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PLANNING/COMMUNICATIONS GIS/MAPPING

City of Red Deer

Draft Report

Maskepetoon Park Master Plan

ISL Engineering and Land Services

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Table of Contents

Appendices

List of Tables

List of Figures

1.0 Introduction

The intent of the 2007 Maskepetoon Park Master Plan is to provide an overall plan that satisfies the original intent of the 1980 Waskasoo Park Master Plan: "a balance between formal development and environmental preservation". This Master Plan focuses on the ecological sensitivity of Maskepetoon Park and the design and recommendations proposed in the plan will ensure that development results in protection of this important environmental resource, while at the same time providing the public with the opportunity to view and experience the park's natural assets.

Maskepetoon Park is a 30 hectare parcel of land within the Waskasoo Park system. It is located along the city's western boundary and is bordered by the Queen Elizabeth Highway (QE2) to the west, the Red Deer River to the east and south, and the Oriole Park neighbourhood to the north (see Figure 01). Maskepetoon is an ecologically significant and valuable area containing many unique natural features, and these features are being damaged as a result of increased, yet unmanaged, human activity.

In an effort to manage the impacts of current activities, protect the environmental resources of the area and provide the public with an opportunity for recreation and education, the City of Red Deer requires a plan to guide short term development and long term management of Maskepetoon Park. The following report outlines the issues and objectives that have been considered, the existing conditions of the Park, and the proposed plan for development and management. The report also provides capital costs and a phasing strategy to guide implementation by the City.

1.1 Key Issues and Objectives

Some of the key issues and objectives that have been addressed during preparation of the Master Plan include:

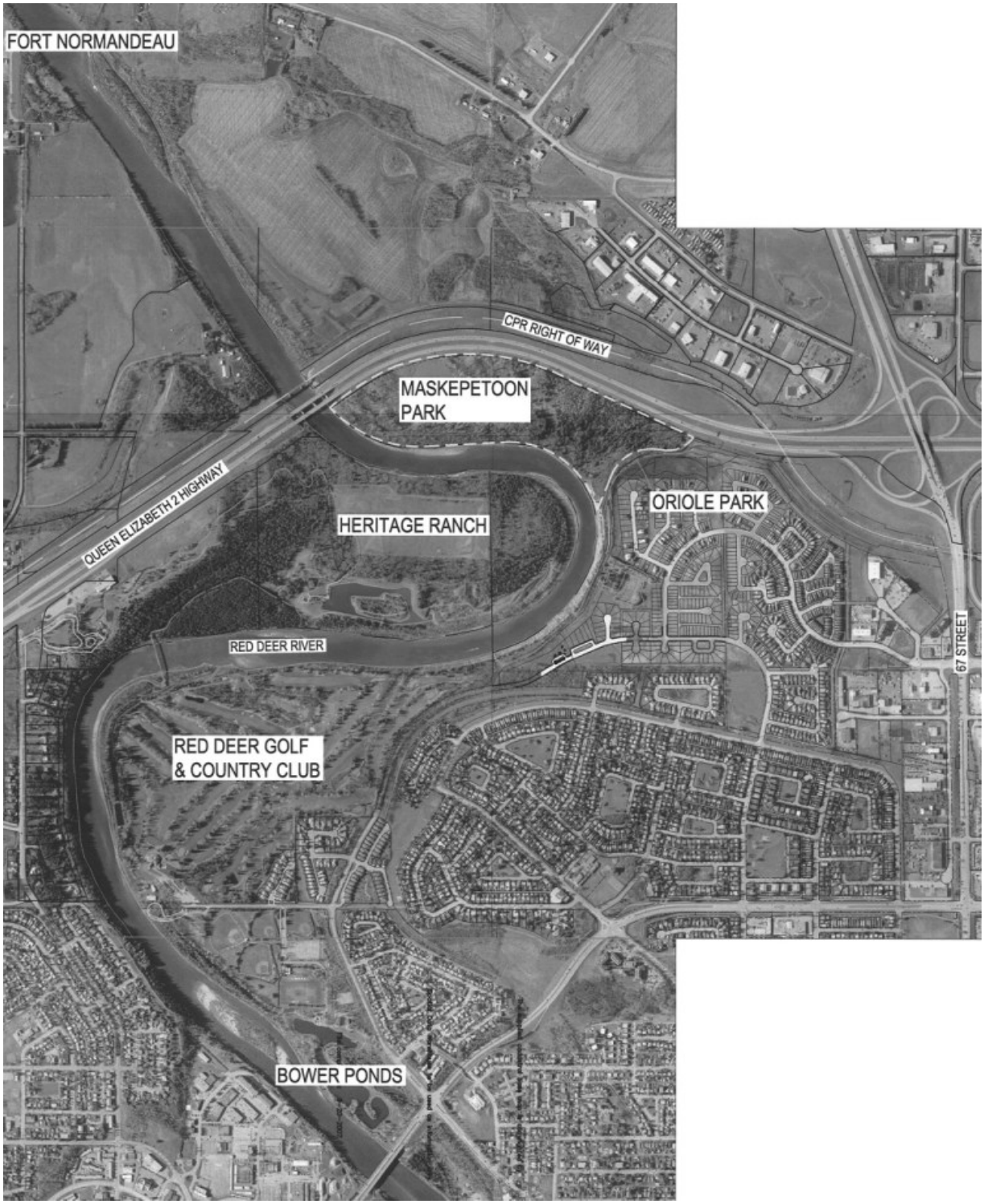
- *Environmental Protection* – Maskepetoon Park is an ecologically unique and significant area, and is home to locally rare plant communities. With protection of this resource as a primary objective, impacts to the sensitive habitats should be minimized during development.

- *Recreation and Education* - citizens of Red Deer and visitors to the Park should have the opportunity to enjoy the unique environment through low-impact activities. Access and educational opportunities should be created to promote "preservation through appreciation".

- *Prevention of Degradation* – the Park has been impacted by illegitimate off road vehicle use. Curbing these activities is an important objective of the Plan and has been addressed through specific design features.

- *Managed Access* – an important balance must be established in Park access. Access for passive recreation users shall be provided, while discouraging access for off-road-vehicles.

Figure 1: Context



- *Reclamation* – there may be damaged areas of the Park that require reclamation due to ATV use and potentially the River Training Project (as discussed in Section 2.2), to be completed winter 2007-2008. It is important to address these damaged areas in the initial phases of development and provide for an ongoing program of management and education to ensure that the unique environmental features of the Park remain or are restored.

- *Historical Inspiration* – the park is named after Chief Maskepetoon, a brave Cree leader who was known as a peacemaker. With this insight, an objective of the Plan will be to create a place that becomes a favourite spot in Red Deer for the peaceful enjoyment of nature.

1.2 Methodology

The preparation of the Master Plan as been guided by a Steering Committee made up of City staff from several departments, representatives from Alberta Infrastructure and Transportation (AIT), Red Deer River Naturalists, Red Deer College, Kerrywood Nature Centre and the design team led by ISL Engineering and Land Services. The study process included the following major phases of work:

- *Existing Conditions Assessment* – this phase included a review of background information and previous studies, several field reviews with the steering committee reconnaissance and stakeholder consultation to gain a comprehensive understanding of the opportunities and constraints of the park.

