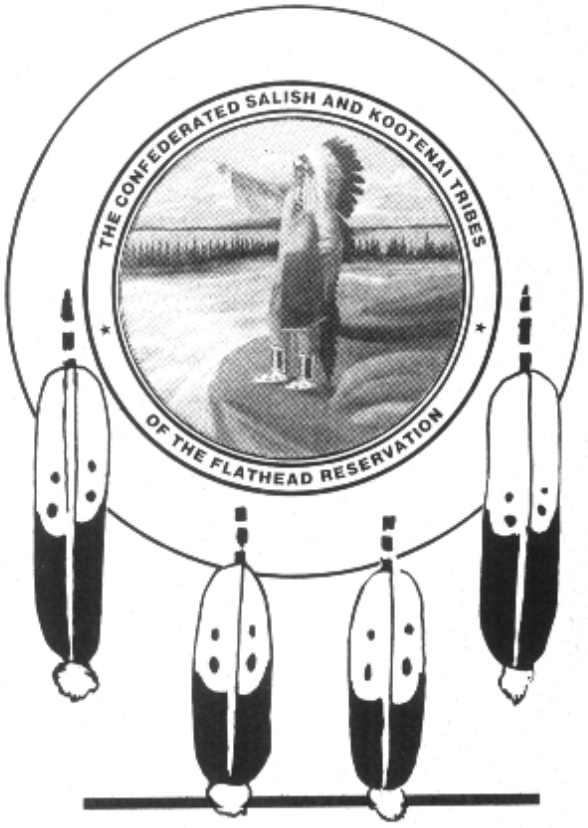

FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

VOLUME I
Existing Conditions

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CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 1

INTRODUCTION AND PURPOSE

INTRODUCTION & PURPOSE

The purpose of this plan is to guide natural resource management and development on the Flathead Indian Reservation. It presents an up-to-date profile and assessment of the condition of natural resources on the Reservation. It identifies Tribal goals for each natural resource and explores a series of integrated alternatives for management. Finally it defines policies and processes that will guide future resource management on the Reservation.

The plan focuses on lands and resources, but also incorporates social services and human concerns. It should be viewed as one component of a comprehensive planning process that also includes: organizational planning for all Tribal departments and organizations; human resources planning, including people-oriented services; and economic development planning.

DEFINITION AND FRAMEWORK

The Tribes view a comprehensive natural resources plan as a process that consists of three interrelated elements:

- ❑ Vision: Tribal goals give rise to policies that protect resources while allowing for sustainable development.
- ❑ Analysis and focus: A thorough knowledge of current resource conditions allows the Tribes to make decisions consistent with Tribal goals.
- ❑ Integration: Understanding relationships between resources and between resource users provides a better base for developing and coordinating management policies.

Figure 1.1, is a graphic representation of the plan and the Tribes' philosophy of resource management. The circle represents the Tribal view that all resources and their uses are interrelated. The Tribes believe humans are not separate from their environment, and that there is a spiritual bond between people, plants, animals, and the earth.

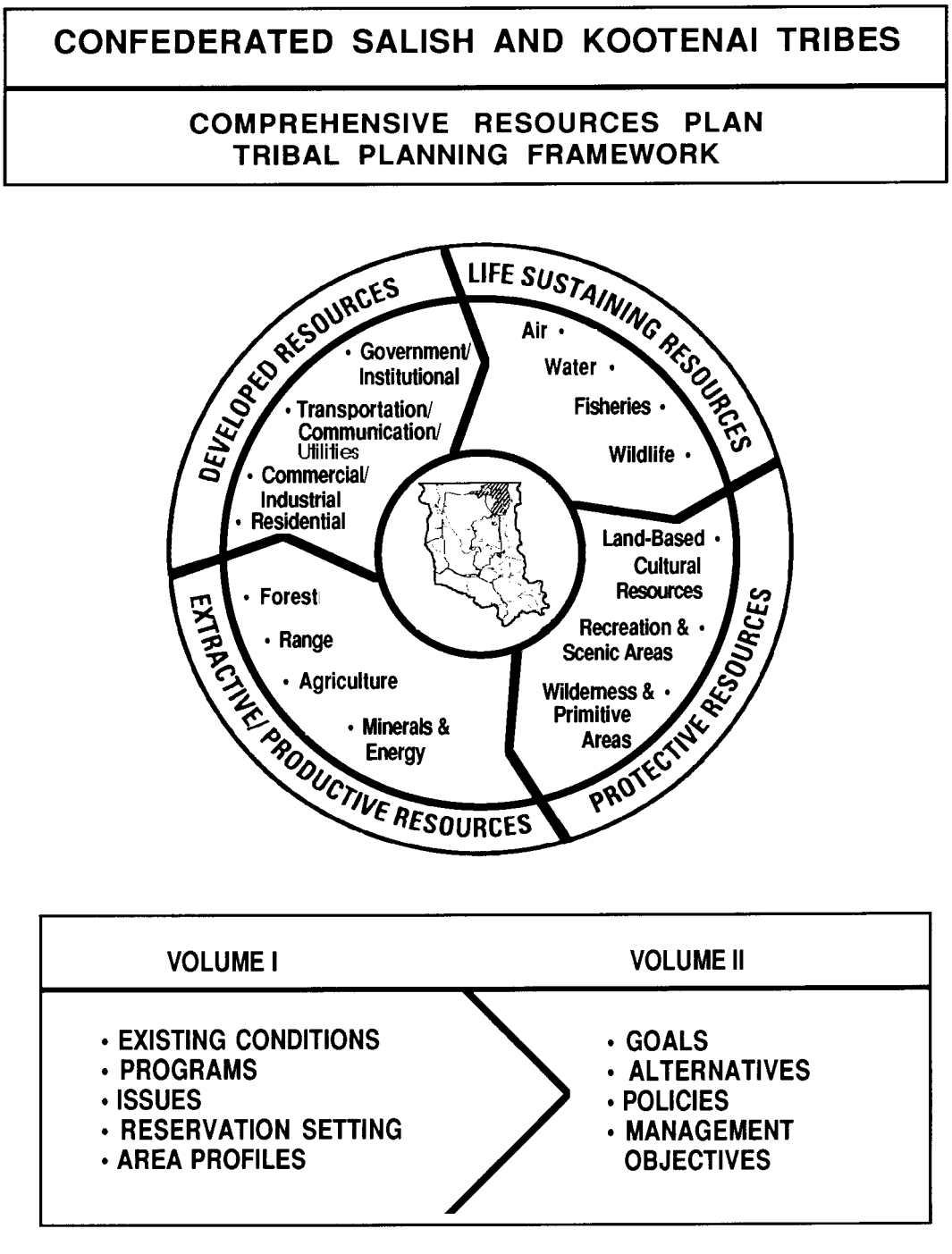


Figure 1.1. Diagrammatic representation of the Comprehensive Resources Plan

> The Earth is our historian, it is made of our ancestors' bones. It provides us with nourishment, medicine and comfort. It is the source of our independence; it is our Mother. We do not dominate Her, but harmonize with Her.
>
> —Flathead Culture Committee

The goals and policies of the plan are based upon this philosophy. Although resources are grouped into categories (life sustaining , productive and extractive, protective and developed), the open arrows in Figure 1.1 depict their interrelatedness. For example, cultural resources are life sustaining as well as protective resources. Water is not only life-sustaining, but is an important component of forest, range, agriculture and energy production.

This plan is divided into two volumes. Volume I, "Existing Conditions," describes and analyzes resources such as land, air, water, plants, and animals. It addresses the human uses of resources—activities such as forestry, grazing, farming, mining, housing and recreation. It also discusses cultural sites and the need to protect traditional values and practices. Volume II establishes a management direction by identifying the fundamental values and beliefs of the Tribes and setting forth long-term quality-of-life goals. Finally, it establishes policies aimed at achieving these goals.

PLANNING PROCESS AND METHODOLOGY

Development of the Tribes' Comprehensive Resources Plan is occurring through a four-phase process that the Tribes initiated in 1988. It is described below:

- ❑ Phase I - Pre-planning: the examination of alternative planning approaches and the establishment of a multi-year planning work program.
- ❑ Phase II - Conditions, Issues, and Goals: preparation of Volume I, including community and agency meetings, preliminary goal setting and development of the planning data base.
- ❑ Phase III - Alternatives and Policies: preparation of draft Volume II, including goals, use alternatives, policies and management objectives.
- ❑ Phase IV - Plan Adoption: review and adoption of Plan by the Tribal Council and development of a framework to implement plan policies.

Phase I included a series of workshops with Tribal and BIA Department Heads and Program Managers and state agencies to discuss concepts of vision, organizational capacity scenarios and plan content. The ideas generated during these workshops have carried the Plan through Phases II and III.

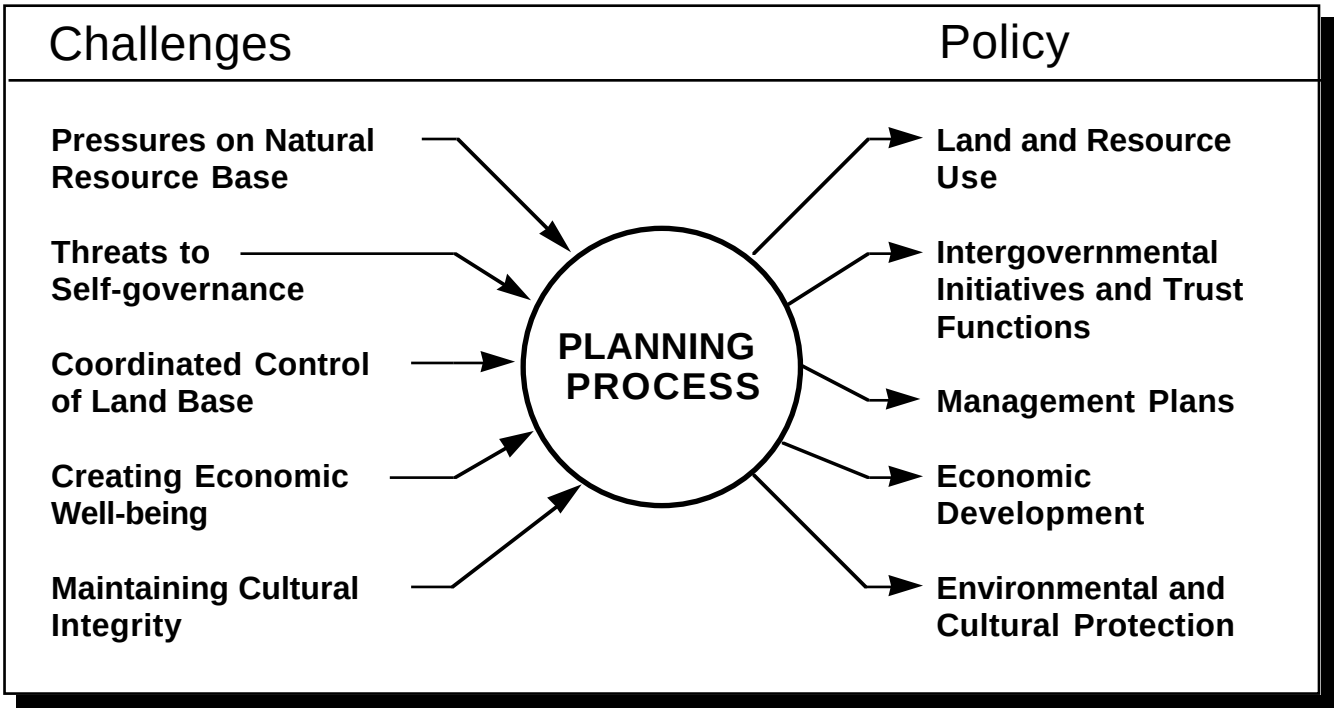


Figure 1.2. The planning process translates challenges into policies

In Phase IV, the Tribes will use the policy direction of the Plan to synthesize into a comprehensive methodology the ongoing process of updating management plans; updating and enhancing the regulatory framework (codes, compliance, monitoring and enforcement) for land and resource protection; and refining administrative capabilities for natural resource conservation and development within the policy and goals framework of the Comprehensive Plan.

The Tribes' planning methodology is based on the following key principals:

- ❑ Inclusiveness: The Plan includes all major categories of land use and natural resource qualities.

- ❑ Teamwork: The Plan represents the efforts of a technical team of Tribal and BIA professionals. The Tribes currently use an interdisciplinary process for reviewing timber sales proposals, homesite and commercial lease proposals, aquatic lands development permits, etc. The Comprehensive Resources Plan identifies other resource management areas for which this interdisciplinary process could be used. In developing the Comprehensive Resources Plan, the team concept has also been extended to consider the interests of non-Tribal parties, including county, state, and various federal or special-interest resource management organizations.

- ❑ Community Involvement: Several community meetings were conducted to orient Tribal members and others from the Reservation community to the Plan and to gain community input on issues, goals, sensitive areas and management priorities.

- ❑ Cultural Relevance: The plan translates Tribal goals and values into policies. Cultural values are critical to the plan and the Salish and Kootenai culture committees have been involved in the process as reviewers and advisors.

VOLUME I

Scope

Volume I summarizes the existing condition of natural resources on the Flathead Indian Reservation. It is broken into six sections. The first two, Background and Area Profiles, provide a general description of the Reservation and profile its physical, social and economic setting.

The last four sections include the fifteen resource categories that are depicted in Figure 1.1. The description of each resource follows a standard format that includes:

- ❑ Existing Conditions: Basic description, inventory and analysis of the resource that includes maps of resource characteristics and locations.

- ❑ Programs and Policies: Description of management activities and policies that govern the resource.

- ❑ Issues: Important or sensitive concerns raised by the Tribal Council, Tribal and BIA managers, Tribal elders, the public and federal, state and local agencies.

The Tribes developed maps in all three sections using the Tribes' computerized geographic information system (GIS). Additional data analysis is ongoing as new data is entered into GIS. These analyses will be used during the implementation phase of the planning process.

How to Use Volume I

Volume I was developed to create a general picture of the Reservation. Based on your information needs, you may want to use the following keys:

- ❑ General Understanding of the Reservation. If you would like background information about the Reservation, its people, history, socio-economic and physical setting, read the first five chapters.

- ❑ Land Areas Within the Reservation. If you are interested in profiles of specific land areas or geographic zones, read chapters six and seven. Chapter Six: Study Areas provides a general description of natural and man-made features of six broad areas on the Reservation, including the river corridor. U.S. Highway 93, the other major corridor on the Reservation, is profiled in chapter seven.

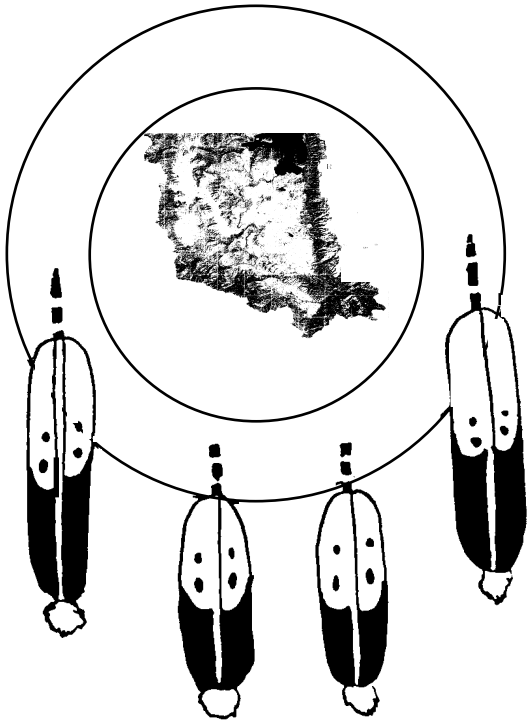
- ❑ Specific Resource Analysis. If you would like to focus on one resource category (such as wildlife), refer to that chapter for baseline information on conditions, problems, opportunities and programs. Each resource chapter has the same format to facilitate understanding of resource relationships and policies.

- ❑ Maps. If you are interested in maps and graphic representations of data, they are included in most chapters. Refer to the List of Figures for map titles and locations in the text.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 2



PHYSICAL SETTING

PHYSICAL SETTING

The Flathead Reservation has a variety of landforms that support a diversity of ecosystems. There are low, broad valleys; some, nourished by abundant rainfall, are fertile and green; others, like the Camas Prairie, are much drier and have only sparse vegetation. There are high and low elevation forested hills with both wet and dry vegetation types. There are rocky buttes that support shrub and grass communities. There are dozens of rivers, streams, lakes and ponds, all with their companion wetlands and riparian habitats. Glaciers have formed on the highest peaks, surrounded by rock and alpine tundra.

All of this falls within a Reservation roughly 60 miles long and 40 miles wide, an area that is but a fragment of the Salish and Kootenai Tribes' aboriginal territory (fig. 2.1). This chapter describes the Reservation and its physical setting. Later chapters have more specific information on Reservation natural resources and land uses.

ADJACENT LANDS

Bordering the Reservation are the Flathead and Lolo national forests, Burlington Northern and Champion International private timber holdings, individual sections of state land, and small parcels of private land. The federally designated Rattlesnake Wilderness and Recreation Area borders the Reservation to the southeast, while the federal Mission Mountains Wilderness Area abuts its east boundary. The city of Missoula, the largest population and industrial center in western Montana, lies just 10 miles to the south.

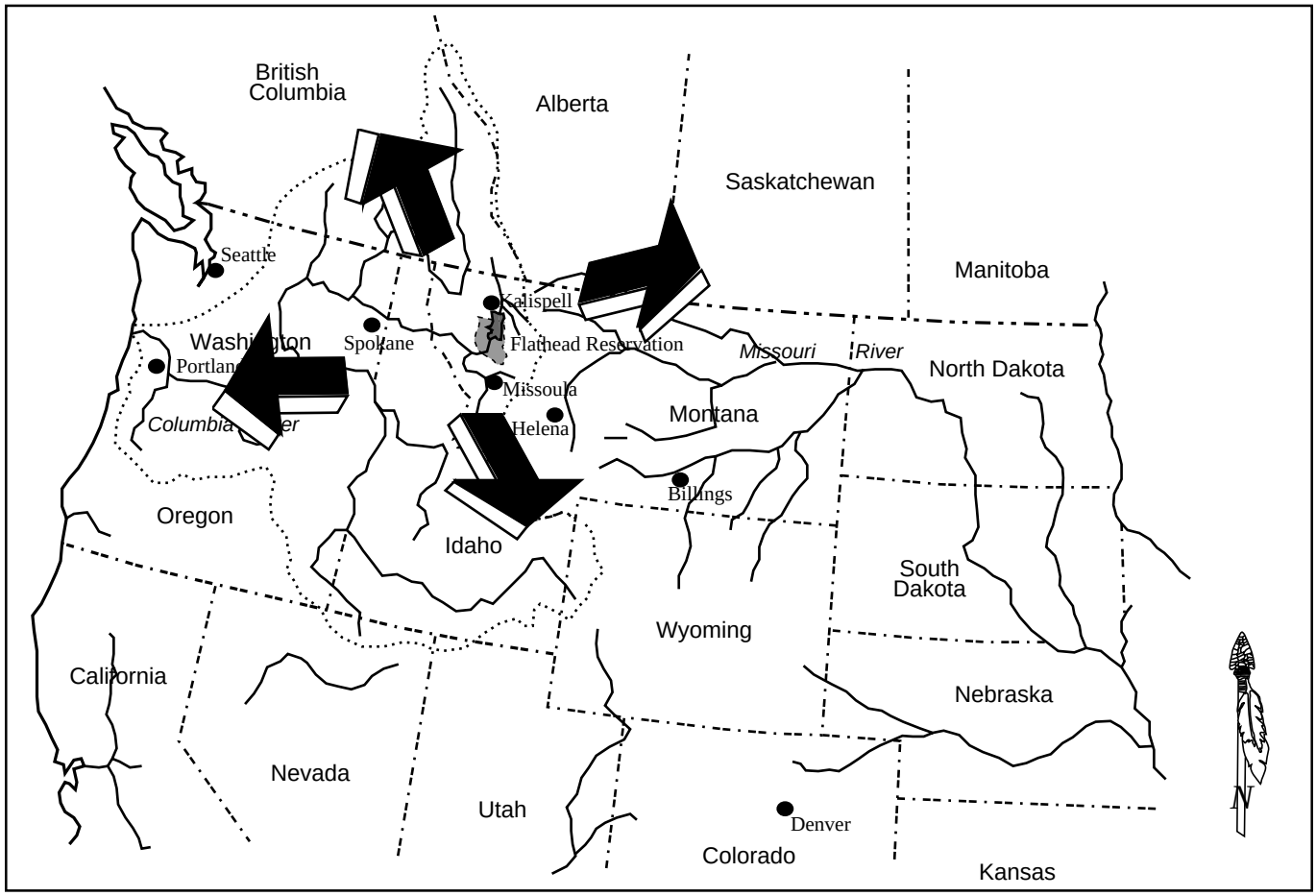


Figure 2.1. The Flathead Indian Reservation lies within the Rocky Mountain Plateau. Arrows indicate aboriginal ranges. The dotted lines follow the Columbia River Basin.

The Flathead River Basin

The headwaters of the Flathead River System (fig. 2.2) originate to the north and east of the Reservation in Canada, Glacier Park and the Bob Marshall Wilderness. The three main tributaries, the North, Middle and South Forks, merge near Columbia Falls to form the Upper Flathead River. The Stillwater and Whitefish rivers and Ashley Creek join the main river near Kalispell. From there the Flathead flows south into the north end of Flathead Lake. The Swan River, another major tributary in the system, empties into the lake at Bigfork.

There are two large-scale hydroelectric facilities in this part of the basin. Hungry Horse Dam is on the South Fork of the Flathead River, and Bigfork Dam is one mile from Flathead Lake on

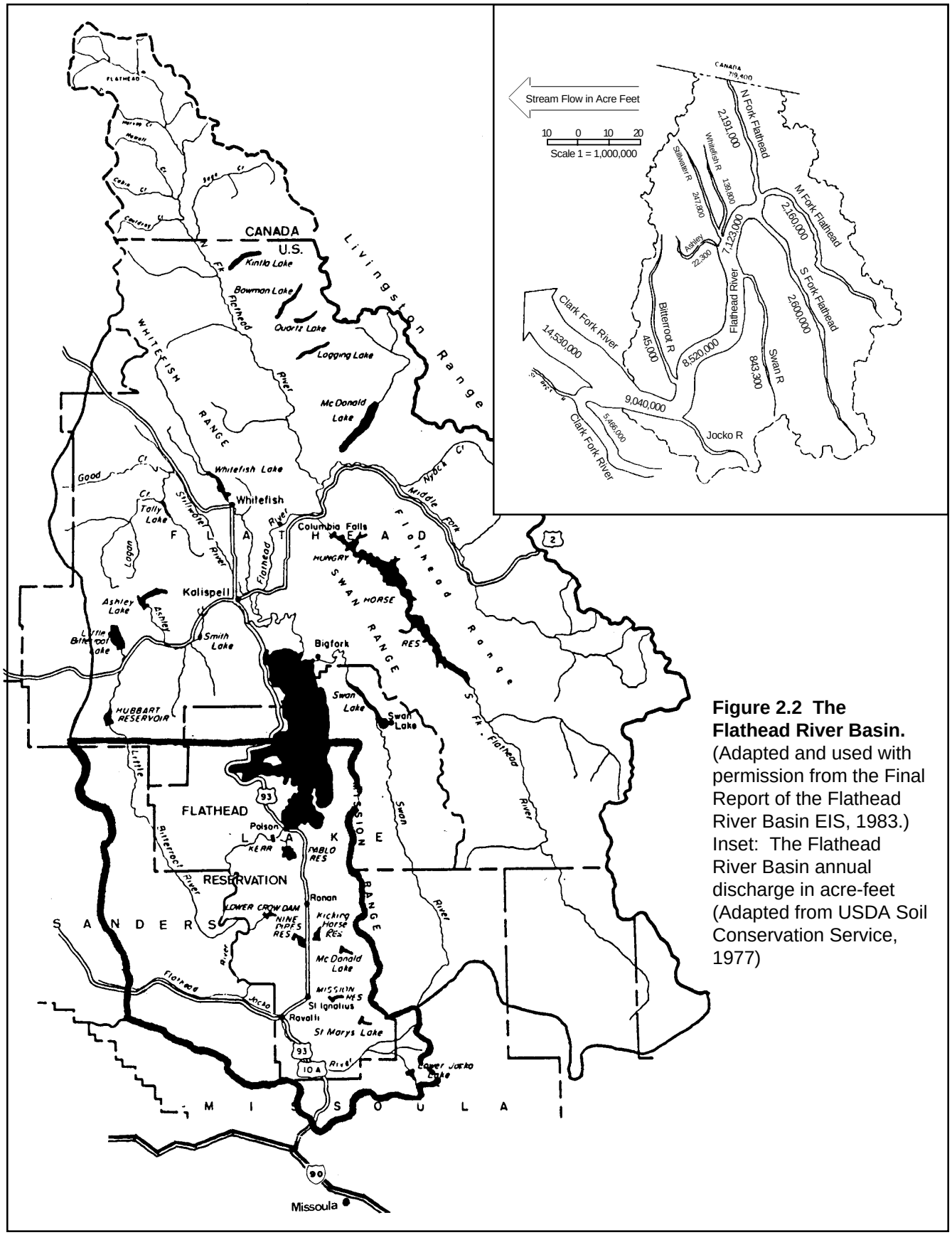


Figure 2.2 The Flathead River Basin. (Adapted and used with permission from the Final Report of the Flathead River Basin EIS, 1983.) Inset: The Flathead River Basin annual discharge in acre-feet (Adapted from USDA Soil Conservation Service, 1977)

the Swan River.

