

Dofasco 2000 Trail Management Plan





Prepared by: Hamilton Region Conservation Authority (HCA)

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1.0 APPROVAL STATEMENT

We are pleased to approve the Dofasco 2000 Trail Management Plan as the official policy document for the Hamilton Region Conservation Authority (HCA) working in cooperation with the City of Hamilton (City).

This Management plan supports HCA's current Strategic Plan and reflects our Vision of a healthy watershed for everyone and Mission to lead in the conservation of our watershed and connect people to nature.

Moving forward over the next ten years this plan will provide guidance for HCA management of the Dofasco 2000 Trail on behalf of the City in support of these goals.

Lisa Burnside Chief Administrative Officer Hamilton Conservation Authority	Date
To be named Chair, Board of Directors Hamilton Conservation Authority	 Date

2.1 Area Summary

Originally called the Powerline Road Pathway, the Dofasco 2000 Trail (Dofasco Trail) is an 11.5-kilometre multi-use recreational trail located on top of the Niagara Escarpment in Stoney Creek, City of Hamilton. The trail was built over twenty years ago with the support of the Hamilton Conservation Foundation, Dofasco Inc., the Millennium Bureau of Canada and the City of Hamilton.

The main trail-head access points and parking lots are located at Devil's Punchbowl Conservation Area and the newly opened Saltfleet Conservation Area. The trail connects these conservation areas, continues east on an unopened road allowance through the rural countryside and the Vinemount South Swamp, and ends at Eleventh Road East. A small portion of the trail is on-road between Tapleytown Road and Fifth Road East, west of the Vinemount South Swamp.

In 2000 the HCA Board of Directors approved The Powerline Road Trail Master Development Plan. This document updates and replaces that plan.

2.2 Key Items

HCA staff focused on four key items of the off-road trail in preparing this Management Plan:

- 1. Condition of the trail infrastructure.
- Terrestrial and aquatic ecological review of natural areas adjacent to the trail.
- 3. Potential linkages to Hamilton Conservation Areas for trail users.
- 4. Potential linkages to other recreational trails, natural areas, and features.

2.3 Goals and Objectives

This plan provides current information on the off-road trail portion managed by HCA, and provides guidance for trail management and operation for the next ten years.



3.1 Study Area

The Dofasco Trail is located along the municipal opened and un-opened road allowance between Devil's Punchbowl Conservation Area (DPCA) and Eleventh Road East in Stoney Creek. The trail is part of the City of Hamilton recreational trail system and offers connection between the City of Hamilton and adjacent municipalities in Niagara Region. See *Figure 1. Study Area* and the appended maps for more information.

3.2 Property History

The Dofasco Trail was initially identified as the Powerline Road Pathway in the City of Stoney Creek Multi-use Pathway, Pedestrian and Cycling Route Master Plan (1995). From this plan, HCA and City of Stoney Creek staff worked together on The Powerline Road Trail Master Development Plan, to provide more detailed planning information for trail construction. In 1999 the City of Stoney Creek council endorsed entering into a partnership agreement with HCA to develop and maintain the Powerline Road Trail as a new regional trail, and endorsed HCA's applications for funding of the trail construction. The Master Development Plan was approved by the HCA Board of Directors in July 2000 and became the official guiding document for the trail's construction, as well as the maintenance and operation of the trail.

The trail was envisioned to be an important east-west link for pedestrians and bicyclists between Devil's Punchbowl Conservation Area and 87 Acres Park at Tenth Road East, with potential linkages throughout the municipality and into Niagara Region. It was anticipated that given the trail location, visitors would drive to use the trail, with trailhead parking and signage at the conservation area and 87 Acres Park. Additional trail amenities were not expected to be necessary, and interpretive information signs for the natural areas were noted as a future possibility. Trail amenities and signs are noted in Section 5.0.

In 1999 HCA's application for funding through the Canadian Millennium Partnership Program was approved, with the stipulation that other funding partners contribute two thirds of the funding for this trail construction project.

In February of 2000 area residents adjacent to Powerline Road were circulated notices of the proposed trail project and invited to a public open house held March 21, 2000. It is on record that about 13 people attended this meeting, with most enquiring about the trail location and appearance. A few people identified concerns related to the properties, but overall there was a positive response to the trail.



2023/01/27

DATE:

STUDY AREA MAP **MASTER PLAN**

Trail construction followed thereafter and the trail officially opened October 14, 2001. The trail is owned by the City of Hamilton (City) and operated as a joint venture between the City and HCA. A partnership agreement between the City (formerly the Town of Stoney Creek) and HCA from 1999 is still in effect; there is a fifty-year term for this agreement with the option for renewal prior to expiry. This agreement sets out the directive for HCA to operate and maintain the unopened road allowance and abutting lands (if required) in accordance with HCA policies and standards



as applicable to other HCA lands. And further that HCA secure all funding for the development, operation, and maintenance of the unopened road allowance. The portion of the trail located on public roads is under the operation of the municipality.

The off-road portions of the trail on the unopened road allowances permit users to experience the rural countryside, and three significant natural areas: the newly constructed wetlands at Saltfleet Conservation Area; Vinemount South Swamp: and Saltfleet Northeast Woods. Vinemount South Swamp is the headwater area for a branch of Stoney Creek, which flows west and is within the HCA watershed, and Forty Mile Creek which flows east and is within the Niagara Peninsula Conservation Authority (NPCA) watershed. Forty Mile Creek is also a municipal drain. Elevated boardwalks occur for 1.7 kilometers through the Vinemount South Swamp. The original boardwalks built in 2000 have been recently replaced by HCA with donor support from Dofasco Inc. and the Hamilton Conservation Foundation.

Trail users experience a variety of rural land uses including agricultural, vineyard, orchard, residential, small business, and industrial operations. Within the middle of Vinemount South Swamp there is municipal land that is the site of an old land fill operation, with some encroachment visible into the unopened road allowance. At Tenth Road East an open pit quarry is in operation, Vinemount Quarries also has access to their test wells on the north side of the trail in this area. Canadian Pacific Railways has a main rail line that crosses Tenth Road East, requiring trail users to walk along the roadway to cross the rail line. At this location there is also a small onroad parking area with interpretive sign for trail users. In the previous Master plan it was intended that this pull-off area would connect to more parking and trail-head amenities to be provided at 87 Acres Park.

In 2022 HCA acquired the 20.3 ha (50 acre) Punchbowl market property at 136 Ridge Road to expand the Devil's Punchbowl Conservation Area. More information on this is in the 2022 Devil's Punchbowl Conservation Area Master Plan. The additional land will provide space for visitor amenities, and a new wetland designed to help prevent flooding and erosion in lower Stoney Creek. Approximately 795m of the Dofasco Trail is located within the wetland study area. The trail route will be accommodated in the wetland design and the connection to the conservation area and trail-head parking area will be maintained.

3.3 Planning and Development Controls

The trail is located in Ward 9 – Stoney Creek and subject to planning and development controls of the City of Hamilton.

The trail is also subject to additional planning and development controls. The entire trail is within the Greenbelt Plan – Protected Countryside. East of First Road East the trail abuts the south boundary of the Niagara Escarpment Plan Area. West of First Road East the trail enters Devil's Punchbowl Conservation Area and is within the Niagara Escarpment Parks and Open Space System (NEPOSS). East of Eighth Road East the trail is in the Niagara Peninsula Conservation Authority (NPCA) watershed area.

The policies of the Niagara Escarpment Plan and guidelines of the NEPOSS 2021 planning manual

have been observed in the preparation of this Management Plan.

HCA recognizes that certain public infrastructure such utility corridors, trails or transportation links may be required to cross conservation area lands. HCA policy for planning review and regulation of these features adheres to the Conservation Authority Act, R.S.O 1990 c. 27.