- *Preliminary Concepts* – preparation of preliminary concepts for the park which based on the assessment and with consideration of the objectives and ideas of the City, stakeholders and the community.

- *Master Plan* – refinement of the concepts into a master plan through steering committee and public consultation. Preparation of a comprehensive master plan complete with implementation and management recommendations.

1.3 Previous Studies

Many studies have been conducted focusing on Maskepetoon Park and area. Previous studies have focused on natural history, historical resources, erosion of riverbanks, and stormwater discharges and includes the following:

- AGRA Earth & Environmental Limited, 1997. *Oriole Park West Subdivision Storm Trunk Extension and Outfall Relocation: Environmental Impact Assessment and Reclamation Recommendations*. Prepared for Engineering Services Department, City of Red Deer.

- AGRA Earth & Environmental Limited, 1998. *Environmental Monitoring to Assess the Need for Reclamation of Erosion Damage in the Maskepetoon Natural Area, Red Deer – Baseline Year*. Prepared for Engineering Department, City of Red Deer.

- Aresco Ltd., 1983. *Waskasoo Park Historical Resource Impact Assessment*. Prepared for City of Red Deer.

- City of Red Deer, 1982. *Waskasoo Park Master Plan*. City Planning Section Red Deer Regional Planning Commission.
- Cottonwood Consultants Ltd., 1984. *Waskasoo Park Level III Natural History Inventory*. Prepared for Waskasoo Park Management Committee, City of Red Deer.
- Infrastructure Systems Ltd., 1997. *Oriole Park West Subdivision Storm Trunk Extension and Outfall Relocation Preliminary Design Report*. Prepared for Engineering Services Department, City of Red Deer.
- ISL Engineering and Land Services, 2005. Red Deer Trails Master Plan. Prepared for Recreation, Parks and Culture, City of Red Deer.
- ISL Engineering and Land Services, 2005. Waskasoo Park Special Gathering Places Study. Prepared for Recreation, Parks and Culture, City of Red Deer.

2.0 Existing Conditions Assessment

2.1 Ecology

Red Deer is in the Prairie Ecozone, however the ecological conditions in Maskepetoon Park are dominated by it's location in the Red Deer River Valley. Prior to 1959, the Maskepetoon Park area was an undeveloped valley with an intact Tamarack Fen in what appeared to be an old oxbow channel of the Red Deer River. The valley was bisected by the Highway 2 By-Pass constructed in 1959. This summary of ecological conditions in Maskepetoon Park is provided as context and to highlight environmentally sensitive areas. Extensive species lists and community descriptions can be found in previous studies of the area, as referenced in Section 1.3 and in particular the report prepared by AGRA in 1997.

Vegetation Communities

- *Tamarack Fen*
  The Tamarack Fen is essentially a pure stand of tamarack and is likely the most important component of the fen complex. The Tamarack Fen is unique in the Red Deer area and probably represents the furthest extension of this vegetation type into the drier Aspen Parkland of Alberta. The Tamarack Fen was heavily impacted by the Highway 2 By-Pass; a small tamarack stand is re-establishing on the west side of the CPR right-of-way. A soil sample analysis from the Tamarack Fen measured pH 7.82 and indicated slightly alkaline conditions. This in turn may indicate that the fen is fed by minerotropic waters from mineral soils and headwater sources and may be more resilient to changes in water quality than peatlands with more acidic soils.

  Based on the understory vegetation in the AGRA 1998 study, the tamarack community was classified as a nutrient rich, wet, northern bog sedge/marsh horsetail community.

- *Mixed White Spruce/Tamarack Fen and Mixed White Spruce/Paper Birch/Tamarack Fen*
  The understory vegetation found in the White Spruce/Tamarack Fen and the White Spruce/Paper Birch/Tamarack Fen communities indicate that these communities are moist-wet and moist respectively and are intolerant of water-logged conditions. The presence of mature white spruce and paper birch indicate that these communities have been drier historically than the Tamarack Fen.

- *Mixed Willow/Bog Birch Fen*
  The Mixed Willow/Bog Birch Fen is a shrub-dominated community separating the Tamarack Fen from the QE2 right-of-way to the west and the willow and poplar communities to the south.

- *Marsh Communities*
  Four marsh complexes are found within Maskepetoon Park. There are signs of beaver activity and effects of beaver terracing in two of the marshes, water level is controlled by beaver dams at the outlets. There is ATV damage to the

perimeter areas of some of the marshes, damaged areas should be monitored and reclaimed or revegetated if necessary.

- *White Spruce Stand/Forest*
  White Spruce Stand/Forest communities are found near the fen areas. The mature white spruce and resident understory vegetation are common to drier areas.

- *Balsam Poplar Forest*
  The Balsam Poplar Forest communities occupy the largest total area within Maskepetoon Park of all the plant communities.

- *Non-native and Invasive Species*
  Based on observations during site visits and a review of previous plant surveys, it is noted that there are non-native and invasive species including thistle, dandelion, and stinging nettle. It is recommended that targeted natural or chemical plant control be implemented as necessary as part of Maskepetoon Park Controls and Management.

Wildlife

- *Resident Wildlife*
  Maskepetoon Park is utilized by many species of fauna. Extensive species lists were prepared in previous ecological reports for the area. Typical mammals utilizing the Park include: deer, beaver, squirrels, shrew, bats, jack rabbit, porcupine, coyote, fox, weasels, and possibly moose. Among the many species of birds found in the park are: sparrows, ducks, hawks, grouse, sandpiper, woodpecker, nuthatch, tern, swallows, and owls. Only one species of amphibian has been recorded in previous reports; wood frogs were common at the edges of the marsh communities.

- *Wildlife Corridor*
  Wildlife move within the river valley and along the river on both sides. While many wildlife are killed each year in collisions with traffic on the QE2 Highway, wildlife do successfully cross the highway and the CPR right-of-way. A safer crossing alternative that is available and utilized by many wildlife, based on tracks observed during a site visit, is to cross under the QE2 bridge and CPR bridge on the left banks of the river. The height clearance, openness, visibility and light conditions are very good at this crossing. Some shrubs provide cover for smaller mammals and the natural surface is an advantage. Deterrents to wildlife using this crossing are traffic noise, and ATV's accessing this same crossing (discussed further in Section 2.2). With future potential widening of the QE2 Highway and construction of new bridge structures, it is recommended that the new structures be designed to maintain the same height clearance, openness, visibility and light conditions, as well as the natural surface and shrub vegetation, to maximize wildlife utilization of this crossing.

Rare and Endangered Species

Rare and endangered plant and animal species were not found in previous studies and surveys in Maskepetoon Park. A City of Red Deer brochure on the Park indicates that there is a "rare freshwater sponge" in the Tamarack Fen; however this was not noted in

any of the available ecological reports and members of the Steering Committee were not aware of any sightings.

