

# 4

## Rouge North Management Plan

### 4.0 ROUGE NORTH MANAGEMENT PLAN

The timeline for the implementation of the Rouge North Management Plan is envisioned in terms of decades rather than months or years. Consequently, a staged and evolutionary Management Plan is proposed, which is focused on protecting the valuable resources within the study area, ultimately encompassing these features within a continuous system of corridors, which will comprise Rouge Park. Clearly, the immediate implementation of those portions of Rouge Park located on lands already in public ownership is a priority to initiate momentum and establish an identity for Rouge Park within the communities of Markham, Whitchurch-Stouffville and Richmond Hill. However, it is also a priority to initiate the implementation of the various programs proposed to preserve and enhance the ecological integrity of the river system. The importance of the implementation of these initiatives has been recognized, leading to the establishment of the Rouge Park Stewardship Program during the latter stages of refining this document. The following sections provide a description of the Management Plan and its various strategies and components.

#### 4.1 ROUGE PARK NORTH DEFINITIONS, BOUNDARIES AND MANAGEMENT AREAS

As described in the Conceptual Approach (Section 3.2), the strategy for the implementation of the Rouge North Management Plan is founded on an approach that employs a suite of 'Management Areas' and defined boundaries determined by land ownership, natural and cultural resource sensitivity, community context and development status. Figures 4.2 and 4.8, 'Rouge North Management Plan - Initial Plan' and 'Long Term Composite Plan' respectively, provide an illustration of the boundaries and Study Areas within the Management Plan. A description of each of the Management Zones is provided in the following sections.

##### 4.1.1 Rouge Park North

The Rouge Park North designation is applied to lands in public ownership within (and may include public lands adjacent to) the corridors of the Rouge River and its tributaries within the Rouge Park North Study Area, with the exception of the lands owned by Transport Canada along the Little Rouge Creek corridor. These lands are unique within the plan and are addressed within Section 4.1.1.6.

Lands bearing the Rouge Park North designation include hazard lands, valleylands and table lands along the stream corridors, as defined by the ecological criteria, and may also include parks and open spaces on adjacent tablelands at the discretion of the public landowner agency. Although ownership of the Rouge Park North designated lands will remain unchanged, Rouge Park North lands will be managed by the municipality or Conservation Authority in consultation with the Rouge Park Alliance. Figure 4.1 provides a schematic illustration of the Rouge Park North and Figure 4.2 illustrates Rouge Park North lands within the Rouge River watershed.

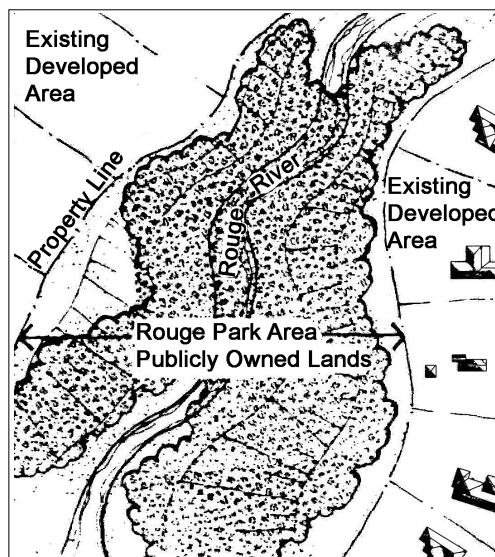


Figure 4.1: Rouge Park North Schematic-Rouge Park North.



In the initial stages of implementing the plan, it will be a priority to identify lands designated as Rouge Park North as 'Rouge Park'. This identification will heighten public awareness of the initiative and initiate the recognition of the new emerging park as an extension of Rouge Park, south of Steeles Avenue. Signage should bear identifiers of both the Rouge Park Alliance and the ownership / management entity. The implementation and identification of Rouge Park North is an important first step in the process of building the park over the long term.

The process of implementing the northward extension of the Rouge Park has been initiated with the dedication of the former Ontario Realty Corporation lands situated along Little Rouge Creek as Rouge Park establishing the southern segment of the terrestrial corridor along the length of Little Rouge Creek.

#### **4.1.1.1 Park Management Zoning**

In recognition of the goals and objectives established for the Rouge Park, specific areas of the park must be designated to accommodate specific uses or perform specific functions. In response, the Rouge Park North is subdivided into a number of Management Zones, which have been defined on the basis of the following:

- Status of existing natural and cultural heritage resources;
- Potential to achieve ecological objectives through restoration and enhancement;
- Present uses and facilities;
- Context within the community; and
- Context within the overall Rouge Park.

The Management Zone designations were derived from those defined in the Rouge Park Management Plan (1994) with the exception of the Access Zone designation. This designation has not been adopted since, unlike the Rouge Park south of Steeles Avenue, the Rouge Park North is traversed by a number of road crossings and linked to pedestrian circulation systems throughout adjacent communities affording opportunities for access at a variety of locations. In addition, a zone designated as 'Managed Area' has been added to the suite of Management Zones in recognition of the fact that lands which encompass active and passive recreational facilities exist within areas which are intended to be included in the Rouge Park North. As well, the designation 'Natural Area' has been created to address Rouge Park North lands which do not possess the potential to function as Nature Reserves due to size, fragmentation resulting from existing infrastructure, or context, but can provide ecological benefits or support the function and sustainability of areas which are designated as 'Nature Reserve'.

Since the Rouge Park North will be comprised of a mosaic of parcels of publicly owned lands, each with a distinct character, history, program of use and diversity of natural and cultural heritage resources, Rouge Park Management Zones have been defined on the basis of natural and cultural heritage objectives, as well as requirements to fulfil community needs and aspirations, under the following designations:

- Nature Reserve
- Natural Area
- Restoration Area
- Managed Area
- Agricultural Reserve

In addition to these Management Zone designations, **Special Management Zones** are also identified. Descriptions of each of the park zones and their associated management policies are provided in the following sections. Park zones are illustrated in Figure 4.3.

Compatible uses within the Rouge Park will be defined based upon the criteria set out in the following sections with the objective of achieving the vision, goal and objectives of the Rouge North Management Plan. The primary purpose of the Rouge Park corridor is to protect, restore and enhance the natural, scenic and cultural

values of the park in an ecosystem context. Restorative works should be the main activity within this boundary with a focus on sustaining and restoring the ecological function of the Rouge Park (e.g. species diversity, wildlife migration or passage, plant propagation, population response to environmental change, air or water purification, feeding, shelter, habitat, maintenance of groundwater systems, etc.) With these goals in mind, the Rouge Park Alliance requested that the categories below be included to inform decision-makers as to what activities will or will not be allowed within the Rouge Park boundary.

Activities within the valley lands will be determined by the Rouge Park Alliance in consultation with the TRCA, the municipality and relevant stakeholders, policies and legislation on a case by case basis. The zoning management recommendations described in the following sections will direct the specific determination of appropriate activities within the Rouge Park. Examples of compatible activities and facilities which may be appropriate within the Rouge Park boundary include but are not limited to the following:

- Low impact trails, viewing and interpretive areas in non-sensitive areas (low impact meaning permeable surface, natural construction materials and minimal footprint);
- Creation or restoration of natural vegetation communities utilizing indigenous native species;
- Composting and mulching associated with vegetation restoration initiatives;
- Active management of vegetation communities including the removal of non-native, invasive species and planting of native vegetation compatible with the area;
- Aquatic habitat enhancement, which may include the creation of wetlands, off-line habitat ponds and other initiatives aimed at enhancing the health and diversity of aquatic communities;
- Terrestrial habitat enhancement initiatives, which may include the construction of habitat structures such as snake hibernacula, bird boxes and nesting areas, brush bundles, etc.

Examples of non-compatible activities and facilities within the Rouge Park boundary include, but are not limited to, the following:

- Swimming pools or discharge areas for swimming pools;
- Impervious surfaces;
- Garbage dumping or loading of slopes;
- Stormwater management facilities which incorporate hard engineered structures, geometric forms, or are not integrated into the natural landscape in accordance with Section 6.4.2.1.;
- Parking lots.

Refer to subsequent sections for criteria for designation, objectives and management recommendations for each Park Management Zone and Sections 6.4.2.1 , 6.4.2.2 and 6.4.2.3 for guidelines related to stormwater management, servicing and transportation.

