



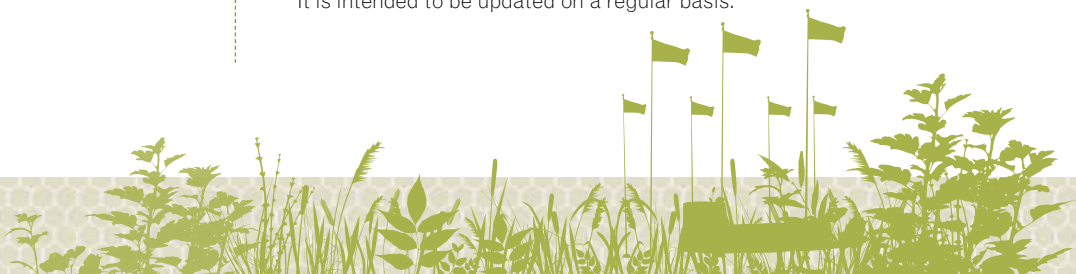
# Confederation Park **Management Plan**



# table of contents

<b>A. Introduction</b> .....	<b>1</b>	2.9 Amenity assets.....	40
<b>B. History</b> .....	<b>3</b>	2.9.1 Garbage cans.....	40
<b>C. The resource</b> .....	<b>7</b>	2.9.2 Washrooms.....	40
1. Overview .....	7	2.9.3 Fencing .....	41
2. Regional context .....	8	2.9.4 Memorial benches.....	41
3. Description of assets and conditions .....	9	2.9.5 Seating, excluding memorial benches and bleachers .	42
<b>D. Public use</b> .....	<b>13</b>	2.9.6 Signs .....	42
1. Overall .....	13	2.9.7 Roads and parking lot maintenance .....	42
2. Use of specific features .....	14	2.9.8 Sidewalks .....	43
2.1 Pathways .....	14	2.9.9 Tennis courts .....	43
2.2 Sports fields .....	15	2.9.10 Sports fields.....	43
2.3 Tennis courts.....	15	2.9.11 Playgrounds.....	44
2.4 Toboggan hill.....	15	2.10 Public Art .....	45
2.5 Formalized event/picnic areas .....	15	2.10.1 Public art collection .....	46
3. Events .....	16	2.10.2 City of Calgary Flag Policy .....	47
<b>E. Vision framework –</b>		2.11 Pathways.....	48
<b>values, vision and outcomes.....</b>	<b>17</b>	2.11.1 Inspections.....	48
<b>F. Management of the park</b> .....	<b>21</b>	2.11.2 Signs and bollars.....	48
1. Relevant polices and plans.....	21	2.11.3 Snow removal.....	48
2. Management guidelines for park assets .....	23	2.12 Bridges and tunnels.....	50
2.1 Cultural landscape .....	23	<b>G. Roles and responsibilities</b> .....	<b>51</b>
2.2 Turf .....	25	<b>H. Future direction and summary of</b>	
2.3 Shrub and tree beds.....	28	<b>recommendations.....</b>	<b>53</b>
2.4 Flower beds.....	29	<b>I. Appendices</b> .....	<b>59</b>
2.5 Trees .....	31		
2.6 Toboggan hill.....	34		
2.7 Creek/storm water channel system .....	34		
2.8 Water delivery systems.....	37		
2.8.1 Fountains .....	39		
2.8.2 Turn ons .....	39		
2.8.3 Fill-up site .....	39		
2.8.4 Winterizing.....	39		
2.8.5 Inspections.....	39		

This is a living document originally created in 2011.  
It is intended to be updated on a regular basis.





# introduction

## CONFEDERATION PARK MANAGEMENT PLAN

The purpose of this plan is to provide staff at all levels with a better understanding of the history of Confederation Park, the variety of assets found within the park, and how the public currently uses the park. The plan establishes a vision for the park and it identifies the management framework and actions required on an ongoing basis to achieve the vision and outcomes for the park. Perhaps most importantly, the management plan lays the foundation and framework for the development of annual work plans by staff.

The following steps were taken in the development of this management plan:

- The history of the park was reviewed and recorded.
- All components of the park were inventoried, detailed and the condition analyzed.
- The park's position and value in a regional context was reviewed.
- The current public use was reviewed and analyzed.

The above information was then used to: a) develop a vision framework for the park, which confirms common values and a vision for Confederation Park, and identifies outcomes to be achieved in implementing the management plan, and b) examine each asset type within the park and clarify relevant policies and plans pertaining to that asset, provide guidelines for the management of each type of asset, delineate operational maintenance activities and standards for the asset, and make recommendations, where required, to help achieve the vision and outcomes for the park.





The City of Calgary, Corporate Records, Archives CalA CR-92-005-104





# history

Confederation Park was an undeveloped coulee that was initially annexed as part of Calgary in 1911, when Calgary's growth was booming. However, by 1913 the real estate boom ended and decades passed before developers turned the area surrounding the future park into residential subdivisions (Capitol Hill in the late 1940s, Cambrian Heights and Rosemont in the late 1950s). In the meantime, the future Confederation Park site and its creek were used variously as a water source, an informal refuse dump, an unofficial recreation area and cattle grazing area.<sup>1</sup>

The first indication of a park on the site occurred in 1953, when The City announced its North Hill Plan for residential development. "The plan called for the development area to be constrained by a continuous band of open spaces in the form of parks, golf courses, and where topography dictated, natural green space areas."<sup>2</sup>

In the late 50s and early 60s, park planning was occurring within the broad context of the post-Second World War baby boom and the resulting need for recreational facilities for the growing population. By 1961, City planners formally recommended that the North Hill Coulee become a regional park.<sup>3</sup>

Harry Boothman was the Parks superintendent at that time (his tenure was from 1960-1976) and under Boothman's management the department moved away from traditional decorative parks and playgrounds towards large family and athletic parks, pools and golf courses.<sup>4</sup> Boothman embraced the philosophy that *Parks are for People*.<sup>5</sup>

Calgary's first general plan (or Master Plan), adopted in 1963, outlined an emerging system of *city, regional, community* and *decorative* parks. The plan identified Bowness, St. George's Island, and Glenmore as existing City parks and proposed two additional City parks, one on the North Hill and one in the Fish Creek area. In a December 1964 report to the Board of Commissioners, Boothman linked the future Confederation Park site with the City park concept:

The City Master Plan indicated a need for large park areas on the north side of the city to provide those amenities which cannot be worked into the small community parks and school grounds. The plan also noted that the system of park areas now under discussion were ideally suitable for the purposes of developing a large city park in the north, which would be comparable with the system of park areas associated with Glenmore Dam.<sup>6</sup>

At the same time, in the early 1960s, residents in the surrounding communities were gathering together in an attempt to develop the North Hill Coulee as a park. These citizens were also aware of the approaching centennial of Confederation in 1967 and the fact that government authorities were encouraging citizens and groups to develop commemorative projects. The desire to commemorate the Centennial, combined with area residents' desire to beautify the coulee area, generated a vibrant citizen movement. *Calgary Herald* columnist Lawrie Joslin regarded the efforts as "an indication of the increasing maturity in Calgary."<sup>7</sup>

1 Elaine Smith, "Ravine 'dump' to be beautified," *Albertan* 30 Sept. 1965; Edith Woolliams, *My Neighbours and Yours* (Calgary: E. Woolliams, 1982) 80, 122; Victoria Hallett, "Mishaps and Misunderstandings," *Calgary Herald Neighbors* 22-28 Dec. 1993: 9.

2 Max Foran, *Expansive Discourses: Urban Sprawl in Calgary 1945-1978* (Edmonton: AU Press, 2009) 29-30.

3 "New Park Has Long History," *North Hill News* 3 Aug. 1967: 1.

4 Esther Gorosh et al., *At Your Service, Part One: Calgary's Library, Parks Department, Military, Medical Services, and Fire Department* ([Calgary]: Century Calgary Publications, 1975) 237; Beverly A. Sandalack and Andrei Nicolai, *The Calgary Project: Urban Form|Urban Life* (Calgary: University of Calgary Press, 2006) 122.

5 Catherine Campbell, "Personality of the Week: Parks And Recreation Superintendent Harry Boothman Says 'Parks Without People Are Just No Good'," *Herald Magazine* 19 June 1970.

6 CCCRA, Parks and Recreation Department funds, Series IV, Box 7, file 59106, Boothman to A. H. Nicolson, Commissioner of Works & Utilities, Commissioners' Office, 28 Dec. 1964.

7 Lawrie Joslin, "New Mood," *Calgary Herald* 25 Jan. 1966.

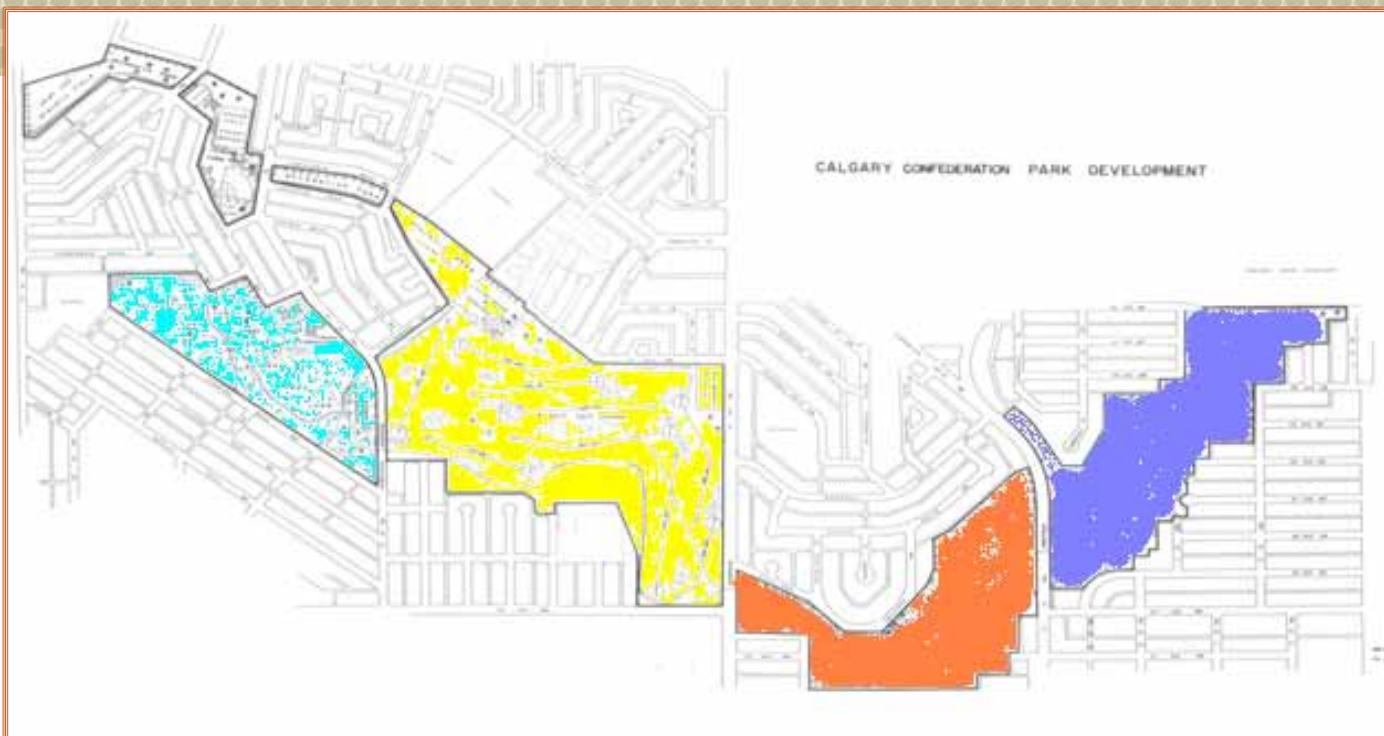


FIGURE 1: Concept plan for Confederation Park, 1966.

It was in June 1964 that a group of North Hill residents formed the *North Hill Centennial Committee* with a view to expediting the development of the coulee as a park commemorating the centennial. Eric Musgreave, president of the Rosemont Community Association, became the committee's chairman. Boothman met with the committee's members in September 1964, and they agreed that the park should be developed as a combined effort by The City and citizen groups co-ordinated through Musgreave's committee.<sup>8</sup> In 1965, the committee was incorporated as the *Centennial Ravine Park Society* with Musgreave as its president.

The Confederation Parks System, as described in a 1966 annual report, was comprised of four sections: Confederation Park east of 10th Street N.W.; Confederation Park between 10th Street and 14th Street N.W.; Confederation Park Golf Course (between 14th Street and 19th Street N.W.); and Confederation Park North Capitol Hill Section (west of 19th Street N.W.).<sup>9</sup> See Figure 1 for an illustration of the area covered in the 1966 concept plan. The areas

east of 14th Street N.W. were designed by Gysbert van Reekum of the department's Technical Functions division, in consultation with Landscape Designer Tony de Simone and Superintendent Boothman.<sup>10</sup> Through landscaping and judicious selection and planting of flora, Parks staff transformed the rough coulee into an attractive, naturalistic park with an improved, defined creek. Pathways were included in the original design of the park. A key design of the park was the approach to storm water management, with the creek and ponds functioning as part of the district storm water management system.<sup>11</sup>

For its part, the Centennial Park Ravine Society, acted to stimulate awareness and interest in the park, raised funds for the park's development, and functioned as a liaison between interested citizens, churches, community associations, schools, and various labour, professional and service organizations. By the end of 1967, the centennial year, the society had facilitated development of many of the park's furnishings, including:<sup>12</sup>

<sup>8</sup> *A Year to Remember!* 43.

<sup>9</sup> CCCRA, Parks Department funds, Series IV, box 20, file Park Operation Reports 1961-1967, Annual Report of the Parks Operations Division, 1966.

<sup>10</sup> Bert van Reekum, telephone interviews, 10 Mar. 2010 and 17 Mar. 2010. Van Reekum was a Dutch-born horticulturalist who worked for the Parks Department from 1961-70. He first became familiar with the coulee in his capacity as a weed control officer in the early 1960s. At that time, Van Reekum conducted controlled burns in the coulee to prevent uncontrolled fires.

<sup>11</sup> In June 1977, a five-year-old child nearly drowned in a hole that had eroded downstream from a small dam. The incident prompted inter-departmental discussion about the treatment of the Confederation Park waterway. (CCCRA, Board of Commissioners funds, Series VI, box 118, Confederation Park 1979.) On 29 Jul. 1979, a sudden storm swept two boys, aged 12 and 19, into an open storm sewer. The older boy died.

<sup>12</sup> CCCRA, Parks and Recreation Department funds, Series IV, Box 20 Special Projects 1967-68, Centennial Ravine Parks Society annual reports, 1968.



- The Park Focal Point (sponsored by the Municipal Chapter, Imperial Order, Daughters of the Empire).
- A wading pool and enclosure (sponsored by Carma Developers Ltd. and the Triwood Community Association, respectively).
- Three bridges (sponsored by the North Calgary Kiwanis, the Calgary Real Estate Board, and the North Calgary Business Association).<sup>13</sup>
- A bonfire site (installed by the 13th B Group Boy Scouts).
- Two barbeque pits (installed by Branton Junior High School and Senator Patrick Burns Junior High School).
- A large stone fireplace and shelter (installed by the North Calgary Rotary Club).
- Little League diamond (sponsored by the Associated Canadian Travellers).
- Horseshoe pitches (by S. P. Richards and Associates).
- Botanical display (Alberta Institute of Agrologists).
- Rose gardens (Beta Sigma Phi Sorority Calgary Rose Society).
- A sculpture titled “Transition 67” (British American Oil Company employees’ social club).
- 34 wooden park benches.

- Eight wooden picnic tables.
- 20 plastic and fibreglass benches.
- Eight stone drinking fountains.
- Three decorative garbage receptacles.
- Planter and flagpole.
- Playground equipment.

Confederation Park was officially established with the passage of Bylaw No. 7086 on July 31, 1967.<sup>14</sup> Alderman Roy Farran, who had championed Confederation Park on City Council, officially opened the park on Aug. 7, 1967.<sup>15</sup> A 50-year time capsule was sealed into the Focal Point structure, with the expectation that young Calgarians present at the event could return for the opening of the capsule in 2017.

<sup>13</sup> A fourth bridge, sponsored by five church groups (St. Cyprian’s, St. Piux X, St. David’s, St. Giles, and Pleasant Heights), was expected to be built in 1968.

<sup>14</sup> According to Deputy City Solicitor J. B. De Wolfe, “In the haste to prepare the By-law before the dedication it was not noted that Schedule ‘A’ contained an error in designating certain of the land west of 14th Street West as being in Section 28 instead of Section 29. Section 28 lies to the east of 14th Street West.” By-law No. 7099 was drafted to correct the error, and it was placed on council’s agenda for Aug. 28, 1967 for its regular three readings. 15 Ian Hamilton, “Centennial dreamland official reality,” *Albertan* 8 Aug. 1967: 1.