2.2 Environmental Issues

The natural resources in Maskepetoon Park have been impacted by human activity and alteration. A summary of the dominant environmental issues, and recommendations to mitigate or minimize impacts follows:

Queen Elizabeth 2 Highway

The Highway 2 By-Pass was constructed in 1959, bisecting the Red Deer River Valley, and now forms the west boundary of Maskepetoon Park. Environmental impacts of the Queen Elizabeth 2 Highway (QE2) alignment through the river valley include, but are not limited to the following:

- Barrier to wildlife movement
- Traffic-wildlife collisions and wildlife fatalities
- Loss of wildlife habitat
- Reduction of Tamarack Fen community
- Noise pollution
- Disturbance to natural drainage patterns and groundwater flows
- Means of access to the river valley for illegitimate recreational uses

Many of the impacts are irreversible and ongoing, given the fixed alignment of the QE2 through the river valley. Minimizing some impacts may be possible: installation of wildlife fencing would reduce the traffic-wildlife collisions and wildlife fatalities (see Section 3.5) as well as direct wildlife to the safe crossing under the QE2 Bridge; and enforcement and education is anticipated to reduce ATV access via the QE2 right-of-way.

The section of the QE2 through the Red Deer River Valley has been identified by AIT as a high priority section due to the high rate of traffic-wildlife collisions and the roadway geometry. During Steering Committee discussions, AIT representatives confirmed that the current alignment of the QE2 is fixed but indicated that centre median lighting will be installed and ultimately widening will be done to the outer lanes. A widening project will require construction of new bridge structures over the Red Deer River. Centre median lighting may create light spill into the west boundary of the Park, potentially disturbing wildlife utilizing these areas. Bridge design will need to maintain the clearance, light conditions, natural surface and vegetation cover to continue to serve as a wildlife crossing. Restoration to the wildlife crossing and future recreational trail under the QE2 Bridge will be a necessary part of the bridge construction.

The noise pollution created by traffic on the QE2 is obvious in parts of Maskepetoon Park. In areas adjacent to the highway, or at any point around the large central marsh, the traffic noise is quite disruptive. Trail alignments away from the highway will minimize disruption to recreational users but may increase human activity in the quieter areas of the Park which may in turn create more disturbance to wildlife utilizing these areas.

Drainage Alterations

A storm sewer was constructed in 1966 carrying flows away from Golden West industrial subdivision and the CPR yard. The outfall of this sewer terminated on a bench in northwest Maskepetoon Park. In 1989, the pipe size was increased from 900 mm to 1350 mm diameter to accommodate flows from the entire watershed including part of Edgar

Industrial and the future Oriole Park West subdivision. The outfall structure remained in the same location but was re-constructed to accommodate and spread out the discharge from the pipe. Five stormwater detention ponds were constructed within the system, reducing the peak flows. Storm flows eroded a deep gully back from the river bank to the storm sewer outfall. A developing erosion channel is seen in aerial photos from the late 1960's. By 1989, the erosion channel was approximately 220 m long from the river back toward the outfall; shallow braided channels were cut in the fen between the outfall and the deep channels.

Further proposed development of the drainage basin prompted the City of Red Deer Engineering Department to commission an Environmental Impact Assessment of a proposal to increase stormwater discharges in the existing outfall. It was determined that the proposed increase in discharges had the potential to threaten the health of vegetation communities, including the Tamarack Fen and Mixed Tamarack/White Spruce Fen. In January 1998, construction of a storm trunk extension and outfall relocation was completed, extending the storm trunk under Highway 2 and discharging stormwater to an open ditch between the highway and the CPR tracks. A monitoring program of the erosion channel was conducted following the outfall relocation to determine if reclamation of the channel was required. The following results and recommendations were noted in the monitoring report:

- The groundwater table and direction of groundwater flow experienced little change since the relocation of the outfall.
- The erosion channel likely has only very localized effects on groundwater levels
- The construction of Highway 2 and the CPR line to the west, and the construction of the Dickson Dam upstream on the Red Deer River have likely altered potential sources of groundwater recharge in the area and resulted in reduced average groundwater levels.
- Groundwater recharge from the north is of high importance to Fen health and could be threatened by the urbanization of the lands to the north and west.
- The events which reduced groundwater flow into Maskepetoon Park apparently improved overall growing conditions for tamarack. However, further reductions in groundwater recharge could have incrementally adverse effects on the long-term viability of the Fen.
- The vegetation community structure and growth were not visibly impacted by elimination of the storm discharge or the presence of the erosion channel.
- In 1998, it appeared that the erosion channel was stabilizing and did not need to be reclaimed.
- There was no indication that replacement of the storm discharges as a source of water was required.

It is recommended that monitoring of the erosion channel continue as part of ongoing Park Management to determine if there is a need to reclaim the channel to prevent further erosion or destabilization of the soils and vegetation communities. In addition, community structure and tamarack growth monitoring is recommended to determine if groundwater reductions due to urbanization within the watershed has negatively impacted the fen and if supplementation of groundwater in the fen is necessary.

ATV Damage

Illegitimate use of all-terrain-vehicles in Maskepetoon Park (and the greater Red Deer River Valley) has resulted in significant damage to marsh areas, disturbance of understory vegetation and erosion of soils; as well as the less-visual disturbance of wildlife. Reducing ATV use and associated damage within Maskepetoon Park is a high

priority to the City, the Red Deer River Naturalists and the project Steering Committee. Efforts to curb ATV use through the installation of temporary fences and signs have resulted in re-growth of vegetation in previous heavy-use areas. It is anticipated that with formal signage, education, enforcement, and pressure from low impact recreational users, ATV use will be further reduced.

As already experienced, the understory and marsh areas recover quickly if allowed. Of greater concern are areas of intense soil disturbance and erosion, which can prevent regeneration and lead to further erosion. One area showing the effects of this disturbance and erosion cycle is the highly impacted ATV trail up the escarpment (see Figure 2). These areas of significant soil disturbance and erosion will require stabilization through surface reclamation and revegetation.

An access trail under the QE2 Highway Bridge shows heavy ATV use; this area is also a recognized wildlife corridor. From site observations, and aerial photographs, it appears that many ATV users are crossing the CPR Bridge and accessing Maskepetoon Park (and other areas along the River) under the QE2 Bridge. The heavy use of ATV's within the wildlife corridor is expected to negatively impact wildlife movement, though the effects in this area have not been studied to date. Education and enforcement prohibiting ATV use are recommended within the City of Red Deer, and particularly within and adjacent to the wildlife corridors along the Red Deer River.

River Training

The City of Red Deer Engineering Department has contracted work to be done winter 2007-2008 to armour the 25m high steep river bank in northeast Maskepetoon Park. This river training project is design to prevent further erosion of the riverbank toe and to stabilize the slope of Oriole Park West neighbourhood in close proximity to the escarpment.

