

**Sturgeon-weir River  
Representative Area  
-- Concept Management Plan --**



**Saskatchewan Environment and  
Resource Management  
December, 1999**

## **Saskatchewan's Representative Areas Network Program**

The government of Saskatchewan, through Saskatchewan Environment and Resource Management (SERM), is committed to the establishment of a system of ecologically important land and water areas across the province by the year 2000. This system is called the "Representative Areas Network".

Saskatchewan is made up of various landscapes. A representative area is a sample or piece of a particular landscape identified because of its important land-forms, wetlands, soils, plants, animal resources or cultural values. Representative areas are intended to allow for natural processes to occur. They can also serve as test sites that can be studied and monitored to measure how well we are managing natural resources and ecosystems elsewhere in the province.

As its name suggests, the Representative Areas Network must include land and waters that represent a broad range of ecological diversity. Saskatchewan's landscapes have been divided into 11 distinct "ecoregions", each characterized by its geology, soils, climate, plants and animals. The Sturgeon-weir River Representative area lies within the Churchill River Upland Ecoregion, an ecoregion that is currently under-represented within the provincial Network.

Just as the reasons for choosing a particular site, so too, do the uses that are acceptable within new sites. In some sites, human activities and access may be limited so that the area's ecological resources and integrity can be managed or restored. In the majority of sites, however, land uses that are compatible with the program's ecological objectives can be accommodated. Suggestions and needs identified by local interest groups and users will largely determine the kinds and levels of activity that may occur within a particular site.

Consultation and input from local users helps to determine the best option for each site. Through these discussions, specific needs, concerns or issues can be addressed on a site-by-site basis and outlined in a management plan or strategy for the area.

First Nations people of the Peter Ballantyne Cree Nation and a wide range of users interested in this site, have been meeting and discussing potential uses within the Sturgeon-weir River area for the past year. Through these discussions, recommendations have been made to SERM regarding use, future management, and designation of the Sturgeon-weir River Representative Area. These recommendations, achieved through a group consensus process, are documented within this Concept Management Plan.

## **Description of the Churchill River Upland Ecoregion**

The Churchill River Upland Ecoregion is located along the southern edge of the Precambrian Shield in north-central Saskatchewan. It is a horn-shaped area, with Wollaston and Amisk lakes on the rim and Turnor Lake, in the northwestern part, at the mouth. This is the largest ecoregion in the province, occupying 11.3 million hectares or 17% of the total area of Saskatchewan.

Gently rolling hills that slope gradually from 550 m in a central highland around and west of Cree Lake, to 300 m in the southeast around Amisk Lake, and to 275 m in the northwest around Lake Athabasca, reflect the major influence that bedrock has on the landscapes and drainage characteristics of this region.

The hills comprise a complex series of ridges, valleys, and shallow basins that are largely a reflection of folding, faulting, and fracturing of the bedrock. Other ridges and valleys are related to differential erosion of the various rock units. Much of this occurred in the vast periods of time prior to glaciation as the former mountains eroded to a peneplain. The glacial ice completed the process by scouring out low-lying areas, especially in zones of more easily eroded rock, thus enhancing the relief. The ice also smoothed and polished the faces and crests of resistant bedrock knobs and hills, while simultaneously plucking rock from the lee sides.

Present-day drainage of the south and eastern parts of these rolling hills to Hudson Bay via the Churchill and Nelson rivers, and of the northwestern parts to Lake Athabasca and Beaufort Sea, further demonstrates the control that bedrock has on the characteristics of the ecoregion.

