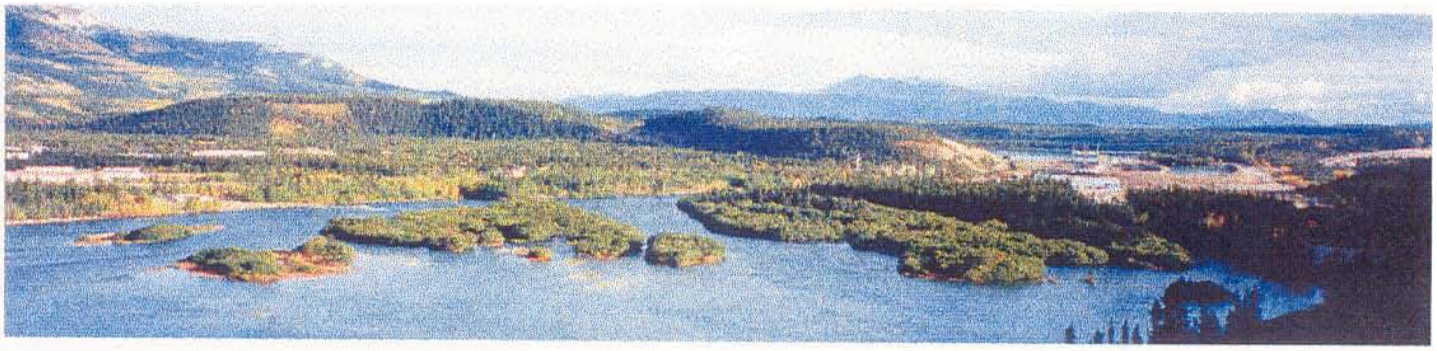

Yukon River Corridor Plan

Prepared for
City of Whitehorse

GLL-98-769
November, 1999

Gartner Lee Limited

Applied Ecosystem Management Ltd.

Aboriginal Public Relations Consulting Services

Midnight Arts
Research & Writing

uma

Mougeot GeoAnalysis

Executive Summary

The City of Whitehorse initiated a major land use planning project for the Yukon River corridor in the spring of 1998. The overall objective of this planning project was to provide a framework to guide future development activities within the municipal boundaries of the Yukon River corridor. Preservation of the environmental integrity and heritage resources are primary objectives which have provided important direction for the development of the Yukon River Corridor Plan. Promotion of opportunities in consideration of the corridor's attributes and raising public awareness are also important objectives that have been built into this plan.

The planning process that was followed includes the following:

1. Completion of a comprehensive resources inventory including the physical (terrain/soils), ecological (vegetation, wildlife habitat) and heritage attributes of the corridor. The planning team used a "bottom up" approach of integrating terrain, vegetation and wildlife information into ecosystem units which formed a basis for comparison with heritage and historic resources and human values during the development of the plan.

2. Development of public and stakeholder goals, values and desires by developing "Community Vision Statements".

3. Analysis of constraints, opportunities and issues through the development of theme maps including:
   - Degree of Human Modification which provides an analysis of the "natural character" of the corridor;
   - First Nations' Heritage Sites;
   - Historic Sites;
   - Constraints to Development and Sensitive Areas which provides an analysis of existing physical constraints which may be important for future land use activities; and
   - Existing uses to recognize and integrate current activities with the Corridor Plan.

4. Preparation of a Draft Yukon River Corridor Plan.

5. Preparation of a Final Yukon River Corridor Plan.

The Yukon River Corridor Plan includes policies designed to guide City Council and government agencies in future decisions on land use and land disposition in the river corridor area. The policies acknowledge the physical, environmental and heritage attributes of the Yukon River corridor and direct future land use activities accordingly.

The policies have been categorized into a series of headings, each of which corresponds to a designation on the Land Use Map. The following serves as a summary of the main policy sections.

ENVIRONMENTAL AREAS, HIGH SENSITIVITY

These include areas which are recognized for their importance to fish and wildlife habitat, and shall be kept substantially free from disturbance. Activities deemed suitable within areas of High Sensitivity are:

- hiking and jogging
- ecological interpretation
- environmental awareness educational programs
- wildlife viewing
- photography and painting

Areas identified with High Sensitivity provide important educational and interpretive opportunities. Any viewing or interpretive areas or improvements should be developed in a manner which do not encroach on environmentally sensitive habitat.

ENVIRONMENTAL AREAS, MODERATE SENSITIVITY

In most instances the designation of Moderate Sensitivity provide supporting terrestrial and aquatic habitat to areas of High Sensitivity. Thus the two designations are frequently associated. Areas so designated may be used for low intrusion trail development, view points, and interpretive centers which respect the natural features of the ecosystem.

PARKLAND AND RECREATION

This designation is one of the predominant classifications in the corridor and includes several subsections such as:

- golf courses
- park and recreation lands, including greenways
- intensive recreation areas (all season trails)
- view areas
- interpretive areas

Each of these subsections contains policies directed to the specific areas of concern. For example, it includes areas used currently for outdoor recreation activities, and includes day use areas, designated or reserved parkland areas, and related recreational trail areas within designated parks.

The designation also provides for a major greenway consisting of wildlife corridors and trails to be situated east of the Yukon River. The greenway will largely follow existing access roads and trails and should be

developed to allow a continuous link in the City between the south and north boundary, integrating wildlife and recreation features within the overall Yukon River Corridor.

A subsection of the designation provides for Park and Recreation areas within the Corridor (and outside of the downtown portion of the area) which shall be largely oriented to the maintenance of natural park areas and protection of scenic sites. A key proposal is for the Chadburn Lake park reserve area along Schwatka Lake to be extended to the south boundary of the City. Specific locations for view points, and interpretive opportunities (often combined) are also noted in the policies and associated map.

HERITAGE VALUES

This designation is unique in that it is intended to act as an overlay over specific land use categories. This is not a designation in itself. Instead, it is intended to highlight the fact that heritage resources exist in areas noted as important for Heritage Values, and acknowledge that further work may be required to protect or enhance these resources. Several areas are identified as deserving special attention. These include both banks and uplands of the Corridor located in and around Schwatka Lake (locations of previous fish and trail camps) between the White Pass & Yukon Route railway and the Hidden Lakes area. In addition, a number of other areas are highlighted as deserving of special attention.

RURAL RESOURCE

This designation applies to relatively undeveloped land in the corridor, which may well continue to function as green space. However most lands in this classification do not have the attributes which make them ideal as park or recreation space, although some trail links through these areas may well be desirable. It is anticipated that in future some limited forms of residential or industrial activity in upland areas will take place. Low intensity forms of development, including some country residential, and industrial in these non-sensitive environmental areas should not pose a problem.

The Plan suggests that where Rural Resource areas abut the Yukon River, no development zones of at least 30 metres shall be maintained along the shorelines. Where escarpments form the river boundaries, the area of the escarpment adjacent to the river is to be kept free from development for a distance of at least 15 metres from the edge of the escarpment.

Development and Potential Development

It is recognized that the City will continue to grow, and that future development needs to be considered for sites that do not pose incompatible values with other land uses or the natural environment. This designation applies to areas already developed with urban or country residential uses. Potential development sites include locations with soil and foundation conditions suitable for development activity without impinging on areas of environmental sensitivity.

Areas identified as “Developed Areas’ may continue to offer the full range of urban type land uses, although this may not always be the case. Densities will vary from small lot residential use, including commercial and industrial land uses, to larger lot country residential development.

Within Developed Areas the City will continue to ensure that trails to nearby park, recreation and viewing sites are maintained, and that any new development does not impair linkages to park, recreation, and interpretive sites.

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Technical Supplements

1. Introduction

The City of Whitehorse embarked upon the Whitehorse Riverfront Planning Project in the spring of 1998. This planning project includes a number of components. One of the major steps in the overall program is the preparation of a Yukon River Corridor Plan. The Yukon River Corridor Plan excludes that portion within the downtown area of the City of Whitehorse, for which a Plan was completed in the fall of 1998 as a separate exercise.

The City of Whitehorse engaged the consulting firm of Gartner Lee Limited in collaboration with UMA Engineering Limited, Applied Ecosystem Management, Midnight Arts, Mougeot GeoAnalysis, Julie Paul and Associates and Aboriginal Public Relations and Consulting Services to prepare the Yukon River Corridor Plan.

The Whitehorse Riverfront Planning Advisory Committee (RPAC) was formed in February 1998 and consists of members from the Whitehorse City Council, City of Whitehorse Administration, Government of the Yukon, Taa'an Kwach'an Council and community stakeholders. The RPAC was instrumental in preparing the Terms of Reference for this plan and served as a Steering Committee for this project.

There were five primary objectives for the preparation of a Yukon River Corridor Plan:

1. To preserve the ecological and environmental integrity of the corridor, particularly the Yukon River riparian habitat area;
2. To preserve and promote the heritage resources associated with the corridor;
3. To ensure that development occurs in an orderly fashion in consideration of the attributes which are part of the corridor;
4. To promote opportunities within the corridor; and
5. To raise public awareness about the corridor to the general public and stakeholders.

1.1 What Is Included In The Yukon River Corridor

The study area for the Yukon River corridor was delineated based on the following attributes:

- an ecologically based riparian corridor;
- the location of river based heritage resources;
- linkages to existing developed areas in the City of Whitehorse; and
- river based activities.

The Yukon River corridor can be defined in many ways:

1. Ecologically, by plant and animal communities associated with or adjacent to the Yukon River;
2. Topographically, by the terrain features associated with the Yukon River valley; and
3. Culturally, by historic and recent human use patterns.

The goal for the planning team was not to identify a fixed-width boundary around the Yukon River, but rather to use a planning boundary that is a synthesis of all of the above considerations. The Yukon River corridor planning boundary represents the above attributes including the general topographic features, landforms associated with the post-glacial Yukon River, prominent land marks and both historic and modern human activities. While a distinct planning boundary has been delineated, it must still be recognized that ecosystems within the Yukon River corridor are linked to the greater City of Whitehorse area. By extending the planning boundaries up McIntyre, Wolf, Cowley and Croucher Creeks, these important ecological connections have been captured in the current planning efforts.

The Yukon River corridor delineated for this project is shown on Map 1.

1.2 Planning Process

The project was completed in the following steps or phases:

1. A comprehensive resource inventory and analysis of the physical, ecological, and heritage attributes in the corridor as well as the identification of recreational and economic opportunities was completed. This included a land tenure compilation of licenses, leases and permits, including publicly available First Nations land claims selections within the Yukon River corridor.
2. The development of public and stakeholder goals, values and desires for the Yukon River corridor by developing Community Vision Statements.
3. An analysis of the constraints, opportunities and issues associated with the corridor in the context of the Community Vision statements. This culminated in a series of Theme Maps depicting important attributes and opportunities within the corridor that would form the basis of the Plan.
4. The preparation of a DRAFT Yukon River Corridor Plan.
5. The preparation of a Final Yukon River Corridor Plan including recommendations for implementation.

Throughout all phases of the development of the plan, the participation of stakeholders, government agencies and departments (e.g. federal, territorial, municipal and First Nation) and the general public was sought. The following figure depicts the planning process that was carried out.

WHITEHORSE RIVERFRONT P·L·A·N·N·I·N·G

Yukon River Corridor

City of Whitehorse

Map 1: Study Area

Corridor Study Area Boundary

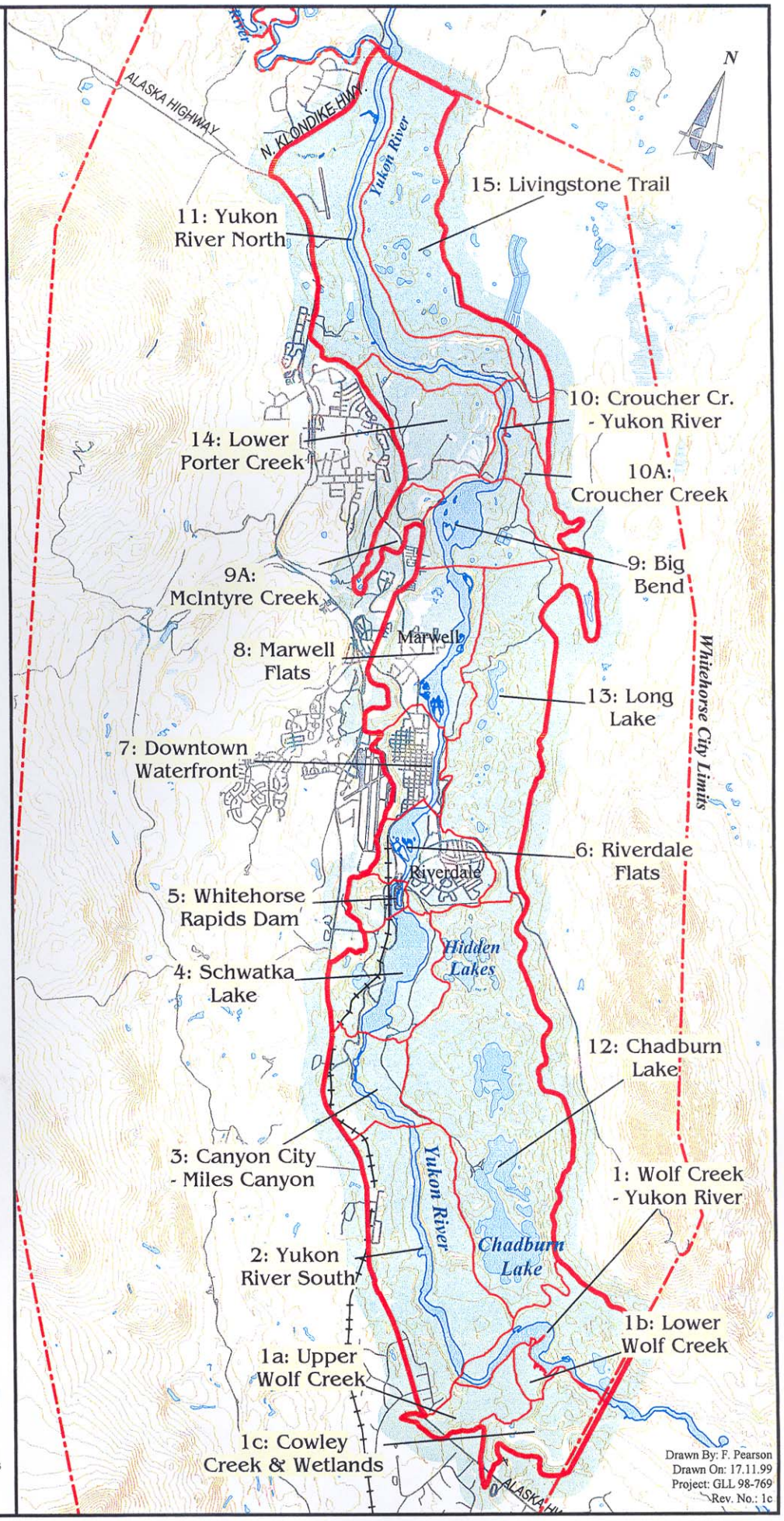
10 River Reaches/ Study Area Subsections

Topographic Legend

- City Boundary
- Paved Road
- Gravel Road
- Railway
- Contour (20m)
- Lake/River

Scale:
1:125,000

1 0 2 4 6
kilometres



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Applied Ecosystem Management Ltd.

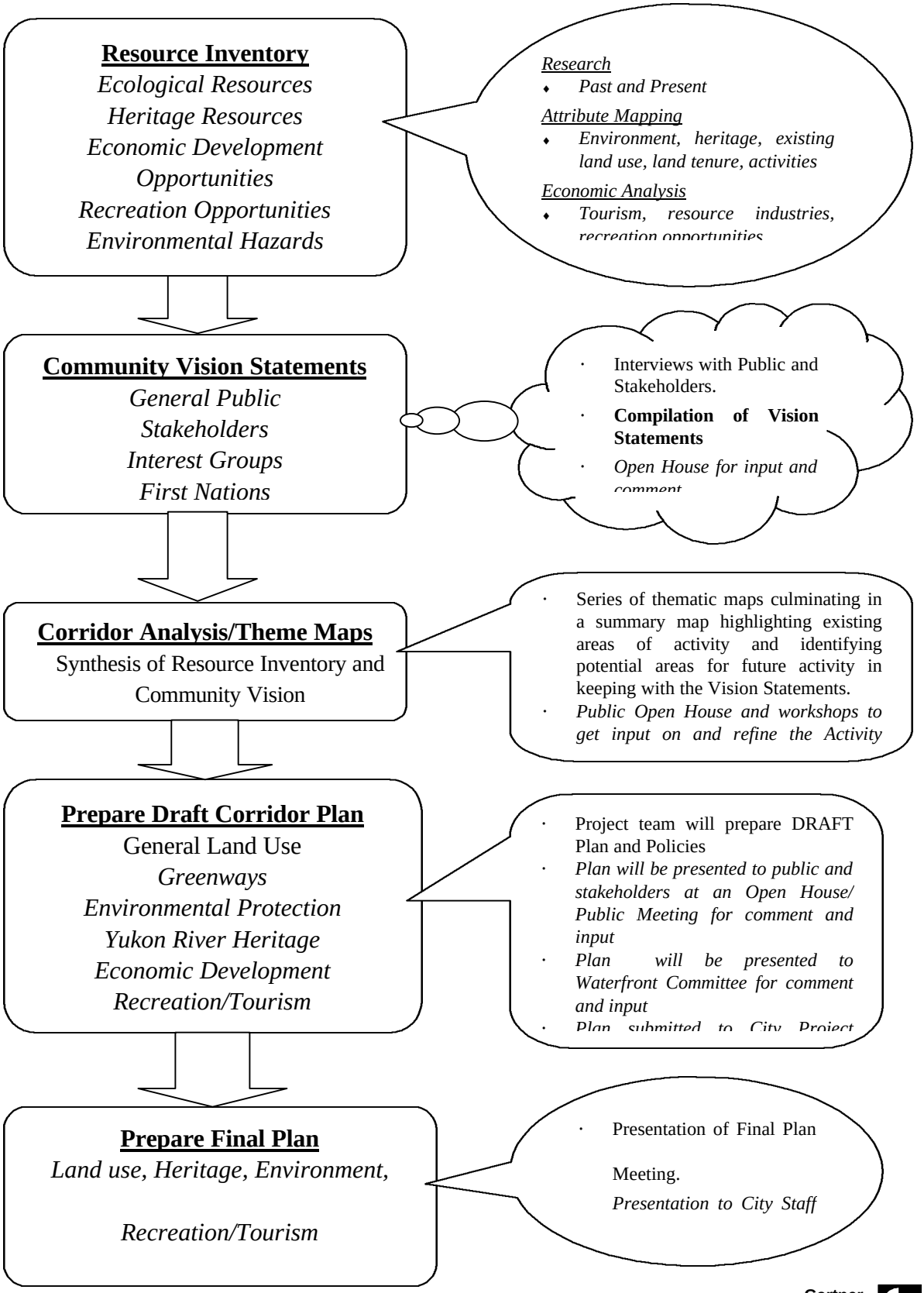
uma

Mougeot GeoAnalysis

Aboriginal Public Relations Consulting Services

Midnight Arts

Figure 1 – Yukon River Corridor Plan Development Process



1.3 Plan Format

The Plan and supporting resource information was prepared as two compendium documents.

The Yukon River Corridor Plan

This document provides:

- An introduction;
- A description of the planning process;
- A summary of the characteristics of the Yukon River Corridor;
- A description of the consultation process and Community Vision Statements;
- A summary of the Corridor Analysis – Theme Maps; and
- Land Use Plan, Policies and Interpretation.

The Yukon River Corridor Plan – Technical Supplement

The Technical Supplement contains reports presenting the details of the technical information compiled to support the Plan. Technical reports, including resource mapping, are provided for:

- Soil and Terrain Features – Mougeot GeoAnalysis;
- Ecological Resources – Applied Ecosystem Management;
- Interpretation and Heritage Resources – Midnight Arts; and
- A Summary of Questionnaire and Survey Results – Gartner Lee Limited.

2. The Yukon River Corridor

Fundamental to the development of a Yukon River Corridor Plan is the understanding and appreciation of the natural resources. Throughout the course of the resource inventory and analysis, the study team gained an understanding of the physical landscape, the ecology and the human history of the corridor. Beyond the analysis of the corridor from these perspectives, it is important to recognize the connections and inter-relationships between the three fields of study.

For example, the landscape associated with the Yukon River corridor was the product of a glacier advancing and retreating into a large lake some 10,000 to 13,000 years ago. Subsequent to glacial retreat and lake drainage the "paleo-Yukon River" experienced a significant time period of downcutting to form the current river valley within the City of Whitehorse. Examples of glacial and post glacial features includes a valley bottom hummocky kame and kettle topography, glaciolacustrine clay cliffs along the Robert Service Way and stream deposited fluvial terraces. The exposed columnar basalt bedrock at Miles Canyon (Photo 1) is also a natural feature that distinguishes the special characteristics of the Yukon River corridor. This history has resulted in a diverse landscape which provides ecologically rich tributary stream corridors such as Wolf Creek, Cowley Creek and McIntyre Creek) which supports an abundant salmon run and upland areas that provide significant wildlife habitat (Photo 2). The human history of the Yukon River corridor shows areas of past fishing camps, berry picking and hunting trails. It is clear that the traditional use of the Yukon River corridor by people is linked to the natural history of this area. It is therefore not surprising that areas of known heritage significance (e.g. First Nation fishing camps or hunting trails) are in the same areas which contain rich and diverse ecological features today. First Nations people, by necessity, formed their lifestyles around the natural resources that were present.

This Yukon River Corridor Plan is founded on an understanding of these important relationships. The Plan seeks to guide the future of the river corridor in such a way that respects the sensitivities of the corridor and builds on potential future opportunities.

This chapter of the Plan provides a summary of the more important characteristics of the Yukon River corridor in terms of:

- The physical and ecological characteristics of the corridor;
- The cultural heritage of the corridor; and
- The present-day users and uses of the corridor.

A multi-disciplined team of geologists, ecologists and heritage researchers completed an extensive review of the corridor resources and supplemented existing information with further field work and data collection. As mentioned in Section 1.3 of this report, the details of the resource inventory are provided in the Technical Supplement, a compendium document.

