

## Tiffany Falls Conservation Area Visitor Use Management Plan

This plan follows the framework outlined in the Visitor Use Management (VUM) Framework guide developed by the Interagency Visitor Use Management Council in the United States.

## **Framework Contents**

Area D	Description	. 1
Visitor	Use Management Framework	. 4
The Sli	iding Scale of Analysis	. 4
Part 1	- Build the Foundation	. 5
1.	Clarify project purpose and need	5
2.	Review the area's purpose and applicable legislation, policies and management direction	8
3.	Assess and summarize existing information and current conditions	11
4.	Develop a project action plan	17
Part 2	- Define Visitor Use Management Direction	18
5.	Define the desired conditions for the project area	18
6.	Define appropriate visitor activities, facilities and services	20
7.	Select indicators and establish thresholds	21
Part 3	- Identify Management Strategies	22
8.	Compare and document the differences between existing and desired conditions, and, for visitor use-related impacts, clarify the specific links to visitor use characteristics	
9.	Identify visitor use management strategies and actions to achieve desired conditions	23
10.	Where necessary, identify visitor capacities and additional strategies to manage use levels with capacities	
11.	Develop a monitoring strategy	33
Part 4	- Implement, Monitor, Evaluate and Adjust	34
12.	Implement management actions	34
13.	Conduct and document ongoing monitoring, and evaluate the effectiveness of management actions in achieving desired conditions	35
14.	Adjust management actions if needed to achieve desired conditions and document rationale	35

## **Area Description**

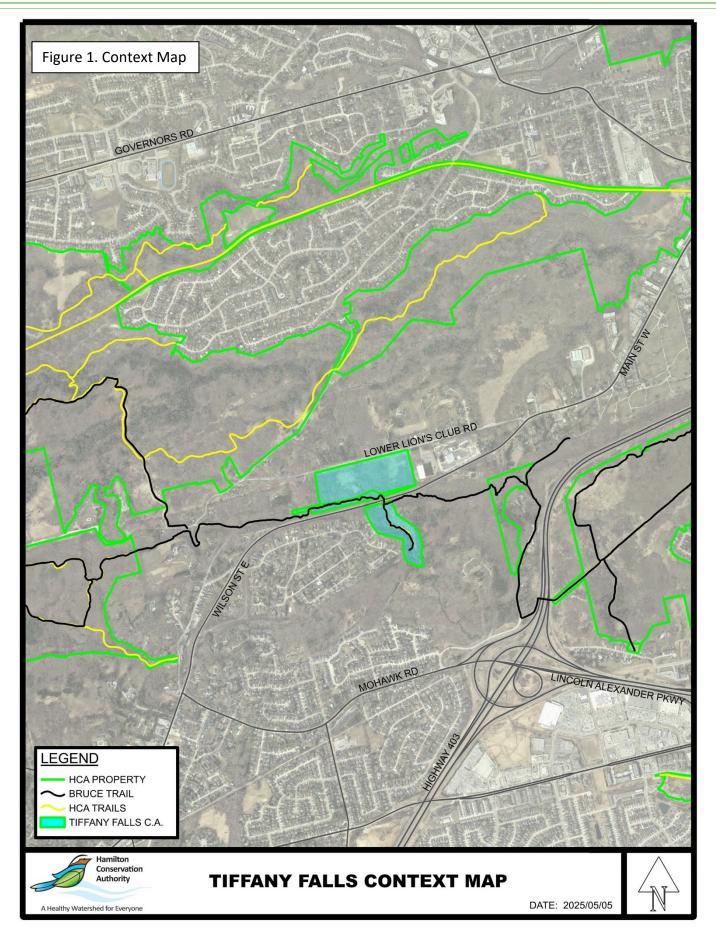
Tiffany Falls Conservation Area is a popular natural area and waterfall viewing destination located in Ancaster, Ontario. The area is owned and managed by the Hamilton Conservation Authority. This small conservation area is closely connected with the larger Dundas Valley Conservation Area and located along the route of the Iroquoia Section of the Bruce Trail. This small conservation area provides an opportunity for visitors to connect with nature in a unique environment that for many, is close to home. There are great opportunities here for the HCA to educate visitors on the significance of this site and the greater ecological system that it is a part of.

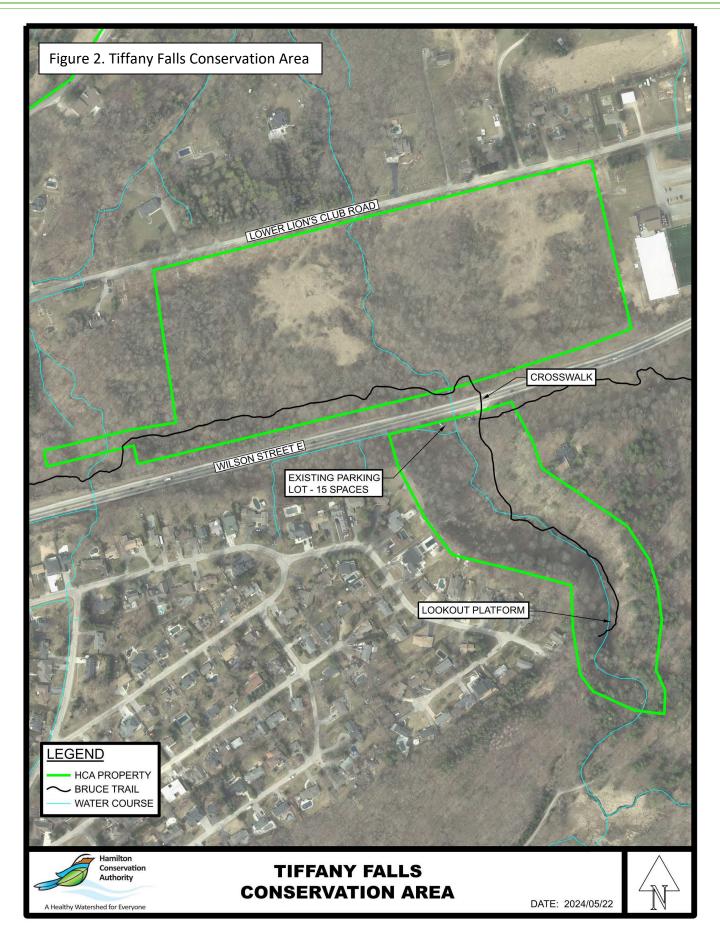
Tiffany Falls is made up of two properties on either side of Wilson Street East. The property south of Wilson Street (Tiffany Falls) is 5.24 Ha in size and has a 15-car parking lot, trailhead signage and a trail to a small lookout platform at the base of the waterfall. The property north of Wilson Street (Lower Lion's Club Road property) is 12.55 Ha and has no amenities for visitors. The properties are connected by the Bruce Trail at a pedestrian crossing on Wilson Street.

The Tiffany Falls property south of Wilson Street was acquired by the HCA in 1968. A narrow parcel was purchased on the north side of Wilson Street in 1991, and the larger Lower Lion's Club Road property was acquired by the HCA in 2015. The property south of Wilson Street is entirely within the Tiffany Falls Environmentally Significant Area (ESA) as outlined in the City of Hamilton Rural Official Plan. The Lower Lions Club property is mostly within the ESA, with the exception of an area that historically had been developed and is now a regenerating field. Both properties are entirely within the Niagara Escarpment Plan Area of Development Control.

Tiffany Falls is a very small conservation area located in an urban area. It has been a well-known waterfall viewing spot for decades. The parking payment machine has recorded an average of 14,217 transactions per year over the past 5 years. This does not include additional visitors with membership passes and non-paying visitors. The area is facing pressures from visitor use as a result of its location and its popularity. The quality of the visitor experience, the management of the area and the ecological conditions are being negatively impacted. The intent of this Visitor Use Management Plan is to develop strategies and actions that can be implemented to better manage visitor use of the site and improve existing conditions.







## Visitor Use Management Framework

This Visitor Use Management Plan follows the framework established by the Interagency Visitor Use Management Council in 2016. This Council is comprised of United States agencies including the Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, National Oceanic and Atmospheric Administration, and the U.S. Army Corps of Engineers (Visitor Use Management Framework, July 2016). More information on the VUM Framework can be found here: <a href="https://visitorusemanagement.nps.gov/VUM/Framework">https://visitorusemanagement.nps.gov/VUM/Framework</a>. The framework was created to provide guidance for analyzing and managing visitor use and developing a transparent decision-making process. The framework is meant to be adaptable for different agencies' policies and regulations, and scalable for use with a variety of natural areas and projects.

## The Sliding Scale of Analysis

The sliding scale of analysis is used to determine the appropriate level of analysis required to adequately address visitor use management issues and opportunities. This allows agencies to determine the appropriate investment of time, money and other resources to match the complexity or significance of the project and the consequences of the decision. The 14-step framework process does not vary with project complexity, all of the framework steps still apply. The framework encourages above all the use of professional judgement in determining the level of analysis and investment. HCA staff internally reviewed this VUM Plan with a sliding scale of analysis in the preliminary stages of the project.