The City of Hamilton planning and development departments, as well

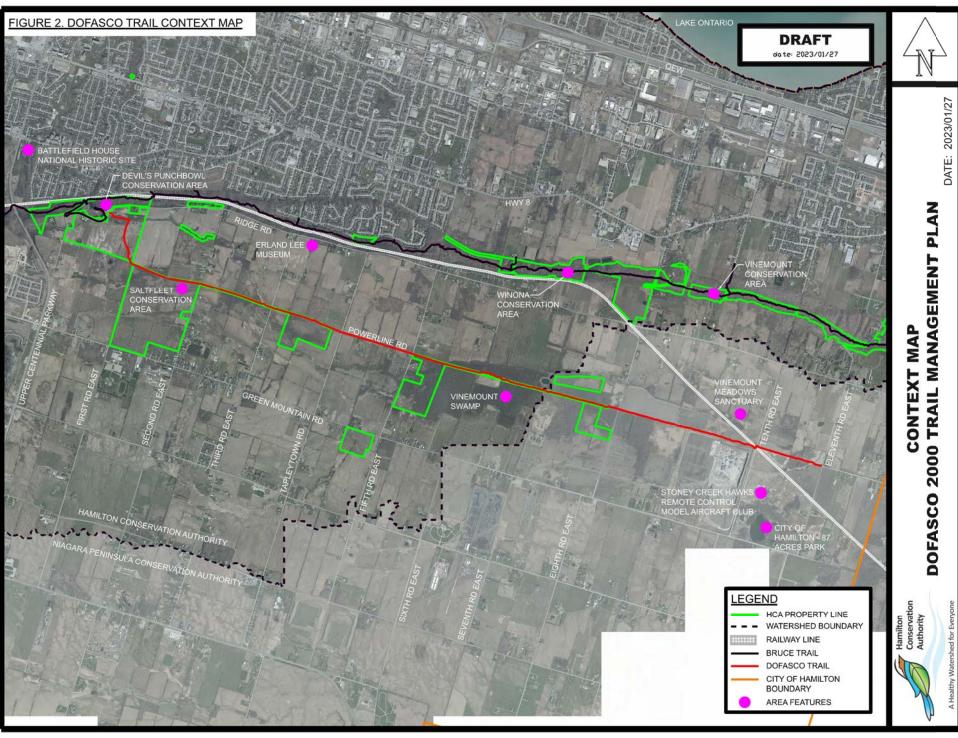


as representatives from the Niagara Escarpment Commission; Ministry of Northern Development, Mines, Natural Resources and Forestry; and the NPCA have been consulted in the preparation of this Management Plan.

3.4 Management Plan Zones

Figure 2. shows the Dofasco Trail in relation to lands owned and managed by HCA. The unopened road allowance portion of the trail is the focus of this Management plan. See appended maps for more information.

The current NEPOSS Planning Manual identifies an Access Zone that would be applicable to the Dofasco Trail. Access Zones serve as staging areas to support the use of and access to adjacent land uses and zones. Minimal infrastructure is permitted such as trailhead parking, signage, and visitor amenities.



4.1 Natural Features

For the length of the trail the topography is generally flat, with slight undulations accompanying the creeks and drainage tributaries of this tableland on top of the Niagara Escarpment. Within the broader study area, the dominant feature is the Niagara Escarpment which is located approximately 750 to 800m north of the trail. The Escarpment marks the boundary between the resistant dolostone bedrock to the south and the more easily eroded shales which occur at the base of the Escarpment and underlie the lake plain north to Lake Ontario. The elevation drops over 100m between the crest of the Escarpment and the shores of Lake Ontario.

Land uses in this area of Stoney Creek include rural residential, rural business and industrial, farming and natural areas. The off-road trail gives the public the opportunity to enjoy locally unique wetlands, swamp and woods. Along most sections of the trail is hedgerow type vegetation on either side. Also located along the trail are the Tapleytown Woods and Vinemount Meadows Sanctuary, home to a wide variety of wildlife and habitat for several species of migrating birds. Some open sections along the trail offer vistas over farm fields.



Elevated boardwalks on the trail allow visitors to cross through the Vinemount South Swamp, a provincially significant wetland and environmentally sensitive area. The boardwalks offer the public views of wetland wildlife, particularly waterfowl. This large wetland is immediately south of the Vinemount Moraine, which lies along the brow of the Niagara Escarpment. The secondary Eramosa Escarpment is less than a kilometer south. The swamp forest is the biggest natural forest area south of the Escarpment in Hamilton. It is home to several endangered and important species including the

Northern Harrier, the Sedge Wren and Edward's Hairstreak Butterfly. The wetland straddles HCA's watershed boundary, and the sub-watersheds of Stoney Creek and Forty Mile Creek. From Eighth Road East the trail extends into the Niagara Peninsula Conservation Authority (NPCA) watershed.

East of the Vinemount South Swamp, the trail continues through the Saltfleet Northeast Woods. Approximately 55 ha (136 acres) this group of small woodlots and marshy fields is separated from the swamp by open farm fields. The woods



provide a home to 50 species of breeding birds, nine of which are uncommon in the Hamilton area, including a breeding ground for the Sedge Wren, an elusive wren species. The CPR rail line runs southeast along the southern boundary of this area.

The Dofasco Trail travels through a variety of habitats along its length. This variety of habitat leads to a variety of bird and plant species using this trail.

Breeding bird surveys were conducted on the Dofasco 2000 Trail in the spring of 2021 and 2022. These surveys identified 34 species of birds including the Bobolink (Dolichonyx orvzivorus). Eastern Wood-pewee (Contopus virens), and Wood Thrush (Hylocichla mustelina) which are at risk provincially and federally. Other notable species include the Brown Creeper (Certhia americana), Brown Thrasher (Toxostoma Hairy Woodpecker (Dryobates rufum), villosus), Mourning Warbler (Geothlypis philadelphia), and Redbellied Woodpecker (Melanerpes carolinus) which are considered uncommon in the City of Hamilton. According to iNaturalist, several species have been seen utilizing the area during the winter months including the Northern



Red-bellied Woodpecker

Harrier (*Circus hudsonius*), Northern Shrike (*Lanius borealis*), Short-eared Owl (*Asio flammeus*) (at risk provincially and federally), and White-Crowned Sparrow (*Zonotrichia leucophrys*).

Snapping turtles have been noted by staff approaching the trail for nesting in the Vinemount swamp section of the Dofasco trail.

Plant surveys were conducted throughout the spring, summer and fall of 2022. A total of 122 plants were identified along the trail, of these 71 (58%) are native, 39 (32%) non-native with 12 identified to family only. Black Ash was recorded along the trail and has recently been designated Endangered in Ontario. Although protections have been suspended for this species from the Endangered Species Act, as an environmental agency HCA should be cautious in the removal of this species. Butternut was also found growing along the trail and is also a provincially endangered tree species. Health assessments are required before Butternuts can be removed. Two locally uncommon plant species were also found, Gray's Sedge and Purple Avens. Unfortunately, there were also a number of invasive plant species found along the Dofasco trail. Woody invasive included Common and Glossy Buckthorn are prevalent along the trail sides along with lesser numbers of Autumn Olive and Multiflora rose. While herbaceous invasives included Garlic Mustard in low numbers, Dog-strangling vine along the trail in the Tapleytown woods and a small stand of Phragmites near the 10th Concession.

4.2 Aquatic Inventory

The natural drainage patterns of the agricultural lands in the study area have been altered. Creeks have been channelized within a system of recti-linear drainage ditches. The wetlands similarly have

these ditches running through them.

There are three main channel crossings of Stoney Creek and two of Forty Mile Creek. The trail additionally has tributary culvert crossings of Battlefield Creek in Saltfleet CA. There are also ditch crossings associated with the road crossings, and tributary culvert crossings on Powerline Rd.

The Battlefield Creek tributary crossings are in the area of the trail running adjacent to the Saltfleet Conservation Area. They drain a small private pond/wet area into the natural wetland area in the CA. There are 3 culverts present that provide this passage and this crossing is direct fish habitat. The flow is intermittent in nature and would be considered a warmwater environment.

