy**

Funding received from LSRCA's municipal partners as Municipal Levy primarily supports operational administrative and overhead expenditures, including staff wages, and obligatory property management costs such as property taxes, insurance and vehicle mileage. This source also contributes to the management, maintenance and development program of conservation areas, which traditionally covers costs such as property management and monitoring, maintaining and improving infrastructure, and risk tree management.

The Municipal Levy requirements outlined in this Business Plan will continue to utilize existing Municipal Levy funds, and will not require additional funding from municipal partners; if it does a special Business Case will be developed in consultation with our Municipal partners.



## Special Capital

Special Capital funding from LSRCA's partner municipalities is used to advance programs and projects and will remain a very important part of the funding formula for Thornton Bales Conservation Area. Existing Special Capital will be utilized to replace, upgrade or construct major infrastructure such as the "99 Steps", boardwalks, trail surface, and viewing platforms.

Special Capital funding is already an existing funding portion being used to manage and maintain many conservation areas. The incorporation of this funding source is projected to continue to be included at Thornton Bales Conservation Area, based on priority projects across all Conservation Areas.

## University of Toronto/ Jokers Hill (in-kind contribution)

The University of Toronto owns the Koffler Scientific Reserve (KSR), and Jokers Hill which shares a property boundary with Thornton Bales Conservation Area, and is connected by a single trail. Working with staff at KSR will be done when planning for and implementing specific items within the Conservation Area, such as mapping and trail signage, the organization of volunteer days, and general trail maintenance.

## King Township

The contributions projected from King Township in this Management Plan will primarily be in-kind contributions. Many of the items already associated with King Township in this Management Plan are already occurring, and are predicted to continue throughout the implementation of this management plan.

## Greenbelt Foundation

The Greenbelt Foundation's funding program in 2019 was devoted to supporting organizations to: advance municipal natural asset management; support development activities in nature or culture-based recreation and tourism, and to protect biodiversity by identifying important natural cores and connectivity corridors between the Greenbelt and the broader southern Ontario landscape.

A number of objectives that are outlined in the Implementation Schedule would qualify for some funding from the Greenbelt Foundation, based on the above criteria. Although funding programs change annually, it is anticipated that this one will still broadly target very similar, if not the same, types of projects. Therefore, the Greenbelt Foundation has not been associated with any specific projects within this Business Plan, but if funding opportunities are presented throughout the implementation of this management plan, they will be strongly considered.

## Parking Fee Revenue

It is anticipated that in 2022, once more amenities such as signage and mapping are available, a parking fee will be implemented at the parking lot located off 19<sup>th</sup> Sideroad. This revenue will be used to continue managing the property and meeting LSRCA's Maintenance Standards<sup>45</sup>. Revenue amounts for parking fees have not been included in the Business Plan as projected revenue because it is very challenging to accurately project how much revenue from parking would be collected.

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<sup>45</sup> LSRCA (2016a)

### **Sponsorship Revenue**

LSRCA will be working towards developing, refining and implementing a donation or sponsorship program targeting its conservation areas, including Thornton Bales. This will allow members of the public to either donate any amount to the property, or to sponsor a specific item, such as a trail sign or a step, for a set fee. These funds will go directly back into the maintenance and management of the property.

A goal of raising \$1000 in both 2023 and 2024 through this sponsorship or donation program has been set to provide a target that will be worked towards. This targeted revenue has been included in the Projected Revenue portion of the Business Plan as “Property Revenue.”

### **Grant Funding**

Each year there are new grants or funding opportunities available, which vary widely in their purpose, goal, scope, and eligibility requirements. LSRCA has taken advantage of these opportunities in the past, and will continue to look for them, and apply to them when qualified to do so. Some of the grants which the Conservation Lands department has applied to in the past, and have been successful in receiving, include the Trans Canada Trail, Greenbelt Foundation, Ontario Trails Council, Ontario Trillium Foundation, Provincial Infrastructure funding, and more. Since these funding sources are typically not made publicly available in advance of them being released, it makes planning for revenue from these sources challenging. However, LSRCA will continue seeking appropriate and applicable funding sources to apply to in order to gather the funds required to complete specific tasks.