### Part 1 - Build the Foundation

### 1. Clarify project purpose and need

The purpose of this plan is to improve visitation management at Tiffany Falls Conservation Area in order to ensure visitor safety, a quality visitor experience, and protection of this natural area. Current visitor use levels and patterns at Tiffany Falls are having a negative impact on the visitor experience, the ability of HCA staff to effectively manage the area, and on the ecology and natural spaces.

Visitor safety is the main concern for the HCA at Tiffany Falls. This is largely due to the layout and location of the parking lot on the busy Wilson Street East, and the entrance and exit having limited sightlines into and out of the lot. Vehicles trying to enter and exit the parking lot disrupt traffic on Wilson Street, especially during busy or peak visitation times.

Vehicles do not always follow the intended parking layout, especially when the lot is very busy. There are 15 designated spaces in the lot. When they are full, visitors try to fit their vehicle into any remaining space, including along the entrance and exit laneways, which leads to traffic congestion on Wilson Street and multi-user conflicts. The parking lot creates concern for emergency vehicle access and for staff maintenance vehicle parking. The tight corners and narrow laneway can become blocked and disrupt emergency vehicle access. Due to physical constraints, there is no way to expand or redesign this existing parking lot.

HCA staff currently have no reasonable way to manage peak visitation periods to Tiffany Falls. One method of regulating visitation that has been very successful for the HCA at other conservation areas is the installation of an automatic gate system. The existing parking lot at Tiffany Falls has a pay and display machine for visitors, but it is not possible for staff to enforce paid parking without being on site at all times. An autogate system helps to promote fairness in paid visits, while helping to manage traffic and pedestrian safety more effectively. Due to the physical constraints on the site, an autogate system cannot be installed at the existing parking lot. The length of the entrance and exit laneways are too short to accommodate the autogate system, and would cause traffic to back up onto Wilson Street.

A parking review was completed by the HCA in 2019 under direction from the HCA Board of Directors. The purpose of the parking review was to assess the parking supply at individual HCA areas and identify capacity gaps, provide potential recommendations for parking strategies that support these HCA areas while conserving the natural features of the area, and building upon the existing parking system. From this report, the following recommendations for Tiffany Falls are provided:

"Tiffany Falls is a highly visited area that is serviced by a small parking lot. It is important that HCA continue to work collaboratively with City bylaw enforcement to control and enforce no parking regulations to address spillover parking along Wilson Street. While there are no options available to physically enlarge the existing parking lot, some measures can be taken on site to optimize the lot to enhance traffic flow and angular parking.

Additional options will need to be explored for this area, bearing in mind the single trail and viewing platform and overall limited space and capacity of the area. Several options for further detailed consideration and investigation have initially been identified to include:

- 1. Continue with operation of the existing parking area with an increased focus on promoting short stays, increased visitor turnover and off-peak visitation. This would also involve signing the area to advise that picnics are not permitted in this location and reviewing photography permits and parking access for Bruce Trail members.
- 2. Promote walk-in access through nearby HSR bus stop and Bruce Trail.
- 3. Potential for the development of a new larger parking lot for this site on HCA lands adjacent to Tiffany Falls located north of Wilson Street with frontage on Lower Lions Club Road. There is additional work to be completed to determine the feasibility of this proposal. This includes:
  - i. Completion of an Environmental Impact Study (EIS) to determine if it is acceptable according to HCA and City of Hamilton requirements to develop a parking lot on the lands as the majority of the area is designated as an Environmentally Significant Area. This work would take approximately 1-year to complete and would require the services of an outside consultant.
  - ii. The subject lands are located within the Niagara Escarpment Plan area, within the Protection Area designation and a Development Permit would be required for the development of a parking lot in this area. The above noted EIS would form part of this application.
- iii. A review of traffic issues and pedestrian crossing requirements would need to be completed and reviewed with the City of Hamilton. Wilson Street is a major thoroughfare within the City and specifically Ancaster with a 60km/hr speed limit at the Tiffany Falls area"

In 2022, the City of Hamilton completed roadwork along Wilson Street in front of the Tiffany Falls parking lot. This included repaving and linework, adding a bike lane with barriers, and a controlled pedestrian crosswalk with signals at the parking lot. This crosswalk helps Bruce Trail users to safely connect from the trail on the north and south sides of Wilson Street.

A Scoped Environmental Impact Study (EIS) required for the potential development of a new parking lot on Lower Lions Club Road was completed by consultants at Aboud & Associates in 2022. The study concluded that a portion of the property could support a parking area. The EIS includes impact assessments and recommended mitigation measures to be implemented if the parking lot were to be constructed.

Protecting the ecological integrity of Tiffany Falls is of primary importance to the HCA. Under current conditions, there are concerns about the impacts of visitation on the area. These include trampling of vegetation from unauthorized trails and trail widening, an increase in diversity and distribution of invasive species across the property, and impacts on native species that inhabit this area, including rare

breeding birds and vegetation communities. Visitor behaviours including walking in Tiffany Creek and the waterfall basin, climbing the Escarpment slopes and littering are detracting from the health of the environment and also from the enjoyment of other visitors. These behaviours and impacts need to be addressed.

The issues discussed above are all connected to visitation. The purpose of this Visitor Use Management Plan is to identify what can be done to modify visitor use at Tiffany Falls to improve the experience for visitors, enhance management abilities, and protect and restore the natural areas.



# 2. Review the area's purpose and applicable legislation, policies and management direction

### 2.1 Area Purpose and Management Direction

The Hamilton Conservation Authority is guided by the Vision of "A healthy watershed for everyone" and Mission "To lead in the conservation of our watershed and connect people to nature". The Hamilton Conservation Authority 2025 – 2029 Strategic Plan also provides guidance for the organization as a whole. The four priorities of the five-year strategic plan are as follow:

- Water Resources Management Focused on safeguarding the health of the watershed and protecting people and property from natural hazards.
- **Organizational Excellence** Focused on our organizational resources to ensure efficient and responsive operations are available to meet the needs of the future.
- Natural Heritage Conservation Focused on the management and conservation of natural areas, which include the forests, wetlands, meadows, and watercourses within the watershed.
- Connecting People to Nature Focused on the conservation of HCA lands and connecting communities to natural areas.

There are several plans providing management direction for Tiffany Falls Conservation Area. The Tiffany Falls property on the south side of Wilson Street was acquired by the HCA in 1968. HCA first created a draft Master Plan for Tiffany Falls Conservation Area in 1979. The goals for the conservation area outlined at the time were "to manage the water resources of Tiffany Creek within the conservation area, to maintain Tiffany Falls as a natural wilderness area, and to provide passive recreational opportunities in a manner that will generate appreciation of all features within the Conservation Area." The Site Development section of the plan states that "To date, development has been deliberately restricted to a pull off parking area accommodating a maximum of 15 cars, several picnic tables, a small amount of landscaping on the perimeter of the woodlot and construction of 804m of hiking trails leading to the falls."

A new master plan for Dundas Valley Conservation Area including Tiffany Falls was finalized in 1997. This plan recommended improvements to the existing trails and the addition of boardwalks. While boardwalks were never added, presently there are two bridges crossing the creek. Work on a new management plan for Tiffany Falls is beginning in 2025.

In 2000, the Tiffany Creek Subwatershed Plan was completed. This document provides direction on the management of the subwatershed and includes some information on the Tiffany Falls ESA such as significant species.

In 2009, the Dundas Valley 50 Year Vision & Strategy report was completed. The scope of the plan includes Tiffany Falls. The 50-Year Vision Statement developed in this report states "In 2058, Dundas Valley continues as a diverse, sustainable and essential Niagara Escarpment ecosystem. The Area's forests, streams, meadows, farmlands and neighbourhoods connect people living in vibrant urban and

rural Hamilton communities with their natural and cultural heritage." The report includes 11 goals for Dundas Valley including "Protect and enhance the Valley's Ecology and Natural Areas", "Ensure conservation area facilities are accessible and convenient" and "promote sustainable tourism in the Valley".