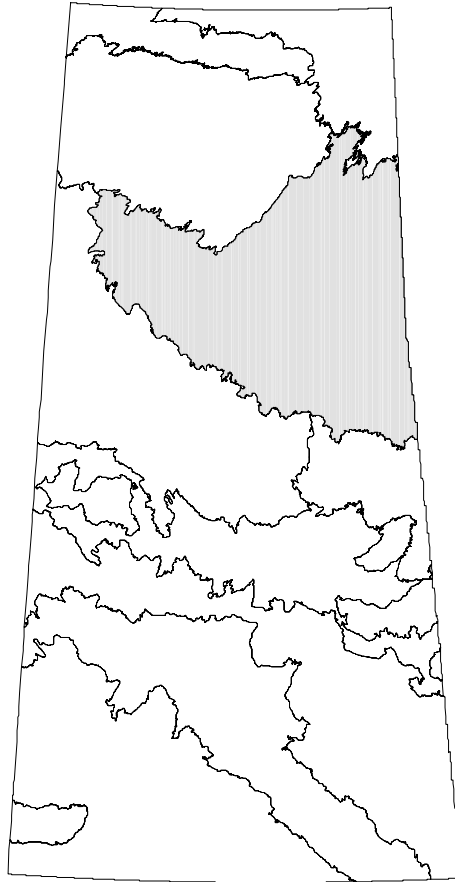
Black spruce dominates the region, with significant stands of jack pine on dry sand plains. A mosaic of forest types in various stages of succession is common because the rate of recovery of a burned area is dictated by timing and severity of fire, as well as by the supply of decolonizing material in adjacent unburned vegetation. As a result, there are six vegetation associations in the Churchill River upland; black spruce forest, jack pine forest, white spruce forest, mixedwood forest, peatlands, and wetlands.

Wildlife populations and the number of species found in the Churchill River Upland are higher than elsewhere on the Shield. This is largely due to the higher diversity of plant life which provides similarly varied habitat. An estimated 41 mammal species occur in the Ecoregion, with moose and black bear the most common. Woodland and barren-ground caribou also utilize the area. There are 204 bird species in the Ecoregion, with the Churchill River system containing the second highest concentration of nesting bald eagles in North America.

This ecoregion also contains the largest areas of base metal potential in the province. Gold and uranium are in a mining development phase. Forestry also has the potential to be a major employer in this area. Fishing, hunting, and trapping are other important resource uses.

## **Ecoregions of Saskatchewan**

## Map of Ecoregions



### **Sturgeon-weir River Representative Area**

#### **Important Features and Topography**

The Sturgeon-weir River site (4,569 ha./11,285 ac.) is representative of natural ecosystems found at the southern limits of the Precambrian Shield. Four enduring feature types are present within

this site which spans two ecoregions; the Churchill River Upland and the Mid-boreal Lowland. The majority of the site is within the Churchill River Upland and is dominated by enduring feature types characterized by exposed bedrock outcrops and a thin, discontinuous veneer of sandy glacial till. Only a very small portion of the Sturgeon-weir River site is defined as a lowland enduring feature type within the Mid-boreal Lowland.

Enduring features are used to guide selections in the Representative Areas Network program. Enduring features are specific rock, soil and land-form types that are very stable over long periods of time, and are likely to support characteristic plant and animal communities. Enduring Features are defined based on four specific factors:

- < The origin of the parent material: this relates to the method by which material such as soil, gravel or rocks was deposited (i.e. wind, water, glacial melt water)
- < soil development: how soils were formed through various factors like climate, soil organisms, the nature of the parent material, the topography of the area, and time
- < surface form: physical landscape features such as eskers or potholes.
- < slope: refers to the steepness or grade of the surface terrain.
- <