Photo 1 – Columnar Basalt Bedrock at Miles Canyon

Photo 2 – View of Yukon River from Wolf Creek

2.1 Landforms and Terrain of the Yukon River Corridor

The landforms of the Whitehorse area and within the Yukon River Corridor are attributable to the last ice age estimated to have existed between 35,000 and 10,000 years ago. All along the Yukon River, the sediments exposed in cliffs show the record of the various sediment types left behind by glacial ice, glacial melt water, as well as by the modern-day Yukon river system.

2.1.1 Miles Canyon Basalt

One of the most spectacular segments of the Yukon River Corridor area is located at Miles Canyon. Steep rocky walls of columnar basalt up to 50 m tall force the river into a narrower passage. The fast flowing water and rapids were too treacherous for makeshift rafts and boats that attempted passage in the late 1880s and were the reason for the establishment of Canyon City and its associated tramways around the rapids. The basalts at Miles Canyon and Whitehorse rapids formed as lava flows 8.8 million years ago (Hart, pers. comm., 1998). It is thought that this lava flowed from the Whitehorse Copper area down into the Yukon River Valley and modern-day downtown Whitehorse.

2.1.2 Glacial Landforms

At least four major glacial and interglacial stages are identified throughout northern Canada. The landforms in the survey area can be traced to the youngest of the Yukon glaciations, the McConnell glaciation (Wisconsinan).

During the McConnell glaciation, ice moved north and northeast from the Coast Mountains. This glacial ice, called the Cassiar Lobe, is assumed to have been thicker towards its origin, thinning slowly towards the northeast. Glaciers covered the Whitehorse area between approximately 35,000 and 14,000 years ago. Locally, glacial ice is estimated to have reached elevations of 1825m to 1975m (Jackson, 1990), leaving high peaks exposed as small bedrock islands called nunataks. The glacial ice would have covered local mountains, such as Grey Mountain and Golden Horn. As the glacier advanced it eroded and incorporated material from lower valley walls and transported this material either under the ice or as debris-rich bands within the glacier ice.

When the climatic conditions warmed, melting caused glacial ice to retreat by decreasing in thickness and by decreasing in lateral extent. The main valley glacial ice was segmented into smaller tributary valley glaciers. In the Yukon River Valley, the Cassiar Lobe retreated towards the south and southeast.

The melting of the ice released huge volumes of water and sediments trapped within the ice. The resulting deposits are generally termed moraine. Moraine can consist of very poorly sorted till and poorly sorted gravel deposits. Occasionally, blocks of ice broke off from the main glacier and were subsequently buried

by the sediments released by the main glacier. Over the following hundreds of years, the buried ice blocks melted from within the sediments leaving holes or kettles. The resulting terrain is evident around Chadburn and Long Lakes. The lakes themselves, and the area on which the Riverdale residential subdivision is built, are probably large depressions with the same origin.

As mentioned above, the melting glacier released huge volumes of water. The water flowed away from the ice either from its surface, front, sides or floor, and carried sediment of all sizes. The result was the creation of glaciofluvial deposits consisting mostly of well sorted sand and gravel. The gravel deposits found between Ear Lake and Mary Lake are also part of a large glaciofluvial system.

Meltwater channels (usually deeply incised) formed perpendicular to the valley, in bedrock, moraine and in other sediments at the side of the glacier. Remnants of these channels remain today and support smaller streams as is the case with Cowley Creek, Wolf Creek and McIntyre Creek.

Aeolian processes (i.e. wind erosion and deposition) are another important feature of glacial and post glacial environments. Large temperature and elevation gradients associated with large ice sheets created strong regional wind patterns (katabatic winds). These katabatic winds often reworked the unvegetated surface of glacial and glaciofluvial deposits. Silt and fine sand may have been transported appreciable distances by the wind and deposited as well sorted massive blankets called loess. In the Yukon River Valley, discontinuous loess (silty aeolian material) up to 15 cm thick is very common on glaciofluvial and glaciolacustrine deposits. Thick wind-worked deposits are very visible along the river, south of the golf course located in Porter Creek. These sands are easily picked up by the wind and sand dunes are reactivated if the vegetation cover is disturbed.

Unvegetated sandy glaciofluvial plains that are subjected to strong winds act as a source of aeolian material. These sands can be transported and reworked by the wind into sand dune fields. The dunes are usually composed of well sorted fine to medium-grained sands. The topography is hummocky, and the dunes can have a rough crescent shape pointing downwind, like the dune fields located north and east of the Livingstone Environmental Control Facility. Very localized aeolian deposits exist in areas immediately above exposed bluffs throughout the study area. These active cliff-top dunes are composed of silt and sand, such as the small field of dunes above the Riverdale area. In these cases, strong winds pick up fine grained material from the cliff wall and deposit it on top of the bluff. Winds may also rework existing glaciofluvial sand blankets overlying the glaciolacustrine deposits into dunes. These deposits are often too small to be represented on a map.

2.1.3 Glacial Lake Champagne Sediments

Glaciers often disrupt pre-existing drainage systems by blocking drainage outlets or by releasing large volumes of water. When the outlet is dammed down-valley by a topographic obstacle or by another ice mass, a glacial lake forms and occupies the bottom of the valley. Glacial lakes can vary in size, depth and duration and can be at some distance from the ice front or in direct contact with it. Generally, when

meltwater enters into the lake, coarse sediment (sand and gravel) is deposited rapidly. Fine sand, silt and clay are carried further into the lake and deposited as alternating layers called laminae. Exposures of glaciolacustrine sediments are familiar to all Whitehorse residents. They form most of the cliffs along the Yukon River and around the downtown area. Sediment thickness ranges from 20 to 60 meters.

Much of the Yukon River Valley floor is composed of glaciolacustrine sediments up to 40 meters thick. These were deposited in a large proglacial lake called Glacial Lake Champagne. This lake formed about 9,000 to 11,000 years ago during the latter stages of deglaciation. Meltwater was trapped between the ice front retreating towards the southeast in the Yukon River Valley and by another glacier to the west of the Takhini Valley. The lake drained towards the north through the Yukon River Valley and Lake Laberge. Between 790 to 850 m elevation, horizontal benches or beach deposits outline former lake levels. These features are usually composed of gravel or sand and are visible in the Takhini River Valley. The lake floor was at an approximate elevation of 715 to 725 m.

Silt and fine sand with a low clay content make up the vast majority of the glaciolacustrine deposits in the Whitehorse area.

Occasional pockets of pebbles, cobbles or gravel exist within these fine-grained sediments. They originate from icebergs detached from the ice mass or from shoreline ice afloat in the lake. As the ice blocks melt, the debris frozen in the ice drops to the bottom of the lake and forms small gravelly deposits. Closer to the shore, icebergs sometimes melt in such a position to result in the formation of pockets of gravel within the shoreline deposits.

Towards the valley sides, sandy beds can be deposited within the fine grained glaciolacustrine sediments by a tributary drainage system into the lake. Occasional slumping of material from the valley sides can also create irregular textural changes within the lacustrine deposits. These coarser sediments have higher porosity than the glaciolacustrine silt and clay and may provide an aquifer or path for groundwater. The incorporation of mud-like layers within the glaciolacustrine sediments is visible along deep gullies on the east side of the Yukon River.

During the life of the lake, the ice occupying the Yukon River receded and re-advanced at least once into the lake. A sand and gravel blanket overlies glaciolacustrine deposits for several kilometres, and in some areas, is overlain again by glaciolacustrine silt and clay. This layering of sand and gravel within the lake deposits can make the subsurface stratigraphy quite complex in some areas, particularly along a belt running slightly north of the Porter Creek residential subdivision, and on the east side of the Yukon River as far south as the Chadburn Lake area.

2.1.4 Fluvial Deposits

Once Glacial Lake Champagne drained, the valley drainage systems were re-established through downcutting to modern day gradients within the Yukon River Corridor. The creeks and river eroded the

soft glaciolacustrine silts and clays and deposited sediments in their channels. The cliffs surrounding downtown Whitehorse were created as the Yukon River established its modern floodplain. The lower reaches of the creeks south of the McCrae subdivision are examples of tributary channels that also quickly eroded through the glacial lake-bottom sediments leaving knobs and tabular hills of glaciolacustrine sediments (with a sand cap of glaciofluvial materials) standing above the valley floor.

Meltwater channels, now occupied by small streams are also partially covered by organic and fluvial deposits.

Most channels and streams within the study area have been colonized by beavers and the impacts of dam construction, flooding and vegetation changes are evident (Croucher Creek and Wolf Creek). The mouth of such streams represent a usually rich habitat with abundant bird life, such as the Croucher, Wolf and McIntyre Creek mouths. In most cases, organic and silt rich soils with water readily available are sites which support a rich and diverse vegetation quite different from the communities found in highland. It is important to note that permafrost is often present in these organic landforms which also contributes to the overall sensitivity of these ecosystems.

The higher terraces built from gravelly deposits are and have been good camping sites for many centuries. Canyon City, Croucher Creek and areas now occupied by Riverdale and downtown were good sites for First Nations fishing camps: well drained, with a gentle topography and very accessible by boat, they are still very attractive sites.

2.1.5 Glaciofluvial Deposits

For the purposes of this report, glaciofluvial deposits are grouped into ice contact and outwash deposits. Ice contact deposits such as eskers and kames, are deposited directly in contact with the melting ice. Bouldery and cobbly gravel is very common in these deposits, as well as pockets of silty and sandy gravel. These deposits are usually limited in their surface extent but their thickness can exceed 20 meters. These landforms occur as groups of sinuous ridges, pitted terrain or as high level terraces with depressions (e.g. kettles). In the study area ice proximal glaciofluvial gravel and sands are associated with Chadburn, Long and Ear Lakes, and the ridge by McCrae industrial subdivision.

Glaciofluvial outwash can be of variable thickness and usually has a high gravelly content with a variety of clast sizes. Outwash deposits are commonly composed of cobble to pebble size gravel with sandy beds and a silt cap. Sandy outwash blankets cap the glaciolacustrine sediments over most of the Porter Creek area (Mountainview Golf Course), part of the Whitehorse airport and many flat-topped surfaces around Chadburn Lake and close to the Meadow Lakes Golf Course. These sandy deposits are often reworked by the wind and sand dunes are commonly found at the crest of tall cliffs.

If thick enough, ice contact deposits are usually a good source of aggregate for road construction. Glaciofluvial outwash deposits also have a high porosity, rapid percolation, generally good bearing strength

and favorable surface topography and as a result are favorable areas for road construction and facilities and/or housing construction (including septic facilities).

In the Whitehorse area, the low relief glaciofluvial sediments are often less than 5 meters thick and are primarily composed of sand (usually at elevation close to 750 meters and less, as is the case in the airport area).

2.1.6 Organic Deposits

Organic deposits are formed of partially decomposed vegetation. These deposits develop in areas of poor drainage and are often referred to as peat or muck deposits. Organic deposits are usually associated with landform depressions or abandoned channels.

All organic deposits in the study area are associated with wetlands. They are usually poorly to very poorly drained, have low bearing strength and are unsuitable for development. They often are underlain by permafrost and are sensitive to changes in the vegetation cover. Wetland ecosystems associated with organic deposits are important in controlling run-off, filtering water and often provide important habitat for a variety of organisms, both plant and animal.

2.1.7 White River Ash

Throughout southern Yukon, soils are capped with a veneer of white volcanic ash. This material is composed of sand and silt-sized grains of glass-like material that fell about 1200 years ago following a volcanic eruption at the headwaters of the White River in the Alaskan Ranges. This volcanic ash layer is often used to roughly approximate the presence and rate of erosion. Fluvial terraces missing this marker bed in their soil profile have a surface which is younger than 1200 years B.P. Occasionally, this ash also provides the soil enthusiast with photographic opportunities. The White River Ash can be viewed along the steep river banks both in the northern and southern portions of the Corridor. It appears as a white layer embedded in the soil profile approximately 10 to 50 cm below the ground surface.

2.2 Ecological Resources in the Yukon River Corridor

2.2.1 Identifying Important Areas

Previous work carried out by Applied Ecosystem Management Limited involved the gathering of known wildlife inventory and the delineation of significant wildlife areas within the City of Whitehorse. This information was used as a basis and modified as new information became available during this project. Identifying landscape units that require special consideration due to sensitivity or rareness, have intrinsic special values, or are biologically important was the approach used for the ecological planning component

of the Yukon River Corridor Study. This was accomplished through field work, literature review and stakeholder interviews. Throughout this process, recognition was given to the fact that the Yukon River Corridor is a small portion of a larger Whitehorse landscape and that natural linkages exist between the river and the surrounding upland areas.

2.2.2 Vegetation Communities

Wildfire, human activities and terrain/soil conditions create a complex vegetation mosaic across the City of Whitehorse. Due to the long period of human habitation within the Whitehorse area, vegetation communities within the City limits cannot be viewed as completely natural systems. There are very few areas that have not experienced some form of human modification through trail development, mining activities, water diversion/hydro projects, fuelwood harvesting, or urban development in the study area. Some representative areas of "natural vegetation" within the project area include:

1. Old Village Wetland near Marwell;
2. Riparian Spruce Forest along Cowley and Wolf Creeks;
3. Upland forest in the Wolf Creek area, (see Section 1C, Map 1);
4. Some areas around Long Lake, notably the old serial spruce forests on the north-facing slope above the lake; and
5. Small patches of fire residuals scattered throughout the study area.

For additional information on the vegetation communities in the study area, refer to Section B of the Technical Supplement (Ecological Resources of the Yukon River Corridor) and Map C1 contained therein.

2.2.2.1 Forest Communities

The City of Whitehorse is predominantly in an upland forested system. Most areas are covered by well to moderately well drained soils (as described in the previous section on Landscape and Terrain) with a cover of white spruce, lodgepole pine and mixed aspen forests. As a result of historical fire activity, the majority of the forested land base is currently in a mid-mature serial stage; there is very little old forest within the City and YRC planning boundaries. Old forest patches are known to be important wildlife areas and generally contain a much higher diversity of forest song birds than young, even-aged stands. Old forest patches also provide a strong visual and ecological contrast to the surrounding younger forest matrix and most people consider these areas to be visually appealing.

The amount of old forest patches is very limited in extent within the Corridor planning area. Most patches are residuals that escaped the last fire event and they tend to be associated with low-lying riparian zones. Some of the oldest forest in Whitehorse is found in the Cowley-Wolf Creek area; it is known to be at least 200 years old. Individual veteran trees have been dated to at least 250 years old. The Long Lake area contains the largest concentration of upland old serial forest.

Some forested areas have experienced a complex fire history and contain patches of multiple age-cohorts of trees. These areas can be identified easily by the many different sizes of trees and heterogeneous canopy structure. Many trees in these areas display fire scars which allow the dating of past fire events and the ultimate reconstruction of the area's fire history. Notable areas which have experienced a complex history of fire with large numbers of residual trees are the general Wolf Creek area, near Cousins Airfield and the Livingstone Trail Plateau.

Within the YRC planning boundary, there are very few examples of riparian forest communities due primarily to the channel morphology of the Yukon River. The steeply incised river banks along most of the Yukon River through the City of Whitehorse precludes the formation of riparian habitats. Riparian forests have distinct ecological conditions when compared to upland forests as they are found under cool and moist conditions and are usually affected by wildfire to a lesser degree. Some of the best examples of old forests are seen in residual fire patches in riparian habitats where individual stands have survived previous wildfires. These areas are ecologically diverse and generally have a high degree of sensitivity to human disturbance. Some of the best examples of riparian forests occur in the Wolf-Cowley Creek basin, localized patches along Croucher Creek, and within the McIntyre Creek watershed near Yukon College.

2.2.2.2 Non-Forest Communities

Within the matrix of upland forest communities lie small, non-contiguous wetlands and meadows. These areas contain a number of localized, place specific habitats that create a great diversity of ecological conditions over small geographic distances. These areas, along with riparian zones, generally harbour the largest diversity of plant and animal species within the City of Whitehorse. Within the YRC planning boundary, a few major wetland areas occur adjacent to the Yukon River. These wetland types are very distinct from the wetlands that occur within the upland forest matrix due to generally higher flow of ground and surface water. Most wetlands within the upland forest matrix are associated with the knob and kettle topography and old outwash channels created by glacial processes. Concentrations of these small kettle lakes and wetlands occur in the Chadburn Lake Reserve, the Long Lake area, and on the Livingstone Trail Plateau.

Well drained, non-forest communities are also limited in extent within the City of Whitehorse and are comprised of sparsely vegetated grassland and sage communities on steeply-sloping, south and west-facing slopes. These communities provide visual breaks in the landscape and are used heavily for recreation purposes - Due to their position on the landscape, i.e. ridge tops and slopes, they generally provide excellent views of the surrounding landscape. However, because of the vegetation and soil conditions, these sites are sensitive to erosion and the vegetation is sensitive to disturbance For example, many south and west-facing slopes in the Chadburn Lake and Long Lake Recreation Areas have received substantial damage from rutting and erosion. Some sections of the Miles Canyon trail are also showing signs of heavy use.

2.2.3 Wildlife Communities

Within the Yukon River Corridor, the mosaic of forest types, wetlands and edgewater plant communities create numerous habitats for a variety of wildlife species. Wildlife viewing opportunities are abundant along the Yukon River edge and associated lowlands with the possibility to see waterfowl, shorebirds, raptors, forest birds, beavers, spawning salmon, many small mammals and occasionally black bear, moose, fox and coyote. In a previous study which summarized and mapped known wildlife distribution within the City of Whitehorse (AEM, 1998), seven areas along the Yukon River Corridor were identified as significant wildlife areas. These areas are known to contain a relatively high diversity and abundance of wildlife within the planning area. The general groups of wildlife species that are known to use these habitats and are easily observable within each significant wildlife area are listed in Table 1 – A Summary of Features and Constraints by River Section provided in Section 4.6. Incorporating these and potentially new significant wildlife areas into the Yukon River Corridor plan will facilitate wildlife viewing and general natural history interpretation within the City of Whitehorse. This will result in increased recreational/educational opportunities for local residents and based on tourism potential, could represent an important economic opportunity for the City. Current tour boat operators already rely heavily on some of these wildlife areas for their marketing and passive viewing excursions. Significant wildlife areas are illustrated in Map B2 in Section B of the Technical Supplement.

Only by protecting entire landscape units and establishing adequate linkages between these areas and the surrounding uplands will it be possible to protect and maintain these important areas within the Corridor. In some situations the establishment of adequate linkages is no longer possible due to past development patterns. The current Corridor planning boundary, with its long extensions running up prominent tributaries, attempts to illustrate and preserve these linkages. These wildlife resources have great value from ecological, economic and intrinsic viewpoints. Many of the significant wildlife areas within the Corridor encompass areas that have been rated as ecologically sensitive or as representing major constraints to development. The protection of most significant wildlife areas within the Corridor therefore, presents few conflicts with potential development, however, access management and consideration of the surrounding viewshed must be given. The sensitivity and accessibility of each wildlife area provides a range of wildlife viewing options within the planning area. Viewing options are shown in Map 2.

2.2.4 Anthropogenic Disturbance And Development

Most areas of the City have been affected to some degree by anthropogenic disturbances. However, the concentrations of urban development and the high levels of disturbance are generally concentrated in a few, specific locations. Major transportation Corridors, the downtown core, subdivisions, and public utilities create nodes of urban development and disturbance within the City. In addition to this, moderate levels of disturbances occur in areas of high recreational use. Areas with low anthropogenic disturbances are

generally found in locations with limited accessibility and occur as non-contiguous islands within the urban landscape. This mix of disturbance creates opportunity for linkages between certain types of land use activities and specific locations within the City. For example, areas where there is moderate to low levels of landscape modification can be linked to form parkland with varying levels of protection; intensive recreation activities can occur in moderate to highly disturbed areas. Map 2: Degree of Human Modification and Selected Natural Features illustrates these levels of disturbance and possible linkages to land use activities.

2.3 Description of Heritage Resources

A heritage resource is defined as a human work or area where there is evidence of human occupation or human activity or areas which have spiritual or cultural significance and that has been determined to be of historic value.

Dominating the City of Whitehorse waterfront are the railway buildings that mark the historic roots of the town and the reason for its economic viability. However, this example is a reminder of our recent heritage. The Yukon River Corridor landscape also holds evidence of a post-glacial lake and ancient river that are part of the human heritage of this area. Entire aboriginal villages have come and gone in the Yukon River Corridor since people first occupied the valley. The physical evidence of the valley's occupation is often subtle but the stories that hold our history are rich.

Because some of the heritage resources we have may not be obvious, like archaeological sites, or are too obvious, like the river itself, we have to be careful to consider what constitutes a heritage resource. We also have to give careful consideration to those obvious resources we have as they are rare and therefore valuable. It is important to note that any future verification of the importance of heritage sites documented in this study requires peer review by First Nations.

2.3.1 First Nations Sites

One of the most culturally significant features of the Yukon River Valley is the continuity of human occupation that dates back at least to the great post-glacial lake, Lake Champagne, that once filled the valley. There were people here who hunted the bison when the great lake dried and left a grassy plain. They were present when salmon first ran in the river. They watched the bison slowly disappear and the moose take their place as grassland changed to spruce forest.

Because they had a culture based on mobility, the First Nations of the Whitehorse area did not establish large villages with permanent structures. The seasonal round took the people from place to place in search of food and trade. Still, they returned every year to favourite fishing and camping spots, using the same

trails. This activity went on for millennia and we still see vestiges of it in the lives of Whitehorse's First Nation people.

The traditional places used by the First Nations remain in the minds of the elders. They have pointed out village sites, fishing spots, trails, berry picking sites and burial places. Many of these sites have been built over or otherwise disturbed. In this light, it is not the remains that are so important as the fact that the sites have been used by different cultures for a long, long time.

There are remains from these bygone eras in the form of artifacts and archaeological sites that tend to occur in traditional use areas that have not seen serious ground disturbance. The significance of many of these sites has yet to be determined, but all of them are important in the study of earlier peoples. These sites are fragile as any ground disturbance can erase the contextual data that is so important to the study. The valley has an impressively long history of human occupation and these sites have the potential to enrich the story with detail and new chapters.

2.3.2 Resources From The Newcomers

The people who came to the Yukon River Valley with the Klondike gold rush brought their material culture along with them. They had their own ideas on transportation, housing, communication and commerce. The need to get to the goldfields spawned tramlines, roads, railways and the sternwheelers. A townsite was laid out in a strict geometric pattern oriented to the railway and sternwheeler docks. Tents and wood frame buildings were erected, burned down, replaced, moved, and demolished in a constant metamorphosis that has left us with very few structures from the birth of the city.