Heavy trucks are accessing the Red Deer River banks through Maskepetoon Park (route as shown on Figure 2) carrying rip rap to be incorporated into the left bank of the river for a distance of approximately 700m. The haul road through Maskepetoon Park was constructed by laying mulch, covered by a geotextile fabric and a gravel surface. When work is complete, rehabilitation of the haul road will include removing the haul road materials, spreading the mulch, re-contouring to pre-existing conditions, replacing topsoil and planting or seeding as necessary. The underlying soils may be compacted, requiring further reclamation work which should be completed as part of the river training project. If satisfactory reclamation is not completed it is recommended that it be included in Phase 1 of the Master Plan implementation (see Figure 4).

The River Training Project haul road opens up a major access through Maskepetoon Park from the QE2 right-of-way along the large marsh, through to the Red Deer River. There is a concern that this access will be utilized by illegitimate ATV users to gain access into the Park and the River, creating further damage to soils, understory vegetation and the marshes. It is recommended that one of the end stages of heavy construction be placing large boulders at the entrance from the QE2 right-of-way blocking access into the Park until permanent access controls (wildlife fence or bollards as discussed in Section 3.5) can be installed.

The Engineering Department has confirmed that the opportunity exists to transport materials for Maskepetoon Park development purposes under the current river training project. It is recommended that the City take advantage of this opportunity by stockpiling

gravel materials in the Park at key locations prior to the conclusion of the river training project. Recommended locations are identified in Section 4.2.

2.3 Historical Resources

Archaeological surveys and research of historical features were conducted for Maskepetoon Park as part of the larger Waskasoo Park Historical Resource Impact Assessment. Two historical sites were found in Maskepetoon that were of low scientific significance and poor condition, being destroyed or severely disturbed. No further work was recommended for the sites. The tamarack forest was highlighted as a natural resource.

2.4 Existing Features

Beyond the natural environment there are several other existing features that were considered during design development:

- Existing trails are informal with natural surface
- An old logging road has become an informal trail
- ATV users have cut trails through the understory and riparian areas
- Common access is from the Oriole Park community to the north of the Park
- Paved trails connect into Maskepetoon Park at the top of the escarpment from the northwest
- ATV users have accessed the park from the QE2 highway right-of-way and along the banks of the river, primarily from the south after crossing the CNR Bridge.

2.5 Current Recreational Uses

Maskepetoon Park has been used for years by naturalists and hikers as a place for nature appreciation and recreation. As indicated previously, illegitimate uses in recent years has become a significant concern to the City and those that use the Park. Current recreational usage at Maskepetoon Park includes:

Illegitimate

The Red Deer River Naturalists Society, in coordination with the Red Deer Parks Department, has been installing and maintaining snow fence and signage at commonly used ATV access points to try to curb ATV use in the Park. Bylaw officers have patrolled the Park, issuing warnings to ATV users who enter the Park.

A tree stand and a tree stretch were found during site visits in the north end of the park in the White Spruce Forest (as marked on Figure 2). These are evidence that hunters illegally accessed and hunted within Maskepetoon Park, it is not known if any wildlife were killed by hunters within the Park. The tree stand and stretch should be removed as part of Phase 1 development.

Passive Recreation

Residents of the City of Red Deer, and in particular members of the Red Deer River Naturalists Society and the nearby community of Oriole Park have enjoyed passive recreation in Maskepetoon Park including walking, dog walking, and winter activities such as cross-country skiing and snowshoeing.

River Users

Paddlers and floaters use the Red Deer River within City limits during summer months and occasionally access Maskepetoon Park via the river. There are no plans to add a put-in/take-out point for river users within Maskepetoon Park. Given the planned parking facility is up the steep escarpment and approximately 700 m from the river banks, Maskepetoon Park will not be a preferred location to access the river.

2.6 Issues and Opportunities Summary

The following table provides a summary of the issues and opportunities identified by the design team and the steering committee for consideration during design development.

Table 2.1: Issues and Opportunities

Area	Current Conditions	Design Opportunities
Accessibility	Adjacent community	Pedestrian Bridge connection - separate or highway bridge?
	Adjacent natural areas/parks	Parking - designated parking area or as destination only along trail system? Parking is planned for the site in Oriole Park (east along top of escarpment)
	(Illegal off-highway access not included)	Trail network connections - Heritage Ranch & Oriole Park, Fort Normandeau with bridge connection
		Stairs from escarpment - viewpoint as part of stairs
		Disabled access - what extent of trails, escarpment issues; universal access path at top of escarpment and potentially down into lower park challenging
Trails	Walking paths	City Trail standards for development - hierarchy/surface? Standard trails 2.0m wide with narrower paths less than 1m. Desire for trails not to be asphalt paved
	Paths created by off-road vehicles	Selection of best trail routes pathways, utilize some paths created by ATV's
		Trail amenities - boardwalks/viewpoints, trash and benches Highway noise - keeping main trail closer to river
		Desire to allow use of cross-country skis and snow-shoes but not rollerblades or bikes; use of signs and education, bike racks at trailheads
Environment	Many unique ecosystems	Preserve sensitive ecosystems
		Acknowledge impacts of drainage (erosion channel) and future potential drainage changes
		Exclude access from some areas?
Wildlife	Park as wildlife corridor and habitat	Provide/maintain "safe areas" for wildlife
		Trail alignments to avoid wildlife paths
Interpretive	1984 Master Plan still seems relevant	Additional interpretive opportunities - signage Gathering points (approx. 80 sq. ft. in other parks) to provide area for interpretive tours, large enough not to step off trails Size to accommodate groups
		Interpretive Master Plan - to address details - themes this plan Interpretive Staging area - trailhead with signs, no big structure

Area	Current Conditions	Design Opportunities
		Viewing platform - safety issues at banks
Inappropriate uses	Evidence of poaching in park High use of ATV's	Controls and management Preventing movements off highway - bylaw issues Ongoing education & controls Increased park use by legitimate users will further reduce illegitimate use
River Training Project	Contract issued, most of work to be in winter	Access alignment to be field staked to minimize impacts Potential to develop trails on construction roads Opportunities for additional work ie. placement of gravel Restoration requirements
Amenities	No Current Amenities	Washroom at parking location only (access for clean-out) Trash/recycling at trail heads or throughout? Interpretive centre, trail maps/signs Bench/Trash Bluephones (Emergency) - many people carry cell phones No lighting within park
Management	Minimal Management	Access Controls Restoration of erosion channel and ATV trails Maintenance - Parks crews use Mule vehicle, can use 1.5m trail; access path down escarpment Bylaw control Safety and Security EMS access - may be getting ATV, will not be able to access within park otherwise Potential for coordinating emergency location points on interpretive signs Weed management
Highway	Highway noise Illegal access	Widening would be to outer lanes, may encroach on park Lighting proposed in centre median Potential fencing along highway (access and wildlife), City and AIT could potentially work together on fencing issue; exclusion fencing would need to be planned carefully, need to maintain corridor under bridges at river
River	Current use - paddlers/floaters/Fishing Access by river Flooding considerations	Where possible avoid bed and shore work as part of plan 1:100 year flood line Trail alignment above floodplain Access via river within City (paddlers and ATV users); many boat launches within the City, don't need to provide additional access here

3.0 Park Master Plan

The Master Plan has been divided into six major sections: Park Access, Trails, Interpretive Program, Park Amenities, Environmental Protection, and Management. The following is a detailed summary of the proposed features and development recommendations within each section, with the specific design elements illustrated on Figures 03-06.