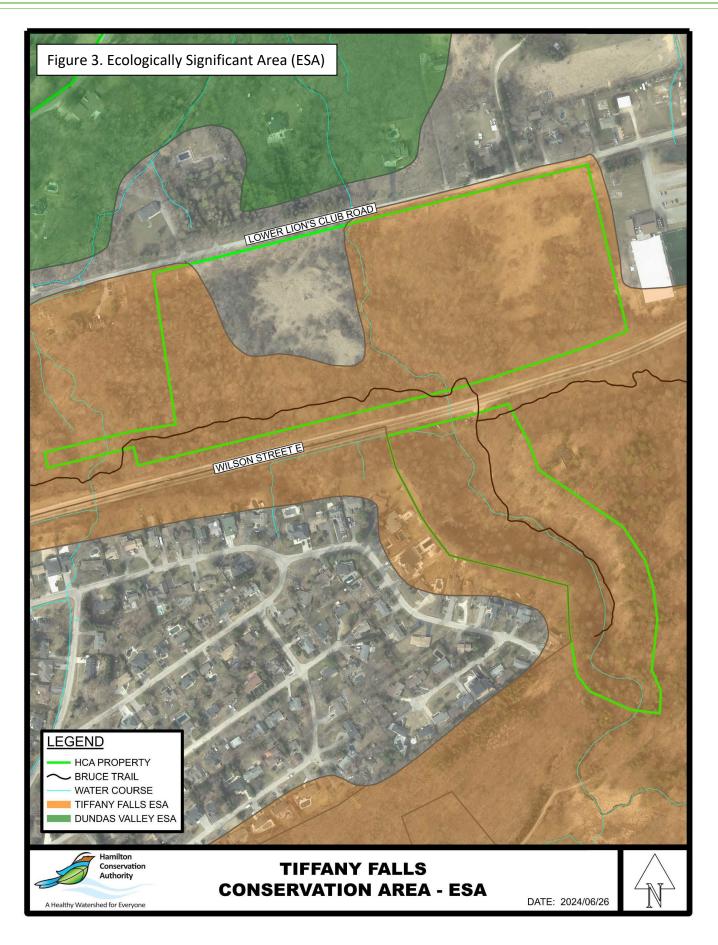
### 2.2 Applicable Legislation and Policies

Tiffany Falls Conservation Area is regulated under the Conservation Authorities Act. The properties are also regulated under Ontario Regulation 41/24 given the presence of Tiffany Creek and the associated flooding and erosion hazards. They are within the Niagara Escarpment Plan (NEP) Area and Niagara Escarpment Commission (NEC) Area of Development Control. The property south of Wilson Street is designated in the NEP as Escarpment Natural Area. The property north of Wilson Street includes Escarpment Natural Area and Escarpment Protection Area Designations. Tiffany Falls is classified as an Escarpment Access park in the Niagara Escarpment Parks and Open Space System (NEPOSS). From the October 2024 consolidation of the NEP, "These areas may provide modest facilities to support day use activities at points of interest (e.g., trailheads, picnic sites, scenic areas, fishing areas, beaches)".

Within the City of Hamilton's Rural Hamilton Official Plan (RHOP), the property is designated as Open Space, and part of the City's Natural Heritage System. The property south of Wilson Street is entirely within the Tiffany Falls Environmentally Significant Area (ESA). The property north of Wilson Street is mostly within the ESA, with the exception of an area that historically had been developed and is now a regenerating field (see Figure 3). The majority of the south and north sections are also identified as

Significant Woodland. The south property contains the Tiffany Falls Regionally Significant Earth Science Area of Natural and Scientific Interest (ANSI), which is identified as a locally significant natural area in the RHOP. This area is designated as an ANSI because of its unique bedrock exposures. The RHOP also identifies Linkages on the property. ESA, Significant Woodlands and Earth Science ANSI are considered Core Areas, and together with Linkages, form the key components of the City's Natural Heritage System.





### 3. Assess and summarize existing information and current conditions

### 3.1 Current Visitor Experience Conditions

Current visitor experience conditions describe the experience that visitors are having at Tiffany Falls based on information gathered from a visitor survey and general feedback received by staff over the years.

A visitor survey was conducted over three months in the summer of 2024 to learn more about the experience that visitors are currently having at Tiffany Falls. The survey was completed by 163 respondents. The survey was promoted through HCA social media, HCA monthly subscriber newsletters, and physically on site at Tiffany Falls with a flyer and QR code linking to the website. A summary of the survey results is included as an appendix to this document.

There are some trends in survey responses to be considered when interpreting the results. The majority of respondents were visiting from close by. Out of 163 respondents, 70 identified as visiting from Hamilton, 23 from Ancaster, and 15 from Dundas. The results showed that many of the respondents were regular visitors to the area. Out of 163 respondents, 98 said that they had visited four or more times in the past, 45 said they had visited 1-3 times, and 20 said this was their first visit. Therefore, the majority of survey responses are from local and regular visitors.

The following are some of the key takeaways from the survey responses about the experience that visitors are having at Tiffany Falls.

- The survey results indicate that most visitors arrive at Tiffany Falls in their own vehicle (83.4% of respondents). The remaining responses include arriving by walking, biking, public transport, or taxi service.
- When asked what made them want to visit Tiffany Falls, 73% of responses included viewing the waterfall. For most, this is the main attraction of the site.
- 31.3% of respondents answered yes when asked if they had trouble finding parking on their visit.
- When asked if they paid for parking or had an HCA membership pass, 62% of respondents said that they have an HCA membership pass, 20.2% said that they paid for parking on site, and 17.8% responded "other".
- When asked if Tiffany Falls was crowded during their visit, 37.4% of respondents said yes.

The parking payment machine located in the Tiffany Falls lot provides an idea of the volume of vehicle traffic to the conservation area. It must be noted that these counts are based only on transactions recorded at the pay-and-display machine. This does not include visitors with HCA membership passes and non-paying visitors, meaning that the numbers below are a low estimate of actual visitation.

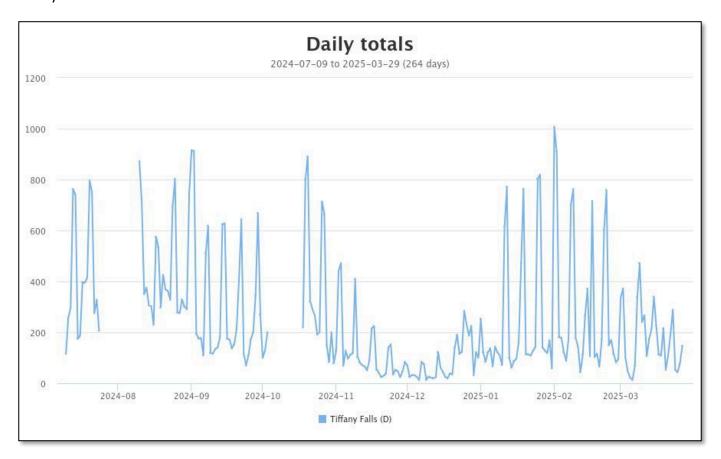
Annual Visitation Numbers from Tiffany Falls Parking Lot Pay-and-Display Machine Numbers do not include vehicles with a membership pass and non-paying visitors.								
2019	2020	2021	2022	2023	2024	5-year Avg.*		
13,426 cars	14,326 cars	19,131 cars	13,381 cars	15,493 cars	14,461 cars	14,217 cars		

<sup>\*</sup>Year 2021 removed from 5-year average number as visitation levels changed substantially during Covid-19 pandemic period lockdown.

An infrared trail counter has been active at Tiffany Falls from July 2024 to March 2025 to help provide more insight into visitation trends. The counter is located along the trail between the parking lot and the waterfall lookout platform. All counts shown below have been divided by two to account for people walking past the counter twice, once going out to the falls and once coming back to the parking lot.

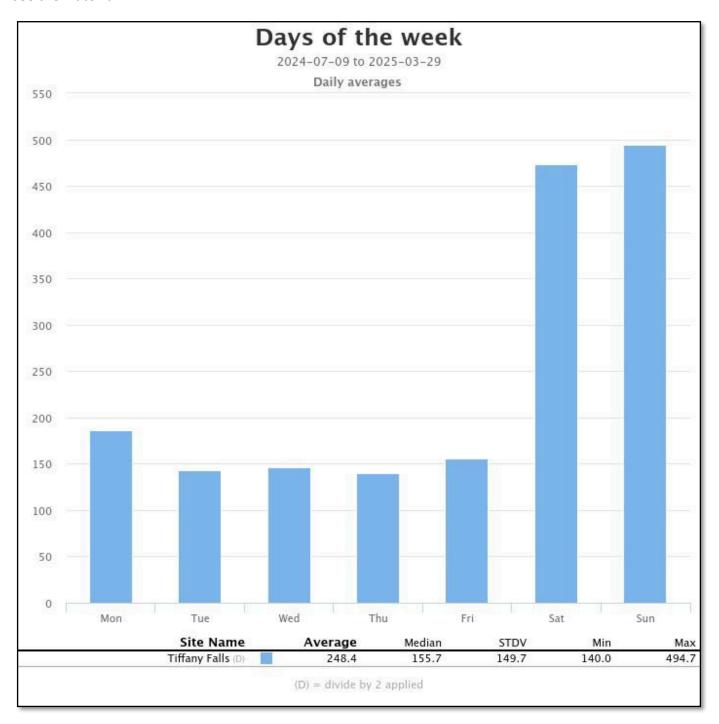
### Graph #1 - Daily Totals

This graph plots the total daily counts from July 9<sup>th</sup>, 2024 to March 29<sup>th</sup>, 2025. Overall, visitation was higher July - October, peaking just over 900 visitors per day on the Labour Day weekend. Visitation slowed November through January, and was very high again in late January through March when the falls were frozen. Seeing such high visitation at an HCA conservation area in the winter is unique to Tiffany Falls.