The Lower Flathead River[1] begins at the south end of Flathead Lake. Kerr Dam, a large hydropower facility 3.5 miles below the lake's outlet, regulates its flows. From the dam, the river flows south for forty-seven miles through relatively undeveloped range and cropland. At the community of Dixon, it turns west and flows another twenty-five miles to its confluence with the Clark Fork River just beyond the Reservation Boundary. Five main tributaries join this part of the river. They are the Little Bitterroot and Jocko rivers and Crow, Mission, and Camas creeks (fig. 2.3).

The Flathead River Basin includes nearly six million acres drained by thirty-five hundred miles of streams. Flathead Lake, which lies roughly in the center of the basin, has the largest surface area of any natural freshwater lake in the western United States. The Flathead River is the fourth largest river in Montana. It has an average flow rate of eleven thousand seven hundred cubic feet per second (USGS 1991). Its annual discharge of 8.5 million acre feet (fig. 2.2) is equivalent to a seventy-foot high column of water over the entire surface of Flathead Lake (Flathead Basin Steering Committee 1983). The three forks of the Flathead contribute about 80 percent of the water that flows through the basin (USGS 1991). The Federal Wild and Scenic Rivers Act protects major portions of all three of these rivers. In addition, much of the land they drain is federal wilderness or is within Glacier National Park.

Human Influences

Industries, logging, agricultural practices, recreational use, and a variety of other activities occurring off the Reservation impact the Reservation's environment. Industrial activities in and around Missoula, for example, can affect the airshed. The same is true of industrial, residential and vehicular air emissions originating to the north of the Reservation.

Land uses that occur to the north and east can directly affect the quality of Reservation waters because they occur within the same river basin. For example, pollution that enters the river system upstream from the Reservation often ends up in Flathead Lake and the Lower Flathead River.

THE FLATHEAD RESERVATION

The Reservation includes parts of four Montana counties: Lake, Sanders, Missoula and Flathead. It covers a total estimated area of 1,316,871 acres[2]. It comprises the lower quarter of the Flathead River Basin, and encompasses the south half of Flathead Lake and the Lower Flathead River.

[1] Some Tribal elders refer to the Lower Flathead River as the Pend d'Oreille River. Its Salish name is Ntx^{w}e.
[2] Tribal Geographic Information System (GIS) estimate, March 1992.

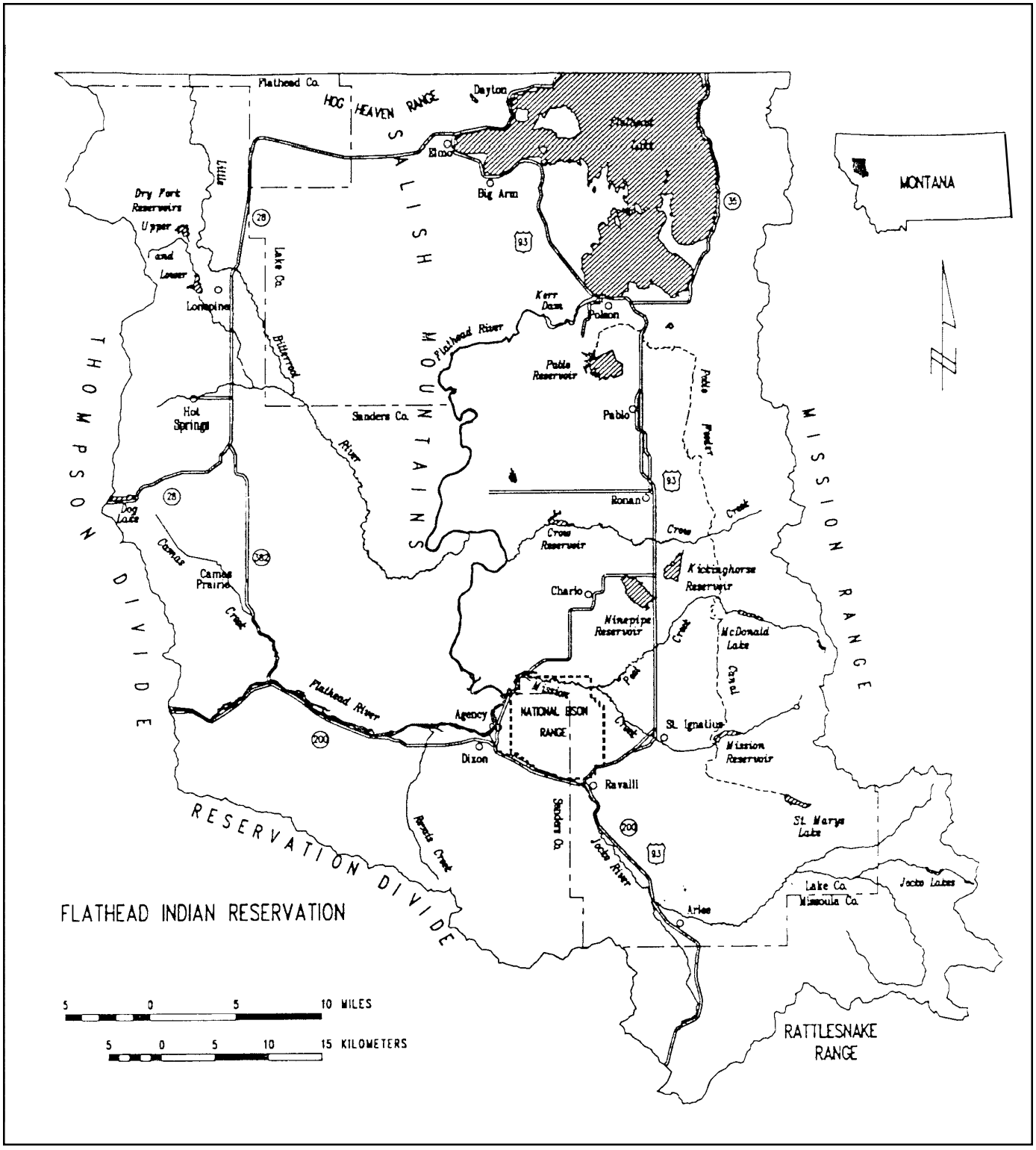


Figure 2.3. Major features of the Flathead Reservation

Physiography

The spectacular Mission Mountains Divide forms the eastern boundary of the Reservation. The Mission Mountains vary in elevation from six thousand feet at their north end to ten thousand feet at McDonald Peak, east of St. Ignatius. The Rattlesnake Mountains, another high range, forms the southeast boundary. The Reservation Divide, which reaches eight thousand feet in elevation, defines the southwest boundary. (That divide is an extension of the Coeur d'Alene Range.)

The east edge of the Cabinet Mountains, where elevations reach seven thousand feet, forms the Reservation's west boundary. The north boundary extends west from these mountains, across the middle of Flathead Lake, to the Mission Range.

The low lying Salish Mountains stretch south from the north boundary to the central part of the Reservation. This range separates two north-south valleys. On the east side there is the Mission Valley, on the west, the more arid Little Bitterroot River Valley. Other principal valleys and basins include Camas Prairie, Big Draw, Irvine Flats, Sunny Slope, the Jocko Valley, and the Flathead River Valley downstream from Dixon. The Lower Flathead River and its tributaries drain them all. Where the Lower Flathead River leaves the Reservation, the elevation is approximately twenty-four hundred feet.

These Reservation valleys are generally flat; some have low hills rising to thirty-five hundred feet. There are wetlands and riparian areas throughout. The Mission Valley has hundreds of kettle lakes or potholes and an extensive irrigation system. The Little Bitterroot Valley has hot water springs.

Geology

The Flathead Indian Reservation lies along the main axis of the Rocky Mountains. Precambrian rocks of the Belt Supergroup form the bedrock under virtually all of the Reservation, and they are exposed in the mountain ranges, as well as in many of the lower hills of the valleys. The major rock types include argillite, siltite, quartzite, and limestone.

Igneous rocks also occur but in only two areas: south of Hot Springs, and in the northwest corner of the Reservation. The rocks in the latter area are volcanic in origin.

Rocks that underlie parts of the larger valleys are soft sandstone and siltstone. The surface of the valleys consists of deposits of boulders, cobbles, gravel, sand, silt, and clay. Glaciers left behind much of the larger material.

The valley deposits of silts and clays are from Glacial Lake Missoula, an enormous ice-age lake that extended north to Kalispell, south to Hamilton and east to Drummond. It covered everything on the Reservation below 4,200 feet. Beach lines from it still mark the hillsides.

In addition, rivers and streams have deposited gravel, sand and silt throughout the valleys.

Soils

Soils formed in residual materials or in materials deposited by glaciers, streams and wind. Wind deposits include volcanic ash from Washington and Oregon.

The soils of the southern Mission Valley are influenced by fine textures that inhibit the downward movement, or percolation, of air and water. The Pablo, Jocko and Moiese areas, on the other hand, have sandy-gravelly soils that allow water and air to move much more easily. Soils in the Round Butte, Valley View and Lonepine areas are dominated by silts and clays that were deposited in standing water. They formed in materials with layers, or varves, that enable water to move horizontally more easily than vertically, until it reaches a less restrictive soil zone. In many areas soils formed in glacial till and are generally loamy and with moderate to high quantities of boulders, cobbles and gravels.

In most of the valleys, the soils are deep and gently sloping. Some areas have groundwater levels near the land surface. Some soils have a high sodium and/or salt content.

Mountain and foothill soils are steep and mostly well drained, with large amounts of broken rock. Rock outcrops are common.

Climate

Because the western half of the Reservation lies in the rain shadow of the Cabinet Mountains, it receives less precipitation than the east half. (Camas Prairie is one of the driest areas in Montana.) Mean annual precipitation in the valleys ranges from twelve inches on the west side to sixteen inches or more in the east. About half of this falls as rain.

The mountains are much wetter. Annual precipitation in the Mission Mountains, for example, reaches as much as one hundred inches, mostly in the form of snow. Typically the lower mountains receive twenty to thirty inches. (fig. 2.4)

A moist, maritime influence from the Pacific Ocean dominates the Reservation area, especially during winter months when low lying clouds blanket the region. Precipitation falls on a fairly regular basis throughout the year, although May and June are about twice as wet as other

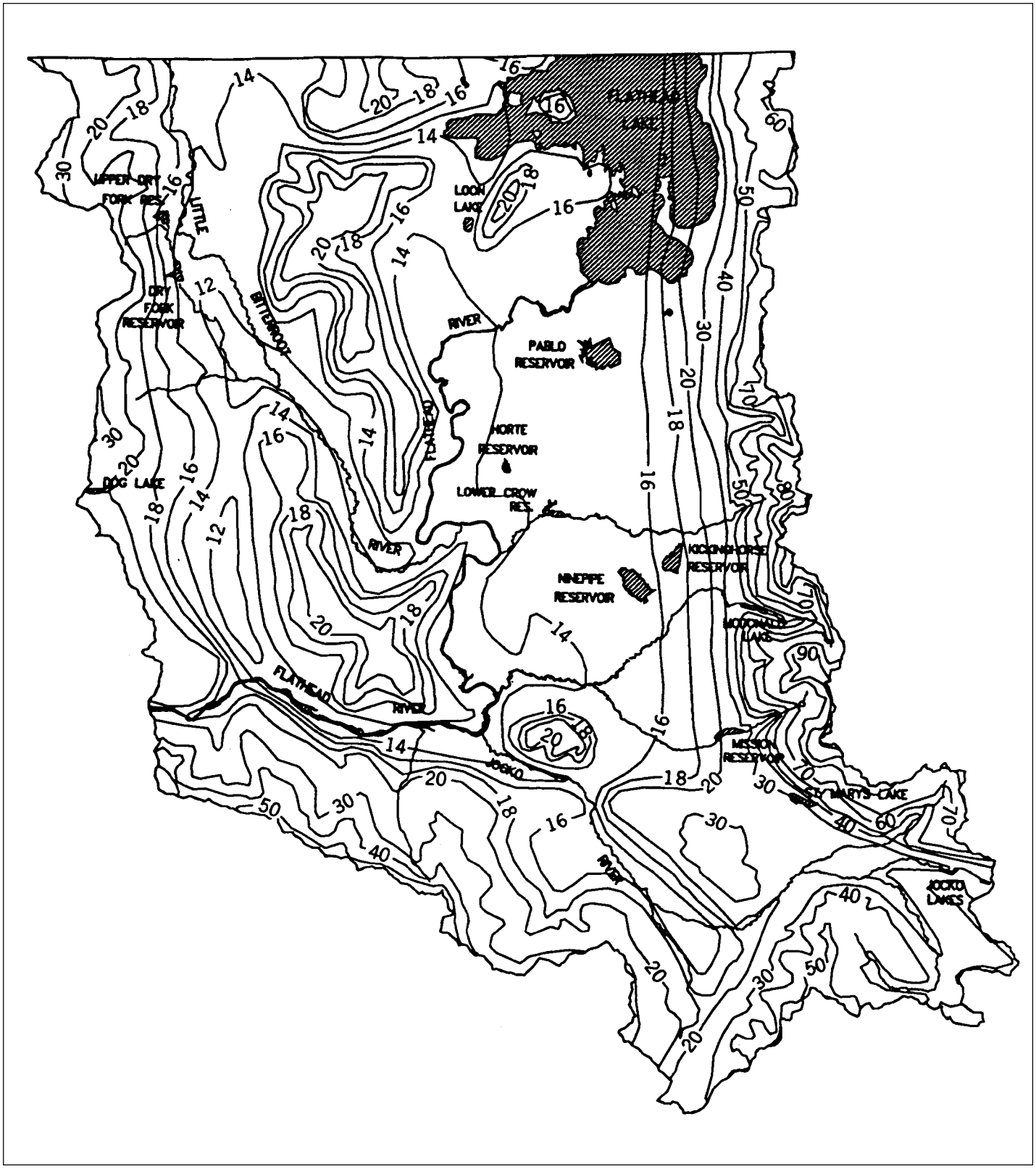


Figure 2.4. Mean annual precipitation on the Flathead Reservation in inches

months (table 2.1).

Table 2.1. Monthly normals of temperature and precipitation, 1951 to 1980.

LOCATION	MONTH J	F	M	A	M	J	J	A	S	O	N	D	ANNUAL
Polson at Kerr:													
Mean Temp (°F)	**24.5**	**30.6**	**35.3**	**47.4**	**52.7**	**59.9**	**67.1**	**66.3**	**56.8**	**46.1**	**34.5**	**28.7**	**45.6**
Precip (in)	**1.29**	**.89**	**.75**	**1.16**	**2.07**	**2.18**	**1.06**	**1.16**	**1.22**	**.97**	**1.04**	**1.19**	**14.98**
St Ignatius:													
Mean Temp (°F)	**24.5**	**30.9**	**35.8**	**45.1**	**53.4**	**60.5**	**67.1**	**65.8**	**56.5**	**45.6**	**34.2**	**28.7**	**45.7**
Precip(in)	**1.34**	**.78**	**.97**	**1.43**	**2.34**	**2.53**	**1.23**	**1.34**	**1.13**	**.96**	**1.09**	**16.2**	**16.18**

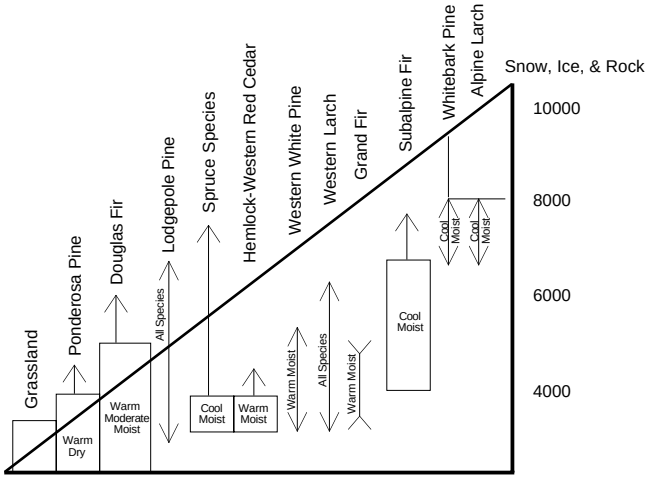
Source: National Oceanic and Atmospheric Administration, 1982.

The mean annual temperature in the valleys is approximately 45° F. Winter temperatures are fairly moderate. They average 27° F due to the sheltering effect of the Mission Mountains and the Continental Divide. Warm, southern Chinook winds occasionally moderate these systems, as do cold Arctic air masses that can drop temperatures to below 20° F for several days.

In July and August when temperatures fluctuate from the high 70s to 100s in the valleys (although 100° days are infrequent), a drier, continental climate dominates. The growing season lasts approximately one hundred days and runs from May to September.

Vegetation

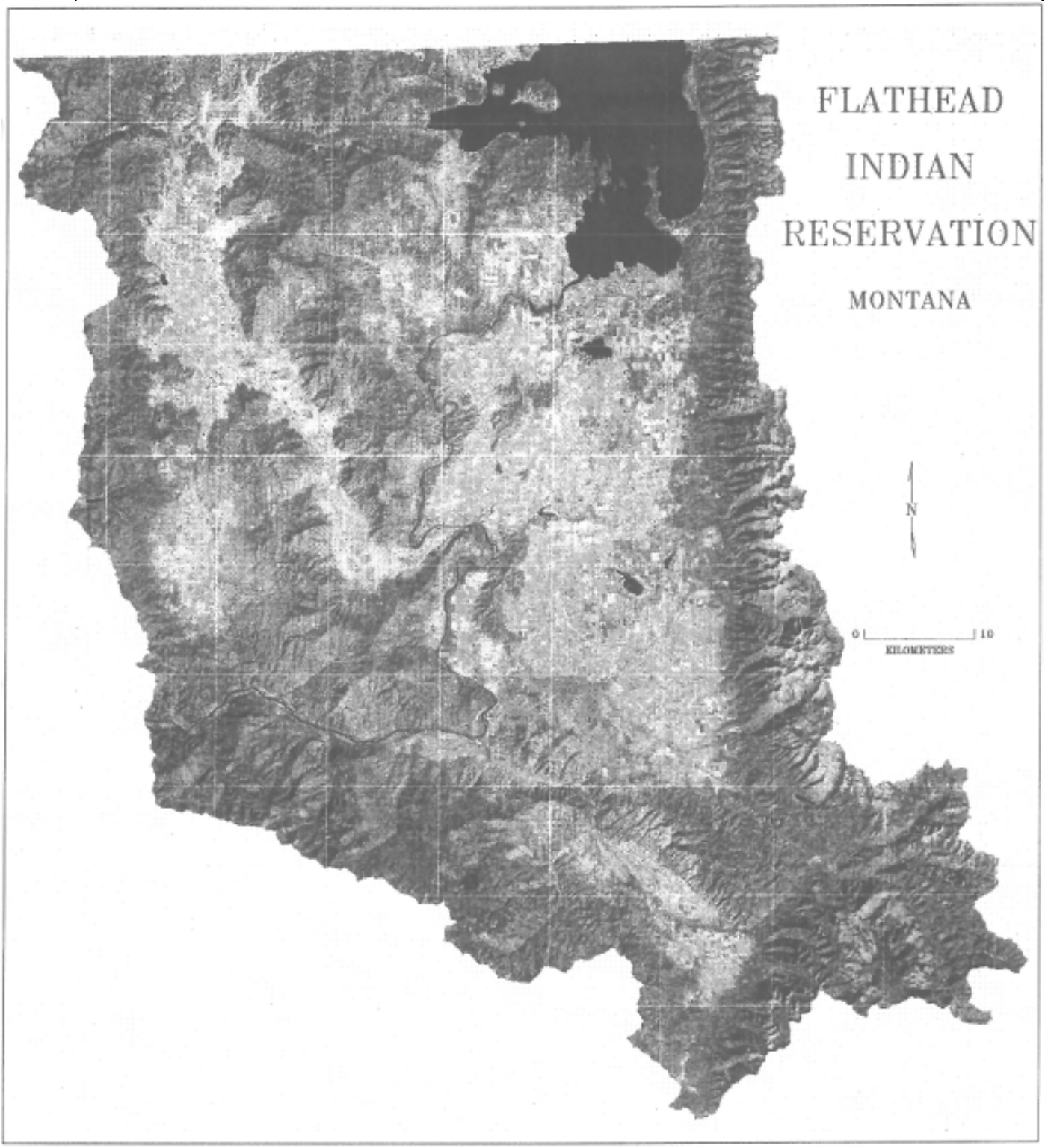
The vegetation of the Reservation is typical of the northern Rocky Mountain region. In the lower elevations, river floodplains support black cottonwood, paper birch, willow, alder, dogwood, rose and snowberry. Cattails, meadow grasses and sedges dominate wetlands. Sage, rabbit brush and other low lying shrubs grow in the drier areas, as do native grasses (such as wheatgrasses and fescues), and introduced species (which range from tame grasses to noxious weeds).



Arrows represent species range. Blocks represent habitat type
Series after Pfister, et al. 1977

Figure 2.5 Generalized vegetation for the Flathead River Basin. (Adapted by C. Kay, Final Report Flathead River Basin EIS, 1983. Used with permission.)

On hills and mountains common trees include ponderosa pine, lodgepole pine, Douglas fir, grand fir, Engelmann spruce,



LAND USE

(Figure 2.6)

Water
Forest
Agricultural Land
Grassland

subalpine fir, and alpine larch (fig. 2.5). Common shrubs include snowberry, spiraea and ninebark, and common grasses include wheatgrasses, fescues, pine grass, and introduced bluegrasses.

To date the federal government has listed no threatened or endangered plant species on the Reservation. Two plants, however, are being considered for listing by the US Fish and Wildlife Service (Reel et al. 1989). They are the Spalding's catchfly and the clustered lady's-slipper. In addition, many of the state's rare plant sites are here. The Nature Conservancy has evaluated eleven of these and is considering the continued monitoring of three.

Logging, cropland development, grazing, irrigation and other land uses have substantially altered the native vegetation. Figure 2.6, a color enhanced satellite image, reveals many of these changes. Forested lands are dark green, rangelands are brown, areas with high soil moisture and lush vegetation (such as wetlands) are light green, and water is black. Irrigated and dry croplands are either light green or yellow.

Wildlife

A diverse variety of wildlife inhabits the Reservation. A total of at least 308 species of birds occur either as breeding birds or as seasonal or over-wintering migrants. In addition, the Reservation provides habitat for 67 species of mammals, 9 species of amphibians and 9 species of reptiles.

The variety of wildlife is largely a function of the diversity of habitats encompassed within the Reservation which include semi-arid sagebrush/grasslands, lush wetlands, aquatic areas, riparian zones, agricultural lands, forested mountains and high-elevation tundra. Each provides niches that are occupied by several wildlife species.

Three species, the bald eagle, the peregrine falcon, and the northern gray wolf, are federally-listed as endangered. The grizzly bear is listed as threatened. Others, including the river otter, wolverine, Canadian lynx, northern goshawk, common loon, harlequin duck, and pileated woodpecker are considered sensitive species by the Tribal Wildlife Management Program. Still others, including the trumpeter swan, Columbian sharp-tailed grouse, burrowing owl and peregrine falcon, apparently no longer exist on the Reservation in viable numbers.

Land Ownership

The Tribes own the majority of the land on the Reservation[3]. There are also hundreds of

[3] Tribal lands include all lands owned in whole by the Confederated Salish and Kootenai Tribes.

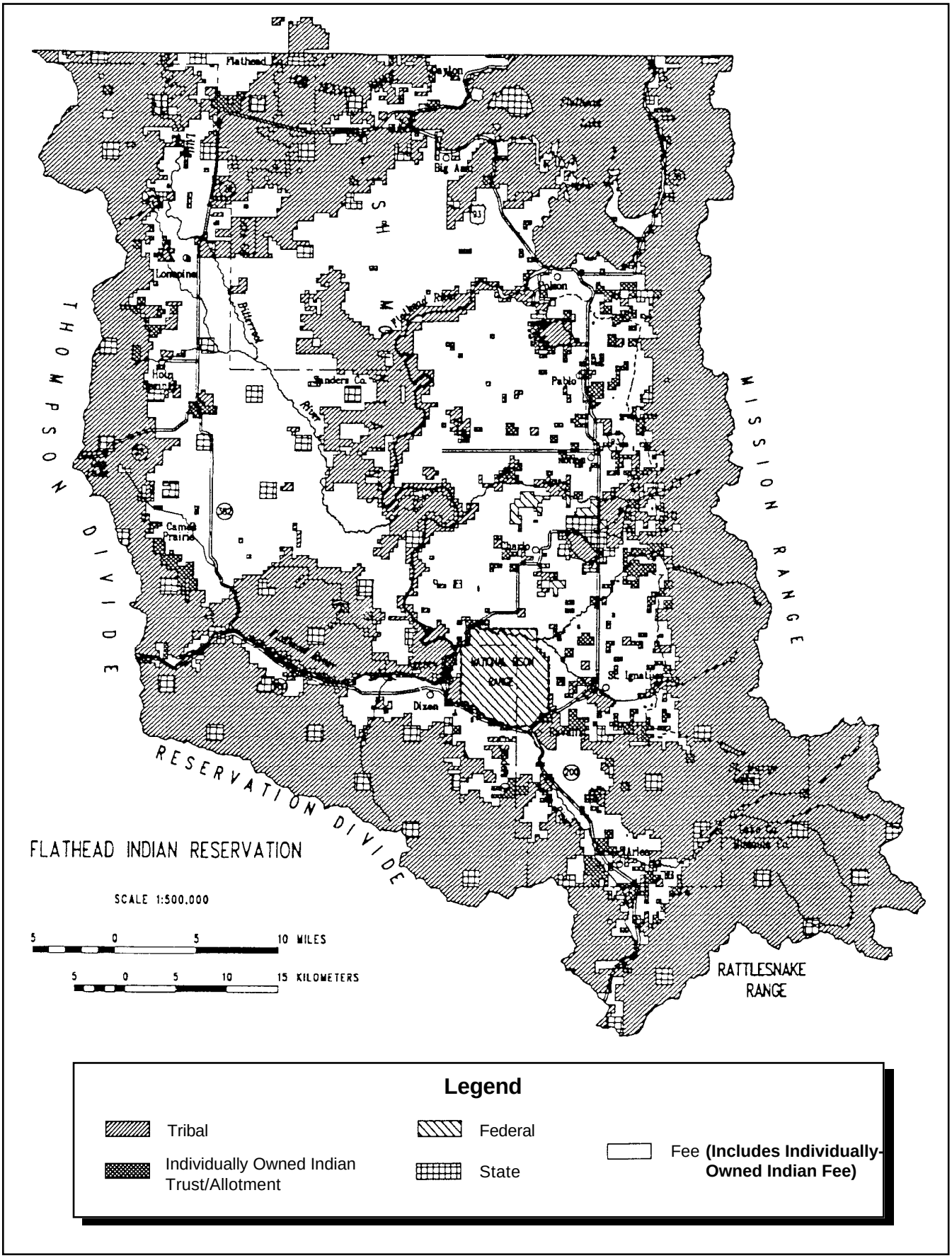


Figure 2.7. Land status on the Flathead Reservation based on September 1992 GIS data.

allotments[4] owned in whole or in part by individuals and the Tribes. The federal government holds title to tribally owned lands and allotments on behalf of the owners. The rest of the land is held in Federal, State or fee[5] ownership (fig. 2.7).