3.1 Park Access

There will not be a primary public access location into Maskepetoon Park because it is surrounded on all sides by significant features: the Red Deer River, the QE2 Highway and the river valley escarpment below the Oriole Park subdivision. All of these boundaries make traditional park access (ie. a gateway, road and parking lot) unfeasible and universal trail access challenging. To provide access into the Park for both passive informal use, as well as programmed interpretive uses, a number of access elements are being proposed as described below:

- *Parking Lot* – a parking lot with approximately 20 stalls is planned off of Oak Drive. This will be connected to Maskepetoon Park via a new paved trail connecting to an existing paved trail in Oriole Park. Initially the parking lot will be gravel. The distance to the park entry node (see below) from the parking lot will be approximately 700 m, or a 10 minute walk. This distance may limit the use of the Park by Red Deer residents who would normally travel to a City park by vehicle.

- *Waskasoo Trails* – the Park will be accessible from existing asphalt trails in Oriole Park and in the future via a pedestrian bridge connection from Heritage Ranch (see below). Ultimately, Waskasoo trails will extend west beyond the QE2 Highway bridge to Fort Normandeau and to Sylvan Creek on the north side of the Red Deer River.

- *Waskasoo Trail Bridge* – a trail bridge over the Red Deer River providing access from Heritage Ranch to Maskepetoon Park has been proposed in a number of previous planning documents including the Waskasoo Park Special Gathering Places Study (ISL, 2005). This bridge will provide access to the Park from the south and will also provide an important trail connection west beyond the QE2 highway as described above. Potential locations for the bridge have been previously identified, however, during the course of this study an option for combining a pedestrian bridge hung below a future highway widening bridge was proposed and was well supported. This concept would require support and approval by AIT but is a model that has precedent in the Edmonton area on the Anthony Henday Drive bridge. Restoration of the wildlife corridor below the bridge would need to be included with bridge construction, as discussed in Section 2.2.

- *Park Entry Nodes* – in an effort to provide controlled access to the Park, a Park entry node has been proposed at both the north and south end. The concept is to provide a clear entry into the Park that can serve as a location for meeting and for providing information on the Park (maps and interpretive program). The node would also be used to educate the public as to the sensitivity and unique environmental features of the site so as to promote responsible use. The entry

nodes would provide a clear access location (gateway) and would be tied into control measures (railings, bollards and fences) that would be installed to curb access by off-road vehicles (see 3.5). Besides maps, the entry nodes would provide bike racks to encourage walking as well as benches and trash receptacles for visitors entering and leaving the Park.

- *Stairs* - at the north end of the Park, a significant set of wood stairs has been proposed to provide access down the escarpment from Oriole Park. The stairs would be designed to be a 'floating' system with limited piles as used successfully in other municipalities. A viewpoint has been proposed as part of the stairs to provide a view of the river valley. Extensive erosion controls and surface reclamation will be required as part of the stair construction.

- *Universal Access* – due to a 12 metre elevation change from the top of the escarpment, universal access for persons with all levels of ability will be challenging. To provide universal access, a hard surface trail 240 metres long at a maximum grade of 5% with numerous switchbacks would need to be constructed at the north end of the Park. Once at the lower Park elevation, a designated universal access trail route would be constructed and maintained utilizing wood boardwalks and compacted granular trails. The balance of the trails in more sensitive areas will be constructed using wood chip mulch and will not provide universal access. ***(not sure if this makes sense – perhaps we do not provide) Should be noted that this trail is the operational access.***

3.2 Trails

Walking and nature interpretive trails will be the key feature of the development of Maskepetoon Park. The trails will be developed to the 'nature trails' standard as defined in the Red Deer Trails Master Plan (ISL, 2005):

- *Trail Routes* – trail routes have been selected through a review of existing conditions and environmental features by the project steering committee. Where possible, existing informal pathways as created by recreational users and illegitimate ATV use have been selected as the proposed trail routes. Additional trail routes have been proposed to provide access to areas of special interest in the Park. As indicated previously, some of the existing pathways and damaged areas are to be restored as part of the development program.

- *Nature Trails* – as indicated, the majority of the trails will be developed as nature trails and will be 2.0m wide compacted granular or wood chip mulch. The wood chip should be used in heavily treed areas where root cover and compaction would be a concern. As per the Trails Master Plan, amenities such as rest nodes, viewpoints, trails signage, access controls and interpretive signage should be provided along the trail network (See 3.4).

- *Boardwalks and Bridges* – in areas of particular sensitivity such as the mature white spruce stand, boardwalks have been proposed to provide access with limited short term impacts. The boardwalks should be built using a screw pile support system and should have railings to ensure that users do not leave the boardwalk. Small pedestrian bridges will also be required to provide access across narrow creek and drainage channels within the park.

- *Waskasoo Trail* – in considering the long term use and development of Maskepetoon as a natural park and interpretive area, there was considerable discussion by the steering committee as to whether a multipurpose asphalt trail (Waskasoo Trail standard) should be developed through the Park. Some of the cited benefits for developing an asphalt trail included the importance of maintaining the connectivity of the network, providing future access to the west of the QE2, as well as increased safety and security in the Park related to increased use. The issues and concerns related to having a paved trail in the Park included impacts of construction (wider trail corridor, more clearing etc.), potential impacts related to continued off-road use from improved access, and most importantly impacts on wildlife and users related to noise and speed of travel. Based on the discussion it is being recommended that Park development proceed with only nature trails at this time. However, based on future need for trail access through the Park and consideration of the level of use, access issues and impacts on the environment, the City may consider the provision of a Waskasoo Trail through Maskepetoon Park in the future.

3.3 Interpretive Program

With all of the unique and interesting environmental conditions within the Park, the development of an interpretive program is an important part of this master plan. The Waskasoo Park Level III Natural History Inventory (Cottonwood Consultants,1984) identified several potential locations and interpretive storylines for Maskepetoon Park which are still relevant today. Based on the current existing conditions evaluation and the proposed trail layout, a number of additional themes and locations have been identified (Figure 04). The proposed interpretive program will include static interpretive nodes, signs and maps. In the future, the Waskasoo Park Interpretive Program can provide formal interpretive tours (eg. School groups) in the Park. The details of the interpretive program will be addressed as part of the Interpretive Master Plan that the City will be preparing. The following is an outline of the proposed interpretive program for Maskepetoon Park:

- *Interpretive Themes* - as indicated in the table below and on Figure 04, a number of interpretive locations and themes are being recommended. The signs will need to be designed and the detailed storylines written as part of the Interpretive Master Plan.