Notwithstanding the above, uses or facilities identified as non-compatible above may be appropriate within the Rouge Park under the following circumstances:

### ***Existing Facilities***

Several public land holdings in the watershed are proposed to become part of the Rouge Park including Bruce's Mill, Rawlinson Park, Milne Park and other municipal parks which are situated proximate to the valley and stream corridors. These existing parks include a range of facilities including parking lots, trails and buildings. These land holdings also provide recreational, interpretive and educational opportunities.

Several of these land holdings have been designated as "Special Management Zones" and others, not specifically identified at this time, may be considered to be designated as "Special Management Zones" in the future and be subject to a detailed master planning process as set out in Section 4.1.1. If based on the vision, goals, and objectives described in Section 2.2.

Existing uses and facilities defined as non-compatible above may persist in advance of the master planning process being completed. In the meantime, the public landowner or managing authority will be encouraged to manage the property in accordance with the objectives of the Rouge North Management Plan.

### ***Proposed Parks Situated Outside of the Rouge Park as Defined Through the Boundary Definition Process***

With the objective of increasing the size of, and diversifying uses within the Rouge Park, municipalities will be encouraged to designate new parks which are situated in close proximity to the valley corridors as “Rouge Park”. These new parks may include active recreational facilities, parking lots and other amenities.

Once an agreement to designate one of these parks as “Rouge Park” is reached, appropriate Rouge Park Management Zone designations should be determined as set out in Section 4.1.1.4. Once appropriate Management Zone designations are determined, the lands shall be managed in accordance with the recommendations defined for each Management Zone.

### ***Environmental Protection***

In certain circumstances it may be necessary to construct hard surface trails, parking lots and other facilities as a means to accommodate high levels of use and mitigate erosion, loss of vegetation and other impacts on the environment. Consequently, a non-compatible use may be implemented with the objective of protecting the park environment subject to the approval of the Rouge Park Alliance.

#### ***4.1.1.1a Nature Reserve***

Lands designated as ‘Nature Reserve’ are considered to be the most ecologically significant and sensitive lands within the park and merit the highest degree of protection to ensure that the ecological sustainability of the area is preserved and enhanced. Nature Reserves may also include areas, which due to their ecological context, possess the potential to enhance the breadth of function of ecologically significant areas. Uses within Nature Reserve areas are limited to low impact, permeable surface walking or hiking trails and viewing and interpretive areas, where environmental studies have demonstrated that these uses will not result in the degradation of the resources of the site.

### ***Criteria for Designation***

- Areas afforded the Nature Reserve designation in the park include:
  - Environmentally significant and sensitive areas;
  - Areas of natural or scientific interest;
  - Locally significant areas and other woodlots that are greater than 1ha in area, which are within 100m of a stream corridor;
  - Wetlands, river and stream corridors;
  - Areas of hydrogeological importance;
  - Distinct landforms;
  - Unique vegetation communities;
  - Habitats for vulnerable, rare, threatened and endangered species and species of concern;
  - Primary natural features identified within the existing background studies or through the course of defining Rouge Park North through the planning process; and
  - Areas of critical importance to achieve terrestrial and aquatic habitat objectives, including corridor and linkage functions.

### ***Primary Objective***

- To protect and enhance the ecological integrity and ecosystem function of primary natural resource areas.
- To protect and enhance terrestrial and aquatic habitat and corridor functions.

### ***Management Recommendations***

- Undertake detailed technical studies, where required, to supplement existing inventory information with the objective of identifying sensitive features and functions, determining the degree of sensitivity, and identifying requirements for the protection of natural resources and opportunities for their enhancement.
- Formulate a strategy for managing resources in accordance with the objectives of the Nature Reserve designation for each area.
- Permitted uses include low impact walking, hiking or cross country skiing trails and viewing and interpretive facilities, subject to environmental studies.
- Permitted activities include management initiatives focused on the restoration and enhancement of natural heritage resources and ecological functions.

#### ***4.1.1.1b Natural Areas***

Natural Areas include lands that encompass a range of environmental features, including wetlands or woodlots, which function as viable local habitat areas but are constrained due to size, context, degree of isolation and other factors.

### ***Criteria for Designation***

- Areas which do not possess significant or sensitive natural resources but:
  - Contribute to the health and support the function of Nature Reserve Areas; and
  - Provide the opportunity to achieve terrestrial and aquatic habitat objectives, but are subject to fundamental limitations related to context, land area, fragmentation or human disturbance.

### ***Primary Objective***

- To maximize the potential to achieve ecological objectives within the limitations imposed by the configuration, characteristics or context of the site.

### ***Management Recommendations***

- Identify and protect resources that contribute to the achievement of terrestrial and aquatic habitat objectives.
- Implement initiatives to enhance ecosystem function appropriate to community context .
- Permitted uses within Natural Areas include low impact, permeable surface multi-use trails, as well as seating, viewing and interpretive areas, subject to environmental studies.

#### ***4.1.1.1c Restoration Area***

Restoration Areas are proposed on lands where degradation of the valley or stream corridor has occurred or where initiatives should be undertaken to enhance the integrity and function of the ecosystem of the Rouge Park. The Restoration Area designation is a temporary designation and will be re-assigned from site to site based upon the findings of the monitoring program or as new lands are brought into public ownership.

### ***Criteria for Designation***

- Areas which afford limited ecological benefits due to degradation, including loss of native vegetation as a result of previous land use practices; or
- Areas which possess the potential to expand, enhance or buffer existing Nature Reserves or form new Nature Reserves; or
- Areas which possess the potential to expand or enhance Natural Areas or form potential new Natural Areas;
- Valley and stream corridors or wooded areas which are not presently designated as Nature Reserves;
- Areas that provide potential terrestrial corridors or linkages between Natural Areas or Nature Reserves;
- Areas which exhibit evidence of shallow groundwater conditions.

### ***Primary Objective***

- Restore or enhance ecological health and function, and terrestrial and aquatic habitats.

### ***Management Recommendations***

- Undertake studies, as required, to supplement existing information aimed at directing the implementation of restoration initiatives within restoration areas, including, but not limited to, a vegetation management study.
- Implement initiatives designed to:
  - Regenerate modified or man-made channels;
  - Naturalize disturbed landscapes;
  - Stabilize eroded areas;
  - Remove barriers to fish migration;
  - Improve surface and groundwater quality;
  - Create or enhance aquatic habitat;
  - Establish linkages and enhance corridor function;
  - Expand native forest cover;
  - Manage invasive alien vegetation species; and
  - Improve biodiversity.
- Permitted activities in Restoration Areas include low impact multi-purpose trails, interpretation of restoration initiatives and activities associated with the planting, establishment and maintenance of restoration initiatives.

#### ***4.1.1.1d Managed Areas***

Areas assigned this designation are managed to afford active and passive recreational opportunities. Managed Areas will typically be located outside of valley corridor areas, but may be located within the floodplain subject to the approval of relevant regulatory agencies and the Rouge Park Alliance. Managed Areas will not include wooded areas, wetlands or areas with other environmental features and must be separated from Nature Reserves by a Natural Area buffer. The width and composition of the buffer is to be determined based on an assessment of the sensitivities of the adjacent Nature Reserve and the potential for impact from the proposed use of the Managed Area.

### ***Criteria for Designation***

- Areas which have been identified as possessing no significant or sensitive natural or ecological resources and limited potential to enhance the ecological integrity of Nature Reserves;
- Exist as, or are proposed to function as, recreational resources or activity areas within the community.

### ***Primary Objective***

- To maximize benefit to the park's ecosystem while accommodating requirements for use.

### ***Management Recommendations***

- Implement a maintenance program, specific to each area, which is designed to mitigate potential impact on the park environment while facilitating continued use in accordance with the Management Zoning designation applied to the site.
- Notwithstanding the list of non-compatible uses set out in Section 4.1.1.1, Managed Areas may accommodate a range of passive and active recreational uses and facilities, including hard surface trails, sports fields, picnic areas, parking areas and support facilities, subject to environmental studies.

#### ***4.1.1.1e Agricultural Reserve***

Areas designated as Agricultural Reserves exist as, or are proposed to support, agricultural land uses within the park. Agricultural Reserves will be located only on tablelands, with the exception of built heritage resources, and on lands where no significant or sensitive natural or ecological resources, and limited potential to enhance the ecological integrity of Nature Reserves exists.