Dofasco Trail in Saltfleet CA, NRSI sampling for wetland design is noted in *Table 1*.

Table 1. NRSI Sampling Conducted for Saltfleet Wetland Design

Common Name	Scientific Name
Pumpkinseed	Lepomis gibbosus

The first Stoney Creek crossing on the trail is a bridge in Devil's Punchbowl Conservation Area.

HCA has a long-term Aquatic monitoring station located in Stoney Creek in the Devil's Punchbowl Conservation Area with records dating back to 2000. Stoney Creek in this area is intermittent in nature and the soils are shallow. The portion directly upstream of the Punchbowl waterfall flows directly on bedrock. The harsh conditions in this reach of Stoney Creek are further represented by the fish species captured, as noted in *Table 2*. Most sampling years the creek is so dry that no fish are present, and when they are captured only two species have been found. They are tolerant to intermediately tolerant species and indicate a coolwater thermal regime.

Table 2. Fish Species Stoney Creek Captured Devils Punchbowl/Dofasco Trail

Common Name	Scientific Name
Brook Stickleback	Culaea inconstans
Central Mudminnow	Umbra lima

The second Stoney Creek crossing along the trail is a bridge approximately 90m west of Third Road East. This reach of Stoney Creek is intermittent in nature and flows diagonally under the trail. The fish species present as noted in *Table 3.* indicate it is a coolwater environment but also reflect the intermittent nature of the swamp as the species represent tolerant to intermediately tolerant species.



Central Mudminnow

Table 3. Fish Species Stoney Creek Third Road West

Common Name	Scientific Name
Brook Stickleback	Culaea inconstans
Fathead Minnow	Pimephales promelas
Central Mudminnow	Umbra lima
Creek Chub	Semotilus atromaculatus
Northern Redbelly Dace	Chrosomus eos

The third creek crossing on the trail is a bridge approximately 250m east of Fifth Road East located in the Vinemount Swamp. Approximately 150m further east, a tributary of Stoney Creek crosses the trail at the start of a boardwalk section. The Vinemount Swamp represents the poorly drained lowlands between the two moraine features. Its drainage is enhanced by the channels dug though it which represent the watercourses in this area. This watercourse flows west out of the swamp, outletting into the main channel of Stoney Creek just east of Tapleytown Road. The fish species present as noted in *Table 4*. indicate it is a coolwater environment but also reflect the intermittent nature of the swamp as the species represent tolerance to intermediately tolerant species. The large sections of boardwalk through this swamp represent the best way for the trail to exist in the area and limit its impact on the aquatic ecology.

Table 4. Fish found in Vinemount Swamp Portion of the Dofasco Trail

Common Name	Scientific Name
Brook Stickleback	Culaea inconstans
Central Mudminnow	Umbra lima

The first Forty Mile Creek trail crossing is a bridge approximately 450m west of Tenth Road East. The second trail crossing is approximately 100m west of Eleventh Road East. Forty Mile Creek is located in the NPCA watershed.



5.1 Trail Infrastructure

The following trail infrastructure review was conducted by HCA staff in the summer of 2022. See *Appendix 2* for a summary of the recommended trail infrastructure capital projects noted in this review.

In general, the entire trail is in good condition. Lesser-used portions of the trail have some vegetation encroachment onto the trail, but overall the trail surface is in good condition. There are no benches anywhere along the trail, although a few large rocks could serve as rest areas for trail users. Accommodating accessible rest areas at various points along the trail is recommended, installation of site furnishings at rest areas could be potential donor projects (memorial benches, bike racks, etc.). Trail gates and barriers are in place at or near road crossings to block motorized vehicles from entering the trail. All of the wood trail signage is showing wear and replacement is recommended. Municipal road crossings could also be improved with crosswalks for pedestrian safety.



.1 Trail Counters

HCA installed four trail counters in May 2022 to gather visitor data for this plan. The trail experiences consistent community use during the week, with spikes in visitation on weekends from outside visitors. The trail counter nearest to the Devil's Punchbowl CA was busiest. This location was also very popular during the fall colour season. As Hamilton's population grows, we anticipate trail user numbers to grow, with similar trends in visitation. Trail durability and maintenance will be important to sustain the recreational trail use year-round, as populations in the area increase. See *Appendix 3* and *Figure 3*. *Trail Counter Summary* for more information.

Figure 3. Trail Counter Summary

	Dofasco Trail Counters Summary				
	Trail Counter - Dofasco Trail at Ridge Road	Trail Counter - Dofasco Trail at First Road East	Trail Counter - Dofasco Trail at Fifth Road East	Trail Counter - Dofasco Trail at Tenth Road East	
	Total Monthly Counts				
May*	1819	1860	1222	1976	
June	528	626	976	1525	
July	1434	1474	1009	1236	
August	783	374	752	1027	
September	854	1138	683	890	
October	2539	N/A	1106	1021	
Total	7957	5472	5748	7675	
	Daily Averages - Days of the Week				
Monday	45	31.6	28.1	39.3	
Tuesday	18	18.5	22.4	39.2	
Wednesday	20.6	21.1	20.9	28.9	
Thursday	16.5	25.4	21.6	35.5	
Friday	27.8	23.4	24	29	
Saturday	78	51.3	48	55.2	
Sunday	81.5	53.1	45.8	45.3	

.2 Ridge Road to First Road East

This portion of the trail is currently under review with HCA's proposed wetland development for the Devil's Punchbowl Conservation Area (DPCA). The trail and associated infrastructure may be recommended for relocation within the new wetland. As the wetland project proceeds through approvals, this Management plan may be amended with the new wetland trail information. The following observations of current conditions and trail use are provided as baseline information.



The trail-head for the west end of the trail is located at the DPCA visitor parking lot on Ridge Road. Visitors may access the Dofasco Trail as well as the Bruce Trail from this location

The Ridge Road trail entrance does not have the trail gates and barriers found at most other road crossings for the trail. Instead, there are large rocks spaced along the side of the road to restrict vehicle parking and access onto the trail.

Where the trail crosses Stoney Creek there is a clear-span steel bridge in good condition.

The trail surface for most of this section is mown grass, with a stone chip path varying in width down the center making it suitable for cyclists. At First Road East, there is a typical trail gate/barrier allowing cyclists and pedestrians to pass through while restricting vehicles. However, it was observed that unauthorized motorized access (ATV's) was occurring at this location on the farm lane running due west to Ridge Road. HCA staff have had to place temporary barricades and sign this lane as off-limits to trail users. Unauthorized access such as this will need to be addressed in the wetland design project proposed for the DPCA SC-5 property.

.3 First Road East to Second Road East

The trail section between First and Second Road East is very flat and follows the unopened road allowance. Saltfleet Conservation Area (Saltfleet) is adjacent to this trail section on the south side.

The surface is stone chip and the entire stretch of trail is enclosed by well-pruned vegetation. The entrances at First and Second Road East have standard gate arrangements, however the entrance at Second Road is missing one post from the typical configuration. A large rock is in its place. The sightlines at Second Road East need improvement, pedestrians and cyclists must get very close to the road edge in order to see oncoming vehicles.

At the time that this inventory was completed, the Saltfleet wetlands were under construction. In September 2022 Saltfleet re-opened to the public, with trail access from the Dofasco Trail connecting to the Saltfleet parking lot. Trail users are just starting to discover this trail connection and parking area for the Dofasco Trail.



.4 Second Road East to Third Road East

The standard trail gates on the east side of Second Road East are set back further than on the west side. This allows farmers enough room to use the start of the trail as an access point to fields on

either side of the trail. Further east, access points from these fields through the trees were visible on both sides of the trail. The openings could allow ATV access to the trails. The trail surface through this section is grass, compacted earth or stone chip. Near Third Road East there is a clear span bridge with wood decking crossing Stoney Creek. The bridge looks to be in good condition. The gate at Third Road East is in the typical configuration allowing for bicycle and pedestrian access.