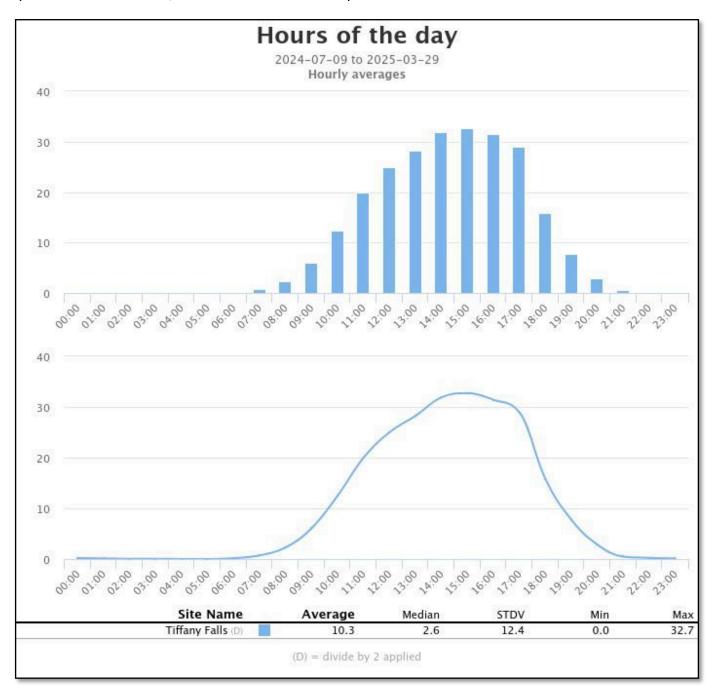
### Graph #2 - Days of the Week

This graph shows the average daily counts for the seven days of the week. A large increase in visitation is seen on weekends with three times the number of visitors passing by the trail counter on their way to see the waterfall.



### Graph #3 - Hours of the Day

This graph shows how visitation trends throughout the average day. On average, visitation peaks in the afternoon between 2pm and 4pm. Morning and evening hours are less busy. Tiffany Falls is posted as open from dawn to dusk, which is standard for many HCA conservation areas.



### 3.2 Current Management Conditions

Current management conditions describe the experience that HCA staff are having when maintaining and monitoring the property. Tiffany Falls is managed on a regular basis by Dundas Valley Conservation Area (DVCA) staff as part of the HCA's Conservation Area Services (CAS) department. While Tiffany Falls only comprises a small portion of the properties under their care, staff currently face a number of challenges in managing this property.

### **Managing Safety**

Limited parking at the Wilson Street parking lot often causes a backup of vehicles that can extend into Ancaster, creating a public safety concern. Visitors stop on the roadway to drop off passengers when the parking lot is full, causing additional congestion and exposing pedestrians to fast moving traffic. Additionally, a bike lane runs along the entrance and exit points of the parking lot, which includes a blind uphill corner, posing further risks to cyclists and drivers.

The parking lot itself has entrance and exit points leading onto a busy roadway with limited visibility, raising safety concerns for both the public and staff. During winter, snow removal becomes particularly challenging due to the size of the parking lot and its access points, adding to staff safety concerns. Another significant issue is controlling public access to the waterfall basin, as unrestricted access poses multiple safety hazards.

### Managing Parking and Fair Payment

The absence of marked parking spaces leads to improper parking, which reduces the overall capacity of the lot. This results in vehicles parking in bike lanes, blocking entrances, parking in designated noparking areas, and causing difficulties with traffic flow. Additionally, ensuring fair revenue collection remains a challenge, particularly in determining whether a pay-and-display system or an automated gate system would be the most effective solution. When the parking lot is full, visitors are parking on private property of local businesses and walking up the roadway to Tiffany Falls where there is no sidewalk on either side of Wilson Street raising significant pedestrian safety concerns. This also unfairly occupies local business parking and reduces revenue for the HCA.

### Managing the Natural Areas

Visitation at Tiffany Falls is influenced by social media in all seasons. Promotion of this area from sources outside of HCA result in greater visitor volumes. The high volume of visitors has contributed to severe erosion along the trail, boardwalk, and bridges. Litter accumulation along the trail is also a persistent issue. Similar to the parking lot concerns, controlling public access to the waterfall basin remains a priority due to safety risks. Unofficial trails have formed along embankments, which can lead to further environmental degradation. The current viewing platform feels somewhat detached and does not provide a clear endpoint for visitors, which raises the question of whether fencing should be installed. Additionally, many visitors enter the creek and walk to the waterfall basin, which can contribute to both safety hazards and environmental impact. During winter, freezing mist from the waterfall and seeps

along the Escarpment cause ice buildup on the trail, creating hazardous walking conditions for visitors. Trails are not typically maintained in the winter at any HCA Conservation Areas.

### 3.3 Current Ecological Conditions

This study area encompasses a north to north-west facing segment of the Niagara Escarpment at the south-east corner of the Dundas Valley, a major east-west trending re-entrant in the Niagara Escarpment. The central feature of this study area is a two-step waterfall formed by Tiffany Creek as it descends the Escarpment. The creek occupies a broad valley above the Escarpment, and a V-shaped ravine below the Escarpment. Tiffany Falls is located within a V-shaped ravine containing steep talus slopes crowned by an open carbonate cliff rim community. The cliffs (CLO1-5) are mainly comprised of non-vegetated exposed bedrock topped by mature trees rooted in the talus slopes. Moist open seepage cliffs occur closer to Tiffany Falls.

Black maple (*Acer saccharum* ssp. *nigrum*) and sugar maple (*Acer saccharum* ssp. *saccharum*) dominate the talus slopes and form about half of the canopy with Eastern hemlock (*Tsuga canadensis*). Wild ginger (*Asarum canadense*), spotted jewel-weed (*Impatiens capensis*), herb Robert (*Geranium robertianum*), zig-zag goldenrod (*Solidago flexicaulis*), and blue cohosh (*Caulophyllum thalictroides*) are some of the wildflowers that are abundant in this community. Within Ontario, this vegetation type is considered very rare. Tiffany Falls is bordered on three sides by carbonate cliff rim, which is also provincially very rare.

Also located between the Escarpment cliff and Wilson Street are steep talus slopes composed of exposed rock and thin soils. Sugar maple is the dominant species on the upper slope, whereas black maple becomes more prominent from mid-slope to the road in the deeper soils. Associates are white ash (*Fraxinus americana*) and ironwood (*Ostrya virginiana*). Alternate-leaved dogwood (*Cornus alternifolia*), red-berried elderberry (*Sambucus racemosa* ssp. *pubens*) and mountain maple (*Acer spicatum*) form the light understory layer. Wild ginger, garlic mustard (*Alliaria petiolata*), herb Robert and bulblet fern (*Cystopteris bulbifera*) are common in the herbaceous layer. This community and the cliff rim are intermittent on the steep slopes north-west of Wilson Street. At the foot of this intermittent talus community, sugar maple and black maple dominate the extensive bottomland forest along Ancaster Creek.

Breeding bird surveys were conducted on this property in June of 2024. Twenty-eight species of birds were recorded on this property. An additional 46 bird species have been recorded within eBird over the past 10 years, including the provincially and federally listed rusty blackbird (special concern). The provincially threatened Louisiana waterthrush and provincially special concern Eastern wood-pewee have also been recorded on this property occasionally over the years.

Ecological surveys were conducted in 2001 at this property and repeated again in 2024. There has been an overall increase in the presence of non-native species growing, from 10 plant species in 2001 to 21 plant species in 2024. This is partly reflective of an overall increase in non-native species presence across the province of Ontario in the last 20 years, but also likely a reflection of increased visitation. One main

pathway for spread of invasive species is on the bottom of shoes and clothing. Plant species are easily moved from one location to another when hikers are not cleaning their shoes between locations.

Erosion has also been noted within the conservation area and caused by a number of factors. Erosion of the banks of Tiffany Creek occurs where hikers enter the water to either get a closer look or walk up to the waterfall. In addition, extensive erosion has been observed near the waterfall past the viewing platform where hikers are climbing the escarpment to the top of the waterfall. Finally, erosion also happens in winter when seeps freeze on the trail surface and create difficult walking conditions and force hikers off trail around the frozen surface. These impacts and the subsequent erosion cause degradation in water quality, trampled vegetation, and loss of habitat for birds, aquatic insects and fish.

### 4. Develop a project action plan

This Visitor Use Management Plan is being developed to guide the management of visitation at Tiffany Falls. From reviewing the existing conditions for the area, it is apparent that most visitor use issues stem from site access and parking conditions, and from improper visitor behaviour within the conservation area. Strategies and actions to address these issues will be developed in this plan.

A working group involving HCA staff from different departments including Capital Projects and Strategic Services, Conservation Area Services, Watershed Management Services and Marketing and Communications has been established to create this plan. Beginning in April 2024, the working group has been meeting monthly to develop this document. This working group was created to provide perspectives on Tiffany Falls from staff with different backgrounds and experiences. This is to ensure that all aspects affected by visitation are considered including the visitor experience, the management

needs, and the ecology of the area.

Throughout the summer of 2024, new information about Tiffany Falls was gathered to support this plan. Ecology staff performed field surveys on the properties. A visitor feedback survey was held from May 27<sup>th</sup> to August 16<sup>th</sup> to provide insight into the visitor experience, and a trail counter was installed on site to collect data. This information has been used to inform the recommended actions outline later in this plan.



## Part 2 - Define Visitor Use Management Direction

### 5. Define the desired conditions for the project area

The desired conditions describe the conditions to be achieved and maintained, which may be different than the current conditions. Desired visitor experience, management and ecological conditions for Tiffany Falls area are outlined below.