Table 3.1: Interpretive Themes

ID	Topic	Location	Expanded Discussion
1	River Training Cutbank	Northwest Park at edge of high cutbank overlooking River Training Area	Armouring to prevent erosion and bank failure Human intervention in natural processes
2	Microclimate – Southwest Facing Slopes (I-1)	North Trailhead, top of staircase up escarpment	Development of grassland and shrub vegetation, resident species Fire history
3	Effects of Drainage on Wetland Succession to Drier Habitats (I-3)	Entering Mixed White Spruce/Paper Birch/Tamarack Fen	Disruption of drainage patterns, Vegetation shifts to drier communities

ID	Topic	Location	Expanded Discussion
4	Erosive Forces	Bridge over erosion channel	Human intervention in drainage. Development of erosion channel and effects on surrounding soil and vegetation
5	Regional Climate: Swamp (I-2)	Entering Tamarack Fen	Resident species. Tamarack ecology and characteristics
6	Fragility of Wetlands; Loss of Special Habitats (I-5)	Boardwalk beside north marsh	Sensitivity of vegetation to trampling, groundwater changes. Replacement by widespread and common plant communities
7	Beaver Activity; Wetland Diversity (I-4)	Bridge over beaver terracing at drainage channel from north marsh	Effects of beaver activity on landscape Resident wetland species
8	Human Impacts – Highway		Highway bisection of river valley. Impacts to groundwater, drainage pattern. Barrier to wildlife movement, impacts of traffic noise
9	Wetland Complex	Edge of south wetland complex, looking across marsh	Wetland-groundwater connection. Schematic of groundflows in river system
10	Flood Channel	Top of overbank deposition berms looking north parallel to river	Development of overbank deposition berms and flood channels. Schematic of historic flood levels at channel
11	Vegetation Response: Fluctuating River Levels	Top of bank at river's edge	Zones of vegetation, connection to river level and groundwater. Resident river bank species
12	Wildlife Corridor	South trailhead, inset off established wildlife paths	Impacts of highway on wildlife movements Species utilizing corridor, diurnal and nocturnal movements

Viewpoints			
ID	Topic	Location	Expanded Discussion
A	River Processes (V-2)	Northwest Park at edge of high cutbank overlooking river valley and Heritage Ranch	River erosion and deposition. Graphic of meander loop, cutbank creation Effects of river migration on ecosystems
B	Chief Maskepetoon (History)	North Trailhead, top of staircase up escarpment, overlooking river valley and upstream river section	Legend of Chief Maskepetoon as Peacemaker
C	Wetland Species (V-1)	Overlooking marsh near beaver dam	Graphic of resident wetland plants and wildlife seen from platform List of resident species
D	River Level Fluctuations	Top of bank at river's edge, looking upstream and downstream	Seasonal river level fluctuations. Human intervention – dam, withdrawals, additional inputs

Note: Notations within parenthesis refer to applicable points within Maskepetoon Park indicated in the Natural History Sign Plan from the 1984 Waskasoo Park Level III Natural History Inventory; e.g. (I-5) refers to Interpretive Point 5.

- *Park Entry Node* – as indicated, two entry nodes into the Park will serve as the staging areas for the interpretive program and a gathering location for formal interpretive tours. A primary interpretive sign and map in the node would provide an overview of the environmental features of the Park and a glimpse into what can be seen and discovered. A board should also be provided to allow users to post/write notices highlighting a date/time/location where they viewed a special feature within the Park.

- *Viewpoints* – four interpretive viewpoints have been proposed including two at the top of the escarpment with incredible views of the river valley. These first two viewpoints (A & B) will be large wood deck structures with railings, seating and signage (Figure 05). The setback from the top of the bank and the structure for the viewpoints will need to be determined through geotechnical analysis at the detailed design stage. Viewpoint C will provide views of the main pond and will be similar in style (wood deck and railings) but will be smaller in scale than viewpoints A & B. Since it is being developed in the 1:100 year floodplain, viewpoint D will be developed as a simple trail node with a wood railing surrounding a gravel gathering area. Both C & D will have a bench, trash and interpretive sign.

- *Interpretive Nodes* - gathering nodes sized to accommodate small groups of 6-8 people at a time (approx. 1.5 x 5m), will be provided at the interpretive sign locations to allow people to step off the trails to view and learn. Railings will be provided to ensure that gathering space does not expand into surrounding forest.

3.4 Park Amenities

In support of the proposed trail development and interpretive program for Maskepetoon Park, a number of park amenities have been proposed:

- *Washroom* – a small vault style or composting toilet will be provided at the parking lot. This will be the only washroom provided for the Park.

- *Furnishings* – benches and trash receptacles/recycling bins will be provided in the entry nodes, at the viewpoints and at interpretive site #7 (total of 7 each). This will provide a balance of these amenities throughout the Park. Bike racks (5 stalls each) will be provided at both Park entry nodes.

- *Park Maps* – a significant map board will be provided at both Park entry nodes. The map board should include maps of the Park and the Waskasoo Trail network. As part of the Park management program the City should produce and provide simple handout maps of the Park and the interpretive nodes that people can be encouraged to return to the node for reuse by others.

- *Lighting* – no lighting is proposed within the Park. ***Note: (does this City wish to consider some lighting at highway bridge, parking lot, Park entry nodes or even the top of bank trail and viewpoints?)***

3.5 Environmental Protection

Low impact development within Maskepetoon is intended to provide controlled and managed public access to this unique environmental resource, while at the same time curbing activities that have been damaging the resource. To achieve this objective, key environmental protection concerns have been address in the design. The related management requirements are addressed in Section 3.6.

- *Park Access Controls* – to address illegitimate ATV use, a 2.4 m height, page-wire wildlife fence will be installed along the entire edge of the Park parallel to the QE2 highway. At the south end of the Park the fence will angle back towards the edge of the bridge with a locked gate provided for emergency and service access. At the north end of the Park the fence will turn east and run to the base of the escarpment. Wood bollards are recommended from the south entry node to the edge of the river to restrict ATV access while still accommodating wildlife movement (Figure 03), as well as at the north end to provide access along the trail.

- *Internal Access Limitations* – to keep users from wandering or forming new trails through some of the sensitive ecosystems, signs will be used to encourage users to stay on the trail. If new paths form they should be temporarily blocked and signed. Along boardwalks, railings will be provided to keep people on the trail.

- *Drainage* – implement a continuing monitoring program for the erosion channel, as discussed in Section 2.2. If erosion resumes, implement the reclamation recommendations outlined in the 1997 AGRA study. If the fen areas experience significant drying (beyond typical fluctuations), obtain guidance of a fen specialist. Mitigation options may include augmenting groundwater with diffused application of surface water.

- Wildlife Refuge– by developing the trail network in the east half of the Park, a "safe area" has been created for wildlife. Wildlife will be free to move throughout the Park as they do now but they will be able to find easy refuge away from user noise and activity.

- *Flood Issues* – for the most part, proposed development has been situated outside of the major flood plain channel which occurred during the 2005 flood. A short trail link to viewpoint D has been proposed with minimal infrastructure to provide an important view and interpretive opportunity.