# the resource

## 1. OVERVIEW

Today, Confederation Park is a 42-hectare regional park in the inner northwest area of Calgary. It occupies a previous natural coulee system and runs in a west-southwest to east-northeast direction bounded by 14th Street W on the west and Queen's Park Cemetery on the east. Communities bordering the park include Capitol Hill, Mount Pleasant, Rosemount and Cambrian Heights. See Figure 2.

The landscape of Confederation Park consists mainly of irrigated turf bisected by a stormwater drainage creek, and interspersed with planted trees and shrub beds. A major multi-use regional pathway runs through the entire length of the park with numerous lateral connections to adjacent communities. In addition to the pathways, there is also access to Confederation Park via three parking lots, two located along 10th Street N.W. and one at 30th Avenue N.W.



FIGURE 2: Confederation Park, 2011.

## 2. REGIONAL CONTEXT

This large regional park is integral to the open space system in northwest Calgary. Immediately adjacent to Confederation Park are other large open spaces including Canmore Park, Confederation Golf Course and Queen's Park Cemetery. All of these parks together add up to 84.84 hectares of open space, and all of them are characterized by large turf areas interspersed with a variety of planted deciduous and coniferous trees and shrub beds. The end effect is a huge open space that is aesthetically pleasing and accommodates numerous recreational opportunities. See Figure 3.

In addition, these large open spaces support wildlife in the city. A few species call these parks home, but many more species, particularly migrating birds, use these parks as feeding, resting and stop-over areas. When one views the

map, the value of Confederation Park from a geographic position in the urban environment can be readily seen. In addition to the parks discussed above that are immediately adjacent to Confederation Park, many other major open spaces are within a few kilometres including the Bow River valley, Nose Creek valley, Egert's Park, Nose Hill Natural Environment Park and the campus of the University of Calgary. All of these areas, in themselves, are large in a city context, but added together in a relatively small geographic area, they provide wildlife with a good corridor and easy dispersal mechanisms. There are natural habitats within Nose Hill Natural Environment Park, while the other parks all have similar attributes to assist wildlife in the city – namely large open spaces supplemented by numerous and diverse tree and shrub plantings.

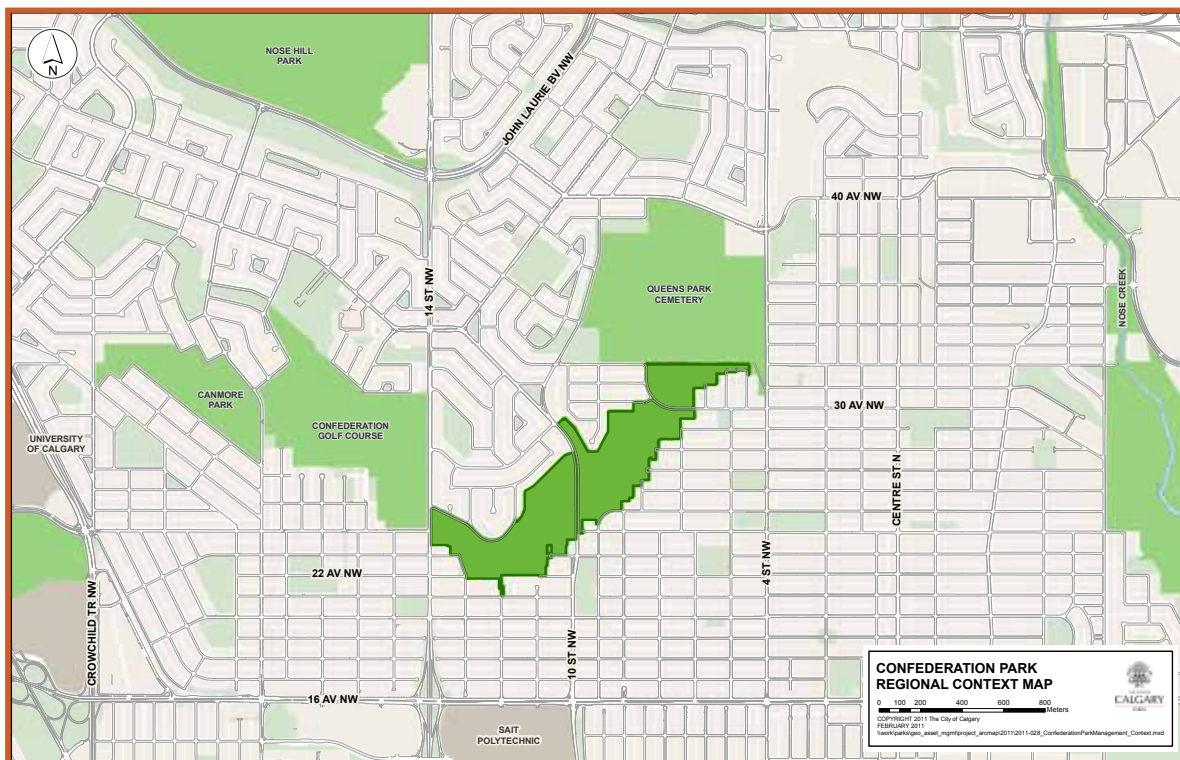


FIGURE 3: Confederation Park – regional context



### 3. DESCRIPTION OF ASSETS AND CONDITIONS

Confederation Park is a 42-hectare regional park that features generous green space areas, a storm water creek channel with adjacent naturalized area, regional and local pathways, ball diamonds, picnic tables, annual flower planters, water fountains, a toboggan hill, bridges, parking lots, benches and garbage cans. There is also an historical area with public art, planting areas and flagpoles. Additionally, the Rosemont Community Association and the Confederation

Park Senior Centre have licences of occupation on small portions of land within Confederation Park.

Table 1 details the physical assets and their condition. The condition assessment was completed based on the criteria outlined in Table 2.



TABLE 1 Description of assets

Physical asset description	Measurement	Unit of measure	Condition rating	Comments and/or assumptions
Park area total	42	Ha		
Turf area – irrigated	35.5	Ha	Green	Class A turf area
Turf area – non-irrigated	2.0	Ha	Green	Class T turf tall grass – includes the island in the creek
Stormwater creek	1.46	Ha	Green	Water body maintained by Water Services
Annual planting beds	247	Sq m	Green	Annual planting beds
Annual octagonal planters	9	Each	Green	Annual insert planting throughout park
Rectangular planters	3	Each	Green	Annual planting at main office
Cascading bed by office	40	Sq m	Green	Perennial beds
Shrub beds	3740	Sq m	Green	Mulched shrub beds
Tree beds	686	Sq m	Green	Tree beds
Mixed beds	15056	Sq m	Green	Trees and shrubs in beds
Deciduous trees	2386	Each	Green	
Coniferous trees	432	Each	Green	
Created wetland	1.8	Ha	Green	Riparian area/high water mark
Naturally occurring spring rock feature	1	Each	Green	Works when spring is running
Irrigation systems – turf valves	32	Each	Green	Turf valves
Pathways – regional	4612.2	M	Yellow, Red and Green	Asphalt three metre-wide pathway
Pathways – local	63	M	Green	Asphalt, various widths
Pathways – bollards	13	Each	Green	Pathway bollards
Parking lots	5081	Sq m	Green	Asphalt – total 125 stalls over three lots
Signs	16	Each	Green and Yellow	Pathway (3) and park (13) signs
Public washroom	1	Each	Green	Men's and women's year-round washrooms
Picnic tables	19	Each	Yellow	Steel frames, wooden seats
Benches – park	6	Each	Green	Combo wood/steel benches
Benches – memorial	59	Each	Green	IPE wood bench
Garbage bins	20	Each	Green	Steel bear bin
Recycle bins	2	Each	Green	Steel recycle bear bins
Playgrounds	2	Each	Green	Steel structures with pea gravel fall surface
Baseball infield (3)	3	Each	Green	Three infields
Baseball backstop (3)	3	Each	Green	12-metre high chain link as per city spec
Baseball outfield fence (2)	2	Each	Green	1.5-metre high chain link fence
Baseball bleachers	5	Each	Green	Spectator bleachers



Physical asset description	Measurement	Unit of measure	Condition rating	Comments and/or assumptions
Benches – players	11	Each	Green	Steel with wood players benches
Tennis court	3	Each	Green	Asphalt playing surface
Tennis court fencing	162	Linear M	Green	Chain link fencing including gate
Fence – chain link	134	Linear M	Green	
Fence – post and cable	694	Linear M	Yellow	Treated wood and cable fence
Fence – post and rail	191	Linear M	Green	
Fence – wooden pickets	29	Linear M	Green	
Transition 67	1	Each	Green	Any change in current status public art should be notified
Confederation Circle	1	Each	Yellow	Currently missing a triangular rock piece
Flag poles	15	Each	Green	Confederation single flag and all others
Parks panabodes	3	Each	Green	Wooden panabode
North Area Office	332	Sq M	Green	Administrative Building
Leased – Calgary Rosemont Community Association	5052	Sq M	N/A	Maintained by lease holder
Leased – Confederation Park Senior Citizen Centre	1187	Sq M	N/A	Maintained by lease holder

The overall condition rating for the assets in Confederation Park is green, although there are concerns related to the irrigation systems, pathways and service levels for turf, shrub beds and amenities. Some of the trees within the park need to be addressed with opportunities for diversification of species and age class.

TABLE 2 Asset condition assessment

Condition	Description	Lifecycle strategy
<b>Red</b>	<ul style="list-style-type: none"> <li>Failed or failure imminent.</li> <li>Immediate need to replace most or all of asset.</li> <li>Health and safety hazards exist which present a possible risk to public safety, or asset cannot be serviced/operated without risk to personnel.</li> </ul>	<b>Disposal and replacement</b>
<b>Yellow</b>	<ul style="list-style-type: none"> <li>Significant deterioration evident.</li> <li>Failure likely in the near future.</li> <li>Components or isolated sections of the asset need replacement or repair now.</li> <li>Asset still functions safely at adequate level of service, but work required in near future to ensure asset remains safe.</li> </ul>	<b>Refurbish</b>
<b>Green</b>	<ul style="list-style-type: none"> <li>Sound to acceptable physical condition.</li> <li>None to minimal short-term failure risk.</li> <li>None to minor work required</li> </ul>	<b>Maintenance</b>





# public use

## 1. OVERALL

Confederation Park is a regional recreation park. Regional recreation parks are defined as: “Parks developed for general recreation, which may consist of either natural or constructed features, or both. They are located and designed to serve more than one community but less than the entire city. They usually accommodate multiple activities for half- or full-day outings and are typically +20 hectares depending on the amenities within the site. Major features and amenities include: riverbank escarpment, passive recreation areas, picnicking, and winter recreation, tot lots, local and regional pathways and sports field areas.”

Confederation Park has spaces for passive and active, casual and organized recreation. The park has meandering pathways, beautiful vistas, public art, three tennis courts, two playgrounds, and two large ball diamonds and one small one that are booked by league sports throughout the spring and summer season. The major public use of Confederation Park is passive recreation including walking, running, cycling, tobogganing, picnicking, visiting the playground and dog walking. Pathway surveys in 2002, 2006 and 2010 provide a good picture of the volume of these various passive uses. Active recreation occurs on the sports fields and the tennis courts.





## 2. USE OF SPECIFIC FEATURES

### 2.1 Pathways

There have been three pathway surveys completed in Confederation Park. Two were conducted during the summer and one in the winter. The results of these surveys are summarized below.

In all survey years, Confederation Park pathways are used mainly by walkers who are mostly female. The majority of cyclists on the pathways are male. City-wide, Confederation Park has the largest number of senior users recorded in the last two pathway surveys.

#### • **Pathwatch 2002**

##### • *Schedule*

Five days for a total of 60 hours over three weeks during August 2002.

##### • *Highlights of this site*

- A total of 3,725 pathway users were observed.
- Approximately 62 pathway users per hour were observed utilizing the pathways.
- The most popular activity in Confederation Park was walking (58.3 per cent), followed by cycling (22.4 per cent) and running (12.5 per cent).
- Of all the sites surveyed in the city, Confederation Park had the highest percentage of female users (49.6 per cent) and the lowest percentage of male users (49.2 per cent) observed.

- The majority of pathway users were adults (72.9 per cent), followed by seniors (11.5 per cent), children (9.1 per cent) and youth (5.7 per cent). Confederation Park had the highest percentage of seniors compared to other sites in the city.

#### **Winter Pathwatch 2006-2007**

##### • *Schedule*

Eight days for a total of 88 hours starting Nov. 25, 2006 ending Feb. 15, 2007.

##### • *Highlights of this site*

- A total of 3,268 pathway users were observed.
- Approximately 37 users per hour were observed using the pathways.
- Most of the pathway users were walking (73.7 per cent), running (15.8 per cent), or cycling (4.4 per cent) for a total of 93.9 per cent.
- Of those whose gender could be identified, there were more female pathway users (57 per cent) than male users (43 per cent).
- The majority of pathway users (85.6 per cent) were adults.
- 19.2 per cent of users were with at least one dog.
- There were 12 wheelchairs recorded.





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## • **Parks 2010 Pathway Research**

### • **Schedule**

Five days for a total of 60 hours during August and September 2010.

### • **Highlights of this site**

- A total of 4,998 pathway users were observed, which represents an average of 83 users per hour.
- The majority of pathway users were walking (58.3 per cent), followed by cycling (19.4 per cent) and running (14.6 per cent).
- There were more women using the pathways (52.4 per cent women versus 44.5 per cent men).
- The majority of pathway users were adults (66.4 per cent), followed by children (16.2 per cent), seniors (12.3 per cent) and youth (4.8 per cent).
- Of all pathway users observed, 12.0 per cent were with a dog.
- The two summer surveys (2002 and 2010) used the same methodology. In comparing the two surveys, the following was noted:
  - The number of users per hour increased by 33.9 per cent (62 in 2002, 83 in 2010).
  - Walking was the primary activity in both years, but running increased slightly, cycling decreased slightly.
  - More women than men were recorded on the pathways in both surveys, with 2010 showing a significant increase in the women and a decrease in men.
  - The dominant age group observed on the pathway was adults, but seniors were prominent (11.5 per cent in 2002; 12.3 per cent in 2010). This site recorded more seniors than any other pathway site city-wide.

## **2.2 Sports fields**

The Foothills Little League and the Centennial Little League have had the two fenced ball diamonds booked for the last four years, five to seven days per week, for the four months of the baseball season. The third diamond is not booked regularly, but is used for unstructured games or drop in use.

## **2.3 Tennis courts**

Drop-in play and organized lessons during the entire season. Courts can be booked through 3-1-1.

## **2.4 Toboggan hill**

There is one designated toboggan hill in Confederation Park. It is on the south facing slope, just west of the Rosemont Community Association building.

## **2.5 Formalized event/picnic areas (10 sites)**

The 10 sites within Confederation Park that can be booked are named after the 10 provinces and territories that made up Canada at the time of Canada's Centennial.



### 3. EVENTS

#### Guidelines for managing public use

##### a. A special event is defined as an event that:

- Is located in a City-owned park space, pathway or open space.
- Has a greater impact on the park and neighbouring communities than casual or intended park use.
- Involves the attendance of over 200 people at a given time (may be less for a pathway event).
- Requires external infrastructure to support it (i.e. tents, bleachers, toilets, signage, sound, etc.).

##### b. Event restrictions:

- The City of Calgary Parks places priority on requests for special events which are aligned with the Parks mandate and have environmental, educational, recreational or stewardship driven goals. If approved, these events will be required to adhere to the contents of this framework and may also have additional conditions placed on them, for example, permits, alcohol at events.

- Green space permit – an issued green space permit provides permission to use the public park and ensures public access and safety is managed. It does not provide permission to sell services within the park, nor does it provide exclusive use of the park space.

##### c. Events in 2010

- Weddings (15 )
- Fitness/boot camps (2)
- Public/private run or marathon (7)
- Public-concert/performance (1)
- Miscellaneous green space app. (1)

TABLE 3 Event history – four-year synopsis

Year	Private Walk/Run	Public Walk/Run/Marathon	Public Concert	Wedding Ceremony	Public Theatre	Filming	Boot Camp	Misc Green Space Application	Yearly Totals
2007	5	2		21	1	3		1	33
2008	4	3		23	1				31
2009	1	6	1	19	1	1			29
2010	1	6	1	15			2	1	26
	11	17	2	78	3	4	2	2	119

Weddings are the main type of event booked in Confederation Park, but there is a new trend to fitness boot camps, which is expected to rise in number over the next few years. On average over the last four years, there are approximately 30 events that occur in Confederation Park per year.



# vision framework

## VALUES, VISION AND OUTCOMES

After gathering and analyzing information on the history of the park, the number and diversity of the parks assets and their stewards, the current public use and the trends, and the volume and diversity of corporate policies and guidelines, it became obvious that a vision framework would be critical to establish sound future management and direction.