World War II gave Whitehorse a massive infusion of new infrastructure such as an oil refinery, improvements to the White Pass Railway, and the addition of public services that, while not visible on the surface, significantly changed the lives of people living downtown. Even more importantly, the orientation of the City of Whitehorse began to change. With the coming of the highways, water transportation, and eventually the railway, were no longer so important. The life of the community refocused on the highway and the airport.

The grid pattern of the town remains, the basic infrastructure of the railway still dominates the waterfront and one of the last sternwheelers rests on the river bank. These are the legacies of Whitehorse as a transportation nexus and the commercial hub of the territory.

Outside of the downtown area there are other, more subtle reminders of our economic past. The sternwheelers and woodstoves of the Yukon required an enormous amount of wood for fuel. While oil and coal may have been more efficient fuels, they were hard to come by in the Yukon and expensive to import. Wood, on the other hand, was plentiful and had the added benefit of growing right next to the river. Woodcutting was an important industry in the Yukon while the sternwheelers were running and even today provides employment for many Yukoners.

Within the Yukon River Corridor in Whitehorse, there were several woodcamps. Some of these have camp and cabin remains associated with them but the stumps and new growth are perhaps the most important resources at the sites as they tell us much about the nature of the forest when it was cut and how it regenerated.

During the lean years from the 1910s through to the 1930s, Yukoners turned to many things to earn a living. Fox farming, and fur farming in general, were popular enterprises. Remains of these sites still dot the river Corridor.

As Whitehorse grew and modernized, its need for electricity also increased. Originally, the old Yukon Electrical Company building beside the White Pass depot supplied the town's power. By 1958, a full-scale hydroelectric project was required and the Whitehorse dam was constructed. This was a significant development in that it was a major industrial enterprise using the river as a power source and because it flooded out the rapids that had given the town its name and much of its character.

2.4 Profile of the Corridor User

The background research, interviews and public meetings leading up to the Yukon River Corridor Plan have shown that users seek a wide range of recreational, water based experiences including:

- motorized boating;
- canoeing, rafting or kayaking;
- scuba diving; and
- swimming.

Corridor users have also indicated the following land based activities that take place along the shoreline or within the Corridor boundary:

- viewing of the river;
- rest and relaxation;
- visiting a historic or interpretative site;
- hiking;
- biking;
- horseback riding;
- all terrain vehicle touring (ATV);
- cross country skiing;
- snowmobiling; and
- special events.

The users of the Corridor can be divided into three main groups: the Whitehorse resident, the visitor to the Whitehorse Region and the outdoor/adventure traveler. There is limited information on the number of users, their demographic profile and types of activities that they participate in while visiting the river Corridor. The information sources used to profile these groups of users included the following:

- interviews with representatives from interpretation facilities, tourism operators and facilities, tourism associations and recreational groups;
- the 1994 Visitor Exit Survey, Whitehorse Region and Adventure Travel Sector - published by the Government of Yukon, Department of Tourism; and
- Highlights From The 1997 Yukon River Survey published by the Government of Yukon, Department of Tourism.

2.4.1 Number Of Users

The following are 1998 estimates of visitors and recreational users to the Yukon River Corridor:

Visitors to Key Sites	# Visitors	Recreational Activity	# Users
Visitor Reception Centre	47,150	Guided boat trip	12,500
MacBride Museum	16,780	Canoe or Kayak Rental	1,000
Fishway	25,000	Canoe & Kayak Club	1,800
Historic site	22,000	Horseback Riding Rentals	1,500
Special Events At Rotary Park	29,750		

These estimates only reflect those users who visited a facility or participated in a guided or organized activity. They do not include the many users who visit the Corridor on their own and do not go to a facility. Data for hikers, skiers, mountain bikers, snowmobilers, orienteers and runners, as well as other activities, are not available.

2.4.2 The Whitehorse Resident

The Whitehorse residents who visit the river Corridor are typically independent users and are unlikely to visit the interpretation facilities. Therefore any estimates of users do not include the independent Whitehorse resident user and significantly underestimate the total users.

This user group is most familiar with the Corridor and the opportunities that it offers. They will participate in the full range of activities offered within the region. A portion of these users will access the more remote areas within the Corridor. Questionnaire results indicate that the Whitehorse resident who uses the Yukon River Corridor for work or as a means of getting to work, do so on a daily basis and those users participating in rest and relaxation and recreational activities are more likely to use the Corridor on a

weekly or monthly basis. Whitehorse residents may also act as tour guides and take friends or family members who are visiting Whitehorse to view the river.

2.4.3 Visitors To The Whitehorse Region

In 1994, 182,431 visitors travelled to the Whitehorse region, representing 88% of the total visitors to the Yukon. Of these visitors, 131,273 visitors actually stopped and spent some time within the region (72% of the region's visitors). The majority of these visitors (66.4%) were from the US, 20.2% from Canada and 13.4% from overseas countries. Typically these visitors spent 1 or 2 nights in Whitehorse.

Although it is not possible to estimate the share of Whitehorse Region travellers who visited the Yukon River Corridor, the survey did identify the attractions and activities the visitors participated in while in the region:

1994 Visitors To Whitehorse Region		
Attraction or Activity	**% of Visitors to Whitehorse Region**	**Estimated # of 1994 Visitors [2]**
Attractions[1]	21.4%	39,000
Outdoor Activities	14.3%	26,100
Museum	7.1%	13,000
Shopping	5.4%	9,900
Visiting Popular Sites	4.9%	8,900
Entertainment	4.5%	8,200
Guided Tours	4.0%	7,300
Hiking	2.0%	3,600
Other	3.1%	5,700

Source: 1994 Visitor Exit Survey

[1]Specific attractions are not available. It is assumed that these are visits to the Visitor Centre and Special Events.

[2]Respondents could provide more than one activity and therefore the estimated # of Visitors cannot be summed.

Based on these results it is assumed that the Whitehorse visitor will typically experience the river Corridor from the shoreline within the downtown area. Many will visit the Canyon City site and the other attractions within the Corridor or purchase a guided boat tour. Very few will hike along the trails or visit the more remote areas within the Corridor.

2.4.4 Outdoor/Adventure Travellers

In 1994, an estimated 52,300 visitors travelled to the Yukon for a wilderness/outdoor trip or participated in one or more wilderness/outdoor activities. Again it is not possible to estimate the percentage of these travellers who visited the Yukon River Corridor, however the majority did visit the Whitehorse Region sometime during their Yukon trip. These travellers are similar in origin to the Whitehorse Region visitor 59.5% from the US, 23.7% from Canada and 16.4% from overseas countries. These travellers were very active within the Yukon and many visited an attraction or participated in more than one outdoor activity as noted below:

1994 Adventure/Outdoor Travellers		
Attraction or Activity	**% of Visitors to Whitehorse Region**	**Estimated # of 1994 Visitors[1]**
Outdoor Wilderness Activities	83.7%	43,800
Visiting Attractions	71.6%	37,400
Visiting A Museum	47.8%	25,000
Arts & Cultural Events	25.6%	13,400
Fishing	25.4%	13,300
Guided Tours	24.2%	12,700
Wildlife Viewing	18.5%	9,700
Backpacking	15.7%	8,200
Canoeing	11.1%	5,800
Mountain Biking	9.7%	5,100
Guided Hiking	7.4%	3,900
Horseback Trail Riding	6.3%	3,300
Whitewater Rafting	4.0%	2,100

Source: 1994 Visitor Exit Survey

[1]Respondents could provide more than one activity and therefore the estimated # of Visitors cannot be summed.

These visitors are very active and are interested in learning about their destination. Due to this high interest in the outdoor setting, those outdoor/adventure travellers who did stop in the Whitehorse Region would more than likely have visited the river Corridor.

In 1997 a survey of travellers along the Yukon River system was undertaken. From this survey it is estimated that 2,125 travellers used the Yukon River system from June 13th to September 15th, 1997. The origin of these travellers was predominately overseas (66%), followed by 23% from Canada and 11% from the US. Just under half (42%) of these travellers 'put in' on the Yukon River. Although the actual location along the river was not identified, a portion of these travellers will have 'put in' at Whitehorse.

2.4.5 Factors Which May Influence Use

The Yukon River Corridor represents an area within walking distance of the city of Whitehorse which is rich in wildlife and heritage resources, and which supports a wide variety of recreational activities. The residents of Whitehorse actively use this Corridor for work, recreation and relaxation. The visitor to Whitehorse, on the other hand is limited in their use of the Corridor and may only view the river from the downtown area and not experience its many unique features. The following are some general factors that influence the degree to which the visitor will use the Yukon River Corridor:

- the amount of readily available information on what the river Corridor has to offer and ways to access the Corridor;
- ease of access to the river and number of access points to the Corridor;
- depth of water at varying times of the year which can impact navigation;
- a variety of activities and interpretative notes to experience and learn about the Corridor, this would include tourism operators, day use areas, interpretative facilities and signage.

These factors not only influence the use by visitors to the region, but Whitehorse residents as well.

By improving upon these factors, the number of users and frequency of visits could be increased. From a tourism perspective these in turn could result in increased economic benefits for Whitehorse. By increasing the number of things to see and do within the Whitehorse region, the visitor will be encouraged to stay longer and spend more money while visiting Whitehorse. However an increase in use could also result in negative impacts upon the natural and heritage features within the Corridor. The river Corridor plan must therefore respect the integrity of the natural setting and minimize its impact upon the resources within the Corridor.

3. First Nations Meetings

The following is a summary of the meetings and briefing sessions held with both the Taa'an Kwach'an Council and the Kwanlin Dun First Nation:

- Taa'an Kwach'an Council - Project Introduction Meeting;
- Taa'an Kwach'an Council - Elders' Workshop;
- Yukon River Boat Trip – City Council, Riverfront Planning Advisory Committee and Taa'an Kwach'an Council members in attendance; and
- Kwanlin Dun Land Claims Caucus – Project Briefing.

A workshop was held on October 9, 1998 with four Taa'an Kwach'an elders, Native Heritage Advisor Louise Profeit-LeBlanc, Gerald Isaac of Aboriginal Public Relations Consulting Services and Helene Dobrowolsky of Midnight Arts. The purpose of the workshop was to review the maps showing resources previously identified by Taa'an Kwach'an Council members and make any necessary changes to the information. The Workshop also provided the opportunity for Elders to share stories about these places or the Yukon River Corridor in general and to provide their thoughts concerning the preservation and management of these sites. A summary of the suggestions and recommendations from the Elders is provided in Section C of the Technical Supplement.

On February 11, 1999, the Kwanlin Dun Land Claims Caucus met with the Project Team for a briefing on the Yukon River Corridor Plan. Concern was expressed from both the Caucus and the Project Team over the fact that Kwanlin Dun land selections are not yet public information and as such, cannot be shown as part of the Yukon River Corridor Plan. It was also agreed that the land selections are a vital layer of information missing from the Yukon River Corridor Plan. The Yukon River Corridor is considered to be the very heart of Kwanlin Dun tradition, culture and heritage and is important to their collective future.

On November 22, 1999, the Kwanlin Dun Land Claims Caucus met with the City of Whitehorse and Gartner Lee Limited for a presentation on the Draft Yukon River Corridor Plan. The purpose of this meeting was to provide an opportunity for the further discussion on the Yukon River Corridor Plan.

4. Consultation and Community Vision

An extensive community consultation program was a key component to the preparation of the Yukon River Corridor Plan. A series of informal interviews, workshops, meetings and Open House sessions were held with Whitehorse residents, the general public, government agencies and local stakeholders to prepare a plan that is supported by the community as a whole. This consultation program was instrumental in obtaining information for the inventory stage of the study as well as input in the development of a community vision for the Corridor and the final plan.

4.1 Community Consultation

The consultation program was two-fold in nature. First, stakeholders with a direct interest in the Corridor were interviewed to gather information for the resource inventory and user profile and to gather impressions on the future direction for the Corridor. The second component involved Open House sessions with the general public to review information and to gather the general public's impression on their ideas for the Corridor. The following is a summary of the activities that were undertaken.

4.1.1 Stakeholder Interviews And Meetings

Interviews were held with well over 60 stakeholders including the following government agencies and river users:

- City of Whitehorse;
- Government of Canada;
- Government of Yukon;
- Museums & Visitor Attractions;
- Special Events Groups;
- Non Profit Organizations;
- Recreational Groups;
- River and Tour Operators; and
- Other Businesses.

In addition, workshops and briefing sessions were undertaken at key steps in the process with the Riverfront Planning Advisory Committee and City Council.

4.1.2 Open House Sessions

The first Open House was held at City Hall, Council Chambers on Tuesday, September 22, 1998, between 4 p.m. and 8 p.m. The purpose of this Open House was to provide the public with a chance to review and comment on the following features of the plan:

- the planning process,
- the Resource Inventory Maps and proposed Corridor boundary, and
- the proposed themes for interpretation along the Corridor.

A four page questionnaire was provided. Over 130 people attended the Open House and over 100 questionnaires were handed out. A total of 57 questionnaires were completed and handed in.

Due to the significant amount of information collected during the resource inventory phase, the public requested that the material be made available for further viewing. As a result, the Open House materials were on display for the month of October in the foyer of the YTG Administration Building.

The second Open House was held at City Hall, Council Chambers on Tuesday, November 17, 1998 between 4 p.m. and 8 p.m. The purpose of this Open House was to provide the public with a chance to review and comment on the following components of the planning study:

- analysis maps that interpret the resource inventory;
- the compendium of ideas that were developed from public and stakeholder comments;
- the results of the first Questionnaire; and
- the draft concept plan.

The resource inventory maps and materials displayed at the first Open House were also posted for reference and further review.

A one page exit survey was provided. Over 40 people attended the Open House and 16 exit surveys were completed and returned.

A third and final Open House was held on September 29, 1999 between 7:00 pm and 9:00 pm. The purpose of the final Open House was to review the draft Yukon Corridor Plan with the general public. A presentation was given on the approach and the policies contained within the plan as well as a summary of the technical information that was used to develop the plan. In addition, maps of the Draft Plan and the Theme Maps were displayed for review and comment. This meeting also provided an opportunity for the general public to direct questions to the planning team. A total of 33 people attended this open house and comments sheets were filled out by a total of 7 participants.

A blank copy of questionnaires and summary of the results for the first two Open House sessions are provided in Section D of the Technical Supplement.

4.2 How Users and the Public Value the River

During the stakeholder interviews and the first Open House, input was obtained on how users and the general public value the river Corridor. They were also asked to identify their concerns for the future of the river Corridor.

4.2.1 Input From Stakeholder Interviews And Meetings

The comments from the stakeholder interviews fall into three broad areas and are summarized below.

River Stories

- Visitors are impressed by the Yukon River's natural setting. As well as appreciating the river's natural history, they wish to learn more about the culture and history of local First Nations, the early history of Whitehorse and the sternwheeler era.

- People would like to see a range of story topics that encompass river hydrology, geology, wildlife, archaeology, First Nations history and culture and Whitehorse's historic role as the end of rail and head of steam navigation on the Yukon River.

- Some suggestions for specific locations and methods to present certain stories were made. Generally, the feeling was that more interpretive signage should be used in the downtown area, on heavily-travelled trails, and at day use areas.

- Many felt that the Canyon City site is an important heritage and recreational site, deserving of further development. Over the past few years, archaeological programs and guided walks to the site have been very popular with visitors.

Recreation

- The trails along the Corridor are heavily-used for a variety of purposes: hiking, running, orienteering, cycling, skiing, horseback riding, motorized vehicles, etc. People are concerned about protecting these trails and avoiding land use conflicts.

- Recreational users of the river include those who enjoy a peaceful spot to watch the river flow as well as those engaged in more strenuous pursuits. All were concerned with getting better access to the river.

- Many use the river as a summer highway. This means vessels need to have proper docking facilities and boaters should show respect for other river travellers.

- In summer, Rotary Park hosts events such as the Yukon Storytelling Festival and the Klondike Harvest Fair. There is a need for another park for large gatherings as well as more smaller "pocket parks".

Environmental Concerns

- Most stakeholders felt that we are not looking after the river as well as we could. Not only should we do a better job of cleaning up the river, but we should also try to beautify its banks, maintain trails and take better "visual care" of the Corridor.

- As in many other parts of the city, vandalism is a problem along the river. Problems range from garbage left by bush parties to defacing signage and damaging facilities.

4.2.2 Input From The General Public

Almost all (82%) of the 57 respondents who completed the questionnaire distributed at the first Open House were residents of Whitehorse, not living along the river front. Of the remaining respondents 7% live along the river, 7% are Yukoners living outside of Whitehorse and 4% were visitors to the Yukon. The most popular activities undertaken by these respondents were:

Land Based Activities

- Hiking and walking (52%)
- Viewing the river from the shore (46%)
- Visiting the fish ladder (36%)
- Visiting historic sites (30%).

Water Based Activities

- canoeing/kayaking (70%)
- fishing (30%)
- motor boating (26%)
- rafting (19%).

The top three things they liked most about the Yukon River and its Corridor were its:

- natural beauty (72%) including wildlife and bird watching, natural habitat, lack of manmade features, etc.;
- recreational opportunities (49%); and
- heritage/historical significance (44%).

The respondents perceived the greatest threats to the well being of the Yukon River Corridor to be the following:

- over-development (49%);
- pollution (39%);
- lack of careful planning and management (20%); and
- over use of land (12%).

Respondents indicated that the following initiatives could be undertaken to improve upon areas of concern:

- careful planning which includes protection of sensitive areas, public consultation and education (53%);
- recreational planning, e.g. development of recreational facilities, trails, multi-use areas, etc. (37%); and
- clean up of contaminated sites (21%).

When asked whether access to the Yukon River required improvement, 70% of respondents indicated that they would like to see access improved. Suggested methods of improving access included the following:

- increase land based services, for example, trails, day use areas, washrooms, etc. that are sensitive to the natural surroundings and carefully planned (73%);
- increase water access and services such as marinas and boat tours (35%); and
- enhance the existing trails/facilities (18%).

The top three activities to promote increased use of the Yukon River Corridor that were rated "very important" or "important" were to maintain the natural setting (84%), provide more parkland along the River (77%) and designate areas for hiking and increase trails (74%).

As mentioned, the questionnaire and results of the analysis are provided in greater detail in Section D of the Technical Supplement.

4.3 Compendium of Ideas For the Future of The River Corridor

The following statements capture the ideas and plans suggested by the Whitehorse community for the future of the Yukon River Corridor. These suggestions represent a consolidation of input from the stakeholder interviews, First Nations meetings and Open House sessions. These statements provided the basis of the Planning Principles and final plan presented in Chapters 6 and 7.

Increase River Use and Access To The River

- Get more people to the water's edge, increase access points
- Get more people onto the river and across to the other (east) side
- Consider the river as a "highway" and a means to move people around
- Increase recreational opportunities - land based (hiking, camping, wildlife viewing) and water based (boating, fishing,)
- Create places for solitude and contemplation
- Solve use conflicts between different types of water users (power boats, canoe/kayaks, private boating, commercial (tour) boating and floatplanes)

Support Tourism/Eco-Tourism/Heritage Interpretation

- Improve information on the river Corridor - provide information to visitors as to how to get to the river and ways to experience it (maps, promotional material, list of tourism operators)
- Feature the river as a wilderness experience within the backyard of the City - just 15 minutes away
- Increase opportunities for visitors to experience the river - waterfront tours, wildlife viewing, interpretive nodes and many more.

Position Canyon City As A Major Feature Within The Corridor

- Increase interpretation at Canyon City … Bring its story to Life!
- The site provides interpretation and recreational opportunities, expand upon these - consider an interpretive centre, wharf, and other related facilities.
- Re-construct parts of Canyon City site … consider joint project with government and First Nations).

Consider Additional Facilities To Experience The River Corridor

- Facilitate different levels of access (i.e. motorized, non-motorized, elderly, disabled**)**
- Increase use of the waterway via boat launches, docks, rentals, water-related businesses (marinas) and facilities for kayakers at intake area
- Need for a community outdoor events facility to bring elderly, disabled out to natural settings – low impact, sensitive to surroundings
- Need for another site for a future park – look at North and South ends of City
- Consider methods of providing low impact signage (brochures at trailheads, interpretive nodes)
- Day Use Areas at Schwatka Lake
- Second Bridge needed, pontoon bridge from hydro dam to shore
- Facilities at Long Lake
- New facilities should be sensitive to natural surroundings

Maintain The Environmental Integrity of The Corridor

- Ensure a balance between human uses and wildlife habitat uses, with increased use and access there is a potential for negative environmental impacts
- Show respect for environmentally sensitive areas by staying away from these areas and ensuring their long term protection. This form of respect is particularly important to First Nations.
- Clean-up areas along the Corridor - industrial businesses along the river, the substation and others - consider funding for non-profit clean-ups
- create opportunities for youth
- Discourage garbage dumping and bush parties
- Ensure that habitat connections and linkages to natural areas are maintained
- Use of public “buffers” along river to ensure access and preservation of natural setting
- Provide trails to wildlife viewing areas – not through them
- New facilities should be sensitive to natural surroundings
- Take advantage of this opportunity to plan for the future – ensure access is appropriate, open and public

5. Corridor Analysis – Theme Maps

This chapter presents the analysis that was carried out to identify existing features and future opportunities in the Yukon River Corridor that are in keeping with the character and sensitivity as identified in the resource inventory (Chapter 2) and in the context of the community statements and values for the Corridor (Chapter 4).

The questionnaire results and community statements were used to define common themes that the public and stakeholders identified as being important in the Yukon River Corridor Plan. These common themes were:

- Provision of access points to the river;
- Protection of critical wildlife habitat;
- Protection of environmentally sensitive areas;
- Identification of lands for public use;
- Preservation of the natural character of the river and Corridor;
- Preservation of important heritage and historical areas;
- Improvement of existing trail systems; and
- Promotion of wildlife viewing areas.

The information gathered during the Yukon River Corridor Resource Inventory (See Technical Supplement) was evaluated and used to prepare Theme Maps that illustrate opportunities for the application of the common themes and values listed above. The Theme Maps are:

Map 2 - Degree of Human Modification and Selected Natural Features
Map 3 - First Nation Heritage Sites
Map 4 - Historic Sites
Map 5 - Constraints to Development and Sensitive Areas
Map 6 - Existing Corridor Uses and Activities

These Theme Maps formed the basis for the delineation of land uses and policy recommendations described in Chapters 6 and 7 of this document. The following paragraphs provide a description of each Theme Map.