### ***Criteria for Designation***

- Existing rural agricultural lands that are of important cultural heritage value and which can contribute to the achievement of park objectives, or function as bufferlands adjacent to significant resources and corridors.

### ***Primary Objective***

- To integrate agricultural heritage resources as cultural amenities, which simultaneously contribute to the achievement of ecological objectives within Rouge Park North.

### ***Management Recommendations***

- Maintain agricultural operations and promote conservation tillage and agricultural Best Management Practices.
- Protect and restore existing heritage structures where associated with Agriculture.
- Provide trail access, where appropriate, to complete trail links or protect adjacent sensitive ecological resources.
- Implement, where appropriate, interpretive programs aimed at heightening public awareness of the agricultural heritage of the area.
- Uses permitted within Agricultural Reserves include agricultural activities, trails and interpretive facilities, subject to environmental studies.

#### ***4.1.1.1f Special Management Zones***

In addition to the areas encompassed by the Management Zones described in the previous section, certain areas within Rouge Park North require special consideration. These areas are designated as Special Management Zones due to their unique situation within the park or the community and the need to address a number of issues related to appropriate range, type and level of use as well as programming and environmental management. These areas include:

- Milne Lake Conservation Area, including the Parkway Belt West lands;
- Bruce's Mill Conservation Area;
- Cedarena;
- Cedar Grove Community Park;

- Berczy Creek through Historic Unionville and Toogood Pond;
- The Little Rouge Creek corridor adjacent to Cornell and south to Steeles Avenue; and
- Beaver Creek / Rouge River through Markham Centre.

Management recommendations for Special Management Zones include:

- Undertake the preparation of detailed master plans to direct the long term development and restoration of these designated areas; and/or
- Undertake the development of policies to direct the programming, management, administration and maintenance of these designated areas.

Detailed management plans for Special Management Areas will be developed by the public landowner or managing agency in partnership with the Rouge Park Alliance. The process of developing detailed management plans for Special Management Areas will include a detailed inventory of natural and cultural heritage resources and functions, an evaluation of management options and public consultation.

Figure 4.3 illustrates the location of the various zones and areas within Rouge Park North.

#### **4.1.1.2 Little Rouge Creek Corridor - Special Provisions**

The overriding goal in creating the Little Rouge Creek Corridor is to establish a viable terrestrial corridor with interior forest habitat conditions. To achieve this goal, it is important that the development of site-specific management plans and the stipulation of Park Management Zoning be undertaken with a focus on requirements and conditions necessary to achieve corridor functions. Accordingly, the following criteria will be considered when developing management plans or determining Park Management Zones within the Little Rouge Creek Corridor.

- Compatible land uses within the Little Rouge Creek Corridor will be determined in the course of developing detailed management plans on a site-specific basis in accordance with Section 4.1.1.1f and TRCA's Valley and Stream Corridor Management Program;
- The following areas will be protected:
  - Significant vegetation units;
  - Steep slopes or sensitive areas;
  - Sites of archaeological significance;
  - Restoration areas;
  - Sites that support important hydrogeological functions; and
  - Future recreational trail linkages or interpretation areas.
- A continuous forested corridor of at least 400 metres in width must be maintained, with compatible uses permitted on adjacent lands outside of the core wooded corridor;
- The use must not result in an increase in isolation of vegetation units within the park corridor; and
- The use must not result in a loss of forest interior conditions.

The suitability and appropriateness of locating compatible land uses within the 600 metre wide corridor will require consideration on a site-specific basis, and as defined in the Little Rouge Creek Corridor Management Plan, since this area is designated as a Special Management Zone. Additional studies to identify potential impacts on the park environment may be required, where deemed necessary by the Conservation Authority in partnership with the Alliance.

#### **4.1.1.3 Interpretive Opportunities in the Rouge Park North**

The implementation of interpretive programs and related facilities is recognized as a priority throughout the Rouge Park North as a means to achieve objectives related to the protection and enhancement of resources by



heightening public awareness. Opportunities exist to implement interpretive programs within each of the Park Management Zones, subject to an assessment of potential impacts on the park environment. The 'Rouge Park Interpretive Plan' identifies a range of opportunities and provides direction related to the implementation of interpretive programs throughout the Rouge Park. Interpretive programs in the Rouge Park North should be implemented by the Rouge Park Alliance and Alliance Partners in accordance with the recommendations of the Rouge Park Interpretive Plan.

#### **4.1.1.4 *Designating Park Management Zones in the Future***

As additional lands are brought into public ownership and designated as Rouge Park in the future, appropriate Park Management Zoning will need to be determined for each land holding. The process of defining the appropriate Park Management Zoning designation will be undertaken by the public landowner agency with guidance from the Rouge Park Alliance and Alliance Partners. The process will include the following components:

- An assessment of the natural and cultural heritage resources of the site to define ecological targets;
- An evaluation of the ecological context of the site focusing on both existing ecological function, as well as potential for enhancement;
- An evaluation of the context of the site within the community and related adjacent open space network;
- Consultation with the community;
- A comparison of the findings of the analyses undertaken, against the objectives and criteria provided for each Park Management Zone designation, to determine the appropriate Park Management Zoning designation.

Once the Park Management Zoning designation has been determined for a specific parcel, lands will be managed accordingly. Periodic reviews of Park Management Zoning for all Rouge Park lands will be undertaken as part of the cyclical review program discussed in Section 6.5.6.

#### **4.1.1.5 *Rouge Park - Little Rouge Creek Corridor***

In 1999, the Province of Ontario dedicated the Little Rouge Creek corridor lands to the Rouge Park. In addition, two provincially owned land parcels situated to the south of Milne Park and north of the Highway 407 Transitway were also dedicated. Figures 4.4 and 4.5 illustrate the extent of the lands to be included in the Rouge Park. The Little Rouge Creek corridor extends from Steeles Avenue northward, intersecting Reesor Road just north of Sixteenth Avenue, along Little Rouge Creek. The corridor also includes a parcel situated on the east side of Ninth Line between Major MacKenzie Drive and the Markham By-Pass. The configuration of the corridor was derived from the concept plan set out in the Draft Final Rouge North Management Plan (1997) and finalized through negotiation between the Rouge Park Alliance and the Ontario Realty Corporation.

The corridor has an average width of 600 metres with the objective of establishing a terrestrial corridor with interior forest conditions. The corridor includes extensions which provide linkages to the Petticoat Creek watershed and adjacent tableland woodlots. The corridor encompasses the hamlets of Cedar Grove and Locust Hill, as well as existing community amenities including Cedarena and Cedar Grove Community Park, which are owned by the Town of Markham. The Little Rouge Creek corridor is designated within the Management Plan Zoning as a 'Special Management Area'. Accordingly, the preparation of a detailed management plan is required to be undertaken.

The Rouge Park Alliance has initiated this process in consultation with Alliance Partners. The management plan should address the preservation and enhancement of natural and cultural heritage resources with the overriding goal of establishing a sustainable terrestrial corridor with interior forest conditions. The management plan must also recognize the importance of the hamlets, as well as the influences of adjacent land uses.

Consultation with residents of the hamlets and the community-at-large should be a key component in the process of generating the management plan for this important area.

With the dedication of the Little Rouge Creek corridor, the Province of Ontario has taken an important step towards the realization of a continuous Little Rouge Creek corridor, which extends from Lake Ontario to the Oak Ridges Moraine.

#### **4.1.1.6 Transport Canada Owned Lands**

The lands owned by the federal government and administered by Transport Canada are situated north of the Little Rouge Creek corridor recently designated as Rouge Park. The two issues to be addressed regarding the Transport Canada lands are described below.

##### ***The Linkage of the Little Rouge Creek Corridor West of Reesor Road and North of the Proposed Markham Bypass***

The Transport Canada lands include a segment of the Little Rouge Creek valley of approximately 1025m in length. This parcel is important in that it is a strategic link in the 600m wide Little Rouge Creek corridor and represents the only opportunity to achieve a continuous corridor along the river valley around a privately owned parcel of land to the south. The width of the corridor within this parcel ranges from approximately 300m at the eastern limit to approximately 600m at the western edge. The entire parcel occupies an area of approximately 50 hectares. The parcel encompasses the creek and the valley feature, as well as a 13.5 hectare woodlot and two smaller wooded areas. Due to the importance of its location and the extent of its resources, and to achieve the objective of creating a functional corridor along the length of Little Rouge Creek, this parcel should be retained in public ownership and be designated as Rouge Park North.