### **5.1 Desired Visitor Experience Conditions**

Desired visitor experience conditions describe the experience that visitors to Tiffany Falls are looking to have under ideal conditions. Themes on desired conditions for visitor experience have been drawn from the results of the public survey that was held in the summer of 2024, as well as from general feedback received by HCA staff over the years. The survey included the question "what improvements would you like to see to this conservation area?" The responses to this question highlight what is important to visitors and what can be improved to create the desired experience. A summary of the survey results is included as an appendix to this document.

The following desired conditions statements have been developed regarding the visitor experience at Tiffany Falls:

- Tiffany Falls is a place where visitors can experience a unique and beautiful natural area close to home and experience benefits their physical and mental well-being.
- Visitors feel safe and confident when accessing the site and using the parking lot maintained by HCA.
- The level of service provided by HCA at Tiffany Falls is consistent with other popular HCA day use areas and support the core of experience of viewing the waterfall.
- Education is provided for visitors on site to enhance awareness of appropriate visitor behaviour and the importance of protecting this natural area.
- The site is managed in a way that allows the number of visitors on site concurrently to be moderated and reduces feelings of overcrowding.
- Improvements for accessibility are made where feasible.
- Litter is not seen on the ground within this natural area.

### **5.2 Desired Management Conditions**

Desired management conditions describe how Tiffany Falls Conservation Area would be operated and cared for by HCA staff under ideal conditions. The desired management conditions for the area have been identified by HCA staff with guidance from the visitor survey results.

The following desired conditions statements have been developed regarding the management of Tiffany Falls:

- HCA staff have the ability to control time-of-day access and fair-payment practices at Tiffany Falls Conservation Area.
- Safe and reliable access to the site is maintained at all times for emergency services vehicles.
- Safe and reliable access to the site is maintained at all times for HCA staff.
- Safe and reliable access to the site is maintained at all times for visitors with accessibility needs.
- Multi-use conflict between visitor vehicles, on-road cyclists, pedestrians within roadways and parking areas, and public traffic along adjacent streets is minimal.
- The Bruce Trail is supported and promoted.
- Litter is managed on the property following the "pack it in, pack it out" philosophy, meaning that anything visitors bring with them to the site is taken with them when they leave.
- Visitors respect and follow signage posted on site regarding proper use of the area in order to protect themselves and the natural areas.

### 5.3 Desired Ecological Conditions

The conservation and enhancement of natural areas at Tiffany Falls is an integral component of this Visitor Use Management Plan. The desired ecological conditions of the site have been identified by HCA staff after completing an ecological inventory of the property and reviewing existing ecological information. This conservation area is small and located close to urban developments. It is considered an Escarpment Access Park in the Niagara Parks and Open Space System (NEPOSS) meaning these areas provide for public access to experience the Niagara Escarpment. Tiffany Falls has well vegetated slopes that are mainly composed of native plant species. Visitors have an opportunity to connect with nature in an easily accessible manner with a short walk. Desired ecological conditions are being achieved on portions of the trail where the ground is flat or on a bridge. Impacts occur when visitors trample vegetation to access the Escarpment slopes, the waterfall or to by-pass ice and other visitors on the trail. In addition, there is a high level of invasive species along the trail and along unauthorized trails, this has caused an impact to the desired ecological condition.

Ecological restoration and improvements will be identified and undertaken with the implementation of this VUM Plan. Further ecological reviews and recommendations will be a core component of the upcoming Tiffany Falls Management Plan.

The following desired conditions statements have been developed regarding the ecological conditions of Tiffany Falls:

Trail width remains consistent and the trails do not widen into the natural habitats.

- The talus around the falls is vegetated as much as possible. The talus slopes around the waterfall remain vegetated with native vegetation.
- Unauthorized trails up the side of the gorge and near the waterfall are closed.
- Access for visitors into Tiffany Creek is restricted.
- Native plant and bird species remain diverse and abundant within the conservation area.
- Invasive species diversity and abundance is reduced within the conservation area.

### 6. Define appropriate visitor activities, facilities and services

Tiffany Falls Conservation Area is managed to balance visitor experience, environmental conservation, and public safety. HCA staff have identified key facilities, appropriate visitor activities, and prohibited behaviors to ensure responsible use of the site while maintaining its ecological integrity.

The following facilities and services have been defined as appropriate by HCA staff for Tiffany Falls:

- Parking lot with paid parking
- Trail system with bridges over Tiffany Creek.
- Lookout platform near the base of the waterfall
- Trailhead, wayfinding, interpretive and regulatory signage
- Boot scraping station
- Fencing where needed
- Public rest areas & garbage facilities

The following have been identified by HCA staff as appropriate visitor activities at Tiffany Falls:

- Walking, running, hiking on the HCA and Bruce Trail maintained trails
- Passing through the area on the Bruce Trail
- Visitors arriving by bike and walking along the trail to the waterfall
- Viewing the waterfall from the trail or the existing lookout platform at the base

The following activities have been deemed as inappropriate for Tiffany Falls by HCA staff:

- Walking or hiking off of the HCA and Bruce Trail maintained trails
- Walking in the creek or waterfall basin
- Climbing the slopes or the waterfall
- Cycling on the Bruce Trail as per Bruce Trail Conservancy policy
- Parking outside of the designated parking spots & along roadways

These guidelines will support operational efficiency, visitor safety, and environmental preservation. Compliance with these area rules will help maintain Tiffany Falls Conservation Area as a sustainable and accessible destination for all users.

### 7. Select indicators and establish thresholds

Indicators and thresholds are important for tracking the impacts of visitation on an area and keeping impacts within an acceptable range. Indicators are measurable attributes that can tracked over time to indicate any changes in conditions on site. Thresholds are the minimally acceptable levels at which conditions should be maintained above. Indicators and thresholds have been identified to track changes across the visitor experience, management and ecological conditions of Tiffany Falls.

- Indicator: Trail width of designated trails remains consistent Threshold: trampling and erosion along the creek bank no longer occurs. Photo monitoring will be used to document existing conditions and changes over time.
- Indicator: Talus around the falls is vegetated and Native species are abundant and diverse Threshold: Establish baseline floristic quality index (FQI) and mean coefficient of conservatism (mCC) for talus slope vegetation. Monitor the vegetation and track changes over time.
- Indicator: Unauthorized trails are closed Threshold: No new unauthorized side trails are created. In order to monitor this, current unauthorized trails should be mapped. Physical barriers and/or signage may be required to prevent unauthorized trails.
- Indicator: Invasive species diversity and abundance is reduced Threshold: A baseline occurrence
  can be established and monitored for change over time percent increase or decrease in invasive
  species. This can be done on the existing trail. Invasive species prioritization plan is created a
  plan is created for the removal of invasive species and restoration of areas where removals
  occur.
- Indicator: Native species are abundant and diverse Threshold: bird species diversity remains consistent in year over year breeding bird surveys
- Indicator: Feedback from visitors and the community is an indicator of the quality of the visitor experience. This feedback could be gathered through a survey. Survey questions from the previous survey should be asked again so that comparisons can be made. Threshold: Responses to survey questions should indicate that the visitor experience has improved and not worsened.
- Indicator: Visitor counts collected on trail counters. Trail counters can be used to monitor the
  number of visitors on an hourly, daily, weekly and monthly basis. Threshold: Trail and vehicle
  counters should be used to track any changes in visitation levels after the recommended strategy
  and actions are implemented. Trends in visitation will also guide further visitor management
  efforts.
- Indicator: Visitor feelings of crowding and congestion based on the number of people at key viewpoints at peak times. Threshold: Visitor feedback about feeling overcrowded exceeds 15% of the survey responses received. During site visits by HCA staff, more than 20 people are frequently observed at the waterfall viewing platform at one time.

## Part 3 - Identify Management Strategies

8. Compare and document the differences between <u>existing</u> and <u>desired</u> conditions, and, for visitor use-related impacts, clarify the specific links to visitor use characteristics

A comparison of the existing conditions in Section 3 and the desired conditions in Section 5 shows that there are existing visitor experience, management and ecological conditions at Tiffany Falls that are falling short of the desired conditions for the area. When reviewing information gathered about the site, there are common topics where a difference between existing and desired conditions can be highlighted. These topics are summarized below. In many cases, the impacts of these topics are common across visitor experience, management and ecological conditions.

Visitor use characteristics are factors related to how visitors are using the site. These characteristics of visitor use may result in desired conditions not being met. Visitor use characteristics include types of activity, visitor behaviour, visitor attitudes and expectations, timing of use, location of use, site durability, spatial distribution, and amount of use.

### Vehicle Traffic Management

The current management of vehicle traffic in and around the site is not meeting the desired visitor experience or management conditions. Heavy traffic flow detracts from the overall visitor experience, making the site feel congested and less enjoyable. Additionally, managing traffic and parking challenges requires significant HCA staff, hired private security and city resources.

### <u>Safety</u>

The safety of both visitors and staff at the site could be improved in several ways to meet the desired conditions. Enhancing traffic flow and improving entry and exit points in the parking lot would reduce congestion and safety risks. Ensuring clear and reliable emergency vehicle access is also a priority to facilitate rapid response when needed. Additionally, improved signage encouraging visitors to stay on designated trails would help promote safety while preserving the natural environment.

