

# Sustainable



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DRAFT

**CHAPTER CONTENTS**

- 1.0 Introduction to a Sustainable Downtown
- 2.0 Sustainability Strategy
- 3.0 The Urban Environment
  - 3.1 Energy
  - 3.2 The Urban Forest
  - 3.4 Urban Wildlife
  - 3.5 Air Quality
  - 3.6 Water Quality
  - 3.7 Materials and Waste
- 4.0 Parks and Open Space
- 5.0 Recreation and Leisure
- 6.0 Implementation

## 1.0 A Sustainable Downtown

### INTRODUCTION

Downtown belongs to all of us. It is at the heart of the City and the centre point for a much broader region. It is our responsibility to ensure it remains a vibrant and vital neighbourhood not just today but for generations to come. Sustainability allows us to view our present growth and development within a long term outlook. It provides assurances that our actions today will not alter or detract from future generation's enjoyment of Edmonton's Downtown. Through a commitment to sustainability we are able to establish benchmarks and objectives to ensure that future generations receive from us an environmentally healthy, socially inclusive and economically thriving Downtown. This section begins with an introduction to sustainability outlining the policies in order to achieve a sustainable Downtown. This Plan commits to improving our urban environment including establishing policies with respect to energy demands, urban forest, urban wildlife, air quality, water quality, and materials and waste. The final sections of this chapter discuss parks and open space, and recreation activities - both essential ingredients to a socially sustainable Downtown.

The concept of sustainability is central to Edmonton's vision for its Downtown, and is central to the overarching framework for the development and implementation of Edmonton's Downtown Plan. Global imperatives such as climate change and degradation of ecosystems and natural resources, and local demands for more livable, healthy, and equitable communities, makes sustainability an essential concern.

The concept of sustainability reflects Edmonton's values, and is expressed as a priority in Edmonton's Municipal Plan. Other City initiatives have identified the importance of a healthy environment including Ecovision Edmonton, The City of Edmonton's Environmental Strategic Plan, and the Urban Sustainability Action Plan. The Downtown Plan reflects the values and direction already established in pursuing sustainable development as a City wide mandate and priority.

Sustainable cities depend on the integrity of several key natural elements: water, air, vegetation, trees, and earth/soil. When these natural elements are healthy and functioning, they bring ecological, economic, and community benefits to urban areas. This Plan seeks to incorporate the protection and enhancement of these natural elements into its goals, policies and implementation mechanisms. Effective policies for environmental sustainability will require comprehensive and coordinated strategies. In particular, City departments will need to collaborate on interrelated policies and actions, crossing over traditional boundaries and specialties. Many of the policies of this Plan will shape how developers and other stakeholders

develop public and private land necessitating an effective relationship between the City and private industry.

Within the context of Edmonton's Downtown Plan, the goals of sustainability are characterized by:

- Minimizing resource consumption and waste production throughout the development stream;
- Encouraging innovation that addresses conservation by way of improved building technologies;
- Achieving high standards of functional and beautiful urban design;
- Ensuring that participation in local governance is as broad as possible;
- Increasing economic opportunity and self-sufficiency;
- Focusing on development that supports diversity of all types along with a strong sense of community.
- Developing the Downtown neighbourhood at densities appropriate for maximizing infrastructure, environment, and amenities.

Through the Downtown Plan, the City can begin to translate these broad goals of sustainability into specific actions that both target the future and address our present need to accommodate increased development demands Downtown. While many policies are future oriented all require our immediate attention and a shift in thinking towards more environmentally friendly means of transportation, living, and community development. This section focuses on the concept of environmental sustainability and its integration with the Downtown Plan, but also references related economic, social, transportation, and urban design sections of the Plan.

#### Goal:

To ensure an increasingly sustainable Downtown through efforts made at reducing pollution and energy consumption, encouraging green innovation in building design and construction, minimizing waste production, increasing the stock of urban vegetation and providing opportunities to experience nature in the downtown area.

## 2.0 Sustainability Strategy

*This Plan commits us to improving our urban environment through deliberate design choices and the following specific actions:*

1. **Reducing energy consumption and greenhouse gas emissions:** Make it easier for people to walk, bike and use transit; promote energy efficient and green building design and generate renewable energy sources in the Downtown to place green energy back into the power grid.
2. **Conserving water and reducing run-off:** Minimize water use and rely on natural methods of addressing urban run-off such as permeable paving and vegetated swales to capture and filter runoff and reduce storm water flow.
3. **Greening the Downtown:** Increase the number of street trees and promote other forms of vegetation to soften the urban landscape and reduce the urban heat island effect in the Downtown. Expand the street tree canopy and promote more opportunities for urban food production.
4. **Increasing parks and open spaces:** add more parks and landscaped open spaces that are connected, linking public and private spaces with the river valley, community gardens and indoor atriums and winter gardens. Use Downtown streets, parks and plazas more effectively for a multitude of activities in all four seasons.
5. **Minimizing waste production and increased materials recycling:** Expand convenient reuse and recycling opportunities, minimize the generation of waste materials at the consumer level and encourage retention of historic resources and resource-intensive buildings, while at the same time integrating recycled building materials into new building construction.
6. **Supporting economic development and community health:** Offer a highly appealing place to live, work, learn and visit; make Downtown a model for green business and environmental practices and create a highly livable environment with exceptional streets, parks, leisure activities and architecture.