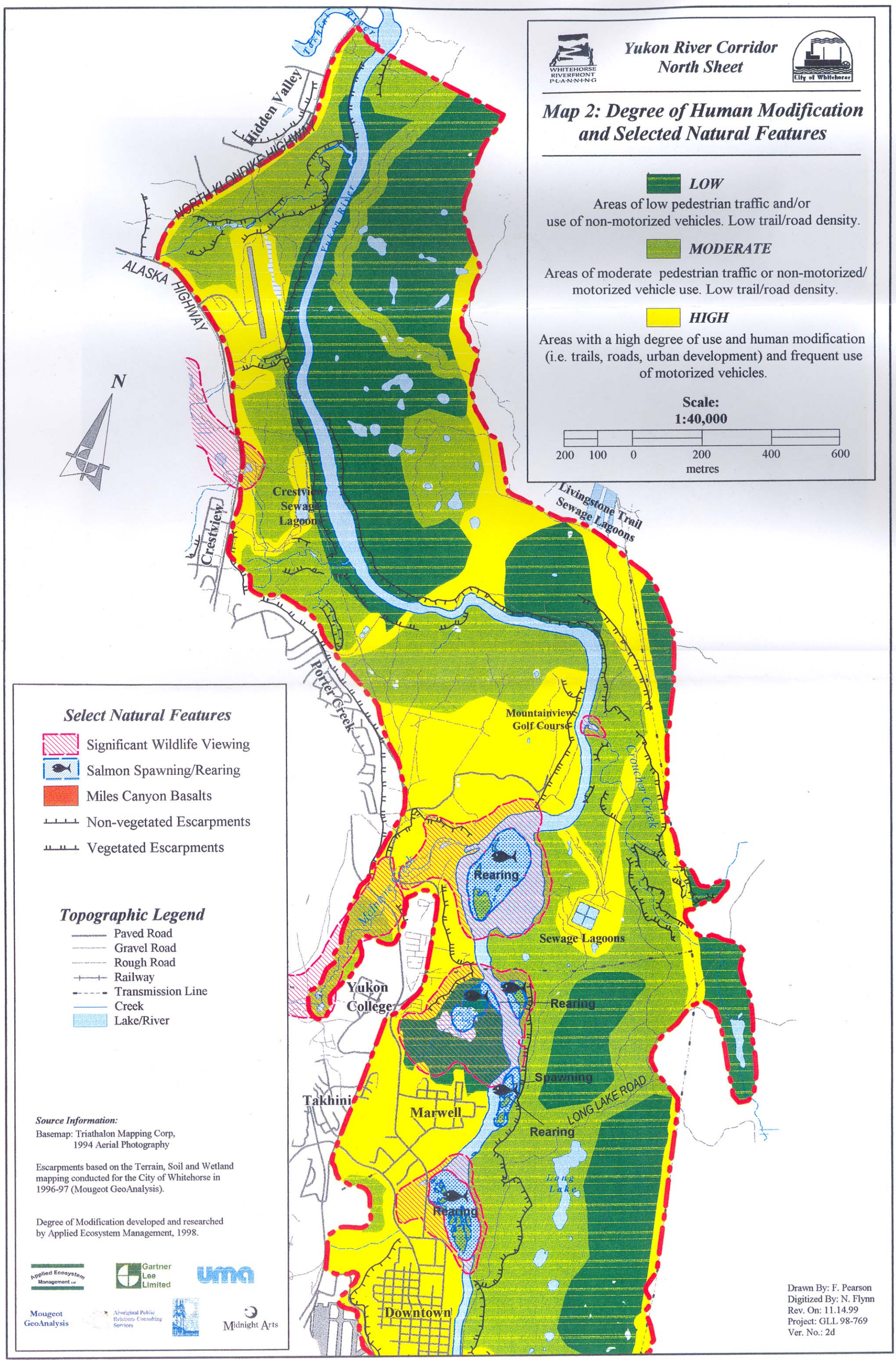
5.1 Map 2 - Degree of Human Modification and Selected Natural Features

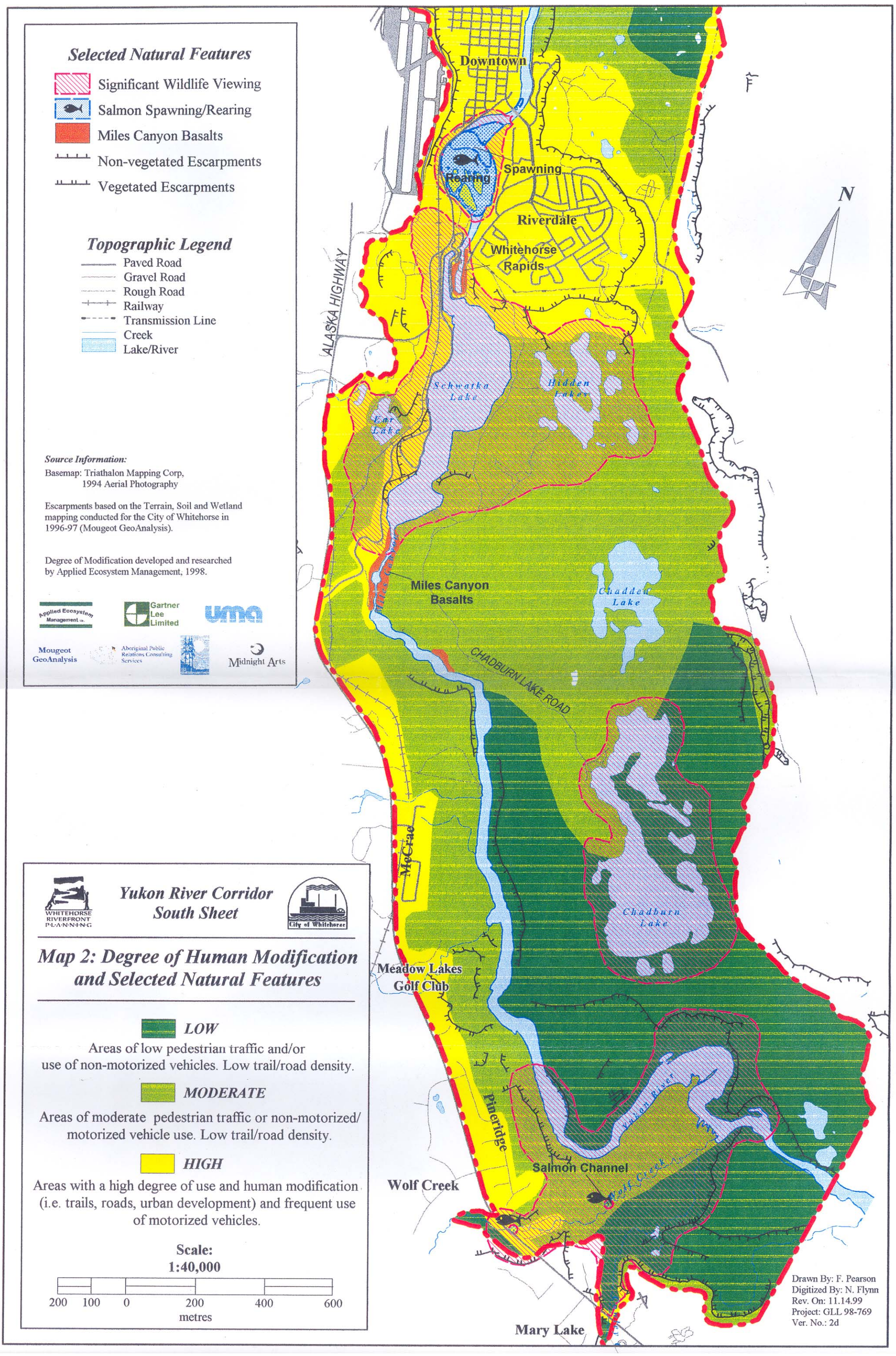
This map utilizes the base information found in the resource inventory and identifies opportunity areas within the Corridor for:

- Preservation of Important Wildlife Habitat;
- Preservation of Natural Character of the Corridor; and
- Wildlife Viewing Areas.

The *natural character* of the Corridor was mapped in terms of "degree of human modification". Simply put, areas that have undergone a high degree of human modification (i.e. urban areas, roads, etc.) have limited natural character. Other areas that are relatively free of human influences (i.e. Chadburn Lake Area) display a relatively high level of natural character that is worth preserving.

Important wildlife habitats and wildlife viewing areas were mapped in a previous study (AEM, 1998) and further work was carried out in this area in partnership with Yukon Territorial Government Department of Renewable Resources as part of the Yukon River Corridor planning project. Important wildlife habitats and areas identified as having high potential for wildlife viewing are indicated on Map 2. In most cases, important habitats provide the opportunity for wildlife viewing, and can therefore be considered one and the same. Future use and development of these viewing areas will depend on the environmental sensitivity ranking of the area (see Map 5). In addition to the presence of wildlife, this map also illustrates viewpoints (elevated ridges or escarpments) that command a *scenic view* of a portion of the Corridor. In some cases, the view commanded from these escarpments includes a wildlife viewing area as is the case with the escarpments at the mouth of McIntyre Creek.

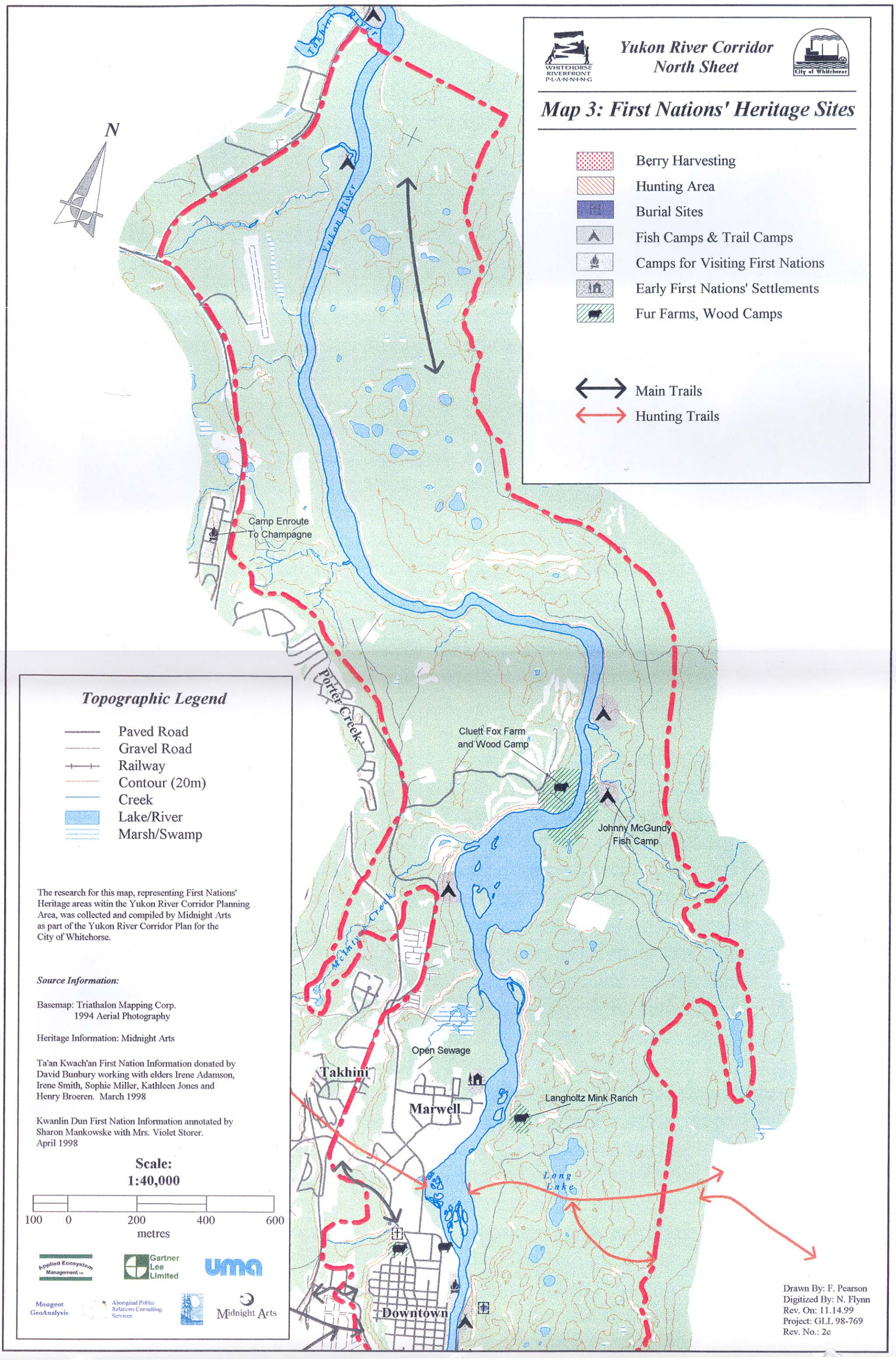

Yukon River Corridor
North Sheet
WHITEHORSE RIVERFRONT PLANNING
City of Whitehorse
Map 2: Degree of Human Modification and Selected Natural Features
LOW
Areas of low pedestrian traffic and/or use of non-motorized vehicles. Low trail/road density.
MODERATE
Areas of moderate pedestrian traffic or non-motorized/ motorized vehicle use. Low trail/road density.
HIGH
Areas with a high degree of use and human modification (i.e. trails, roads, urban development) and frequent use of motorized vehicles.
Scale:
1:40,000
200 100 0 200 400 600
metres
N
Hidden Valley
NORTH KLONDIKE HIGHWAY
ALASKA HIGHWAY
Yukon River
Crestview
Crestview Sewage Lagoon
Livingstone Trail Sewage Lagoons
Porter Creek
Mountainview Golf Course
Croucher Creek
McIntyre Creek
Rearing
Sewage Lagoons
Yukon College
Rearing
Spawning
Takhini
Marwell
LONG LAKE ROAD
Rearing
Long Lake
Rearing
Downtown
Select Natural Features
Significant Wildlife Viewing
Salmon Spawning/Rearing
Miles Canyon Basalts
Non-vegetated Escarpments
Vegetated Escarpments
Topographic Legend
Paved Road
Gravel Road
Rough Road
Railway
Transmission Line
Creek
Lake/River
Source Information:
Basemap: Triathalon Mapping Corp, 1994 Aerial Photography
Escarpments based on the Terrain, Soil and Wetland mapping conducted for the City of Whitehorse in 1996-97 (Mougeot GeoAnalysis).
Degree of Modification developed and researched by Applied Ecosystem Management, 1998.
Applied Ecosystem Management Ltd.
Gartner Lee Limited
Mougeot GeoAnalysis
Aboriginal Public Relations Consulting Services
Midnight Arts
Drawn By: F. Pearson
Digitized By: N. Flynn
Rev. On: 11.14.99
Project: GLL 98-769
Ver. No.: 2d


Selected Natural Features
Significant Wildlife Viewing
Salmon Spawning/Rearing
Miles Canyon Basalts
Non-vegetated Escarpments
Vegetated Escarpments
Topographic Legend
Paved Road
Gravel Road
Rough Road
Railway
Transmission Line
Creek
Lake/River
Source Information:
Basemap: Triathalon Mapping Corp, 1994 Aerial Photography
Escarpments based on the Terrain, Soil and Wetland mapping conducted for the City of Whitehorse in 1996-97 (Mougeot GeoAnalysis).
Degree of Modification developed and researched by Applied Ecosystem Management, 1998.
Applied Ecosystem Management Ltd.
Gartner Lee Limited
UMA
Mougeot GeoAnalysis
Aboriginal Public Relations Consulting Services
Midnight Arts
WHITEHORSE RIVERFRONT PLANNING
Yukon River Corridor South Sheet
City of Whitehorse
Map 2: Degree of Human Modification and Selected Natural Features
LOW
Areas of low pedestrian traffic and/or use of non-motorized vehicles. Low trail/road density.
MODERATE
Areas of moderate pedestrian traffic or non-motorized/ motorized vehicle use. Low trail/road density.
HIGH
Areas with a high degree of use and human modification (i.e. trails, roads, urban development) and frequent use of motorized vehicles.
Scale:
1:40,000
200 100 0 200 400 600
metres
Downtown
Spawning
Rearing
Riverdale
Whitehorse Rapids
ALASKA HIGHWAY
Schwatka Lake
Hidden Lake
Ear Lake
Miles Canyon
Miles Canyon Basalts
Chadden Lake
CHADBURN LAKE ROAD
McCrae
Chadburn Lake
Meadow Lakes Golf Club
Pineridge
Yukon River
Salmon Channel
Wolf Creek
Mary Lake
N
Drawn By: F. Pearson
Digitized By: N. Flynn
Rev. On: 11.14.99
Project: GLL 98-769
Ver. No.: 2d

5.2 Map 3 - First Nations' Heritage Sites

The First Nations were hunters and gatherers and maintained a special relationship with the land. The legacy of their way of life and wealth of knowledge gained about the land on which they lived can be broadly defined as "Traditional Knowledge" and is documented primarily through verbal information from First Nation Elders. Meetings were held with the Taa'an Kwach'an First Nation and the Kwanlin Dun First Nations to help identify areas within the Corridor that are important in the context of *First Nation heritage*. The map identifies areas that were used for:

- Berry picking;
- Burial Sites;
- Hunting trails;
- Fishing Camps;
- Visiting First Nation Camp Sites; and
- Wood Camps; and
- Travel routes such as main trails and hunting trails.


WHITEHORSE RIVERFRONT PLANNING
Yukon River Corridor
North Sheet
City of Whitehorse
Map 3: First Nations' Heritage Sites
Berry Harvesting
Hunting Area
Burial Sites
Fish Camps & Trail Camps
Camps for Visiting First Nations
Early First Nations' Settlements
Fur Farms, Wood Camps
Main Trails
Hunting Trails
N
Yukon River
Camp Enroute
To Champagne
Porter Creek
Cluett Fox Farm
and Wood Camp
Johnny McGundy
Fish Camp
Open Sewage
Takhini
Marwell
Langholtz Mink Ranch
Long Lake
Downtown
Topographic Legend
Paved Road
Gravel Road
Railway
Contour (20m)
Creek
Lake/River
Marsh/Swamp
The research for this map, representing First Nations' Heritage areas witin the Yukon River Corridor Planning Area, was collected and compiled by Midnight Arts as part of the Yukon River Corridor Plan for the City of Whitehorse.
Source Information:
Basemap: Triathalon Mapping Corp.
1994 Aerial Photography
Heritage Information: Midnight Arts
Ta'an Kwach'an First Nation Information donated by David Bunbury working with elders Irene Adamson, Irene Smith, Sophie Miller, Kathleen Jones and Henry Broeren. March 1998
Kwanlin Dun First Nation Information annotated by Sharon Mankowske with Mrs. Violet Storer. April 1998
Scale:
1:40,000
100 0 200 400 600
metres
Applied Ecosystem Management
Gartner Lee Limited
uma
Mougeot GeoAnalysis
Aboriginal Public Relations Consulting Services
Midnight Arts
Drawn By: F. Pearson
Digitized By: N. Flynn
Rev. On: 11.14.99
Project: GLL 98-769
Rev. No.: 2c

Topographic Legend

- Paved Road
- Gravel Road
- Railway
- Contour (20m)
- Creek
- Lake/River
- Marsh/Swamp

The research for this map, representing First Nations' Heritage areas witin the Yukon River Corridor Planning Area, was collected and compiled by Midnight Arts as part of the Yukon River Corridor Plan for the City of Whitehorse.