.5 Third Road East to Tapleytown Road

The gate on the east side of Third Road East is laid out in the standard configuration. There is a concrete barricade blocking vehicle access on the south side of the gate. The trail passes through woods north and south of the trail, the forest cover offers shade and natural habitat. HCA owns the forested property to the south.



The trail gate on the west side of Tapleytown Road is set back about 245 meters from the road. This setback allows adjacent land owners to access their property from the unopened road allowance. However, no access onto adjacent lands from the trail was observed, and dumping and vandalism were occurring on this part of the trail. This activity could be curtailed if new trail gates and barriers were permitted to be installed closer to Tapleytown Road. Further review of this area with the Citv recommended.

.6 Tapleytown Road to Fifth Road East

This is the only on-road section of the Dofasco Trail. Trail users can walk along Powerline Road from Tapleytown Road to Fifth Road East, a distance of about 875 meters. The road surface is asphalt and there is no sidewalk or gravel shoulder, nor signs indicating this is a portion of the trail. When this road requires replacement, it would be desired to accommodate the trail in the road design. It is common for visitors to park their vehicles on Powerline Road and access the trail at Fifth Road East leading into the Vinemount South Swamp.



.7 Fifth Road East to Eighth Road East

Sixth and Seventh Road East do not extend through this area, so the trail from Fifth to Eighth Road East doesn't have any road crossings. The east side of Fifth Road East has trail gates allowing pedestrian and cyclist access. Heading east, the trail has a stone chip surface for about 400 meters to reach the boardwalk at the Vinemount South Swamp. There is also a clear span bridge with wood decking crossing a watercourse near the center of this segment. This bridge appears to be in good condition. boardwalk is almost two kilometers in length, with a 380-meter stone chip trail section mid-way to Eighth Road East. At the beginning of each boardwalk section, concrete blocks are in place to prevent motor vehicle access. These were originally installed in 2010 and should be reviewed for safety and accessibility, as well as the grade of the trail up to the boardwalk. The boardwalk was recently replaced by HCA and is in very good condition. As of this inventory, there is one remaining boardwalk section to be replaced (west end of east boardwalk), scheduled for completion by spring 2023. At Eighth



Road East, the boardwalk starts about 140 meters in from the road. Approaching the boardwalk, the trail has a stone chip surface. The gate on the west side of Eighth Road East is in the standard arrangement. Parking along the shoulder of Eighth Road East has been observed, this may be a popular access point for visitors.

.8 Eighth Road East to Tenth Road East

Ninth Road East does not extend through this area, so the trail is uninterrupted between Eighth and Tenth Road East. The gate on the east side of Eighth Road East is in the standard arrangement. The trail surface between Eighth and Tenth Road East is stone chip, but the mown grass is encroaching on the trail surface for various lengths leaving a narrow stone chip path down the center. This trail section is very open, mostly passing between agricultural fields. Hedgerows along some parts of the trail section provide shade and windbreak.

There is an interpretive sign about 130 meters east of Eighth Road East that is in very poor condition. The sign panel has deteriorated leaving only about 50% of its content. There is a steel bridge crossing Forty Mile Creek near Tenth Road East that appears to be in good condition. Along Tenth Road East, there is an active quarry run by Waterford Sand and Gravel on



the south side of the trail that produces a fair amount of noise. The quarry property is fenced off from the trail and has "no trespassing" signs posted. The Canadian Pacific Railroad crosses the trail at Tenth Road East and is also noisy when a train is passing. The trail follows on Tenth Road East and does a jog across the railroad tracks, the safety of this crossing should be reviewed.

On the north side of the trail west of Tenth Road East is the Vinemount Meadows Sanctuary, a 65-acre bird and pollinator habitat created in partnership between the Hamilton Naturalists Club and Waterford Sand and Gravel. There is an interpretive sign in good condition with information about the Sanctuary located beside the trail. There is another interpretive sign with information about the Dofasco Trail located on the east side of Tenth Road East, this sign is in very poor condition. There is a section of widened gravel shoulder along the east side of Tenth Road East, this area was originally envisioned as a staging area for the trail with 87 Acres Park to the south. However, 87 Acres Park is not open to the public. The gates on the west side of Tenth Road East are in the standard configuration.

Improvements to the trail signage and updated interpretive signage is recommended for the Tenth Road East location. Due to the closure of 87 Acres Park, this area serves this area no longer serves as a formal staging area for the trail and only a few cars may pull off at this location.

.9 Tenth Road East to Eleventh Road East

The intersection at Tenth Road East poses some challenges for trail navigation. The trail alignment is interrupted by the railway tracks, and there are no trail gates on the east side of Tenth Road East.

A private driveway on the east side of the road, and the trail entrance, merge at this location. Trail wayfinding and signage could be improved in this location.

On the east side of Tenth Road East the lands south of the trail contain several large satellites, noise producing generators, and industrial equipment visible from the trail. During the City planning approvals for this property HCA requested fencing be installed at the property boundary to buffer the trail. At the time of this review, no fencing exists.



Continuing east on the trail, there is a forested section and then the trail opens up through to Eleventh Road East. The trail surface through this section is stone chip. There is a steel bridge crossing Forty Mile Creek near Eleventh Road East that appears to be in good condition. From the east end of the satellite dish property through to Eleventh Road East, the trail is fenced on both sides. There are two set of gates along the trail providing access to the agricultural fields on either side. The gate at Eleventh Road East is in the standard configuration.



.10 Trail Access Agreements

Trail management of the off-road trail is carried out as per the current signed partnership agreement between the City of Stoney Creek (now City of Hamilton) and the HCA. This long-term agreement is anticipated to remain in effect beyond the life of this plan. HCA welcomes further discussion with the City on this agreement anytime that the ownership of this trail by the City is under review.

Our infrastructure review notes there are locations where adjacent landowners are observed using the trail to access their land. The current access agreements are subject to further review by HCA and the City on a case by case basis. Unauthorized motor vehicle activity anywhere along the trail is also subject to review and trespassing enforcement by HCA and the City.

At the Tenth Road East the Canadian Pacific Railway has right-of-way access across the trail.

Waterford Sand & Gravel Limited has access over the trail to their monitoring wells, and Ontario Hydro has access for their lands near First Road East.

Approximately 2.5km of the eastern end of the trail is located within the Niagara Peninsula Conservation Authority (NPCA) watershed. At the time of trail construction letters of support from NPCA were provided to HCA to develop the trail within their watershed.

5.2 Connections to Hamilton Conservation Areas

The Dofasco Trail connects to Devil's Punchbowl and Saltfleet Conservation Areas. These locations are the primary parking and trail-head staging areas. From the Bruce Trail at the Punchbowl, secondary access to HCA's east mountain conservation areas such as Vinemount, Winona, and Felker's Falls is possible. Along the Bruce Trail, the nearest Escarpment conservation areas in the NPCA watershed are Woolverton and Beamer Memorial.