- *River Access* - access to the Park via the river (paddlers and ATV users) will be difficult to control without installing a continuous fence along the south and eastern boundaries of the Park. This is not desired and so a few existing access locations will be blocked with bollards and signed to indicate that vehicle access is not allowed due to the sensitivity of the Park. Temporary access controls and signs may be required as a management tool to block illegal access points.

- *Highway Development* – The proposed highway widening will likely encroach on the western edge of the Park, but no Park infrastructure has been proposed in the area of potential impact. Impacts to park users will be minimal but there may be short and long terms impacts to wildlife related to both the proposed widening and centre median lighting. As indicated, the highway widening

provides an opportunity for the City to partner with AIT to have a pedestrian bridge designed and constructed as part of the widening.

- *Highway Access* – addressing the issue of eliminating the illegal access to the Park and the river from the QE2 is beyond the scope of this project and will require a coordinated effort from AIT, the City, the County, and the RCMP. As long as the access remains, the consequences of the activity are not enforced, and other proper locations for the various activities are not provided, the environmental impacts will continue to occur. By blocking access into the Park with a fence along the west boundary, maintaining the controls, providing infrastructure for increased use by pedestrians, and by providing signage to encourage responsible behaviour, the City will be taking an important first step to reduce the illegal activities.

3.6 Management

In support of the short and long term objectives for the protection and the development of Maskepetoon Park, the following management guidelines have been prepared. It is important to note that the value and success of regular and ongoing management in the protection of Maskepetoon has been evidenced by the temporary access controls which have been installed and maintained by the Red Deer River Naturalists over the last two years. Combined with the signage and management efforts provided by the City, these controls have resulted in a significant decrease in the environmental impacts within the Park. These measures and the management by the concerned citizens has also demonstrated the benefits of partnerships with community groups in the management of public parkland for the benefit of all residents.

- *Maintaining Access Controls* – all of the access controls (fences, bollards and signs) should be checked on a weekly basis by City staff during other maintenance activities (ie. trash pickup) and then repaired as soon as possible.

- *Eliminating Highway Access* – as indicated this will require a coordinated effort beginning with a comprehensive design strategy and then supported by bylaw enforcement.

- *Education* –responsible behaviour will be encouraged through major signs at the entry nodes, and minor signs at key locations on the edges of the Park. Educational programs through the Waskasoo Park Interpretive Program will be important to teach school kids and other residents about the environmental importance and values of the Park. A marketing program through local media during final design and development of the Park should also be utilized by the City to raise awareness.

- *Restoration* – if illegal access and related impacts occur, there should be a budget for immediate and ongoing restoration of damaged areas. The areas should be temporarily blocked (perhaps one season) and restored. A budget will need to be maintained to provide for this work (see Section 4.2). This would be a good opportunity to partner with the Red Deer River Naturalists in an arrangement where the City provides the funds and/or materials and the volunteers construct and maintain the restoration works.

- *Bylaw Enforcement* – management is typically only as good as enforcement and the City faces challenges in having sufficient budget or resources to provide

consistent enforcement through the extensive Waskasoo Park System. AS the Park is developed regular enforcement will greatly assist overall management efforts and reduce environmental impacts.

- *Emergency Access* – due to the escarpment, the proposed boardwalk and bridges, access by emergency vehicles into the Park will not be possible. An ATV (or skidoo in winter) could be used to provide emergency access along the trails. Emergency vehicles, in particular EMS, will be able to get to the two Park entry nodes. Location markers should be provided on interpretive signs so that users can more easily provide an exact location to emergency operators.

- *Partnerships* – as indicated above an informal partnership between the City and the Red Deer River Naturalists (RDRN) has greatly reduced ATV impacts within the Park. It may be beneficial for the partnership to be formalized so that the City can benefit from volunteer assistance by the RDRN while providing funds for materials.

- *Weed Management* – recent weed surveys have been conducted by members of the Red Deer Rier Naturalists. Previous studies and plant lists include weed species but the incidence and variety appears to be increasing. It is likely that weeds are introduced into the Park b ATV's transporting seed and disturbing soils, providing opportunity for weed establishment. With heavy equipment accessing the river banks through Maskepetoon Park for the River training project, there is a risk of increased weed introduction and establishment particularly if topsoil is brought in from off-site as part of reclamation activities. It is recommended that inspections and weed control be done in spring 2008 and continuing until native vegetation is established along the reclaimed haul road. Natural weed control is recommended (handpicking or cutting) throughout the Park, though targeted use of non-residual chemical controls may be necessary.

- *Maintenance* – regular maintenance within the Park will be required for trash removal, trail repairs, restoration, and maintaining the access controls. Current City Parks maintenance standards can be utilized.

4.0 Implementation

4.1 Capital Costs

Capital costs for the proposed development of Maskepetoon Park have been estimated based on measurement of the extent of proposed materials and features with an allowance given for some items based on experience with similar projects. All costs are given in 2007 dollars with a contingency of 25% to cover future refinements in project scope as well as for future detailed design. Inflation values have not been added and would need to be defined during the budget process, in advance of detailed design.