##### ***The Optional Park Corridor***

In defining the proposed Rouge Park north of Steeles Avenue, the Rouge Park Management Plan (1994) identified an 'optional park corridor' paralleling Little Rouge Creek through the federally owned lands. This optional corridor was to be comprised of a 600m wide link extending northward through the federally owned lands east of Highway 48. Once private lands are encountered north of the Whitchurch-Stouffville boundary, the optional park corridor is described as a 100-200m corridor along Little Rouge Creek. Within the context of the Rouge North Management Plan, the optional park corridor is recognized as an opportunity to achieve objectives related to public access, corridor function and trail linkage.

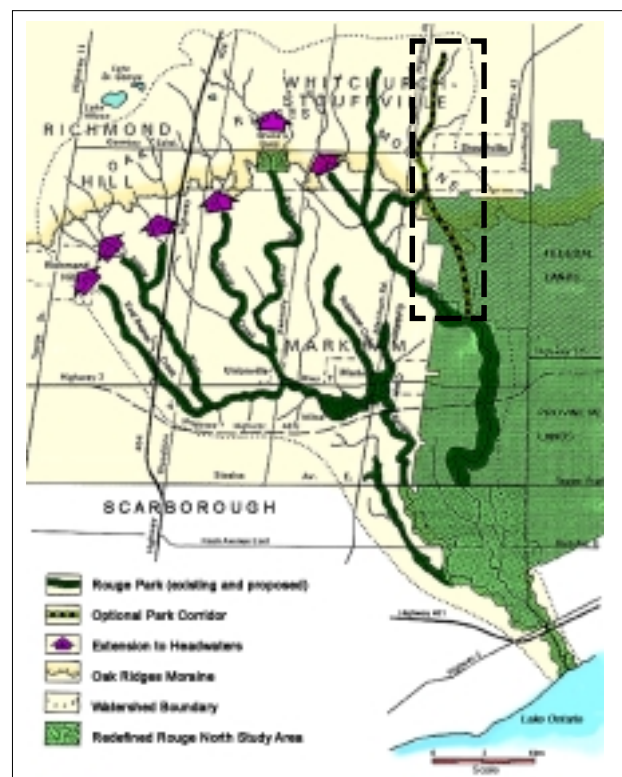


Figure 4.6: Optional Park Corridor.  
Source: Rouge Park Management Plan (1994).

At present, Transport Canada has stated that it is premature to designate the properties for non-airport uses until the land base requirements for the proposed airport have been determined. It is recommended that the Rouge Park Alliance continue to negotiate with Transport Canada to implement the optional park corridor through the federally owned lands as a priority. The actual alignment of the optional park corridor will have to be determined based upon an inventory of the site and through consultation with Transport Canada. The corridor should be configured to achieve the following:

- Establish connections between existing natural features;
- Follow the alignment of the tributaries and drainageways of Little Rouge Creek; and
- Provide linkages to adjacent trail systems.

The optional park corridor should be designed to function as a viable terrestrial corridor with interior forest conditions, and consequently, should be established with a width of approximately 600m. The implementation of the optional park corridor is a priority in the early stages of the process of building Rouge Park North, since it provides the opportunity to initiate the process of creating a viable terrestrial corridor linking the upper watershed to the portion of Rouge Park, south of Steeles Avenue. It is recommended that the optional park corridor be implemented through the negotiation of a long-term lease between Transport Canada and the Rouge Park Alliance, municipalities or the Conservation Authority. Negotiations continue with Transport Canada to identify a process to dedicate the portions of the federal airport lands for Rouge Park purposes.

Although the optional park corridor is a short-term priority, its implementation should not undermine the long-term objective of creating a continuous corridor along the length of the main branch of Little Rouge Creek. Once the Little Rouge Creek corridor is implemented, efforts should be made by the Rouge Park Alliance to retain the optional park corridor through negotiations with Transport Canada.

## ***4.2 FUTURE GROWTH AND EVOLUTION OF ROUGE PARK NORTH***

The existing available inventory information, related to the biophysical and ecological resources of the 340 square kilometre Rouge Park North study area, is not sufficiently comprehensive or detailed to facilitate the definition of an appropriate boundary for the Rouge Park throughout the entire watershed to ensure that the park objectives are achieved. Consequently, a method was generated to define the boundary of the park while ensuring that the resources essential to maintain the health and integrity of the park's ecosystem will be protected. This strategy is aimed at determining the limits of the park by first gaining a comprehensive understanding of the natural and cultural heritage resources of the study area within a staged process. Generally, a proposal for the development of lands within a designated area is the catalyst for the initiation of the process of defining the boundary of the future Rouge Park area. However, other means of bringing lands into the park are also defined. The planning process was designed to achieve the following key objectives:

- To identify natural and cultural heritage features and ecological functions which require protection to ensure that the integrity of the Rouge Park is maintained and enhanced over the long term.
- To protect these features once they are identified within the boundary of the future Rouge Park.
- To provide for the restoration and enhancement of natural heritage resources and ecological functions in order to achieve terrestrial and aquatic habitat objectives over the long term.

The methodologies for achieving these objectives are set out within this section. Section 6.0 - Implementation, describes the strategies recommended to bring lands identified within the boundary into public ownership as part of the Rouge Park.

### ***4.2.1 Definition of the Park Boundary within Established Communities and Urban Areas***

Within the existing urban areas of Markham, Richmond Hill, and Whitchurch-Stouffville, and the various hamlets throughout the study area, redevelopment, infill development and intensification will occur over time. Where redevelopment is proposed on lands adjacent the river and stream corridors encompassed within the limits of the study area, within existing urban areas as described in Section 2.4, the park boundary will be determined in accordance with the Official Plans of the Municipalities and with regard for Section 4.2 of the Toronto and Region Conservation Authority's Valley and Stream Corridor Management Program (1994).

Notwithstanding this, where draft plan approvals or site plan approvals have not been granted or when existing approvals are renewed, that the Rouge Park Alliance request municipalities to apply the ecological criteria to those areas within their Emerging Development Areas, with the objective that the boundaries of the Rouge Park in the Emerging Development Areas be based on the ecological criteria contained in the Rouge North Management Plan. Where ecological criteria do not exist, they will be developed in the future.

### ***4.2.2 Determination of the Park Boundary in Future Development Areas***

#### ***4.2.2.1 Rouge Park Study Areas***

The Rouge Park Study Area designation identifies an area within which investigations will be undertaken with the objective of identifying resources that should be encompassed within the Rouge Park to achieve specific ecological objectives. Rouge Park Study Areas are defined along the valley and stream corridors throughout the watershed outside of the existing urban areas.

The extent of the Rouge Park Study Area, as well as the criteria for studies to be undertaken to support the determination of the boundary of the Rouge Park within the Study Areas, are specific to three areas; Little Rouge Creek, the Middle Reaches and the Headwaters of the Rouge River system. The limits of the Rouge Park Study Areas are illustrated on Figure 4.8.

#### ***4.2.2.2 Function and Delineation of the Boundary for the Rouge Park Study Areas***

The extent of the Rouge Park Study Area for each of the three sub-areas noted above was determined based upon an understanding of the various components of the ecosystem of the Rouge River watershed, including stream and terrestrial corridor functions, hydrogeology, archaeology and other factors. The function of the Rouge Park Study Areas is to facilitate the determination of a boundary for Rouge Park North which ensures that the vision and objectives of Rouge Park are achieved related to the preservation and enhancement of existing natural and cultural heritage resources, ecological sustainability and human use.

A discussion of the justification for determining the limits of the Rouge Park Study Area for each of the three specific areas is provided in the Background Technical Appendix. The following provides a description of the limits of the three Rouge Park Study Areas.

##### ***Rouge Park Study Area - Middle Reaches (Figure 4.9)***

**Goal:** To sustain and enhance aquatic habitat resources to achieve targets set out in the Rouge River Fisheries Management Plan through the protection and enhancement of vegetation communities, baseflow, water quality and hydrological function, while accommodating additional Rouge Park objectives and recognizing the influences of future growth and existing urban development within the watershed.