Along with owning the majority of the Reservation land base, the Tribes own a twenty-nine hundred acre off-Reservation parcel contiguous to the Reservation's northwest boundary. The Tribes have also bought other lands in western Montana for the protection of cultural sites.

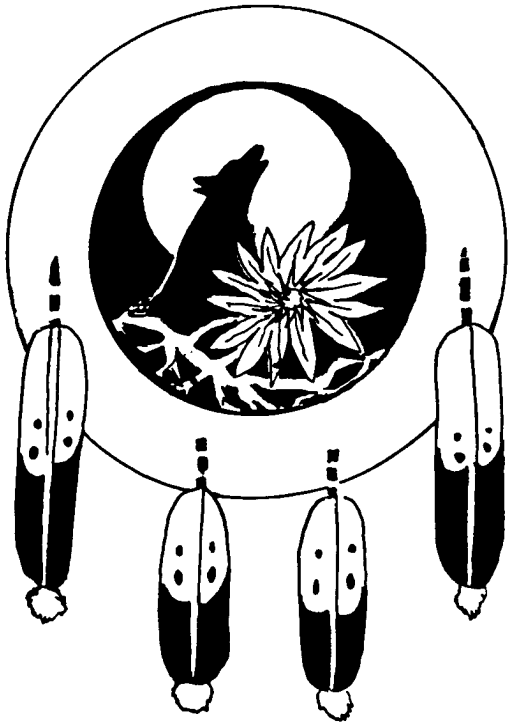
[4] For purposes of this document, an allotment is a tract of Tribal land that, pursuant to the Flathead Allotment Act (33 Stat. 304), was removed by the Secretary of Interior from communal ownership and conveyed by trust deed to individual members of the Tribes. Most, but not all, allotments were created in 1908 and 1922. All allotments were assigned by the Secretary with a unique number, which is of record with the Bureau of Indian Affairs.

[5] For purposes of this document, fee land is land that is not in trust status, nor is it federally, Tribally or state owned. Some individual Tribal members own land in fee status on the Reservation.

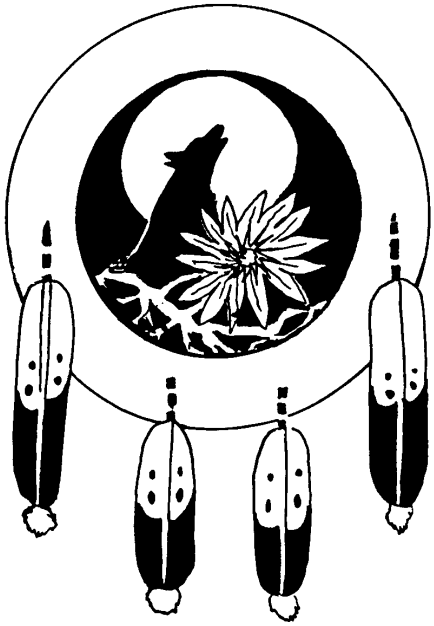
CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 3



HISTORY AND CULTURE



HISTORY AND CULTURE

The Flathead Indian Reservation is home to two major[1] Salish-speaking tribes—the Salish and the Pend d'Oreilles—and one band of the Kootenai Tribe. This chapter describes, in a general way, the cultures of these groups. It highlights values the Tribes hold for the natural environment, and it outlines historical events that led to the Tribes' loss of land and resources. A basic knowledge of these histories and Tribal cultures is crucial if one is to understand the Tribes' present-day natural resource philosophy.

The history presented here is a compilation of Tribal elders' oral histories, European-American historical interpretations, and professional research on treaties and other documents. Because language barriers and cultural differences have, at times, led western historians to misunderstand events that involve the Tribes, it is useful to draw upon the oral histories of the Salish and Kootenai peoples as well as the historical record.

SALISH CULTURE (Sqélix^{w}—The People)

On the Flathead Reservation, the designation "Confederated Salish" encompasses not only the Bitterroot Salish and the Pend d'Oreilles, but also Kalispel and Spokane Indians who settled on the Reservation. Elders say that these and other tribes were once one Salish speaking tribe. Thousands of years ago this ancestral tribal group divided into a number of different bands that later became tribes and occupied much of the Northwest, from British Columbia to Montana and beyond[2].

Some bands lived throughout Montana from the Bitterroot to the Yellowstone valleys; the Pend d'Oreilles eventually settled in the Flathead Valley; and a band of Kalispel camped along the Flathead River near Perma, Camas Prairie and Paradise.

[1] Kalispel and Spokane Indians, and members of other tribes, have settled here as well.

[2] Some oral histories suggest a movement to the west, not to the east.

The Salish Creation Story

Oral history has always been important to the Salish people. Even today elders tell Coyote stories during the winter months, as Salish elders have done for thousands of years. These stories, like the revealed scriptures of other religions, explain the nature of the Creator. They tell of creation and of the origins of natural phenomena. They speak of the unity of life, and stress respect for the land and the living community it supports. They teach that The People are part of the natural world, rather than being separate from it. Some of the stories tell the history of the tribe, of past leaders, heroes, and relatives. They also teach children to be respectful listeners so they understand the lessons of their own lives, and so they can pass the stories on to future generations when they become elders. In the words of the Flathead Culture Committee:

> Our story began when the Creator, the Maker, put the animal people on this earth. The world was not yet fit for The People because of many evils, so the Creator sent Coyote, with his brother Fox, to this big island (as the Elders call North America) to free it of evils. The two brothers created mountains, valleys, lakes and rivers, and discovered special skills and knowledge that The People would later use. However, Coyote, being Coyote, left some evils in the world. Many of the imperfections that we know of today such as greed, jealousy, hunger, envy, and anger are what Coyote chose to leave in the world.
>
> At the core of this story is the message that the Creator made all of us, and that we must respect and love each other. Creation consists not only of humankind, but of everything in the animal world, the mineral world, and the plant world. Even the elements and the forces of nature are part of Creation. Each has a spirit that lives, and we must respect and love each.
>
> The elders tell us that Coyote and his brother are waiting at the edge of this island, and that one day they will come back. If, when they return, we are not living as one creation, as part of one big circle, it will be the end of our time, the end of this part of the universe.
>
> Our stories teach us that we must always work for a time when there will be no evil, no racial prejudice, no pollution, when once again everything will be clean, and beautiful for the eye to behold—a time when spiritual, physical, mental, and social values are inter-connected to form a complete circle.
>
> — Flathead Culture Committee

Economy and Government

Before the time of the Reservation, the Salish tribes gained subsistence from a tribal system of hunting, fishing and harvesting. The quest for food began in the early spring with the bitterroot harvest. Tribal leaders appointed elders to watch for when the bitterroot was ready. When the time came, the leaders called the people together to dig enough roots for a feast to celebrate the year's first food and to pray that food would be plentiful.

Along with bitterroot, the people harvested other plants such as camas bulbs, tree moss, onions, Indian potatoes, Indian carrots, and medicinal plants. The people fished year-round.

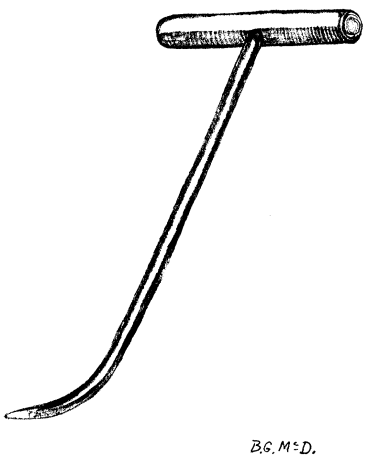


Figure 3.1. Salish Root Digging Stick (Pecé?) made from deer antler and wood.

In summer and fall, the Salish hunted and picked berries, first strawberries and service berries, and later huckleberries, raspberries, chokecherries and hawthorn berries. All of these activities were communal; the people worked together and helped each other.

In the fall, the men concentrated more on hunting, while the women dried the meat and prepared hides for robes and buckskins. The Salish hunted many different animals, but mainstays were deer and bison. Every year, the people traveled east of the mountains, where game animals were plentiful.

When the Indians are going to hunt, they have a head leader called a s̓itus. There will be many, many young men. And when the Indians move from their regular homes and get all their camps set up, they would have their horses all herded back. Everyone at camp was afoot. Then it will be agreed that a certain place was where they will hunt in the morning.

The next morning the men go to this place. It might be a wide place in a draw. They would say, "This one particular draw or canyon is where we will hunt.". . . They killed around a hundred deer. They didn't kill them all, and they turned the rest loose. The children who were old enough and also the women went along to drag the deer back to camp. . . . It was really something to see. . . . Over towards the Deer Lodge country was where the deer is plentiful.

The Indians did this type of hunting until there was enough meat supply to last them a long time. Then the Indians went back after their horses, which they herded back to their regular homes.

My father was with this group of Indians when they went hunting. He was the one who told me this story.

— Pete Beaverhead, Pend d'Oreilles Elder, 1975

After a group hunt, the hunters divided the meat among all the people in the camp. They piled cut meat in one place, and people from each lodge took what they needed. The successful hunters shared with those who were unsuccessful. The Tribe used everything and wasted nothing.

The Salish spent the winter months trapping and fishing. Women repaired clothing and sewed new garments from deer and elk skins. They decorated their work with porcupine quills colored with natural dyes.

Each tribe had a leader or leaders (ʔiLiLmixʷm) chosen for their character. The leaders

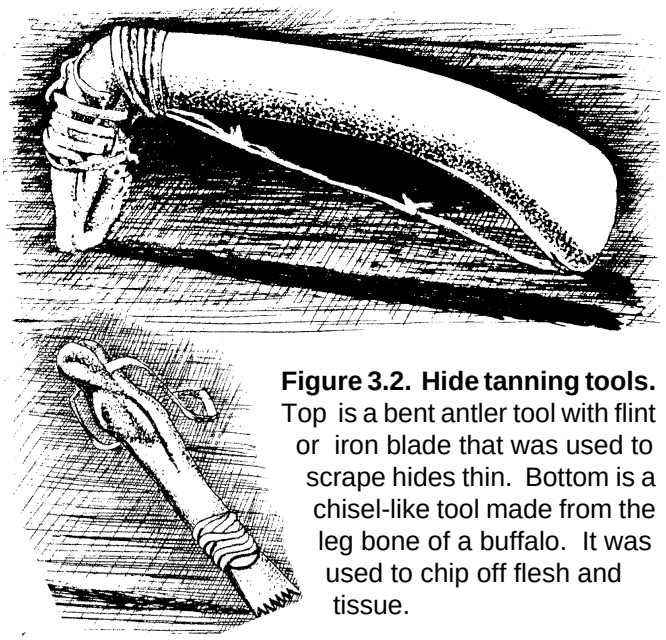


Figure 3.2. Hide tanning tools. Top is a bent antler tool with flint or iron blade that was used to scrape hides thin. Bottom is a chisel-like tool made from the leg bone of a buffalo. It was used to chip off flesh and tissue.

governed by consensus, under the guidance and advisement of respected elders. Different leaders had particular strengths or skills and their responsibilities reflected this. One chief might be in charge of the hunt. Another might lead various camp activities. A third would command war expeditions. Pete Beaverhead once said, "In most of the stories there are three big chiefs above all the rest of the people. They are all regarded with the same respect. None [is] higher than the other two. This is among the [Pend d'Oreilles] Indians. Then the smartest warriors are right behind them; there were always very many of these men."

Lodging, Transportation, Recreation, and Trade

The earth was good to the tribes. It provided not only food, but also material for making lodges, tools, clothing, and games. The Salish made lodge coverings from elk and buffalo hides and fashioned tools such as needles, mauls and grinding stones from wood, bone and rock. The Salish travelled long distances to collect raw materials not available locally. The Salish had a strong trade relationship with the Nez Perce and traded bitterroot and high quality buckskin for Nez Perce corn husk bags filled with camas.

Before the introduction of the horse, the Salish used travois to haul possessions between camps. The People built travois by tying a hide between two poles. The load rested in the hide.

The Salish always set aside time to celebrate, to sing and dance, to visit and play games. The People held celebrations after battles, suc-

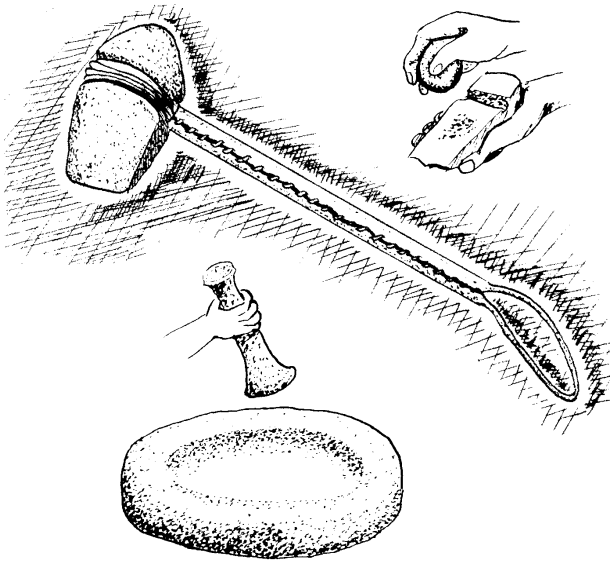


Figure 3.3. Stone tools. Top left and right: Stone rocks were roughed to shape by pecking, grinding, sharpening, and polishing the surface with sandstone block, wet leather, and sand. Bottom: Stone pestles used to pound dry meat, grind corn, etc., on round mortars made from rocks by shaping, grinding, and polishing.

Figure 3.4. After singing scalp dance songs, the people went back to their camp. The leaders met again at one of their lodges, smoked the pipe, and prepared for the next day.

cessful hunts and other important events and interwove song and dance with daily activities. For example, Felicite McDonald, a Salish elder, recalled that every morning a few people walked from lodge to lodge singing a wake-up song. Both children and adults played games like shinny and hoop and dart.

KOOTENAI CULTURE (Aq‡smakniƙ—The People)

Before contact with non-Indians, the Kootenai Nation (also spelled Kootenay or Kutenai) numbered over ten thousand. Kootenai Indians inhabited what is now eastern British Columbia, the southern half of Alberta, northern Idaho, eastern Washington and Montana. The Kootenai band that lived in the Dayton area called itself A·kiɬqaniƙ, which translates as "Fish Trap People." The name comes from the Kootenai practice of setting traps in the creeks during the large fish runs.

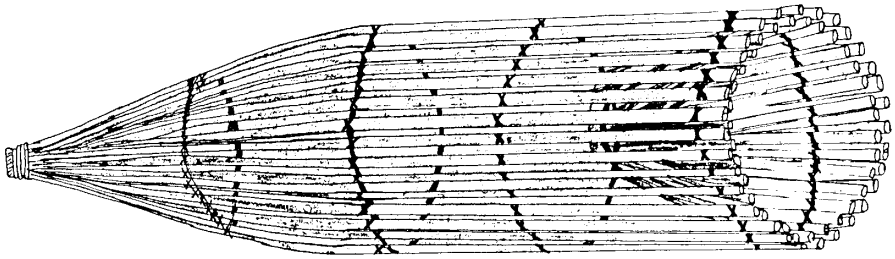


Figure 3.5. Kootenai fish trap made of red willow. Drawing by Francis Burke.

Economy and Government

The Kootenai moved seasonally over a large territory. The seasonal round began in the early spring when the People travelled to fishing grounds. There the Kootenai caught bull and cutthroat trout, salmon, sturgeon, and whitefish using a simple bone device and line, or harpoons with a detachable barbless point. The People also set traps and weirs in streams.

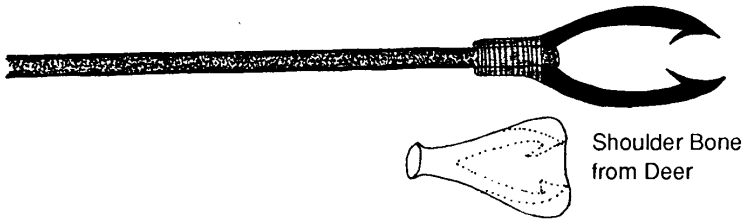


Figure 3.6. Kootenai Harpoon. Drawing by Francis Burke.

In early May, as the fishing season came to a close, the root harvest began. The people dug bitterroot, camas and other roots. In mid-June the band traveled east of the divide to hunt buffalo. Weeks later the People returned with heavy loads of meat. From mid to late summer the Kootenai harvested service berries, chokecherries, huckleberries and other fruits. When fall approached, some of the Kootenai organized communal deer drives; others returned to the Plains to hunt buffalo. The Tribe cached surplus food for winter.

Deer were the most accessible and abundant of the game animals, and deer meat was one of the most essential foods, but the Kootenai also hunted elk, moose, caribou, buffalo, mountain sheep and bear, and birds such as grouse, geese and ducks. H. H. Turney-High, an ethnographer, wrote that the Kootenai "considered their land a fortunate one wherein any industrious man could get plenty to eat for himself and [his] family."

Lodging, Transportation, Recreation, and Trade

The Kootenai lived in skin and mat-covered tepees (the latter woven from tulle and dogbane). The People used canoes to transport family and gear, and to fish for salmon and manufactured

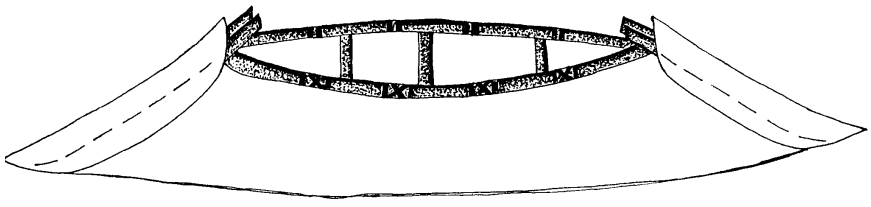


Figure 3.7. Kootenai canoe made from white pine. Drawing by Francis Burke.

a unique covered canoe with a long projection at both bow and stern.

Social Life

The Kootenai always had time for story telling and games. Girls played with dolls that, according to Helen Charlo, were “made mostly out of buckskin and deer hair.” Paul Mathias said boys made bean shooters and sling shots for hunting rabbits and groundhogs. Mary Antiste has talked of how boys made bows and arrows. Others told of how children made tops by winding strings around oval rocks. By pulling the strings they could make the rocks spin. The adults played a game called shinny. In the evenings the People told stories.

During times of peace the Kootenai traded with other tribes, such as the Shoshone, Nez Perce, and Blackfeet. Other tribes coveted the native tobacco cultivated by the Kootenai. The Kootenai traded it and famous tanned buckskin hides for stones used to make pipes, various tools and material goods.

TRIBAL DIFFERENCES AND SIMILARITIES

Many of the beliefs and practices of the Salish, Pend d'Oreilles and Kootenai peoples are not discussed in this document because the Tribes consider them too sensitive.

Each of the tribes on the Reservation is culturally unique and has its own belief system, yet all three are similar in at least two fundamental ways. The first is that each possess a knowledge of the natural environment. The second is that each has a profound respect for all of creation. Both of these traits have enabled the Tribes to survive for thousands of years.

Although most of the knowledge base and traditional values remain, the Tribes have lost considerable land. The rest of this chapter highlights key historical events that have affected the lands and resources of the Tribes.

HISTORICAL IMPACTS ON SALISH AND KOOTENAI RESOURCES

Long before the signing of the Hellgate Treaty of 1855 and the establishment of the Flathead Indian Reservation, the Tribes had begun to experience dramatic changes in lifestyle. Some of the more significant events that influenced the Tribes before the creation of the Reservation are highlighted below:

The Introduction of Horses and Firearms

Tribal life changed dramatically with the introduction of horses and firearms. Salish people first acquired the horse from the Shoshone sometime between 1680 and 1720. The tribes quickly built large herds that became attractive targets for the neighboring Blackfeet who, by the late eighteenth century, had acquired guns. The combination of horses and guns made inter-tribal warfare more frequent and more deadly.

Disease

Smallpox and other disease struck the Salish and Kootenai by at least the early 1780s, and during the 1800s waves of diseases repeatedly swept through the area. Some of the elders alive today still remember the last smallpox epidemics of the early twentieth century.

Pressures from Non-Indian Settlements to the East

By the beginning of the nineteenth century, the westward movement of non-Indians and the loss of the great bison herds forced the Salish and Kootenai tribes to concentrate most settlements in valleys west of the Continental Divide. Nevertheless, both tribes continued to rely heavily on frequent and often large hunting expeditions to traditional territories east of the mountains.

The Arrival of Lewis and Clark

In the early 1800s Salish Indians assisted Lewis and Clark across the Bitterroot Mountains. One interpretation reported that the explorers mistook the Salish for one of the Chinook Tribes of Oregon and so called them Flatheads, a name still used today.

The Fur Trade

While some individual fur traders preceded Lewis and Clark into the region in the 1790s, the trade began in earnest in the 1810s and 1820s and eventually changed the region's ecological balance. The fur trade was the first inroad of the market system to tribal economies. It had a profound impact on the traditional way of life, as it emphasized the privatization of resources and altered the balance of wildlife resources. It also sped the introduction of European religions.

The Arrival of the Blackrobes

According to Salish oral tradition, a Pend d'Oreilles elder named Shining Shirt, had a vision that told him: "When you grow up there will come men wearing long black dresses. They will teach

you about ?Amotqen, the good spirit who sits on top, and about ?emtep, the evil one who sits at the bottom. From them you will learn to live your life on earth." The Bitterroot Salish learned of Jesuit missionaries from a small party of Iroquois Indians who settled among them. Several delegations attempted to travel across the plains to St. Louis to ask the Jesuits to come to the Bitterroot. One was successful. In 1841, the Jesuits arrived and established the St. Mary's Mission in the Bitterroot Valley. The mission closed in 1850 and remained closed for sixteen years. In 1854, the Jesuits established the St. Ignatius Mission farther north in the lower Flathead River Valley, at the winter camp of the Kalispel and Pend d'Oreilles Tribes.

Some Indian people converted to Christianity, but many Indians refused. Others practiced both native and Catholic teachings. The church, along with discouraging Indians from practicing traditional religion, tried to assimilate the Salish and Kootenai people into a settled, agricultural way of life. Priests and nuns, who actively tried to discourage hunting and harvesting, encouraged the people to take up farming, and sent children to Catholic boarding schools where English was the only language spoken. They punished Indian children for speaking Tribal languages.

Figure 3.8. 1855 Treaty Council at Council Groves, a few miles west of present-day Missoula. Sketch by Gustav Sohon. Reprinted with permission from the Washington State Historical Society.

The Hellgate Treaty

In July of 1855, Governor Isaac Stevens of Washington Territory, met with the chiefs of the Salish, Pend d'Oreilles and Kootenai near present-day Missoula. Their purpose was to negotiate a treaty between the Tribes and the United States government. After a long discussion, Stevens presented the assembled Indians with an agreement whereby the Kootenai and Pend d'Oreilles would live on the Jocko Reserve (now called the Flathead Reservation) and the Bitterroot Salish would remain in the Bitterroot Valley until the government surveyed it.

The final treaty stated that, "...if [the Bitterroot Valley should] prove, in the judgment of the President, to be better adapted to the wants of the Flathead tribe than the general [Jocko Reserve] provided for in this treaty, then such portions of it as may be necessary shall be set apart as a separate reservation for the said tribe." The treaty went on to state that "no portion of the Bitter Root Valley [*sic*], above the Loo-lo Fork [*sic*], shall be opened to settlement until such examination is had and the decision of the President made known."