### A Sustainable Downtown

Global climate change, strained ecosystems, negative health impacts and accelerating resource consumption are forcing us to address sustainability issues now, if we are to pass onto the next generation a healthy, green and liveable urban Downtown.



## PRINCIPLES:

1. **Commitment to Sustainability**  
Ensure all aspects of development including buildings, storm water features, landscaping, and waste management systems are designed to reduce the generation of greenhouse gases, minimize the use of non-renewable resources, minimize impact on ecosystems, support comfortable human environments and communicate Edmonton's commitment to sustainability.
2. **Maximize Ecological Quality and Function**  
Ensure all new development and infrastructure maximizes ecological quality and functions; natural features, landscaping, and permeable paving materials will be incorporated into infrastructure systems to help protect and restore naturally functioning ecosystems.
3. **Spaces for People**  
Create places for people that contribute to the Downtown environment, use sustainable materials, demonstrate minimal resource consumption, and employ approaches to sustainable landscape design; provide interpretive signage to identify sustainable features providing education informing the Downtown community of sustainable best practices in the design of public spaces.
4. **Addressing Climate Change**  
Identify the sources and quantity of the Downtown's greenhouse gas emissions; develop and implement policies and actions to reduce those emissions by 30% by 2020.



## 3.0 The Urban Environment

## PREAMBLE

An environmentally sustainable downtown must be “green” not only in appearance, but also in the underlying effectiveness, continuity, and regeneration of the natural systems with which it is intertwined. Downtown's buildings, streets, plants and activities impact both our local environment and the broader regional, provincial and even global environment in terms of water and air quality, resource conservation and consumption of non-renewable energy. An environmentally sustainable downtown will include not only the valuable and more visible features that we associate with nature (an abundant tree canopy, attractive landscaping, open spaces, and habitat restoration), but also innovative technologies for buildings and transportation, appropriate building envelopes and site design, transit-oriented land use, and thoughtful management of potentially harmful activity, including how we dispose of our waste power our homes and move ourselves around between work, home and play.

The Urban Environment chapter is broken into several areas addressing energy, our urban forest, urban wildlife, air quality, water quality, and materials and waste. Each of these aspects is critical to the overall health and long term sustainability of the urban environment.

**Goal:**

To provide an urban environment which is clean and green ensuring the Downtown is a focal point for innovation in pollution reduction, sustainable urban design, and habitat restoration.

## STRATEGIES

**Reduce resource consumption:** Establish targets to reduce resource consumption and waste production; promote energy conservation in existing and proposed developments.

**A Greener Downtown:** Provide a greener Downtown with abundant vegetation and landscaped parks and open spaces which are well connected through green streets and alleys which serve as an extension to the parks and open space system.

**A Clean and Livable Downtown:** Create a Downtown which is clean and provides a variety of high quality spaces for its citizens to enjoy.

### 3.1 Energy

Energy consumption is a prime determinant of whether or not a community moves towards greater sustainability. The Downtown cannot be considered a sustainable community without a genuine commitment to sustainable energy practices. The type of energy produced and the amount of energy consumed has significant impacts on local air quality and global concentrations of carbon dioxide and other greenhouse gases that contribute to climate change.

Renewable sources of energy include wind, solar photovoltaic, small-scale building-size wind turbines, and geothermal. To achieve energy conservation goals, energy efficiency measures must be taken into account from the very beginning of infrastructure and building design.

#### ENERGY POLICIES:

1. **Green Buildings**  
Establish development requirements and/or incentives for highly energy efficient new buildings through design and construction techniques including: green roofs, super insulated walls, windows, and doors; daylighting interiors; passive solar heating; natural ventilation; efficient appliances and equipment and reclaimed content wherever possible.
3. **Support for Zero Emission Projects**  
Provide financial and or development incentives to encourage the development of zero-emission projects that demonstrate innovative methods for energy efficiency, building design and the generation of on-site electricity.
4. **Energy into the Power Grid**  
Place green energy back into the power grid; establish the Downtown as a net producer of green energy.