**Description:** The area identified as the Rouge Park Study Area – Middle Reaches extends roughly from Major MacKenzie Drive northward to the 275 ASL elevation on the Oak Ridges Moraine, and encompasses the Rouge River as well as Berczy Creek, Bruce's Creek, Robinson Creek and their tributaries as illustrated

on Figure 4.14. The Middle Reaches Study Area includes all lands within 130m of the stable top of bank along the length of both sides of the valley plus the Additional Study Area described in a subsequent section.

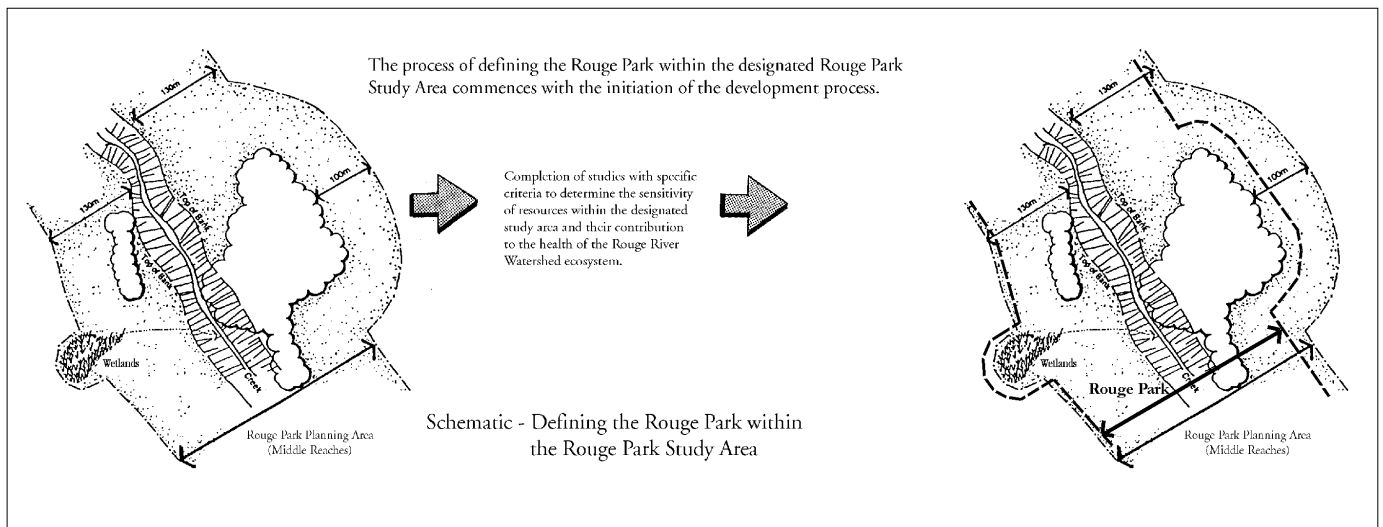


Figure 4.7: Schematic - Defining Rouge Park within the Rouge Park Study Area.

**Rouge Park Study Area - Little Rouge Creek** (Figure 4.13)

**Goal:** Establish a regional terrestrial corridor with interior forest habitat conditions that links Lake Ontario to the Oak Ridges Moraine along the Little Rouge Creek while sustaining and enhancing aquatic habitat resources.

**Description:** The Little Rouge Creek Study Area encompasses all lands within 400m of the centreline of Little Rouge Creek and its tributaries, as illustrated on Figure 4.14, on either side of the watercourse or 130m from the stable top of bank on either side of the valley, whichever is greater. The Little Rouge Creek Study Area also includes the Additional Study Area described in the following section. The extent of the Little Rouge Creek Study Area is illustrated on Figure 4.13.

**Rouge Park Study Area - Headwaters** (Figure 4.14)

**Goal:** Maintain the integrity of groundwater resources and hydrogeological functions within the headwaters while sustaining and enhancing aquatic and terrestrial habitat resources, recognizing that these are essential to the health of the Rouge River system and the sustainability of the Oak Ridges Moraine.

**Description:** The Rouge Park Study Area – Headwaters includes all lands above the 275 ASL contour (Hydrogeological Evaluation of the Oak Ridges Moraine Area, 1996:13) on the moraine, excluding existing urban areas and areas which are approved for development. The Headwaters Study Area also includes the Additional Study Area described below. The Headwaters Study Area is illustrated on Figure 4.14

**Additional Study Area** (Figures 4.9, 4.13 and 4.14)

**Goal:** To protect and enhance existing natural heritage features and functions and preserve existing significant cultural heritage resources within the Rouge Park.

**Description:** The Additional Study Area is designated to ensure that significant natural and cultural heritage resources, which extend beyond the above stated Study Area limits but are an integral part of the valley system, are encompassed within the future Rouge Park North. The Additional Study Area includes the resources described in the following section with a 100m extension to the Study Area. The

Middle Reaches, Headwaters and Little Rouge Creek Study Areas will be extended to include the Additional Study Area. The following features are encompassed by the Additional Study Area:

**Significant Resources** (are defined as ecologically important in terms of features, functions, presentation or amount, and contributing to the quality and diversity of the Rouge Park natural heritage system consistent with Policy 2.3 of the Provincial Policy Statement).

Significant Resources which qualify for inclusion in the Additional Study Area with a 100 metre extension to the Study Area from the edge of the feature include the following:

- Wetlands and wetland complexes which have not been classified or designated as Provincially Significant by the Ministry of Natural Resources;
- Woodlands and vegetation communities;
- Seepage zones and other areas exhibiting groundwater discharge;
- Rare, unique or endangered plant communities or wildlife habitats;
- Designated Environmentally Significant Areas (ESAs), Areas of Natural and / or Scientific Interest (ANSIs), Locally Significant Areas (LSAs) and Provincially Significant Wetlands (PSWs);
- Watercourses as defined by TRCA Valley and Stream Corridor Management Program criteria;
- Sites of archaeological or historic importance; and
- Species of concern.

Figures 4.9, 4.13 and 4.14 illustrate the general limits of the Rouge Park North Study Areas. The actual limits of the Study Areas will need to be further refined and determined on a site-specific level once the process is initiated for a specific area based upon the following:

- A detailed survey of the valley corridor and a measured setback from the stream, top of bank or 275 ASL contour, respective to the applicable Study Area designation;
- The identification of vegetation communities and other features as described above; and
- The delineation of the 100m setback from the defined edge of qualifying vegetation units and other features.

Once the limit of each Study Area has been defined at a detailed scale, the process of determining the park boundary within the Study Area can be initiated.

#### ***4.2.2.3 Rouge Park Study Area - Criteria for Defining the Park Boundary***

This section of the Management Plan defines the specific criteria for studies to be undertaken in order to determine the boundary of Rouge Park North within each of the three Study Areas. The importance of setting out specific criteria for each sub-area (Headwaters, Middle Reaches and Little Rouge Creek) is threefold. First, to streamline the process of determining the boundary; second, to ensure that investigations are undertaken in sufficient detail to determine the park boundary; and third, to ensure the assembly of a body of inventory information which is standardized across Rouge Park. The following sections describe the terms of reference for studies and criteria for determination of the park boundary within the Middle Reaches, Headwaters and Little Rouge Creek Study Areas.

#### 4.2.2.3a *Middle Reaches Study Area*

Background inventories of the watercourses within the Rouge North Study Area were the basis used to determine criteria required to define the boundary of the Rouge Park North. This science-based approach goes beyond defining the boundaries of a riparian corridor designed to protect the aquatic resources of a stream. The Rouge Park North boundary was considered to represent a special case where the definition of the park boundary should use both an ecosystem approach and one that emphasizes the importance of long-term sustainability and ecological integrity. The study team stressed defining the park boundary using criteria that would protect the integrity (read ecological function) of the riparian zone from three threats:

- the threat of encroaching development on adjacent lands, including loss of edge habitat, invasive species, exotics, harmful intrusion of people;
- the threat of changes in flows that accelerate natural rates of fluvial geomorphological stream processes within the riparian zone, de-stabilizing vegetation, accelerating windthrow, modifying flood regimes;
- the threat of other activities and demands for ancillary uses within the riparian zone itself that result from the creation of an “urban” park, trails and other passive uses.