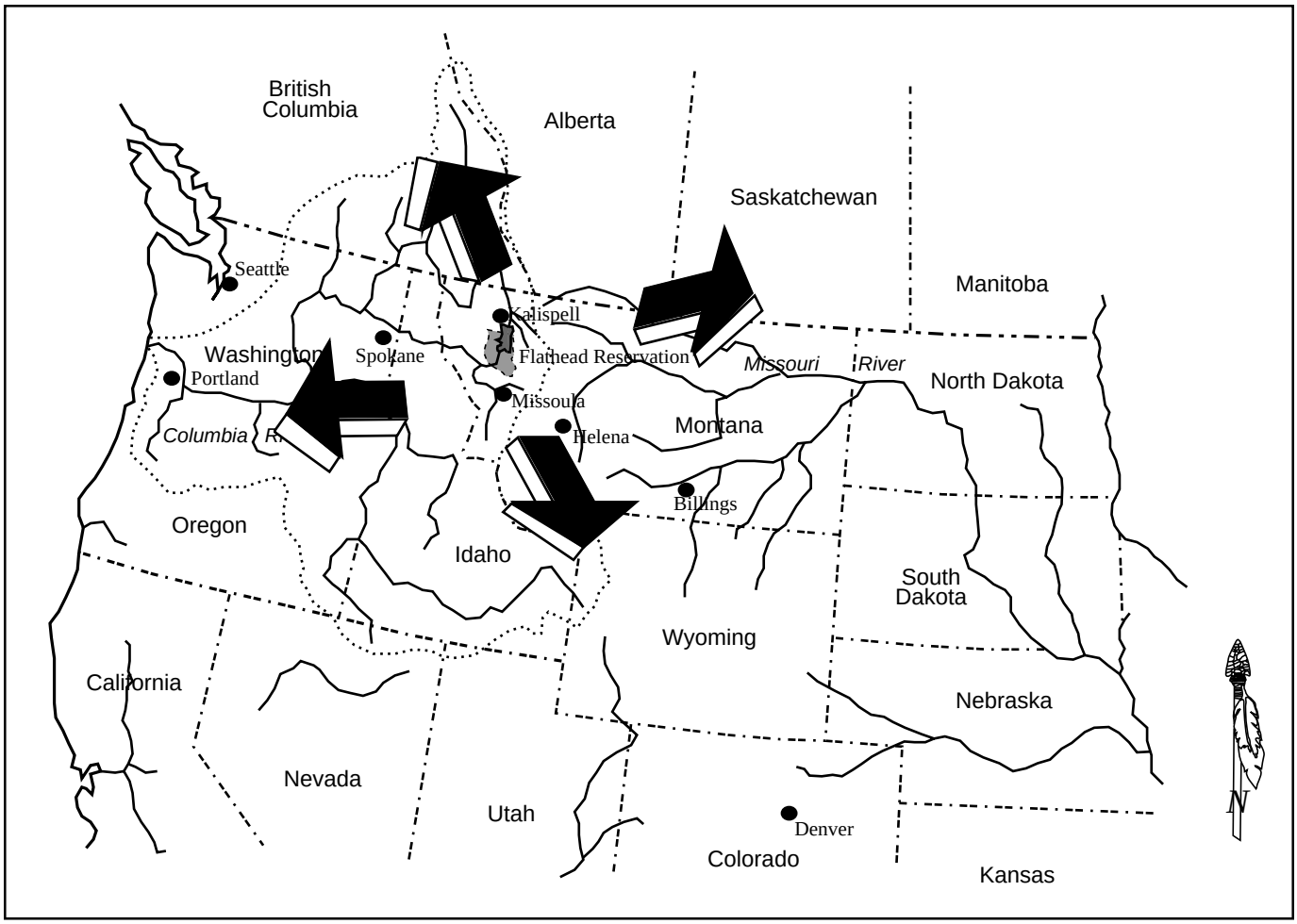


Figure 3.9. The Flathead Indian Reservation and aboriginal lands. Arrows indicate aboriginal range; the dotted lines follow the Columbia River Basin.

In exchange for lands ceded by the Tribes, the federal government promised a cash settlement, as well as medical, agricultural, educational, and vocational services and infrastructure. All of the tribes retained off-Reservation hunting, fishing, gathering and grazing rights and the exclusive use of the Reservation. Later, in October of 1855, the Flathead Nation executed a separate treaty reserving expressly, among other things, the right to hunt and fish in areas east of the Continental Divide.

More than 15 years after the treaty was signed, the United States Government had still not surveyed or examined the land in the Bitterroot Valley. In addition, substantial numbers of non-Indians had settled there in violation of the treaty.

Finally, in 1871, President Grant issued an executive order relocating the Salish to the Jocko Reserve and opening the Bitterroot Valley to non-Indian settlement. Grant sent James Garfield to negotiate the Tribe's removal. The Salish subchiefs Arlee and Joseph consented to the move, but Chief Charlo refused. He and several hundred Tribal people remained in the Bitterroot Valley until 1891, when the government forced them to move to the Jocko Reserve under military escort.

Reservation History

The signing of the Hellgate Treaty and forced relocation of the Tribes brought even greater changes to the traditional Indian way of life. The major periods and events in the history of the Reservation are summarized below:

Early Years. For more than twenty years after the treaty was signed, a series of corrupt government agents did almost nothing to honor the promises of the treaty.

The Ronan Years. Peter Ronan became agent for the Reservation in 1877. He encouraged Indian people to take up farming and oversaw the construction of irrigation ditches in the Jocko Valley. According to his annual reports to the Commissioner of Indian Affairs, the crop output on the Reservation more than quadrupled during his sixteen-year term. The number of horses tripled, and the estimated number of cattle went from 1,100 in 1877, to 15,010 in 1893 (Trosper 1974).

Most Tribal food production was for subsistence and not for market. Hunting parties were discouraged from leaving the Reservation. Tribal police and courts were established, and troops were deployed from Fort Missoula after the Nez Perce War of 1877. Federal Policy outlawed traditional dances and feasts. During Ronan's tenure, the Jesuits converted the Mission Boys' School to a boarding school, and the Northern Pacific Railway Company built a railroad line across the southwestern portion of the Reservation (Fahey 1974).

The Railroad. The United States Assistant Attorney General came to the Reservation in 1882 to negotiate a price for a railroad right-of-way. Pend d'Oreilles, Salish, and Kootenai leaders voiced concerns about trespass, livestock theft, illegal timber cutting and liquor sales by some non-Indians who travelled through the Reservation. They were also concerned about land loss to depots and rights-of-way. They asked to re-acquire the land north of Flathead Lake in exchange for the proposed railroad right-of-way, to protect the resources of the northern part of the Reservation for future generations. Early on in the negotiations process, Chief Eneas said: “Seven years after that [the Treaty] we learned that the line of the reservation ran across the middle of Flathead Lake. We didn’t know that when we signed the treaty. That is the reason we want that country back” (Arthur 1883).

Although Attorney General McKammon said he could not negotiate with the Tribes at that time for the land north of the lake, he said, “I will promise to use my influence to get that strip of land for you, and I want you in return to get signatures for this agreement." The Tribes signed the agreement, but the land was never returned. The railroad was completed in 1883, facilitating transport of Tribal livestock and grain to outside markets (at the encouragement of the federal agent) and sparking the interests of non-Indian businessmen in Reservation resources.

The Allotment Period. In 1887, the United States Congress passed the Dawes Act which called for a survey of all the reservation lands in the United States. The act required the federal agent of each reservation to draw up a tribal roll and assign land allotments with the consent of the tribe. The Congress, through its allotment policy, continued the attempt to assimilate Indians into the dominant culture.

The Flathead Allotment Act. Despite continued opposition by the Tribes, the Flathead Allotment Act passed the US Congress in 1904. The Tribes never approved of the allotment program, and in fact submitted petitions and sent delegations to Washington protesting it. Nevertheless the government assigned allotments.

Other Land Reserves. By 1908, the first set of allotments had been completed. The federal government withdrew portions of unallotted lands for missions, government agencies, town sites, and a biological station for the University of Montana.

In addition, the government withdrew approximately 18,524 acres from allotment or sale for the National Bison Range; 45,714 acres for reservoir or power development sites; and 60,843 acres (usually Sections 16 and 36 of each township) for the State of Montana for school purposes.

Non-Indian Settlement. In 1910, a Presidential Proclamation opened "surplus" reservation lands to settlement. Non-Indians settled much of the land in the valleys, including many of the areas where bitterroot, camas and other food and medicinal plants grew. Some homesteaders allowed Indians to continue to harvest plants and berries on their lands, but others forbade it or plowed plants under to make room for crops.

Flathead Irrigation Project. In 1908, Congress authorized construction on the Flathead Irrigation Project. Congress intended the project to serve 150,000 acres of Indian lands (Flathead Allotment Act of 1904). Its design and construction altered the natural flow and course of many of the streams on the Reservation and destroyed some of the fisheries (Smith and Big Crane 1991).

Although the project was justified as primarily serving the interests of Indians, it benefited non-Indians to a far greater degree. Without it, many homesteads would have never made it, and many did fail during the early years when the project was incomplete.

Second Series of Allotments. In 1920, the government began a second series of allotments for those Tribal members born between 1908 and 1920. Many of these allotments were on range or timber land and were not served by the irrigation project.

Federal policy forced the conversion of many allotments to fee status, as opposed to keeping them in trust. As a consequence, many of the tribal members who received allotments in 1908 and in the 1920s lost them to non-Indians because they could not pay taxes or because they owed debts (Trosper 1974; Griffing 1992).

The Indian Reorganization Act. The Indian Reorganization Act of 1934 marked the official end of the allotment period. The government encouraged tribes to adopt a model constitution and charter of incorporation that would give them the power to acquire and manage property. This act gave tribes the authority to define their memberships (a power previously held by the BIA during the allotment period) and to govern themselves by a council of elected tribal officials. The act also disempowered traditional chiefs by officially ending that office after the deaths of Chiefs Martin Charlo and Chief KoostadaThe tribes on the Flathead Reservation adopted a constitution and a corporate charter in 1935 and were the first tribes in the nation to do so. The action established the official Tribal name of "Confederated Salish and Kootenai Tribes of the Flathead Reservation."

The Termination Era. In 1953, the U. S. Congress considered House Concurrent Resolution 108 that allowed for the abolishment of federal supervision over certain tribes. The "Flathead Tribe of Montana," as listed in the resolution, was never terminated. A number of the tribes that were terminated have been reinstated (White 1991).

Establishment of the Culture Committees. In 1975, several Tribal members established an initiative to preserve Tribal heritages and spearheaded a cultural program that involved recording Tribal Elders' stories in native languages. The Tribes formed two culture committees to "preserve, protect, perpetuate and promote" the histories and cultures of the Confederated Salish and Kootenai Tribes.

Indian Self-Determination. The Indian Self-Determination Act of 1976 (Public Law 93-638) allowed tribes to contract with the federal government to manage certain Federal programs. The Confederated Salish and Kootenai Tribes have taken a lead in assuming management responsibility for these programs and now manage more than one hundred federal, as well as state programs on the Reservation (Jeanine Padilla, Telephone Interview, 1994). In addition, the Tribes manage 70 Tribal programs and have repurchased more than two hundred forty-five thousand acres of Reservation land since 1944. Because of these successful efforts, the Confederated Salish and Kootenai Tribes have become one of ten tribes nationwide to participate in a Self-Governance Demonstration Project initiated in 1988. In addition, the Tribes are now developing a cultural center to assist the culture committees in their efforts to promote the cultures, languages and histories of the Tribes.

Although the past has been a long struggle for our parents, grandparents and ancestors, the Kootenai, Salish and Pend d'Oreilles cultures, traditions and languages have survived. It is important that we, as Tribes, preserve the lands of our Reservation and monitor the activities on all of our aboriginal territories.

The land, Mother Earth, is what provides the food for Indian people. The pure water and air of these lands support the people and the fish and wildlife, as well as aid in the growth of plants whose roots and berries are needed by many of the Indian people. Religiously significant areas must be preserved for present-day religious practices.

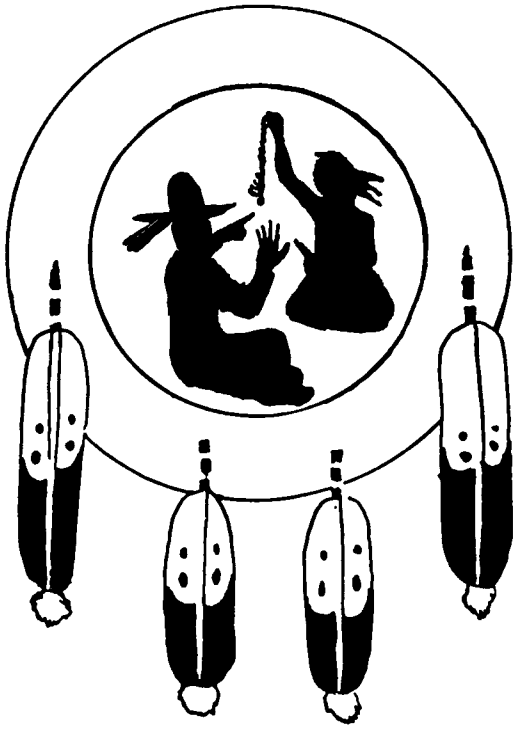
Today tribes struggle to uphold cultural values and to protect the environment. Our hope is for continued respect for this land and perpetuation of our cultures for future generations.

— Naida Lefthand, Kootenai Culture Committee

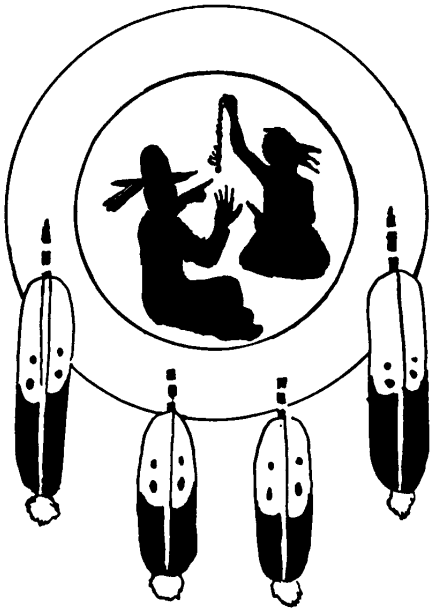
CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 4



SOCIOECONOMIC PROFILE



SOCIOECONOMIC PROFILE

The Flathead Reservation is a rural area, bordered on the south by Montana's second largest urban trade center and on the north by one of Montana's fastest growing (and now fourth largest) counties. Unlike many Indian reservations, the Flathead Reservation is not isolated from the larger state and regional economies. Located in the center of western Montana's dynamic economy, the Reservation contributes to the region's development, just as changes in the regional economy influence the economic health of the Reservation.

Over the last twenty years, economic activity in Lake and Sanders counties, the two counties that make up the largest part of the Reservation, has doubled in volume. At the same time the population of these two counties has risen 40 percent, employment has increased over 80 percent and real income has grown by over 100 percent (fig. 4.1).[1]

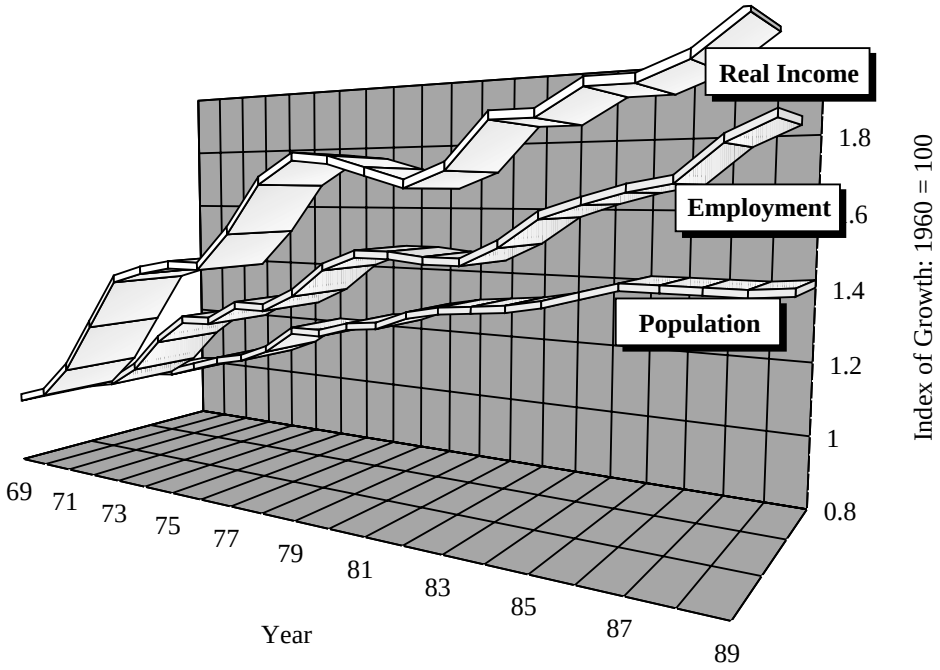


Figure 4.1. Economic Growth in Lake and Sanders counties, Montana 1969-1989 (Economic Census data, combined for Lake and Sanders counties)

[1] Most economic data is collected by county, not by reservation. Therefore to provide a general idea of economic activity on the Reservation, we have analyzed the economies of the two counties, Lake and Sanders, that make up most of the Reservation. This analysis should not be interpreted as an analysis of the Reservation economy.

The Lake and Sanders counties' economies continued to expand during the 1980s, although at a slower rate than in previous years. In fact, a ribbon of Montana counties stretching from the Canadian border in the north to the Idaho and Wyoming borders in the south, has grown at rates three to five times faster than the statewide average. This expansion occurred despite a decline in traditional extractive industries.

POPULATION

Recent US Census Bureau data indicates that the Indian population of the Reservation represents a much greater fraction of total population than previous data suggested. In the 1970 Census, the Indian to white ratio of population was approximately 1 to 5. The ratio reported in the preliminary 1990 Census count was approximately 1 to 3.

Table 4.1. Flathead Reservation Population Growth (US Census 1980, 1990)

	Lake Co. Portion	Sanders Co. Portion	Missoula Co. Portion	Flathead Co. Portion	Reservation Total
	1990				
Indian	4469	371	283	7	5130
Non-Indian	14426	1267	421	15	16129
Total	18895	1638	704	22	21259
	1980				
Indian	3140	344	283	4	3771
Non-Indian	13918	1543	370	26	15857
Total	17058	1887	653	30	19628
	Change: 1980 - 1990				
% Change Indian	42%	8%	0%	15%	36%
% Change Non-Indian	4%	-18%	14%	-42%	2%
% Change Total Population	11%	-13%	8%	-27%	8%

Both Tribal and Lake County officials believe the 1990 census counts fall below actual population numbers (Velda Shelby, Telephone Interview, 23 January 1992; Forrest Sanderson, Telephone Interview, 23 January 1992).

According to census data, Indians account for most of the population growth on the Reservation. The Indian population grew by 1,359 people, while the non-Indian population grew by only 272 individuals. Over the last ten years the Indian population increased at a rate of 36 percent, while the non-Indian population grew at a rate of 1.7 percent. Table 4.1 summarizes Census Bureau data.

IMPORTANCE OF TRIBAL ECONOMIC ACTIVITIES IN THE REGIONAL ECONOMY

On the Reservation, the Confederated Salish and Kootenai Tribes are the most significant economic actor. Each year the Tribes spend tens of millions of dollars locally. The Tribes own most of the timber, range and recreation resources, as well as the lands where irrigation waters originate. Tribal members own and operate over a hundred local businesses. The Tribal organization also operates businesses. In addition, it runs schools and manages the Reservation's electric utility.

The Flow of Tribal Funds

Total spending in Tribally related programs and activities[2] came to almost $90 million in 1991 (table. 4.2). Although all of this spending did not take place in Lake County, we can look at the dollar volume of retail and service activities in the county to gain perspective on how large the Tribes' contribution to the local economy is. The 1987 US Census of Retail Trade and Services indicated that the total volume of sales in the Lake County retail trade and services sectors was about 114 million in 1991 dollars.

Individuals receiving payments (payroll and income transfers) made by Tribally related programs generally spend them on the Reservation. These payments totaled about $35 million in 1991, a sum 35 percent greater than the combined incomes earned in agriculture, forestry, mining, and manufacturing in Lake County. They are equal to 37 percent of the $94 million paid in wages and salaries throughout the county's economy in 1990.

Spending by Tribally related programs stimulates economic activity in private businesses throughout the Reservation because dollars recycle through the community. When we take induced[3] economic effects into account, the total gain in income is $74 million. We would expect this level of income to create sixteen hundred jobs. Sixteen hundred jobs normally supports a population of fifty-one hundred residents, the equivalent of one quarter of the Reservation's population.

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[2] Tribally related programs and activities include programs managed by the Tribe, as well as federal agencies (like the BIA and IHS) that operate on the Reservation and whose purpose is to serve Indian people.

[3] IMPLAN, an input-output model developed by the Federal government for small economic areas, was used to model the Reservation economy. Induced and total impacts of Tribal spending are based on that model.

Table 4.2. Tribally Related Expenditures (Tribal Administration 1991)

Organization	Payroll	Purchases	Income Transfers (not payment for services)	Total
Tribal General Budget	9,165,049	17,958,500	7,999,200	35,122,749
S&K College	2,920,200	6,140,400		9,060,600
Two Eagle School	459,500	241,100		700,600
Indian Health Service	1,097,200	7,250,400		8,347,600
S&K Housing Authority	700,000	7,300,000		8,000,000
CSKT Post and Pole	232,000	2,622,700		2,854,700
S&K Electronics	254,200	218,500		472,700
Agricultural Program	40,200	212,300		252,500
Tribal Credit	254,700	228,500		483,200
General Assistance			589,900	589,900
WIC			236,400	236,400
TWEP	42,900			42,900
JTPA	249,500			249,500
JOBS	60,400			60,400
EARN	54,000			54,000
SYEP	69,600			69,600
Kicking Horse	1,811,851	1,409,171		3,221,022
Upward Bound	22,360			22,360
Payments to Schools	3,334,415			3,334,415
BIA	2,298,000	566,500		2,864,500
Totals w/o MVP	23,066,075	44,148,071	8,825,500	76,039,646
Total Income w/o MVP	**23,066,075**		**8,825,500**	**31,891,575**
Mission Valley Power	2,621,900	11,232,793		13,854,693
Totals with MVP	**25,687,975**	**55,380,864**	**8,825,500**	**89,894,339**
Total Income with MVP	**25,687,975**		**8,825,500**	**34,513,475**

Tribal Forestry and Agricultural Resources

The Confederated Salish and Kootenai Tribes' land base encompasses the majority of the forest resources and a significant portion of the agricultural resources on the Reservation. It therefore provides the underpinning for the Reservation's basic economic activities.

The Tribes administer over three hundred twenty thousand acres of rangelands and sixty-two thousand acres of pasture lands. The Tribes control a much smaller portion of the cropland on the Reservation, however. Only about 10 percent of the acres irrigated by the Flathead Agency Irrigation Division on the Reservation are Tribal or allotted trust lands (FAID 1991).

Because grazing on off-Reservation federal lands is becoming more restricted and expensive, the importance of Tribal grazing land to the local agricultural economy will probably increase in coming years. Rising bid prices for the use of Tribal grazing land already indicate that this is happening.

Tribal land is the dominant source of timber for the local forest products industry. According to a 1988 University of Montana survey, almost half (46 percent) of all timber harvested in Lake County came from lands controlled by the Tribes (Bureau of Business and Economic Research 1991). As timber supplies from both private and federal lands decline, the value of Tribal timber supplies will rise. The resource will also play an increasingly important role in the regional timber supply.

Tribal Member-Owned Businesses

Tribal members own and operate a variety of businesses on the Reservation. An informal survey conducted by the Tribal Enterprise Development Office in 1991 and 1992 indicates that Tribal members operate about 130 non-farm businesses. Except for about a dozen wood products companies, these enterprises divide evenly between the construction and the retail trade and service sectors (Anita Dupuis, Telephone Interview, January 1992).

In the retail trade sector, Indian businesses represent about 14 percent of all retail businesses in Lake County. In the services sector, Indian businesses represent about 7 percent of Lake County service businesses. Because the state does not report the total number of business establishments involved in construction on a county basis, we cannot determine the Indian proportion for this sector.

In Lake County, the non-agricultural self-employment sector is responsible for 20.5 percent of jobs. If we apply this percentage to the Indian workforce, we would expect to find over 400 self-employed Indians. However, the survey conducted by the Enterprise Development Office

suggests Indians are under-represented in this sector, although the extent to which they are is unknown.

Other Tribally Related Enterprises

Besides Tribally-owned businesses such as S&K Electronics and the KwaTaqNuk Resort, the Tribes operate Salish and Kootenai College and the Two Eagle River School. The Tribes also manage the local utility, Mission Valley Power, under a contract with the Bureau of Indian Affairs. The utility distributes electric power to the entire Reservation.

The Tribes lease the site of Kerr Dam to Montana Power Company. The Tribes are co-licensee with Montana Power for the facility and have the option of taking over sole operation in the year 2015. The dam annually produces four times as much electric energy as Mission Valley Power sells on the Reservation.

Reservation Water Resources

The Flathead Agency Irrigation Division manages the primary water supply for agriculture on the Reservation. Originally designed to promote the economic development of the Tribes and individual Tribal members, it now serves primarily non-Indian farms. The headwaters, storage facilities and canals lie on Tribal lands.

THE IMPORTANCE OF NATURAL RESOURCES TO THE TRIBES

In the past, the land and its associated resources have defined the Tribes' culture and history. Today, along with providing a cultural and spiritual link with the past, the land provides the primary sources of revenue for the Tribal government's general fund. For example, in fiscal year 1991 about 58 percent of general fund revenues came from the Kerr Dam rental agreement (and the Tribes expect revenues from the dam to increase dramatically in the future). Another 21 percent came from the sale of Tribal timber. Agricultural permits and leases contributed about 2 percent (Tribal Administration 1992).