Source Information:

Basemap: Triathalon Mapping Corp.
1994 Aerial Photography

Heritage Information: Midnight Arts

Ta'an Kwach'an First Nation Information donated by David Bunbury working with elders Irene Adamson, Irene Smith, Sophie Miller, Kathleen Jones and Henry Broeren. March 1998

Kwanlin Dun First Nation Information annotated by Sharon Mankowske with Mrs. Violet Storer. April 1998

Scale:
1:40,000

100 0 200 400 600
metres

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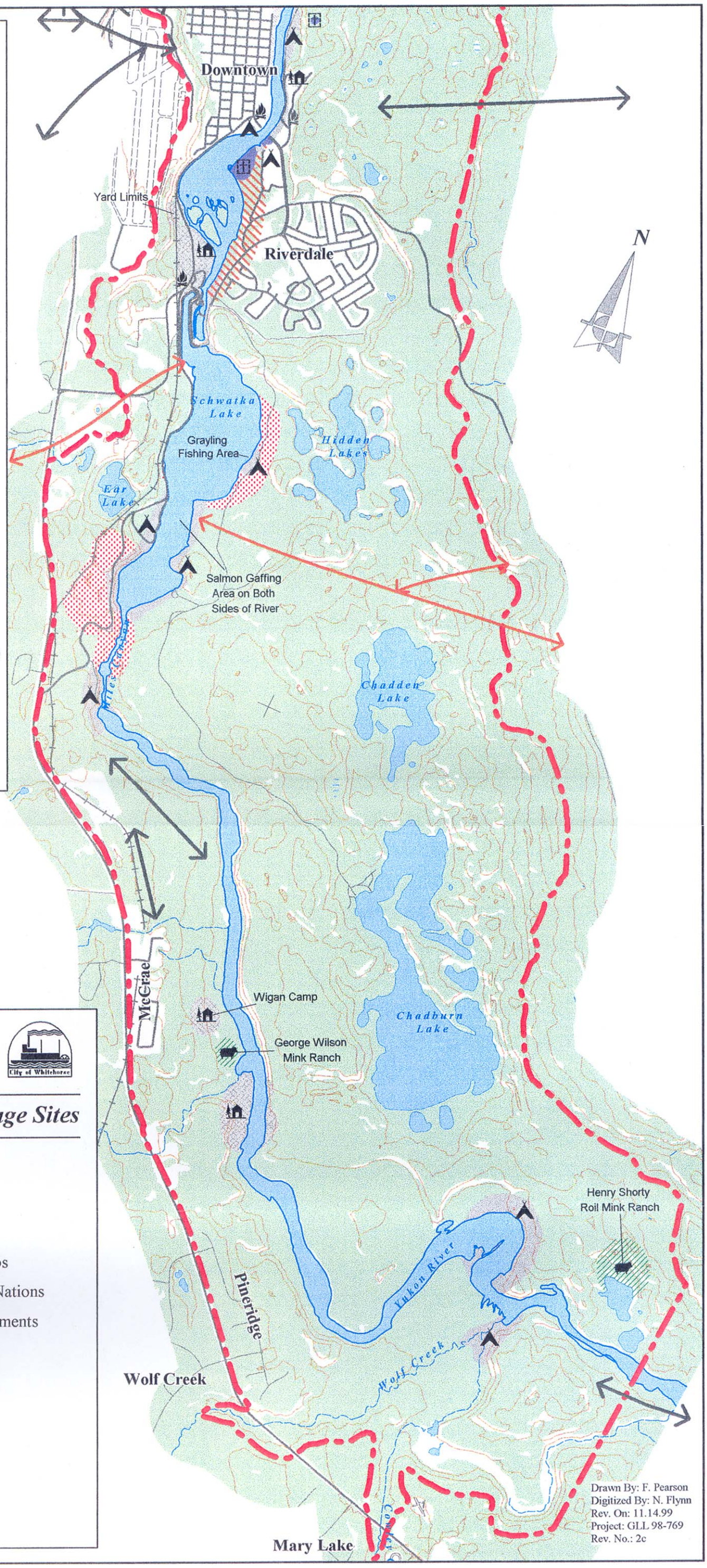


WHITEHORSE RIVERFRONT PLANNING

City of Whitehorse

Yukon River Corridor South Sheet

Map 3: First Nations' Heritage Sites

- Berry Harvesting
- Hunting Area
- Burial Sites
- Fish Camps & Trail Camps
- Camps for Visiting First Nations
- Early First Nations' Settlements
- Fur Farms, Wood Camps

- Main Trails
- Hunting Trails

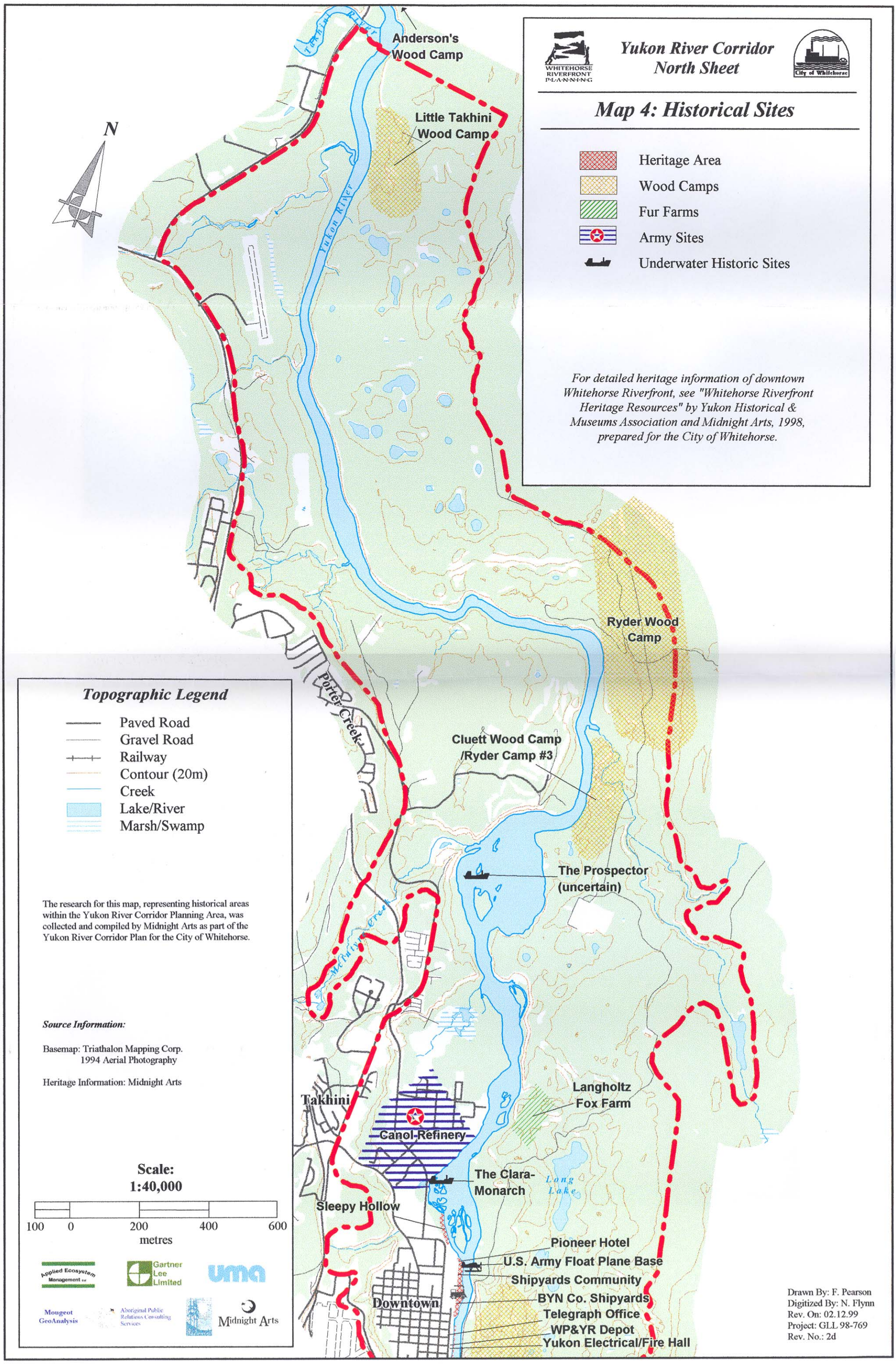
Drawn By: F. Pearson
Digitized By: N. Flynn
Rev. On: 11.14.99
Project: GLL 98-769
Rev. No.: 2c

5.3 Map 4 - Historic Sites

Old buildings and the scenes of significant events are what come to mind for most people when they think of historic sites. But the landscape features and the river itself are important heritage resources in the Yukon River Corridor. The riverbanks, eddies and ancient shorelines were all used by people and have stories to tell. Other stories still lie hidden under land and water in the archaeological resources of the valley and they must be considered valuable for the information they hold. In addition, of course, are the buildings, railway, sternwheeler and other remains that recall the reasons for the founding of the town and the structures and patterns of settlement that bear evidence of its growth and change.

This map identifies the following types of historic sites:

- Underwater Sites;
- Tramways;
- British Yukon Northern Site;
- Fur Farm Sites;
- Canyon City;
- White Pass and Yukon Railway Site; and
- Other Government Buildings.


Yukon River Corridor
North Sheet
Map 4: Historical Sites
Heritage Area
Wood Camps
Fur Farms
Army Sites
Underwater Historic Sites
For detailed heritage information of downtown Whitehorse Riverfront, see "Whitehorse Riverfront Heritage Resources" by Yukon Historical & Museums Association and Midnight Arts, 1998, prepared for the City of Whitehorse.
N
Anderson's Wood Camp
Little Takhini Wood Camp
Yukon RIVER
Ryder Wood Camp
Porter Creek
Cluett Wood Camp /Ryder Camp #3
The Prospector (uncertain)
Takhini
Langholtz Fox Farm
Canol Refinery
The Clara-Monarch
Long Lake
Sleepy Hollow
Pioneer Hotel
U.S. Army Float Plane Base
Shipyards Community
BYN Co. Shipyards
Telegraph Office
WP&YR Depot
Yukon Electrical/Fire Hall
Downtown
Topographic Legend
Paved Road
Gravel Road
Railway
Contour (20m)
Creek
Lake/River
Marsh/Swamp
The research for this map, representing historical areas within the Yukon River Corridor Planning Area, was collected and compiled by Midnight Arts as part of the Yukon River Corridor Plan for the City of Whitehorse.
Source Information:
Basemap: Triathalon Mapping Corp. 1994 Aerial Photography
Heritage Information: Midnight Arts
Scale: 1:40,000
100 0 200 400 600
metres
Applied Ecosystem Management
Gartner Lee Limited
Mougeot GeoAnalysis
Aboriginal Public Relations Consulting Services
Midnight Arts
Drawn By: F. Pearson
Digitized By: N. Flynn
Rev. On: 02.12.99
Project: GLL 98-769
Rev. No.: 2d

Topographic Legend

- Paved Road
- Gravel Road
- Railway
- Contour (20m)
- Creek
- Lake/River
- Marsh/Swamp

The research for this map, representing historical areas within the Yukon River Corridor Planning Area, was collected and compiled by Midnight Arts as part of the Yukon River Corridor Plan for the City of Whitehorse.

Source Information:

Basemap: Triathalon Mapping Corp.
1994 Aerial Photography

Heritage Information: Midnight Arts

Scale:
1:40,000

100 0 200 400 600
metres

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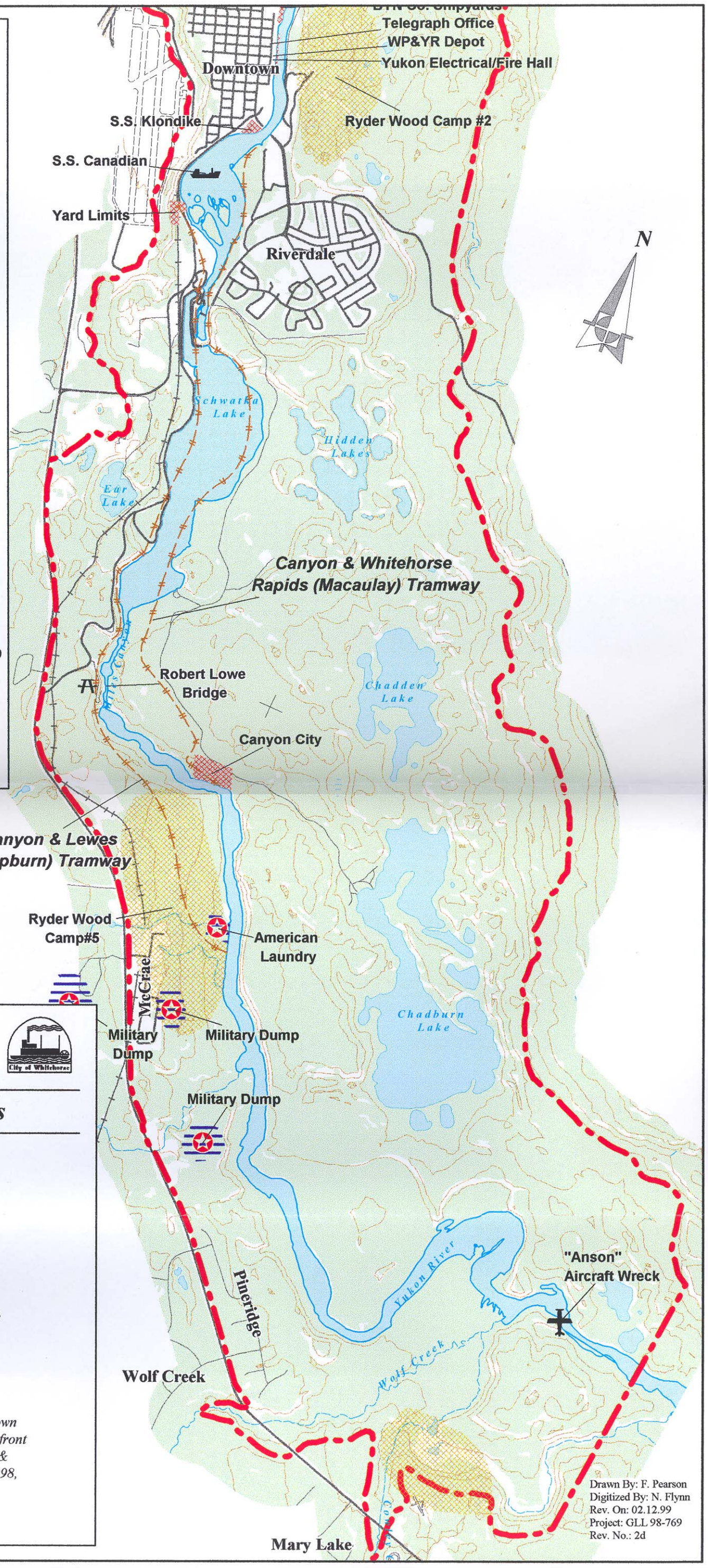

WHITEHORSE RIVERFRONT PLANNING

Yukon River Corridor South Sheet

City of Whitehorse

Map 4: Historical Sites

- Heritage Area
- Wood Camps
- Fur Farms
- Army Sites
- Underwater Historic Sites
- Tramways

For detailed heritage information of downtown Whitehorse Riverfront, see "Whitehorse Riverfront Heritage Resources" by Yukon Historical & Museums Association and Midnight Arts, 1998, prepared for the City of Whitehorse.

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Rev. On: 02.12.99
Project: GLL 98-769
Rev. No.: 2d

5.4 Map 5 - Constraints to Development and Sensitive Areas

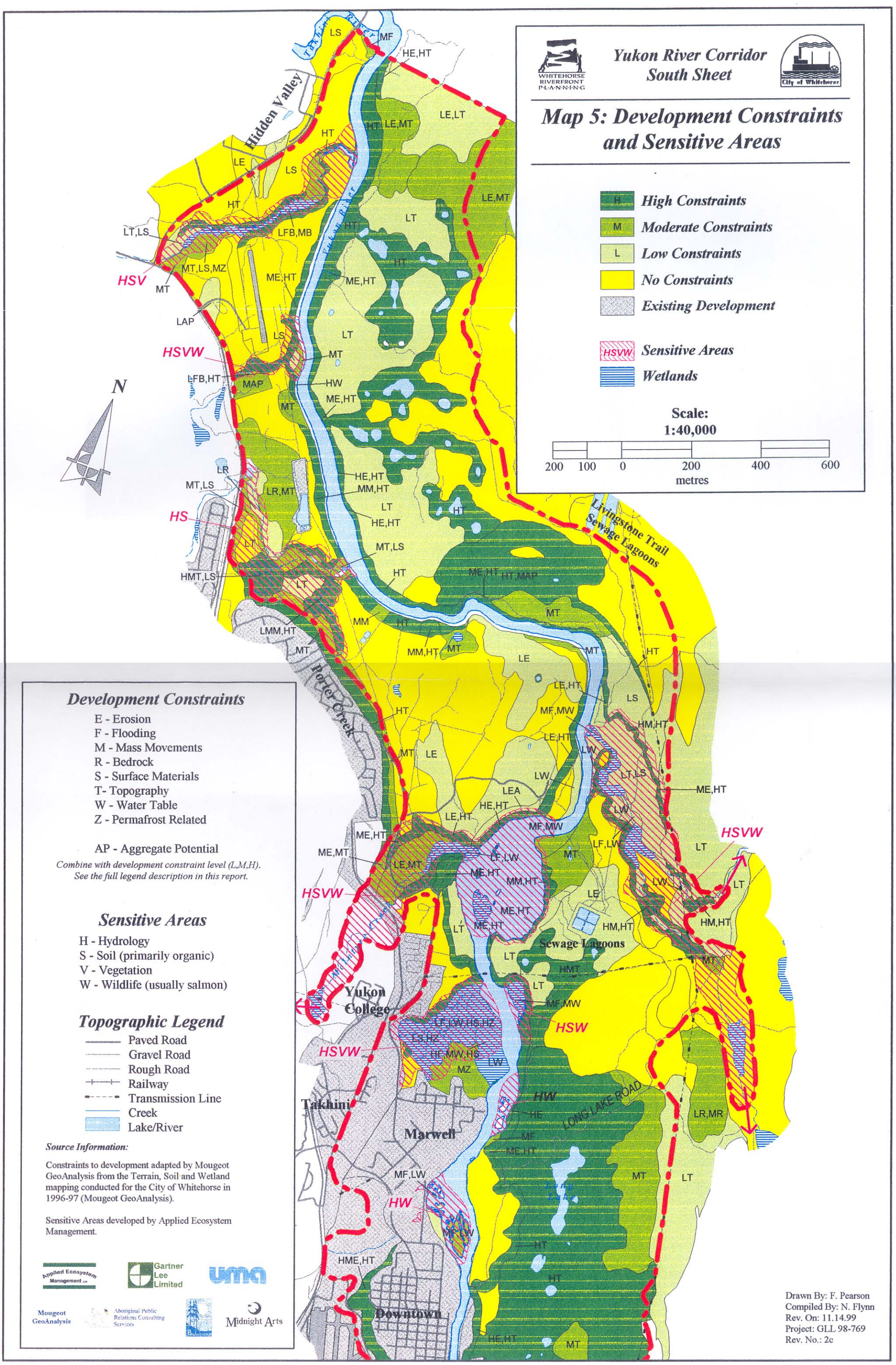
Existing *physical constraints to development* were important factors in considering future land uses and activities in the Corridor. Development constraints were identified through a terrain analysis based on air photo interpretation supplemented with field ground truthing as required. Potential terrain hazards were identified such as the presence of permafrost, surface erosion risk resulting from surface disturbance, mass movement hazards and landslide areas.

Analysis of the Terrain and Surficial Geology Map of the City of Whitehorse (Mougeot and Smith, 1998) was used to produce five classifications within the Corridor study area. These were:

- No Constraints to Development;
- Low Constraints;
- Moderate Constraints;
- High Constraints; and
- Existing Urban Use.

Ecological attributes, such as vegetation and wildlife habitat, were combined with soil and terrain characteristics to *identify sensitive areas* within the Corridor study area. Sensitive areas were defined as sites with low tolerance to human disturbance where slight alterations would result in functional or structural changes to the landscape unit with potentially negative impacts on wildlife or visual aesthetics. In the identification of sensitive areas, *aquatic interfaces* were considered important, significant wildlife and fisheries areas were incorporated, vegetation conditions were considered, steep slopes composed of certain types of erodable materials were identified, and specific soil conditions susceptible to rutting and compaction were included.

A common buffer width was not identified around all water features since a fixed-width approach to sensitivity classification has no ecological basis. In this planning exercise, the *entire landscape unit* has been considered for the constraints mapping. For example, it makes no sense within a well defined gully or a drainage basin to apply a 100 m buffer to a small stream.


Yukon River Corridor
South Sheet
Map 5: Development Constraints and Sensitive Areas
High Constraints
Moderate Constraints
Low Constraints
No Constraints
Existing Development
Sensitive Areas
Wetlands
Scale:
1:40,000
200 100 0 200 400 600
metres
N
Hidden Valley
Yukon River
Livingstone Trail
Sewage Lagoons
Porter Creek
Sewage Lagoons
Yukon College
Takhini
Marwell
Downtown
LONG LAKE ROAD
HSV
HSVW
HS
HSW
HW
Development Constraints
E - Erosion
F - Flooding
M - Mass Movements
R - Bedrock
S - Surface Materials
T- Topography
W - Water Table
Z - Permafrost Related
AP - Aggregate Potential
Combine with development constraint level (L,M,H).
See the full legend description in this report.
Sensitive Areas
H - Hydrology
S - Soil (primarily organic)
V - Vegetation
W - Wildlife (usually salmon)
Topographic Legend
Paved Road
Gravel Road
Rough Road
Railway
Transmission Line
Creek
Lake/River
Source Information:
Constraints to development adapted by Mougeot GeoAnalysis from the Terrain, Soil and Wetland mapping conducted for the City of Whitehorse in 1996-97 (Mougeot GeoAnalysis).
Sensitive Areas developed by Applied Ecosystem Management.
Applied Ecosystem Management
Gartner Lee Limited
Mougeot GeoAnalysis
Aboriginal Public Relations Consulting Services
Midnight Arts
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Compiled By: N. Flynn
Rev. On: 11.14.99
Project: GLL 98-769
Rev. No.: 2c

Development Constraints

E - Erosion
F - Flooding
M - Mass Movements
R - Bedrock
S - Surface Materials
T- Topography
W - Water Table
Z - Permafrost Related

AP - Aggregate Potential

Combine with development constraint level (L,M, H). See the full legend description in this report.

Sensitive Areas

H - Hydrology
S - Soil (primarily organic)
V - Vegetation
W - Wildlife (usually salmon)

Topographic Legend

- Paved Road
- Gravel Road
- Rough Road
- Railway
- Transmission Line
- Creek
- Lake/River

Source Information:

Constraints to development adapted by Mougeot GeoAnalysis from the Terrain, Soil and Wetland mapping conducted for the City of Whitehorse in 1996-97 (Mougeot GeoAnalysis).

Sensitive Areas developed by Applied Ecosystem Management.