A Green Roof at Chicago's City Hall. Green Roofs improves aesthetics, removes carbon, improves building efficiencies, provides onsite storm water management and can offer greenspace for residents and workers.

### 3.2 THE URBAN FOREST

Downtown Edmonton needs more trees. Urban forests contribute many quality of life factors. Urban trees filter the air that we breathe, reduce noise pollution, protect our eyes and skin from harmful sun damage, absorb carbon dioxide while providing oxygen, foster pedestrian friendly streetscapes, provide recreation opportunities, can be used to calm traffic on busy streets, and contribute to beautifying the urban landscape that we live and work in. In addition, they provide economic benefits through increased property values and energy cost saving.

The Downtown environment can be harsh. It suffers from poor soils, poor drainage, a wind tunnel effect between high-rise buildings and abuse from human activity. Increasing our Downtown urban forest to achieve a goal of 20% canopy coverage will be a significant challenge requiring innovative planting incentives and strategies to maximize planting sites for trees including building rooftops, parkade roof decks, and on-street plantings.

#### URBAN FOREST POLICIES:

1. **Urban Vegetation**  
Expand the quality and quantity of the urban forest in both the public and private domain to improve the ecological health of the Downtown; target a 20% increase in the canopy coverage within the Downtown in the next 10 years; ensure tree installations are accompanied by soil and drainage systems to encourage each tree's healthy maturation.
2. **Appropriate landscaping standard for Downtown streetscapes and park spaces**

Select Downtown plantings that take into consideration the characteristics and environmental conditions of the Downtown to ensure selected species perform well within the harsh Downtown environment.

### 3. Green Links

Provide pedestrian networks which demonstrate sustainable landscaping<sup>1</sup>, low impact development<sup>2</sup> and enhancement of the overall Downtown Pedestrian Network; ensure that Green Links are part of the Downtown wayfinding program; use Green Links as a means to connect the Downtown Internally, improve connections between Downtown and Surrounding Neighbourhoods, improve connectivity between Downtown and the River Valley Park System and between existing and proposed parks and open spaces.



A green pedestrian link between building parcels in downtown Vancouver.

### 4. Pesticide Free Downtown

Provide pesticide free parks and open spaces Downtown; encourage natural means of pest management on all Downtown plantings.

<sup>1</sup> Sustainable landscaping results in an attractive environment that is in balance with the local climate and requires minimal resource inputs, such as fertilizer, pesticides and water.

<sup>2</sup> Low Impact Development is a storm water management approach which is modeled after nature. The goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Low Impact Development is intended to be a versatile approach that can be applied equally well to new development, urban retrofits, and redevelopment/revitalization projects.

### 3.3 URBAN WILDLIFE

The North Saskatchewan River Valley provides a natural habitat corridor through Edmonton functioning as a vital habitat link as it passes west to east through the city. The Downtown benefits from its close proximity to the River Valley, however, within the Downtown there is very little natural habitat remaining. The lack of tree canopy coverage provides little habitat for birds and virtually no habitat is left for species which depend on access to water due to the large percentage of impervious surfaces in the Downtown. The natural predator/prey relationships have been replaced by urban adapted species such as pigeons and squirrels. In addition, urban runoff from the Downtown carrying with it sediment and pollutants harm aquatic species in the North Saskatchewan River.

Increasing the quantities of trees and open spaces Downtown in order to mix the dense urban areas with linked green spaces provides a higher degree of functioning native habitat. Greening the downtown streets will help extend the natural habitat of the River Valley into the heart of the Downtown. The development of these green links will benefit both people and wildlife.

#### URBAN WILDLIFE POLICIES

##### 1. River Valley/Natural Areas

Protect natural areas forming part of the River Valley and ravine system; encourage reforestation and development and enhancements of linkages to provide access for the benefit of people and urban wildlife.

##### 2. Bird Friendly Development Standards

Establish harm reduction design and development standards for Downtown buildings to mitigate the effect of tall buildings on bird species.

##### 2. Environmental Review Process

Ensure that all public developments and developments on public lands within the proposed River Edge Park area have been subject to an environmental review process as outlined in the North Saskatchewan River Valley Area Redevelopment Plan Bylaw No. 7188.

### 3.4 AIR QUALITY

Poor air quality has a dramatic effect on quality of life in the Downtown, especially during the summer months and can negatively affect plant, animal and aquatic habitats. Air pollution includes ground-level ozone, carbon monoxide, nitrogen oxides, sulphur dioxide and small particulates that can be inhaled and cause irritation to the respiratory tissues.