Besides funding Tribal programs, natural resources provide Tribal members with jobs that they value. During the Tribes' comprehensive planning process, Tribal members expressed a preference for forestry and agriculture occupations. Strong market forces, however, will limit the future employment and income opportunities associated with both forestry and agriculture. Both sectors have been declining sources of employment and income nationwide and statewide, as well as on the Reservation. Figure 4.2 shows the declining role of extractive industry in Montana. Since the early 1970s, the extractive sectors declined by almost one third while the rest of the economy expanded by almost two thirds.

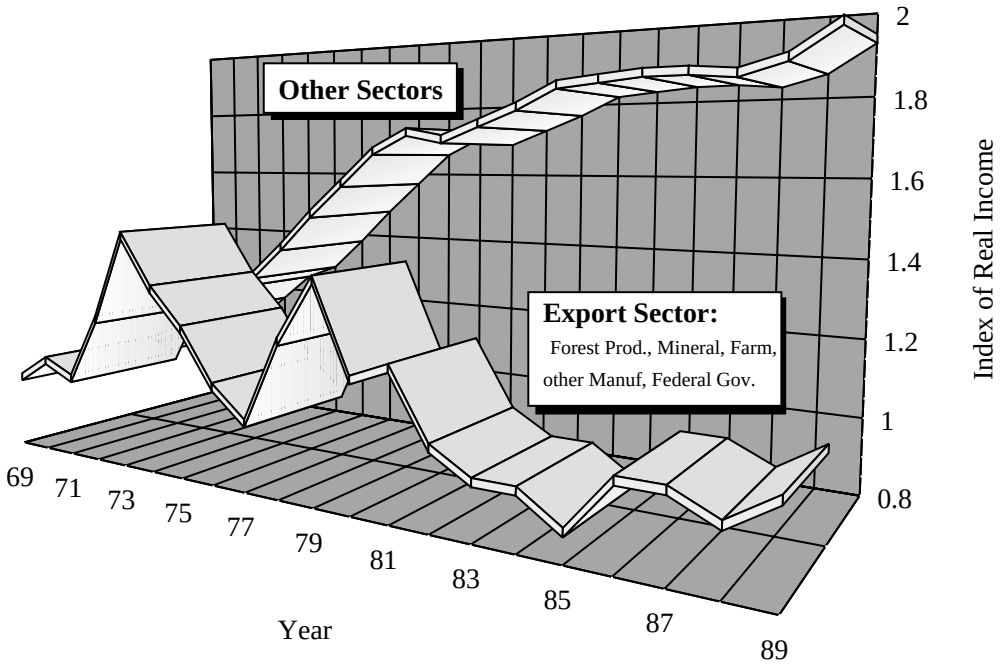

Figure 4.2. Montana real income: export sector versus other sectors of the economy (1969 - 1989)

Figure 4.3 compares the performance of the agriculture and forest products sectors of Lake and Sanders counties with the performance of the rest of the economy. Those sectors fluctuated wildly and ultimately declined as much as 50 percent; meanwhile the rest of the economy expanded by 150 percent.

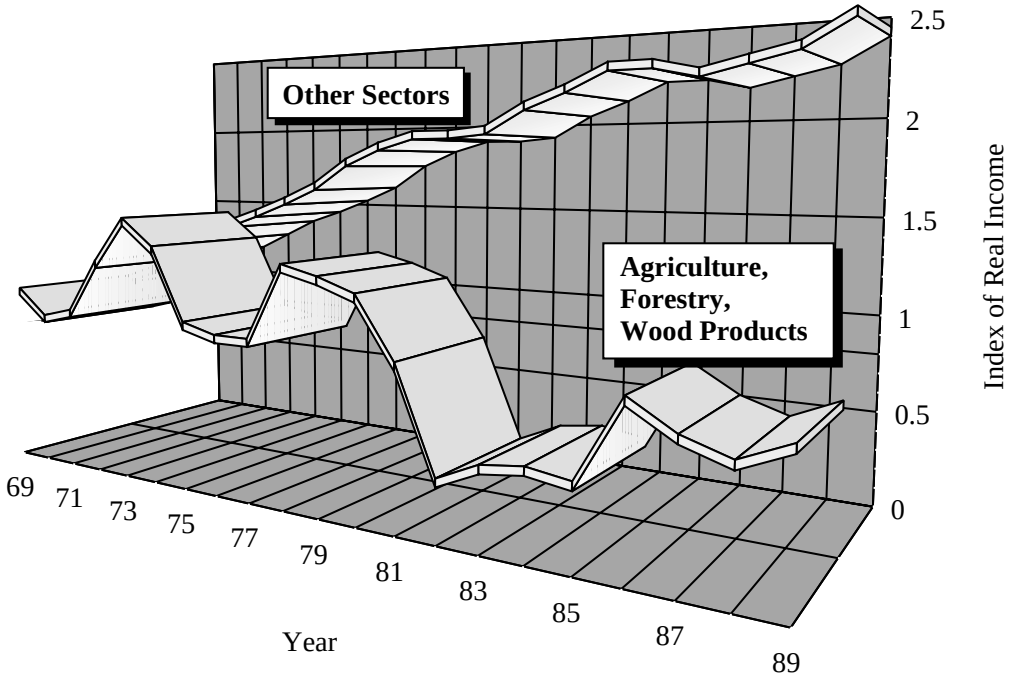

Figure 4.3. Montana real income: ag and forest sectors versus other sectors of the economy (1969 - 1989)

Although the role that forestry and agriculture play in the overall Reservation and regional economies will decline, these industries will remain important economic activities and will continue to contribute to the Reservation economy.

The Tribes recognize the overall importance of the land and its resources. For years the Tribes have been aggressively buying back fee lands on the Reservation to increase the Tribal land base. The Tribes have also sought to protect the Tribal land base by establishing wilderness and primitive areas and by developing regulations and resource management plans designed to conserve Tribal resources. During the comprehensive planning process, the Tribal membership set goals that emphasized the maintenance of a healthy and productive linkage between the Tribal land base and the Reservation economy. In an ideal future, the membership would prefer to see Reservation lands used in a sustainable manner compatible with environmental and cultural resource protection.

THE IMPORTANCE OF ENVIRONMENTAL PROTECTION TO THE TRIBES

There are other kinds of economic benefits as well as many non-economic benefits that come from the Tribes' prudent use and management of its natural resources. A healthy natural environment is essential if the Tribes are to maintain Tribal culture and spirituality. A clean environment is also important to the physical and mental well-being of individual Tribal members.

In economic terms, a high quality natural environment is an important stimulus to economic development. By attracting and holding new residents and businesses, it provides a powerful force for growth. Economists explain much of the economic expansion now taking place in western Montana in these terms.

For all these reasons the Tribes have invested considerable effort in protecting and enhancing the natural environment of the Reservation. For example, the Tribes:

- ❑ sought and obtained a Class I Air Quality designation for the Reservation, the most demanding air quality status under federal law;
- ❑ created and then expanded the Mission Mountains Tribal Wilderness and the South Fork and Mill Pocket (Lozeau) Primitive Areas and have created a buffer zone to protect the wilderness area;
- ❑ adopted and implemented a Shoreline Protection Ordinance;
- ❑ adopted and implemented an Aquatic Lands Conservation Ordinance to protect aquatic lands, including wetlands;
- ❑ used the relicensing of Kerr Dam by the Federal Energy Regulatory Commission to force the Montana Power Company to commit substantial resources to mitigate environmental damage caused by the dam's operation;
- ❑ adopted a Fisheries Management Plan and a Water Quality Management Ordinance; and

- ❑ drafted and adopted the Lower Flathead River Resource Plan to protect that area of the Reservation.

The Tribes carry out interdisciplinary reviews on natural resource management and development activities occurring on the Reservation to insure that the activities cause minimal environmental damage. The Tribes are also working with the Environmental Protection Agency regarding enforcement of federal air and water quality and solid and hazardous waste regulations on the Reservation.

Protection of the natural landscapes and ecosystems of the Reservation is one of the Tribes' highest priorities.

TRIBAL EMPLOYMENT: PRESENT AND FUTURE

Projections of Future Employment and Income Potentials

State and federal governments regularly analyze changes and trends in the national and regional economies to project future employment opportunities. This section summarizes the results of the most recent projections for Montana.[4] Although not specific to the Reservation, we would expect these projections to be generally applicable to the labor market Reservation residents face.

Business and Consumer Service Occupations. The state projects the cluster of business and consumer service occupations to provide the majority (56 percent) of new jobs. The leading occupations in this category include the following:

Health Services:	Registered Nurses, Nursing Aids, Medical Technicians
Educational Services:	Elem. Teachers, College Faculty, Secretaries, Teachers, Librarians
Business Services:	Bookkeepers, Administration-Office Management, Accountants
Consumer Services:	Equipment-Appliance Repair
Transportation:	Truck Drivers
Government:	Police-Guards

Retail Sales Occupations. About a quarter of the new jobs projected to be created during the coming decade will be in retail sales. Unfortunately, many of these jobs are relatively low-paid (e.g., waitresses, cooks, sales persons and cashiers). On the other hand, most of the people who ultimately open up their own businesses have had experience working for others in similar businesses.

Construction Occupations. The state projects significant growth in the demand for carpenters. These jobs pay modest to good wages depending upon local conditions. In

[4] *Montana Supply Demand Report*, Seventh Edition, September, 1990, Montana State Occupational Information Coordinating Committee, Montana Department of Labor and Industry. Also *Workforce to the Year 2000; Opportunities and Challenges*, August, 1988, Same Source.

Lake County during the 1980s, there were more new firms that started in the construction industry than in any other sector. Construction occupations can lead to self-employment and new business creation.

Agriculture and Forestry. The Montana Department of Labor and Income projects a significant decline in the number of jobs in agriculture. Although it is likely the Reservation will also experience a decline, Tribal purchases of agricultural land will likely lessen this decrease in opportunities, at least for Tribal members.

The state projects increased opportunities in the horticulture and landscaping fields. These are not traditional agricultural pursuits, but they are occupations well suited to the physical environment and to economic changes taking place on the Reservation.

Because the potential for further mechanization and automation in forestry and lumber production is still quite high in Montana, the state projects only a small number of new job openings in these fields.

Manufacturing and Other Goods-Producing Activities. The state predicts that only 13 percent of new jobs in Montana will be in goods-producing occupations over the coming decade. Montana lost five thousand goods-producing jobs in the last decade and a half. There will be some growth in the precision production, apparel and textile, and mining industries, but it will represent less than 5 percent of new employment.

In summary, the service occupations and retail trade sectors will create most of the jobs in the coming decade. These are the same sectors of the economy that provided job growth in Lake County during the last decade. Agriculture, the wood products industry and manufacturing have some potential for expansion, but will not be dominant forces in job creation. Figure 4.4 depicts the fields where the state anticipates the most rapid job growth in the coming decade.

Distribution of Indian Employment on the Reservation

Knowing where economic opportunity occurred in the recent past and where it will occur in the near future suggests where the Tribes should focus economic development efforts. It is also important to determine the extent to which Tribal members have been able to take advantage of these economic opportunities. We can do this by comparing Indian employment in the growing economic sectors with total employment.

The 1990 Census is publishing current information necessary to make such a comparison. However, this data was not available when this chapter was written, and we relied instead upon the 1980 Census figures[5]. These figures are over ten years old. They may also be unreliable.

[5] The 1980 Census provided data on Indian and non-Indian employment for both Lake County and the Flathead Reservation. The interpretation differs significantly depending upon whether Flathead Reservation or Lake County data are used. We have, in each case, used the data source that shows the highest level of Indian employment.

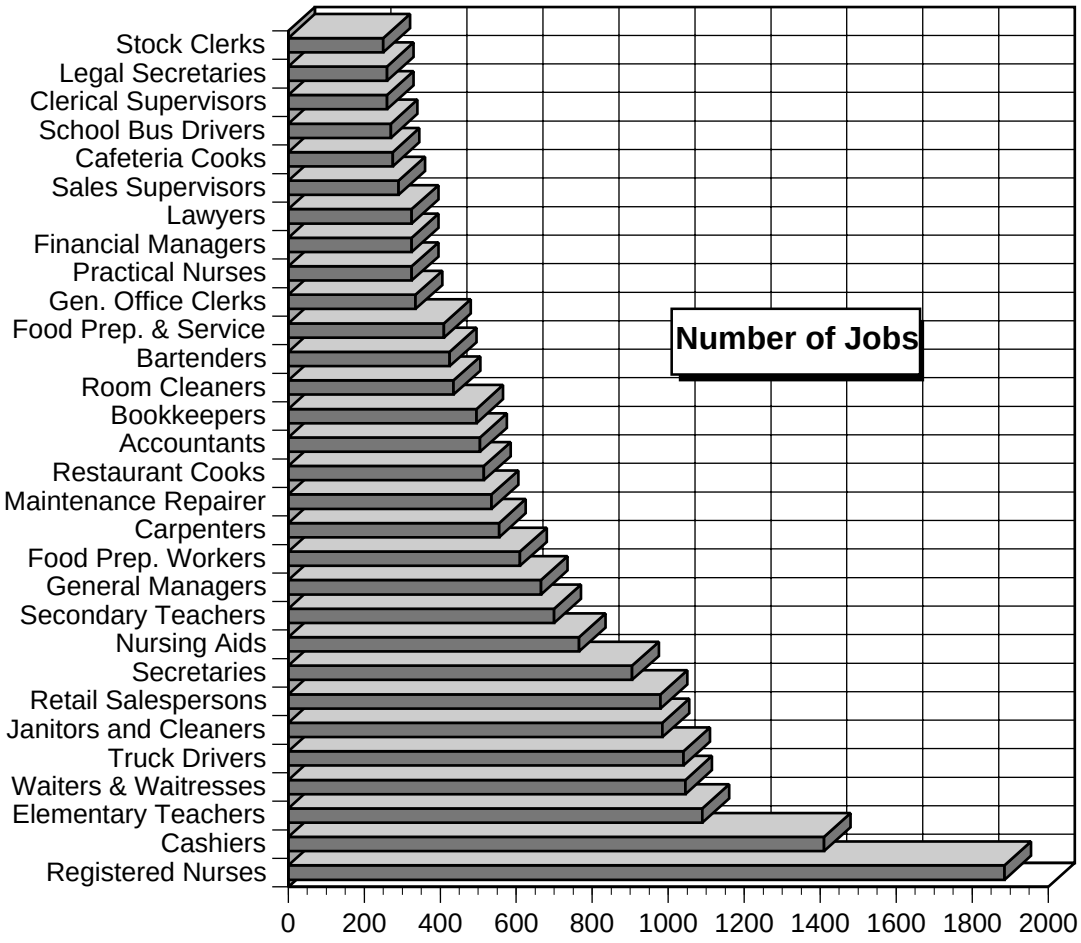

Figure 4.4. Montana's growing occupations ranked by total estimated job growth, 1986 - 1995.
Source: MT Dept of Labor and Industry

Communities regularly accuse the Bureau of the Census of undercounting minorities and rural, dispersed populations. The data, however, provides a snapshot of the economic opportunities Indians found on the Reservation in 1980.

The Bureau of the Census reports the data in two forms: by industry and by occupation. Industrial classifications focus on the character of the product produced. Occupational categories focus on the type of job the person holds. There is considerable overlap between them, as well as some conflict. The bureau classifies an accountant working for a lumber mill under wood products, while it classifies an accountant working for a gold mine under mining. In the occupational statistics it classifies the same two accountants under accounting.

In the discussion that follows we compare the percentage of Indians working in each sector with the percentage of non-Indians.

Government Employment. Because of the role that Tribal government plays on the Reservation and because of the trust and treaty obligations of the federal government, Indian employment is concentrated in the government sector. Over half of all employed Indians in Lake County work for the government, while only about one fourth of non-Indians work in this sector. Under the Bureau of the Census's industry classification, the extensive involvement of Indians in the provision of goods and services through collective or government efforts distorts other comparisons of non-Indian and Indian employment. This is because Indians provide many goods and services to each other through government activities (health care, housing, natural resource management, and Tribal enterprises) rather than through commercial businesses. The bureau reports this economic activity, though similar to that engaged in by non-Indians in the commercial sectors, as governmental. To minimize the distortion, we removed government employment altogether and focused only upon the distribution of non-Indians and Indians in non-government jobs. (Another way to avoid the problem would be to examine the data by occupation rather than by industry.)

Indian Entrepreneurial Activity. Self-employment among Indians appears to be only about half as frequent as among non-Indians. While about one in five jobs held by non-Indians involve self-employment, only one in ten jobs held by Indians involve self-employment. This suggests an important economic opportunity that Tribal members are not fully exploiting.

Retail Trade. Retail trade is second only to the services sector as a source of new jobs in Montana, but Indians have a significantly lower rate of employment in retail trade than do non-Indians. In sales occupations, non-Indians are represented twice as often. This is true for both higher level supervisory and sales representative jobs as well as for sales clerks. The only area of sales where Indians are well represented is in eating and drinking establishments, and these jobs pay some of the lowest wages in the industry.

Construction. The data on construction jobs are conflicting. According to the industry data, Indians do not hold as many jobs as expected in the sector. Non-Indians have almost a 50 percent greater frequency of employment in construction related jobs. The occupational data, however, show that Indians and non-Indians hold a proportionately equal number of jobs in both construction trades and construction labor. It is not clear why the two data sources paint such dramatically different pictures. One possibility is that in 1980, when the government built tribal housing, the bureau may have classified workers as government rather than construction workers.

Financial Services. Both the industry and occupational data indicate that Indians hold fewer jobs in the banking and credit agency sector than expected. Non-Indians are at least five times as likely to find employment in this sector.

Repair Services. The data from both categories suggests that Indians are under represented in this field. Non-Indians are four times more likely to work in the business and repair services sector. Non-Indians are twice as likely to have jobs in occupations classified

Table 4.3. Occupation of employed persons by race: Lake Co. and the Flathead Reservation, 1980. Source: 1980 Census of Population (and see * below)

Type of Employment	Lake Co. White	Lake Co. Indian	FH Res Indian	% of Total LK Co. White	% of Total LK Co. Indian	% of Total FH Res. Indian
Employed persons 16 years and over	5693	889	1216	100.0	100.0	100.0
Self-employed workers	1172	86	162	20.6	9.7	13.3
Managerial and professional specialty occupations	1235	138	198	21.7	15.5	16.3
Executive. administrative, and managerial occupations	379	67	100	6.7	7.5	8.2
Officials and administrators, public administration	23	2	22	0.4	0.2	1.8
Management related occupations	56	7	30	1.0	0.8	2.5
Professional specialty occupations	856	71	98	15.0	8.0	8.1
Engineers and natural scientists	77	12	10	1.4	1.3	0.8
Engineers	32	6	5	0.6	0.7	0.4
Health diagnosing occupations	61	0	1	1.1	0.0	0.1
Heath assesment and treating occupations	110	8	7	1.9	0.9	0.6
Teachers, librarians and counselors	446	10	49	7.8	1.1	4.0
Teachers, elementary and secondary	384	10	20	6.7	1.1	1.6
Technical, sales, and administrative support	1338	162	241	23.5	18.2	19.8
Health technologists and technicians	26	14	5	0.5	1.6	0.4
Technologists and technicians, except heath	15	16	24	0.3	1.8	2.0
Sales occupations	541	42	44	9.5	4.7	3.6
Supervisors and proprietors,	144	14	8	2.5	1.6	0.7
Sales representative, commodities and finance	100	9	8	1.8	1.0	0.7
Other sales occupations	297	19	28	5.2	2.1	2.3
Cashiers	76	19	7	1.3	2.1	0.6
Administrative support including clerical	756	90	168	13.3	10.1	13.8
Computer equipment operators	0	0	3	0.0	0.0	0.2
Secretaries, stenographers, typists	169	38	49	3.0	4.3	4.0
Financial records processing	212	11	19	3.7	1.2	1.6
Mail and message distributing	61	8	5	1.1	0.9	0.4
Service Occupations	729	180	215	12.8	20.2	17.7
Private household occupations	10	0	4	0.2	0.0	0.3
Protective service occupations	73	12	19	1.3	1.3	1.6
Police and firefighters	39	12	13	0.7	1.3	1.1
Service occupations except protective and household	646	168	191	11.3	18.9	15.7
Food service	318	57	53	5.6	6.4	4.4
Cleaning and building service	151	34	51	2.7	3.8	4.2
Farming, forestry, and fishing	914	133	194	16.1	15.0	16.0
Farm operators and managers	557	39	67	9.8	4.4	5.5
Farm workers and related	325	56	127	5.7	6.3	10.4
Precision production, craft and repair	710	64	131	12.5	7.2	10.8
Mechanics and repairers	275	16	34	4.8	1.8	2.8
Construction trades	369	38	79	6.5	4.3	6.5
Precision production	66	10	13	1.2	1.1	1.1
Operators, fabricators, and laborers	767	212	218	13.5	23.8	17.9
Machine operators and tenders except precision	136	58	59	2.4	6.5	4.9
Fabircators, assemblers, inspectors, and samplers	81	0	13	1.4	0.0	1.1
Trasportation	191	31	49	3.4	3.5	4.0
Motor vehicle operators	169	31	25	3.0	3.5	2.l
Material moving equipment operators	84	15	22	1.5	1.7	1.8
Handlers, equipment cleaners, helpers, and laborer	275	108	98	4.8	12.1	8.1
Construction laborers	68	30	22	1.2	3.4	1.8
Freight stock and material handlers	77	21	7	1.4	2.4	0.6

*Table 185 of Gen. Social and Economic Characteristics, MT.
Table 26 of Supplementary Questionnaire Program, Indian Supplemental Rpts.

Table 4.4. Employment by Industry for Indians and whites in Lake County, 1980

Class of Worker and Industry	Total Employment Lake Co. White	Total Employment Lake Co. Indian	Distribution of Employment % of Total White	Distribution of Employment % of Total Indian	Indian Employ. Adjusted for Gov. Employ. % of Total Indian Employment	White Employ. Adjusted for Gov. Employ. % of Total White Employment
Employed persons 16 years and over	5693	889	100.0	100.0		
Private wage and salary workers	3077	336	54.0	37.8	77.4	71.1
Self-employed workers	1172	86	20.6	9.7	19.8	27.1
Agriculture, forestry, and fisheries	951	117	16.7	13.2	27.0	22.0
Mining	8	2	0.1	0.2	0.5	0.2
Constructon	505	37	8.9	4.2	8.5	11.7
Manufacturing	492	74	8.6	8.3	17.1	11.4
Nondurable goods	98	22	1.7	2.5	5.1	2.3
Food and kindred products	18	13	0.3	1.5	3.0	0.4
Printing, publishing, and allied	52	2	0.9	0.2	0.5	1.2
Durable goods	394	52	6.9	5.8	12.0	9.1
Furniture, lumber, and wood products	298	50	5.2	5.6	11.5	6.9
Transportation	303	30	5.3	3.4	6.9	7.0
Communications and other public utilities	116	13	2.0	1.5	3.0	2.7
Wholesale trade	106	12	1.9	1.3	2.8	2.5
Retail trade	937	77	16.5	8.7	17.7	21.7
Food, bakery, and dairy stores	176	3	3.1	1.3	0.7	4.1
Eating and drinking places	242	33	4.3	8.7	7.6	5.6
Banking and credit agencies	149	3	2.6	0.3	0.7	3.4
Business and repair services	191	6	3.4	0.7	1.4	4.4
Other personal services	133	16	2.3	1.8	3.7	3.1
Entertainment and recreation services	48	18	0.8	2.0	4.1	1.1
Professional and related services	1210	166	21.3	18.7	38.2	28.0
Hospitals	147	34	2.6	3.8	7.8	3.4
Health services, except hospitals	255	38	4.5	4.3	8.8	5.9
Educational services	589	21	10.3	2.4	4.8	13.6
Public administrabon	417	318	7.3	35.8		
Federal government workers	466	328	8.2	36.9		
State government workers	182	20	3.2	2.2		
Local government workers	720	107	12.6	12.0		

Source: 1980 Census Data on Lake Co. Employment: Indian and White
Table 26 Supplementary Questionnaire Program, American Indian Supplemental Reports
Table 184 General Social and Economic Characteristics
***The adjusted % of total employment in each industry was calculated by subtracting out govt. employment and then using that reduced "total employment" to calculate the percent distribution of jobs.

as mechanics and repairers.

Education. Few Indians work in the field of education. Non-Indians are four times more likely to hold elementary and secondary teaching jobs and twice as likely to hold other education jobs. The industry data indicates Indians are only one third as likely to work in the sector as non-Indians.

Health Care. Industry statistics suggest that Indians are appropriately represented in the health services field. Occupational data, however, shows non-Indians three times more likely to hold health diagnosis, assessment, and treating jobs. These classifications make up about one third of total health industry. Indians have about the same representation as non-Indians in health technologist and technician occupations. This suggests Indians are more likely to hold the lower paid and less skilled jobs.

Farm and Forestry. Indians are as likely as non-Indians to hold jobs in this general field. However, non-Indians are twice as likely to be farm operators and managers, while Indians are twice as likely to be farm workers.

Unemployed. At the time of the Census, Indians unemployed and those unemployed in the recent past made up almost 40 percent of the Indian workforce. About 20 percent of the non-Indian workforce fell into these categories. Indians were also a third more likely to be working part time (less than 35 hours a week).