## Implementation Schedule: 2020 – 2024

The Lake Simcoe Region Conservation Authority staff will implement, as resources permit, the objectives and tasks identified in the Thornton Bales Conservation Area Management Plan as described below.

### 2020

#### Administration

Projected FTE to implement all Administration tasks is 0.09.

#### Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$265
- Projected funding source: Municipal Levy

#### Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$145
- Projected funding source: Municipal Levy

#### Implementation Tracking

- Review and adjust the Implementation Schedule and track progress that has been made
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Review Agreements

- Review all agreements relating to the property and ensure they're updated and in good standing
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Formal Agreement Monitoring

- Monitor and review existing agreements to ensure all parties involved are completing their required tasks
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Update information about Thornton Bales CA on LSRCA website

- Review and update information regarding Thornton Bales on LSRCA's website
- Conservation Lands and Communication will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from Thornton Bales Conservation Area
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$920
- Projected funding source: Municipal Levy
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**Asset Management/ Monitoring**

Projected FTE to implement all Asset Management/ Monitoring tasks is 0.20.

**Realign trail network around the wet area**

- Realign the trail network to avoid the ecologically sensitive wet area
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$600
- Projected funding source: Special Capital

**Develop a “Trail Closure” Protocol**

- Develop a protocol to close the trails when deemed necessary and appropriate, such as for dangerous or risky trail conditions
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated capital cost: \$250
- Projected funding source: Special Capital

**Install Trail Counters**

- Install and monitor trail counters to gain a deeper understanding of how many users visit the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$250
- Projected funding source: Grants

**Risk Tree Management**

- Conduct Level 1 Assessments of the parking lot and kiosk area as outlined in the Risk Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

**Designated Mowed Areas**

- Continue to maintain and mow designated areas in accordance with the Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$420
- Projected funding source: Municipal Levy

**Waste Removal**

- Continue to conduct regular maintenance and removals of garbage from the bin located in the parking lot
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

**Parking Lot Maintenance**

- Continue winter maintenance of the parking lot
- Township of King will be responsible for achieving this objective
- Estimated capital cost: \$7,400
- Projected funding source: King Township (in-kind)

**Conduct regular due diligence inspections**

- Continue to conduct regular due diligence inspections in alignment with LSRCA’s Maintenance Guidelines

- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

### Visitor Experience/ Management

Projected FTE to implement all Visitor Experience/ Management tasks is 0.04.

#### Rent port-a-potties seasonally

- Pilot a program to rent port-a-potties seasonally to provide washroom facilities at Thornton Bales with minimal additional work required by LSRCA
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,650
- Projected funding source: Municipal Levy

#### Develop and install new trail signs

- Install trail signs at intersections to direct users and keep them on the sanctioned trails
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$640
- Projected funding source: Special Capital

#### Develop Emergency Information signage

- Develop and install an emergency information signage
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$320
- Projected funding source: Special Capital

### Boundary Management

Projected FTE to implement all Boundary Management tasks is 0.02.

#### Sign property boundaries

- Install signage at property boundaries to inform users they are entering or leaving LSRCA property
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated capital cost: \$170
- Projected funding source: Special Capital

#### Annual encroachment monitoring

- Monitor property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

### Natural Heritage Feature Management

Projected FTE to implement all Natural Heritage Feature Management tasks is 0.06.

#### Conduct a stand inventory

- Conduct an inventory of the forest stand to determine tree species and succession
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$210
- Projected funding source: Municipal Levy

#### Monitor for terrestrial invasive plant species

- Conduct annual monitoring for terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Conduct removals of terrestrial invasive plant species**

- Conduct physical removals of terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Partnership Development/ Engagement**

Projected FTE to implement all Partnership Development/ Engagement tasks is 0.08.

**Work with King Township to determine maintenance schedules**

- Work with King Township on a number of items, primarily to build relationship and discuss maintaining the property with other partners
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Host a volunteer day**

- Hold a volunteer day for the public to clean up and aid in maintaining the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Grants

**Develop and implement a consistent approach to enforcement**

- Work with partners to develop a consistent approach to enforcement
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

**Investigate potential sponsorship opportunities**

- Work to create or support sponsorship opportunities relating to Thornton Bales
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

## 2021

### Administration

Projected FTE to implement all Administration tasks is 0.08.

#### Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$275
- Projected funding source: Municipal Levy

#### Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Municipal Levy

#### Implementation Tracking

- Review and adjust the Implementation Schedule and track progress that has been made
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Formal Agreement Monitoring

- Monitor and review existing agreements to ensure all parties involved are completing their required tasks
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Education/ Awareness Campaigns

- Implement educational campaigns targeting conservation area users to reduce impacts to the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Special Capital

#### Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from Thornton Bales Conservation Area
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$780
- Projected funding source: Municipal Levy

### Asset Management/ Monitoring

Projected FTE to implement all Asset Management/ Monitoring tasks is 0.14.

#### Maintain Trail Counters

- Maintain monitor trail counters to gain a deeper understanding of how many users visit the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$50
- Projected funding source: Grants

#### Install animal-proof garbage bins

- Install animal proof garbage containers to reduce garbage being consumed by animals and spread around
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,200
- Projected funding source: Special Capital

#### **Risk Tree Management**

- Conduct Level 1 Assessments of the parking lot, kiosk area, and all sanctioned trails as outlined in the Risk Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$280
- Projected funding source: Municipal Levy

#### **Designated Mowed Areas**

- Continue to maintain and mow designated areas in accordance with the Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$420
- Projected funding source: Municipal Levy

#### **Waste Removal**

- Continue to conduct regular maintenance and removals of garbage from the bin located in the parking lot
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

#### **Parking Lot Maintenance**

- Continue winter maintenance of the parking lot
- Township of King will be responsible for achieving this objective
- Estimated capital cost: \$7,400
- Projected funding source: King Township (in-kind)

#### **Conduct regular due diligence inspections**

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

#### **Visitor Experience/ Management**

Projected FTE to implement all Visitor Experience/ Management tasks is 0.03.

#### **Rent port-a-potties seasonally**

- Pilot a program to rent port-a-potties seasonally to provide washroom facilities at Thornton Bales with minimal additional work required by LSRCA
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,730
- Projected funding source: Municipal Levy

#### **Develop and install new trail map and kiosk sign**



- Design and install new trail map and head of trails kiosk sign
- Conservation Lands and Communications will be responsible for achieving this objective
- Estimated capital cost: \$2,620
- Projected funding source: Special Capital

### **Boundary Management**

Projected FTE to implement all Boundary Management tasks is 0.01.

#### **Annual encroachment monitoring**

- Monitor property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

### **Natural Heritage Feature Management**

Projected FTE to implement all Natural Heritage Feature Management tasks is 0.06.

#### **Develop a strategy for forest management based on stand inventory results**

- Develop a strategy on how to best manage the forest stand, based on stand inventory results
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal
- Projected funding source: Municipal Levy

#### **Monitor for terrestrial invasive plant species**

- Conduct annual monitoring for terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### **Conduct removals of terrestrial invasive plant species**

- Conduct physical removals of terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

### **Partnership Development/ Engagement**

Projected FTE to implement all Partnership Development/ Engagement tasks is 0.08.

#### **Work with King Township to determine maintenance schedules**

- Work with King Township on a number of items, primarily to build relationship and discuss maintaining the property with other partners
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### **Host a volunteer day**

- Hold a volunteer day for the public to clean up and aid in maintaining the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Grants

#### **Develop and implement a consistent approach to enforcement**

- Work with partners to develop a consistent approach to enforcement
- Conservation Lands will be responsible for achieving this objective with partners

- Estimated capital cost: Nominal

**Investigate potential sponsorship opportunities**

- Work to create or support sponsorship opportunities relating to Thornton Bales
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

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## 2022

### Administration

Projected FTE to implement all Administration tasks is 0.10.

### Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$285
- Projected funding source: Municipal Levy

### Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$155
- Projected funding source: Municipal Levy

### Implementation Tracking

- Review and adjust the Implementation Schedule and track progress that has been made
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

### Formal Agreement Monitoring

- Monitor and review existing agreements to ensure all parties involved are completing their required tasks
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

### Implement parking fee system

- Implement a pay to park fee system at the parking lot off 19<sup>th</sup> Sideroad
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$350
- Projected funding source: Special Capital

### Update information about Thornton Bales CA on LSRCA website

- Review and update information regarding Thornton Bales on LSRCA's website
- Conservation Lands and Communication will be responsible for achieving this objective
- Estimated capital cost: Nominal

### Education/ Awareness Campaigns

- Implement educational campaigns targeting conservation area users to reduce impacts to the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Special Capital

### Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from Thornton Bales Conservation Area
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$780
- Projected funding source: Municipal Levy

### Asset Management/ Monitoring

Projected FTE to implement all Asset Management/ Monitoring tasks is 0.08.

#### Maintain Trail Counters

- Maintain and monitor trail counter to gain a deeper understanding of how many users visit the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$250
- Projected funding source: Grants

#### Risk Tree Management

- Conduct Level 1 Assessments of the parking lot and kiosk area as outlined in the Risk Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

#### Designated Mowed Areas

- Continue to maintain and mow designated areas in accordance with the Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$420
- Projected funding source: Municipal Levy

#### Waste Removal

- Continue to conduct regular maintenance and removals of garbage from the bin located in the parking lot
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

#### Parking Lot Maintenance

- Continue winter maintenance of the parking lot
- Township of King will be responsible for achieving this objective
- Estimated capital cost: \$7,400
- Projected funding source: King Township (in-kind)

#### Conduct regular due diligence inspections

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

### Visitor Experience/ Management

Projected FTE to implement all Visitor Experience/ Management tasks is 0.05.

#### Rent port-a-potties seasonally

- Pilot a program to rent port-a-potties seasonally to provide washroom facilities at Thornton Bales with minimal additional work required by LSRCA
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,820
- Projected funding source: Municipal Levy

**Develop and add interpretative signage**

- Design and install interpretative signs throughout the property
- Conservation Lands and Communications will be responsible for achieving this objective
- Estimated capital cost: \$1,350
- Projected funding source: Special Capital

**Maintain Emergency Information signage**

- Replace emergency information signage as necessary
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Special Capital

**Boundary Management**

Projected FTE to implement all Boundary Management tasks is 0.01.

**Annual encroachment monitoring**

- Monitor property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Natural Heritage Feature Management**

Projected FTE to implement all Natural Heritage Feature Management tasks is 0.13.

**Implement stand best management practices**

- Implement the best management practices to promote and protect stand ecological integrity
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$210
- Projected funding source: Municipal Levy

**Monitor for terrestrial invasive plant species**

- Conduct annual monitoring for terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Conduct removals of terrestrial invasive plant species**

- Conduct physical removals of terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Conduct a Natural Heritage Inventory**

- Conduct a Natural Heritage Inventory, including breeding birds, vegetation inventory (ELC), and breeding amphibians
- Conservation Lands and Natural Heritage Ecologists will be responsible for achieving this objective
- Estimated capital cost: \$2,500
- Projected funding source: Grants

**Partnership Development/ Engagement**

Projected FTE to implement all Partnership Development/ Engagement tasks is 0.08.

**Work with King Township to determine maintenance schedules**

- Work with King Township on a number of items, primarily to build relationship and discuss maintaining the property with other partners
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Host a volunteer day**

- Hold a volunteer day for the public to clean up and aid in maintaining the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Grants

**Develop and implement a consistent approach to enforcement**

- Work with partners to develop a consistent approach to enforcement
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

**Investigate potential sponsorship opportunities**

- Work to create or support sponsorship opportunities relating to Thornton Bales
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

## 2023

### Administration

Projected FTE to implement all Administration tasks is 0.09.

#### Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$295
- Projected funding source: Municipal Levy

#### Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$160
- Projected funding source: Municipal Levy

#### Implementation Tracking

- Review and adjust the Implementation Schedule and track progress that has been made
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Formal Agreement Monitoring

- Monitor and review existing agreements to ensure all parties involved are completing their required tasks
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

#### Maintain/ Implement a parking fee system

- Implement a pay to park fee system at the parking lot off 19<sup>th</sup> Sideroad
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$350
- Projected funding source: Special Capital

#### Education/ Awareness Campaigns

- Implement educational campaigns targeting conservation area users to reduce impacts to the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Special Capital

#### Mileage for Fleet Vehicles

- Cover the costs of fleet vehicles driving to and from Thornton Bales Conservation Area
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$830
- Projected funding source: Municipal Levy

### Asset Management/ Monitoring

Projected FTE to implement all Asset Management/ Monitoring tasks is 0.13.

#### Maintain Trail Counters

- Maintain and monitor trail counter to gain a deeper understanding of how many users visit the property

- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$50
- Projected funding source: Grants

#### **Risk Tree Management**

- Conduct Level 1 Assessments of the parking lot, kiosk area, and sanctioned trails as outlined in the Risk Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$280
- Projected funding source: Municipal Levy

#### **Designated Mowed Areas**

- Continue to maintain and mow designated areas in accordance with the Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$420
- Projected funding source: Municipal Levy

#### **Waste Removal**

- Continue to conduct regular maintenance and removals of garbage from the bin located in the parking lot
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

#### **Parking Lot Maintenance**

- Continue winter maintenance of the parking lot
- Township of King will be responsible for achieving this objective
- Estimated capital cost: \$7,400
- Projected funding source: King Township (in-kind)

#### **Conduct regular due diligence inspections**

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

#### **Visitor Experience/ Management**

Projected FTE to implement all Visitor Experience/ Management tasks is 0.01.

#### **Implement smoking ban within the conservation area**

- Ban smoking within the conservation area, based on recent feedback and to reduce litter throughout the conservation area
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,500
- Projected funding source: Grants

#### **Rent port-a-potties seasonally**

- Pilot a program to rent port-a-potties seasonally to provide washroom facilities at Thornton Bales with minimal additional work required by LSRCA



- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,910
- Projected funding source: Municipal Levy

**Develop and add interpretative signage**

- Design and install interpretative signs throughout the property
- Conservation Lands and Communications will be responsible for achieving this objective
- Estimated capital cost: \$1,350
- Projected funding source: Special Capital

**Boundary Management**

Projected FTE to implement all Boundary Management tasks is 0.01.

**Annual encroachment monitoring**

- Monitor property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Natural Heritage Feature Management**

Projected FTE to implement all Natural Heritage Feature Management tasks is 0.06.

**Implement stand best management practices**

- Implement the best management practices to promote and protect stand ecological integrity
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$210
- Projected funding source: Municipal Levy

**Monitor for terrestrial invasive plant species**

- Conduct annual monitoring for terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Conduct removals of terrestrial invasive plant species**

- Conduct physical removals of terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Partnership Development/ Engagement**

Projected FTE to implement all Partnership Development/ Engagement tasks is 0.11.

**Work with King Township to determine maintenance schedules**

- Work with King Township on a number of items, primarily to build relationship and discuss maintaining the property with other partners
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Host a volunteer day**

- Hold a volunteer day for the public to clean up and aid in maintaining the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150

- Projected funding source: Grants

**Develop and implement a consistent approach to enforcement**

- Work with partners to develop a consistent approach to enforcement
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

**Work with partners to add more parking spaces at the Joker's Hill lot**

- Work with partners to formalize parking and add more spaces to the Joker's Hill lot off Bathurst
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: \$5000
- Projected funding source: Special Capital

**Investigate potential sponsorship opportunities**

- Work to create or support sponsorship opportunities relating to Thornton Bales
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

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## 2024

### Administration

Projected FTE to implement all Administration tasks is 0.50.