Air quality is directly linked to energy and transportation choices. Increased traffic congestion into the Downtown primarily as a result of single-occupant vehicles release significant levels of pollutants into the environment. Improving air quality means examining our current transportation system and placing restrictions on infrastructure expansion which benefits only the private automobile. We must move away from fossil fuels as our dominate energy source for transportation as well as for space heating, cooling and lighting for commercial and residential purposes in the Downtown. Improving air quality will require exploring alternative fuel and power sources to continue to reduce our reliance on fossil fuels. Future economic growth in the Downtown can be enhanced through implementing transportation, land use and other policies which compliment improved air quality objectives.

#### AIR QUALITY POLICIES:

1. **Air Quality**  
Improve air quality in the Downtown and surrounding environment by reducing air pollution and controlling development and transportation activities that have a negative impact on air quality.
2. **Transit and Fuel Replacement Technology**  
Support expanded transit and fuel replacement technology to encourage reduction of greenhouse gas emissions from use of fossil fuels.
3. **Public Awareness of Air Quality**  
Increase awareness and educate the public about the negative health effects of air pollution; educate the public about how to reduce air pollutant emissions from automobile exhaust by using transit, walking, bicycling as alternatives to the single-occupant vehicle.

An idle free zone in the City of Vancouver. Eliminating unnecessary idling can reduce harmful vehicle emissions and improve Downtown air quality.

### 3.5 WATER QUALITY

Pollution from urban runoff (storm water) is a major contributor to water pollution. Increased urban runoff is a consequence of development and the associated loss of natural water retention and filtration through increased impervious surfaces. Green strategies for storm water management aim to reduce impervious or hard surfaces surfaces, adding vegetation and soils that can absorb and filter storm water.

The Downtown can become a focal point for water conservation in Edmonton. For landscaped areas, drought resistant plants and low-water irrigation systems are important components. Conservation techniques available for buildings include low flow fixtures and the use of greywater for flushing and irrigation. Individual buildings can manage storm water onsite treating and retaining storm water on site reducing the impact of storm water on the Downtown's drainage system. Surface parking lots and streets can also be designed differently to reduce the impact of storm water runoff. This may include the use of special pavement and drainage systems or providing naturalized catchment basins containing trees, shrubs, and grasses which filter and retain storm water reducing the impact on the Downtown's drainage system.

#### WATER QUALITY POLICIES:

1. **Storm water Management**  
Incorporate storm water runoff solutions into future streetscape projects and in new development guidelines to reduce the volume of storm water flow from the Downtown through increased permeability and on-site water retention and use.
2. **On-site Storm Water Management**  
Encourage the use of green roofs and other devices for conserving water, retaining rainwater, improving storm water quality and reducing storm water flow; encourage water recycling through the use of greywater for flushing toilets, irrigation, and other sanitary purposes.
3. **Sustainable Street Project**  
Establish a Sustainable Street Project to showcase sustainable initiatives such as, but not limited to, permeable surfaces, bioswales and raingardens which aim to highlight the connections between ecosystems, infrastructure, and the urban environment; use the Sustainable Street Project as a local pilot project to increase awareness of downtown Edmonton's urban environment.



**Benefits of Sustainable Streets**

- Handles storm water on site through the use of vegetation;
- Provides water quality benefits;
- Creates attractive streetscapes that enhance neighbourhood livability by enhancing the pedestrian environment and introducing park-like elements into the neighbourhood; and,
- Serves as an urban greenway segment that connects neighbourhoods, parks, recreation facilities, schools, main streets.



An example of a green street in Portland. Information signage highlights the sustainable elements of the street making the connection between the ecosystems, infrastructure, and the urban environment. Planters and permeable pavement provide habitat, slowly release storm water flow, filter pollutants and reduce erosion. Water management will be a key element of sustainable streets in the Downtown (Image from City of Portland).

**4. Sustainable Lane Project**

Establish a Sustainable Lane Project to showcase sustainable initiatives such as, but not limited to, permeable surfaces, bioswales and raingardens which aim to highlight the connections between ecosystems, infrastructure, and the urban environment; use the Sustainable Lane Project as a local pilot project to increase awareness of downtown Edmonton's environment.

**4. Reducing the Impact from Hard Surface Areas**

Establish standards to reduce the impact of storm water runoff from surface parking lots, streets and alleys through exploring new forms of permeable paving material and providing landscaped buffers to filter and retain storm water runoff.

**5. Water Standards**

Encourage water conservation and recycling in new buildings, building additions, building renovations and parking lots.

**3.6 MATERIALS AND WASTE**

Waste production places a burden on the natural ecosystem and is a major contributor to the pollution of air, water, and land. The production of waste goes hand-in-hand with the manufacture and use of materials.

Initiatives which reduce waste production will position the Downtown as a leader in sustainability. Residents, workers, and visitors all have a responsibility to reduce their impact on the environment. This means altering consumer behaviour towards products which are re-useable or recyclable.