### <u>Visitor Behaviour</u>

Certain visitor behaviors are negatively impacting the site's visitor experience, management, and ecological conditions. Walking off designated trails, entering the water, and climbing slopes contribute to erosion and environmental degradation. Littering remains an ongoing issue, affecting both the site's aesthetics and ecosystem health. Addressing these behaviors through education, enforcement, and improved site management is necessary to maintain the integrity of the area.

### Site Maintenance

Ongoing site maintenance is essential to providing a high-quality visitor experience and protecting the natural landscape. Issues such as littering and improper visitor behavior require regular garbage collection efforts to keep the area clean. Maintaining the quality of trails through repairs and upkeep

ensures safe and enjoyable access for all users. Snow removal during winter months presents additional challenges that require effective management. Additionally, a well-managed site supports revenue generation, which can help fund ongoing maintenance efforts.

### **Ecology**

The desired conditions for trail width to remain consistent and unauthorized trails to be closed do not match the existing condition. Trail width and side trails are an issue as the public move around ice patches in the winter and other visitors at all time of the year on the trails. Unauthorized trails still remain up to the talus slopes and into Tiffany Creek. Signage should be used in conjunction with targeted plantings to identify appropriate visitor behaviours and spaces, and to minimize the use of fences. Fencing could be considered to prevent users from climbing the talus slope at the falls or along the creek corridor to prevent access to the creek if other management actions are not successful.

The desired condition to reduce invasive species diversity and abundance does not reflect the existing condition with a 47% increase in the documentation of invasive species over a 20-year period. In addition, the mean coefficient of conservatism, which is a measure of ecological health, has deceased since 2001 from 4.8 to 4.7 over 20 years. These conditions need to be amended in order to bring them in line with desired conditions for the area.

### 9. Identify visitor use management strategies and actions to achieve desired conditions

### 9.1 Visitor Use Management Strategies

Five strategies for managing visitor use at Tiffany Falls that the HCA could pursue have been explored by HCA staff. The goal is to develop a strategy that will achieve the desired conditions for the area outlined in Section 3 of this plan. Only one of the five strategies below will be recommended by the HCA.

The VUM Framework document outlines strategies for managing visitor use. They include modifying the type of use, visitor behaviour, attitudes and expectations, the timing of use, the location of use, the sites ability to handle use, the spatial distribution of use by reducing use or increasing capacity.

Many of the factors impacting the visitor experience, management and environmental conditions at Tiffany Falls are centred around the parking lot and access to the site. It is the opinion of HCA staff that a strategy to improve the parking and site access conditions will be key to managing visitor use at this site in combination with a range of other actions.

The five strategies explored are detailed in the table below, along with recommendations as to why they should or should not be implemented. The subsequent Section 9.2 outlines further actions that should be taken to support the main strategy.

### Strategy 1 – Do nothing and let the Conservation Area function as-is.

**Description:** This strategy would involve continuing to operate Tiffany Falls in its current state without any significant capital work or management changes. The way that Tiffany Falls currently functions has not been working effectively and creates a variety of problems for visitors and staff as discussed throughout this plan. HCA staff view the existing conditions at Tiffany Falls as unsustainable. Visitor, staff and emergency service access are of significant concern. Changes need to be made in order to address safety concerns and visitor satisfaction. As well, this approach will not decrease the trampling, unauthorized trails or invasive species that are impacting the ecology of the conservation area.

**Conclusion:** HCA staff do not recommend this strategy for managing visitation.

## Strategy 2 – Make improvements to the parking lot and site access to enhance the existing functionality of the Conservation Area.

**Description:** This strategy would involve making changes to improve the existing parking lot and site access. As discussed above, several visitor use challenges are the result of access and parking. Improvements are limited due to the physical constraints on site. The parking lot is bound by Escarpment topography, Tiffany Creek, and Wilson Street. Improvements have been made by HCA over the past few years to address the challenges with site access, but success has been minimal.

In 2022, the City of Hamilton installed the pedestrian crosswalk as part of their improvements to Wilson Street. At the same time, HCA reconfigured the parking lot to create a one-way traffic system, expanded the lot towards the road, demarcated parking spaces along one side of the lot, and added new line painting and signage to direct visitors. These changes were minimally effective in improving the parking situation. In 2023, the lot was reconfigured to reverse the one-way traffic direction and move parking along the other side of the lot. This improved the sight lines to the road when exiting the lot.

These improvements have not had a significant impact on site access because other factors that are out of the HCAs control still remain. The volume of traffic on Wilson Street, the physical constraints on the parking lot, and the overwhelming popularity of the location create pressure that cannot be alleviated through improvements to the existing lot alone.

Through this strategy, other enhancements to existing conditions could be implemented, such as enhanced signage, trail improvements, fencing or buffering and trip-planning and promotion initiatives. While these actions would be helpful, they will not address some of the larger public safety issues related to site access.

**Conclusion:** It is the opinion of HCA staff that options to improve existing site access have been exhausted and further action needs to be taken in order to achieve the desired management, visitor experience and ecological conditions.

## Strategy 3 – Close the existing parking lot with the exception of emergency vehicle and maintenance use and create an alternative access system such as a shuttle.

**Description:** This strategy would involve eliminating visitor parking at the existing Tiffany Falls lot and require visitors to arrive by shuttle. HCA staff have had negative experiences with similar systems at other conservation areas that have more infrastructure and access controls than Tiffany Falls, indicating that this approach would likely be even more problematic here. This approach presents significant challenges and does not effectively resolve the issues related to visitation, access, or site management.

In order to reserve the parking area for shuttles only, staff would need to be on site to manually open and close gates to prevent visitors in vehicles from entering the lot. This would require staff working exclusively at Tiffany Falls all year round, which is outside the staffing capacity of the HCA.

Shuttle systems inevitably result in long wait times, particularly during peak visitation hours. Visitors would be required to wait for the shuttle both upon arrival and departure, significantly increasing the overall time commitment for a short trail experience. This creates frustration and inefficiency, particularly for those who might otherwise spend no more than 15 - 30 minutes at the site.

The main trail to Tiffany Falls is relatively short, meaning visitors typically complete their visit quickly. However, the shuttle system would take longer to bring passengers to Tiffany Falls, leading to long wait times for those ready to leave. Visitors would have no control over their departure time and could be forced to wait longer for a return shuttle than they actually spent on the trail itself leading to a bottleneck for departing visitors and visitor frustration leading to overall decrease in visitor satisfaction.

Shuttles bring large groups of visitors at once, all of whom would begin the trail at the same time. Given that there is only one, one-way trail to access the waterfall, this would lead to crowding and congestion along the path and at the waterfall itself. The small viewing area cannot accommodate large waves of visitors at once, leading to an overcrowded, rushed experience rather than a peaceful and enjoyable nature visit. Since all visitors would be forced into the same schedule, the experience would feel less personal, less immersive, and less enjoyable compared to the current system, where visitors arrive at their own pace.

The current entrance fee of \$11.50 per vehicle is not sufficient to support the cost of contracting a shuttle bus system. To cover the expense, entrance fees would have to be significantly increased, leading to reduced visitor satisfaction and attendance—especially given the short length of the trail and limited time spent on-site.

**Conclusion:** HCA staff do not recommend implementing a shuttle bus system at Tiffany Falls because it will not improve the visitor experience and will likely decrease satisfaction due to long wait times and congestion. The logistics do not match the short trail length, leading to frustration as visitors spend more time waiting than hiking. The cost of implementation is not feasible and would require increased fees that are disproportionate to the experience offered.

## Strategy 4 – Expand the visitor experience to include the property north of Wilson Street and add a second parking lot on Lower Lion's Club Road.

**Description:** This strategy would involve constructing a new parking lot on the parcel fronting on Lower Lion's Club Road with a trail connection up to the crosswalk at Wilson Street. This trail connection would utilize an existing portion of the Bruce Trail.

Both the existing lot and new lot would be used for visitor parking. The lots could be operated with a hybrid approach where one or both lots are opened periodically based on demand and ongoing monitoring. Exceptions would be made for accessible parking, staff and emergency services. This approach would allow staff to address the safety concerns with the Wilson Street parking lot during peak times when the issues are exacerbated.

A new parking lot on Lower Lion's Club Road would allow for added controls such as autogates that would limit the capacity of the lot and enforce fair payment. The extended walk from the new parking lot to Tiffany Falls would add value for visitors paying to visit the site. Having visitors more spread out through the area could reduce feelings of overcrowding and improve the visitor experience.

Managing communication with the public around which lots are open at which times would be a challenge for staff and likely frustrating for visitors. This would also not entirely eliminate the safety concerns around visitors entering and exiting the existing Wilson Street lot.

Other enhancements to improve visitor experience, management and ecological conditions could be implemented with this strategy. Adding fences or strategic planting buffers would be possible, along with different types of signage and boot brush stations. Trail condition improvements to keep visitors on the designated trails and enhancements to online resources such as trip planning and educational material are also recommended.

**Conclusion:** HCA staff do not recommend this strategy because it will not achieve all of the desired management and experiential conditions set out in this plan. Moving visitor parking between two lots will complicate trip planning for visitors and management for staff. The issues associated with the existing parking lot will still be present if that lot continues to be accessed by the public.