Table 4.1: Estimated Capital Costs

Item	Description	Notes	Units	Quantity	Unit Price	Total
1.0	Gravel Parking Lot	Incl. grading, gravel, curb stops, landscaping	m^2	750.0	$ 110.00	$ 82,500.00
2.0	Washroom	Incl. prefabricated double stall washroom building and vault	Lump Sum	1.0	$ 32,000.00	$ 32,000.00
3.0	Paved Trail - Parking to Ex. Top of Bank Trail	Incl. excavation, granular base, asphalt, directional signage	Lin. M	200.0	$ 240.00	$ 48,000.00
4.0	Restoration of Old Road	Incl. gravel salvage, aeration, topsoil, seeding and seedling planting	m^2	1300.0	$ 45.00	$ 58,500.00
5.0	Viewpoint A & Interpretive No.1	Incl. structural support, wood deck & railing, Interp. Sign, paved trail link,	Lump Sum	1.0	$ 80,000.00	$ 80,000.00
6.0	Viewpoint B & Interpretive No.2 w/ paved trail access	Incl. structural support, wood deck & railing, Interp. Sign, paved trail link	Lump Sum	1.0	$ 80,000.00	$ 80,000.00
7.0	Paved Trail - Viewpoint B to Entry Node	Incl. grading, granular base, asphalt, & post & rail fence	Lin. M	35.0	$ 290.00	$ 10,150.00
8.0	Trail Entry Nodes	Incl: railings, bollards, map board, bikeracks	Each	2.0	$ 55,000.00	$ 110,000.00
9.0	Stairs	Incl. structural, wood stairs, deck & railing, erosion controls, restoration	Lump Sum	1.0	$180,000.00	$ 180,000.00
10.0	Nature Trail - upgraded ex. Paths	Incl: clearing (as required), grading, granular	Lin. M	1500.0	$ 70.00	$ 105,000.00
11.0	Nature Trail - new	Incl: clearing, grading, granular	Lin. M	1570.0	$ 90.00	$ 141,300.00
12.0	Pedestrian Bridges	Incl. concrete abutment, prefabricated wood bridge with railing	Each	3.0	$ 40,000.00	$ 120,000.00
13.0	Boardwalk	Incl. screw iles , substructure, wood boardwalk with railing	Lin. M	190.0	$ 1,800.00	$ 342,000.00
14.0	Furnishings	Benches (7) and Trash/Recycling Receptacles (7)	Each	14.0	$ 1,200.00	$ 16,800.00
15.0	Interpretive Nodes with Signs (3-7, 9-10, 12)	Incl. Gravel node with wood railing and interpretive sign	Each	8.0	$ 8,500.00	$ 68,000.00
16.0	Viewpoint C & Interpretive No.8	Incl. wood deck & railing, Interp. Sign, paved trail link,	Lump Sum	1.0	$ 28,000.00	$ 28,000.00
17.0	Viewpoint D & Interpretive No.11	Incl. Gravel node with wood railing and interpretive sign	Lump Sum	1.0	$ 12,000.00	$ 12,000.00
18.0	Existing Paths Closures & Restoration	Incl. wood fence, sign, restoration planting	m^2	3000.0	$ 30.00	$ 90,000.00
19.0	Park Boundary Fencing	Inc. 2.4 m ht. page wire fence and posts	Lin. M	1300.0	$ 75.00	$ 97,500.00
20.0	Bollards	Incl. Wood bollard at 1.2 m on centre	Each	150.0	$ 80.00	$ 12,000.00
21.0	Restoration and Enhancement Planting	Allowance for seedling tree and shrub planting	Allowance	1.0	$ 80,000.00	$ 80,000.00
22.0	River Crossing Pedestrian Bridge	Pedestrian bridge hung below widened highway bridge. Incl. ped ramp	Proposed as part of future QE2 Highway widening			$ -
					Subtotal	**$ 1,793,750.00**
					25% Contingency & Fees	$ 448,437.50
					PROJECT TOTAL	**$ 2,242,187.50**

4.2 Phasing Staging

Based on input from the steering committee the following phasing strategy has been proposed. The strategy has been based on consideration of several key development factors: developing a logical sequence of construction that will take advantage of the access and equipment of the river training project, ensuring access controls are installed early to visibly establish and reinforce park boundaries and the overall objective of minimizing environmental impacts. Based on these factors, three development phases are being recommended.

(Note: phasing to be discussed with committee following report review.)

- *Phase One*
- *Phase Two*
- *Phase Three*
- *Future*

4.3 Park Status

The Maskepetoon Park Steering Committee expressed a desire to see the Park status "upgraded" from a Natural Area to another classification. There is currently no formal park classification program or guideline in place for The City of Red Deer. The following park and protected area classifications are summarized from the Provincial program, Alberta Special Places 2000:

Ecological Reserves preserve and protect natural heritage in an undisturbed state for scientific research and education

- Ecological reserves contain representative, rare and fragile landscapes, plants, animals and geological features.
- The primary intent of this class is strict preservation of natural ecosystems, habitats and features, and associated biodiversity.
- Ecological reserves serve as outdoor laboratories and classrooms for scientific studies related to the natural environment.
- Public access to ecological reserves is by foot only; public roads and other facilities do not normally exist and will not be developed.
- Most ecological reserves are open to the public for low-impact activities such as photography and wildlife viewing

Parks preserve natural heritage; they support outdoor recreation, heritage tourism and natural heritage appreciation activities that depend upon and are compatible with environmental protection. Provincial parks protect both natural and cultural landscapes and features.

- Range of outdoor recreation facilities, road access, and interpretive and educational programs and facilities available to visitors
- Outdoor recreation activities that promote appreciation of a park's natural heritage and cultural features are encouraged.
- Provincial parks offer a variety of outdoor recreation opportunities and support facilities.
- Interpretive and educational programs that enhance visitor understanding and appreciation of, and respect for, Alberta's natural heritage (without damaging

natural values) are offered in some provincial parks; these programs serve visitors of diverse interests, ages, physical capabilities and outdoor skills.

Natural Areas preserve and protect sites of local significance and provide opportunities for low-impact recreation and nature appreciation activities.

- Natural areas include natural and near-natural landscapes of regional and local importance for nature-based recreation and heritage appreciation.
- Most natural areas have no facilities and in those that do, facilities are minimal and consist mainly of parking areas and trails.

Recreation Areas support outdoor recreation and tourism; they often provide access to lakes, rivers, reservoirs and adjacent Crown land.

- Recreation areas support a range of outdoor activities in natural, modified and man-made settings.
- They are managed with outdoor recreation as the primary objective.
- Some areas are intensively developed, while others remain largely undeveloped.
- Many recreation areas play a significant role in management of adjacent Crown lands and waters by localizing the impact of development and serving as staging areas.

The vision resulting from the Maskepetoon Park Steering Committee meetings and discussions seems to be most closely aligned with the classification of Natural Area; a natural area of regional importance with nature-based recreation and heritage appreciation with minimal facilities. It is recommended that the existing classification be retained and the name be Maskepetoon Natural Area. This name will serve to remind visitors that the area is an ecological resource and a place to enjoy passive recreation in a natural surrounding.

Sanctuary - The Gaetz Lakes Sanctuary was designated by the Dominion Parks Branch (now Parks Canada) as Alberta's first, and still one of only four, federal migratory bird sanctuaries. This happened in 1924, as the result of lobbying by the public in Red Deer. At the time, the Sanctuary was in the County, not the City. (It was later annexed into the City.) Environment Canada - Canadian Wildlife Service is in charge of federal bird sanctuaries now.

The federal government does not own the Sanctuary, however, it is legally designated and protected as the Red Deer Migratory Bird Sanctuary. The City owns it, and it is part of the Gaetz Lakes Park which is part of the Waskasoo Park system. There is no special municipal protection of the Sanctuary, apart from the usual park bylaws. The Waskasoo Environmental Education Society (WEES - formerly the Normandeau Society) manages the Sanctuary on contract for the City. The federal regulations are mostly "status", rather than any real protection. They make people realize it is a special place, rather than doing anything above and beyond what the City does or doesn't do. It is a City sanctuary in name only, but is looked at as a sanctuary because the people of Red Deer have always valued it and wanted to protect it.

Based on the overview of the various park status categories, it is recommended that the City formally adopt and retain ‘Natural Area’ as the designation for Maskepetoon.

5.0 Summary

Maskepetoon Natural Area is an important environmental resource in the Red Deer River Valley and within the City's Waskasoo Park system. With the development of formal natural trails, viewpoints and interpretive opportunities, Maskepetoon will also become an important recreational and educational resource for the citizens of Red Deer.

This master plan will provide the City of Red Deer with a framework for the short term implementation and the long term management of the Natural Area. The master plan provides a clear guide for budgeting and a flexible strategy for ensuring that implementation can occur in a logical, phased approach that will protect and restore the natural resources while opening the area to managed human enjoyment.

Appendix A

Public Open House Summary

(to be provided with final report)