**MATERIALS AND WASTE POLICIES:****1. Waste Reduction:**

Provide area residents with information on waste reduction strategies with a goal of reaching a per capita waste disposal target of 200kg/person/year within five years of Plan adoption.

**2. Waste Management**

Reduce the amount of solid waste generated in the Downtown; promote the recycling of waste materials, highlight the activities of the Edmonton Waste Management Centre of Excellence and encourage more environmentally responsible consumer behaviour.

**3. Support for a Cleaner Downtown**

Provide support for anti-litter initiatives and public awareness campaigns around plastic bags, disposable coffee cups, food containers, and cigarette butts.

**4. Remediation of Contaminated Sites**

Ensure that contaminated sites undergo proper remediation prior to redevelopment.

# EDMONTON DOWNTOWN PLAN

## URBAN ECOLOGY



## 4.0 Parks and Open Space

### PREAMBLE

Parks and Open Space are key elements in achieving a more sustainable downtown. Greenery provided through parks helps to soften the hard edges of the urban downtown environment. Vegetation helps to remove airborne pollutants resulting in a cleaner Downtown. Most importantly, parks provide an invitation towards social interaction. In the hustle and bustle of the Downtown, parks and open spaces represent special areas to enjoy physical activity, to catch up with friends and neighbours, or simply to rest in quiet contemplation. This is especially true for those residents with little or no outdoor space of their own.

In addition to environmental and social benefits, the Downtown's parks and open spaces provide much need venue space for outdoor festivals. Entertainment programs in outdoor plazas bring life and excitement to downtown streets. If the Downtown is to thrive as a vibrant and active centre, people living in the Downtown will need access to the same, or an equivalent, standard of open space and recreational facilities available in other high density, urban neighbourhoods.

A primary goal of this Plan is to enhance the current parks, and open space Downtown. To boost the amenity value of the Downtown and its attractiveness and increased living, working and learning, the Downtown requires a better distribution of parks particularly in McKay Avenue and the Warehouse District which are targeted for more housing. This Plan envisions a Downtown where every resident, worker, and visitor is never more than a 5 minute walk from a sizeable, sunlit open space. The emerging open space network Downtown will effectively combine both public and private spaces blurring the line between public and private, creating a high quality, connected Downtown environment. The open space network will be connected through a network of green links offering interesting landscaping, pedestrian and cycling amenities and low impact development standards which help make the connection between natural ecosystems, infrastructure, and the urban environment and improve walkability. Green links connect the Downtown internally, enhance the connections between Downtown and surrounding neighbourhoods, and improve connectivity between Downtown and the River Valley Park System.



The grounds of the Alberta Legislature are a resource to the entire City offering lush landscaping, open space, and year round programming.

**Goal:**  
 Connect the downtown internally and provide easy transitions between adjacent neighbourhoods and the River Valley through a park and open space network recognizing the relationship between natural ecosystems, infrastructure, and the urban environment. The Downtown’s parks, and open spaces, are connected, safe and secure and serve both the active and passive recreational needs of residents, workers and visitors, throughout the year.

**STRATEGIES**

**Sustainable Parks and Open Space:** Develop parks and open spaces that realize the connections between natural ecosystems, infrastructure, and the urban environment.

**A linked Open Space Network:** Create links between parks, open space, surrounding neighbourhoods, and the River Valley with strong, well developed pedestrian and cycling networks.

**Increased Park and Open Space:** Provide additional park and open space offering diversity in form and function in all areas of the Downtown.

**Safety in Parks and Open Space:** Design public parks and open spaces using Crime Prevention through Environmental Design principles.

Existing Parks and Open Space	Area (Square Metres):
Beatrice Carmichael Park	698.52
Beaver Hills House Park	5,245.62
Centennial Plaza	13,574.64
McDougall Park (10031 – Macdonald Drive)	4,924.23
McDougall Park (1007 – 100 Avenue)	1,623.14
Veterans Park	1,011.27
McKay Avenue Elementary School	4,882.58
Legislature Grounds	185,420.60
9854 Jasper Avenue	1,455.42
<b>Total</b>	<b>219,021.73</b>