## Strategy 5 – Expand the visitor experience to include the property north of Wilson Street, add a new parking lot on Lower Lion's Club Road and restrict access to the existing Wilson Street lot.

**Description:** This strategy would involve constructing a new parking lot on the parcel fronting on Lower Lion's Club Road with a trail connection up to the crosswalk at Wilson Street. This trail connection would utilize an existing portion of the Bruce Trail.

All visitor parking would be relocated to the new parking lot with the exception of select designated accessible parking spaces. Access to the existing lot must be maintained for visitors with accessibility requirements, HCA staff access, and emergency vehicle access. This would greatly reduce safety and traffic concerns on Wilson Street.

The new lot would enhance parking capacity and move to a road that would not be as heavily impacted by traffic entering and exiting the lot. This concept provides an opportunity to have a longer

laneway which would prevent vehicles from having to wait on the road for a parking space and impede traffic.

This location would allow for added controls such as autogates that would limit the capacity of the lot and enforce fair payment. This strategy would also modify the spatial distribution of use at Tiffany Falls, the extended walk from the new parking lot to Tiffany Falls would add value for visitors paying to visit the site. Having visitors more spread out through the area would reduce feelings of overcrowding and improve the visitor experience.

Other enhancements to improve visitor experience, management and ecological conditions would also be implemented with this strategy. Physical barriers such as planting buffers, along with different types of signage can be added to direct visitors and keep them in appropriate areas. Trail condition improvements to keep visitors on the designated trails and enhancements to online resources such as trip planning and educational material are also recommended. Ecological improvements to enhance habitat in the area and mitigate impacts of visitation would be implemented as well.

**Conclusion:** HCA staff involved in the Visitor Use Management Working Group support this Strategy because it has the potential to improve the existing visitor experience, management and ecological conditions. This concept was originally identified in the HCA parking review completed in 2019, which is discussed in Section 1 of this Plan. Actions to support this strategy are detailed in the following Section 9.2.

### 9.2 Actions Supporting Visitor Use Management Strategy

Actions are methods of implementing a visitor use strategy. The actions below have been proposed to support Strategy 5 identified in Section 9.1. These actions are based on the information gathered about Tiffany Falls through the visitor survey, trail counter and ecological fieldwork, and the extensive management experience and professional judgement of HCA staff.

# Action 1 – Obtain all necessary approvals and complete detailed design of the Lower Lion's Club Road parking lot.

### Rationale

The creation of a new parking lot on Lower Lion's Club Road will require thorough planning and design. Approvals and consultation are needed from a few agencies before detailed design can be completed.

- Consultation is needed with Hydro-One to develop the land within the hydro corridor that runs parallel to Lower Lion's Club Road.
- The City of Hamilton will need to be consulted on the change of use of the crosswalk to make sure that it will function as intended for pedestrians and vehicle traffic.
- The Bruce Trail Commission will need to be consulted on the proposed increased use of their trail and necessary improvements to the stairs bringing visitors up to the crosswalk. The Bruce

- Trail has previously expressed their support for this project to the HCA via a letter, and this commitment of support will be confirmed and renewed.
- The property is within the Niagara Escarpment Area. A Development Permit will be needed from the Niagara Escarpment Commission (NEC) for the proposed parking and staircase improvements.
- A Site Plan Approval might be needed from the City of Hamilton for this project.

Following consultation with these agencies, the detailed design of the new parking lot can be completed. The design will be guided by the recommendations in the EIS that was completed by consultants in 2022.

### Action 2 – Implement an automatic gate system.

#### Rationale

Creating a new parking lot on Lower Lions Club Road would allow an automatic gate system to be added to the parking lot. This cannot be done at the existing lot due to physical constraints.

An automatic gate system would benefit Tiffany Falls in a few ways. It would ensure a fair payment system where all visitors arriving by vehicle know that everyone has paid equally to visit the site.

An automatic gate system would help to reduce lost revenue from visitors parking without paying, which is happening in the existing parking lot. This is important for HCA because the funds generated from parking are put back into maintaining the conservation areas.

An automatic gate system would help to control time-of-day access. Tiffany Falls is open only during daytime hours.

Having an automatic gate system would also allow a reservation system to be implemented if staff ever felt that it was needed in the future.

It is possible that visitors will try to park on Lower Lion's Club Road and walk into the conservation area. The HCA will need to work with City of Hamilton Bylaw to enforce street parking in this area.

### Action 3 – Enhance interpretive, regulatory and wayfinding signage on site.

#### Rationale

The purpose of new signage on site will be to modify visitor behaviour, attitudes and expectations at Tiffany Falls. It has been identified that many visitors are not using the site as intended and not respecting the natural areas.

Interpretive signage - There is a need for visitors to be more aware of the significance of Tiffany Falls in order to understand why certain rules and regulations for visitors are in place. Signage would educate visitors about topics such as Tiffany Creek, watersheds, species at risk and why invasive species are harmful to biodiversity. Boot brush stations can also be incorporated to decrease introduction of invasive species.

Regulatory signage – Improved regulatory signage is needed to clearly state what appropriate behaviour and activities include for visitors. Rules such as pack-in and pack-out, staying on the main trail, and staying out of the creek should be very clear and prominent.

Wayfinding signage – New wayfinding signage following HCA standards should be implemented through the area with a trailhead at the new parking lot. This will help to guide visitors on the new, longer hike and set expectations for trail lengths, hike times and obstacles, such as stairs. Wayfinding signage along the roadway to direct visitors to the new parking lot location should also be considered.

## Action 4 – Add strategic planting buffers, natural barriers and fencing to protect sensitive areas and keep visitors in appropriate areas.

#### Rationale

Physical barriers such as fences and dense plantings should be added to keep visitors in designated areas and enforce appropriate behaviour.

Clearly delineating where visitors should and should not be will be very important for the Lower Lion's Club Road property. The EIS that was completed recommends including planted buffers around the new parking lot to keep visitors out of natural areas. Appropriate fencing could be added around the lot to keep vehicles and people inside the designated area.

Strategic plantings, natural barriers such as boulders and brush, and signage should be used to discourage visitors from accessing the talus slopes or creek bed around the waterfall. This will help to reduce trampling of vegetation, damage to the talus slopes and protect Tiffany Creek. Fencing could be used strategically around the trails, creek and waterfall if other measures are not successful, however this is not the preferred approach of HCA staff. Too much fencing would detract from the immersive experience in this small conservation area and require intrusive construction work. Fencing along the trail corridors will only be considered if all other reasonable management actions fail to produce more desirable visitor behavior.

## Action 5 – Plan and undertake work to protect, enhance and restore the natural areas and ecology at Tiffany Falls.

### Rationale

There are opportunities for ecological improvements, restoration work and monitoring on both properties at Tiffany Falls that can be implemented with this VUM Plan. Ecological reviews and recommendations will be explored in more detail in the upcoming Tiffany Falls Management Plan.

The Lower Lion's Club Road property has not been a primary focus for HCA staff since it was acquired. As such, there are opportunities for restoration work here that would coincide with the creation of the new parking lot. There are also recommendations in the EIS that was completed for this property for restoration work and protection of natural heritage during any construction work. Opportunities include cleaning up debris around the site left from occupation prior to HCA ownership, enhancing the riparian buffer around Tiffany Creek, and enhancing the meadow habitats with native plantings.

An invasive species prioritization plan should be developed for this area with recommendations for managing invasive species and restoring affected areas. Boot brushes should be installed at trailheads with signage to inform visitors about the importance of cleaning their shoes before walking on the trails.

### Action 6 – Enhance pre-trip planning for visitors and promote visits to Tiffany Falls strategically.

#### Rationale

This action would be undertaken to modify visitor behaviour, attitudes and expectations and educate visitors before they arrive on site. Clarity of expectations for visitor behaviour can be set online when visitors are planning their trip, as well as on site once they arrive.

The trail counter data collected provided trends in visitation that can be used to inform trip planning. Potential visitors should be encouraged to visit the site during non-peak times, such as weekdays and mornings, to reduce the possibility of overcrowding during peak times on weekends, holidays and peak afternoon hours.

The promotion of Tiffany Falls as a place to visit should be done strategically to help manage the popularity of the site. Potential visitors could be encouraged to explore larger HCA conservation areas that are better suited to handle the volume of visitors instead. Visitors could also be encouraged to park elsewhere and hike connecting trails over to Tiffany Falls.

The transition to a new parking lot will need to be communicated clearly through HCA channels to new and returning visitors. This will be important in managing the expectations of visitors and maintaining a positive visitor experience.

### Action 7 – Facilitate and promote alternative forms of transportation.

### **Rationale**

Reducing the number of visitors travelling to Tiffany Falls with personal vehicles would be beneficial to the function of the site and be better for the environment.

Bike racks should be added to both the existing and new parking lots to encourage guests to arrive to the site by bicycle. It should be noted that cycling is not allowed on the trails within Tiffany Falls as they are part of the Bruce Trail system.

The possibility of having a public transit stop located closer to the existing or new parking lot should be explored. The current bus stops on Wilson Street are not convenient or safe for accessing this site.