### Insurance

- Continue to pay insurance
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$305
- Projected funding source: Municipal Levy

### Property Taxes

- Continue to pay municipal property taxes
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$165
- Projected funding source: Municipal Levy

### Implementation Tracking

- Review and adjust the Implementation Schedule and track progress that has been made
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

### Five Year Management Plan Review and Update

- Review the implementation status of this management plan, and begin developing a new one
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,500
- Projected funding source: Municipal Levy

### Formal Agreement Monitoring

- Monitor and review existing agreements to ensure all parties involved are completing their required tasks
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

### Maintain parking fee system

- Implement a pay to park fee system at the parking lot off 19<sup>th</sup> Sideroad
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$350
- Projected funding source: Special Capital

### Update information about Thornton Bales CA on LSRCA website

- Review and update information regarding Thornton Bales on LSRCA's website
- Conservation Lands and Communication will be responsible for achieving this objective
- Estimated capital cost: Nominal

### Education/ Awareness Campaigns

- Implement educational campaigns targeting conservation area users to reduce impacts to the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Special Capital

### **Mileage for Fleet Vehicles**

- Cover the costs of fleet vehicles driving to and from Thornton Bales Conservation Area
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$1,335
- Projected funding source: Municipal Levy

### **Asset Management/ Monitoring**

Projected FTE to implement all Asset Management/ Monitoring tasks is 0.08.

### **Maintain Trail Counters**

- Maintain and monitor trail counter to gain a deeper understanding of how many users visit the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$250
- Projected funding source: Grants

### **Risk Tree Management**

- Conduct Level 1 Assessments of the parking lot and kiosk area as outlined in the Risk Tree Policy
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

### **Designated Mowed Areas**

- Continue to maintain and mow designated areas in accordance with the Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$420
- Projected funding source: Municipal Levy

### **Waste Removal**

- Continue to conduct regular maintenance and removals of garbage from the bin located in the parking lot
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

### **Parking Lot Maintenance**

- Continue winter maintenance of the parking lot
- Township of King will be responsible for achieving this objective
- Estimated capital cost: \$7,400
- Projected funding source: King Township (in-kind)

### **Conduct regular due diligence inspections**

- Continue to conduct regular due diligence inspections in alignment with LSRCA's Maintenance Guidelines
- Conservation Lands will be responsible for achieving this objective with various partners
- Estimated capital cost: \$70
- Projected funding source: Municipal Levy

### **Visitor Experience/ Management**

Projected FTE to implement all Visitor Experience/ Management tasks is 0.07.

**Enforce the smoking ban within the conservation area**

- Enforce the smoking ban within the conservation area, explain to users why this ban was implemented
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Rent port-a-potties seasonally**

- Pilot a program to rent port-a-potties seasonally to provide washroom facilities at Thornton Bales with minimal additional work required by LSRCA
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$2,000
- Projected funding source: Municipal Levy

**Maintain Emergency Information signage**

- Replace emergency information signage as necessary
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$70
- Projected funding source: Special Capital

**Boundary Management**

Projected FTE to implement all Boundary Management tasks is 0.01.

**Annual encroachment monitoring**

- Monitor property boundaries for encroachments and any destructive activities
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Natural Heritage Feature Management**

Projected FTE to implement all Natural Heritage Feature Management tasks is 0.06.

**Implement stand best management practices**

- Implement the best management practices to promote and protect stand ecological integrity
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$210
- Projected funding source: Municipal Levy

**Monitor for terrestrial invasive plant species**

- Conduct annual monitoring for terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Conduct removals of terrestrial invasive plant species**

- Conduct physical removals of terrestrial invasive plant species
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Partnership Development/ Engagement**

Projected FTE to implement all Partnership Development/ Engagement tasks is 0.08.

**Work with King Township to determine maintenance schedules**

- Work with King Township on a number of items, primarily to build relationship and discuss maintaining the property with other partners

- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: Nominal

**Host a volunteer day**

- Hold a volunteer day for the public to clean up and aid in maintaining the property
- Conservation Lands will be responsible for achieving this objective
- Estimated capital cost: \$150
- Projected funding source: Grants

**Develop and implement a consistent approach to enforcement**

- Work with partners to develop a consistent approach to enforcement
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

**Investigate potential sponsorship opportunities**

- Work to create or support sponsorship opportunities relating to Thornton Bales
- Conservation Lands will be responsible for achieving this objective with partners
- Estimated capital cost: Nominal