The vision framework is the foundation for staff work plans. They will incorporate the values into their daily work, and everything they do will contribute to the park's vision and outcomes.



### **We value:**

#### **Healthy people, environment and communities**

We respect and understand the connection between people, the environment and community ... healthy by nature.

#### **Shared stewardship**

We believe working together and promoting a proud, caring and involved community and workforce will protect, enhance and invest in a healthy park today and into the future.

#### **Accountability and the best use of resources**

We use an open, committed, strategic outcome based approach to manage our financial, human and natural resources efficiently and effectively.

#### **Sustainability**

We promote long-term practices and high standards of excellence in caring for our parks ... good decisions for today and tomorrow.

#### **Knowledge and education**

We employ an innovative, adaptive and continuous improvement approach to park management and service.

#### **Quality of life**

We believe that a healthy, well-managed park system provides psychological, social, economic, environmental and aesthetic benefits to the community and promotes great public spaces and places ... enriching lives and providing an attractive, liveable city.



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## **Our vision for Confederation Park**

A northwest regional park that:

- Offers major open green spaces with a variety of amenities.
- Reflects the historical landscape.
- Meets current and future community needs.
- Is environmentally and financially sustainable.

## **Our outcomes**

### **A valued regional park**

Confederation Park is an essential component of Calgary's open space system and is valued and respected by the community.

### **Healthy plant life**

Trees, shrubs, perennials and turf are in good health and able to achieve a long life span.

### **Quality facilities and amenities**

All amenities are in good condition and are positively contributing to the public's experience in the park.

### **Sustainable park assets**

All components of the park, both biological and man-made are planned, designed, maintained and replaced using the Triple Bottom Line (TBL) guidelines.

## **Preserved historical significance**

The historical significance of Confederation Park is preserved and the community/public is aware of the park's history.

## **Functionally connected**

Confederation Park is functionally connected to Queen's Park Cemetery, Confederation Golf Course and Canmore Park. The vision for Confederation Park supports and is supported by these adjacent open spaces.

## **Co-ordinated stakeholders**

The internal stakeholders all have a common understanding and knowledge of their roles and responsibilities in the management of Confederation Park.

## **Performance measures**

### **A valued regional park**

- User satisfaction levels are high and remain constant over time.
- Residents of adjacent communities and other park users continue to rate Confederation Park as an important amenity.
- Citizens indicate the park adds to their quality of life in their community and city.

### **Healthy plant life**

- 90 per cent of plant life is rated in good health.
- Park is within acceptable broad leaf weed thresholds.
- Park is IPM compliant.





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### **Quality facilities and amenities**

- 90 per cent of park amenities are rated green as per TCA (tangible capital assets) guidelines.
- Pathways are cleared of snow within 24 hours of a storm.
- Zero claims due to unsafe conditions of the parks, playgrounds and tennis courts.
- No more than three down days per year for the washroom facilities.

### **Sustainable park assets**

- Confederation Park rates high and is a positive contributor to Calgary's Triple Bottom Line sustainment goals.
- 90 per cent of park assets rate green or yellow as per TCA rating criteria.
- Playgrounds are in safe and usable condition 100 per cent of the time.
- Assets inspected regularly as to TCA standards.

### **Preserved historical significance**

- 90 per cent of historical assets in the park rated green as per TCA guidelines.
- Confederation Park Management Committee's annual work plan ensures historical significance preserved.

### **Functionally connected**

- Collaborative work plans and monitoring done annually by Parks District Supervisor 130, Parks District Supervisor 170, Urban Forestry North Supervisor, and Cemeteries Supervisor to ensure landscape continuity.

### **Co-ordinated stakeholders**

- Where appropriate, stakeholders indicate high satisfaction levels with engagement in the park.
- Customer concerns (3-1-1) are completed on time >95 per cent.
- Staff in the park rate Confederation Park as a good place to work.
- Annual work plans are completed 90 per cent of the time as planned.
- All internal stakeholders in the park have clear written understanding of the vision for the park as well as defined roles and responsibilities.







# management of the park

## 1. RELEVANT POLICES AND PLANS

Following is a list of federal, provincial and municipal policies and plans relevant to the Parks Management Plans:

### **Federal**

Fisheries Act  
Navigational Waters Protection Act  
Migratory Birds Convention Act  
Species at Risk Act  
Health Canada Pest Control Act (HCPCA)  
Canadian Environmental Protection Act

### **Provincial**

Municipal Government Act (MGA)  
Land Stewardship Act  
Land Use Framework  
Alberta Weed Control Act  
Alberta Water Act  
Public Lands Act  
Alberta Agricultural Pest Act  
Alberta Environment – Environmental Guide of Practice for Pesticides  
Alberta Regulation 43/97 – Environmental Protection and Enhancement Act Pesticide (Ministerial) Regulation (MOP)

### **Municipal**

#### **City-wide**

The City of Calgary Municipal Development Plan (Bylaw 249 2009)  
Land Use Bylaw 1P – 2007  
Joint Use Agreement  
Imagine Calgary  
Plan It  
Triple Bottom Line Policy (TBL)  
Fair Calgary Policy  
Environmental Policy  
Calgary Transportation Plan (CTP)  
Centre City Plan (May 2009)  
Integrated Risk Management Policy  
Engage Policy  
Storm Water Management Strategy  
Water Efficiency Plan – 30 in 30  
Nose Creek Watershed Water Management Plan  
Corporate Accessibility Policy  
Wetland Conservation Plan and Policy  
Smart Growth  
Tree Protection Bylaw  
Responsible Pet Ownership Bylaw  
City of Calgary ISO 14001  
Calgary Pathway and Bikeways Plan  
Council Priorities  
Roads Summer Maintenance Program Plan 2010  
Festival and Event Policy  
Special Events Guidelines  
City of Calgary Flag Policy

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Half Mast Policy  
Plaque Policy  
Bicycle Policy  
Calgary Heritage Strategy and Policy  
Cultural Landscape Guidelines  
Corporate Art Policy  
Community Services Program Policy – City of Calgary  
Youth Policy  
City of Calgary Corporate Release Substance Program

## **Parks**

### **Environmental**

Calgary River Valley Plan (1984)  
Urban Parks Master Plan (1994)  
Natural Area Management Plan (1994)  
Integrated Pest Management Plan (1998)  
Calgary Wetlands Conservation Plan (2004)  
Urban Forest Strategic Plan (2007)  
Water Management Strategic Plan (2007)  
Cemeteries Strategic Plan 2010 – 2020 (2010)  
Open Space Plan (2002) –  
currently under review  
Parks and Pathways Bylaw  
Park Activity Standards Manual  
Parks Asset Management Plan, TCA  
Land Strategic Plan, DRAFT  
The City of Calgary Biodiversity Strategy,  
under development  
Parks Invasive Pest Strategic Management Plan (2008)

### **Administrative**

Inner City Open Space Study (1984)  
Policies and Priorities (1988 – 1992)  
Joint Use Agreement (1994)  
Open Space Strategy for Established Communities  
Study (2006)  
Centre City Parks Open Space Management Plan (2007)  
Centre City Open Space Study (2007)  
Centre City Parks and Public Realm Enhancement  
Plan (2007)  
Parks Business Three Year Plans  
Community and Protective Services Three Year Plans

### **Development guidelines**

Development Guidelines & Standard Specifications –  
landscape construction  
Sport Fields Management Plan  
Team Spirit: Advancing Amateur Sport of all Calgarians.  
A 10-year strategic plan for sport facility development and  
enhancement (2008)





## 2. MANAGEMENT GUIDELINES FOR PARK ASSETS

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Appropriate management for each type of asset is required in order to achieve the desired outcomes for the park. In this section, goals for each type of asset are established, the operational activities and actions are described, responsibilities are outlined and recommendations are made where required.

### 2.1 Cultural landscape

The historic significance of Confederation Park must be integrated into the management of the park. In addition, there are certain features or assets, called *Character Defining Elements*, that relate directly to the historical significance of the park...examples are Confederation Circle, Transition 67, Centennial Planting Bed and the Flag poles.

#### Goals

1. Ensure the historic significance of the park is conserved by applying the Standards and Guidelines for the Conservation of Historic Places in Canada when planning, designing, managing and maintaining the park.
2. Ensure all historical assets are in good condition and regularly monitored.
3. Ensure the historical significance of the park is celebrated through the educational initiatives.
4. Ensure all staff responsible for different functions within the park are educated about its historical significance.

#### Specific policies relevant to heritage/historical landscape:

- Cultural Landscape Conservation
- Calgary Heritage Strategy and Policy
- Standards and Guidelines for the Conservation of Historic Places in Canada

#### Heritage protocol

Confederation Park has been recognized by the Calgary Heritage Authority as having historic significance, and is listed on The City of Calgary's *Inventory of Evaluated Historic Resources*. As such, City of Calgary policy dictates that Parks is required to retain the park's historical significance.

The ongoing conservation of Confederation Park is closely aligned with the daily operation and management of the park. Any alterations to the park must conform to the *Standards and Guidelines for the Conservation of Historic Places in Canada*. The proposed changes must be reviewed by the conservation landscape architect or heritage planner. The specific Cultural Landscape Guidelines can be found on the Parks Canada website.

The operational management of the park must result in no permanent changes to the park or to any of the *Character Defining Elements* of the park. Specifics include, but are not limited to the following:

- Alterations to the naturalistic style and order in the design and layout of the park.
- The planting of trees resulting in the alteration to the large open spaces formed by defining groups of trees.
- The removal of individual trees or groves.
- Any re-grading of the site, altering the original landform of the park (created from the original coulee).
- Changes to the pathways in the park.
- Alterations to any of the numerous bridges in the park.
- Alterations to the Centennial Monument or Centennial Emblem.
- Alterations to the spring waterfall structure.



## Cultural landscapes

Cultural landscapes serve to maintain our connection with the past. Even though Calgary is a relatively young city, it does have an interesting history that is represented by a variety of landscapes. Many of Calgary's existing open space sites, such as Nose Hill, Union Cemetery, Reader Rock Garden, Riley Park, Fort Calgary and Inglewood Bird Sanctuary, fall into this category, as does Confederation Park.

Cultural Landscapes: Geographical areas that have been modified or influenced by human activity (UNESCO). These landscapes include:

- **The Designed Landscape**

These are landscapes that are designed and created intentionally by man and the design or style is typically representative of a specific design influence.

Calgary examples include Central Memorial Park (Victorian carpet bed design), Reader Rock Garden (Edwardian Rockery), Century Gardens (expressionism/brutalism).

- **The Organically Evolved Landscapes** These are landscapes that have evolved over time through human interventions. There are two types of evolved landscapes: the Relict, where the evolution was stopped in the past (often an archaeological resource); and the Continuing, where the evolution is continuing.

- **The Relict (or Fossil) Landscape**

Calgary examples include Nose Hill Park, Paskapoo Slopes and 12 Mile Coulee archaeology sites.

- **The Continuing Landscape**

The typical Calgary example is Bowness Park where the park changed over time to offer users different experiences (camping sites, then amusement rides, etc.) while still retaining the primary historic form.

- **The Associative Cultural Landscape** These are landscapes that are historically significant because of the association with a person, people, organization or activity. Calgary examples include Colonel Walker Site (associated with Colonel Walker) and Signal Hill Battalion Numbers (association with the soldiers who trained in Calgary during WWI).

Confederation Park is considered a Cultural Landscape for both the design (influenced by the Victorian romantic landscape of rolling hills and picturesque views), for the association with specific people (Harry Boothman and Eric Musgreave), and for the association with community activism that preserved the existing landscape and created a park.

## Roles and responsibilities

The Conservation Landscape Architect and Heritage Planner (Heritage Protocol) are key players with specific responsibilities and it is important that the District Supervisor collaborate with both when managing the park, particularly when making decisions regarding alterations to the park.

The Conservation Landscape Architect ensures heritage significance is intact and retained.

Specific responsibilities:

- Regularly review the management of Confederation Park with operational staff.
- Act as a consultative resource to the operational staff.
- Participate in resource procurement. Includes developing maintenance budgets and maintaining administrative support.
- Assess need and participate in management of new capital development or repair.





- Liaise with Heritage Planning when applicable.
- Report to Calgary Heritage Authority on the ongoing management of Confederation Park.

### **Performance measures**

Heritage Operations Committee established and annual work plans created and reviewed.

### **Recommendations**

- Create a Heritage/Operations Committee similar to the one at Reader Rock Gardens where the mandate is to create/review plans for the season and to discuss any issues with the park. The Committee should include the primary on-site person, the District Supervisor, the Conservation Landscape Architect, the Division Manager and the Division Superintendent.
- With the guidance of the Conservation Landscape Architect and Heritage Planner, investigate the feasibility of recreating some of the original features that are no longer in the park e.g. rose garden, amphitheatre etc. The Conservation Landscape Architect would work with the Division Superintendent to submit the capital budget request.
- Develop annual co-ordinated work plans for the park that are approved by the Division Manager, and includes actions and performance measures for the staff in grounds maintenance as well as portfolios (Urban Forestry, Water Management, IPM, Pathways, E&EI, and Conservation Landscape Architect).
- Develop and implement interpretive education signage plan on the history of the park.

## **2.2 Turf**

There are 35.5 hectares of irrigated turf within Confederation Park which is mowed 15 to 20 times per season and 2.0 hectares of non-irrigated turf which receives limited mowing throughout the season.

### **Goal**

Maintain turf in good health ensuring the maintenance practices are being performed in accordance with the Parks Activity Standards Manual.

### **Specific policies relevant to turf**

- Integrated Pest Management Plan (IPM)
- Parks Activity Standards Manual
- Alberta Weed Control Act (Regulation)
- Environmental Code of Practice for Pesticides

All pest management activities within 30 metres of a water body are governed by Alberta Environment's Code of Practice for Pesticides.

### **Environmental Code of Practice for Pesticides**

- No more than 10 percent of any 100 square metres in the zone one to five metres from an open body of water receives treatment in any calendar year.
- No more than 30 percent of any 100 square metres in the zone five to 30 metres from an open body of water receives treatment in any calendar year.

The Alberta Weed Control Act regulates the establishment and movement of invasive plants (i.e. weeds) within the province by requiring landowners and landholders to control these species and prevent their spread. There are currently 46 prohibited noxious weeds listed under the Act and 29 noxious species targeted for eradication or control.



### Turf maintenance activities

Maintenance activities include:

- A. Litter pickup
- B. Large mowing (greater than 72inches)
- C. Small mowing/power trimming (less than 72inches)
- D. Aerating
- E. Turf sweeping
- F. Turf watering
- G. Fertilizing
- H. Spring/fall cleanup
- I. Top dressing
- J. Loaming and seeding
- K. Sodding
- L. Park inspections
  - 1. Note immediate hazards.
  - 2. Note any vandalism on site.
- M. Note condition and health of turf. Note things such as infestations, thresholds, damage and/or defects. If possible provide cause of damage or defect.
- N. Confirm maintenance practices are being performed in accordance with the current Park Activity Standards Manual.
- O. Ensure appropriate documentation is completed, dated and signed.

TABLE 4 General turf maintenance activity frequencies

			Maintenance Group – Turf													
Activity	Unit of measure	Inventory quantity	Timing												Annual frequency totals	
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		
Litter pick up	Hectare	42	2	2	4	4	4	4	4	4	4	4	4	2	2	40
Large mowing	Hectare	33.5				0	4	4	4	4	4	4	0			20
Small mow/trim	Hectare	8.5				0	4	4	4	4	4	4	0			20
Aeration	Hectare	33.5	As required												0	
Turf sweeping	Hectare	33.5					1						1			2
Turf watering	Hectare	33.5						2	2	2	2					8
Fertilizing	Hectare	33.5	As required												0	
Spring/fall clean up	Hectare	42				1							1		1	2
Top dressing	Hectare		As required													
Loaming and seeding	M2		As required												0	
Sodding	M2		As required												0	
Park inspections	Hectare								1	1	1	1	1			5





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### **Roles and responsibilities**

The Parks District Supervisor is responsible and accountable for the turf. Grounds maintenance staff, under the leadership of the Parks District Supervisor, are responsible for all maintenance activities.

IPM staff, in communication with the District Parks Supervisor, develop and continually monitor a management program to ensure continual turf health.

West IPM Supervisor works with the Parks District Supervisor to develop a written plan for broadleaf weed control in turf. (Current 2011 Structure – West plans work, North implements)

North IPM Supervisor is responsible for all facets of the broadleaf weed control.

North IPM Supervisor and the IPM Lead ensure the proper permits and conditions are established when controlling pests within 30 metres of the water in Confederation Park.

### **Performance measures**

- Turf is in good health
  - Turf is under the broadleaf weed threshold.
  - Turf is free of disease.
  - Less than one per cent of turf area is bare ground.
  - Site is mowed to standards.
  - Aesthetically pleasing (free of litter and trimming completed within four days of mowing).
- IPM turf management plan is executed.