**POLICIES:**

- Increasing Park and Open Space Downtown**  
 Provide diversity in form and function of parks and open space to meet the needs of existing and future resident and worker populations; ensure that every person living and working Downtown has access to park space within a convenient walking distance, not greater than 500 metres.
- Sustainable Design of Parks and Open Space**  
 Develop new parks to minimize water consumption, surface drainage, and energy use; utilize recycled materials for park and open space amenities
- Funding acquisition and development of Urban Parks and Amenity Areas**  
 Utilize a variety of measures: regulatory, incentive, municipal, capital investment and partnership programs to promote finance and maintain the acquisition and development of urban park and amenity space throughout the Downtown.
- Programming for Parks and Open Space**  
 Promote year round festivals, arts, cultural and recreational activities in parks and open spaces throughout the Downtown.
- Parks Safety**  
 Ensure that plans for new parks and for the redevelopment of existing parks follow design guidelines for Crime Prevention Through Environmental Design.
- Parks for all Seasons**  
 Develop parks and open spaces that support activities and park use throughout the year; use a variety of plant materials to provide colour throughout the year.
- Community Gardens**  
 Support the development of community gardens in new parks and continued support of existing community gardens to foster local food production and to contribute to the health and wellbeing of the Downtown and individual citizens; establish an inventory of available garden plots to inform Downtown residents of garden opportunities; promote gardens as a community-based education and resource tool for citizen engagement in sustainable food production.

8. **Active use of Streets, Urban Parks and Amenity Areas in the Downtown**  
 Incorporate active use components such as open air markets, street vendors, sidewalk cafes, artwork and exhibits, on public and private land in Downtown's civic gathering spaces, streets, urban parks and amenity areas.
9. **Urban Parks and Amenity areas on Privately owned, Publicly accessible lands**  
 Encourage private development to incorporate privately owned publicly accessible parks or amenity areas to augment and complement the public parks system in the Downtown and create welcoming places for residents, employees and visitors.
10. **Servicing, Maintenance and Selection of Landscape Elements**  
 Establish an appropriate servicing and maintenance program for managing municipal investments in landscaping within the streetscape, urban parks and amenity spaces.
11. **River's Edge Parks Plan**  
 Implement a River's Edge Parks Plan to enhance connectivity between the River Valley Park System and Downtown.
12. **River Valley Connections**  
 Provide pedestrian connections to the River Valley Trail System from the Downtown that are safe, readily accessible, and easily recognized; provide access to River Valley Viewpoints to persons with mobility restrictions at select locations.
13. **Viewscape Management Strategy**  
 Complete a Viewscape Management Strategy for the Downtown to identify and plan for areas that can be opened up for views; protect views into and out of the River Valley.
14. **Public Art and Parks**  
 Integrate Public Art into the preliminary design of new parks and open spaces.
15. **Naturalize Centennial Plaza**  
 Naturalize Centennial Plaza to help the Downtown meet the target objectives for 20% canopy coverage; create an urban habitat interpretive education area through signage and events to highlight the importance of our urban habitat.



## 5.0 Recreation and Leisure

### PREAMBLE

Recreation and leisure activities have the potential to increase social involvement within the Downtown community, promoting health and well-being and adding a critical dimension of quality of life for all people. These activities involve both active and passive pursuits ranging from watching a lawn bowling tournament at the Legislature Grounds to skating at Winston Churchill Square or enjoying a quiet run along the River Valley trail system. Whatever the pursuit, recreation and leisure activities are a vehicle through which people have fun, meet new friends, and develop skills and competencies. These activities play a significant role in the health and stability of communities through increasing opportunities for active living and are integral to developing healthy, resourceful, creative, and involved citizens. The Downtown Plan will continue to promote healthier lifestyle choices for Edmontonians promoting community involvement through recreation and leisure opportunities. This Plan will ensure residents, workers, and visitors are able to live, work, learn, and play in a Downtown that is supportive of active lifestyles.

#### Goal:

To provide continued support for recreation and leisure pursuits in the Downtown promoting active living as a means to provide healthier lifestyle choices for residents, workers, and visitors of the Downtown.

### STRATEGIES

**Active Living:** Promote the Downtown as a centre for active living ensuring residents, workers, and visitors have access to a wide variety of recreation and leisure opportunities.

**Strengthened Relationships:** Work with various sports, culture, arts and recreational organizations and associations, businesses, the community and government to deliver strong and diverse recreation and leisure possibilities.

**Safe and Accessible Recreation:** Ensure recreation and leisure opportunities are available to all members of the Downtown community.

### POLICIES

1. **Spaces for Active Sport**  
Develop active outdoor recreation facilities, spaces and sportsfields in the Downtown to provide, facilitate and enable services and programs that support active lifestyles; and which lead to community health and wellness.
2. **Recreation and Leisure Programming**  
Support joint relationships between the City of Edmonton, community-based organizations and cultural organizations to facilitate recreation and leisure programming.
3. **Safe Places for Recreation and Leisure**  
Ensure recreation and leisure programming are available to all citizens; provide, advocate, encourage and promote recreation programs, services, admissions and spaces that are accessible, safe and affordable.



Hawrelak Park in Edmonton's River Valley provides year round recreation opportunities.