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## Appendices

Appendix A: Excel spreadsheet of Implementation items, projected costs, and timelines

**Appendix A: Implementation Items and Projected Expenses (\$\$ and FTE)**

**Thornton Bales Business Plan: Items by Category**

Category	2020		2021		2022		2023		2024	
	\$	FTE	\$	FTE	\$	FTE	\$	FTE	\$	FTE
<b>Administration</b>										
<b>Annual Items</b>										
Insurance	\$265	0.01	\$275	0.01	\$285	0.01	\$295	0.01	\$305	0.01
Property Taxes	\$145	0.01	\$150	0.01	\$155	0.01	\$160	0.01	\$165	0.01
Implementation tracking	\$0	0.03	\$0	0.03	\$0	0.03	\$0	0.03	\$0	0.03
5 year MP review and update	~~	~~	~~	~~	~~	~~	~~	~~	\$1,500	0.40
<b>Agreements</b>										
Review and update agreements relating to property	\$0	0.02	~~	~~	~~	~~	~~	~~	~~	~~
Formal Agreement monitoring (to occur annually)	\$0	0.01	\$0	0.01	\$0	0.01	\$0	0.01	\$0	0.01
<b>Parking Fee Implementation</b>										
Implement a parking fee system at Thornton Bales to generate additional revenue	~~	~~	~~	~~	\$350	0.01	\$350	0.01	\$350	0.01
<b>Communication &amp; Marketing</b>										
Update info on LSRCA's website	\$0	0.01	~~	~~	\$0	0.01	~~	~~	\$0	0.01
Communication/ Education Campaigns	~~	~~	\$150	0.02	\$150	0.02	\$150	0.02	\$150	0.02
<b>Mileage</b>	\$920		\$765		\$820		\$845		\$1,340	
<b>TOTAL:</b>	<b>\$1,330</b>	<b>0.09</b>	<b>\$1,340</b>	<b>0.08</b>	<b>\$1,760</b>	<b>0.1</b>	<b>\$1,800</b>	<b>0.09</b>	<b>\$3,810</b>	<b>0.50</b>
<b>Asset Management/ Monitoring</b>										
<b>Trails</b>										
Re-align trail network around the wet area at the footbridge	\$600	0.10	~~	~~	~~	~~	~~	~~	~~	~~

Develop a "Trail Closure" protocol	\$250	0.02	~~	~~	~~	~~	~~	~~	~~	~~
Install Trail Counters	\$250	0.01	\$50	0.01	\$250	0.01	\$50	0.01	\$250	0.01
<b>CA Improvements</b>										
Install animal-proof garbage bins	~~	~~	\$1,200	\$0	~~	~~	~~	~~	~~	~~
<b>Maintenance</b>										
Risk Tree Management	\$70	0.01	\$280	0.06	\$70	0.01	\$280	0.06	\$70	0.01
Designated Mowed Area Maintenance	\$420	0.02	\$420	0.02	\$420	0.02	\$420	0.02	\$420	0.02
Waste Removal	\$70	0.01	\$70	0.01	\$70	0.01	\$70	0.01	\$70	0.01
Parking Lots, Roads, and Walkways	\$7,400	0.02	\$7,400	0.02	\$7,400	0.02	\$7,400	0.02	\$7,400	0.02
Due Diligence Inspection	\$70	0.01	\$70	0.01	\$70	0.01	\$70	0.01	\$70	0.01
<b>TOTAL:</b>	<b>\$9,130</b>	<b>0.20</b>	<b>\$9,490</b>	<b>0.14</b>	<b>\$8,280</b>	<b>0.08</b>	<b>\$8,290</b>	<b>0.13</b>	<b>\$8,280</b>	<b>0.08</b>
<b>Visitor Experience/ Management</b>										
<b>Smoking</b>										
Ban smoking within conservation area	~~	~~	~~	~~	~~	~~	\$1,500	0.06	~~	~~
Enforce smoking policy on CA property	~~	~~	~~	~~	~~	~~	~~	~~	\$0	0.05
<b>Washrooms</b>										
Rent port-a-potties seasonally	\$1,650	0.01	\$1,730	0.01	\$1,820	0.01	\$1,910	0.01	\$2,000	0.01
<b>Signage Strategy</b>										
Design and install new trail maps and kiosk	~~	~~	\$2,620	0.02	~~	~~	~~	~~	~~	~~
Add interpretative signage	~~	~~	~~	~~	\$1,350	0.03	\$1,350	0.03	~~	~~
Develop and install new trail signs at trail intersections	\$640	0.02	~~	~~	~~	~~	~~	~~	~~	~~
Emergency information signage	\$320	0.01	~~	~~	\$70	0.01	~~	~~	\$70	0.01
<b>TOTAL:</b>	<b>\$2,610</b>	<b>0.04</b>	<b>\$4,350</b>	<b>0.03</b>	<b>\$3,240</b>	<b>0.05</b>	<b>\$4,760</b>	<b>0.1</b>	<b>\$2,070</b>	<b>0.07</b>
<b>Boundary Management</b>										
Mark/ sign property boundary (entering/ exiting property)	\$170	0.01	~~	~~	~~	~~	~~	~~	~~	~~