### **Recommendations**

- Develop a turf management plan which includes:
  - Initial assessment conducted to determine soil compaction, soil nutrient levels and possibly soil contamination.
  - Site specific issues (e.g. topography/informal trails) assessed, and renovation/rehabilitation options provided.
  - A management program developed to ensure continual improvement of turf conditions (i.e. topdressing, aeration, over-seeding, fertilizer requirements and compost tea options).
  - Invasive weed species inventory compiled. The results will provide the basis for development of a go forward management plan for these species.
  - Dandelions assessed and managed as per existing IPM thresholds (and current IPM policies).
- Parks District Supervisor, working with the Water Management Lead, finalizes watering required for the turf. As part of this exercise, the water required to maintain the health of shrubs and trees is to be considered as well.
- Perform an annual qualitative assessment on the turf.



### 2.3 Shrub and tree beds

Confederation Park has 3,740 square metres of shrub beds, 686 square metres of trees within beds, and 15,056 square metres of mixed beds with trees and shrubs in them.

#### Goal

Manage and maintain beds (shrubs, trees and mixed) so plants are in good health and invasive weeds controlled.

#### Specific policies relevant to shrub beds

- Urban Forest Strategic Plan
- IPM Pest Management Plan
- Parks Activity Standards Manual
- Water Management Strategic Plan (Parks)

#### Plant material guidelines

- As a minimum, all plant material must be nursery grown and meet the specifications set out in the latest Guide Specifications for Nursery Stock prepared by the Canadian Nursery Trade Association (C.N.T.A.) and the International Society of Arboriculture (I.S.A.) for size, height, spread, grading, quality and method of cultivation.
- Nomenclature of specified plants shall conform to the International Code of Nomenclature for Cultivated Plants and the latest edition of Standardized Plant Names.

#### Maintenance activities

The following table describes the shrub bed maintenance activities and timing:

TABLE 5 General shrub bed maintenance activity frequencies

Maintenance Group – Shrub Beds																
Activity	Unit of measure	Inventory quantity	Timing												Annual frequency totals	
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		
Shrub bed maintenance	M2	3740								✓	✓	✓				1
Tree bed maintenance	M2	686								✓	✓	✓				1
Mixed bed maintenance	M2	15056								✓	✓	✓				1
Shrub planting	Each									As needed						
Line locate	Each									As needed						
Tank watering	M2									As needed						
Shrub bed pit preparation	Each									As needed						





### **Roles and responsibilities**

The Parks District Supervisor is responsible for all plant beds (shrub, trees, mixed). The grounds maintenance staff, under the leadership of the Parks District Supervisor, is responsible for all maintenance activities in the plant beds.

### **Performance measures**

- Shrub and tree beds are mulched and 95 per cent free of weeds.
- Annual assessment of shrub and tree beds is completed.
- Less than five per cent dead material in beds.

### **Recommendations**

- General assessment of shrubs and trees performed annually to determine plant health care issues, including:
  - Opportunities for alternative ground covers will be examined with consideration of water wise, naturoscaping and naturalization design concepts.
  - “No spray zones” assessed for continual improvement opportunities including enhanced cultural practices, plant selection alternatives and redesign of existing beds.
  - Specific tree and shrub bed pest management issues will be assessed and solutions proposed to address concerns.
  - IPM to develop a specific strategic plan for the park with implementation and monitoring strategies.

See Appendix 1 for more information.

## **2.4 Flower beds**

Confederation Park has 247 square metres of regularly planted beds and 12 planters that receive specific seasonal displays that are rotated as the seasons change.

### **Planting bed locations**

- Confederation Symbol Bed
- Circular Single Flag Bed
- Horseshoe Flag Bed
- Transition 67 Bed
- Alberta Bed
- Eric Musgreave Shrub Bed
- Cascading Beds by the office
- Tennis Courts Bed

### **Planters**

- nine octagonal planters
- three planters by the office in Confederation Park
  - two rectangular planters
  - one bowl planter

### **Goal**

Annually plan, design and manage the flower beds to maintain some of the historical features as well as to enhance the park’s appearance and value to the community.

### **Specific policies relevant to flowers**

- Parks Activity Standards Manual
- Adhering to Proper Horticultural Planting Techniques and Protocols



### Maintenance activities for flower beds

The flower bed activities are described in Table 5.

TABLE 6 General flower maintenance activity frequencies

Maintenance Group – Flower Beds																
Activity	Unit of measure	Inventory quantity	Timing												Annual frequency totals	
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		
Flower bed preparation**	M2	139					1									1
Flower bed planting	M2	139							1							1
Flower maintenance	M2	139						3	4	4	4	4	1			20
Flower watering	M2	139						3	4	4	4	4				19
Flower fertilizing	M2	139						2	2	2	2					8
Flower removal	M2	139										1	1			2
Flower ordering for next year	M2	139	1	1										1	1	4
Full season displays	EA		1	1	1	1	1	1	1	1	1	1	1	1	1	12
<b>Excludes**</b>																
Girl Guide	M2	20														
Alberta bed	M2	59														
Casading beds by office	M2	40														
**Note: Not in GIS.																





### **Roles and responsibilities**

The Parks District Supervisor is responsible for the annual planning, designing and managing of the flower beds. The grounds maintenance staff are responsible for all maintenance activities associated with the beds as outlined in Table 6.

### **Performance measures**

- Healthy, aesthetically pleasing annual plantings.
- Perennial beds free of weeds, and no dead plants.

### **Recommendations**

- Investigate the feasibility of creating a flower display that would be visible from 14th Street N.W.

## **2.5 Trees**

There are 2,818 trees within Confederation Park.

Confederation Park has a number of unique specimen trees. The park was a favoured place to try out new species varieties and aesthetics due to its proximity to the North Area Office. Within the park are fine examples of Ohio Buckeye, Little Leaf Linden, Siberian Larch and Austrian Scotts Pine.

At this time PARIS has not yet captured the data indicating how many trees currently have wells.

### **Goals**

1. Manage and maintain the trees to ensure they are in good health and achieve longevity.
2. Diversify the species and age classes of trees within the park.
3. Be in accord with the Cultural Landscape goals of the park.
4. Recognize and maintain the functional connectivity of the urban forest to adjacent open spaces.

### **Specific policies relevant to trees**

- Parks Activity Standards Manual
- Tree Protection Bylaw (23M2002)
- International Society of Arboriculture
- Urban Forest Strategic Plan (2007)
- Water Management Strategic Plan (2007)
- Integrated Pest Management Plan

In general, Urban Forestry has the budget to maintain trees including pruning, planting, supplementary watering for establishment of new trees and removal. Exceptions are tree wells, the purchase of water, and some pest control activities. The budget for these items lies with the maintenance district and/or IPM and Urban Forestry in the case of pest control.

Tree assets are cared for according to best practices as published by the International Society of Arboriculture, safety standard organizations such as CSA, ANSI, British Columbia WCB Association, ISO, etc. and as determined by Urban Forestry.



Maintenance schedules for regional parks are individually developed according to the park’s needs. Minimally, one quarter of the trees will be pruned annually. During the annual pruning, any incidental touch up work such as pruning out deadwood, hangars or removal of dead trees and hazards will occur at the same time.

Due to the high aesthetic standards of Confederation Park, it requires a high level of maintenance and grooming. Although, not usually a consideration, it may be necessary to remove “ugly” trees for aesthetic reasons.

Work that is disruptive to users of the park and sports fields such as tree pruning, removal and planting operations should occur during time when the park has the fewest visitors.

Urban Forestry inspects all trees in Confederation Park.

This inspection assists in preparing and executing the winter pruning (November to March).

In the spring and summer, on a monthly basis and after wind storms, maintenance staff stationed at Confederation Park will be expected to inspect for specific things such as deadwood and risks around picnic sites, pathways, seating, playground and gathering areas, etc., as part of their normal stewardship duties. See Table 7 for the annual maintenance activities related to trees, and Table 8 for the tree well maintenance activities.

### Maintenance activities

The following tables describe the tree maintenance activities and schedules:

TABLE 7 Urban Forestry work schedule

Winter – November to March	Summer – July to August
<ul style="list-style-type: none"> <li>Inspect trees and organize pruning and removal.               <ul style="list-style-type: none"> <li>Prune ¼ of all trees.</li> <li>Prune Elm as required for sanitation.</li> <li>Carry out removals and Poplar lifecycle.</li> <li>Stump grind as possible.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Continue watering until end of August.</li> <li>Monitor park for storm damage broken branches.</li> <li>Mulch tree wells and beds.</li> <li>Monitor and treat for Elm scale.</li> <li>Address issues of compaction, soil fertility, etc.</li> </ul>
Spring – April to June	Fall – September to October
<ul style="list-style-type: none"> <li>Monitor and treat for Elm scale (dormant oil).</li> <li>Remove trees that failed to survive the winter.</li> <li>Finish all stump grinding.</li> <li>Inspect picnic sites and gathering places for tree risks.</li> <li>Finalize and execute planting plans.</li> <li>Organize and begin tree watering.</li> <li>Ensure seasonal staff is adequately trained.</li> <li>Monitor park for storm damage broken branches.</li> </ul>	<ul style="list-style-type: none"> <li>Inspect Swedish and trembling aspens for bronze leaf. (BLD) disease (BLD).</li> <li>Clean or remove BLD infected trees as required.</li> <li>Collect and bury aspen leaves.</li> <li>Final watering for year in October.</li> </ul>





TABLE 8 General tree well maintenance activity frequencies

Maintenance Group – Trees															
Activity	Unit of measure	Timing												Annual frequency totals	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		
Tree well maintenance	Each					✓	✓	✓	✓	✓	✓				1
Tree well mulching	Each										✓	✓			1
Beaver wire wrapping	Each										✓	✓	✓		1
Sucker removal	Each				✓	✓	✓	✓	✓	✓					1

### Roles and responsibilities

The Urban Forestry Lead implements policies and practices as per the Urban Forest Strategic Plan with the support of the Urban Forestry staff and the Parks District Supervisor.

The Urban Forestry Lead has the authority to approve the removal or pruning of trees. The Urban Forestry Lead, after consultation with the Parks District Supervisor, and the Conservation Landscape Architect has authority to plant trees.

The Urban Forestry Supervisor for the North Division is responsible for the maintenance activities associated with trees except for tree wells. All tree well maintenance is performed by District maintenance staff.

The North Division Urban Forestry Supervisor leads funding requests for forestry issues in Confederation Park in consultation with the Parks District Supervisor, North Superintendent and North District Manager as required.

The North Urban Forestry Supervisor manages projects and capital work that Urban Forestry initiates. For work initiated by others, Urban Forestry must approve tree protection and landscaping plans, as well as demolition plans, grading and site plans as appropriate. Urban Forestry determines or approves tree compensation on behalf of The Corporation. Trees removed for capital work are to be compensated as per appraised value.

The North Urban Forestry Supervisor organizes hazard tree assessments if identified through general assessment process.

In general, Urban Forestry is responsible for identifying and prioritizing tree lifecycle needs and organizing projects.

IPM staff perform an annual general assessment of shrubs and trees to determine plant health care issues.

- Opportunities for alternative ground covers will be examined with consideration of water wise, naturescaping and naturalization design concepts.
- No spray zones will be assessed for continual improvement opportunities including enhanced cultural practices, plant selection alternatives and redesign of existing beds.
- Specific tree and shrub bed pest management issues will be assessed and solutions proposed to address concerns.

The Parks District Supervisor is responsible for the tree wells and in concert with the Urban Forest North Division Supervisor is responsible for monitoring trees.



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### **Performance measures**

- 200 trees pruned annually.
- No stumps within park.
- Tree wells 95 per cent free of weeds.
- IPM work plan for trees executed.
- Trees inspected for safety hazards after each major wind or wet snow event.

### **Recommendations**

- Urban Forestry's pruning and maintenance work is to improve the condition rating of 200 trees per year.
- Urban Forestry to discontinue the practice of stock piling small stumps for removal through the "punch and plant" program.
- Stump removal is to be part of tree removal and to be carried out in the same operation, with the goal of having zero stumps in the park.
- Tree species planted should have a species rating greater than 80 per cent.
- The Parks District Supervisor to work with the Urban Forestry Division Supervisor and the Conservation Landscape Architect to investigate creating beds around existing spruce tree groupings, unifying tree wells under a certain diameter, and reducing the wells on the established trees with in the park.
- Future planting should aim to further diversify the tree population both in species, composition and age structure.

See Appendix 2 for more information.

### **2.6 Toboggan hill**

There is one designated toboggan hill within Confederation Park. It is located on the south-facing slope just west of the Rosemont Community Association building.

District Maintenance staff are responsible for the weekly inspections and maintenance. Amenities staff are responsible for the signage.

### **Performance measures**

- Weekly inspections completed during winter season.

See Appendix 3 for more information.

### **2.7 Creek/storm water channel system**

City of Calgary Water Services business unit is responsible for all aspects of the creek or storm water system.

Edge treatments or plant material is a shared responsibility with Parks.

### **Goals**

1. Manage the storm water creek using a comprehensive approach to the planning, design, implementation and operation of the storm water drainage infrastructure.
2. Water Services and Parks regularly collaborate and communicate on the issues and operations that pertain to the operations of Confederation Park.

### **Specific policies relevant to Water Resources**

- Principles for Stormwater Management
- Stormwater Management and Design Manual
- Nose Creek Watershed Water Management Plan





### **Stream/storm water creek**

The Nose Creek Watershed Water Management Plan outlines ways to protect Nose Creek and the West Nose Creek watersheds. It includes recommendations for policies that will improve water quality, preserve the wetlands and protect the riparian areas and minimize the impacts of urban development.

Stormwater management is a comprehensive approach to the planning, design, implementation and operation of stormwater drainage infrastructure. Effective planning is necessary to provide effective stormwater management since there are few drainage systems in inhabited areas that remain in their natural state. Urbanization, or development, results in an increase in impervious ground cover and an increase in the rate of runoff. Rainstorms that at one time would have little or no runoff in rural areas, now produce significant runoff in developed urban areas and can pollute waterways.

The Nose Creek Watershed Water Management Plan outlines ways to protect Nose Creek and the West Nose Creek watersheds. It includes recommendations for policies that will improve water quality, preserve the wetlands and protect the riparian areas and minimize the impacts of urban development.

## **Stormwater Management & Design Manual**

### **Maintenance Procedures**

#### **1.1 Preventive Maintenance by Systems**

##### **Maintenance Group**

The Systems Maintenance group is responsible for preventive maintenance to ensure proper operation of stormwater ponds including clearing and disposal of debris and garbage from the pond area and from the structures within the pond area. Ponds located on school sites shall have highest priority.

The preventive maintenance is to be undertaken on all stormwater ponds at spring thaw and on the affected storm pond after each significant rainstorm. A significant rainstorm is generally one that will activate the first alarm in a monitored pond.

- 1.1.1 All catch basins, inlet/outlet grates, trash racks and the orifice in the control structure should be checked and cleaned.
- 1.1.2 All garbage and debris should be removed from the pond area.
- 1.1.3 Damage to the sod or pond area should be repaired.
- 1.1.4 Ensure that all gratings and manhole lids, both upstream and downstream of the stormwater pond, are in place. Gratings and lids that are subject to displacement should be secured as a safety measure.
- 1.1.5 Where available, the sluice gate or gate valve in the control structure may be used to drain down the storm pond if it is established that the downstream storm sewer has capacity. The sluice gate or gate valve must be completely closed after the pond has been drained.
- 1.1.6 Heavy equipment is not allowed within the pond area immediately after the drain down to avoid damage to sod and underground pipe systems. In most cases, a three-metre path is provided for access to the control structure.
- 1.1.7 Where there is a weeping tile or subdrainage system, blockages must be cleared through the cleanouts provided.
- 1.1.8 Before leaving the site, ensure that all gratings and structures are secured, and the sluice gate or gate valve is completely closed.



### Principles for stormwater wetlands management in The City of Calgary

As shown in the table below, the current maintenance tasks undertaken by Parks generally include litter pickup and the spraying of invasive weeds (weed control). Some trail and sign maintenance (information and interpretive signs) owned by Parks is also undertaken on a needs basis. The schedule for these maintenance tasks is currently once in April, May or June (beginning of season) and then on a complaint-driven basis.

Similar to Water Services, the date, extent or nature of maintenance tasks and costs incurred by Parks have never been tracked on an individual basis and it is therefore difficult to forecast what adequate costs are to maintain The City's existing wetlands. Currently annual funding for Parks maintenance is estimated at \$220/ha/year (excluding labour) natural area costing. Significant additional resources, including technical staff, will be required to expand the current monitoring program and undertake consistent habitat monitoring. It may also take a number of years to see noticeable improvements arising from this work.