### OUTCOME STATEMENT

Downtown supports a wide variety of recreation and leisure pursuits. Residents, workers, and visitors have access to a multitude of programs and activities which contribute to a more active Downtown population. Recreation offerings are inclusive of the Downtown population bridging the divide between youth and elderly, rich and poor. Active living is a way of life for the Downtown population resulting in a physically and emotionally charged community.

### 6.0 Implementation

Policy	Actions	Lead Role
<b>Sustainable Downtown</b>		
4. Addressing Climate Change	<ul style="list-style-type: none"> <li>Identify the sources and quantity of the Downtown's greenhouse gas emissions through undertaking a Greenhouse Gas Audit;</li> <li>Develop a strategy to reduce those emissions by 30% by 2020.</li> </ul>	P&D AM & PW
<b>Urban Environment</b>		
<b>Energy Policies</b>		
1. Green Buildings	<ul style="list-style-type: none"> <li>Develop incentives to encourage reuse and retrofit of existing buildings through development incentives to retain embedded energy rather than disposal and replacement;</li> <li>Use development and financial incentives to encourage zero-carbon buildings, through the generation of renewable energy.</li> </ul>	P&D AM & PW Atco Gas
4. Energy into the Power Grid	<ul style="list-style-type: none"> <li>Develop a mechanism to ensure that renewable energy can be reintroduced to the Downtown power grid.</li> </ul>	P&D AM & PW Atco Gas
<b>The Urban Forest Policies</b>		
1. Urban Vegetation	<ul style="list-style-type: none"> <li>Develop landscape design guidelines for both public and private spaces that considers Crime Prevention through Environmental Design principles, tree maintainability and other factors as a means of helping to preserve and/or enhance tree plantings;</li> <li>Promote urban design that creates more space for tree growth above and below ground;</li> <li>Meet with Downtown Business Association, and the Downtown Edmonton Community League to discuss tree canopy and preservation goals;</li> <li>Seek partnerships and financial support from downtown businesses in order to plant additional trees;</li> <li>Implement an Adopt a Tree program for the</li> </ul>	P&D AM &PW DBA DECL

	<ul style="list-style-type: none"> <li>Downtown sponsored by the City of Edmonton;</li> <li>Complete a revised inventory of downtown plantings including determination of canopy coverage;</li> </ul> <p>Target a 10% increase in Downtown plantings over the next ten years.</p>	
3. Green Links	<ul style="list-style-type: none"> <li>Develop green links within the Downtown to connect the Downtown internally; connect the Downtown to surrounding neighbourhoods; and improve connectivity between the Downtown and the River Valley Park System;</li> <li>Integrate the Green Links into the Downtown Wayfinding system to enhance the pedestrian and cycling networks;</li> <li>Incorporate publicly accessible private space as part of private development projects into the Green Link initiative to maximize the opportunities for building linkages between land parcels.</li> </ul>	
<b>Air Quality Policies</b>		
1. Air Quality	<ul style="list-style-type: none"> <li>Develop idle free zones at all Municipal offices, major institutions, and public facilities;</li> <li>Minimize particulate matter emission from road and construction sites through proper screening and dust suppression;</li> <li>Expand existing transportation demand management programs for employees, businesses and residents to decrease use of single occupant vehicles;</li> <li>Promote the use of alternative, cleaner burning fuels, for the City's Transit fleet.</li> </ul>	P&D DBA AM & PW
<b>Water Policies</b>		
1. Storm water Management	<ul style="list-style-type: none"> <li>Reduce building footprints to provide greater flexibility to develop building layouts that preserve naturally vegetated areas and provide space for infiltration facilities;</li> <li>Encourage the development of green roofs for onsite retention and reuse of storm water;</li> <li>Reduce parking standards and limit the amount of</li> </ul>	AM & PW

	<p>surface parking to reduce the amount of impervious coverage;</p> <ul style="list-style-type: none"> <li>Where hard surfaces are created develop guidelines to ensure provision of permeable surfaces to allow for infiltration;</li> <li>Revise development guidelines to provide opportunities to integrate green elements such as bioswales, raingardens and permeable surfaces along streets and in parking lots to attenuate surface runoff and minimize impervious surfaces</li> </ul>	
<b>Materials and Waste Policies</b>		
1. Waste Reduction	<ul style="list-style-type: none"> <li>Increase the number of waste receptacles Downtown by 10% over ten years;</li> <li>Provide clearly distinguished recycling containers that offer easily accessible refundable bottle collection areas;</li> <li>Require festivals operating at Winston Churchill Square to use biodegradable and recyclable containers and utensils and provide clearly labeled receptacles for recyclables, organic, and inorganic waste;</li> <li>Provide interpretive signage at Winston Churchill Square which highlights Edmonton's waste management initiatives including city wide composting of organic material, recycling, and the Edmonton Waste Management Centre of Excellence;</li> <li>Support initiatives to ban disposable bags from Downtown businesses, increase community composting of organic waste, and re-use of materials through an expanded re-use-it program;</li> <li>Require cigarette butt stops adjacent to all Downtown buildings and waste receptacles.</li> </ul>	P&D AM & PW
<b>Parks and Open Space</b>		
1. Increasing Park and Open Space	<ul style="list-style-type: none"> <li>Undertake a Parkland Impact Assessment to identify park needs in the Downtown;</li> </ul>	AM & PW P&D