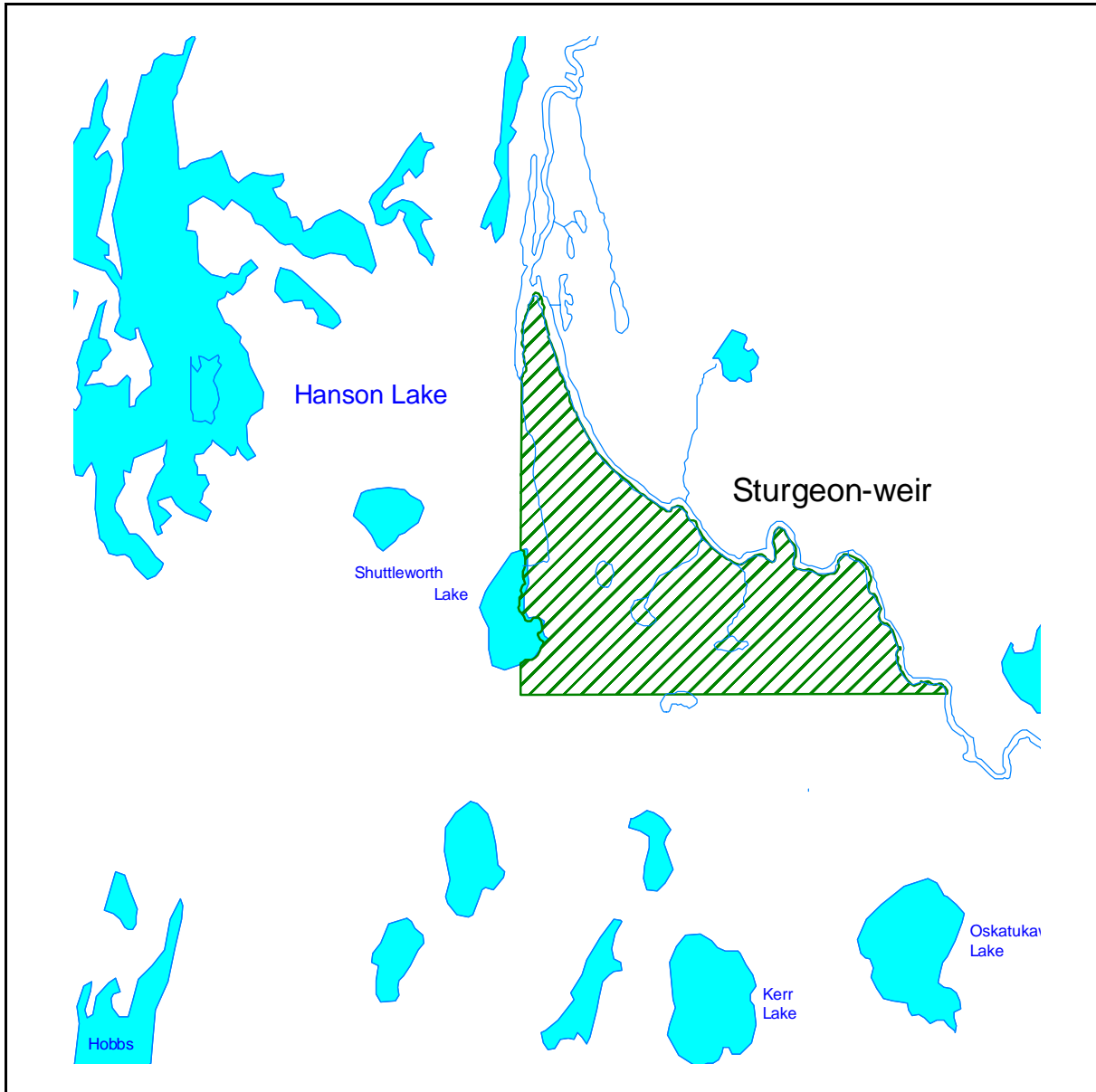
The rock outcrops and thin soils form a landscape of ridged and rolling topography, generally with slopes of less than 10 percent. Jack pine and black spruce dominate the uplands and rocky areas, with the occasional stand of aspen or aspen dominated mixedwoods. Black spruce and tamarack are present in the lowland bogs and fens, along with peat moss, sedges and low shrubs.

Scattered through the site are a number of small lakes and ponds, most of which are linked, through creeks and draws, to the Sturgeon-weir River. The Sturgeon-weir River with its varied waterscapes and rapids, forms the northern boundary of this representative area. As the water in this river is warmer and more productive than more northerly rivers, it provides habitat for many waterfowl species, especially white pelican. The surrounding landscape, with its diversity of softwood uplands and lowlands, provides habitat for a mix of wildlife species, including moose, woodland caribou, bear, wolves, furbearers such as beaver, marten and fisher. The area also provides for a host of bird species.