#### The City of Calgary Parks Operation and Management Tasks and Costs for City Wetlands

<b>Weed Control/Vegetation Management</b>	Currently in place
<b>Litter Control</b>	Currently in place
<b>Access Maintenance</b>	Currently in place
<b>Erosion and Sediment Control</b>	Currently in place
<b>Habitat Monitoring Required</b>	Currently in place
<b>Irrigation</b>	Required
<b>Interpretation and Education (signage)</b>	Required
<b>Mosquito Control</b>	Required

### Current Water Services Responsibilities and Funding

A list of operation and maintenance tasks currently undertaken by Water Services to maintain The City's existing storm water wetlands, along with a breakdown of costs estimated for 2008 are provided below in Table D.

#### Water Services Maintenance Activities

<b>Inspection/Cleaning/Repair</b>	\$239,000 (estimated annual cost)	\$4,870/ha (estimated annual unit cost)
<b>Chamber Cleaning</b>	\$62,400 (estimated annual cost)	\$1,270/ha (estimated annual unit cost)
<b>Gate Inspection</b>	\$3,800 (estimated annual cost)	\$80/ha (estimated annual unit cost)
<b>Total Costs</b>	\$306,000 (estimated annual cost)	\$6,220/ha (estimated annual unit cost)

As indicated in the table above, current operation and maintenance tasks undertaken by Water Services include a number of general preventative measures including inspections and cleaning of the sediment forebay/chamber and access facilities. According to staff, these are carried out on a weekly or bi-weekly basis along with corrective measures as required, and often following large storm events.

Considering the cost to operate and maintain a wetland is dependent on a number of variables, including size, catchment characteristics, etc., a database system set up to track the date, extent and nature of costs incurred on an individual wetland basis, is required to assess more accurate funding and resource requirements for The City's storm water wetlands.

See Appendix 4 for more information.





### Performance measures

- Preventative maintenance on stormwater channel, pond and system components completed after spring thaw and after each significant rainstorm.

### Recommendations

- Review, with Water Services, the need for improvements to reduce erosion or bank loss by planting or bio-engineering along the banks. Water Resources would submit the funding request. Parks may be involved if the project is jointly initiated.
- Advocate for the removal of the creosote retaining walls just east of the pond. A design to properly retain the walls would have to be developed. Parks and Water Services would have a joint vested interest in submitting a capital project.
- Mutual co-ordination and communication on water management strategies between Water Services and the Parks District Supervisor.
- Develop an education and information plan for the park about the stormwater drainage and this initiative should be a partnership between Water Services and Parks.

## 2.8 Water delivery systems

In Confederation Park this includes irrigation, fill-up site and fountains.

Confederation Park currently has a turf valve system as well as a small drip system for the hanging baskets that are located at the front entrance to the building. The system is antiquated with 32 turf valves.

### Goals

1. Provide a water management system that balances water conservation and financial sustainability while supporting healthy plant life.
2. Ensure water fountains are in good condition and positively contributing to the public experience in the park.

### Specific policies relevant to water management

- Water Management Strategic Plan (The City of Calgary Parks)
- Parks Activity Standards Manual

In 2002 City Council identified water management and water conservation as key priorities for The City of Calgary and identified the following water goals:

- Lead by example.
- Manage The City's water usage activities.
- Water conservation through responsible and efficient use.

### Parks Water Management Strategic Plan

The aim of the Water Management Strategic Plan (WMSP) is to move towards an overall water management system that balances water conservation and financial sustainability while supporting healthy plant material. Overall, this plan ensures that the right amount of water gets to the grass, trees, shrubs and flowers in the most cost-effective way while ensuring that water delivery is efficient and conserves water.



The City of Calgary Water Services determined that the long-term sustainability of Calgary's water supply is contingent on maximizing water use efficiency and minimizing waste. Water Services is encouraging conservation practices to help achieve its target of a 50 per cent reduction in the average day per capita demand. In response to these pressures, water management activities have become integrated with other functions

such as integrated pest management, urban forestry and integrated site design to support healthy urban parks and open spaces while managing the use of the water resources to ensure conservation.

Parks' Water Management Strategic Plan's main outcome is to conserve water (increase efficiency, effectiveness and productivity of irrigation systems, use and re-use non-potable alternative water sources).

### Water Management maintenance activities

TABLE 9 General irrigation maintenance activity frequencies

Maintenance Group – Water Services Irrigation															
Activity	Unit of measure	Timing												Annual frequency totals	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		
Service initiation	Each					1									1
Meter inspection	Each					1									1
DCV testing	Each					1									1
DCV repairs	Each								As needed						
Turf valve on	Hectare					1									1
Turf valve system repair	Each					✓	✓								1
Turf valve system inspection	Each					1					1				2
Potable system on drinking fountains	Each					1									1
Potable system inspections of drinking fountains	Each										1				1
Water line locates	Each								As needed						
Service shut down	Each										1				1
Turf valve turn off	Each										1				1
Potable system off	Each										1				1
System repair	Each								As needed						
Meter repair	Each								As needed						

According to current GIS information, the irrigation system at Confederation Park was installed in 1967, making it 43 years old and it is a manual turf valve system. In 2006, Water Management installed an automated drip system that is fed off of the main office building, which waters the plant material at the stairs leading to the main office and the hanging baskets.





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### **Irrigation maintenance activities:**

- Service initiation.
- DCV testing.
- System turn-on.
- All repairs required in order that system operate effectively.
- All systems workable.
- No water leaking from system.
- No debris or parts left on site.
- No irrigation boxes that have lids missing or in poor state of repair. Box lids are safe and locked.
- Parks water value and drain rod are visible, to grade and painted red after FAC.

#### **2.8.1 Fountains**

The water supply is turned off by North Division Water Management staff but the winterizing of the fountains is completed by a contractor. The internal workings of the fountains are removed and stored. This prevents the melting of snow and ice on the surface of the basins. Otherwise, water could enter the internal working of the fountain, refreeze and break the fountain. In the spring, once there is no fear of freezing, the Water Management Supervisor calls the contractor to re-install the inner workings of the drinking fountains. Should a fountain become nonfunctional, the Water Management Supervisor is notified, and they assess whether the fountain needs repair or replacement.

#### **2.8.2 Turn ons**

The North Water Management Supervisor co-ordinates the turn ons of all the water systems within Confederation Park. They include the irrigation system, the drinking water fountains, the fill-up site, and the drip irrigation system located at the Confederation Park office.

#### **2.8.3 Fill-up site**

Fill-up sites are turned on when the main system is pressurized. These sites are for water trucks to fill their units out in the field. There is one fill-up site within Confederation Park, located beside the residence of 1420 23rd Ave. N.W.

#### **2.8.4 Winterizing**

The North Water Management Supervisor arranges for the rental of the compressors to winterize the irrigation system. The system is winterized near the end of September or early October, depending on the weather.

#### **2.8.5 Inspections**

In the spring, all DCV's are tested and a Cross Connection Control Testing and Inspection Report is completed and distributed as noted on the bottom of the forms.

### **Roles and responsibilities**

Parks Water Management section is responsible, on a city-wide basis, for all irrigation maintenance. The North Water Management Supervisor is responsible for the maintenance of the underground irrigation systems as well as the fountains in Confederation Park. This includes spring turn on, repairs of all components of the system, and fall turn off.

The Parks Water Management section also has responsibility for development of policies and long-term strategies, construction specifications, design plan approvals, water cost budgets, capital construction projects (new systems, water meter installations, etc.), and oversight and operation of the Irrigation Central Computer Control.



## Performance measures

- Turn ons are completed by end of May.
- Irrigation system in the park is functioning well.
- Water fountains are in good repair, functioning well and aesthetically pleasing.
- Winterizing of the system is completed by end of September.

## Recommendation

- North Division Superintendent co-ordinate with the Water Management Lead to apply for capital funds to plan, design and construct a central irrigation system.

## 2.9 Amenity assets

There are many diverse park amenities assets in Confederation Park that the North Amenities section is responsible for including but not limited to park furniture, signs, sculptures, garbage receptacles, fences, sport fields, playgrounds, tennis courts and parking lots. Please see Table 1.

## Goals

- Ensure all amenities are:
  - Fully functional, as designed, at all times.
  - Installed as to specifications and standards.
  - Maintained in safe operating condition.
  - Meet or exceed all legislated requirements.
  - Inspected and maintained on a regular basis as scheduled or as required.
- Annually co-ordinate work plans with the Parks District Supervisor to ensure the vision, outcomes and goals for Confederation Park are met.
- Formally inspect all amenity assets on a three year cycle.

## Specific policies relevant to amenities

- Parks Activity Standards Manual
- CSA Playground Safety Standards
- Parks 2010 Development Guidelines and Specification Manual
- Parks and Pathways Sign Manual 2007

## Maintenance and recommendations for amenities

### 2.9.1 Garbage cans

There are 22 garbage cans located within Confederation Park including two recycle HB1 cans.

The Hide-A-Bag (HB1) Bear Bins are purchased, installed and repaired by the Amenities section, but the garbage removal and graffiti removal falls under the responsibility of District Maintenance who have a schedule that is followed year-round for collection. See Table 10. There are two HB recycle bear bins within Confederation Park as a pilot project to track recycling within this park.

## Recommendations

- Assess, and implement if necessary, the relocation of poorly accessible garbage cans or underutilized cans to locations better suited for collection (See Table 10). The North Amenities Supervisor should co-ordinate with the District Supervisor to relocate the existing garbage cans.
- Install two handicapped accessible garbage cans and review their usage annually.

### 2.9.2 Washrooms

Public washrooms are located along the regional pathway on the lower level of the Confederation Park office.

These washrooms are open year-round, using a contracted janitorial service during the off/winter season and utilizing seasonal staffing during the peak/summer season.





TABLE 10 Maintenance activity frequencies for garbage cans and washrooms

Maintenance Group – Maintenance			Timing												Annual frequency totals
Activity	Unit of measure	Inventory quantity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Washroom routine	Each	1	31	28	31	30	31	30	31	31	30	31	30	31	365
Building inspectors	M2	1	31	28	31	30	31	30	31	31	30	31	30	31	365
Garbage collection	Each	22	2	2	4	4	4	4	4	4	4	4	2	2	40

### 2.9.3 Fencing

There are four types of parks fencing, not including sports field fencing, within Confederation Park: post and cable, wood pickets, post and rail and chain link.

Repairs to these assets are done as required by Amenities staff. In addition, the condition of these assets is inspected on a three-year cycle.

### 2.9.4 Memorial benches

Memorial benches can be purchased by the public by filling out and submitting an application to the Parks Foundation of Calgary. Once the application is submitted, it is forwarded to Parks, via the Amenities Supervisor.

A site visit attended by both the Amenities Supervisor and the Parks District Supervisor is required to confirm the placement. Not all proposed bench sites chosen by the applicant are suitable for the park. The final decision lies with the Parks District Supervisor to ensure that the vision, outcomes, and goals of the park are maintained.

The cost of the bench depends on the length of time that it will be maintained. The Parks Foundation gives donors two options to choose from: \$3,500 for 10 years of maintenance or \$7,000 for 40 years of maintenance. The price includes the cost of the bench and plaque, installation of the bench and plaque, and maintenance and administration costs.

The wood bench comes with a five-year warranty on the finish. These benches are inspected every three to four years for refurbishing. The cedar benches previously sold are refurbished every two years. Bench options are renewable after the 10 or 40-year period has expired. Prices are subject to change.

Currently, there is an over abundance of memorial benches in this park.

### Recommendations

- No more benches be allowed near the pond area within Confederation Park.
- Investigate and collaborate with the Parks Foundation and donors on redistributing the memorial benches within the park. This is to be achieved mainly through the expiry of the existing benches over a long period, and perhaps replacement of a current Parks bench with a memorial bench.
- The Parks District Supervisor and the Amenities Supervisor develop a bench plan for the park and proactively share it with the Parks Foundation.



### 2.9.5 Seating, excluding memorial benches and bleachers

There are a variety of park benches and picnic tables throughout Confederation Park and they are all in need of sanding, painting and the odd board replacement. There is no life cycle program; all repairs are completed as reported, out of the operating budget in amenities. When boards become dangerous, they are replaced and painted immediately. The legs are metal and are in good repair at this time.

#### Installation of a Parks bench(wood bench)

- Provide concrete, asphalt pad or compacted granular base.
- Seating surface to be 410-440 millimetres above finished grade.
- Pedestals must be set in concrete to a minimum depth of 600 millimetres below finished grade.
- Ground model types must be bolted to a concrete pad using vandal resistant fasteners as per the manufacturer's requirements.

#### Recommendations

- The Parks District Supervisor and the Amenities Supervisor develop a plan for the location and maintenance of these assets.
- Rehabilitate the areas beneath benches and tables as they are currently in poor condition. Remove the shale and replace with a trail mix base that properly installed would reduce weed growth and be easier to maintain.

### 2.9.6 Signs

There are currently 16 signs in Confederation Park: three pathway signs, six Parks information signs, two park regulatory signs, three general interpretive signs, one dog regulatory sign and one sports regulatory sign.

#### Recommendations

- Develop a comprehensive signage plan for Confederation Park taking into consideration all types of signs (park name, entry, regulatory, information, interpretive, warning); all internal stakeholders; customer service and safety; asset protection; and aesthetics of the park, as well as other recommendations in this plan in the historical section and Water Services section.
- Amenities staff to install signs at locations collaboratively agreed upon by stakeholders.

### 2.9.7 Roads and parking lot maintenance

Any curb replacement or asphalt repairs are the responsibility of North Amenities section. In addition, all of the electrical plugs, parking stops, surface areas and the painting of parking spaces, are also the responsibility of the North Amenities Supervisor. All the work currently undertaken is reactive in nature and dealt with as required.

Snow removal in parking lots is done on an as-needed basis.

#### Leaf drop off

Waste and Recycling Services runs a Leaf and Pumpkin Composting Program from October until November. During this time residents can drop off their bagged leaves at any one of the many drop off locations located around the city. The parking lot in Confederation Park at 905 30th Ave. N.W. is a designated drop off location.

#### Recommendations

- Redesign the parking lot adjacent to 30th Avenue N.W. to maximize parking while accommodating Waste & Recycling Services leaf drop off program.
- Investigate with Waste and Recycling Services the possibility of removing the green recycling centre in the parking lot off 10th Street N.W. near the Rosemont Community Centre to increase the parking available to park users.





### 2.9.8 Sidewalks

Snow removal takes place on sidewalks that are directly in front of the park only. North Amenities will either clear the sidewalks using a contractor or Parks staff depending on the weather and the time of the snowfall. The sidewalks that are cleared by North Amenities are roads assets, but Parks has a policy of clearing sidewalks directly in front of the park.

The office building stairs are cleared by Parks maintenance staff.

### 2.9.9 Tennis courts

The tennis courts at 3220 Seventh St. N.W. were resurfaced in 2008 and are on a seven-year cycle for resurfacing.

Nets are replaced as needed or when vandalised. The net replacement cost comes out of the Amenities Section's budget. The nets are put up in the spring around mid-May, weather dependant – once the snow has melted and the surface is clear of ice. Any net maintenance is dealt with on a reactive basis (3-1-1 calls from users to tighten the nets or replace them). The nets are removed mid-October, weather dependant. Nets are removed during the winter to preserve their longevity and to avoid any vandalism. The tennis courts are locked during the winter to prevent them from becoming a playground for other non-tennis activities.

The chain link that surrounds the tennis courts is inspected visually in the spring and fall when the courts are opened and closed. Any other maintenance is dealt with on a reactive manner from 3-1-1 calls.

The practice board is visually inspected in the spring and fall during the opening and closing of the tennis courts. If repairs are needed to the wooden practice board, the Amenities Supervisor organizes the work.

### 2.9.10 Sports fields

There are three ball diamonds within the boundaries of Confederation Park.

There is one ball diamond, booking code B1CAP10, that is not fenced and receives an annual infield recondition. All base lines, if used, are drawn by the current group that has booked the ball diamond.

In two ball diamonds, B1MOP14 and B1MOP13 respectively, the fencing is inspected every spring. Both diamonds receive one infield reconditioning per year. Any other infield maintenance such as drawing base lines is performed by the leagues who book the diamonds every day from April until the end of July.

The turf mowing of all the outfields is performed by District maintenance.

All bleachers and players boxes are maintained by the Amenities Section and are replaced on an as needed basis. The work here is reactive and dependent upon 3-1-1 callers or maintenance staff to report issues.

### Recommendations

- No private vehicles should be granted access across the turf to the ball diamonds. If the ball associations need to float the shale on a ball diamond, it should be done by a low impact vehicle like a quad.
- Open collaborative dialogue between Parks (The Playfield Co-ordinator, the Parks District Supervisor and Amenities Supervisor) and the associations that have these sites booked all ball season.



### 2.9.11 Playgrounds

The North Amenities Section is responsible for the complete removal and replacement of the existing equipment to comply with The City of Calgary Parks Development Guidelines and Standard Specifications, Landscape Construction and current Canadian Standards Association (CSA) specifications. Inspections are completed by a Certified Playground inspector and take place seven times per year, six times during the summer and once in the winter. All aspects of the equipment are scrutinized and the inspection forms filled out. Inspections are used to formulate a maintenance regime.