Downtown	<ul style="list-style-type: none"> <li>Acquire parkland in Warehouse District, McKay Avenue, and Commercial/Cultural Core in order to achieve a systematic distribution of parks in the Downtown;</li> <li>Complete rezoning for existing open spaces to secure the future of park spaces to the Downtown.</li> </ul>	CS
2. Sustainable Design of Parks and Open Space	<ul style="list-style-type: none"> <li>Use natural storm water treatment systems such as bioretention, bioswales, pervious paving, or rain gardens to minimize and treat surface drainage;</li> <li>Design parks to maximize sun/shade opportunities;</li> <li>Undertake xeriscaping to select plant material native to the area or to similar climates as well as other plants that tolerate or avoid water stress;</li> <li>Engage community in the design of new parks and open space;</li> <li>Incorporate signage to highlight sustainable elements of the park design to aid in public education of sustainability.</li> </ul>	P&D CS AM & PW
3. Funding Acquisition and Development of Urban Parks and Open Spaces	<ul style="list-style-type: none"> <li>Develop and gain approval by Council for a Downtown Land Acquisition Policy and process that recognizes the flexibility required to pursue negotiations to acquire land relative to market variables such as land cost, availability, available resources and community need;</li> <li>Create a mechanism that enables the City to partner with new developments to maximize the potential of the development to meet urban park space and amenity standards.</li> <li>Identify opportunities and pursue negotiations to enhance upcoming private development with park and amenity space such as plazas, public art, and landscaping;</li> <li>Introduce mechanisms in the current development review and approval process that identify opportunities for constructive negotiation with developers for meeting landscaping and urban amenity standards.</li> </ul>	P&D CS AM & PW
6. Parks for all Seasons	<ul style="list-style-type: none"> <li>Consider the four seasons in the design of parks</li> </ul>	P&D



	<ul style="list-style-type: none"> <li>and open space;</li> <li>• Provide protection from the elements;</li> <li>• Consider the prevailing winds in the area during site design to avoid the creation of adverse microclimatic effects;</li> <li>• Use a variety of landscaping materials to provide colour throughout the year;</li> <li>• Build adaptive recreational amenities where appropriate to provide winter sport opportunities.</li> </ul>	CS AM & PW
7. Community Gardens	<ul style="list-style-type: none"> <li>• Undertake a joint study to outline strategies aimed at supporting and encouraging the development of community gardens in the Downtown.</li> <li>• Establish an inventory of available garden plots and advertise the information on the City of Edmonton website;</li> <li>• Provide access to information on the development and operation of community gardens;</li> <li>• Assist interested groups in searching for suitable land for the development of community gardens;</li> <li>• Assist in the development of user agreements with the owners of sites chosen;</li> <li>• Assist in the development of a community led environmental education program;</li> <li>• Consider securing additional garden sites as a function of developer negotiations.</li> </ul>	P&D CS AM & PW
9. Urban Parks and Amenity areas on Privately owned, Publicly accessible lands	<ul style="list-style-type: none"> <li>• Establish park/open space requirements for all new residential, commercial, and institutional developments through discretionary zoning and development levies.</li> </ul>	P&D
12. River Valley Connections	<ul style="list-style-type: none"> <li>• Improve existing and build new pedestrian connections to the River Valley at strategic locations and integrate with the Downtown wayfinding program;</li> <li>• Inventory and examine existing pedestrian entranceways to the River Valley in terms of their visibility, accessibility, current use, safety and aesthetics;</li> </ul>	

	<ul style="list-style-type: none"> <li>• Define needed improvements including signage, lighting, and landscaping at top of bank and river valley bottom access locations;</li> <li>• Develop a schedule for improvements relative to key criteria like cost, priority, ease of implementation, and existing intensity of use.</li> </ul>	
13. Viewscape Management Policy	<ul style="list-style-type: none"> <li>• Undertake a Viewscape Management Strategy for the Downtown to identify and plan for areas that can be opened up for views and outline views into and out of the River Valley needing protection.</li> </ul>	P&D CS AM & PW