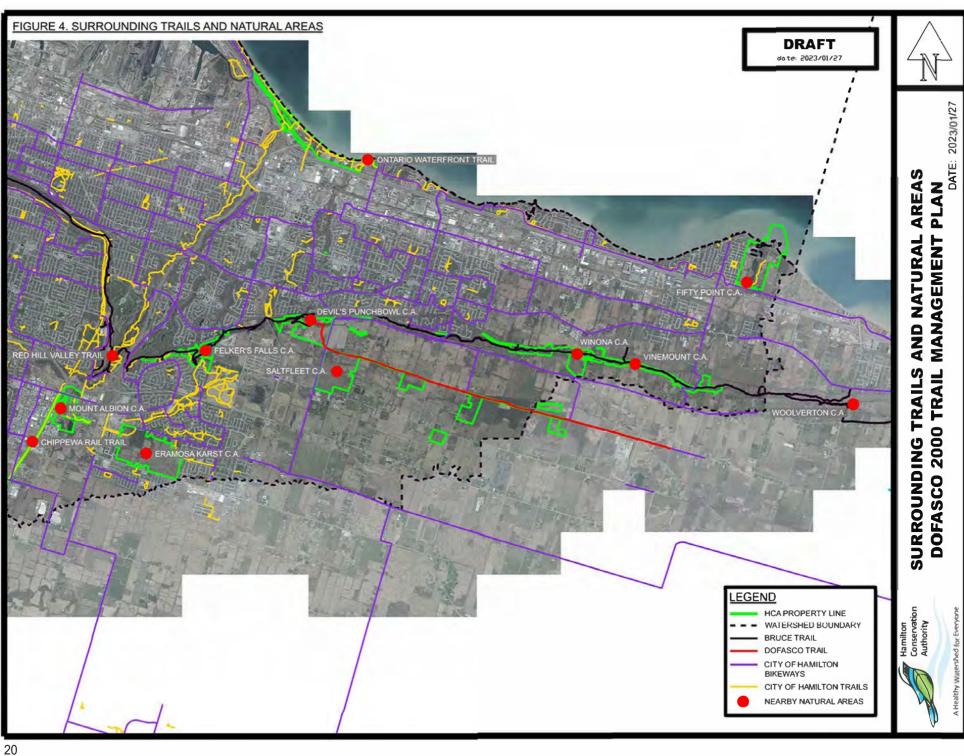
Within the City of Hamilton, other trails within cycling distance of the Dofasco Trail include:

- Ontario Waterfront Trail along the shore of Lake Ontario
- Red Hill Valley Trail
- Chedoke Radial Trail
- Ontario Greenbelt Route
- Trans Canada Trail
- HCA's Chippewa Rail Trail
- The Niagara Escarpment Rail Trail

See Figure 4. for locations of nearby trails and natural areas.

Public transportation offered by the City of Hamilton allows for hikers and cyclists to reach the Dofasco Trail, with some effort, from the nearest bus stops in Stoney Creek.





6.1 Natural Heritage Conservation

The Dofasco Trail is an important recreational trail within the system of open space and natural areas in the City. The off-road trail on un-opened road allowance crosses three Environmentally Significant Areas (ESA). No new trail development other than routine maintenance of the trail surface, bridges, culverts and boardwalks is proposed. No trail impacts to the adjacent ESA's are anticipated for the lifespan of this Management plan. However, it should be noted that invasive species will need to be monitored and managed along the trails. See Section 4.0 for more information.

It should be noted that two endangered tree species occur along this trail, Butternut and Black Ash. Further assessments are required before these trees can be removed, even if they are hazards. In addition, Dog-Strangling Vine a very aggressive invasive plant species occurs along the trail within Tapleytown Woods. Trail mowing and maintenance should include clean equipment protocols to discourage the movement of this species further. Management of this species will be a high priority.

6.2 Water Management

Water crossings on the trail are not considered to be navigable under the *Federal Navigation and Protection Act* (formerly the *Navigable Waters Protection Act*), thus crossings do not have to provide for navigation.

The watercourses within the area of the trail are mostly intermittent in nature Though they still are direct fish habitat as fish have been found in the area of all crossings in HCA's watershed. The fish will move to deeper pools when the shallower sections dry up. This highlights the importance of ensuring all crossings are constructed to facilitate fish passage to avoid trapping fish and preventing them from being able to access the deeper pools of the system for refuge.

No new trail development is proposed that could adversely affect water resources. Should replacement of culverts, bridges and boardwalk features along the off-road trail be required, HCA will adhere to federal, provincial and local policies and regulations. See Section 4.0 for more information.

6.3 Conservation Area Experience

The former City of Stoney Creek and HCA worked together to create this trail and provide recreational opportunities for the public. Key values of this vision supported



by this plan include conserving and managing public open space and natural habitat; offering the community and visitors recreational and educational benefits; and supporting community health and well-being connecting people to nature.

This Management plan supports this original vision for the trail, and in linking Devil's Punchbowl Conservation Area to Eleventh Road East in Stoney Creek. As well, this plan supports the broader vision of recreational trail connections to the rural areas of Stoney Creek with potential linkages throughout the City of Hamilton and beyond.

The trail use is primarily directed towards bicyclists and walkers, with the main access and parking at Devil's Punchbowl and Saltfleet Conservation Areas. Secondary access and limited roadside parking are available at Fifth Road to view the Vinemount South Swamp, and along the shoulder of Tenth Road East near the eastern end of the trail. While some roadside parking occurs near the trail gates between Second and Eleventh Road East, for public safety HCA is not recommending parking at these locations.

When offsite parking is found to be causing traffic and safety issues, HCA will enlist the assistance of municipal agencies for traffic control. Traffic control will be evaluated on a case by case basis by all agencies involved. Should this be a persistent problem HCA will work with municipal partners on traffic and visitor management strategies and solutions.

The original Master Plan for the trail noted creating an entrance node at 87 Acres Park, located at Tenth Road East and Green Mountain Road. At Tenth Road East there is a remnant interpretive sign from the original trail construction in poor condition along the shoulder. All of the signage at this location needs updating and to clearly identify the trail.

The 87 Acres Park was originally Vinemount Quarries property and subsequent to the quarry's closure was transferred to the City of Stoney Creek for use as a non-hazardous landfill site. The landfill was officially closed in 2005 with the intent of creating the nature park for the public. The large quarry pond currently provides habitat for waterfowl and wildlife, and while the site offers potential for passive recreation and parking it is currently closed to the public and being monitored by the City.



The only public access from Tenth Road East

into 87 Acres Park is for the Stoney Creek Hawks Remote Control Model Aircraft Club field. This club was established in 1977, however the field was being used as a radio control flying site in 1969 and is probably one of the older radio control flying sites in Canada. Club members keep the gated access to their field secured for their sole use.

Due to the uncertainty surrounding the opening of 87 Acres Park to the public, and the long-term operation of the aircraft club at this location, the 87 Acres Park property is not being considered as an entrance node nor trail-head for the Dofasco Trail. Should the land use of this area change in future, HCA welcomes the opportunity to discuss potential connections with the Dofasco Trail.

6.4 Education and Environmental Awareness

The existing interpretive signage on the trail provides some educational information on the natural features and history of the area. This signage is in poor condition and is recommended to be replaced with a new interpretive signage program designed for the trail. The addition of rest areas for the trail is recommended in Section 5.1, rest areas could also serve as interpretive educational stations. The trail-head staging areas at DPCA and Saltfleet CA are also prime locations where educational information can be offered. Further study of design options is recommended, as well as considering community donors and partnerships for



interpretive features and programs, prior to replacing the current signage.

The existing wood trail signs will need updating and refreshing during the life of this plan to HCA's current sign standards. During the roll-out of new signage, communicating educational information to the public with these installations is recommended.

New digital technological opportunities are also recommended to promote and describe the trail and its features. Currently HCA offers an online trail brochure, and the HCA website provides information on trail etiquette guidelines, rules and regulations. The trail brochure is recommended to be updated once this Management plan is posted on the HCA website. Educational information could also be provided by mobile digital applications for self-guided use on the trail (story-telling apps for example).

6.5 Management Guidelines

.1 Permitted Uses

Permitted passive recreation activities include walking, dog-walking, hiking, bicycling (with exceptions for e-bikes noted below), winter snowshoeing, and geocaching.

The Accessibility for Ontarians with Disabilities Act (AODA) proposes improving access to trails for persons with a disability. Persons requiring use of a motorized wheelchair are permitted access to the Dofasco trail. The ability of a wheelchair to navigate the trail will depend upon the trail surface, trail grade, and weather conditions. HCA shall improve upon trail surfaces and grades in their operation and maintenance to support accessibility.

HCA is considering restricting equestrian use, pending further review of the trail conditions and infrastructure (bridges, boardwalks) required for safe trail use. Horse riding may be restricted from portions of the trail, or the entire trail pending this review and at HCA's management discretion considering trail user safety.