### Playground inspection and maintenance

- Inspections completed as per established inspection schedule.
- All formal (inspection report) documentation completed.
- All minor repairs completed.
- Any major repairs scheduled as per inspection report.
- Playground safe for public use.

The CSA requires playground equipment to meet standards determined to ensure the safety of playground equipment. Head entrapments, string entanglements, trip zones and unsafe heights are among the hazards addressed and remedied in the CSA Playground Safety Standards. The CSA Playground Safety Standards have been proven to identify playground hazards and reduce accidents and injuries when their recommendations have been followed.

TABLE 11 Amenities annual frequencies

Maintenance Group – Amenities															
Activity	Unit of measure	Inventory quantity	Timing												Annual frequency totals
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Tennis court net install and removal	Each	3					1					1			2
Baseball infield reconditioning	Each	3									1				1
Playground inspection	Each	2	1			1	1	1	1	1	1				7
Furniture maintenance	Each														0
Fencing repair	Each														0
Parking lot maintenance	Each	3													0
Seating, other	Each	25													0
Memorial benches	Each	59													0
Snow removal	Each														0
Garbage cans	Each														0





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### Performance measures for all amenities

- 90 per cent of amenities have a TCA rating of green.
- Annual inspection of designated amenities is completed.
- Annual playground inspections are completed.
- Garbage bins are emptied daily in peak season (April to September); weekly during the rest of the year.
- Park signage is in good condition and signs are located correctly on site.
- Signage is compliant with current legislation.
- Reported graffiti is removed within 48 hours.
- Sportsfields in game ready condition within booked season.
- Sportsfields turf is in good health.
- Sportsfields booked 80 per cent of the time during the playing season.
- Turf enhancement is completed (top dressing, fertilizing, aerating, extra mowing).

### 2.10 Public art

There is a variety of pieces of public art within Confederation Park for Calgarians to enjoy.

There are some items within Confederation Park that have been there since the inception of the park. All of these items should not be altered without the consideration of contacting the Public Art section of the Recreation business unit, the Conservation Landscape Architect and Heritage Planner. Some of these items are original and should be carefully repaired with proper contractor/artist.

There is no 'owner' of public art other than the citizens of Calgary. As for the stewardship, it appears to be Parks with consultation from the Public Art section regarding best practices for maintenance and preservation of the pieces within Confederation Park. At this time there is no funding from Public Art for regular maintenance, only insurance for vandalism claims.

The following assets in Confederation Park are considered public art:

- The Confederation Flag Site (focal point, Confederation Circle)
- Centennial Symbol (flower bed)
- Transition 67
- Stream Fed Fountain



TABLE 12 Current 2010 public art inventory at Confederation Park

Asset Location	Asset Record Type	Code Description	Asset Description	WAM Asset Id	Parent Asset Record Type	Parent Asset Id	Description
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000014	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000015	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000016	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000017	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000018	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000019	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000020	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000021	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000022	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000023	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000024	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000025	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000026	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000027	E	3010246	
MOP671 905 30 AV NW	A	Amenity	Flag Pole	4000028	E	3010246	
CAP670 2807 10 ST NW	A	Monuments	Sculpture or Statue	14000044	E	3008577	Transition 67
MOP671 905 30 AV NW	A	Monuments	Sculpture or Statue 1	4000055	E	3010246	Confederation Circle
MOP671 905 30 AV NW	G	Annual Planting Bed	Bed With Annual Plants 1	7005891	E	3010246	Centennial Symbol Annual Planting Bed

### Specific policies relevant to public art

- City of Calgary Flag Policy
- City of Calgary Half Mast Flag Policy
- Corporate Art Policy

#### 2.10.1 Public art collection

The City of Calgary public art collection is comprised of all visual art assets owned and held in trust by The City of Calgary. These include public artworks acquired through the ‘percent for public art’ funding strategy, artworks in the Civic Art Collection, as well as historic art objects and other unassigned visual art objects.

**Civic art collection:** Works of visual art, in any media, that have been planned and executed with the specific intention of being sited or staged in the public domain, often incorporating elements of site specificity, community engagement and collaboration.

**Historic art objects:** as components of the public art collection, these art objects have acquired significant historic value in Calgary.

**Unassigned art objects:** Components of the public art collection, these art objects have been acquired by various City of Calgary business units over time.





All items designated as public art should not be altered without the consideration of contacting the Public Art section of The City of Calgary. Some of these items are original and should be carefully repaired with proper authorization, material and contractor/artist.

### 2.10.2 City of Calgary Flag Policy

The purpose of the policy is to ensure that all flags at the Municipal Complex and other City of Calgary properties and buildings are flown and displayed in a consistent and appropriate manner.

#### Displaying the flags

- All flags are to be flown on separate poles.
- All flags are to be flown at the same height.
- All flags flown in a group are to be the same size (typical size at The City is three feet x six feet for indoor or four feet x eight feet for outdoor).

The provincial and territorial flags shall be displayed from left to right: Canada, Ontario, Quebec, Nova Scotia, New Brunswick, Manitoba, British Columbia, Prince Edward Island, Saskatchewan, Alberta, Newfoundland, Northwest Territories, Yukon Territory, and Nunavut.

#### a. City of Calgary Half-Mast Flag Policy

The flying of flags at half-mast is a strong visual statement that speaks to the sense of loss shared by all citizens.

The City of Calgary's Half-Mast Flag Policy is adapted to incorporate practices by both Alberta Protocol and Canadian Heritage.

The intent of this policy and procedures is to be flexible to the unique circumstances of City business units.

Special days: Flags will be flown at half-mast to mark anniversaries or occasions, such as:

**April 28, National Day of Mourning** (for those who have suffered and died in the workplace): Flags at all City properties and buildings will be flown at half-mast from sunrise to sunset.

**Nov. 11, Remembrance Day:** Flags will be flown at half-mast from sunrise to sunset at all City properties and buildings.

#### b. Responsibilities:

##### *City Clerk's – Protocol*

- Protocol administers this policy and all half-masting of flags.
- Protocol will notify the Mayor's Office, City Manager's Office and 3-1-1 whenever flags are lowered to half-mast.
- Protocol will contact the Mayor's Office in situations where further discussion or decisions must be made regarding lowering flags at City facilities to half-mast.
- Protocol is responsible for notifying the appropriate areas by email at The City to fly flags at half-mast.
- City Clerk's – Protocol sends out all notices to half-mast flags at all City properties (with the exception of Calgary Police Service when they lower flags for retired members).

#### Recommendations

- Give immediate attention to several pieces of public art in Confederation Park that have been donated over the years and now require immediate attention. This includes, but is not limited to:
  - The replacement of missing name plates on pieces of work (Transition 67).
  - Concrete work (a triangular rock piece is missing on the Confederation Circle).
  - Acid wash for all pieces.



- Develop asset ownership and a funding strategy to address issues regarding business unit responsibility for the public art in the park.
- Investigate removing the flag representing Nunavut as this territory was not part of the original 10 provinces and territories in 1967 when Confederation Park helped celebrate Canada's Centennial.

See Appendix 5 for more information.

## 2.11 Pathways

There are approximately 4.7 kilometres of paved multi-purpose pathway in Confederation Park.

### Goals

- Maintain pathways and associated amenities (bollards, signs) in good condition.
- Inspect all pathway segments annually.
- Plan, design, maintain and replace pathways using TBL (Triple Bottom Line) guidelines and Parks Landscape Specifications.
- Remove snow from all pathways in Confederation Park as per Priority 1 Guidelines.

### Specific policies relevant to pathways

- Calgary Pathways and Bikeways Plan
- Parks and Pathways Bylaw
- Parks Activity Standards Manual
- Responsible Pet Ownership Bylaw
- Cycle Plan
- Calgary Transportation Plan

### Safety clearance and setback requirements (pathways)

- Provide 1.0 metre clear of all obstacles on both sides.
- Provide 3.0 metres clear of all obstacles overhead.
- Avoid locating pathways over manholes.
- Ensure a 2.5 metre minimum clearance from park water services.
- Set back pathways a minimum of 1.0 metre from face of curb.

#### 2.11.1 Inspections

Parks Pathways staff annually do a visual written inspection of the pathway segments within Confederation Park and the overall condition of each segment is determined. This information is used by pathways staff to plan both their capital lifecycle work as well as maintenance repairs.

#### 2.11.2 Signs and bollards

There are a total of 13 bollards and most are located at the entrances to the park.

#### 2.11.3 Snow removal

Snow removal on pathways is Council-approved and directed as to which segments are done. The Pathways section clears all snow on the regional pathways within Confederation Park. Approximately 157 kilometres of Calgary's 700 kilometres of pathway system receive snow removal. All pathways in Confederation Park are on the Priority 1 snow removal list, which means that clearing is commenced within 24 hours of a snowfall and sanding is done on icy sections. Snow removal is organized by the Pathway Maintenance Supervisor, and is performed by private contractors.





### Performance measures

- 90 per cent of pathway segments have TCA rating of green.
- 95 per cent of pathway bollards have TCA rating of green.
- Annual pathway surface condition inspections completed by September.
- Snow removal of Priority 1 pathways done in accordance with Parks standard.

### Recommendations

- Confederation Park 2011/2012 lifecycle upgrades, re-design and construction information should be communicated and co-ordinated by the Pathways Co-ordinator with the Parks District Supervisor, North Water Management Supervisor, the Roads business unit, Bridges Supervisor and the Amenities Supervisor.
- As part of the 2011/2012 lifecycle upgrades, redesign should be considered for the 30th Avenue parking lot entrance to the pathway, all pathway intersections with adjacent roadways, and pathway connections to all bridges.
- Co-ordinate any annual pathway repair work plans with Parks District Supervisor.

TABLE 13 Pathways annual frequencies

Maintenance Group – Pathways																
Activity	Unit of measure	Inventory quantity	Timing												Annual frequency totals	
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		
Pathway inspections	M	4675.2								1						1
Snow removal	M	4612.2	As per priority 1 standard												0	
Repairs	M	4675.2	Based on asphalt condition inspections												0	

The pathways in Confederation Park will be upgraded/life cycled in 2011 and 2012.



## 2.12 Bridges and tunnels

The roads business unit is responsible for all aspects of the bridge structures, as well as the tunnels that cross beneath 10<sup>th</sup> Street N.W. and 14<sup>th</sup> Street N.W.

The bridges and tunnels are an integral part of the Parks pathway system.

Assets that Roads owns/maintains in Confederation Park include:

- Confederation Park Timber Bridges 385.102 A to G (seven bridges)
- 14th Street/24th Avenue Pedestrian Tunnel 381.704
- 10th Street/Confederation Park Pedestrian Tunnel 381.705

### Goals

Ensure bridges and tunnels are safe and maintained to good condition.

### Specific policies relevant to bridges and tunnels

- Roads Summer Maintenance Program Plan 2010
- Calgary Pathway & Bikeway Plan

### Maintenance activities

These structures undergo a routine inspection once every two years. Any maintenance items identified during the inspection are put on a work list and prioritized. Work items of high priority would be attended to immediately; medium priority would be either later the same year or sometime the following year. Low priority items may not be attended to until they become medium priority.

The seven timber bridges undergo a routine service check by one of Roads field crews at least once each season. Any deficiencies they find that require immediate repairs (timber related work) are usually attended to while the crew is on site.

Much of the maintenance done on the timber bridges is undertaken as a result of service requests received through The City's 3-1-1 system. They do not track this type of work but it is predominantly vandalism related repairs.

The only asset that undergoes routine seasonal maintenance is the tunnel under 14th Street at 24th Avenue N.W. This concrete box structure undergoes a seasonal pressure washing. The tunnel at 10th Street does not get pressure washed because of its design; it is a corrugated steel pipe with asphalt wear surface.

The timber pedestrian bridges have a design life of 35 years and the tunnels a design life of 50 years.

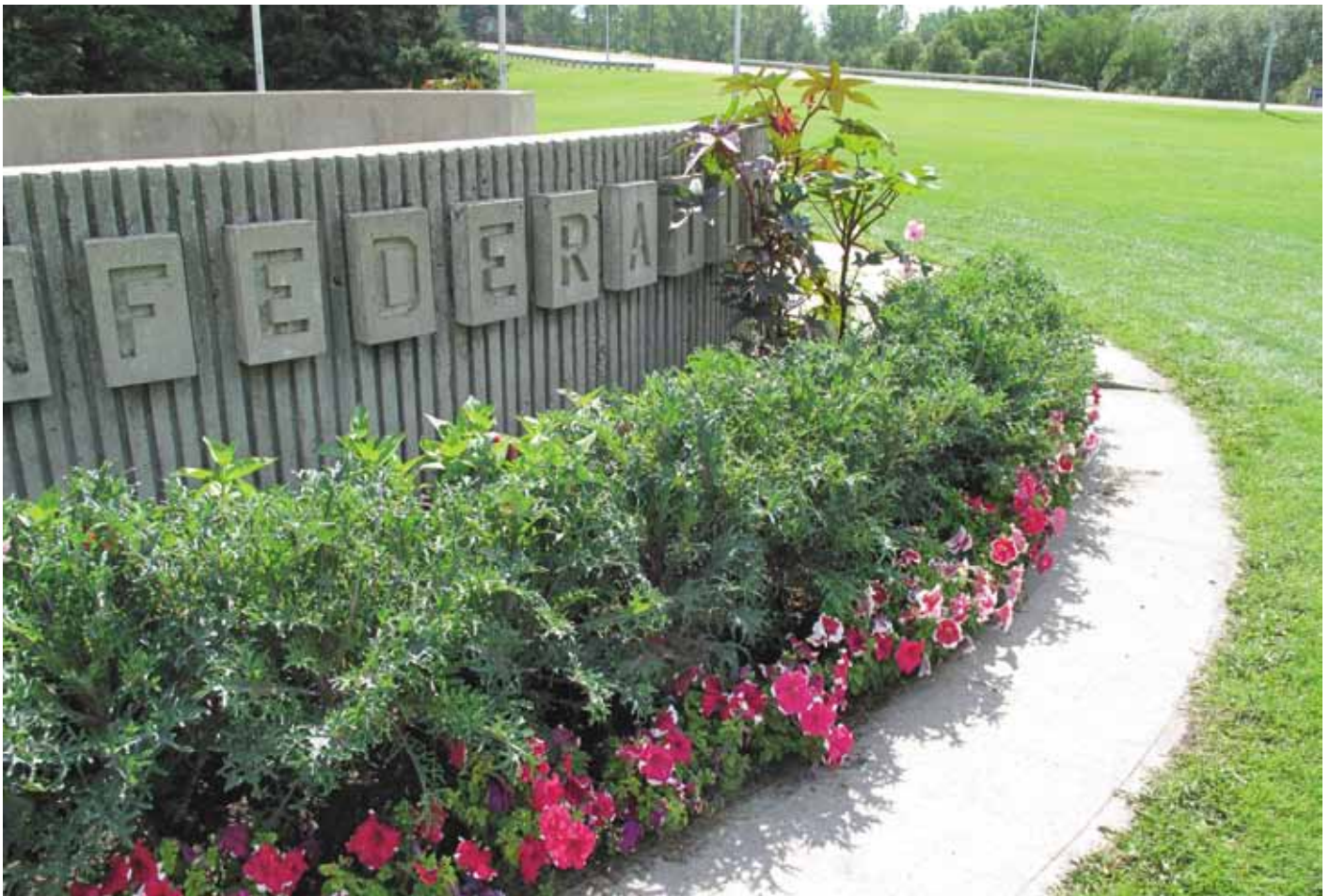
### Recommendations

- Discuss the feasibility with Roads of having constant lighting in the tunnels.
- Ensure Roads, Structures and Bridges staff, Pathways Co-ordinator and the Parks District Supervisor discuss the interface areas of pathways with bridges as part of the pathway lifecycle project.



## overall roles and responsibilities

The Parks North Division Manager has delegated responsibility for the management of all park sites within a district to the District Supervisor. Because of the diversity of assets within the park, a number of staff are required to perform specific responsibilities and different roles depending on the asset. Collaborative teams are required to fulfill the vision, outcomes and goals for Confederation Park. The Parks District Supervisor will be responsible for overall stewardship and for co-ordinating all activities in the park.









## future direction and summary of recommendations



Specific annual work plans will be developed for Confederation Park. These work plans will be co-ordinated and assembled by the District Parks Supervisor with input and sign-off by all the asset stewards. To assist in the development of the annual work plans and accountability for performance measures, the roles and responsibilities have been assigned by asset for all operational activities as well as capital projects. As stated earlier, overall compilation of the work plan for Confederation Park is the responsibility of the Parks District Supervisor.

For the capital projects, the North Division Superintendent will be responsible for putting together the business cases and ensuring the projects are co-ordinated and put on the CPRIIPS list. In order to do this, input will be solicited from all asset stewards namely the North Amenities Supervisor, Pathways Co-ordinator, Water Management Lead, Urban Forestry Lead, and Parks District Supervisor.