Originally, four factors were proposed to define the park boundary, however these were refined based on discussions with stakeholders and meanderbelt research completed recently for TRCA (Prent and Parish 1999). Three key factors are used to define Rouge Park North Boundary:

- ***Bankfull Channel Width*** - Determined by infield indicators or approximated for planning purposes using stream order relationships.
- ***Meanderbelt Width*** - Defined as the greater of 20x the Bankfull Channel Width applied to the axis of meandering or determined using the TRCA's methodology as set out in Prent and Parish 1999.
- ***Vegetation Community Maintenance Area*** - In the Rouge Park North, the definition of the corridor boundary adopts an ecosystem approach to riparian zones, which adds another dimension to defining boundary limits – long-term sustainability and ecological integrity. Gregory et.al (1991) and Tabucchi et.al. (1998) note that, among the many functions of riparian zones, linkages with adjacent terrestrial ecosystems are key to sustaining these riparian zones. Adjacent vegetation communities serve a number of important functions integral to the long-term sustainability of riparian zones:
  - Provision of seed sources for many riparian canopy and understorey species
  - Protection from invasives (60m minimum)
  - Protection against windthrow and other “edge effects” (penetration equal to a distance of 3-5x tree height (Flesch and Wilson 1999, Allen 1997))
  - Provision of a buffer against encroachment from adjacent land uses
  - Contribution to overall biodiversity (upslope and crest vegetation communities exhibit similar diversity to riparian zone communities (Gregory et.al. 1991))
  - Significant contribution of leaf litter and woody debris to the riparian zone and stream

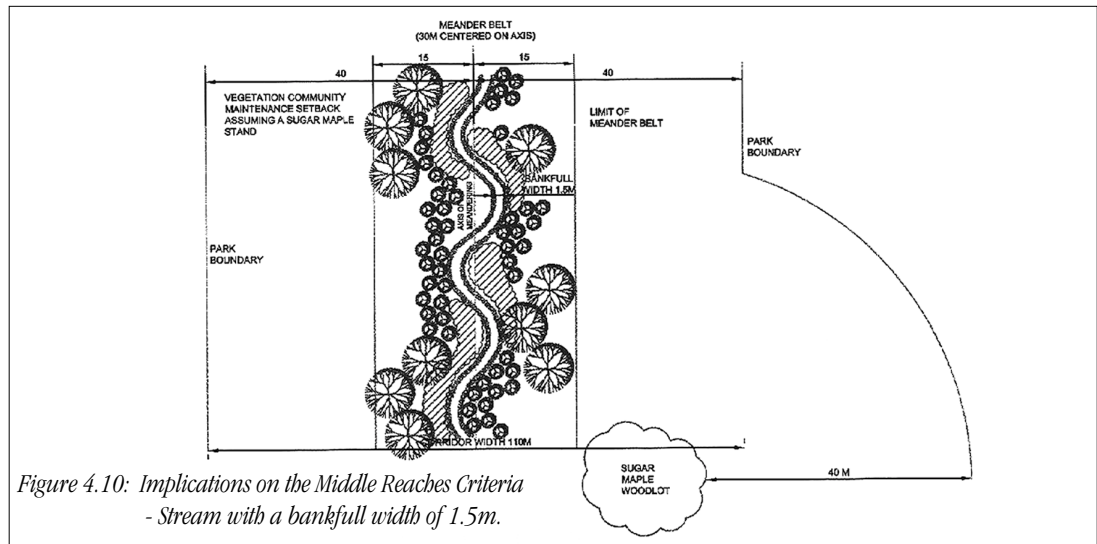


Figure 4.10: Implications on the Middle Reaches Criteria  
- Stream with a bankfull width of 1.5m.

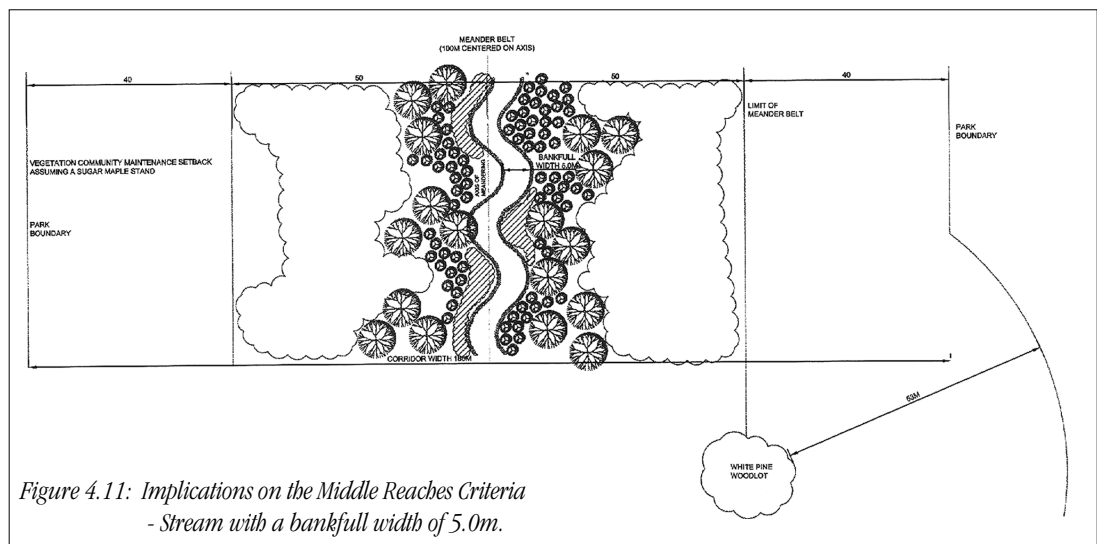


Figure 4.11: Implications on the Middle Reaches Criteria  
- Stream with a bankfull width of 5.0m.

The Vegetation Community Maintenance Area added onto each side of the meanderbelt width is intended to serve these added functions. This criteria also assumes a fully restored, mature forest corridor and is defined based on in-field identification of the existing forest community, or the proposed forest community (where no forest community exists).

Once determined, the TRCA meanderbelt width is applied on the axis of meandering and the Vegetation Community Maintenance Factor is added to each side of the meanderbelt width.

The Vegetation Community Maintenance Area is equal to the average maximum mature height which can be attained by the tree species which comprise (or are targeted to comprise, in the case of corridors which require restoration) the vegetation community within the corridor or 30 meters, whichever is greater. Widths of the Vegetation Community Maintenance Area for species typically found within the study area as related to specific tree species are provided:

- *White Pine / Pinus strobus* 53 meters
- *Sugar Maple / Acer saccharum* 40 meters
- *Elm / Ulmus sp.* 36 meters
- *Ash / Fraxinus sp.* 30 meters



- *Aspen / Populus sp.* 30 meters
- *Basswood / Tilia sp.* 30 meters
- *Oak / Quercus sp.* 30 meters
- *Black Willow / Salix nigra* 30 meters
- *Silver Maple / Acer saccharinum* 30 meters
- *Eastern White Cedar / Thuja occidentalis* 30 meters
- *Balsam Poplar / Populus balsamifera* 30 meters
- *Hemlock / Tsuga canadensis* 30 meters

The need for the Vegetation Community Maintenance Area is based on a number of factors:

- Requirements to protect existing vegetation from the effects of construction on adjacent lands.
- The need to maintain riparian zone functions as described above.
- The need to protect adjacent private properties from the potential risk of damage resulting from trees within the woodland which may fall as a result of natural decline, windthrow or other causes.
- On very small watercourses, the Vegetation Community Maintenance Factor added to the bankfull width will become the minimum corridor width, since at some point, meanderbelt width will reduce to zero. Thus a minimum width of 60 to 100 meters will be achieved on all watercourses within the Rouge North Study Area (as defined by TRCA).

Taking an example of a Middle Rouge watercourse with a bankfull width of 8 meters (likely an order 2 stream), the corresponding meanderbelt width is 160 meters. If the existing vegetation community is Sugar Maple dominated, then the Vegetation Community Maintenance Factor is 40 meters (the average maximum height of a Sugar Maple). The total corridor width is  $160 + 80 = 240$  meters, assuming there are no valley features or adjacent terrestrial features.