Trail connections via the Bruce Trail and HCA trails to other natural areas should be highlighted to show visitors that they can hike to Tiffany Falls from nearby areas and extend their experience.

### Action 8 – Improve trail conditions and infrastructure to dissuade people from going off the trail.

#### Rationale

This Action is intended to enhance the visitor experience and reduce ecological impacts from visitors. Maintaining trails that have an appropriate width and have a stable surface could help reduce the number of visitors who walk off trail to avoid icy or wet areas and other visitors.

The existing trail to the waterfall should be reviewed for any areas of water pooling and ice accumulation and have these issues addressed. The new trail connection from the proposed parking lot up to the Bruce Trail should be designed and built with this Action in mind. The existing Bruce Trail that will form part of the trail connection should also be reviewed and improved as needed to accommodate increased use. The existing Bruce Trail steps leading to the Wilson St. crosswalk will need to be upgraded to adequately handle the increased number of visitors accessing it.

Barriers as discussed in Action 4 could be considered along select sections of the trail leading to the lookout platform. In an effort to keep more people within the authorized viewing areas only, the size and functionality of the viewing platform at the base of the waterfall should be reviewed. The viewing platform was designed in 2006, and use and visitation levels at Tiffany Falls have changed over time.

### Action 9 – Implement an HCA trail ambassador program.

#### Rationale

Implementing an HCA trail ambassador position would place an HCA representative on site in conservation areas, including or limited to Tiffany Falls. This would be an opportunity to educate visitors about the area, encourage appropriate behaviour, and introduce ongoing monitoring of the use of the site to identify and remediate issues.

Trail ambassadors have been introduced in other agencies including the Bruce Trail to represent the organization out on the trails and interact with visitors. A trail ambassador would improve the quality of the visitor experience by answering questions and providing information, with the goal of protecting and advocating for the natural areas at Tiffany Falls.



# 10. Where necessary, identify visitor capacities and additional strategies to manage use levels within capacities

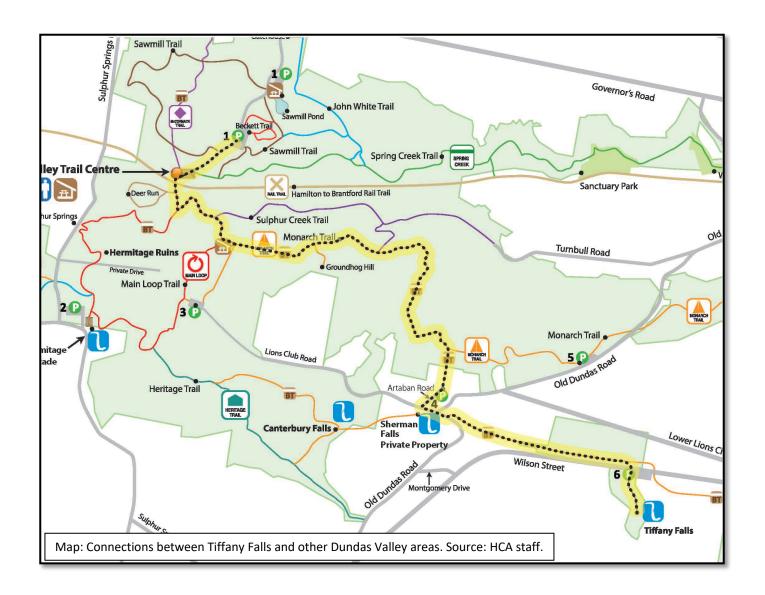
Impacts to the natural areas from visitation at Tiffany Falls stem largely from visitor behaviour issues. Impacts are mainly caused by visitors walking off of the designated trail, into the watercourse and up the escarpment. There are Actions included in Section 9.2 above to help manage and correct visitor behaviour in order to reduce the impacts of visitation on the natural areas.

Visitor capacity does have impacts on visitor experience, safety and behaviour. Visitor capacity at Tiffany Falls is dictated mainly by the relationship between the size of the parking lot and the length of the trail system. The existing parking lot has 15 designated parking spaces, but as noted previously, more cars will park in unauthorized areas outside of these designated spots. Responses in the public survey indicate that this capacity has caused feelings of overcrowding during peak times on the trail section from the parking lot to the viewing platform. This feeling of overcrowding negatively impacts the visitor experience. Moving the parking area further away and extending the trail while maintaining a similar number of parking spots could reduce feelings of overcrowding in the area and improve the visitor experience.

The trail from the existing parking lot to the lookout platform is approximately 360 meters long. This is a fairly short trail that only takes about 7 minutes to walk from the parking lot to the viewing platform. On average, each visiting car brings 2.5 people to the site. If 15 cars are in the lot, that would be an average of 38 visitors in the area during peak times. The length of the proposed trail connection from a parking lot on Lower Lion's Club Road would be approximately 350m long, roughly doubling the trail experience in the Conservation Area. To maintain the same visitor capacity level on the trails, the new parking lot should have no more than 30 parking spaces to allow an average of 76 visitors at one time. This would increase the capacity of the Conservation Area.

Considering the above points, HCA staff believe having approximately 30 parking spaces in the new lot would be well suited to this site. An increase in parking spaces is also proposed with the thought that the new parking lot would serve more than just Tiffany Falls. It would provide more direct access to the Bruce Trail and support other areas of the Dundas Valley. Promotion of these other connections would add to the visitor experience by giving visitors more to explore. Promotion and awareness of the Bruce Trail is also important to both HCA staff and the Bruce Trail Conservancy.

The size of the existing viewing platform also places limitations on the capacity of the area. The existing platform is 118 square feet  $(10.96 \text{ m}^2)$  in size. From the Ontario Building Code (3.1.17.1), occupant load for standing space based on floor area is  $0.40 \text{ m}^2$  per person. Based on this, the maximum occupant load for the lookout platform is 27 people. To maintain personal space, it is unlikely that this many people would be on the platform at one time. If the platform is full, it is more likely that visitors will walk into the creek to have an unobstructed view of the falls. The platform should be reviewed for any potential improvements that could help keep visitors within this designated area.



## 11. Develop a monitoring strategy

### Monitoring Implementation of Actions:

The implementation of the chosen strategy and actions above will be monitored through an updated Conservation Area Management Plan for Tiffany Falls. Work on this Management Plan will begin in 2025. All actions recommended in this VUM Plan will be identified in the Management Plan.

### **Monitoring Effectiveness of Actions:**

After the chosen strategy from Section 9.1 is implemented, a visitor survey should be created to learn about the altered visitor experience. Some questions from the previous survey should be repeated so that the responses can be compared. New questions to gather feedback on the changes that have been made should also be included. The results of this survey would guide ongoing improvements.

Trail and vehicle counters can continue to be used to monitor trends in visitation. This will be helpful for identifying if actions to change the timing of use are effective, such as promoting visitation at non-peak times. Counters will also provide insight into whether the implemented actions have had an effect on visitation numbers. This information can also be learned from the parking payment and/or autogate machines.

Ongoing ecological monitoring will be very important for Tiffany Falls to ensure that the proposed actions are having the desired effect. A monitoring plan will be developed in order to track changes to the natural areas as a result of implementing the strategy and actions from this Plan. Changes observed will inform ongoing restoration work and next steps needed to reach desired conditions.

## Part 4 - Implement, Monitor, Evaluate and Adjust

### 12. Implement management actions

Steps 12, 13 and 14 are intended to be living sections of the VUM Plan that are built on as selected strategies and actions are put into practice. The implementation of the management actions will begin once the strategy and actions recommended in Section 9 are endorsed by the HCA Conservation Advisory Board and approved by the HCA Board of Directors. Once the Visitor Use Management Plan is approved, the following are the key steps will be taken as the HCA works towards implementing the strategies and actions.

- Proceed with the detailed design work for the new parking lot along Lower Lion's Club Road, the enhanced trail connection and the staircase, and restoration of Lower Lion's Club and Wilson Street lot areas.
  - Includes discussions with outside agencies for other related improvement aspects (ie: Wilson Street staircase & crosswalk, hydro corridor construction & maintenance, HSR bus route & stop locations, etc.) as outlined in Action 1 in Section 9.2.
- Implement new Marketing and Communications strategy to prepare the public for upcoming changes prior to official public opening of new lot and trail system.
- Obtain agency approvals necessary for construction work.
- Review trail and restoration improvement opportunities through site visits.
- Map unsanctioned trails that have been created by visitors.
- Implement the HCA Trail Ambassador Program.
- Enhance marketing and communications program to promote other HCA Conservation Areas nearby as alternative destinations during peak visitation times.
- Continue ecological and visitation monitoring programs to aid with future planning.
- Review viewing platform improvement options during upcoming Management Plan review.

# 13. Conduct and document ongoing monitoring, and evaluate the effectiveness of management actions in achieving desired conditions

Once management actions outlined in this Plan are implemented, ongoing trail and ecological monitoring will be conducted to determine if additional measures need to be considered. This is an important step in determining whether the desired conditions for the area are being achieved or if actions should be adjusted.

# 14. Adjust management actions if needed to achieve desired conditions and document rationale

The need to adjust management actions will be determined upon completion of work and ongoing monitoring efforts by HCA staff along with public feedback on the implemented actions.