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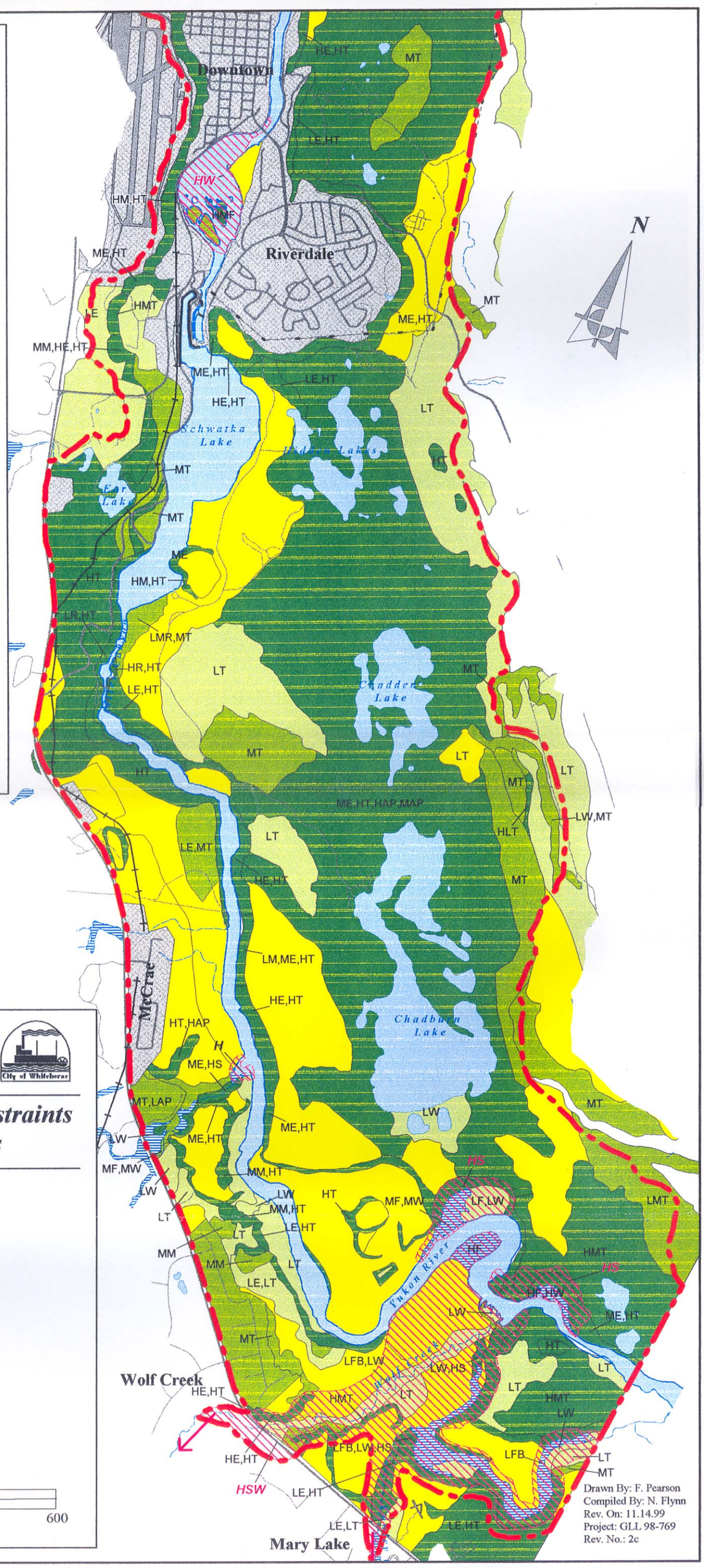


WHITEHORSE RIVERFRONT PLANNING

Yukon River Corridor South Sheet

City of Whitehorse

Map 5: Development Constraints and Sensitive Areas

- H — *High Constraints*
- M — *Moderate Constraints*
- L — *Low Constraints*
- *No Constraints*
- *Existing Development*
- HSVW — *Sensitive Areas*
- *Wetlands*

Scale:
1:40,000

200 100 0 200 400 600
metres

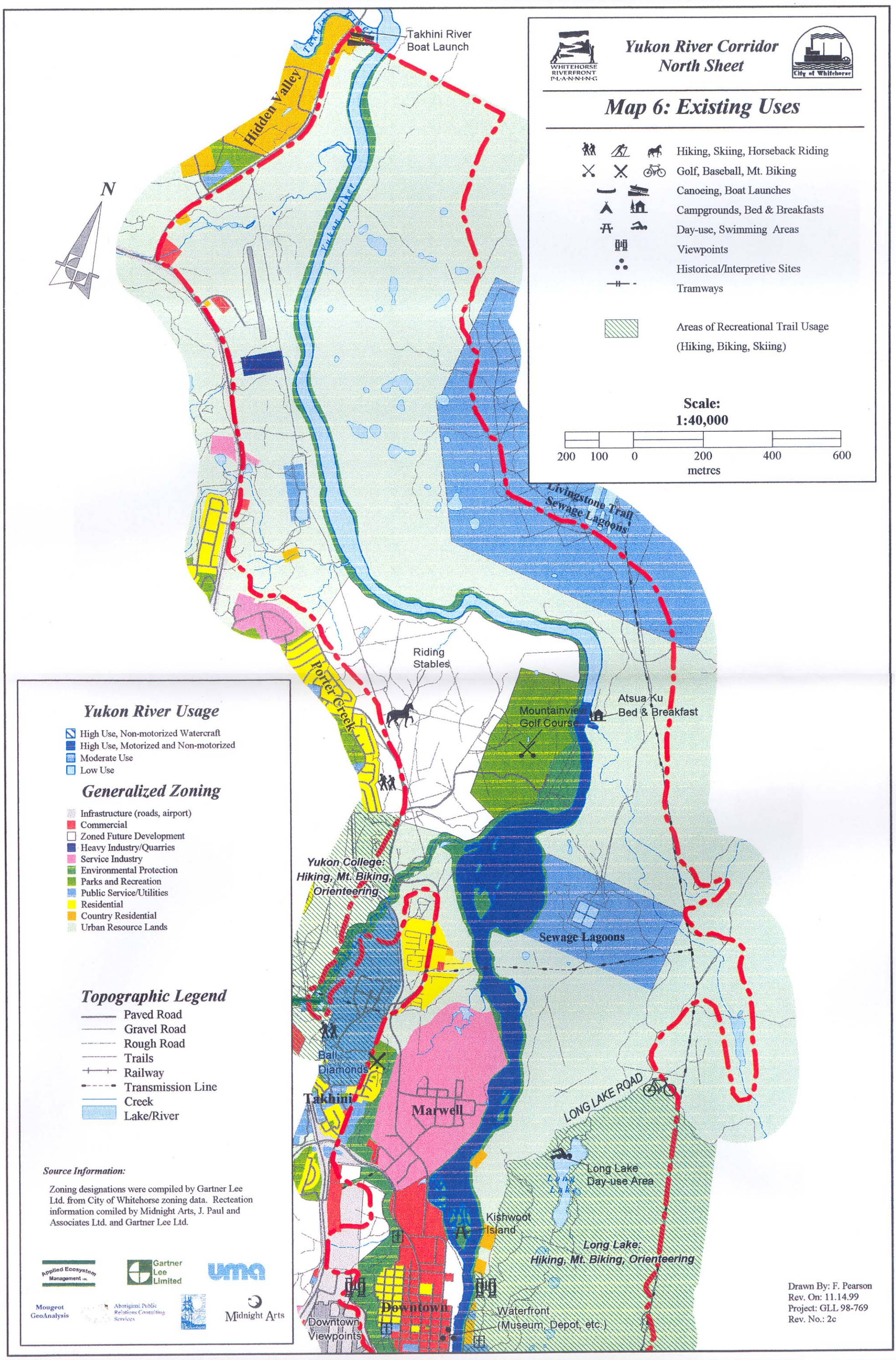
Drawn By: F. Pearson
Compiled By: N. Flynn
Rev. On: 11.14.99
Project: GLL 98-769
Rev. No.: 2c

5.5 Map 6 - Existing Uses

A land use plan for the Yukon River Corridor must recognize and, where appropriate, build on the existing use and activities on the Corridor lands and on the river itself. Through a process of interviews and research, the study team completed an inventory of land uses and activities within the Corridor. These are illustrated on Map 6 and include:

- Boat Launches (public and private);
- Viewing Areas;
- Camp Sites, RV Parks, Bed & Breakfasts;
- Day Use Areas;
- Trails and Heavy Use Areas;
- Generalized Land Use (residential, commercial, industrial, parkland, public utilities);
- Commercial Attractions and Tour Operators; and
- Classification of River Use (motorized, non-motorized, high use, low use).

This information was used primarily in two ways. First, to identify existing commercial opportunities that are in keeping with the overall character and community statements for the Corridor. Second, to identify potential for future land and water use conflicts so that these can be addressed in the Plan.


Yukon River Corridor
North Sheet
Map 6: Existing Uses
Hiking, Skiing, Horseback Riding
Golf, Baseball, Mt. Biking
Canoeing, Boat Launches
Campgrounds, Bed & Breakfasts
Day-use, Swimming Areas
Viewpoints
Historical/Interpretive Sites
Tramways
Areas of Recreational Trail Usage
(Hiking, Biking, Skiing)
Scale:
1:40,000
200 100 0 200 400 600
metres
N
Takhini River
Boat Launch
Hidden Valley
Yukon River
Livingstone Trail
Sewage Lagoons
Riding
Stables
Porter Creek
Mountainview
Golf Course
Atsua Ku
Bed & Breakfast
Yukon College:
Hiking, Mt. Biking,
Orienteering
Sewage Lagoons
Ball
Diamonds
Takhini
Marwell
LONG LAKE ROAD
Long Lake
Day-use Area
Long
Lake
Kishwoot
Island
Long Lake:
Hiking, Mt. Biking, Orienteering
Downtown
Downtown
Viewpoints
Waterfront
(Museum, Depot, etc.)
Yukon River Usage
High Use, Non-motorized Watercraft
High Use, Motorized and Non-motorized
Moderate Use
Low Use
Generalized Zoning
Infrastructure (roads, airport)
Commercial
Zoned Future Development
Heavy Industry/Quarries
Service Industry
Environmental Protection
Parks and Recreation
Public Service/Utilities
Residential
Country Residential
Urban Resource Lands
Topographic Legend
Paved Road
Gravel Road
Rough Road
Trails
Railway
Transmission Line
Creek
Lake/River
Source Information:
Zoning designations were compiled by Gartner Lee Ltd. from City of Whitehorse zoning data. Recteation information comiled by Midnight Arts, J. Paul and Associates Ltd. and Gartner Lee Ltd.
Applied Ecosystem Management
Gartner Lee Limited
Mougeot GeoAnalysis
Aboriginal Public Relations Consulting Services
Midnight Arts
Drawn By: F. Pearson
Rev. On: 11.14.99
Project: GLL 98-769
Rev. No.: 2c

Yukon River Usage

- High Use, Non-motorized Watercraft
- High Use, Motorized and Non-motorized
- Moderate Use
- Low Use

Generalized Zoning

- Infrastructure (roads, airport)
- Commercial
- Zoned Future Development
- Heavy Industry/Quarries
- Service Industry
- Environmental Protection
- Parks and Recreation
- Public Service/Utilities
- Residential
- Country Residential
- Urban Resource Lands

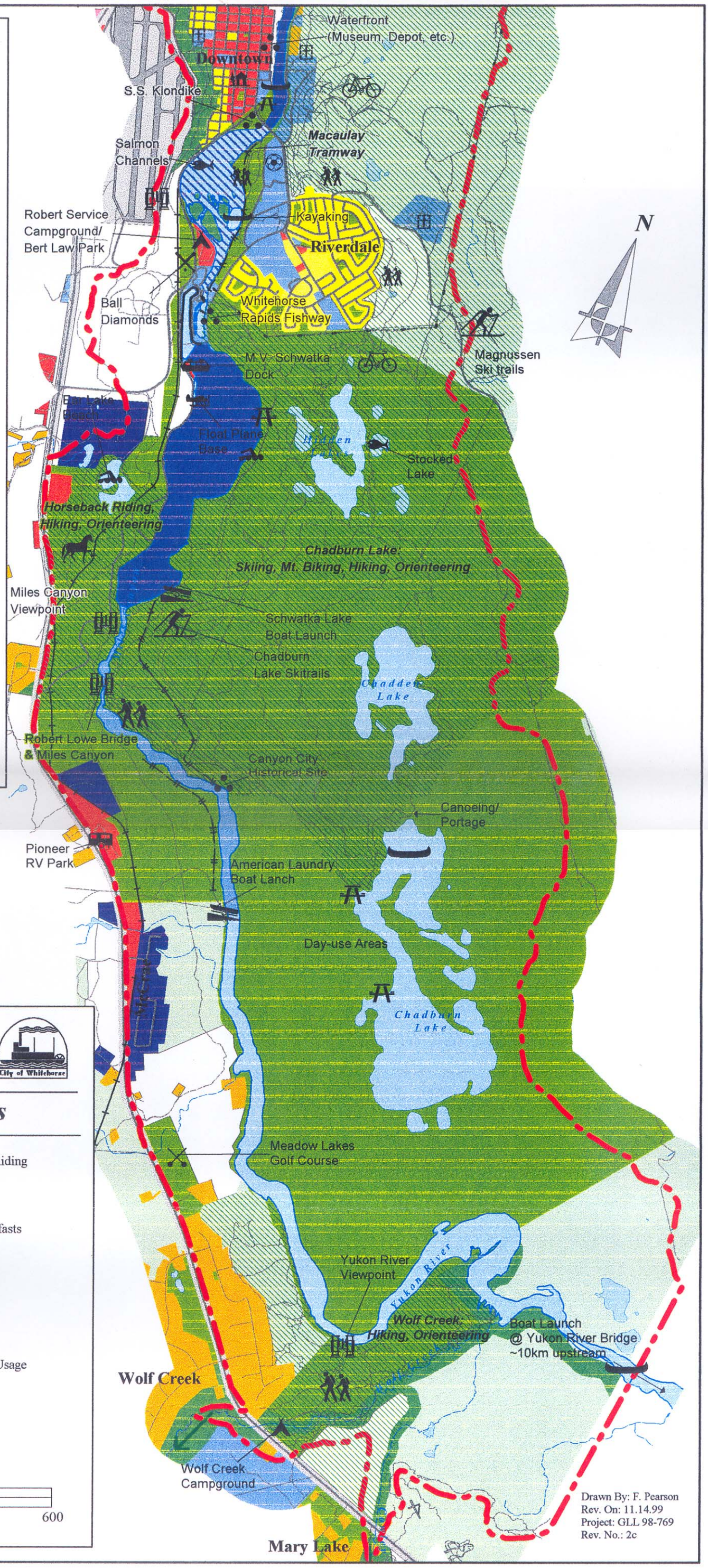
Topographic Legend

- Paved Road
- Gravel Road
- Rough Road
- Trails
- Railway
- Transmission Line
- Creek
- Lake/River

Source Information:

Zoning designations were compiled by Gartner Lee Ltd. from City of Whitehorse zoning data. Recteation information comiled by Midnight Arts, J. Paul and Associates Ltd. and Gartner Lee Ltd.

Applied Ecosystem Management Ltd. | Gartner Lee Limited | uma | Mougeot GeoAnalysis | Aboriginal Public Relations Consulting Services | Midnight Arts



WHITEHORSE RIVERFRONT PLANNING

City of Whitehorse

Yukon River Corridor South Sheet

Map 6: Existing Uses

- Hiking, Skiing, Horseback Riding
- Golf, Baseball, Mt. Biking
- Canoeing, Boat Launches
- Campgrounds, Bed & Breakfasts
- Day-use, Swimming Areas
- Viewpoints
- Historical/Interpretive Sites
- Tramway
- Areas of Recreational Trail Usage (Hiking, Biking, Skiing)

Scale: 1:40,000

200 100 0 200 400 600
metres

Drawn By: F. Pearson
Rev. On: 11.14.99
Project: GLL 98-769
Rev. No.: 2c

5.6 Summary of Features and Constraints by River Section

The following table summarizes the information presented in the preceding chapters, including the ecological, terrain, wildlife, heritage and archaeological features and constraints by river section along the Yukon River Corridor. River sections are shown in Map 1. This table is intended to provide the reader with a quick reference to an area of specific interest along the Yukon River Corridor.

Table 1 – Summary of Features and Constraints by River Section for the Yukon River Corridor Study Area

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Wolf Creek - Yukon River (Section 1)	South City boundary - Pineridge subdivision.	Low	High	High (wetlands, shorelines, bluffs, and creek confluence areas) Low (uplands areas).	Avian Predators; Fish; Forest Birds; Semi-Aquatic; Mammals; Water Birds.	Taa'an Kwäch'än grayling fishing site.	Consider establishing lookouts; consider an archaeological assessment.	One of the best wildlife areas in the City, primarily for forest birds but waterfowl and avian predators as well. Wetlands have been formed or enlarged by flooding.
Upper Wolf Creek (Section 1A)	Wolf Creek Campground Area	Moderate	High	High (creek bed and adjacent alluvial plain). Low (uplands areas).	Amphibians; Fish; Forest Birds; Semi-Aquatic Mammals.			Large campground; many trails with some interpretation by the Yukon Conservation Society (YCS) in place; salmon spawning; excellent example of riparian old growth forest; interesting forest conditions (i.e. fire history).

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Lower Wolf Creek (Section 1B)	Wolf - Cowley Creek Delta	Low	High	High	Amphibians; Avian Predators Fish; Forest Birds; Semi-Aquatic Mammals; Water Birds.			
Cowley Creek and Wetlands (Section 1C)	Cowley Creek and associated lowlands.	Low	High	High	Amphibians; Avian Predators; Forest Birds; Large Predators; Semi-Aquatic Mammals; Ungulates.			Very old riparian forest; large, interesting wetland located in an abandoned river channel; location of a potentially important wildlife Corridor.
Yukon River South (Section 2)	(Pineridge Subdivision - Canyon City).	Low	High	Moderate	Avian Predators; Fish; Forest Birds; Semi-Aquatic Mammals; Water Birds.			Portions of this section are largely untouched wilderness areas with few obvious signs of human activity. Access is obtained through the old American Army Laundry site; good water depths for boating activity; this section is also heavily influenced by river level fluctuations controlled by the hydroelectric dam; provides view sites to observe cliff swallows.

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Canyon City - Miles Canyon (Section 3)		Moderate	High	Moderate (Miles Canyon). Low (Canyon City).	Avian Predators; Forest Birds; Semi-Aquatic Mammals; Water Birds.	In the Canyon Canyon City; Macauley and Hepburn Tramlines; Robert Lowe Bridge. Along the Boundary of Canyon City First Nations trails; camp sites and fish camps; the American Laundry.	Refer to the Canyon City Interpretation Plan; stabilize tramlines; consider providing support services for Canyon City (e.g. trail maintenance); establish lookouts and stabilize trails. Along the Boundary of Canyon City Maintain the natural setting; provide brochures; consider signage at the American Laundry.	Miles Canyon basalts; significant signs of beaver activity; drought tolerant plants along warm aspect bluffs.

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Schwatka Lake (Section 4)		Moderate (High at the time of the formation of the Lake by flooding)	Moderate	Moderate	Fish; Semi-Aquatic Mammals; Water Birds.	Grant Cabin; First Nation berry picking sites.	Provide signage describing the formation of Lake.	High motor boat/float plane use; provides good waterfowl viewing.
Whitehorse Rapids Generating Facility and Fishway (Section 5)		High	High (depending on visitor)	Low	Fish; Waterbirds.	Hydroelectric dam and fishway.	Consider providing signage.	Visible basalts; fish ladder viewing and interpretation programs.

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Riverdale Flats (Section 6)	Riverdale Subdivision - Robert Campbell Bridge	High	High	Moderate	Avian Predators; Fish; Forest Birds; Semi-Aquatic Mammals; Water Birds.	Robert Service Campground; First Nation village and fish camps; First Nation trails; S.S. Klondike; White Horse townsite; tramline terminus; Stampeder burial site.	Consider providing First Nations' interpretive programming; trail development signage describing the old town; stampeder's burial site; tramline terminus; First Nation trail.	Urban development readily apparent; new walkway provides great viewing of waterfowl and diving birds; beaver lodge on the east bank; gravel bar islands; shallow water not conducive to power boating; sensitive salmon habitat and enhancement channels; Bert Law Park; Rock the River Recreational Kayaking area.

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Downtown Waterfront (Section 7)	Robert Campbell Bridge - Kishwoot Island	High	Low	Moderate	Fish; Water Birds.	Historical squatter communities; White Pass buildings and rail yards; First Nation village and camp sites.	Consider preservation and re-use options on White Pass areas; consider signage at the depot building; consider commemorating squatter communities and shipyards.	Swift flowing water; valued as a salmon fishery; many heritage features; small boat river access point at Rotary Park; multiple private water access points.
Marwell Flats (Section 8)	Kishwoot Island - Old Village Marsh	Low	Moderate	High (Kishwoot Islands, River Wetlands and Old Village Marsh). Low (Marwell Area).	Avian Predators; Fish; Forest Birds; Semi-Aquatic Mammals; Water Birds.	Old refinery site; Kwanlin Dün village site.	None at this time.	There is a high diversity of plant life and avian populations; Takhini Trailer Court bluffs provide a good lookout; it is difficult to access the marsh; there are very sensitive organic soils in the majority of the area; the Industrial Area and Old Village form the southern border of this section.

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Big Bend (Section 9)	Old Village Marsh - Croucher Creek	Moderate	High	Moderate	Avian Predators; Fish; Forest Birds; Large Predators; Semi-Aquatic Mammals; Water Birds; Ungulates.	Archaeological sites; sternwheeler hull.	Consider a site clean up; consider a viewing platform and trails; consider an archaeological assessment.	Ironically, one of the best views of the Yukon River in Whitehorse can be seen from the "garbage dump bluff"; McIntyre Creek basin shows evidence of past garbage dumping practices; Eagle Bay known for bird watching (i.e. Tundra Swans in the fall).
McIntyre Creek - Yukon River (Section 9A)	Yukon College - McIntyre Creek confluence	Moderate - High	High	High	Avian Predators; Fish (limited); Forest Birds; Semi-Aquatic Mammals; Water Birds (in "powerhouse ponds"); Ungulates.	See Section 9.	See Section 9.	The middle reach is very natural; there is an excellent example of riparian old growth spruce forest; trail network is well developed; "powerhouse ponds" provide excellent wildlife viewing opportunities; Boreal Worlds Interpretation Trail is located behind the Yukon College.
Croucher Creek - Yukon River (Section 10)	Yukon River and Croucher Creek Confluence	Moderate	Moderate	Moderate	Avian Predators; Fish; Forest Birds; Large Predators; Semi-Aquatic Mammals; Water Birds; Ungulates.	Woodcamp.	Consider publication of a brochure on the area.	A high use area (i.e. Atsua Ku); the Croucher Creek delta is biologically very rich; the east bank contains many old wood cutting areas (visible stumps) and a few old cabins.

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Croucher Creek (Section 10A)	Croucher Creek Corridor	Moderate	Moderate	High	Avian Predators; Forest Birds; Large Predators; Semi-Aquatic Mammals; Ungulates.	See Section 10.	See Section 10.	Provides a good example of riparian old growth forest; evidence of old wood cutting areas on the surrounding uplands; potentially important wildlife travel corridor.
Yukon River North (Section 11)	Croucher Creek - Takhini River (North City Limits)	Low	High	Moderate	Avian Predators; Forest Birds; Semi-Aquatic Mammals; Water Birds; Ungulates.	Not applicable.	Leave as is.	Wilderness area within the City Limits; no obvious signs of human activity; favourable views from the east bank bluff; Porter Creek, Cousins Creek and Little Takhini Creek deserve special emphasis, with a focus on their confluence at the Rivers.
Chadburn Lake and Area (Section 12)	Chadburn, Chadden and Hidden Lakes	Moderate (North End). Low (South End).	Moderate	Moderate	Forest Birds; Semi-Aquatic Mammals; Water Birds; Ungulates.		None	High recreation use in the northern portion of the Chadburn Lake Reserve; the south end of park maintains a relatively natural, untouched setting.
Long Lake and Area (Section 13)		Moderate	High	Moderate	Forest Birds; Semi-Aquatic Mammals; Water Birds; Ungulates.		None	Provides good examples of upland old growth spruce forest; easy access via Long Lake Road; limited wildlife and waterfowl viewing; surrounding areas receive high off-road use.