- ***Riparian Vegetation Communities*** - The park boundary will encompass all existing riparian vegetation communities, plus the Vegetation Community Maintenance Area.
- ***Natural Vegetation Communities*** - The park boundary will include all natural vegetation communities, plus the Vegetation Community Maintenance Area.
- ***Woodland Restoration Requirements*** - Important woodland restoration areas are defined as:
  - Areas which provide the opportunity to connect two natural vegetation units, one or both of which are isolated from each other and the valley corridor; and
  - Areas where woodland restoration would result in an increase in area with forest interior conditions greater than the area of the woodland restoration site.

The park boundaries will include important woodland restoration areas plus the appropriate Vegetation Community Maintenance Area determined based upon species targets for the restoration area.

- ***Interior Forest Conditions*** - The boundary will encompass all woodlands with interior forest conditions, plus the Vegetation Community Maintenance Area.
- ***Existing Regional Floodlines;***
- ***Valley and Stream Corridor Features*** - in accordance with the TRCA Valley and Stream Corridor Management Program.

- **Wetlands and Forest Recharge Areas** - including habitats. For these areas, the park boundary will be determined on a site-specific basis and will encompass the area required to maintain the integrity of the features.
- **Terrestrial Corridor / Habitat Function** - The park boundary will provide a corridor of sufficient width to ensure local terrestrial corridor functions are preserved and enhanced. Corridor width requirements will be determined based on an assessment of existing, and potential for, natural habitat blocks and species of plants and animals which are expected to utilize the corridor. Corridor widths will vary on the basis of local conditions and objectives set out by the TRCA, Ministry of Natural Resources, Rouge Park Alliance, municipalities and other relevant agencies.
- **Habitats for Rare, Threatened and Endangered Species and Species of Concern** - with the park boundary encompassing the habitat area plus a buffer of sufficient width to sustain the habitat feature and mitigate disturbance to the species.
- **Watercourses** - with the park boundary to be determined on a site-specific basis encompassing the area required to maintain the natural fluvial processes and form, stability and ecological integrity of the feature.
- **Archaeological Sites and Heritage Resources** - with the park boundary determined by the nature and sensitivity of the resource, of sufficient width to protect the resource based upon site-specific investigations.
- **Evaluated Wetlands, ESAs, ANSIs and LSAs** - with an appropriate setback to protect the feature and its functions based upon existing technical guidelines and policies.
- **Seepage Areas or Areas Exhibiting Groundwater Discharge** - with an appropriate setback to protect the feature and its function.

As the park boundary is defined to encompass the above, the TRCA and other relevant agencies will provide technical advice to the Rouge Park Alliance and its partners with respect to the definition of the above.

#### **4.2.2.3b Little Rouge Creek Study Area**

Within the Little Rouge Creek Study Area, the goal in determining the park boundary is the maintenance or reinforcement of corridor functions. Specific objectives that directed the determination of criteria for defining the park boundary included:

- The establishment of a functional terrestrial corridor with interior forest conditions and an aquatic habitat corridor which links Lake Ontario to the Oak Ridges Moraine;
- The protection and sustenance of rare plants and animals (down to the locally rare status and species of concern);
- The preservation, expansion and enhancement of natural vegetation units; and
- The preservation, expansion and enhancement of interior forest habitat.

The following criteria provide the basis for determining the park boundary within the Little Rouge Creek Study Area:

- **Functional Corridor Width** - The paramount goal to be achieved in implementing the Rouge Park North along the Little Rouge Creek corridor is the establishment of a functional, sustainable corridor with interior forest habitat. The minimum corridor width required to achieve this goal is 600m, defined as a 300m setback centred on the watercourse.

- **Natural Vegetation Communities** - The park boundary will include all natural vegetation communities, plus the Vegetation Community Maintenance Area.
- **Woodland Restoration Requirements** - Important woodland restoration areas, are defined as:
  - Areas which provide the opportunity to connect two natural vegetation units, one or both of which are isolated from each other and the valley corridor; and
  - Areas where woodland restoration would result in an increase in area with forest interior conditions greater than the area of the woodland restoration site.

The park boundaries will include important woodland restoration areas plus the appropriate Vegetation Community Maintenance Area determined based upon species targets for the restoration area.

- **Interior Forest Conditions** - the boundary will encompass all woodlands with interior forest conditions, plus the Vegetation Community Maintenance Area.
- **Existing Regional Floodlines;**
- **Valley and Stream Corridor Features** - in accordance with the TRCA Valley and Stream Corridor Management Program.
- **Wetlands and Forest Recharge Areas** - including habitats. For these areas, the park boundary will be determined on a site-specific basis and will encompass the area required to maintain the integrity of the features.
- **Habitats for Rare, Threatened and Endangered Species and Species of Concern** - with the park boundary encompassing the habitat area, plus a buffer of sufficient width to sustain the habitat feature and mitigate disturbance to the species.
- **Watercourses** - with the park boundary to be determined on a site-specific basis encompassing the area required to maintain the natural fluvial processes and form, stability and ecological integrity of the feature.
- **Archaeological Sites and Heritage Resources** - with the park boundary determined by the nature and sensitivity of the resource, of sufficient width to protect the resource based upon site specific investigations;
- **Evaluated Wetlands, ESAs, ANSIs and LSAs** - with an appropriate setback to protect the feature and its functions based upon existing technical guidelines and policies; and
- **Seepage Areas or Areas Exhibiting Groundwater Discharge** - with an appropriate setback to protect the feature and its function.

As the park boundary is defined to encompass the above, the TRCA and other relevant agencies will provide technical advice to the Rouge Park Alliance and its partners with respect to the definition of the above.

#### **4.2.2.3c Headwaters Study Area - Criteria for Defining the Park Boundary**

In the Headwaters Study Area, criteria for determining the park boundary were established with the objective of maintaining the quality and quantity of the infiltrating water in particular, and the underlying groundwater aquifers in general, in addition to aquatic and terrestrial habitat objectives. By accomplishing these objectives, more site-specific objectives related to stream baseflow, contamination, etc. will also be achieved. However, this can only be accomplished on a site by site basis, since surface conditions that control the infiltration and local groundwater movement throughout the area can be highly variable over short distances. This is due to the inherent complexity of topography, soil types and aquifer complexes within the Oak Ridges Moraine. In addition, the importance of east-west linkages within the watershed and the establishment of connections to

adjacent watersheds, including Lake Simcoe, are recognized. It is an objective of the Rouge North Management Plan to enhance these important linkages.

Criteria for defining areas that should be protected through inclusion in the park are provided below.

The park boundary along the watercourses included in the Headwaters Study area will be determined using the criteria set out for the Middle Reaches Study Area.

- ***Known Areas of Surface Water Infiltration*** - These areas are defined as coarse grained surface material, areas of high secondary permeability, existing water features, internally drained areas, etc. as identified in the Hydrogeological Evaluation of the Oak Ridges Moraine Area 1996 and in accordance with the Oak Ridges Moraine Guidelines;
- ***Areas of Direct Groundwater Discharge Which Provide Baseflow to Local Streams, and Areas of Recharge*** - These areas include areas such as wetlands, ponds, seeps, abandoned pits, etc., with an appropriate setback to ensure that the overall aquifer complex and its function is maintained; and
- ***Areas of Upward Hydraulic Gradients*** - These include areas where artesian conditions exist with an appropriate setback to protect the feature and its function.
- ***Natural Vegetation Communities*** - The park boundary will include all natural vegetation communities, plus the Vegetation Community Maintenance Area. These vegetation communities help to protect groundwater temperature, quality and recharge rates.
- ***Woodland Restoration Requirements*** - Important woodland restoration areas, are defined as:
  - Areas which provide the opportunity to connect two natural vegetation units, one or both of which are isolated from each other and the valley corridor; and
  - Areas where woodland restoration would result in an increase in area with forest interior conditions greater than the area of the woodland restoration site.

The park boundaries will include important woodland restoration areas plus the appropriate Vegetation Community Maintenance Area determined based upon species targets for the restoration area.