For power-assisted bicycles, HCA follows the provincial regulations for electric bikes (e-bikes) as per the Ontario Ministry of Transportation. E-bikes that meet provincial requirements are allowed on roads and highways where conventional bicycles are currently permitted. The regulations also permit exceptions where e-bikes may not be used including municipal roads and sidewalks where bicycles are banned under municipal bylaws, bike paths, bike trails, or bike lanes. Currently e-bikes (including power assisted scooters) are not permitted on the Dofasco trail and HCA recreational trails. It is recommended that HCA further review e-bike use and permissions with the City for the Dofasco Trail should e-bike use be found to be increasing in the community and observed on HCA trails.

.2 Restricted Uses

The use of motorized vehicles is not permitted on the trail, with the exception of maintenance and emergency vehicles, and motorized wheelchairs noted previously. Hunting and trapping are not permitted on or from the trail corridor. Dogs off leash are not permitted. No open fires or camping are permitted. Unauthorized property access and encroachment are not permitted and will be addressed by the City of Hamilton and HCA on a case by case basis.

.3 Agreements

The management of the off-road trail will be carried out as per the current partnership agreement between the City and the HCA. Some portions of the trail are accessed by adjacent landowners under past agreements. The City of Hamilton may require updated access agreements for continued use, on a case by case basis.

HCA values the community support from area residents and landowners, businesses, service clubs, and volunteer organizations that currently or could contribute to the trail in a variety of ways. The HCA will continue to nurture existing support and will seek out new opportunities for trail partnerships.

6.6 Maintenance Guidelines

.1 Vegetation Clearing

The existing trail is intended to be 1.5m to 1.8m wide with a clearing width of 2.4m. Vegetation is to be removed within this clearing width as necessary to ensure safe sight lines, reduce hazards, and prevent encroachment of vegetation onto the trail. Any vegetation clearing beyond this shall only be done on a site-specific basis subject to review by HCA and the City. Best management practices are to be followed so that maintenance activities, equipment, and tools do not spread invasive species.

.2 Fencing

No new fencing is proposed for the off-road trail. Fencing is only to be considered on a site-specific basis by the City and HCA in accordance with requirements of the provincial *Line Fences Act* and local By-laws.

.3 Lighting

The trail will not be lit and is intended to only be open sunrise to sunset.

.4 Garbage Collection

Garbage cans may be made available by HCA at the conservation area trail head parking lots if demand warrants. Garbage cans will not be provided along the trail route. Trail users will be encouraged to practice 'pack in-pack out' trail etiquette.

.5 Washrooms

Currently no washrooms are provided along the trail. Information signs may be used to direct trail users to conservation area parking areas and washrooms.

HCA has acquired lands at the Punchbowl Market buildings and is investigating expansion of parking and visitor services at this location, including washrooms. HCA is also considering providing washroom facilities at Saltfleet. More information is available in the 2022 Saltfleet and Devil's Punchbowl Master Plans.



.6 Winter Maintenance

There will be no snow removal along the trail.

.7 Signage

Five types of signs are permitted along the trail: information, designation/direction, regulatory, warning, and interpretive. Information signs are intended to provide general information about the use, identify the trail and may include a map. Designation/direction and regulatory signs are to be placed along the trail at each road crossing. Warning signs will be placed where there are anticipated safety concerns, such as areas with quarrying and agricultural activities.

Interpretive signs may be provided along the trail as part of a planned educational program. All signs are to follow standard formats of the HCA and City. Most signs will include a logo, trail name in addition to the information being conveyed.

.8 Road Crossings

The trail crosses nine roads. All road intersections and at the trail shall be signed for vehicle traffic

and trail users. Gates structures shall be maintained at each road crossing to prevent unauthorized motor vehicle access to the trail, and provide a visual warning for the trail user prior to crossing the road. Vegetation shall be pruned only as necessary to provide sight lines for trail user safety.

Traffic volumes and the risk to pedestrian safety shall be monitored by HCA and the City. Future traffic volumes may warrant additional design features for public safety. Public safety features such as road crosswalks (signage, line painting, crosswalk lights) are subject to review and approval by the City.

.9 Watercourses

Trail maintenance at watercourse crossings is to be reviewed by HCA and the City when features such as culverts, boardwalks, bridges and associated structures require maintenance or replacement.



.10 Invasive Species

As noted in Section 4.1 the following invasive species have been found along the Dofasco Trail: Common and Glossy Buckthorn, Autumn Olive, Multiflora rose, Garlic Mustard, Dog-strangling and Phragmites. This section details these invasive species.

.1 Common buckthorn

Common buckthorn is a small tree or shrub that was introduced to Ontario from Eurasia. It was widely planted in farm hedgerows and fencerows as a wind break. It can survive in a wide range of conditions making it very good at invading a variety of habitats (Anderson, 2012a). Birds and

small mammals feed on the berries of this plant, which has caused it to spread in the Conservation Area. Large numbers of this species grow along the trail within the Vinemount swamp section as well as interspersed along other portions of the trail. This species is often growing with poison ivy making removal very difficult. Monitoring of the spread of this species will occur and treatment where possible may begin with fruiting females to slow the overall spread. This is a high moderate.

.2 Glossy Buckthorn

Glossy buckthorn (Rhamnus frangula) is a member of the buckthorn family that mainly grows in wet areas, but can be found growing alongside common buckthorn in other habitats (Anderson, 2012a). This is a non-native tree species introduced from Eurasia about 100 years ago (NCC, n.d.). This species forms dense thickets that shade out native species. They produce a dark berry that ripens in late summer and is eaten by birds. The birds disperse the seeds. It is very invasive due to its high seed production and tolerance for varied growing conditions. Glossy buckthorn is growing among common buckthorn along the trail. It tends to be a weak plant and is easily pulled when small. Herbicide treatment can follow the same methodology as common buckthorn since they are closely related and will likely be treated concurrently. Monitoring will occur with this species as well due to its growth pattern with poison ivy.

.3 Phragmites

This species of common reed from Eurasia is a perennial grass. It is not clear how it was transported to North America. It is an aggressive plant that spreads quickly and out competes other native species in wetland habitats (Nichols, 2020). It forms large mono cultures that decrease plant biodiversity and create poor habitat for wildlife. There are small patches growing along the boardwalk in the Vinemount swamp as well as a small patch near 10th concession. An effective control strategy would likely include pesticide application in dry the period for this community (September/ October) (Nichols, 2020). Assessments can be made in coming years to see if the swamp is dry enough in the fall for a spray. It is a top priority species to be controlled at HCA

.4 Garlic mustard

This species was introduced in the 1800's from Europe as an edible herb for early pioneers in the spring. It is a biennial plant that produces seed in its second year (Anderson, 2012b). It can grow in a variety of conditions making it a very good invader in a variety of habitats. It easily outcompetes other native ground cover and can change the soil environments to favour its growth over others. Garlic mustard can be found growing in patches within the Tapleytown woods and small shaded areas along the trail. Removal of this species is fairly straight forward with hand picking between April and June, before the plant goes to seed. With a dedicated effort over 5 years removal of this species can be achieved. This is a high priority because it is easy to remove and there is limited extent of this species along the trail.

.5 Multiflora Rose

Multiflora rose is a large perennial shrub that was introduced to North America in the late 1700s for horticultural purposes, and was widely promoted in the 20th century for a variety of uses (Warne, 2018). This plant grows quickly, can self-pollinate, produce up to 500,000 seeds a year or more, and forms dense thorny thickets rapidly crowding out native biodiversity. Seeds are widely spread through animal's consumption of the plant's fruits, and can be viable in the seed bank for up to 20 years (Warne, 2018).