The boundary of the Sturgeon-weir River Representative Area is shown on the following map.

## **Sturgeon-weir River Representative Area**

## Site Condition



While much of the area provides for hunting, trapping and gathering, it has seen no extensive

road network as access is generally gained via the river. Areas to the north of the river, outside the representative area, have undergone forest logging, while the area south of the river has not been subjected to this type of disturbance. As such, the area is dominated by mature forests, primarily of jack pine / black spruce associations. Some of the area contains immature stands, again of the pine / spruce mix, while only a small percent of the area is classified as old forests.

### **Current Uses**

The Sturgeon-weir River area has been used for many generations for traditional hunting, trapping and gathering purposes. There are several trappers who annually set traplines throughout the area. Associated with these traplines are several relatively primitive cabins that continue to be used on an annual basis. Many of these are covered by SERM-issued traditional use permits, with some others built and maintained as part of individual recognized treaty rights. Activities like mushroom and berry picking have taken place in the area for years. The Sturgeon-weir River represents an important spawning area for sustaining local fisheries.

The Sturgeon-weir River Representative Area lies within an area of Crown land that is currently being negotiated for a timber supply licence for the Peter Ballantyne Cree Nation / Ainsworth partnership.

### **Site Use and Management**

#### **Allowable Activities and Developments:**

- U** trapping
- U** hunting
- U** angling
- U** bait fishing
- U** mushroom picking, where mushrooms may be sold
- U** berry picking, where berries may be sold
- U** outfitting, including setting of bear bait stations
- U** exercise of treaty rights
- U** development of reasonable access to support traditional or treaty uses
- U** hiking and backpacking on existing trails
- U** existing wild rice growing
- U** educational and research related activities

Carrying out of these activities would be subject to normal licensing or permitting requirements, as may be applicable

#### **Activities and Developments Not Allowed:**

- Y** commercial timber harvesting
- Y** new trails that could be used for recreational purposes by motorized vehicles
- Y** mineral development and/or mineral exploration
- Y** recreational cottage subdivisions
- Y** new residential and/or recreational cabin leases
- Y** new base camps to support tourism or commercial ventures
- Y** hydroelectric projects
- Y** gravel pits
- Y** new or expanded outfitting operations
- Y** new wild rice growing areas
- Y** weirs, dams or control structures on or in streams
- Y** commercial harvest of non-timber forest products
- Y** collection of rare and endangered plants
- Y** exotic fish introductions

### **Sturgeon-weir River Advisory Board**

Saskatchewan Environment and Resource Management (SERM) will establish an advisory board comprised of representatives of the Peter Ballantyne Cree Nation, stakeholders, interest groups, users and/or other party recognized as having an interest or role in the ongoing management and use of the Sturgeon-weir River Representative Area.

The Sturgeon-weir River Advisory Board shall meet at the request of SERM to act in an advisory capacity to review and recommend specific activities, management tools, research and educational activities that may be considered for application within the representative area. Once the Board has been struck, a comprehensive Terms of Reference shall be established and adopted by the Board and SERM.

Activities and uses not specifically stated in the Concept Management Plan that are under consideration for the Sturgeon-weir River Representative Area shall be reviewed by the Advisory Board prior to implementation.

### **Site Designation**

Formal designation of the surface area of the Sturgeon-weir River site is as a Representative Area, created by regulations established pursuant to *The Ecological Reserves Act*.

A representative area is legally protected natural area which may serve as a benchmark for measuring environmental changes and the ecological health of this and other areas in Saskatchewan. Representative Areas can also be used to preserve ecological and geological features and provide opportunities for scientific research and study related to ecological health. The Sturgeon-weir River Representative Area contains features and resources that fit each of these ecological purposes.

The Crown minerals underlying the surface of the Sturgeon-weir River Representative Area will be managed by a Crown Minerals Reserve established by Saskatchewan Energy and Mines pursuant to *The Crown Minerals Act*. A Crown Reserve withdraws the minerals from disposition for exploration or development purposes, thereby affording maximum protection for the site's full range of resources.