- ***Interior Forest Conditions*** - the boundary will encompass all woodlands with interior forest conditions, plus the Vegetation Community Maintenance Area.
- ***Valley and Stream Corridor Features*** - Regional Floodlines as defined by TRCA in accordance with the TRCA Valley and Stream Corridor Management Program;
- ***Lakes and Kettle Lakes*** - for these areas, the park boundary will be determined on a site-specific basis and will encompass the area required to maintain the integrity of the feature.
- ***Wetlands and Forest Recharge Areas*** - including habitats. For these areas, the park boundary will be determined on a site-specific basis and will encompass the area required to maintain the integrity of the features.
- ***Habitats for Rare, Threatened and Endangered Species and Species of Concern*** - with the park boundary encompassing the habitat area, plus a buffer of sufficient width to sustain the habitat feature and mitigate disturbance to the species.
- ***Watercourses*** - with the park boundary to be determined on a site-specific basis encompassing the area required to maintain the natural fluvial processes and form, stability and ecological integrity of the feature.

- **Archaeological Sites and Heritage Resources** - with the park boundary determined by the nature and sensitivity of the resource, of sufficient width to protect the resource based upon site specific investigations;
- **Evaluated Wetlands, ESAs, ANSIs and LSAs** - with an appropriate setback to protect the feature and its functions based upon existing technical guidelines and policies; and
- **Seepage Areas or Areas Exhibiting Groundwater Discharge** - with an appropriate setback to protect the feature and its function.

As the park boundary is defined to encompass the above, the TRCA and other relevant agencies will provide technical advice to the Rouge Park Alliance and its partners with respect to the definition of the above.

#### **4.2.2.4 The Boundary Delineation Process**

The process of defining the park boundary has been designed to be integrated with the planning process which is currently being applied by the municipalities within the Rouge watershed. It is envisioned that the process for delineating the park boundary will typically be undertaken as a component of the process of developing Secondary Plans. The park boundary will be defined as a component of the Secondary Plan. Under this scenario, the required studies will be undertaken within the designated Rouge Park Study Area or land encompassed by the Secondary Plan. Studies required to be undertaken to define the park boundary will be undertaken in accordance with the terms of reference approved by the municipality and TRCA and funded by the landowner(s) and administered by the municipality and/or TRCA. Consultants and technical experts will be retained by, and report to, the municipality and TRCA, or as part of a comprehensive subwatershed study. In the event that the landowner(s) insists on retaining consultants directly to undertake the necessary studies and define the park boundary, the landowner(s) will be required to fund a peer review, if requested by the municipality. However, there are a number of other scenarios, including severances, consents etc. which require that the park boundary be defined within a smaller land holding. In these situations the following will apply:

- The park boundary will be defined within the limits of the landowner's holdings on the basis of the criteria set out for each Study Area in the previous sections.
- Studies will be undertaken on lands within the limits of the landowners holdings.
- The TRCA, in partnership with the Rouge Park Alliance and in cooperation with the adjacent landowners, may undertake additional assessments in order to evaluate the ecological influences of natural heritage resources located beyond the limits of the landowners holdings to ensure that ecological functions are considered when defining the park boundary.
- In situations where the landowner may desire to determine the limits of the Rouge Park North without employing the Study Area process, the Study Area boundary will be recognized as the boundary for the future Rouge Park North.

The following section identifies alternative methods for implementing the Rouge Park North outside of the municipal planning process.

#### **4.2.2.5 Alternative Scenarios for Defining the Park Boundary Outside of the Planning Process**

Although the primary process for defining the boundaries of the Rouge Park North is described in the previous section, there are a number of other methods of bringing lands into the Rouge Park without applying this methodology. Recommended initiatives include the following:

### ***Initiate Subwatershed Studies***

It is recommended that the Rouge Park Alliance, in partnership with the TRCA and the municipalities, initiate a process aimed at undertaking subwatershed studies with the objective of defining the boundary of the future Rouge Park independent of, and in advance of, the process of developing Secondary Plans or initiating other municipal planning processes. Terms of reference for subwatershed studies should be approved by the municipalities and TRCA and should be focused on characterizing natural and cultural resources, identifying ecosystem components and their related functions, establishing targets for protection, restoration and enhancement, defining the park boundary based on the ecological criteria set out in the plan and determining appropriate park management area zoning. In addition to the above, the subwatershed study should identify and rank in order of priority, lands which should be acquired and designated as Rouge Park.

### ***Development and Implementation of a Land Acquisition Strategy***

It is recommended that the Rouge Park Alliance initiate a program aimed at acquiring lands within the Headwaters, Little Rouge Creek and Middle Reaches Study Areas. The Land Acquisition Strategy should be designed to achieve the following:

- Identify sources and consolidate funding for the purchase of lands under a willing buyer/willing vendor scenario.
- Set out criteria for evaluating the suitability of candidate land parcels on the basis of park objectives.
- Identify lands within the Study Area for which acquisition and protection is a high priority as a result of their ecological significance, potential to enhance the ecological function of the park or strategic location.
- Identify a long list of lands which are suitable for purchase based upon the criteria set out for each Study Area.
- Identify, on an ongoing basis, lands which become available for sale within the Study Area.
- Establish a protocol for negotiating the purchase of identified lands.

The development and implementation of a Land Acquisition and Funding Strategy is a priority to ensure that opportunities to acquire lands which achieve park objectives are identified and brought into public ownership with the goal of protecting natural and cultural heritage resources and expanding the area encompassed by the Rouge Park North.

### ***Establishment of a Land Trust***

In recognition of the fact that there are established Land Trusts which encompass the Rouge River watershed, the Rouge Park Alliance should investigate the possibility of participating in an existing Land Trust to facilitate the donation of land holdings and expand the Rouge Park. The Rouge Park Alliance should strive to ensure that lands can be dedicated specifically to the Rouge Park and should develop a promotional program to encourage endorsements. The Land Trust program should be focused on promoting the acquisition of lands which are located within the Study Areas. However, lands donated from outside the Study Area and beyond the watershed should be accepted to establish an assemblage of land holdings which may be exchanged for more strategic lands, with the approval of the donor, when the opportunity for a land swap is available. Lands dedicated to the Rouge Park through the Land Trust program should be identified by signage which recognizes the contribution of the donor.

### ***Establishment of a Rouge Park Fund***

Working with its Partners, the Rouge Park Alliance should establish a communication program to publicize the fact that financial contributions can be donated specifically for use in the acquisition of lands to expand the Rouge Park. The fund could be established as the component of an existing conservancy program where the opportunity exists. In tandem with the establishment of the fund, this program should be implemented with the goal of securing donations from individuals, corporations and other potential funding sources.

#### ***4.2.2.6 Benefits of the Boundary Determination Process***

The implementation of the Rouge Park North, utilizing the Rouge Park Study Area designation and methodologies described in the previous section, achieves the goal of defining an appropriate boundary based upon ecological criteria. The process employed is consistent with the existing planning framework utilized by the municipalities of Markham, Richmond Hill and Whitchurch-Stouffville and the Region of York. This approach has been applied with the objective of streamlining the process of defining the park while provided the following benefits.

##### ***Potential to Build a Mainframe of Information***

Since its inception, studies and inventories have been undertaken by the Rouge Park Alliance and its partner agencies to build an inventory of the resources of Rouge Park, monitor the health of the park and direct the management of its resources. This will also be a requirement in Rouge Park North, where little detailed information exists in a standardized format. To expedite the acquisition of a comprehensive catalogue of information aimed at facilitating the management of the resources of the park, the boundary delineating process presents an opportunity for the Rouge Park Alliance to consolidate inventory information in partnership with landowners. This will allow the Rouge Park Alliance to compile the information necessary to facilitate the long term management of Rouge Park, in a standardized and usable format.

The Rouge Park Alliance should establish a protocol for gathering and documenting data, as well as setting funding guidelines and a mechanism for receiving and approving requests for partnership funding. This protocol could be based upon the recommended monitoring program described in Section 6.5.4.

##### ***Standardized Approvals Process Throughout the Rouge Park North Study Areas***

The Rouge Park North Study Area traverses three municipalities, a situation that could complicate the review and approvals processes. It will be an objective of the Rouge Park Alliance, in consultation with partners, to set out a timely, efficient and standardized process of approvals on a study area-wide basis. This standardized approvals process is envisioned as an incentive to encourage cooperation between landowners and the regulatory agencies.