Section Name	Geographic Location	Degree of Modification	Visual Aesthetics	Environmental Sensitivity	Known Wildlife Groups	Heritage Resources	Interpretation and Site Treatment	Significant Features
Lower Porter Creek Bench (Section 14)		Moderate	Low	Low	Forest Birds		None	Suitable for future development, keep infrastructure to centre of bench, maintain viewshed of uplands from Yukon River, potential park establishment along north side.
Livingstone Trail Plateau (Section 15)	Northern City Limits (location of the Livingstone Environmental Control Facility).	Moderate (some developed trails). Low (mostly forested plateau).	Low	Low	Avian Predators; Forest Birds; Semi-Aquatic Mammals; Water Birds; Ungulates.		None	Interesting terrain and pothole lakes. Opportunity to create a north-south linkage to the Long Lake and Chadburn Lake areas.

NOTE: Small Forest Mammals and Microtine Mammals are ubiquitous in nearly all terrestrial, forested habitats. The only native Amphibian, the Wood Frog, can be expected in most wetland or shoreline-fringe habitats.

6. Yukon River Corridor, A Vision

As part of the planning process for the Yukon River Corridor, meetings were held with interest groups, open houses occurred, and technical comment was solicited with respect to the future of the Corridor. In order to achieve a Plan, which reflects some important common objectives for the river, it was felt desirable to develop a set of clear principles. These principles are derived from the stakeholder and community input presented in Chapter 4 of this Document. The following is a summary of the overall planning principles, or objectives, for the Yukon River Corridor.

YUKON RIVER CORRIDOR

PLANNING PRINCIPLES

The overall land use and preservation goals which are designed to guide planning for the Yukon River Corridor are reflected in the following statements:

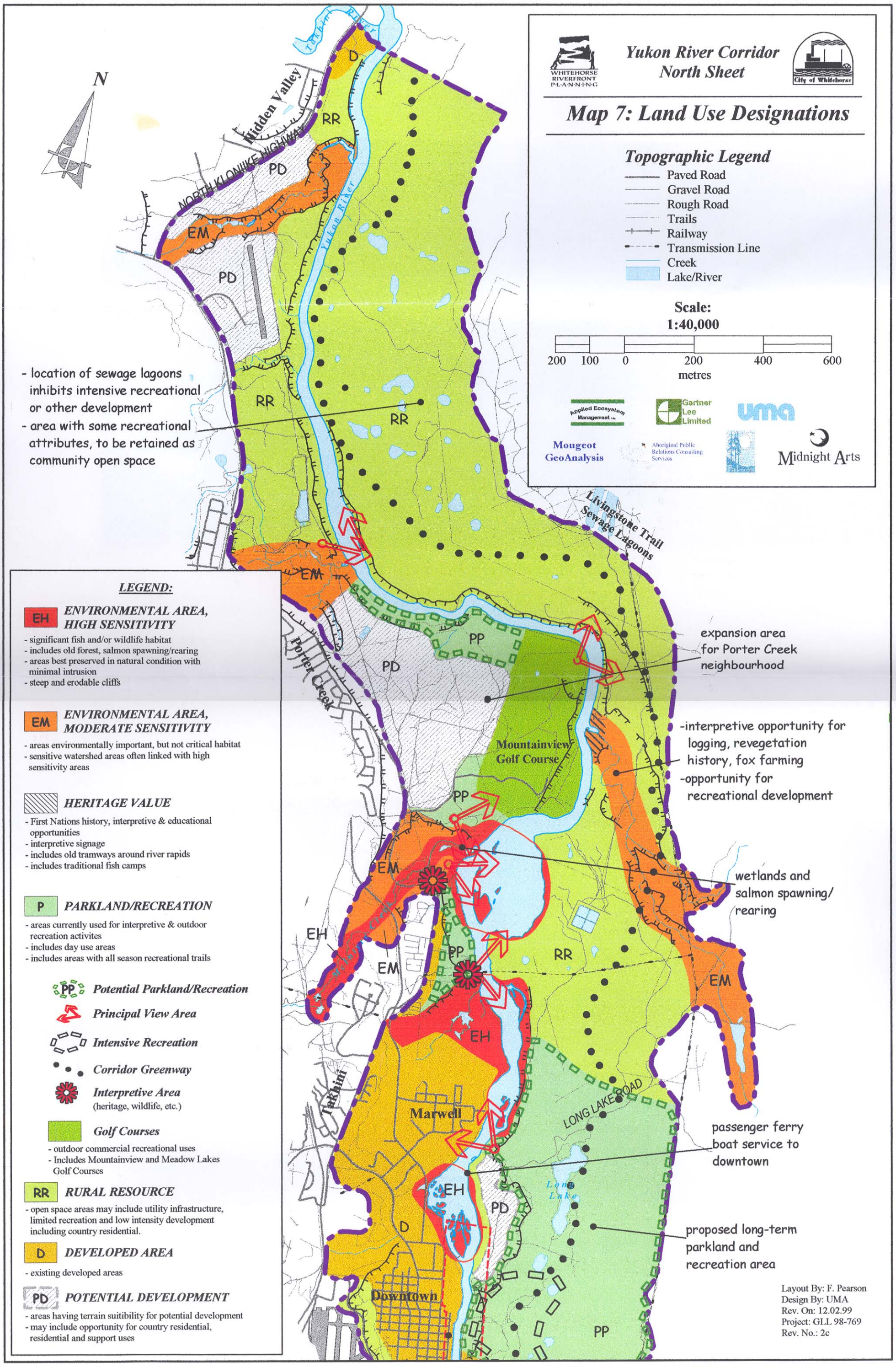
- Respect the range of natural wilderness environments afforded by the Yukon River Corridor.
- Draw people to the Yukon River to appreciate and experience the ecology, natural and human history.
- Accommodate a range of outdoor and recreation activities that are compatible with the natural setting and character of the River.
- Encourage land use, tourism, and recreational pursuits that complement Corridor potential and the established built environment of the City.
- Blend new facilities built in the non-urban areas of the Corridor with their surroundings through extensive use of natural materials to complement the environment.
- Emphasize linking of green spaces to accommodate peoples desires for a wilderness experience, while preserving appropriate travel Corridors for wildlife.

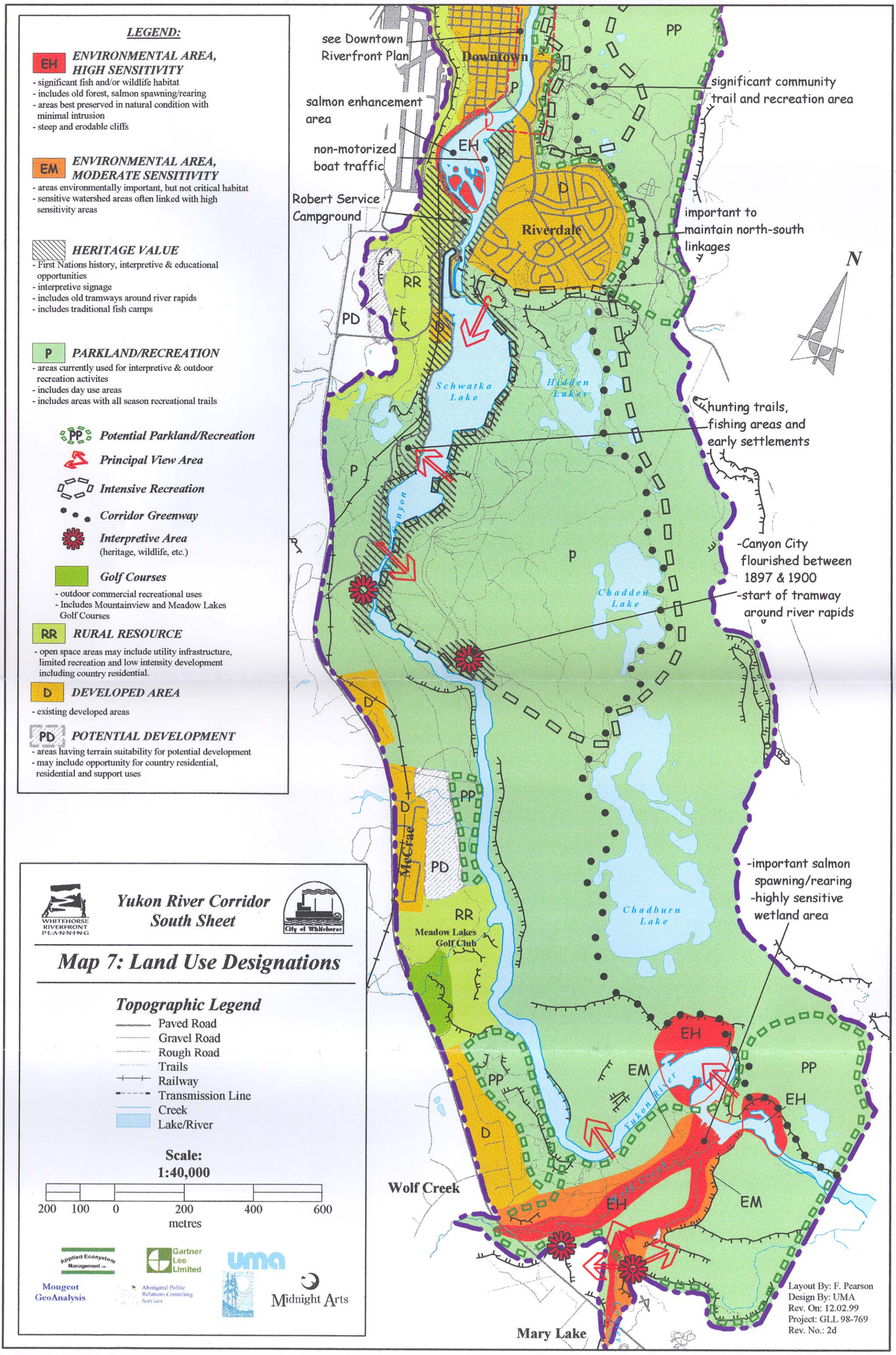
7. Yukon River Corridor Land Use Policies

This Plan was prepared to offer land use and development guidelines for the Yukon River Corridor. The boundaries of the area to which the policies apply are illustrated on Map 7, which comprises part of this document.

Development of the Yukon River Corridor Plan was influenced by the urban landscape. The contemporary concepts of landscape ecology and conservation biology can be used as a basis for land use planning, but social values and constraints ultimately led to the final land use decisions. Concepts such as representativeness and rareness were used as a basis for the identification and protection of important landscape elements to set a course toward ecologically based land use planning in which urban and natural landscapes can better coexist. Similarly, the heritage values and established recreation patterns now present in the Corridor were influential in determining potential land use policies. The heritage section to this document in its policies acknowledges the First Nation contributions that have been made, and notes that a number of land claims issues exist in the study area. Relevant policies in the Corridor Plan which deal with First Nations heritage and features are designed to foster an appreciation of First Nation culture.

This section outlines the key long term land use policies. The policies are intended to guide City Council and government agencies in future decisions on land use and land disposition in the River Corridor area. This is intended to include guidelines for future land use designations which may be considered in the review of the City of Whitehorse Official Community Plan, as well as applications for rezoning, land tenure applications, and capital expenditures related to improvements in the area governed by this planning document. For ease of reference all of the actual policy statements have been printed in **bold type face**. Each of the principal land use classifications are identified below and are referred to on Map 7 – Land Use Designations.


Yukon River Corridor
North Sheet
Map 7: Land Use Designations
WHITEHORSE RIVERFRONT PLANNING
City of Whitehorse
Topographic Legend
Paved Road
Gravel Road
Rough Road
Trails
Railway
Transmission Line
Creek
Lake/River
Scale:
1:40,000
200 100 0 200 400 600
metres
Applied Ecosystem Management Ltd.
Gartner Lee Limited
uma
Mougeot GeoAnalysis
Aboriginal Public Relations Consulting Services
Midnight Arts
N
Hidden Valley
NORTH KLONDIKE HIGHWAY
Yukon River
Porter Creek
Mountainview Golf Course
Livingstone Trail Sewage Lagoons
Marwell
LONG LAKE ROAD
Long Lake
Takhini
Downtown
D
RR
PD
EM
EH
PP
- location of sewage lagoons inhibits intensive recreational or other development
- area with some recreational attributes, to be retained as community open space
expansion area for Porter Creek neighbourhood
-interpretive opportunity for logging, revegetation history, fox farming
-opportunity for recreational development
wetlands and salmon spawning/ rearing
passenger ferry boat service to downtown
proposed long-term parkland and recreation area
LEGEND:
EH ENVIRONMENTAL AREA, HIGH SENSITIVITY
- significant fish and/or wildlife habitat
- includes old forest, salmon spawning/rearing
- areas best preserved in natural condition with minimal intrusion
- steep and erodable cliffs
EM ENVIRONMENTAL AREA, MODERATE SENSITIVITY
- areas environmentally important, but not critical habitat
- sensitive watershed areas often linked with high sensitivity areas
HERITAGE VALUE
- First Nations history, interpretive & educational opportunities
- interpretive signage
- includes old tramways around river rapids
- includes traditional fish camps
P PARKLAND/RECREATION
- areas currently used for interpretive & outdoor recreation activites
- includes day use areas
- includes areas with all season recreational trails
PP Potential Parkland/Recreation
Principal View Area
Intensive Recreation
Corridor Greenway
Interpretive Area (heritage, wildlife, etc.)
Golf Courses
- outdoor commercial recreational uses
- Includes Mountainview and Meadow Lakes Golf Courses
RR RURAL RESOURCE
- open space areas may include utility infrastructure, limited recreation and low intensity development including country residential.
D DEVELOPED AREA
- existing developed areas
PD POTENTIAL DEVELOPMENT
- areas having terrain suitibility for potential development
- may include opportunity for country residential, residential and support uses
Layout By: F. Pearson
Design By: UMA
Rev. On: 12.02.99
Project: GLL 98-769
Rev. No.: 2c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- open space areas may include utility infrastructure, limited recreation and low intensity development including country residential.
D DEVELOPED AREA
- existing developed areas
PD POTENTIAL DEVELOPMENT
- areas having terrain suitability for potential development
- may include opportunity for country residential, residential and support uses
see Downtown Riverfront Plan
Downtown
salmon enhancement area
non-motorized boat traffic
Robert Service Campground
Riverdale
significant community trail and recreation area
important to maintain north-south linkages
N
Schwatka Lake
Hidden Lakes
hunting trails, fishing areas and early settlements
Canyon
-Canyon City flourished between 1897 & 1900
-start of tramway around river rapids
Chadden Lake
Chadburn Lake
McCrae
Meadow Lakes Golf Club
-important salmon spawning/rearing
-highly sensitive wetland area
Yukon River
Wolf Creek
Mary Lake
Yukon River Corridor South Sheet
Map 7: Land Use Designations
WHITEHORSE RIVERFRONT PLANNING
City of Whitehorse
Topographic Legend
Paved Road
Gravel Road
Rough Road
Trails
Railway
Transmission Line
Creek
Lake/River
Scale: 1:40,000
200 100 0 200 400 600
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uma
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Aboriginal Public Relations Consulting Services
Midnight Arts
Layout By: F. Pearson
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Project: GLL 98-769
Rev. No.: 2d

7.1 Land Use Classifications

The Land Use Designations Map (Map 7) is comprised of the following Land Use Classifications:

- Environmental Areas (High, Moderate and Low Sensitivity);
- Parkland and Recreation Areas:
  - Golf Courses;
  - Park, Recreation Land and Greenways;
  - Intensive Recreation Areas;
  - View Areas; and
  - Interpretive Areas;
- Heritage Values;
- Rural Resource; and
- Development and Potential Development.

These are described in the following sections in greater detail.

7.2 Environmental Areas, High Sensitivity

Several areas within the Corridor of the Yukon River are noted for their environmental sensitivity. Sensitive areas can be defined as sites with low tolerance to human disturbance where slight alterations would result in functional or structural changes to the landscape unit with potentially negative impacts on wildlife or visual aesthetics. In the identification of sensitive areas, the following have been considered: aquatic interfaces, significant wildlife and fisheries areas,, vegetation conditions, steep slopes composed of erodable materials have been identified, and specific soil conditions susceptible to rutting and compaction have been included. A fixed width buffer has not been delineated around all water features as this approach to sensitivity classification has no ecological basis. However, through the use of bylaws and zoning, any development that is to occur within approximately 100 m of a water feature should be subject to site-specific examination with higher level plans guiding potential land uses on these areas. In all cases, the entire landscape unit should be considered.

Environmentally sensitive areas within the Plan boundaries are composed primarily of both significant wildlife habitat plus sensitive soil/vegetation communities. This includes several of the Corridor area streams where human impact has been minimal and conditions remain in a relatively natural state.. This designation includes a limited number of old riparian forest stands, wetlands and mid-river gravel bars centered around prominent tributaries.The Taa'an Kwach'an First Nation identified Wolf Creek as a traditional grayling fishing area. The policies below are intended to reflect the desire to maintain the environmental areas with high sensitivity in as close a natural state as possible.

Environmental Protection

1. **Areas designated on Map 7 as Environmental Areas with High Sensitivity are recognized for their importance to fish and wildlife habitat, and shall be kept substantially free from disturbance. Notable among these areas are the Wolf Creek salmon project area, the McIntyre Creek confluence, and various parts of the Yukon River shoreline, including several small river islands.**

2. **The Wolf Creek wetland at the mouth of the creek, and the creek bed are environmentally sensitive. Trail enhancement is to be limited to upper areas, which may include lookout platforms, which minimize stream bank damage.**

3. **Protection of stream Corridors is important in the context of the Corridor ecosystem. Areas of High Sensitivity are influenced by activities in the riparian watershed areas upstream from locations shown on Map 7. Care must be taken to control the impact on water quality, vegetation and erosion in upstream watersheds. These areas play a vital role in maintaining the overall integrity of the ecosystem. Any proposed development projects within such watersheds shall receive careful evaluation with respect to impact on storm water run off and quality.**

4. **Any development within 100 metres of the Yukon River, or any other stream/wetland should be subject to site-specific examination. More detailed plans that may be prepared by the City shall consider uses on a more site specific basis, with special consideration to desirable setbacks. This policy is to apply to all lands along the Corridor where new uses are considered.**

5. **Areas identified with High Sensitivity can provide important educational and interpretive opportunities. Any viewing or interpretive areas or improvements should be developed in a manner which does not encroach on environmentally sensitive habitat. Where feasible, interpretive and educational access points are preferably situated in areas designated as Moderate Sensitivity. Some of the range of activities deemed suitable within areas of High Sensitivity are:**

- **hiking and jogging**
- **ecological interpretation**
- **environmental awareness educational programs**
- **wildlife viewing**
- **photography and painting**

Activity Limitations

6. **The use of All Terrain Vehicles (ATV's) and snowmobiles, and the development of boat launches in this designation shall be discouraged.**

7. **The Kishwoot Islands area may continue as a passive habitat interpretive location, and development within this area shall be kept to an absolute minimum in order to preserve the natural character of these islands.**

8. **In examining interpretive opportunities, development is to be directed to locations which are the most tolerant of potential disturbance.**

9. **Any trail or associated development is to be designed to avoid areas of erodable and unstable soils.**

10. **The clay cliffs in the immediate area of the river shall also be considered as environmentally sensitive (main cliff areas are illustrated on Map 7), and other than carefully planned trails, shall be kept free from development.**

7.3 Environmental Areas, Moderate Sensitivity

This designation in the Plan is intended to govern those areas which include locations having some environmental sensitivity, but which do not display the same critical characteristics as in the High Sensitivity designation. Many of the areas with moderate sensitivity have already been altered through some human intrusion, or comprise greenbelts and vegetative Corridors which assist in supporting locations with greater sensitivity. Sites included in this designation incorporate watershed areas which have linkages to high sensitivity areas.

1. **Areas with Moderate Sensitivity may be used for low intrusion trail development, view points, and interpretive centres which respect the natural features of the ecosystem. In many instances areas designated as Moderate Sensitivity provide supporting terrestrial and aquatic habitat to areas of High Sensitivity.**

2. **Areas with Moderate Sensitivity include locations where some environmental degradation has already occurred. Locations include the Cousins Creek area, Croucher Creek, Cowley Creek, and several portions of the Yukon River. Careful attention to future management of these areas is required to eliminate current negative impacts on habitat quality and visual aesthetics. Future development must be carefully controlled.**

7.4 Parkland and Recreation

There is a substantial range of recreational pursuits available in the Yukon River Corridor. The recreational characteristics represent one of its greatest assets, and is highly valued by users. The level of activity within Parkland and Recreation designated areas may vary considerably from locations receiving occasional seasonal use to many areas with picnic, camping, boat launch facilities, and motorized and non-motorized trails. This designation also incorporates several significant sites devoted to commercial recreational operations, particularly golf courses.

One of the important objectives for areas designated as Parkland and Recreation is to encourage residents to participate in outdoor recreation activities, by providing appropriate areas for this. In addition, any activities should be channeled in a way that maintains the integrity of natural areas by minimizing the impact on the environment. In recognition of the range of recreation activities available, as well as to guide the type and intensity of future opportunities, the Yukon River Corridor Plan includes several subsections, categorized by recreational function and attributes. The subsections include:

- golf courses;
- park and recreation lands, including greenways;
- intensive recreation areas (all season trails);
- view areas; and
- interpretive areas.

In several instances categories do overlap, however in a number of instances specific policies apply. Reference should be made to the specific sub categories under the Parkland and Recreation heading.

7.4.1 Golf Courses

Situated within the Yukon River Corridor are two golf courses, with both having plans for expansion. The golf courses include the Mountain View Golf Course and the Meadow Lakes Golf Course.