Annual monitoring for encroachments and destructive activity	\$0	0.01	\$0	0.01	\$0	0.01	\$0	0.01	\$0	0.01
<b>TOTAL:</b>	<b>\$170</b>	<b>0.02</b>	<b>\$0</b>	<b>0.01</b>	<b>\$0</b>	<b>0.01</b>	<b>\$0</b>	<b>0.01</b>	<b>\$0</b>	<b>0.01</b>
<b>Natural Heritage Features Management</b>										
<b>Forest Management</b>										
Conduct a stand inventory	\$210	0.03	~~	~~	~~	~~	~~	~~	~~	~~
Develop a strategy for forest management, based on stand inventory results	~~	~~	\$0	0.03	~~	~~	~~	~~	~~	~~
Implement best management practices to promote and protect stand ecological integrity, mitigate tree risk, and promote tree stand health	~~	~~	~~	~~	\$210	\$0	\$210	\$0	\$210	\$0
<b>Invasive Species</b>										
Conduct monitoring of terrestrial invasive species	\$0	0.01	\$0	0.01	\$0	0.01	\$0	0.01	\$0	0.01
Conduct removals of GM, DSV, and other invasive plants	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02
<b>Natural Heritage Inventory</b>										
Conduct a NHI, including breeding birds, vegetation inventory (ELC), and breeding amphibians	~~	~~	~~	~~	\$2,500	0.07	~~	~~	~~	~~
<b>TOTAL:</b>	<b>\$210</b>	<b>0.06</b>	<b>\$0</b>	<b>0.06</b>	<b>\$2,710</b>	<b>0.13</b>	<b>\$210</b>	<b>0.06</b>	<b>\$210</b>	<b>0.06</b>
<b>Partnership Development/Engagement</b>										
Work with King Township to determine maintenance schedules and additional items	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02

Host volunteer day for the public with other partners	\$150	0.02	\$150	0.02	\$150	0.02	\$150	0.02	\$150	0.02
Develop and implement an agreement or consistent approach to enforce rules/ regulations	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02
Work with partners to add more parking spaces at the Joker's Hill lot	~~	~~	~~	~~	~~	~~	\$5,000	0.03	~~	~~
Investigate potential sponsorship opportunities	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02	\$0	0.02
<b>TOTAL:</b>	<b>\$150</b>	<b>0.08</b>	<b>\$150</b>	<b>0.08</b>	<b>\$150</b>	<b>0.08</b>	<b>\$5,150</b>	<b>0.11</b>	<b>\$150</b>	<b>0.08</b>
<b>TOTALS:</b>	<b>\$13,600</b>	<b>0.49</b>	<b>\$15,330</b>	<b>0.40</b>	<b>\$16,140</b>	<b>0.45</b>	<b>\$20,210</b>	<b>0.50</b>	<b>\$14,520</b>	<b>0.80</b>
<b>5-year Total:</b>	<b>\$79,800</b>									
<b>5-year FTE Total:</b>	<b>2.64</b>									0.00