According to 1980 Census data, Indians have not participated in many of the higher paid jobs

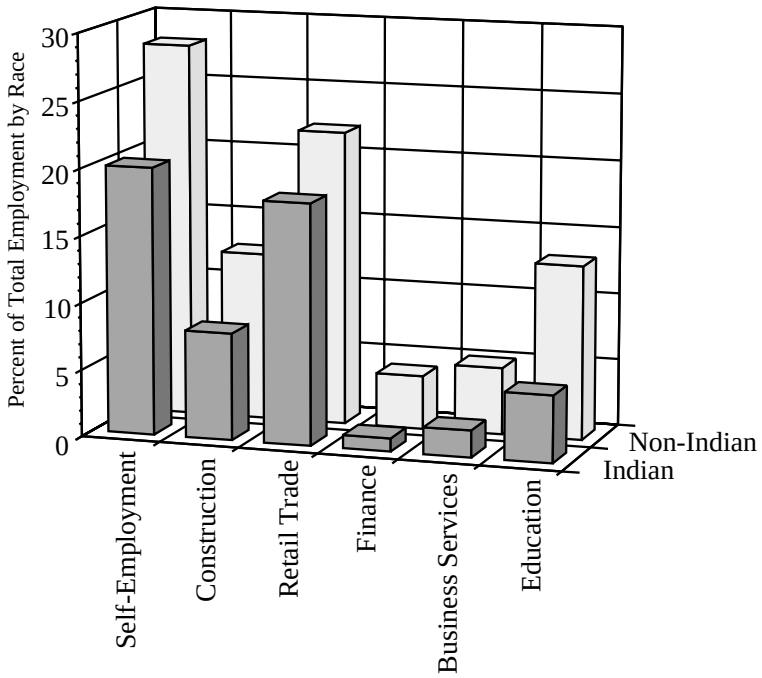

Figure 4.5. Indian versus non-Indian employment. Source: 1980 Census Data, Lake Co.

that the expanding local economy has provided (fig. 4.5). In addition, Indians are more likely than non-Indians to be unemployed. Tribal development policies designed to address either of these problems could improve the economic well being of Tribal members.

Relative Incomes of Indians and Non-Indians

The 1990 Census reports that, on average, Indians earned less than non-Indians. The average income for Indians was $6,400 per person. For non-Indians living on the Reservation it was $10,100, or 36 percent greater.

This difference is due in part to the types of jobs Indian people hold, and to their higher rate of unemployment. In addition Indian workers are more likely to have children living at home, a characteristic that lowers average income. If we average the incomes of only those individuals over eighteen years old, the average Indian income is $10,500 while that for non-Indians is $13,300. By this measure, Indian income is 21 percent below that for non-Indians. However, Tribal members do have access to subsidized services such as medical care that contribute directly to their well being. Income statistics do not reflect these services. In addition, Indian families engage more in subsistence economic activities (hunting, fishing, plant harvesting) than non-Indians do. These further exaggerate the income gap.

Regardless of these adjustments, data on average income indicate that Indians participate less in the Reservation money economy.

DISTRIBUTION OF FUTURE ECONOMIC ACTIVITY

Economic growth is not likely to take place uniformly across the Reservation. Growth will concentrate in the Highway 93 corridor from Evaro to the southern end of Flathead Lake. The western side of the Reservation, the Perma-Dixon and Camas-Hot Springs areas, will see little growth or a decline in economic activity. The 1990 Census indicates that during the 1980s the population of the Sanders County portion of the Reservation declined by about 15 percent. At the same time the Indian population rose by 27 persons or 8 percent.

The data for Lake and Sanders counties show the different economic trajectories that these two areas of the Reservation are on. Figures 4.6 and 4.7 contrast the growing population and income of Lake County with the declining population and income of Sanders County. While this data is for the two counties, not the Reservation, it shows what has been happening within the Reservation portions of these counties.

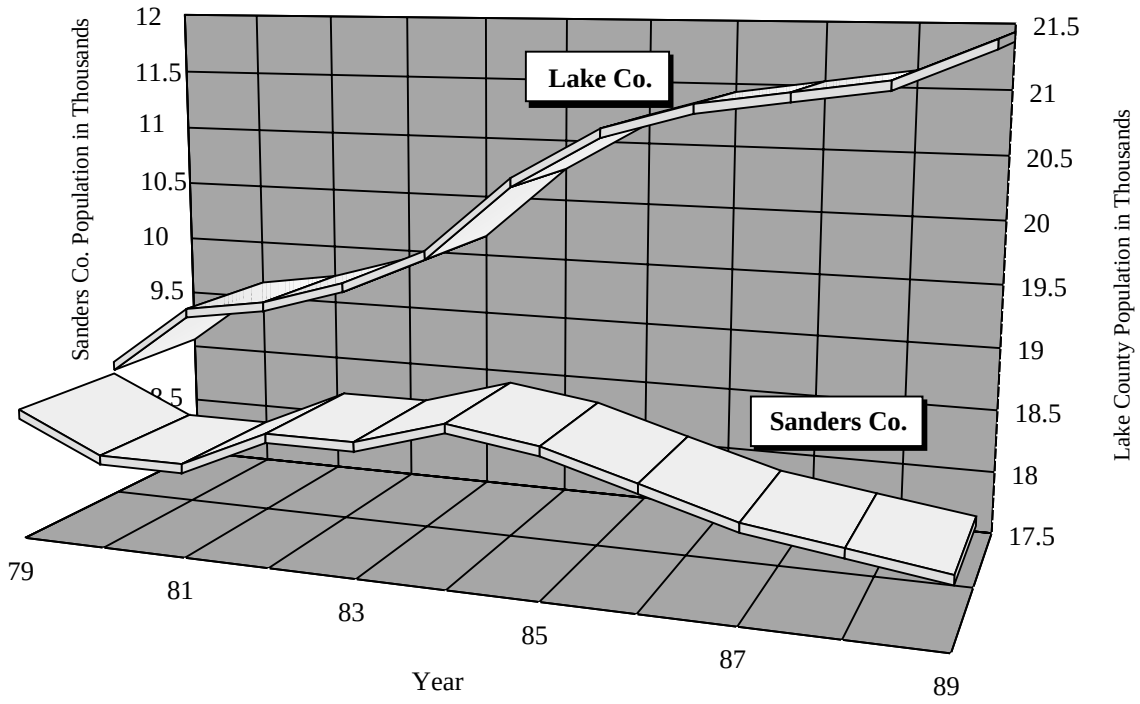

Figure 4.6. Population growth: Lake and Sanders counties.

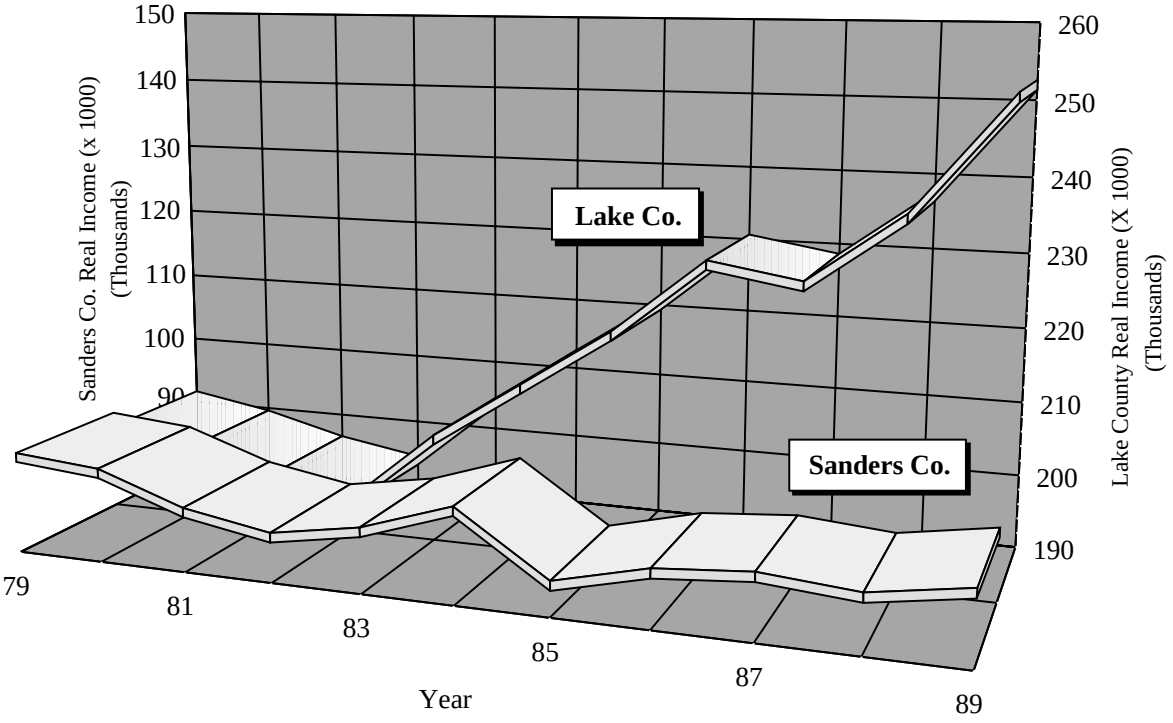

Figure 4.7. Real Income: Lake and Sanders counties.

The Reservation does not face a future of stagnation and decline. It appears inevitable that the expansion in population and economic activity on the Reservation will continue. Several factors will contribute to this growth:

- ❑ Missoula, the second largest urban area in Montana, lies just to the south of the Reservation;
- ❑ Flathead County, the fourth largest population center in the state lies just to the north;
- ❑ Economic activity in the state is shifting to Western Montana; and
- ❑ The state is studying the expansion of Highway 93 that links Missoula and Flathead counties.

All of these factors will have strong spill-over effects leading to further expansion of the Reservation economy.

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COMPREHENSIVE RESOURCES PLAN

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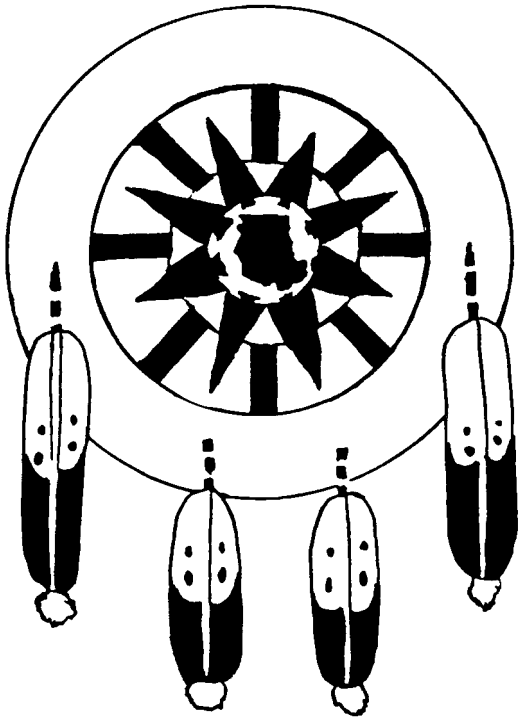
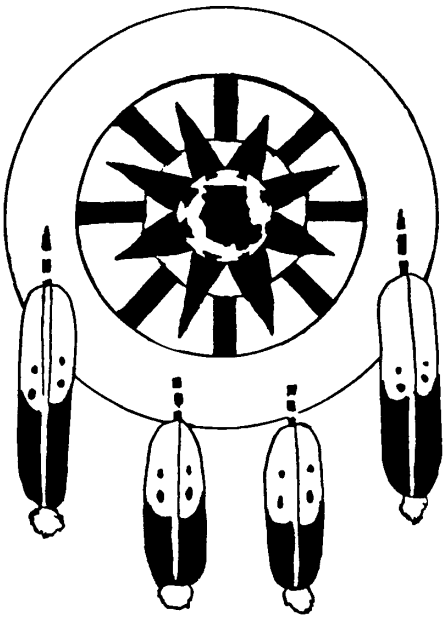


ZONES OF INFLUENCE



ZONES OF INFLUENCE

The way the Tribes manage resources can influence communities and resources beyond the boundary of the Reservation. Similarly, the policies and practices of off-Reservation agencies, private corporations, and individuals can affect Tribal resources. The term "zones of influence" refers to bio-geographic, political, legal or economic regions that affect the Reservation and its resources or that are themselves influenced by Tribal policies.

For example, biologists consider the Flathead Reservation to be part of the Northern Continental Divide Ecosystem (Brace Hayden, Telephone Interview, 18 March 1991). This ecosystem includes Glacier National Park, Canada's Waterton Lakes National Park, and several major wilderness areas such as the Bob Marshall, the Scapegoat, and the Mission Mountains. It encompasses much of the Flathead National Forest and the entire Flathead River drainage.

How the off-Reservation portion of this ecosystem is managed can have profound effects on the Reservation's water quality and fish and wildlife resources. The reverse is also true. Grizzly bears move back and forth across the Reservation boundary. Populations of bull and cutthroat trout migrate to off-Reservation spawning grounds. Water pollution originating north and east of the Reservation can end up in lakes and rivers on the Reservation. The concept of an ecological zone of influence is important to the Tribes because a single major development activity in a critical area off the Reservation can affect the Tribes' resource base forever.

Along with ecological considerations the Tribes have other concerns that extend beyond the Reservation and that define zones of influence. The Tribes have treaty-protected hunting, fishing and plant harvesting rights in aboriginal lands and cultural, religious and historical interests in aboriginal territories critical to Tribal identities and cultures. These kinds of considerations help to define a cultural and religious zone of influence.

Finally, there are off-Reservation political, legal and economic considerations that influence the Tribes. The Reservation economy is linked to a larger regional economy. Judicial cases stemming from issues on other reservations often have important implications for the Tribes. Changes in federal Indian policy made in Washington D.C. directly affect the Tribes, as do decisions made by state and local governments.

These zones of influence can help the Tribes establish a framework for identifying potential impacts to the Reservation caused by off-Reservation activities. They emphasize the Tribes' off-Reservation protectable interests guaranteed by the 1855 treaty. They also help the Tribes understand the influences that Tribal policies have on areas off the Reservation.

There are other benefits to identifying zones of influence. They can help establish the principle that protecting the Reservation's environment is key to protecting the region's environment and vice versa. They help the Tribes identify jurisdictions and authorities that affect Tribal interests and they can aid in coordination efforts on issues that cross jurisdictions and agencies.

The purpose of this chapter is to introduce the zone of influence concept, to identify the factors that help to define various zones of influence for the Salish and Kootenai Tribes, and to identify geographical areas influencing the Reservation.

CONSIDERATIONS THAT DEFINE TRIBAL ZONES OF INFLUENCE

The following list includes some of the more significant Tribal concerns that help to define Reservation zones of influence.

Air Quality. The Tribes sought and obtained a Class I Air Quality designation for the Reservation, the most demanding air quality classification under federal law. The federal government has also designated Glacier National Park and surrounding wilderness areas as Class 1 airsheds. Therefore, the Tribes and the US government share an interest in maintaining the air quality of the region.

Water Quality. To protect the quality of water resources, the Tribes have adopted a Water Quality Management Ordinance (no. 89B). Because water from the entire Flathead River Basin funnels through the Reservation, the Tribes play a vital role in northwestern Montana regarding water flows, water quality and land use.

Transportation Systems. Since the Northern Pacific Company built the first railroad through the Reservation in the late 1800s, the Tribes have taken an interest in transportation systems that pass through the Reservation and aboriginal lands. In recent years the Tribes have sought participation in the design, construction, upgrade and maintenance of major roads and highways. The substantial role the Tribes have played in the development of plans for the expansion of US Highway 93 is an example.

The Economy. The Reservation's economy contributes to and is influenced by the regional and national economies.

Recreation and Scenic Resources. The Tribes consider recreation and tourism an important part of the Reservation economy and have made substantial investments in

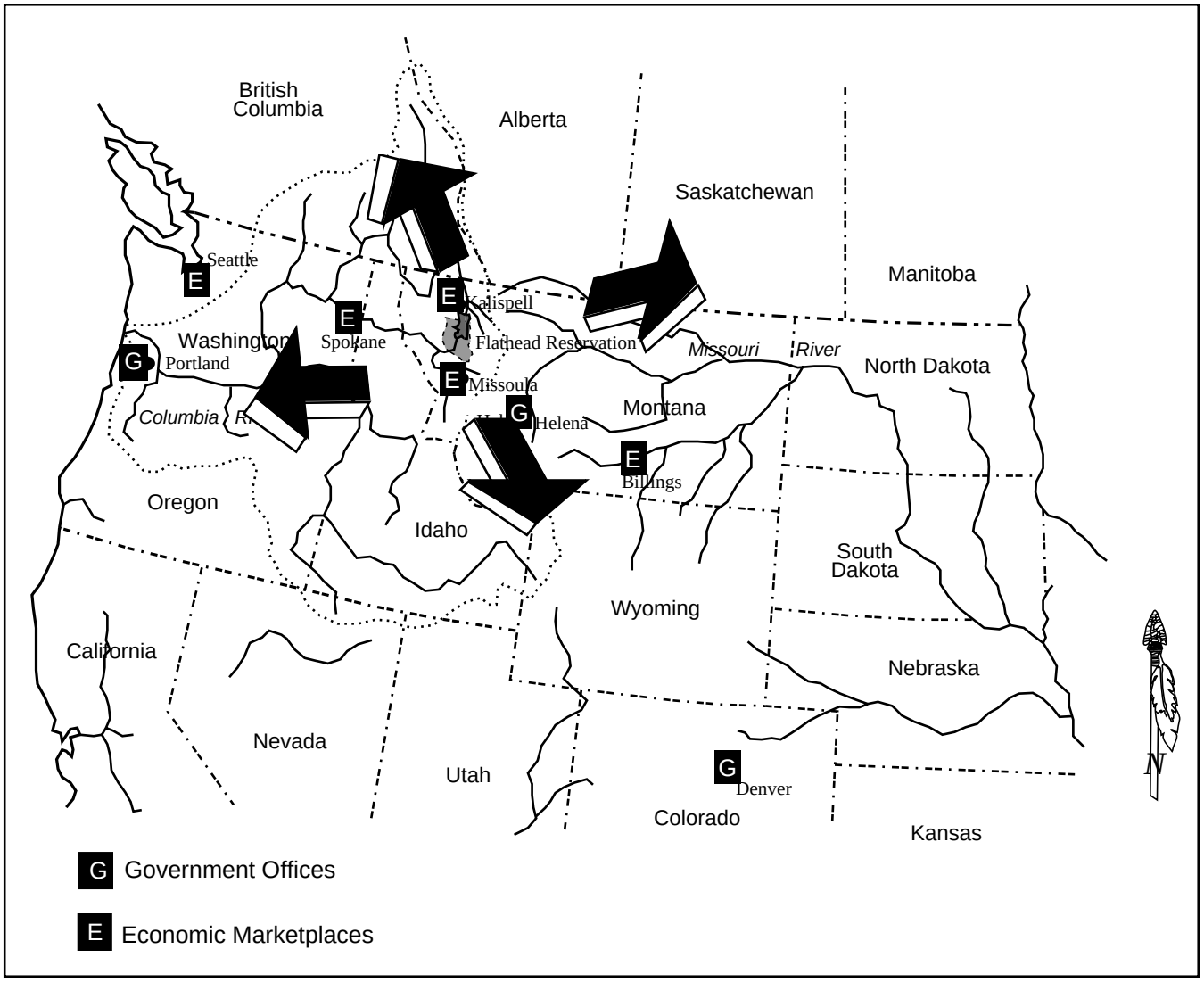


Fig. 5.1. Zones of Influence. Arrows indicate aboriginal range. The dotted lines follow the Columbia River Basin.

the industry. The Reservation is one of the most scenic areas in the western United States and is a major destination point for vacationers.

Fish and Wildlife. Protecting the diversity of fish and wildlife species and the quality of each species' habitat within the aboriginal lands of the Salish and Kootenai Tribes is a fundamental Tribal concern. Within the Reservation alone there are four species—the grizzly bear, grey wolf, bald eagle, and peregrine falcon—protected by the federal Threatened and Endangered Species Act. The Tribes have initiated a number of efforts to restore populations of these species on the Reservation.

Wilderness and Primitive Areas. The Tribes have established and now actively manage a major wilderness area and two primitive areas. The Tribes work on several fronts to insure that these areas are protected for future generations of Tribal members.

Cultural Resources. The identification and management of cultural resources throughout Tribal aboriginal territories are primary concerns. The Tribes seek to protect all areas of historical, cultural or religious significance regardless of where they occur.

GEOGRAPHIC REGIONS AND ENTITIES THAT INFLUENCE THE RESERVATION

The following list includes the principal geographic areas influencing the Reservation.

Southern Canada. Resource development activities in southern Canada can directly affect the Reservation's air and water quality. The area also encompasses portions of the Salish, Pend d'Oreilles and Kootenai aboriginal territories (Germaine White, Flathead Culture Committee, Telephone Interview, 11 May 1992; Naida Lefthand, Kootenai Culture Committee, Telephone Interview, 29 April 1992), and the Kootenai maintain important tribal affiliations with Kootenai bands in Canada.

Idaho, Oregon and Washington. Like southern Canada, these states encompass portions of the Tribes' aboriginal territories. Development activities occurring within their borders influence the Reservation's air and water. These states are also part of an extended economic zone since their populations and businesses consume water and power from the Flathead Reservation, and since Portland and Seattle provide metropolitan-based trade opportunities for Reservation residents.

Wyoming, North Dakota, Colorado and Utah. Tribal ancestors travelled at least as far as these states to hunt and trade (Coves 1897 as cited in Schaeffer, 1934-35; [McDonald no date] Teit 1930).

Western and Central Montana. Aboriginal lands of the Salish, Pend d'Oreilles and Kootenai peoples extend throughout western Montana and into the central part of the state. Development activities in northwestern Montana impact the Reservation's fish, wildlife, air and water. Major economic trade centers for the Reservation include Missoula and Kalispell.

Bitterroot Valley. The Bitterroot Valley was the population center of the Salish Tribe before the government moved them to the Flathead Reservation.

Other Reservations and Washington D.C. Although distant in a geographic sense, Washington, D.C., is where federal Indian policy develops, and hence the city exerts a powerful political influence over the Reservation. Similarly, court decisions stemming from issues on other reservations can have profound implications for the Tribes of the Flathead Reservation.

Global Considerations. Along with the mostly regional considerations listed above, the Confederated Salish and Kootenai Tribes take an interest in global issues that affect them. These include but are not limited to the accumulation of carbon dioxide in the atmosphere, deforestation and its associated impacts, the loss of the earth's ozone layer, and problems associated with solid waste disposal.

We have classified entities with planning and management responsibilities within these geographic regions into the following categories:

Cities. This includes municipalities located on the Reservation and cities located close to the Reservation like Missoula.

Counties. This includes counties whose boundaries overlap the Reservation, as well as neighboring counties such as Ravalli.

States and Provinces. This includes states and the province of British Columbia.

Federal. This includes both American and Canadian federal agencies and policy-making bodies.

Special District. This includes public and private authorities and utilities whose service districts lie within the region encompassing the Flathead Indian Reservation.

Economic. This includes economic development promoters, business and economic research institutes and economic planners.

Other Interest Groups. This includes public and private interest groups, coalitions and other parties concerned with the cultural, economic and environmental qualities of the region.

WORKING WITH OTHER AGENCIES AND ENTITIES

Communication about and coordination of environmental and economic policy can enhance planning and management efforts. There are several ways the Tribes can coordinate with other entities:

Information exchange and education. These communication activities might include public meetings, open houses, the sharing of resource data, or formal notification procedures regarding development activities.

Joint or coordinated planning. Joint planning implies a team approach to planning. These efforts can range from requests for input from concerned agencies to the coordinated development and adoption of plans and policies.

Cooperative agreements. These cross-jurisdictional agreements specify procedures for coordinating and/or implementing management practices.

CONFEDERATED SALISH AND KOOTENAI TRIBES
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COMPREHENSIVE RESOURCES PLAN

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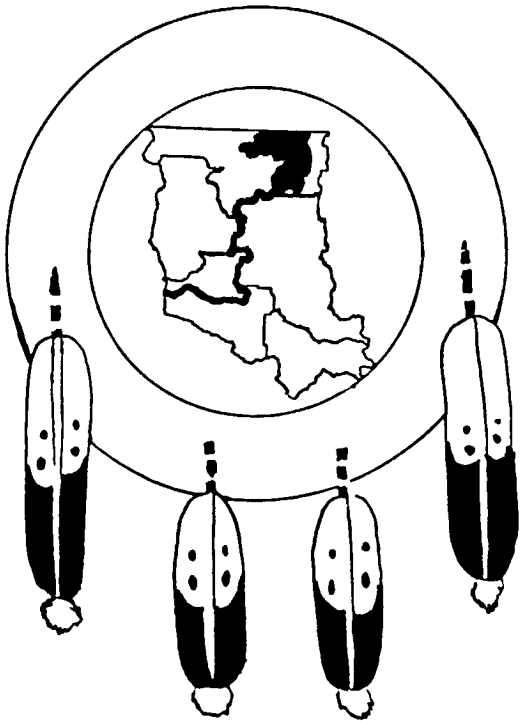
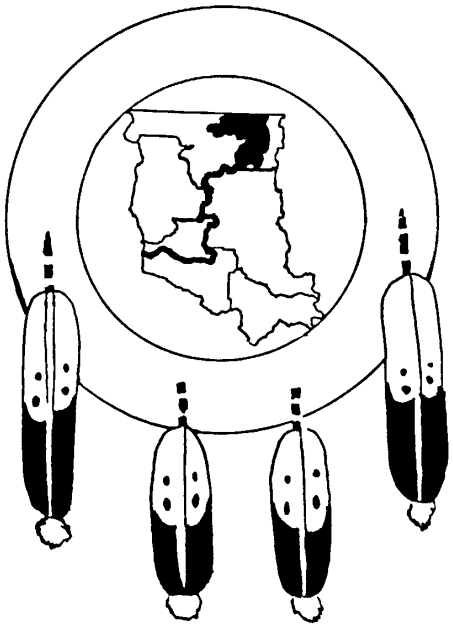


STUDY AREAS



STUDY AREAS

To facilitate resource planning efforts, the Reservation is divided into smaller planning units called study areas (see fig. 6.1). They range in size from 137,600 acres to 346,300 acres.