There are a few seedlings located along the trail. Hand pulling is an effective control method for seedlings, however larger shrubs will aggressively re-sprout if cut without removing the roots. Therefore, a weed wrench and/or shovels should be used to fully remove the plant. This is a labour-intensive solution, and should prioritize small populations and sensitive areas. Alternatively, glyphosate-based chemical herbicide can be applied in late summer or early fall. A follow up-treatment may be required the following year, with ongoing monitoring to eliminate new seedlings (Warne, 2018). This is a high priority due to low numbers and the easy of removing this species.

.6 Dog Strangling Vine

Dog strangling vine (Vincetoxicum rossicum) is an extremely invasive perennial which forms thick mats of vines crowding out all other vegetation (Anderson, 2012b). It is unclear how the European native arrived in Canada, but the first record is from Toronto in 1899. Dog strangling vine is a successful invader through altering the chemical composition of the soil, growing so densely it dominates ground cover, and producing many seeds which are readily carried by the wind.

Small pockets of dog strangling vine occur along the trail within Tapleytown Woods. Individual plants can be dug up so that all parts of the root are removed from the soil. Alternatively, herbicides can be applied to plants before their seed pods fully develop (May to August). Tarping to desiccate plants is not a viable solution for this population due to the lack of sunlight reaching the forest floor in this area. It is likely multiple years of treatment will be required until the seedbank is depleted. If staff cannot meet this timeline, the seed pods should be removed from all plants before maturity in order to control the spread (Anderson, 2012b).

.7 Autumn Olive

Is a shrub native to Asia and was introduced in the United States in the early 1800s. It is a prolific seed producer and grows rapidly in ideal conditions. It forms dense thickets that shade and outcompete native species (OIPC, 2023). This species occurs along the trail in low population density. As there are few shrubs, this would be a high priority for removal. Small populations can be pulled or mechanically mulches. Larger infestation should be controlled chemically.

Within the 2.4m clearing width of the trail, invasive species are to be managed by HCA. Best management activities are to be followed so that maintenance activities, tools, and equipment do not spread invasive species.

A separate and more detailed invasive species management plan is recommended in order to plan and prioritize work on the Dofasco Trail with other invasive species projects in the watershed.

7.1 Implementation Priorities

Over the last 20 years, the Dofasco 2000 Trail has provided a valued link between the Devil's Punchbowl Conservation Area and Eleventh Road East in Stoney Creek, City of Hamilton.

This Management plan provides current information on the off-road trail portion managed by HCA, and provides guidance for trail management and operation for the next ten years.

Continued safe enjoyment of the trail will require some capital work to be completed to replace aging trail infrastructure. The following items are recommended to be implemented in order of priority to achieve this goal:

.1 Environment Management:

From our ecological reviews of natural areas adjacent to the trail, key recommendations for the next ten years include:

- Terrestrial review of vegetation and invasive species within the trail clearing width.
- Invasive species control, focused on Dog-strangling vine, Phragmites and Autumn Olive
- Replanting along the trail as invasive species are controlled to restore natural regenerating ecosystems.
- Aquatic review of watercourse crossings to ensure safe fish passage and as infrastructure requires maintenance or replacements.

.2 Trail Infrastructure Improvements:

The following improvements are recommended for the recreational trail. These improvements support a safe visitor experience, and protect adjacent lands and natural areas:

- Provide trail-head amenities at Devil's Punchbowl and Saltfleet Conservation Areas.
- Implement a trail signage replacement program.
- Provide trail fencing and buffers as necessary to protect adjacent lands and natural areas.
- Improve trail surfacing for the entire length of the trail.
- Improve buffering along trail between Tenth and Eleventh Road East.



.3 Conservation Area Connection Improvements:

The following improvements are recommended to improve trail connections and linkages to HCA Conservation Areas:

- Improved pedestrian trail crossing of First Road East in co-ordination with City of Hamilton.
- Install trail wayfinding signs to connect with Devil's Punchbowl Conservation Area.
- Install trail wayfinding signs to connect with Saltfleet Conservation Area.
- Install trail identification and wayfinding signs on Powerline Road in co-ordination with City of Hamilton.