1. **The current golf courses situated in the Plan area may be continued and expanded to 18 holes, but the extent of development is to be contained within the general boundaries as identified on Map 7.**

2. **The golf course operations represent active commercial recreational opportunities in the City, and future development, to full 18 hole courses, may include ancillary facilities such as a club house, restaurant, maintenance facilities and related uses. These areas are not expected to include residential development with the exception of caretaker facilities.**

3. **Management systems and procedures which support wildlife such as bird feeding stations etc. will be encouraged.**

4. **Off season use of paths by hikers or cross-country skiers should be considered where such use does not impact the quality and maintenance of the golf course.**

7.4.2 Park, Recreation Land And Greenways

This Plan designation includes areas used currently for outdoor recreation activities, and includes day use areas, designated or reserved parkland areas, and related recreational trail areas within designated parks. For clarity, this designation is distinguished on Map 7 by identifying both currently reserved park areas and areas proposed for future park or recreational activities. Notable is the proposed extension of the Schwatka Lake parkland designation to the southern boundary of the City. During creation of the initial reserve, the boundaries were drawn to form a line which excluded lands at the south end of the City. Given landscape characteristics which are similar to the area currently in park reserve, it seems reasonable to extend the boundary over the adjacent area.

This designation also establishes the greenway concept as a means of ensuring major linkages for both recreation, and well as wildlife between significant open space/natural areas. For example a major link between the Schwatka Lake recreation reserve and areas to the north is indicated. The greenway concept is designed to accommodate links between areas of development and natural systems and is intended to vary in width and length based on biophysical values, land tenure, and function.

Areas proposed for park and recreation land are identified along approximate and schematic lines. It is recognized that more detailed review will be necessary with respect to land tenure, biophysical conditions, adjacent uses, and overall site features to confirm precise boundaries.

1. **The Hidden Lakes, Ear Lake, and Chadburn Lake areas have excellent wildlife viewing potential, and offer opportunities for features to be developed to encourage wildlife appreciation and education. Such features based on site specific analysis shall be integrated with other park planning.**

2. **The Miles Canyon area exhibits some outstanding lava bed features which should be incorporated into interpretive displays dealing with the natural and human history of the area. Trails in Miles Canyon are recommended for upgrading with surface stabilization and guard rails. Lookout points are encouraged, ideally integrated with interpretive signage.**

3. **The City will carefully review any recreational and other development proposals that may be made in locations above the City's water intake, in order that the quality of drinking water is not impaired.**

4. **In the longer term consideration will be given to adding protective measures to ensure that the Schwatka Lake float plane base is maintained in a way to avoid fuel spills, given its location above the water intake.**

5. **The Canyon City site has been subject to previous management recommendations. The area has active land claims. The former Hepburn line is used for horse riding. It is proposed that this trail be designated primarily for riding use.**

Greenway

6. **A major greenway consisting of wildlife Corridors and trails is defined for the Corridor east of the Yukon River. The greenway will largely follow existing access roads and trails and should be developed to allow a continuous link in the City between the south and north boundary, integrating wildlife and recreation features within the overall Yukon River Corridor.**

7. **The proposed north south greenway should maintain an overall minimum width of about 300 metres. Within this greenway, development is to be limited to trails only.**

8. **It is proposed that in future, a more detailed management plan be established for the Corridor greenway, to accommodate appropriate protection of the surrounding ecosystem, a consistent trail standard, trail usage guidelines, and wildlife protection (by accommodating both habitat Corridors, and public recreation needs). At completion of this greenway management plan, more precise boundaries for the overall greenway can be defined.**

9. **The Corridor greenway shall be linked to established neighbourhoods and access sites, such as the Riverdale neighbourhood, the Chadden Lake and Chadburn Lake recreation areas, and the Long Lake access route.**

10. **Within the greenway, every effort shall be made to maintain a distinction between motorized and non-motorized traffic.**

Recreation Uses

11. **Park and recreation areas within the Corridor (and outside of the downtown portion of the area) shall be largely oriented to the maintenance of natural park areas and protection of scenic sites. Manicured parks and sports fields are not envisaged within this designation.**

12. **Provision for boat launch sites shall be made at the approximate locations shown on Map 7 (supplementing proposed downtown riverfront sites). New sites are recommended especially at the American laundry site, the confluence of the Yukon River and Takhini River, and as part of any development that may occur on the east bank of the river north of the Kishwoot Island area.**

13. **New and existing day use areas and associated boat tie ups shall have a small footprint and are to be designed to reflect the surrounding natural setting. Trail networks should connect with these areas. These areas will include:**

- Existing day use areas within the parks.
- Day use/picnic area with boat tie up at Kishwoot Islands near the downtown riverfront.
- Day use areas along the trail to provide for water access or picnicking along the trail. Most importantly the development of these sites is to be limited to a small footprint and facilities should be constructed out of natural materials which reflect and complement the natural surroundings.

14. **The current Chadburn Lake park reserve area along Schwatka Lake shall be extended to the south boundary of the City as illustrated on Map 7.**

15. **The bridge link across Miles Canyon is to be utilized as a means of encouraging more loop trail development to encourage use by visitors and tourists. These loops provide for trips of various lengths and allow for potential theme interpretive trails which could highlight natural history, heritage features, scenic spots, or other attributes. To complement the potential for a loop trail system, connections shall be provided around the dam site through use of a pedestrian bridge.**

16. **Lands in this designation are intended to support an extensive trail network with the following considerations:**

- **Where possible the use of the existing trail network will be encouraged**
- **A variety of trails will be provided, ranging from rustic trails which provide access to the more remote areas of the lands designated, to well developed trails along the more popular sections with viewing areas, day use areas, and access points to the riverfront. The level of use would reflect the type of trail.**
- **The more popular, high volume trails should be well marked and trail signage developed to allow for a safe and enjoyable hike for all user levels.**

17. **The area of the Yukon River between Robert Service Way and Riverdale shall, given the environmental quality of the area, be retained for non - motorized boat traffic. The intent of this is to support the current informal non-motorized use of the Yukon River just south of the dam. This area of the river shall be limited to canoe and kayak use. Training courses and competitions may be held within this area. A staging area for river access by these boaters is to be maintained.**

18. **The Robert Service Campground site has traditionally been used as a fish camp and also as a village site. The current recreational campground should be enhanced by offering images and stories of early recreation in the Whitehorse area.**

Downtown Facilities

19. **Potential establishment of a downtown riverfront wharf or similar docking facility should be considered as an opportunity to develop commercial visitor oriented boat tours of the river and to provide a link to the east bank of the river at a scenic spot north of the downtown. The intent is to allow for a small passenger ferry to take visitors and residents from the downtown across to the other side of the river for day use activities, such as hiking, picnicking, birdwatching, etc.**

20. **In the downtown area, in parts of the White Pass site, opportunities exist to focus interpretive efforts on the water side of the railway station. Such features as the former wharf pilings, the First Nation spirit houses on the east side of the river, and the former village site now occupied by the hospital are visible. This would be an excellent site, developed in cooperation with First Nation representatives, to interpret the history of the area.**

7.4.3 Intensive Recreation Areas

The areas with intensive recreation, both current, and with additional potential have been illustrated specifically on Map 7. The areas are dominated by extensive trail systems, used on a year round basis. They include trail networks in the Schwatka Lake area, as well as lands near the Riverdale neighbourhood, which receive broad community use. A key focus of the Corridor plan is to ensure that these active recreation areas can be linked, and used as focal points connecting other portions of the Corridor region. A process to minimize user conflict is also suggested.

1. **Areas identified for intensive recreation may include all season trails, as well as day use areas, overnight camp sites, etc.**

2. **In order to allow additional recreational opportunities every effort is to be made to develop and maintain a north south trail link on the east side of the Yukon River Corridor, as illustrated schematically as the north - south greenway on Map 7.**

3. **Active promotion of the circuit trail link connecting the east side and west side of the Corridor at Miles Canyon is encouraged, since this is an outstanding walking and sight seeing feature not only for residents but of significant appeal to visitors.**

4. **It is proposed that a trail guide and signage standard be established to clearly state trail ratings according to level of difficulty and function (motorized and non-motorized). Trail signs should be placed at all main trail entry (staging) points, identifying permitted use, and difficulty ranking.**

5. **All types of outdoor recreational activities will be allowed within this designation. However, not necessarily all within the same area. In recognition a planning process should be initiated which helps resolve conflicts between uses. This process should be fair in addressing the conflicts and allow for the designation of smaller areas within the larger active recreational area which provide for both user groups. For example, a conflict between motorized and non-motorized use may**

occur and the outcome should be the designation of areas which allow for the two uses in separate areas or at different times of the day or year. To facilitate this process the following aspects should be considered:

- **The environmental sensitivity of the area under consideration, including the impact of proposed uses.**
- **Linkages to trails in adjacent areas.**
- **Minimization of noise from motorized trails.**

It is suggested that an ad hoc steering committee of user groups be invited to draft mutually acceptable guidelines and plans for trail use, on the basis of an initial environmental sensitivity analysis.

7.4.4 View Areas

The Yukon River affords people numerous opportunities for spectacular views. These view scapes are important for both the boaters on the river, and for those enjoying land based recreational opportunities. Key view areas have been mapped, using a series of symbols. Escarpments that are visually important for water based activities have also been mapped. There is a widespread consensus that maintaining the natural condition of the river shore line, where this continues to be possible, is an important objective.

1. **Where viewpoints are developed they are preferably located at sites with connecting trails, and in areas not sensitive to human disturbance. These areas may also comprise trail staging areas supplemented with appropriate trail signage.**

2. **Where viewpoints are established in wetlands (as in some of the High Sensitivity areas), such viewpoints should be constructed on elevated structures which limit physical intrusion into the wetland area (e.g. through the use of viewing towers or decks). Structures must take into consideration seasonal water fluctuations, water velocity and ice build up.**

3. **The most important view areas within the Corridor (some of which already have improvements) have been illustrated through the use of symbols on Map 7. These view areas shall be protected to ensure their access to the public. In viewing areas along key waterfront access points development of structures will be limited. It may include 1 or 2 benches made out of natural material, and small interpretive signs. In some cases picnic benches could be provided, however they must not detract from the natural setting.**

7.4.5 Interpretive Areas

The interpretive sites identified on Map 7 relate to optimum locations for those wishing to learn more about local history, natural history and geology, and offer opportunities for nature interpretation. To a significant extent it will be possible to augment view points with interpretive locations as is readily apparent from Map 7. Several key opportunities for interpretive areas (some of which already exist) have been identified. Signage, especially in areas with riverfront walks are ideally suited to offer orientation for visitors, and can act as guides to nearby attractions. Interpretive opportunities for heritage sites are noted specifically in Section C of the Technical Supplement.

1. **Key sites for interpretation of natural, historic, and terrain features have been identified through the use of symbols on Map 7.**
2. **Consideration is to be given to development of interpretive programming, either independently through City resources, or in partnership with First Nations as a means of interpreting the natural and heritage resources of the Corridor region.**
3. **In a number of instances interpretive opportunities are combined with natural view sites to enhance the opportunity of experiencing major features of the Yukon River Corridor.**

7.5 Heritage Values

This designation acts as an overlay to specific land use categories. It is intended to highlight the fact that significant heritage resources exist in this area, and that further work may be required to protect or enhance these resources. The land use designation that is illustrated on Map 7 applies, but where supplemented with the designation of Heritage Value, any potential use needs to be treated with considerable care to ensure that heritage values are protected or reflected. The historic features of the Corridor generally acknowledge the important First Nation history and settlement associated with the area, the gold rush era which reached its zenith around the turn of the 20th Century, and also construction of the Alaska Highway during World War II which has left remnants of U.S. Army installations.

Heritage resources reflect human work or a place which provides evidence of human activity or which has spiritual or cultural meaning that has been determined to be of historic value. Where appropriate, heritage resources can be described as site complexes, where resources are in close proximity. Thus where a group of structures are identified as a complex, the focus is on the elements which act to unify and describe that complex.

Many heritage features are found along the river near the downtown area. Land use policies for this segment of the Corridor receive additional attention in the Downtown Riverfront Plan.

First Nation heritage sites include traditional berry harvesting areas, old camp areas - particularly for visiting First Nations, hunting areas, and burial sites. Throughout the Corridor region there are also remnants of former mink and fox farms, wood camps, and fish camps. The most critical heritage values are found around Schwatka Lake, downstream from Miles Canyon. Policies in this Plan are primarily oriented

to drawing attention to artifacts that may still exist, emphasizing the need to take care in carrying out any new development or improvements in this portion of the Corridor.

1. **The designation of Heritage Values is superimposed over other land use classifications. This is intended to reinforce the need for attention in completing any improvements or developments through use of a site analysis of heritage and archaeological features where this designation occurs on Map 7.**
2. **Most of the Yukon River Corridor has a rich First Nation as well as a more contemporary history. Several areas are identified as deserving special attention. These include both banks and uplands of the Corridor located in and around Schwatka Lake (locations of previous fish and trail camps) between the White Pass & Yukon Route railway and the Hidden Lakes area, extending to Riverdale. Another area with significant First Nation heritage value is the mouth of Croucher Creek, known to have been the location of camp sites. First Nations are to be consulted with regard to any new uses.**

The following policies deal with areas that include important site complexes rather than individual heritage resources. Themes can be developed relating to geology and hydrology (e.g. Miles Canyon), the gold rush and historic settlements (e.g. Canyon City), steam tramlines (e.g. tramline remnants near Canyon City). The policies have generally been described by sections of the Yukon River or river "reaches" for ease of reference (refer to Map 1). Opportunities exist to combine both heritage interpretation and resource values.

South City to Canyon City

3. **With limited remnants remaining of the American laundry, constructed during World War II for the U.S. Army, it is proposed that a simple marker identify this location, and signage that can possibly be integrated with a potential boat launch site.**

Wolf Creek Area (Section 1)

4. **This is a traditional grayling fishing area identified by the Taa'an Kwach'an First Nation, and could be reflected in interpretive written or educational material, augmented with information on the natural history.**

Canyon City to Miles Canyon (Section 3) and Schwatka Lake (Section 4)

5. **This area is marked by First Nations' trails and a traditional fish camp, as well as Gold Rush tramlines built to avoid the rapids. With the Hepburn Tramline trail now used for horse trail riding, efforts need to be made to preserve the old rail bed. Remaining features should be considered for capping as a means of limiting deterioration.**

6. **The area now flooded by Schwatka lake was once known for its berry picking. A small cabin, the Grant cabin, remains from construction of the hydro dam, and was moved to its current location. This cabin should be recorded and evaluated.**

Whitehorse Rapids Generating Station (Section 5) and Riverdale Flats (Section 6)

7. **The hydro electric station has been a significant factor in allowing more recent settlement, and development, of the city of Whitehorse. Interpretive opportunities exist both with the dam and the fishway, which was constructed to mitigate the impact on fisheries.**

8. **The Robert Service Campground is a major recreational resource and was a Kwanlin village and fish camp. The natural attractions of this area are a major community asset. Continued development of interpretive opportunities along the river walk way are strongly supported.**

Downtown (Section 7)

9. **The downtown riverfront has a significant history. This includes First Nations which had several camps in the area, and the remaining burial site on the hill behind the hospital. Squatter communities known as The Shipyards and Sleepy Hollow are in the process of relocation. Buildings forming part of the White Pass complex bear witness to the era of the White Pass Railway and British Yukon Navigation Company with wharf and transportation facilities. It is Council's intent to retain the waterfront as an active area. Uses such as offices, tourist accommodation and services, boat rentals, walking and gathering places are to be fostered. Any new construction shall be compatible with exiting structures and historic elements.**

Marwell Flats (Section 8)

10. **This area includes the old Canol Refinery site, and industrial uses. The Kwanlin Dun First Nation was relocated from the downtown waterfront to a marshy area next to the industrial site, with most of the community now located in the McIntyre subdivision. The Marwell area is proposed to remain as industrial, however long term provision for a waterfront walkway is desirable. Some interpretive signage reflecting the history of the area is appropriate.**

Big Bend, McIntyre Creek to Croucher Creek (Sections 9 & 10)

11. **Some First Nation sites occur in this area, and McIntyre Creek was a travel Corridor for First Nation people moving between the river and Fish Lake. The Cluett/Ryder wood camp at Croucher Creek provided wood for sternwheelers, with some cabins still in the area. Some interpretive opportunities could be provided as part of view points related to natural features.**

7.6 Rural Resource

This designation applies to relatively undeveloped land in the Corridor, which may well continue to function as green space. However, most lands in this designation do not have the attributes which make them ideal as park or recreation space, although some trail links through these areas may well be desirable. In a number of instances some development, particularly community or utility type uses already exist. It is anticipated that in future some limited forms of residential, resource based economic activities, or industrial activity in upland areas will take place. Low intensity forms of development in these non-sensitive environmental areas are not currently viewed as compromising to the Corridor Plan.

1. **Within the Rural Resource designation public utility uses, mineral exploration, limited forms of country residential development, and low intensity forms of industrial development, may, subject to more detailed planning (for example the Official Community Plan or an Area Development Scheme) be acceptable.**

2. **Where trail links abut Rural Resource areas, continuation of trail links through Rural Resource designated areas shall be provided for.**

3. **Where Rural Resource areas abut the Yukon River, no development zones of at least 30 metres shall be maintained along the shorelines. Where escarpments form the river boundaries, the area of the escarpment adjacent to the river is to be kept free from development for a distance of at least 15 metres from the edge of the escarpment in order to minimize encroachment into view Corridors.**

7.7 Development and Potential Development

Within the Yukon River Corridor exist several areas with a high degree of human modification. This includes settled urban areas, the downtown commercial area, and several pockets of country residential development. Also included are industrial areas such as Marwell, and localized commercial uses. The main areas which have already been devoted to intensive activity are designated as Developed Areas.

In addition to current development,, Map 7 also illustrates several other areas designated for Potential Development. These locations tend to comprise areas where logical extensions of existing residential neighbourhoods or other established land uses are appropriate. In the majority of instances such areas were examined in relation to soil and foundation conditions and environmental sensitivity, to ensure that their location did not infringe on other important values. It is also recognized that the City will continue to grow, and that future development needs to be considered for sites that do not pose incompatible values with other land uses or the natural environment.

Key areas for Potential Development are characterized by terrain which has moderate slopes, reasonably well drained soils to permit potential on-site sewage disposal, areas with low susceptibility to erosion, and current or potential for good access to adjacent or nearby urban areas. The Corridor Plan does not necessarily imply a specific density of development, recognizing that this will need more site specific analysis and will also be subject to the broader policies incorporated in the Official Community Plan.

1. **Areas identified as "Developed Areas" may continue to offer the full range of urban type land uses, and generally are expected to be locations with a community piped water supply. Densities will vary from small lot residential use, including commercial and industrial land uses, to larger lot country residential development.**

Trails in Developed Areas

2. **Within Developed Areas the City will continue to ensure that trails to nearby park, recreation and viewing sites are maintained, and that any new development does not impair linkages to park, recreation, and interpretive sites.**

3. **The City shall embrace the opportunity, in conjunction with other agencies and government departments to develop a trail signage program which encourages trail use, and facilitates visitor appreciation of the City/s natural, cultural, and historic attributes.**

4. **In areas proposed for Potential Development, any new development will be reviewed in relation to trail continuity and access to recreation areas. Where appropriate, green belt buffers will be integrated to protect wildlife Corridors or to protect important landscape features. Several principal Corridors or desirable linkages are illustrated on Map 7 (for example by the Potential Development of Upper Riverdale, and on the east bank of the river across from Kishwoot Islands).**

Land Use and Design

5. **Within areas identified as Potential Development, the City may permit a full range of urban type land uses, subject to additional policies that apply in the Official Community Plan. It is recognized that future development densities in Potential Development areas will need greater site specific evaluation, with respect to the natural conditions of the site, but also in relation to established adjacent uses, and access provisions. This may require that some Potential Development areas be retained at densities no greater than those applicable to country residential use.**

6. **To enhance the appearance of new development, the City will consider establishment of design controls to encourage forms of development which are in harmony with the natural surroundings, and to minimize any negative impacts on view scapes from Yukon River boating traffic or adjacent land use.**

7. **Potential expansion of the McRae industrial area is provided between the current subdivision and the Yukon River. As noted on Map 7, a significant green buffer area is to be retained between**

future development and the river bank. That strip of land is proposed as a park site. Design controls shall be implemented over additional industrial use to ensure a visually appropriate form of land use.

8. **Gradual redevelopment of the Marwell area is encouraged. This should include provision for trail continuity along the riverfront, consideration of tourism development opportunities, and the clean up of contaminated sites in the area.**

8. Land Use Evaluation Matrix

To facilitate a review of land use and development applications an “Evaluation Matrix” has been prepared to gain a quick overview of the degree of human disturbance acceptable within the various plan designations. The various categories of development are identified at the top of the matrix chart, with the column to the left noting the Plan land use designations referred to in the text. The list of uses identified at the top of the matrix are intended to be illustrative, and can be modified or augmented as appropriate.

Figure 2 - Land Use Evaluation Matrix

Acceptable Degree of Disturbance

	Land Use Classification	non-motorized trails	motorized trails	residential & associated uses	wildlife viewing	golf courses & commercial recreational uses	boat launch sites, docking facility	interpretive site	view points & viewing platforms	utility uses, mineral exploration	industrial use	picnick, day use areas	guest lodge	
	Environment, High Sensitivity	⊗	○	○	⊗	○	○	⊗	⊗	○	○	○	○	
	Environment, Moderate Sensitivity	●	○	○	●	○	⊗	●	●	○	○	○	○	
Parkland & Recreation	Golf Courses	●	⊗	○	●	●	○	●	●	○	○	⊗	⊗	
Parkland & Recreation	Parkland & Greenways	●	⊗	○	●	⊗	⊗	●	●	○	○	●	⊗	
Parkland & Recreation	Intensive Recreation Areas	●	⊗	○	●	⊗	●	●	●	○	○	●	⊗	
Parkland & Recreation	View Areas	●	⊗	○	●	⊗	⊗	●	●	○	○	⊗	⊗	
Parkland & Recreation	Interpretive Areas	●	⊗	○	●	⊗	⊗	●	●	○	○	⊗	⊗	
	Heritage Values	●	⊗	⊗	●	⊗	⊗	●	●	○	○	⊗	⊗	
	Rural Resource	●	●	⊗	●	●	●	●	●	⊗	⊗	●	●	
	Development/Potential Development	●	⊗	●	●	●	●	●	●	⊗	⊗	●	●	

● acceptable

⊗ acceptable subject to development controls

○ not acceptable

Gartner
Lee
Limited