The Parks North Manager will annually approve the work plan for Confederation Park and each year review performance with the team of staff responsible for implementing the work plan.





**Operational role by asset type (work plans, inspection, maintenance, performance measures)**

	F7	Amenities Sup.	Pathways Mtce Sup.	WM Sup.	IPM Sup.	UF Sup.	Landscape Conservation planner	Roads Mtce. & Const. co-ord.	WS Sup.	E&EI co-ordinator
Heritage Cultural Landscapes	L/S*	L/S*					s			S
Turf	L			S	S					
Shrub and tree beds	L			S	S	S				
Annual/perennial beds	L			S	S					
Trees	S			S	S	L				
Toboggan hill	L	S								
Storm water creek	S								L	S
Irrigation system	S			L	S	S				
Amenities	S	L					S			
Pathways	S	S	L	S		S		S		
Bridges/tunnels	S	S	S					L		

\* If a living asset, then Parks Supervisor leads; if a built asset, Amenities Supervisor is the lead.

L = Lead S= Support

**Capital project role by asset type (identifying and prioritizing and funding requests)**

	F7	Amenities Supervisor	Pathways Co-ord.	WM Lead	IPM Lead	UF Lead	Landscape Coservation Planner	Roads Mtce. and Const. Co-ord.	WS Supervisor	North Supt.	P & D Staff
Heritage Cultural Landscapes	S	S					L			S	S
Turf	L									S	
Shrub and tree beds	L			S	S	S				S	
Trees	S			S	S	L	S			S	
Storm water creek	S								L	S	
Amenities	S	L					S			S	
Pathways	S	S	L	S		S	S			S	S
Bridges/tunnels	S		S					L		S	
Irrigation system	S		S	L		S				S	S



## SUMMARY OF RECOMMENDATIONS

### Operating

1. Create a Heritage/Operations Committee similar to the one at Reader Rock Gardens where the mandate is to create/review plans for the season and to discuss any issues with the park. The committee should include the primary on-site person, the District Supervisor, the Conservation Landscape Architect, the Division Manager and the Division Superintendent.
2. Develop annual co-ordinated work plans for the park that are approved by the Division Manager, and includes actions and performance measures for the staff in grounds and maintenance as well as portfolios (Urban Forestry, Water Management, IPM, Pathways, E&EI, and Conservation Landscape architect).
3. Develop a turf management plan which includes:
  - An initial assessment be conducted to determine soil compaction, soil nutrient levels and possibly soil contamination.
  - Site specific issues (e.g. topography/informal trails) will be assessed and renovation/rehabilitation options provided.
  - A management program developed to ensure continual improvement of turf conditions (i.e. topdressing, aeration, over-seeding, fertilizer requirements and compost tea options).
  - Invasive weed species inventory compiled and the results to provide the basis for development of a go forward management plan for these species.
  - Dandelions to be assessed and managed as per existing IPM thresholds (and current IPM policies).
4. Parks District Supervisor, working with the Water Management Lead, finalizes watering required for the turf. As part of this exercise, the water required to maintain the health of shrubs and trees is to be considered as well.
5. Perform an annual qualitative assessment on the turf.
6. General assessment of shrubs and trees performed annually to determine plant health care issues, including:
  - Opportunities for alternative ground covers will be examined with consideration of water wise, naturescaping and naturalization design concepts.
  - “No spray zones” assessed for continual improvement opportunities including enhanced cultural practices, plant selection alternatives and redesign of existing beds.
  - Specific tree and shrub bed pest management issues will be assessed and solutions proposed to address concerns.
  - IPM to develop a specific strategic plan for the park with implementation and monitoring strategies.
7. Investigate the feasibility of creating a flower display that would be visible from 14th Street N.W.
8. Investigate, in concert with the Heritage Landscape Architect the removal of planters throughout the park.
9. Urban Forestry’s pruning and maintenance work is to improve the condition rating of 200 trees per year.
10. Urban Forestry to discontinue the practice of stock piling small stumps for removal through the “punch and plant” program.
11. Stump removal is to be part of tree removal and to be carried out in the same operation, with the goal of having zero stumps in the park.
12. Tree species planted should have a species rating greater than 80 per cent.
13. The Parks District Supervisor to work with the Urban Forestry Division Supervisor and the Conservation Landscape Architect to investigate creating beds around existing spruce tree groupings, unifying tree wells under a certain diameter, and reducing the wells on the established trees within the park.
14. Future planting should aim to further diversify the tree population both in species, composition and age structure.



15. Mutual co-ordination and communication on water management strategies between Water Services and the Parks District Supervisor.
16. Develop an education and information plan for the park about the storm water drainage and this initiative should be a partnership between Water Services and Parks.
17. Assess, and implement if necessary, the relocation of poorly accessible garbage cans or underutilized cans to locations better suited for collection (See Table 10). The North Amenities Supervisor should co-ordinate with the District Supervisor to relocate the existing garbage cans.
18. Install two handicapped accessible garbage cans and review their usage annually.
19. No more benches are to be allowed near the pond area within Confederation Park.
20. Investigate and collaborate with the Parks Foundation and donors on redistributing the memorial benches within the park. This is to be achieved mainly through the expiry of the existing benches over a long period, and perhaps replacement of a current Parks bench with a memorial bench.
21. The Park District Supervisor and the Amenities Supervisor develop a bench plan for the park and proactively share it with the Parks Foundation.
22. The Parks District Supervisor and the Amenities Supervisor develop a plan for the location and maintenance of these assets.
23. Rehabilitate the areas beneath benches and tables as they are currently in poor condition. Remove the shale and replace with a trail mix base that, properly installed, would reduce weed growth and be easier to maintain.
24. Develop a comprehensive signage plan for Confederation Park taking into consideration all types of signs (park name, entry, regulatory, information, interpretive, warning), all internal stakeholders, customer service and safety, asset protection, and aesthetics of the park, as well as other recommendations in this plan in the Historical section and Water Services section.
25. Amenities staff to install signs at locations collaboratively agreed upon by stakeholders.
26. Investigate with Waste & Recycling Services, the possibility of removing the green recycling centre in the parking lot off 10th Street N.W. near the Rosemont Community Centre to increase the parking available to park users.
27. No private vehicles should be granted access across the turf to the ball diamonds. If the ball associations need to float the shale on a ball diamond it should to be done by a low impact vehicle like a quad.
28. Open collaborative dialogue between Parks (The Playfield Co-ordinator, the Parks District Supervisor and Amenities Supervisor) and the associations that have these sites booked all ball season.
29. Give immediate attention to several pieces of public art in Confederation Park that have been donated over the years and now require immediate attention. This includes, but is not limited to:
  - The replacement of missing name plates on pieces of work (Transition 67).
  - Concrete work (a triangular rock piece is missing on the Confederation Circle).
  - Acid wash for all pieces.





30. Develop asset ownership and a funding strategy because at this time there are some issues regarding which business unit is responsible for the public art in the park.
31. Investigate removing the flag representing Nunavut as this territory was not part of the original 10 provinces and territories in 1967 when Confederation Park helped celebrate Canada's Centennial.
32. Co-ordinate any annual pathway repair work plans with Parks District Supervisor.
33. Discuss the feasibility with Roads of having constant lighting in the tunnels.

### Capital

34. With the guidance of the Conservation Landscape Architect and Heritage Planner, investigate the feasibility of recreating some of the original features that are no longer in the park, e.g. rose garden, amphitheatre, etc. The Conservation Landscape Architect would work with the Division Superintendent to submit the capital budget request.
35. Develop and implement interpretive education signage plan on the history of the park.
36. Review, with Water Services, the need for improvements to reduce erosion or bank loss by planting or bio-engineering along the banks. Water Resources would submit the funding request. Parks may be involved if the project is jointly initiated.
37. Advocate for the removal of the creosote retaining walls just east of the pond. A design to properly retain the walls would have to be developed. Parks and Water Services would have a joint vested interest in submitting a capital project.

38. North Division co-ordinate with the Water Management Lead to apply for capital funds to plan, design and construct a central irrigation system.
39. Redesign the parking lot adjacent to 30th Avenue N.W. to maximize parking while accommodating Waste & Recycling Services leaf drop-off program.
40. Confederation Park 2011/2012 lifecycle upgrades, re-design and construction information should be communicated and co-ordinated by the Pathways Co-ordinator with the Parks District Supervisor, North Water Management Supervisor, the Roads business unit, Bridges Supervisor and the Amenities Supervisor.
41. As part of the 2011/2012 lifecycle upgrades, redesign should be considered for the 30th Avenue N.W. parking lot entrance to the pathway, all pathway intersections with adjacent roadways, and pathway connections to all bridges.
42. Ensure Roads, Structures and Bridges staff, Pathways Co-ordinator and the Parks District Supervisor discuss the interface areas of pathways with bridges as part of the pathway lifecycle project.







# appendices

## APPENDIX 1 – INTEGRATED PEST MANAGEMENT



IPM provides a service to Parks districts through site inspections and implementation recommendations with the co-ordination and implementation decided upon by the District Supervisor.

### **IPM 5 Park Plan Introductory Document**

The purpose of this document is to provide a consistent IPM reference and answers to frequently asked questions. It is recommended that this document and Appendix 1 be used as a plan attachment in its current form. IPM plans to periodically update this document in light of policy changes and current best practices.

You will find an excel spreadsheet that contains the following information:

1. IPM recommendations for the park in question.
2. A roles/responsibility matrix associated with each recommendation.
3. A map (if required) that is associated with specific IPM recommendations.

IPM has collected invasive plant species data for 2010\*. GIS maps will be produced and available for operational planning and guidance in 2011. IPM staff will provide consultative services with regard to weed management in conjunction with map availability.

### **IPM Quick Reference Guide Document**

#### **1. What is IPM?**

Integrated pest management (IPM) is a scientifically based best practice approach to the management of pests. IPM uses multi-disciplinary expertise to develop and implement the least toxic and effective solutions to mitigate pest problems. Key to this approach is the continual evolution of best practice through the evaluation and implementation of new methods, machinery and products.





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## 2. What are the steps in any IPM program?

- Correct identification of the pest and underlying reasons for its presence.
- Determination of the scope and scale of the pest issue.
- Active surveillance for pests and monitoring the location and size of known pest issues.
- Investigation of pest biology and consideration/use of various control methods.
- Pest management activities in concert with all federal and provincial regulations and legislation.
- Evaluation of success of pest management strategies.
- Applied R&D to ensure continual best practice improvement with regard to techniques, design, materials and machinery.
- Community awareness (engagement) regarding IPM issues and initiatives, e.g. web site.

## 3. What is plant health care?

Pest issues are often symptomatic of underlying horticultural and or landscape design issues. Plant health care expands pest management beyond effective pest control solutions to develop and implement prescriptions to enhance the vitality of landscape material. Improving plant health (through horticultural inputs or design changes) enhances pest resistance and lowers plant stress, which may lead to a sustainable landscape that requires less chemical inputs.

## 4. What services and functions does IPM provide to The City?

IPM provides a comprehensive suite of services and subject matter expertise in a number of focus areas. Some examples include:

### A. Parks focus

- a. Roadside weed and brush control.
- b. Agricultural field-men role.
- c. Tree pest management.
- d. Urban forestry R&D.
- e. Vertebrate management.
- f. Turf projects and renovation.
- g. Community engagement and awareness – various forms.

### B. Invasive focus

- a. Bio-control program.
- b. Herbarium reference collection.
- c. Early detection rapid response program.
- d. Invasive awareness strategy (e.g. retail risk mitigation certification program).
- e. Plant inventory collection.
- f. Weed management.
- g. Corporate lands.
- h. Applied R&D – weed biology.
- i. Intergovernmental regional focus working group.

### C. Corporate focus

- a. Pesticide tracking (with Alberta Environment).
- b. Extension services – other business unit pest management/redesign, renovations.
- c. Naturalization/alternative groundcover.
- d. Chemical warehouse management (ISO 14001 related).
- e. Applied R&D projects e.g. Roads – salt grass trials.





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## 5. What policies and legislation are relevant to IPM?

- a. City of Calgary ISO 14001 program
- b. City of Calgary Environmental policy
- c. City of Calgary Corporate Release Substance Program
- d. Alberta Weed Act
- e. Alberta Agricultural Pests Act
- f. Alberta Environment- Environmental Code of Practice For Pesticides
- g. City of Calgary IPM Plan (approved 1998 – ongoing implementation)
- h. Parks Invasive Pest Strategic Management Plan (approved 2008)
- i. Health Canada (PMRA) Pest Control Products Act
- j. Canadian Environmental Protection Act
- k. Alberta Regulation 43/97 Environmental Protection and Enhancement Act Pesticide (Ministerial) Regulation

### IPM frequently asked questions

#### 1. What are the first steps I need to take before I control pests within 30 metres of a water body in my park?

Pest management activities within 30 metres of a water body are governed by the Alberta Code of Practice For Pesticide Use In Alberta. You need to identify this aspect to your appropriate IPM Supervisor and cc the IPM lead to ensure the proper permits and conditions are established.

#### 2. What is the new AB Weed Act and how does it affect me?

The Alberta Weed Control Act regulates the establishment and movement of invasive plants (i.e. weeds) within the province by requiring landowners and landholders to control these species and prevent their spread. As a landowner, The City of Calgary is bound by this legislation to:

- a. Destroy species designated in the Act as prohibited noxious weeds.
- b. Control the spread of those deemed noxious under the Act.
- c. Prevent seed spread of prohibited noxious and noxious species.
- d. Dispose of provincially designated weeds in a manner that prevents spread.

#### 4. What weed species do I need to be aware of under the new Alberta Weed Act?

The most recent version of the AB Weed Control Act came into effect June 17, 2010. There are currently 46 prohibited noxious weeds listed under the Act and 29 noxious species targeted for eradication or control. A partial list of regulated species that pose a threat to Calgary is below.

#### 5. What are the recommended timing windows for pest control in my park?

Timing windows for the management of specific pest species are somewhat variable based on environmental factors occurring in a given year. Please use Appendix 1 (General Pest Forecast Chart) as a guideline and contact IPM for more specific in season timing.



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## 6. What is the general timing of the IPM planning process each year?

IPM has adopted a projectized approach to planning work each year. IPM functional groups will contact F7s to scope out and plan work in relation to park recommendations in the first quarter of each annum. The purpose of this process will be to ensure a mutual understanding of the work planned and the resources required for each project.

## 7. What do I need to know about beavers and geese in my park?

IPM co-ordinates beaver management with action thresholds for removal based on resource owner considerations and best practice application. Please contact the IPM co-ordinator for more information if this issue emerges in the park.

Goose control is based on the relocation of the birds in areas where their activities have a high likelihood of negative human interactions or significant environmental degradation. This activity is conducted under the auspices of the federal government as the Canada goose is a protected bird in Canada.

## 8. What does the 30-metre no spray zone policy around tot lots and playgrounds mean to me?

No spray zones around tot lots and playgrounds are approximately 3,000 square metres in size.

Non pesticide IPM measures with a focus on plant health care will be required to manage pest populations and public expectations. Please contact IPM for suggested maintenance, redesign or pest management options.

## Bronze Leaf Disease (BLD) identification

**Please report to: 3-1-1**

### What is Bronze Leaf Disease?

A fungal disease that infects various poplars and hybrid species including: Trembling Aspen, Swedish Columnar Aspen and Tower Poplar.

### What do the symptoms look like?

- Diseased leaves often first show up in the lower crown but may be scattered throughout the crown of the tree or isolated to a few branches.
- Early stage of infection leaf veins and their petioles remain green.
- Leaves become dark reddish-brown, chocolate brown or bronze and all the leaves on a shoot show signs of the disease.
- Once the disease has spread, browning may be observed under the bark of diseased branches.
- New leaves on infected branches can appear underdeveloped in subsequent years.
- Within three to five years of initial infection a susceptible tree can die.

### What time of year do symptoms appear?

- In mid-summer leaves begin to show yellowish to reddish-brown discoloration at the leaf margins.
- By mid-August, discoloured areas on the leaves expand from tip to base.
- Infected leaves often remain on the host tree to overwinter.





### How does the disease cycle?

- Spore dispersal occurs in early spring, coinciding with bud break and new leaf formation.
- Majority of spores disperse once daily temperatures average 18°C.

### How can you prevent the spread of BLD?

There are currently no known chemical controls for BLD.

Implement the following appropriate cultural and sanitation practices to:

- Prune and collect materials from diseased trees and take to The City Landfill to bury – do not compost, wood chip or use this material for firewood.
- Remove sources of disease by pruning diseased branches eight–12 inches below visible sign of infection.
- Clean up fallen leaves below an infected tree and remove all debris from work materials (ie. shoes, equipment, vehicles, etc.).
- Sanitize tools used to prune and/or haul infected materials with hot soapy water or alcohol after each use.
- Tools used for BLD purposes should be separated from other tools.
- Dip or spray the pruning tool before each cut with 80 per cent ethanol between uses. Dry and oil tool to prevent rust.
- Purchase poplars from nurseries that hold valid phytosanitary certificates or can prove that their stock is disease-free.
- Avoid planting susceptible clones or hybrids (e.g. Tower poplar and Swedish columnar aspen) in disease-prone areas and ensure that planted trees are well spaced.
- Include proper tree maintenance such as watering, fertilization and regular pruning of dead material/ thinning of the canopy, to assist with disease resistance.