8.0 APPENDIX CONTENTS

APPENDIX 1 Mapping

APPENDIX 2 Capital Development Priorities

APPENDIX 3 Trail Counter Data

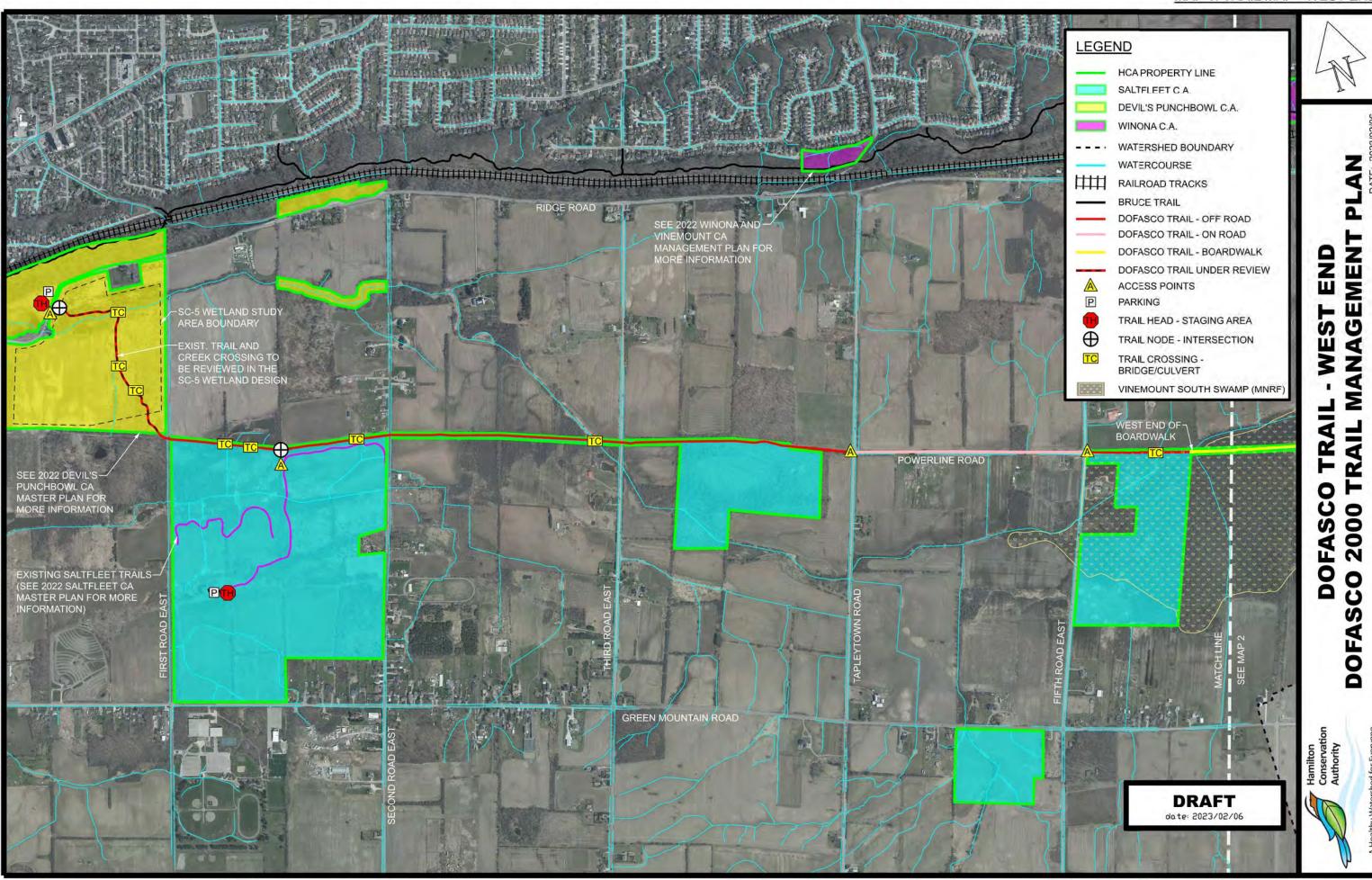
APPENDIX 4 References

APPENDIX 1

Mapping

Map 1 Dofasco Trail – West End Portion

Map 2 Dofasco Trail – East End Portion



AGEMENT

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2000

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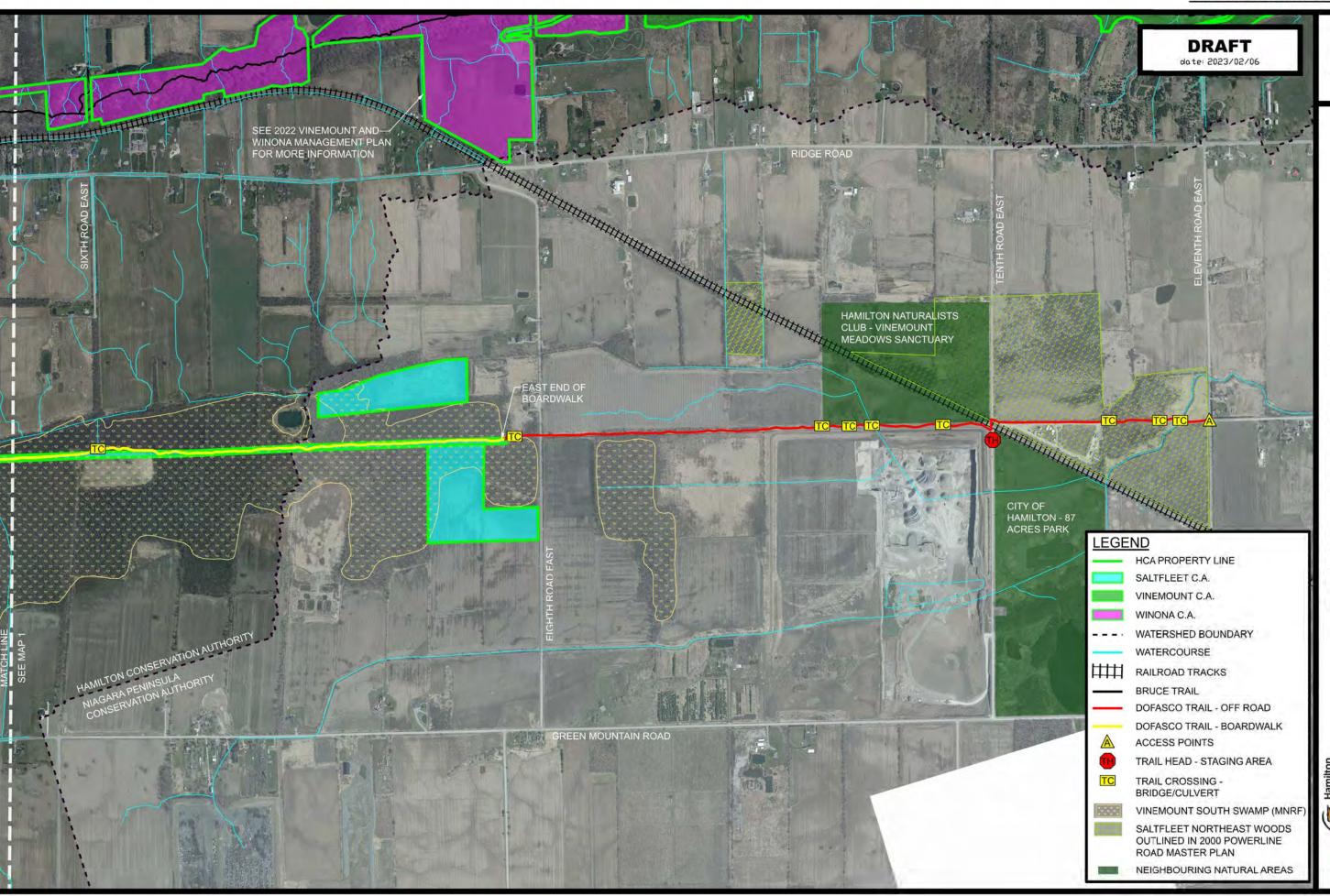
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APPENDIX 2

Capital Development Priorities

DRAFT - DOFASCO 2000 TRAIL CAPITAL DEVELOPMENT PRIORITIES: 2022 - 2032

A. Trail Infrastructure Improvements *Budget (XX)

- A1 Trail Head Staging Areas, Kiosks (2 locations)
- A2 New Gate Signage (xx locations)
- A3 New Interpretive Signage (xx units)
- A4 Trail Fencing and Barriers
- A5 Stonedust Trail Improvements
- +A6 Invasive Species Management
- **A7 Punchbowl Wetland Area Trail and Bridge Replacement
- **A8 Trail Rest Areas and Site Furnishings (xx locations)
- **A9 Trail Crossing on First Road East

B. Conservation Area Connection Improvements*Budget (XX)

- B1 Devil's Punchbowl route signs (2 locations)
- B2 Saltfleet route signs (2 locations)
- B3 On-Road trail route signs (Powerline Road)
- * Budget costs are in 2022 dollars, projects and budgets to be reviewed annually.
- ** Capital item replacement is dependent on project approval and/or fundraising.
- + Costs subject to ecological findings and recommendations

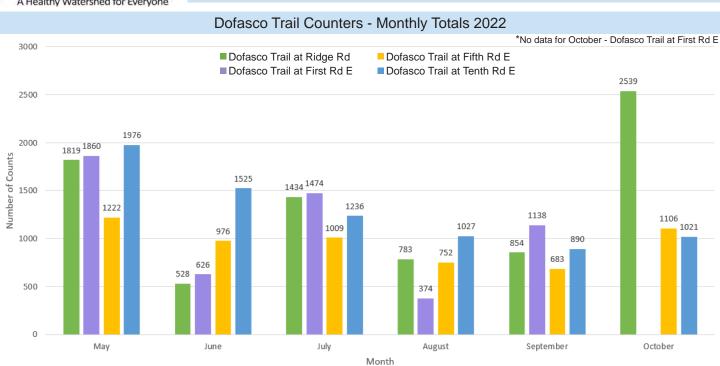
APPENDIX 3

Trail Counter Data

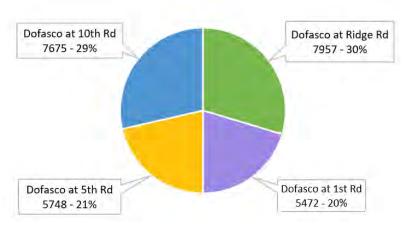


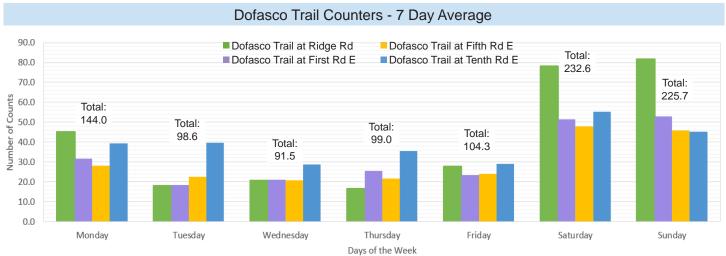
A Healthy Watershed for Everyone

Trail Counter Summary



Dofasco Trail Counters - Distribution Over the Whole Season





APPENDIX 4

References

References

Battlefield Creek Wetland Storage Facility Design Report (BC-1). Water's Edge Environmental Solutions Team & Hamilton Conservation Authority. August 20, 2021.

"Dofasco 2000 Trail Official Opening" opening ceremony document in HCA files. Hamilton Conservation Authority. October 14, 2001.

Powerline Road Trail Master Development Plan. July 6 2000. Appendix 2: 1999 Powerline Road Trail Agreement, Schedule A and B, between the Corporation of the City of Stoney Creek and the Hamilton Region Conservation Authority.