A profile of each study area was developed to organize resource information at a more manageable scale, to identify and map sensitive areas, to begin to build a data base for each unit, and to establish a geographic framework to prioritize goals, objectives and action plans. Each profile includes: a base map, statistics on land use and ownership[1], a brief description of major natural and man-made features, and a list of area-specific planning issues developed through Tribal and BIA technical team meetings.

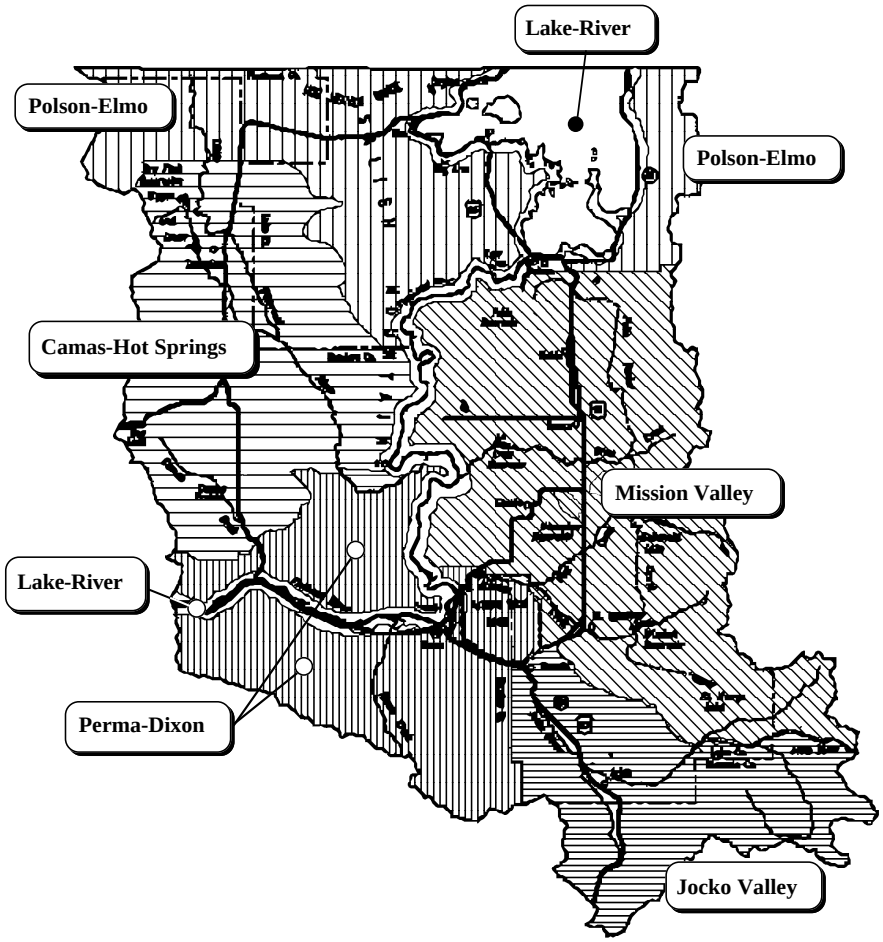
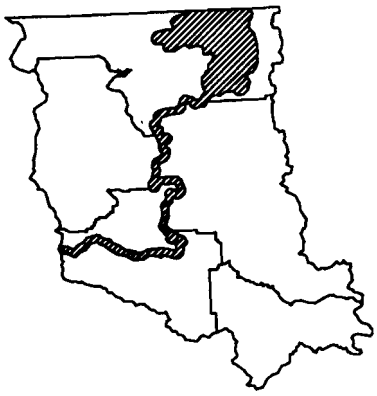


Figure 6.1. Reservation study areas. These six study areas have been delineated based on landform, related resource characteristics, land use, and traditional place names.

[1] Land ownership status acreages are GIS estimates current as of March 1992: Tribal and allotted land acreages are derived from BIA records; Federal, state and town acreages from county records. Land use acreages are estimates from land use maps developed in 1977 by the Soil Conservation Service, the Montana Department of Community Affairs, and other state and federal agencies.

LAKE AND RIVER CORRIDOR STUDY AREA



This study area includes Flathead Lake and the Lower Flathead River. The boundary also encompasses lands within one half mile of the lake and river's shorelines (fig.6.2). Flathead Lake is the largest natural freshwater lake in the western United States and many consider it one of the most scenic areas in the nation. The Lower Flathead River leaves the lake at Polson and then meanders through gorges, badlands and prairie as it crosses the Reservation. The river and the lake are among the Salish and Kootenai Tribes' most treasured resources.

Indian people have used the Flathead Lake and Lower Flathead River Corridor as a travel route and as a place to hunt, fish, camp, and practice spiritual traditions for thousands of years.

The Tribes place great value on old camp and cultural sites located in the corridor. Tribal culture committees prefer not to have the locations of specific sites published, to preserve their sanctity.

The lake and river remain important to the Tribes today. Tribal members use both areas for subsistence hunting and fishing, plant harvesting and to reaffirm cultural traditions. Protecting the corridor's natural values is a Tribal priority (Rockwell 1993).

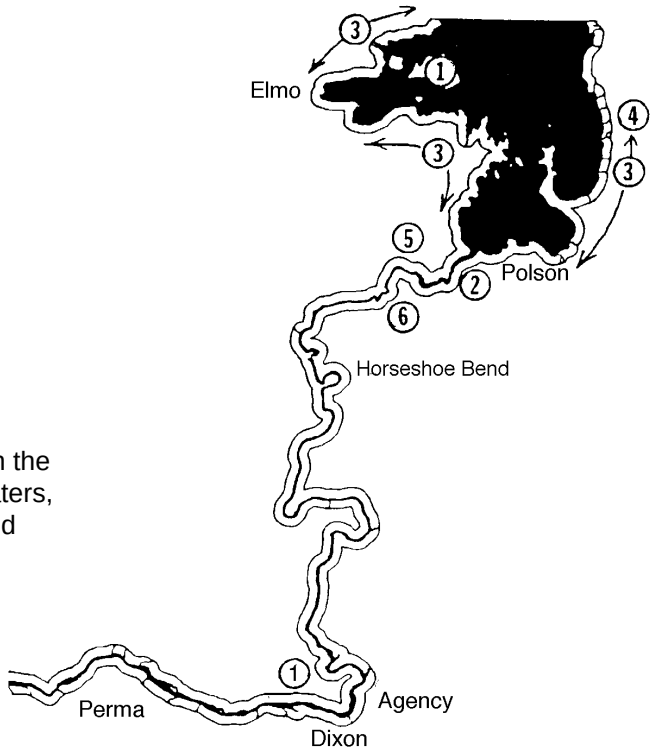
Many Tribal members share feelings for the corridor similar to those that Tribal Councilman Tony Incashola has expressed about the river:

> The River is an important place to me. I grew up in that area. All of my parents, my grandparents are gone, the ones that taught me everything good that I know. When I go down to the river, it is so quiet, like visiting my ya-ya. I show my kids places where we would camp and I talk about them. It is almost like I can see my family members along the river. I'd watch my brothers go hunting up into the mountains and soon I'd hear my gramma call. That's why it's so important, because I can go anywhere on that river and I can talk to my family and I know, I feel, they can hear.
>
> For me, there's no other place. Every family has their certain priceless areas on the Reservation. The river is mine.
>
> I can still see Beaverheads, Woodcocks, Durglos. I can still remember my brothers getting mohawk haircuts, hunting without shirts, piles of deer hair and bones. I can still see my grandpa fishing so patient, Alex Adams on a raft, others swimming across the river.
>
> When I get lonely, when I feel I need encouragement, I go back and visit.

Figure 6.2. Sensitive areas:

1. All lake and river islands
2. Polson
3. Lakeshore homesites
4. Highway 35
5. Kerr Dam
6. Buffalo Rapids

Other sensitive locations not shown on the map include river sloughs and backwaters, raptor nesting sites, riparian zones, and cultural sites.



Total Acres: 137,638
Communities: Dayton, Elmo, Big Arm, Polson, Finley Point, Kerr Dam Village, Agency, Dixon

Land Status (in acres):	
Tribal (includes lake and river):	102,217
Allotted:	2,580
Fee:	28,704
Federal-State-Town:	4,137

Major Man-Made Features

There is substantial development, most of it residential, along the shore of Flathead Lake. Along with homes, there are also hotels and resorts, parks, marinas and a golf course. Most of the river corridor remains undeveloped, although a limited amount of residential development has occurred in and around Dixon, the old Agency, the Moiese Valley and at Kerr Dam Village. There are also fewer recreation sites in the river corridor than along the lakeshore.

Population and employment centers within the lake and river corridor include Polson (the County Seat), and Dixon. There are small commercial centers and some seasonal employment at Dayton, Elmo, Big Arm and Finley Point.

Highways 93 and 35 skirt the lakeshore. Highway 200 and a railroad line parallel the river from Dixon to the Reservation boundary west of Perma. There is one large-scale hydroelectric power facility, Kerr Dam, located on the river southwest of Polson. There are also four bridges, Polson, Buffalo, Sloan's and Perma, that cross the river. The Flathead Agency Irrigation Division operates a pumping station just above Kerr Dam. A power line, a railroad bridge and a petroleum pipeline are other major structures along the river.

Table 6.1. Predominant land use.

Land Use Category	Approximate Acreage	Percentage of Study Area
Water	69,834	51%
Rangeland	36,436	26%
Rural & Suburban	11,957	9%
Forest	8,318	6%
Recreational Areas	3,880	3%
Urban and Built-Up	2,939	2%
Irrigated Cropland	2,772	2%
Non-Irrigated Cropland	1,401	1%

Major Planning Issues

- ❑ Preservation and enhancement of fish and wildlife resources and habitat. Kerr Dam mitigation, future hydropower operations and/or development, point and non-point pollution sources, agricultural development, and recreation use all affect this issue.
- ❑ Water Quality. This issue includes the protection of groundwater and surface water from probable sources of pollution such as irrigation return flows, hazardous material spills, and other point and non-point pollution sources.
- ❑ Future land use and development which includes highway expansion, access to Flathead Lake, residential development, viewshed degradation (signs, development, timber harvest), lake and river recreational carrying capacities, future lakeshore development, range management, agricultural development
- ❑ Air quality which is affected by dust, seasonal burning, and industrial emissions
- ❑ Recreational use which is affected by the number of boats, impromptu camps, facility development and off-road vehicle use
- ❑ Tribal-federal-state inter-agency cooperation

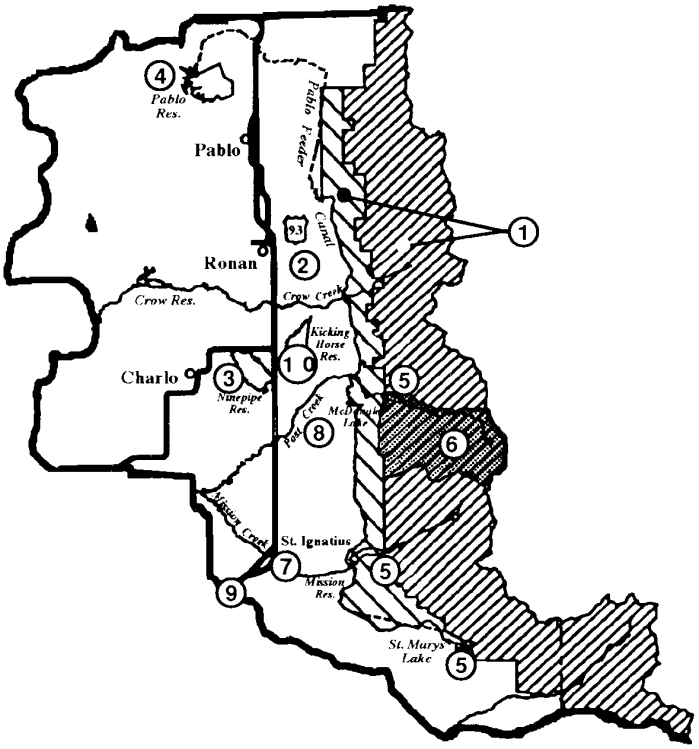
MISSION VALLEY STUDY AREA

The Mission Valley is bordered on the east by the Mission Mountains, a spectacular jumble of rugged peaks that tower 7,000 feet above the valley floor. The Tribes have designated the Reservation portion of the range as wilderness. The study area extends across the valley to the west to the Lower Flathead River and the Salish Mountains. The valley bottom is rich agricultural land dotted with pothole lakes and ribboned with streams. It includes some of the best waterfowl and upland gamebird habitat in western Montana.

Figure 6.3. Sensitive areas:

1. Mission Mountains Wilderness and Buffer Zone
2. Scenic vistas of Missions -e.g., old barn
3. Ninepipe Wildlife Refuge and Reservoir
4. Pablo Wildlife Refuge and Reservoir
5. McDonald and St. Mary's Lakes, Mission Reservoir
6. Grizzly Bear Management Zone
7. St. Ignatius Mission
8. Fort Connah
9. Valley viewshed from Ravalli Hill
10. Kicking Horse Reservoir

Other sensitive areas not shown on the map include all streams, wetlands and riparian zones, air quality impact areas and all cultural sites



Total Acres: 346,316
Communities: Pablo, Ronan, Kicking Horse, Charlo, Post Creek, St. Ignatius

Land Status (in acres):		
	Tribal:	150,255
	Allotted:	19,830
	Fee:	166,023
	Federal-State-Town:	10,208

Major Man-Made Features

The communities of St. Ignatius, Post Creek, Kicking Horse, Ronan and Pablo lie along US Highway 93, the Reservation's main transportation route. Charlo, a few miles to the west, developed next to the railroad. St. Ignatius, Charlo, Ronan and Pablo have schools, volunteer fire departments, churches, post offices, grocery stores, gas stations, and other services. Most of the light industrial activity in the valley occurs north of Pablo and south of Ronan along Highway 93. Other man-made features in the valley include portions of the Flathead irrigation system, a fish hatchery on Post Creek, major power and communication lines, and collector highways west of Ronan and southwest of Charlo.

Table 6.2. Predominant land use.

Land Use Category	Approximate Acreage	Percentage of Study Area
Irrigated Cropland	102,900	30%
Mission Mountains Wilderness	91,778	27%
Forest (excluding Wilderness)	59,916	17%
Rangeland	48,425	14%
Rural & Suburban	22,541	7%
Non-Irrigated Cropland	15,360	4%
Water (major reservoirs)	3,878	1%
Urban and Built-Up	1,519	<1%

Major Planning Issues

- ❑ Multiple use considerations for Flathead Agency Irrigation Division reservoirs
- ❑ Mission Mountains Wilderness issues include conflicting land uses within the Wilderness Buffer Zone, maintenance of wilderness values, wildfire risks, and the conservation of grizzly bears and their habitat
- ❑ Impacts on air and water quality, human health and safety, wildlife and fisheries from agricultural practices; contamination of shallow aquifers from failed or inadequate septic systems
- ❑ Lack of public fishing access on major streams in the valley
- ❑ Tribal-federal-state inter-agency cooperation
- ❑ Strip development along US Highway 93

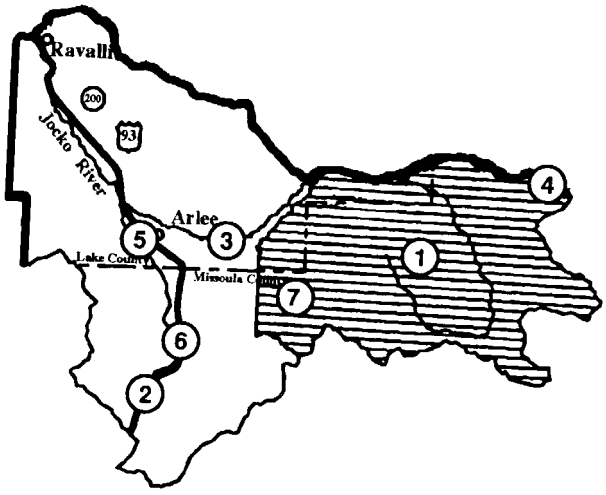
JOCKO VALLEY STUDY AREA

The Jocko River, high mountain lakes, the South Fork Primitive Area, and remote densely forested mountains are major natural features of the Jocko Valley. Along with important wildlife habitat, the study area encompasses one of the best fisheries on the Reservation.

Figure 6.4. Sensitive areas:

1. South Fork Primitive Area
2. Key Wildlife Travel Corridor (between Mission Range and Reservation Divide)
3. Jocko River, South and Middle Forks; Finley, Big Knife, Agency and Jocko Spring Creeks
4. Jocko Lakes
5. Shallow Aquifer
6. Highway 93-Jocko Canyon viewsheds
7. Grizzly Bear Management Area

Other sensitive areas not shown on the map include: all riparian zones, and all cultural sites



Total Acres: 155,776
Communities: Evaro-Schley, Arlee, Ravalli

Land Status (in acres):		
	Tribal:	112,014
	Allotted:	6,911
	Fee:	30,927
	Federal-State-Town:	5,924

Major Man-Made Features

US Highway 93 divides the principal residential areas of the Jocko Valley. These include the scattered community north of Evaro, the Schley homesites, Arlee, Jocko Hollow, and Ravalli. Arlee and Ravalli provide local services such as post offices, churches, and gas and grocery stores. Arlee has primary and secondary schools, a volunteer fire department, a pharmacy, two senior citizens' centers, a Salish and Kootenai College classroom building, a daycare center, some recreation facilities (for bowling and baseball), and the state fish hatchery. Agriculture and forestry are the primary economic activities here. Arlee and Ravalli have some light industry. A railroad, a petroleum pipeline, irrigation canals, and major power and telephone transmission lines bisect the valley. Point Six, an electronic communications site, is east of Evaro on the Reservation boundary.

Table 6.3. Predominant land use.

Land Use Category	Approximate Acreage	Percentage of Study Area
Forest	57,261	47%
Primitive Area (also forested)	59,169	27%
Rangeland	20,203	13%
Rural & Suburban	9,755	6%
Irrigated Cropland	8,307	5%
Non-Irrigated Cropland	760	1%
Urban and Built-Up	321	<1%

Major Planning Issues

- ❑ Multiple use considerations for Flathead Agency Irrigation Division reservoirs
- ❑ Future management of the Jocko Mountains and South Fork Primitive Area. This issue includes the preservation of threatened or endangered species and other species of special concern, preservation of aesthetic quality, forest disease and bug control, livestock operations, noxious weed control
- ❑ Water issues which include the protection of groundwater and surface water from pollution, dam safety on the Jocko Lakes, fisheries habitat protection, lack of public fishing access on the main Jocko River
- ❑ The impacts of Missoula's suburban sprawl on infrastructure, farmland, air and water quality, cultural resources, and wildlife; controlling access from the Rattlesnake Wilderness into the South Fork Primitive Area
- ❑ Strip development along US Highway 93
- ❑ Impacts on wildlife travel corridors from residential and highway development
- ❑ Tribal-federal-state inter-agency cooperation

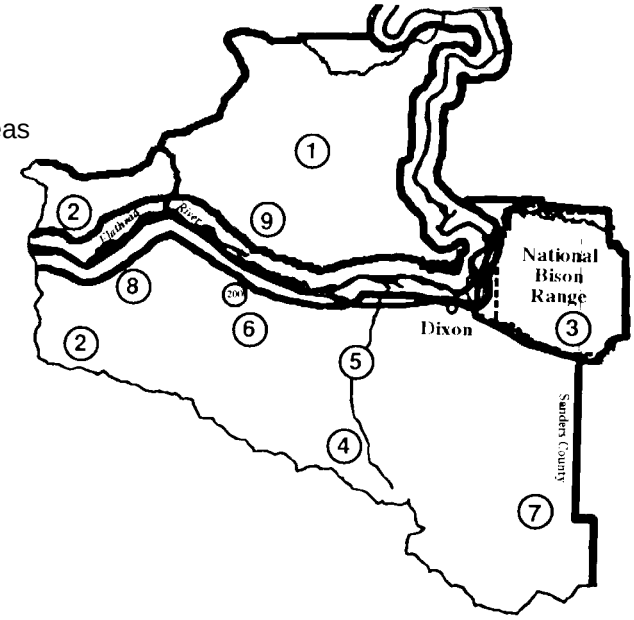
PERMA-DIXON STUDY AREA

This study area encompasses the southwestern corner of the Reservation. Its south half, drained by Selow, Revais, Magpie, and Seepay Creeks, is mountainous and heavily forested. Dry grassy hills dominate its north half, which lies on the north side of the Lower Flathead River. The area also includes the National Bison Range.

Figure 6.5. Sensitive areas:

1. Ferry Basin Wildlife Conservation Area
2. Little Money and Vanderburg Wildlife Conservation Areas
3. National Bison Range
4. Blacktail Basin
5. Revais Creek
6. Magpie Creek
7. Valley Creek
8. Seepay Creek
9. Remount Station

Other sensitive areas not shown on the map include all riparian zones and all cultural sites.



Total Acres: 207,596
Communities: Moiese (Dixon and Agency are in the Lake and River Corridor Study Area)

Land Status (in acres):		
	Tribal:	137,575
	Allotted:	2,344
	Fee:	40,877
	Federal-State-Town:	26,800

Major Man-Made Features

The only residential communities in the study area are located in and around Moiese, Dixon and Old Agency. Most of the homes in these areas fall within the Lake and River Corridor Study Area. Moiese and Dixon provide fire protection, postal and other services. There are only a few homes around Perma and no commercial enterprises. There are several dozen ranches scattered along Highway 200, which parallels the river from Dixon to the Reservation Boundary. However, many of these fall within the Lake and River Corridor. One heavy construction business operates just east of Dixon. Power transmission lines, the Yellowstone pipeline, and irrigation canals cross the study area. Other features include the Ferry Basin, Revais and Seepay Creek Mines, several small gravel and rip-rap mines, and the Agnes Vanderburg Camp.

Table 6.4. Predominant land use.

Land Use Category	Approximate Acreage	Percentage of Study Area
Forest	103,509	50%
Rangeland	79,505	38%
National Bison Range	18,541	9%
Irrigated Cropland	4,479	2%
Rural and Suburban	967	<1%
Non-Irrigated Cropland	517	<1%
Urban and Built-up	80	<1%

Major Planning Issues

- ❑ Wildlife issues include the future management of transplanted big horn sheep, antelope and elk, multiple use management of the Perma-Dixon Ranch, and helicopter logging.
- ❑ Water quality issues include agricultural practices, water quality and quantity problems associated with the Little Bitterroot River, and the structural integrity and potential environmental imapcts of the Yellowstone pipeline.
- ❑ Potential impacts of mining operations
- ❑ Lack of campground facilities
- ❑ Tribal-federal-state inter-agency cooperation

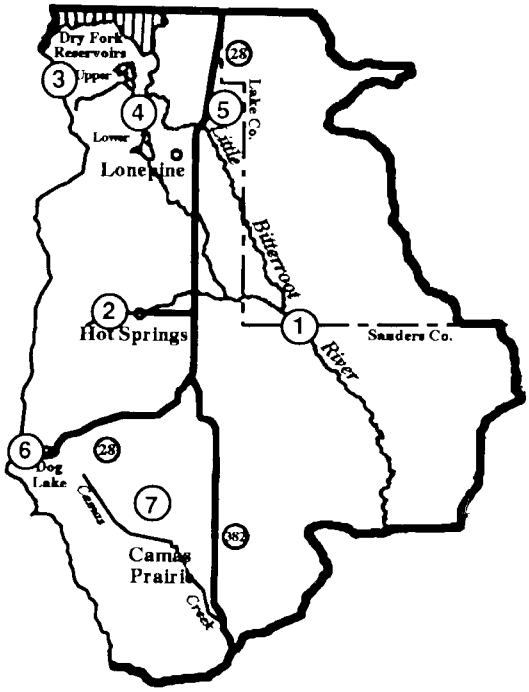
CAMAS-HOT SPRINGS STUDY AREA

Bound on the west by the Cabinet Mountains, this study area consists of two major valleys: Camas Prairie to the southwest, and the Little Bitterroot River Valley to the north. Natural hot water springs and ripple marks from former glacial Lake Missoula are unique geological features of the area.

Figure 6.6. Sensitive areas:

1. Little Bitterroot River
2. Hot Springs Creek
3. Cabinet Mountains wildlife ranges
4. Upper and Lower Dry Fork Reservoirs
5. Sullivan Creek
6. Rainbow (Dog) Lake
7. Camas Prairie shallow aquifer

Other sensitive areas not shown on the map include all riparian zones and all cultural sites



Total Acres: 243,470
Communities: Camas Prairie, Hot Springs-Camas, Lonepine

Land Status (in acres):	
Tribal:	88,389
Allotted:	6,026
Fee:	140,256
Federal-State-Town:	8,799

Major Man-Made Features

Hot Springs is the only town in the study area that provides multiple services. It has a post office, schools, retirement homes, fire protection, police protection, an airport, a forestry warehouse, utility office, and retail and automotive businesses. It was once a booming resort town, but now supports only a few hotels. Camas Prairie has a small elementary school and Lonepine has a grocery store with postal services. There are a few homesites in Lonepine, Camas and Camas Prairie. Farms and ranches are scattered throughout the area. State Highway 28 passes through the Little Bitterroot Valley from the north, then turns west to Rainbow Lake where it leaves the Reservation. State Highway 382 branches off Highway 28 about three miles south of Hot Springs. It passes through Camas Prairie and ultimately joins US Highway 200 at Perma. The Yellowstone Pipeline passes through the study area, as do several powerlines. A major Bonneville Power Administration electrical substation is at the intersection of Highways 28 and 382. Communication relay stations sit on or near Oliver Point in the Salish Mountains. A network of canals and the Dry Fork Reservoirs serve irrigators in the area.