### Bronze Leaf Disease response protocol

To address the possible threat of Bronze Leaf Disease, the Integrated Pest Management and Urban Forestry sections worked together to determine the appropriate action required. This was an exercise in collaborative decision-making that provided an opportunity to effectively address an emerging issue which resulted in the delivery of efficient responses and communications. Exercises like this reaffirm the need to have a standard and systematic decision-making approach for these types of issues to ensure that all stakeholders have a common understanding of expectations.

The following steps outline the processes taken to confirm the presence of the disease, to determine particular operations tactics to mitigate the threat to trees, to develop communications methods that inform the public about the concern, and to plan further mitigation efforts. Figure 1 illustrates the framework for responding to BLD as an emerging issue.

### Steps involved with addressing the threat of Bronze Leaf Disease

1. Potential BLD samples were sighted and brought into Parks for identification by Urban Forestry and IPM staff.
2. Preliminary research identified possible causes of the symptoms. In house staff recognized seriousness of potential threat and sent samples to AB Agriculture and Ag Canada for confirmation.
3. Urban Forestry expanded search for symptomatic trees to determine spread and understand the distribution and magnitude of potential threat to formulate appropriate response.
4. Visual identification of samples was undertaken by Ron Howard with AB Agriculture, PCR lab testing was conducted by Larry Kawchuk, Ag Canada.



5. Supplementary disease life cycle information was compiled and prepared as fact sheets by IPM staff. Other neighbouring areas like Airdrie had already sent out a warning a year earlier.
6. Initial verbal confirmation from AB Agriculture that the disease looked like BLD in the Swedish Columnar Aspen samples that were submitted. Ag Canada confirmed sample was positive via PCR for BLD. AB Agriculture verbally indicated that the Trembling Aspen samples were also visually symptomatic for BLD. Additional Parks' samples were sent to receive a written report on findings (in progress February 2010).
7. Collaborative decision-making approach between IPM, Urban Forestry, and Communications determined course of action to meet collective mandates. Urban Forestry developed operations management protocol to treat trees and equipment and to dispose diseased material. IPM contributed information to include surveillance protocols.
8. IPM contributed the content for material included for internal and external communications. Disseminating information to internal staff was a high priority to ensure that management protocols were co-ordinated for effectiveness. Subsequent external communications were targeted at providing awareness and education to engage the public in identifying the threat. Posters, brochures, website, and internal and external PSAs were methods of communication. Urban Forestry was spokesperson on site for a news announcement.
9. Staff continuing consistent monitoring and reporting and application of management protocol treatments to trees as required. Executing mitigation plan to prune or remove as required.
10. **Next step:** Implement continuous improvement and evaluation process to review and improve mitigation efforts.

## **Plant health – Turf**

### **Baseline activities**

The following are a list of possible activities that may be performed in relation to the initial establishment of an operational IPM plan for the park in question.

### **Activity description**

#### **Turf management plan**

- Initial assessment will be conducted to determine soil compaction, soil nutrient levels and possibly soil contamination.
- Site specific issues (e.g. topography/informal pathways) will be assessed and renovation/rehabilitation options will be provided.
- A cultural management program will be developed to ensure continual improvement of turf conditions (i.e. topdressing, aeration, over-seeding, fertilizer requirements and compost tea options).

#### **Weed assessments**

- Invasive weed species inventory will be compiled and the results will provide the basis for development of a go forward management plan for these species.
- Community values pests (dandelions) will be assessed and managed as per existing IPM thresholds (and current IPM policies).





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### **Chemical weed control**

- No lubricant, chemical or fuel spills on turfed or non-turfed areas.
- Threshold of weeds per square metre (in high impact areas) (spot spraying see biocide report).
- No damage to trees, shrubs or other park features as a result of spraying operations.
- No spray (herbicide) damage to non-targeted vegetation.
- No pesticides within 30 meters of the edge of a tot lot, unless fenced and closed with proper notification to residents.
- All signage removed after policy time periods have elapsed.

### **Plant health – trees and shrubs**

#### **Plant health site assessment**

#### **General assessment of shrubs and trees to determine plant health care issues.**

- I. Opportunities for alternative ground covers will be examined with consideration of water wise, naturoscaping and naturalization design concepts.
- II. No spray zones will be assessed for continual improvement opportunities including enhanced cultural practices, plant selection alternatives and redesign of existing beds.
- III. Specific tree and shrub bed pest management issues will be assessed and solutions proposed to address concerns.



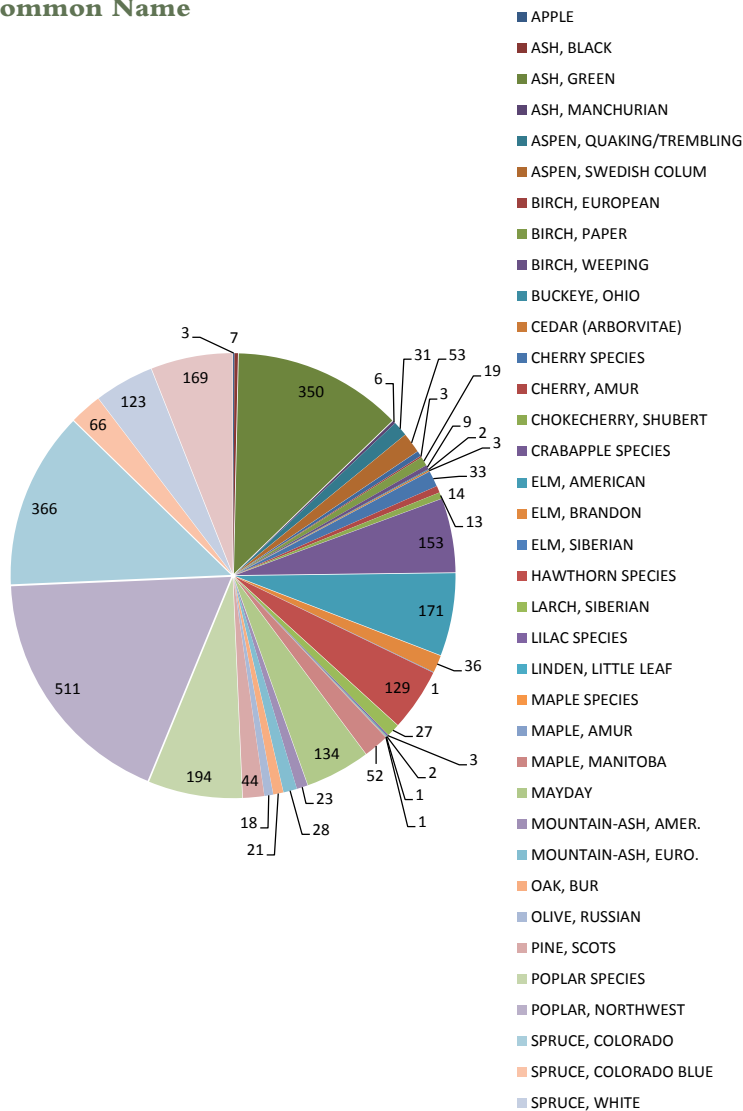






## APPENDIX 2 – TREE SPECIES AND CONDITION

### Species Distribution by Common Name

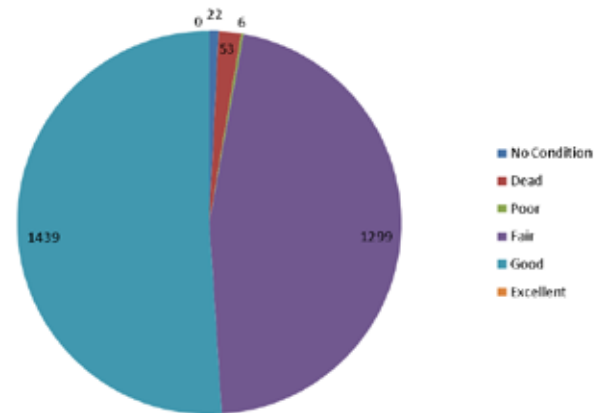


### Tree condition analysis

The condition of the trees in Confederation Park is mostly good or fair (1,439 and 1,299 trees respectively). There are 53 “dead” trees, 35 of these are stump remains and 18 are trees with a condition rating below 40 per cent. Of the dead **trees**, 13 died during establishment, while five are mature or overmature. The six trees in poor condition should be lifecycled during the next pruning cycle.

There are 700 trees that have a condition rating of 65 per cent to 69 per cent. These trees would typically have one or two minor flaws that if corrected would move them up from fair to good condition. No trees received a condition above 81 per cent (excellent condition).

### Condition





## APPENDIX 3 – SLEDDING HILL CRITERIA

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Sledding activities require appropriate topography and geography. The hill height, slope and run-out area are the three factors controlling speed and, therefore, safety.

### **Hill requirements**

- Safe run-out area.
- Smooth, i.e., no lumps, jumps, hazards or changes in topography that may cause a sliding device to become airborne or go out of control.
- Hill and run-out must not have any fixed collidable hazards. The main cause of sledding injuries include other sledders, spectators, fixed objects such as benches, hydrants, picnic tables, goal and fence posts, trees, etc.
- Hill orientation that prolongs snow cover and decreases icing conditions. Hills that are south facing lose their snow very quickly.
- Must be a level area at the top of the hill to allow for safe gathering and assembling and proper seating on the sledding device prior to take-off.

### **Important features**

A sliding hill should:

1. Have walking access beside the hill to reach the take off zone.
2. Be large or extensive enough to allow sledders to select an area they feel comfortable with.
3. Provide parking close to the base of the hill.
4. Be visible from well-used public areas and/or surrounding residences.
5. Be something that the community needs.





1. In the winter, tobogganing and sledding on the hills of Calgary is a thrilling way to enjoy the winter and take advantage of the snow. Several parks and green spaces offer safe and exciting hills.
2. **Safety first! Always remember, helmets on heads!** Tobogganing is an activity that you do at your own risk. The City is not responsible for any personal injury or damage to personal items.
3. 2800 10th St. N.W. (north side of park immediately west of Rosemont Community Centre)



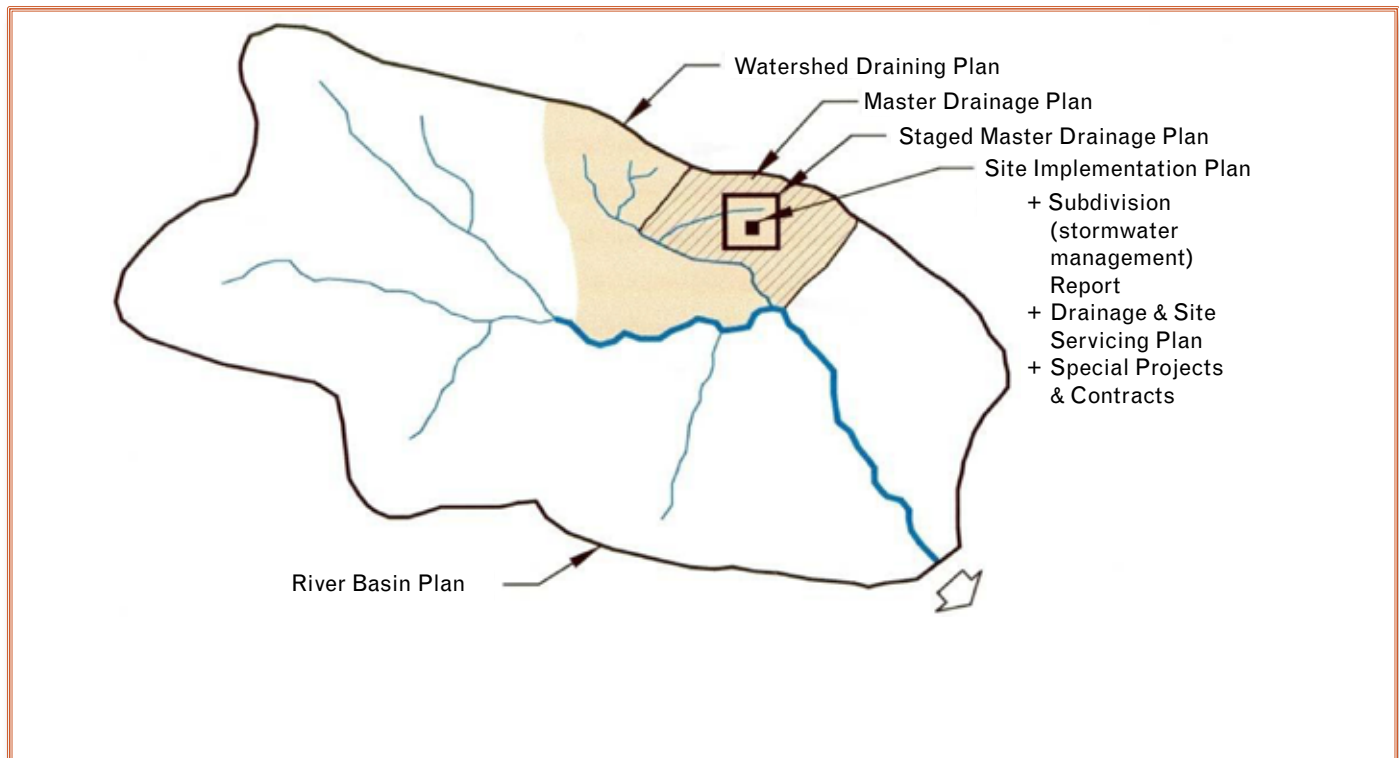
## APPENDIX 4 – NOSE CREEK WATER MANAGEMENT PLAN

The Water Management Plan outlines ways to protect Nose Creek and the West Nose Creek watersheds. It includes recommendations for policies that will improve water quality, preserve the wetlands and protect the riparian areas and minimize the impacts of urban development.

### Planning levels

The project represented a joint venture between The City of Calgary Parks and Water Services, and the community of Rosemont. Water Services implements the excavation, Parks conducts general site restoration and re-vegetation, and Rosemont Community Association provided funding assistance. Work commenced in November 2004 with project completion anticipated in August 2005–2006.

As part of the original design plan for Confederation Park, a pond was installed to enhance the aesthetic value of the park and attract waterfowl. Over the years, however, the condition of the pond has deteriorated. The retaining wall, installed to maintain the bank integrity at the east confluence area, had failed, and the soil behind was being undermined. The water level was dwindling due to sediment influx from upstream developments, and the water quality was being affected by nutrient loading from residential lots and golf course maintenance. As well, the creek that feeds the pond is an important tributary to Nose Creek. Restoration and habitat enhancement work done within this reach is of a great benefit to the downstream reaches.



Confederation Park Wetland Enhancement Project 2004-2006... A brief overview





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**The following restoration and habitat enhancement work was completed:**

- **Deep pool:** The accumulated sediment in the pond was excavated to provide for more habitat diversity. The location of the deep pool, where the excavation took place, allows for easy access for the periodic dredging required, and reduces disturbance to the wetland and riparian areas. The excavated sediment that had been tested and found free of contamination, was re-used as pondscaping material.
- **Island:** The noxious and invasive weeds and topsoil on the island and mudflat was removed, and replaced by pond sediment, topped up with clean topsoil. The existing woody vegetation, such as willows, was retained during the excavation process. The island will then be re-vegetated using native grass species and riparian shrubs.
- **Upstream weir:** The upstream weir was redesigned and relocated to the mouth of the wetland and provides a two-stage water flow regimen. The low-flow diversion was directed to the side channel, to the north of the existing mudflat; the high-flow diversion was kept to the south of the mudflat in line with the downstream weir.
- **Mudflat side channel:** The side channel will maintain a pool/riffle habitat – typically shallow with fast-flowing waters. The vegetation edge was retained and enhanced by additional wetland planting.
- **Bio-engineered and sandstone:** The wooden retaining walls that were along the banks at the east confluence area pond and under the footbridge, were failing and presenting a safety hazard to the public. The walls were replaced with a graded bank with shrubs and sandstone blocks for armouring or erosion control.
- **Wetland riparian habitat:** The wetland edges were rehabilitated to a native condition by planting native grass seed mixes and indigenous riparian shrubs such as willows, red osier dogwood, saskatoon, wild rose, buffalo berry and coyote willow.

## APPENDIX 5 – CONFEDERATION PARK FOCAL POINTS



Confederation flag site (Confederation Circle – focal point)



Transition 67. Artist: Enzo Di Palma  
Sponsored by: Britamco Club  
(British American Oil Company  
Limited Employees Association)



Centennial symbol



Stream fed fountain





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