Table 6.5. Predominant land use.

Land Use Category	Approximate Acreage	Percentage of Study Area
Rangeland	123,683	51%
Forest	86,137	35%
Irrigated Cropland	18,738	8%
Non-Irrigated Cropland	10,062	4%
Rural and Suburban	4,569	2%
Urban and Built-Up	282	<1%

Major Planning Issues

- ❑ Multiple use considerations for Flathead Agency Irrigation Division reservoirs
- ❑ Agricultural impacts on water quality in the Little Bitterroot River; potential for shallow aquifer contamination
- ❑ Geothermal resource development opportunities
- ❑ Limited recreational facilities at Rainbow Lake, and the Upper and Lower Dry Fork Reservoirs
- ❑ Economic development
- ❑ Minerals development potential
- ❑ Tribal-federal-state inter-agency cooperation

POLSON-ELMO STUDY AREA

This study area extends across the northern part of the Reservation. It includes the Mission Range, Irvine Flats, the Big Draw and Mill Creek areas. The Big Draw was once the outlet for Flathead Lake. It and Dayton Creek, Chief Cliff and the Mill Creek (Lozeau) Primitive Area, have special significance for the Confederated Salish and Kootenai Tribes.

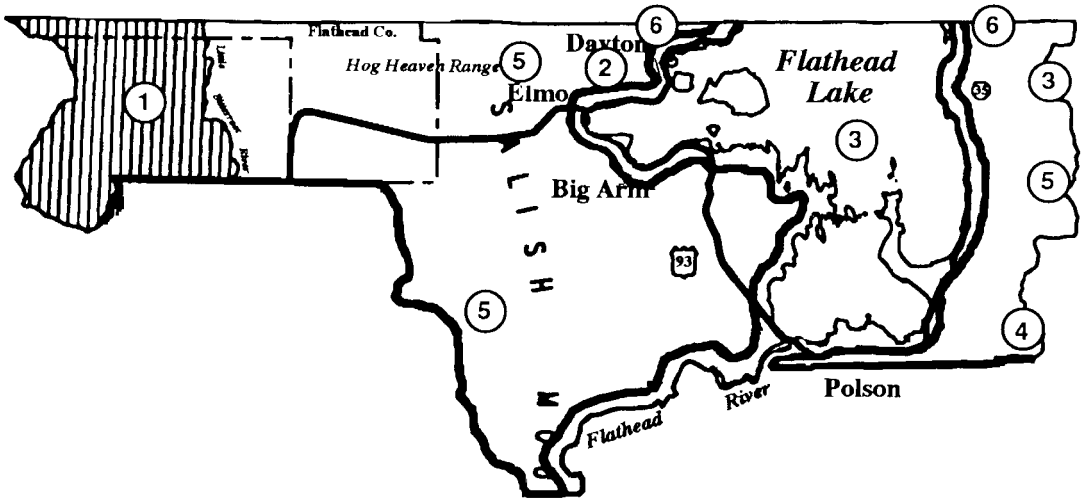


Figure 6.7. Sensitive areas: 1. Mill Creek (Lozeau) Primitive Area; 2. Chief Cliff-Black Lake Area; 3. Flathead Lake and the Mission Mountains; 4. Hellroaring municipal watershed; 5. Hog Heaven, Irvine and Boulder wildlife habitat areas; and 6. Dayton and Yellow Bay Creeks. Other sensitive areas not shown on the map include all riparian zones and streams and all cultural sites.

Total Acres: 226,075

Communities: Polson (Dayton, Elmo, Big Arm, and Finley Point are in the Lake-River Corridor Study Area)

Land Status (in acres):		
	Tribal:	131,444
	Allotted:	4,135
	Fee:	83,333
	State:	7,163

Major Man-Made Features

With the exception of the Tribal homesites at Turtle Lake, most of the residential development occurs within the Lake and River Corridor Study Area. A small number of commercial businesses are located just east of Polson at the intersection of US Highways 35 and 93. There are also a few light industries along Highway 93. State Highway 28 crosses the study area from Elmo, passes through the Big Draw, then heads south to the Camas-Hot Springs area. There are mines in the Hog Heaven area, and small-scale hydropower facilities on both Hellroaring and Boulder Creeks. Power transmission lines run from Kerr Dam north to a substation southwest of Elmo and beyond.

Table 6.6. Predominant land use.

Land Use Category	Approximate Acreage	Percentage of Study Area
Forest	119,492	53%
Rangeland	79,678	35%
Non-Irrigated Cropland	13,003	6%
Rural and Suburban	12,225	>5%
Irrigated Cropland	856	<1%
Urban and Built-Up	821	<1%

Major Planning Issues

- ❑ Lack of boundary designation and use controls for the Mill Creek (Lozeau) Primitive Area
- ❑ Recreational use conflicts in the Boulder Creek area
- ❑ Water quality protection and enhancement
- ❑ Potential strip development along US Highway 93
- ❑ Rural residential growth
- ❑ Future locations for solid waste disposal
- ❑ Tribal-federal-state interagency cooperation

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

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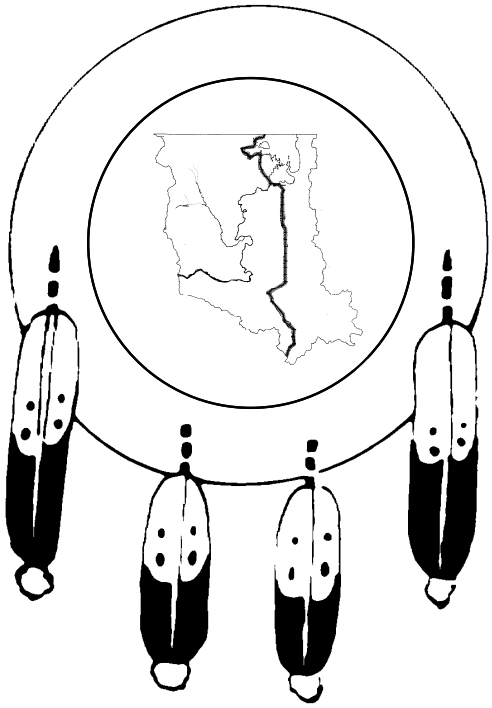
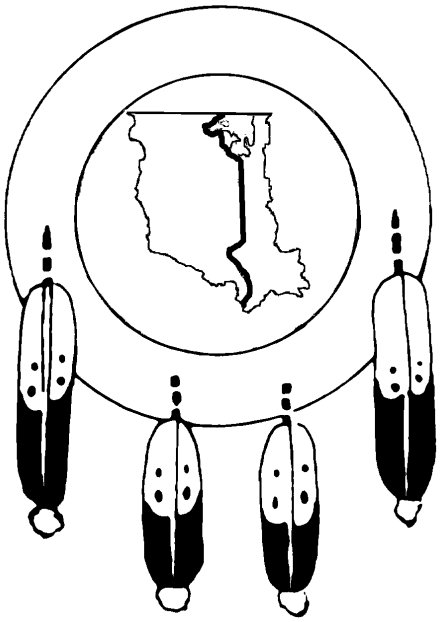


TRANSPORTATION CORRIDOR



TRANSPORTATION CORRIDOR

US Highway 93, which stretches from Canada to southern Arizona, is the principal north/south highway in Western Montana. It is also the major transportation corridor within the Flathead Reservation and the Reservation's primary link with the cities of Kalispell and Missoula.

The highway enters the north end of the Reservation near Dayton. From there, it skirts the lakeshore until it reaches the town of Polson, then continues south to Pablo, Ronan, St. Ignatius, Ravalli, Arlee, and Evaro (fig. 7.1). From Evaro, at the south end of the Reservation, it intersects Interstate 90, then heads east into Missoula.

Portions of this route have existed since the establishment of the Flathead Reservation in 1855. Then it was merely a horse and wagon trail that passed through Dixon before heading north. Polson was the "end of the road." There were no roads around Flathead Lake; to reach Kalispell one took a boat. The state did not complete the west and east shore highways, Highways 93 and 35, until the early 1930s. Today, US Highway 93 is a major trucking route supplying the Reservation with many of its goods and services. The highway also brings thousands of travelers to Western Montana.

Tourism is expanding in the Flathead area, and many of the communities along the highway are growing. The Montana Department of Transportation (Transportation Department) projects that traffic on Highway 93 will nearly double within the next ten years (U.S. Dept. of Transportation, Federal Highway Administration and Montana Dept. of Highways, 1990). To accommodate the increase, they propose to reconstruct and widen the highway. They are currently drafting an Environmental Impact Statement (EIS) for the project.

The following profile discusses the proposed expansion, describes the major features of the highway corridor and lists issues the Tribes want considered in an EIS (this list may expand as the study proceeds).

PROPOSED EXPANSION PLANS

Initially, the Transportation Department developed plans to reconstruct the Reservation portion of Highway 93 in a series of eight to twelve mile sections. They proposed to treat each section separately.

The Transportation Department developed Environmental Assessments for the first three projects. At that point, the Confederated Salish and Kootenai Tribes and others expressed

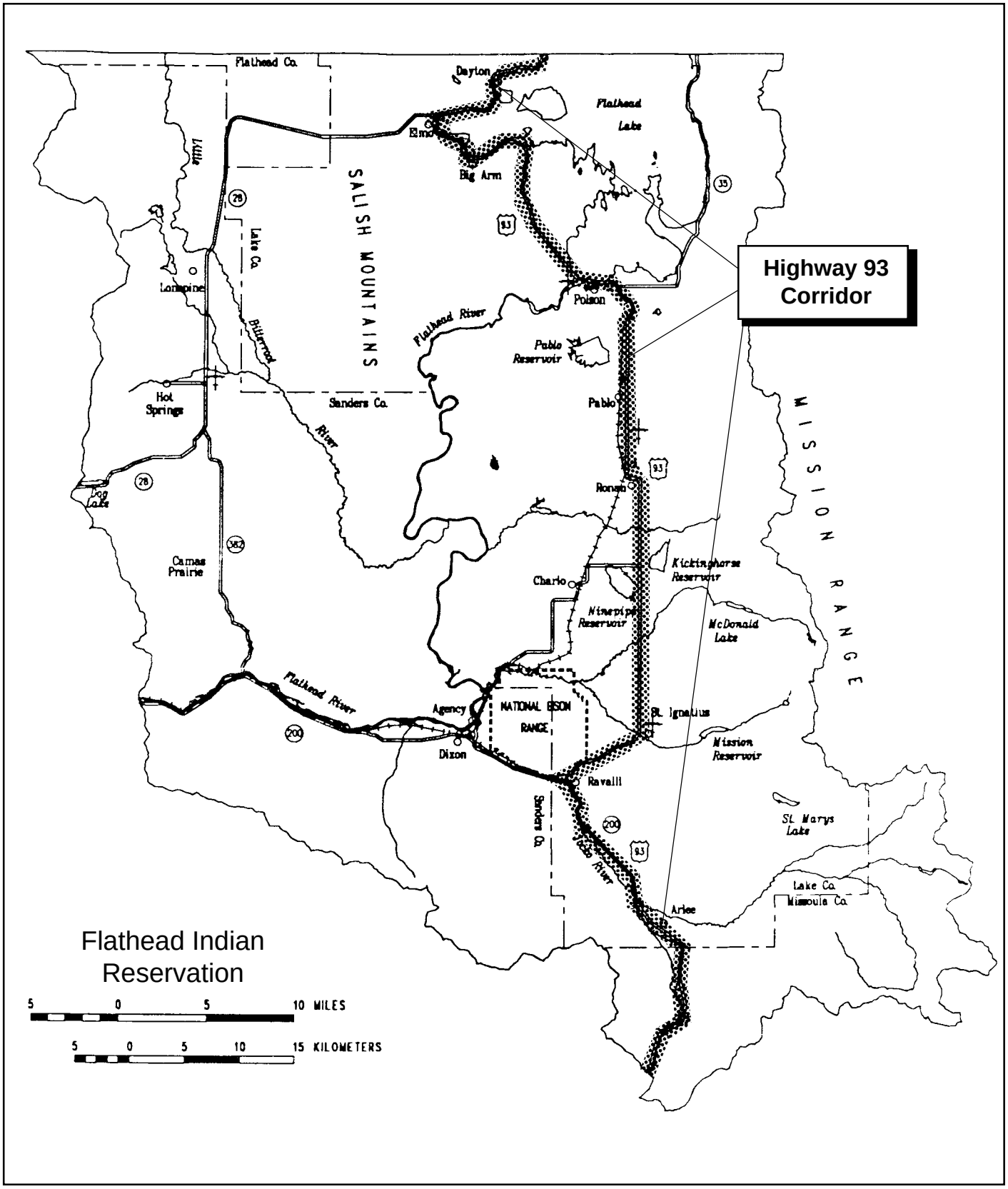


Figure 7.1. Transportation corridor: US Highway 93 and adjacent lands.

concerns about the department's segmented approach. First, by dividing the project into smaller units and preparing a series of separate environmental assessments, the department avoided addressing the cumulative and broader impacts associated with the overall project. Second, the assessments that they did prepare neglected to develop a reasonable range of alternatives for highway routing and design. Finally, the Department of Transportation failed to consult adequately with the Tribes about impacts to the Reservation.

The Transportation Department has since decided to prepare a more detailed Environmental Impact Statement for the Reservation portion of the project and the Tribes have agreed to cooperate with the study.

INTERIM PROFILE

The following narratives discuss land uses along Highway 93. For discussion and illustration purposes, we divided the corridor into five sections. For each there is a narrative and a map showing concentrated commercial and residential areas as well as recreation or scenic sites.

Corridor Section 1 - North Reservation Boundary to Polson

From the northern boundary of the Reservation, US Highway 93 follows the west shore of Flathead Lake to Polson. It winds through timbered and grass-covered hills and passes by a number of scenic vistas that offer views of the lake, its islands (especially Cromwell and Wild Horse) and the Mission Mountains.

> ***Areas of Concern:*** Visitors taking pictures or pulling into recreation areas slow traffic. The same is true of people accessing the highway from the many homes scattered around the lake. The concentration of commercial development along the highway in Polson also slows traffic and is a safety concern as well. The highway divides Polson and other towns, and this creates problems for pedestrians in these communities, particularly during the summer months. The Tribes also have concerns about cultural resources next to the highway and stream crossings. The Dayton Creek crossing is of special interest because the creek provides important fish habitat.

Traffic Volume* (Average Daily Trips in 1990) :	All Vehicles	Com-mercial
Dayton:	2510**	415
Polson (West):	5920	

Traffic Accidents*:	1984	1986	1988	1990
North Reservation Boundary to Highway Junction 28 at Elmo:	12	6	7	6
Jct. 28 to Polson (West):	22	21	19	14
Polson (West) to Highway Junction 35:	1	18	17	23

*MT Dept. of Transportation, Highways Division, Traffic Operation Section 1991.
**Dayton figure adjusted from 1990 figures, Phil Colbert, MT Dept. of Transportation 1992

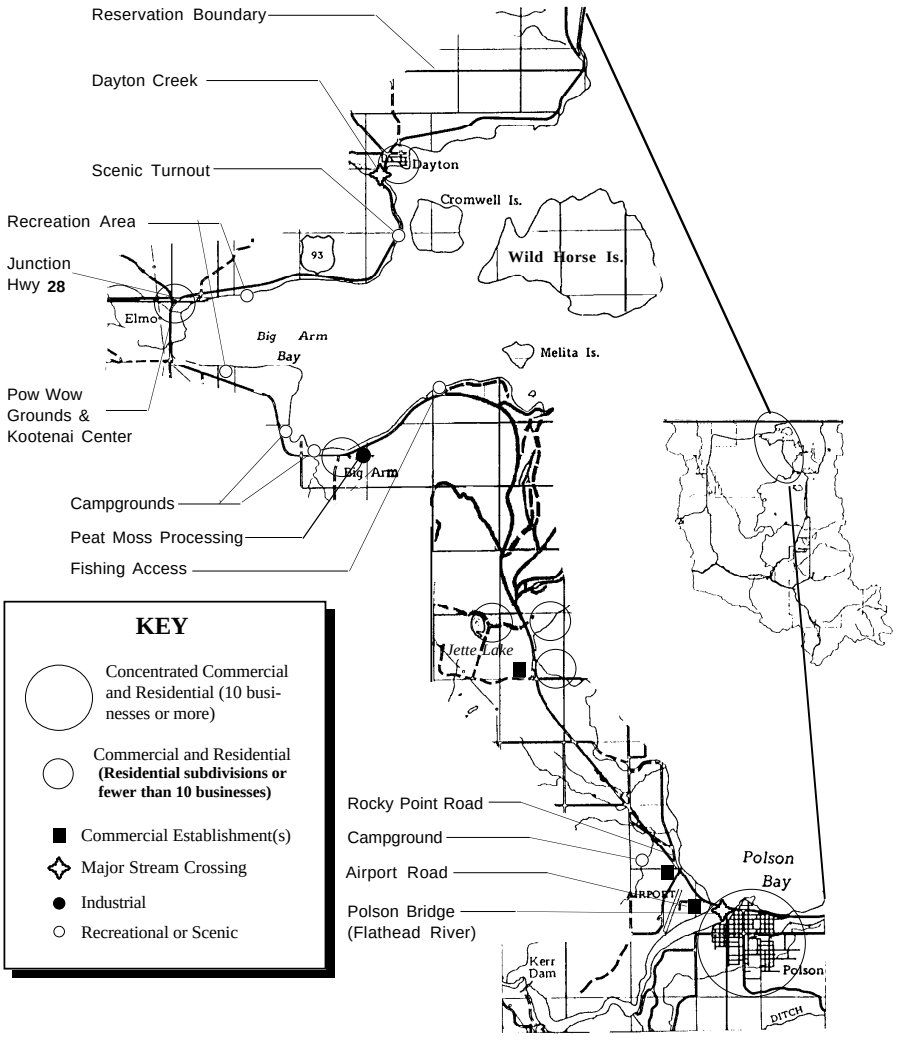


Figure 7.2. Corridor Section 1 - Major features, 1991. Elevation: varies from 3,538 feet (near Jette Lake) to 2,912 feet (at Polson). Section length: 27.4 miles. Communities: Dayton, Elmo, Big Arm, and Polson

Corridor Section 2 - East of Polson to Ronan

Except for a steep hill just south of the Highway 35 interchange east of Polson, this section of the highway is level and straight. It is also the most populated and heaviest travelled part of the corridor. Polson and Ronan are retail trade centers on the Reservation. They offer the only hospital services on the Reservation. Polson is the county seat and Pablo is the headquarters of Tribal government. Salish Kootenai College and Two Eagle River School are at Pablo, as is some industry. The primary land use between Polson and Ronan is agriculture, although there are patches of forest, businesses, homes, and a few industries along the highway, especially between Polson and Pablo. The section also offers dramatic views of both the Mission Mountains and Flathead Lake.

Areas of Concern: Vehicular and pedestrian crossings at Pablo are major concerns. Other areas of concern include cultural sites next to the highway corridor and signs and their impacts on aesthetics. Another concern is stream and canal crossings, especially at Mud and Spring Creeks, both of which provide important fish habitat.

Traffic Volume*: (Average Daily Trips in 1990)	All Vehicles	Com-mercial
Hwy. 35 Junction:	8720	497
Ronan (North):	7511	859

Traffic Accidents*:	1984	1986	1988	1990
Highway Junction 35 at Polson to Pablo:	21	25	17	16
Pablo to Ronan (South City Limits):	8	24	17	10

*MT Dept. of Transportation, Highways Division, Traffic Operation Section 1991.

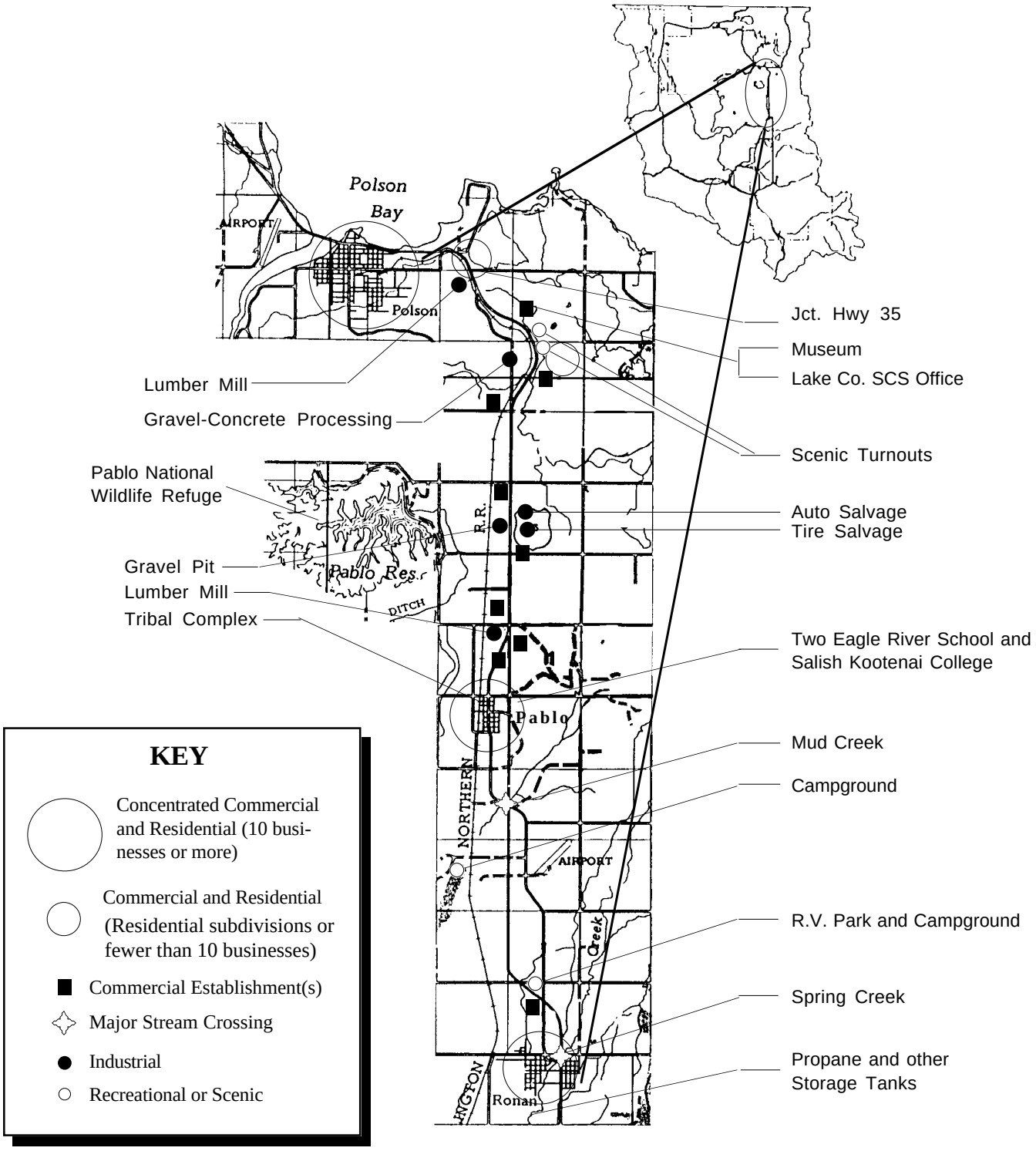


Figure 7.3. Corridor Section 2 - Major features, 1991. Elevation: ranges from 3,020 feet (at Highway 35 interchange east of Polson) to 3,217 feet (hill south of Polson) to 3,066 feet (at Ronan). Section length: 13.0 miles. Communities: Polson, Pablo and Ronan

Corridor Section 3 - Ronan to St. Ignatius

This section of Highway 93 divides the pothole country of the Mission Valley. It also cuts through a portion of the Ninepipe National Wildlife Refuge. The views of the Mission Mountains from the highway can be spectacular. The reservoirs, potholes, streams and other wetlands along the highway are important fish and wildlife production areas. Fishing, wildlife viewing and seasonal bird hunting attract many visitors to the area. The primary land use is agriculture, although there is some commercial and industrial development just south of Ronan and at Post Creek.

Areas of Concern: Protection of the many wetlands and riparian areas along the route is a concern. Heavy truck use slows traffic and has created hazards, particularly on the steep hill just north of Post Creek. The Charlo turnoff, the St. Ignatius area and commercial establishments with inadequate turning lanes also pose safety hazards. Development and signs along the highway threaten to destroy the spectacular views of the Mission Mountains and other features. Along with stream and canal crossings, cultural resources next to the corridor are also concerns.

Traffic Volume* (Average Daily Trips in 1990)	All Vehicles	Com-mercial
Ronan (South):	10840	497
St. Ignatius (North):	5284	883

Traffic Accidents*:	1984	1986	1988	1990
Ronan (Sth) to Jct. Hwy. 212:	3	12	9	3
Hwy. 212 to St. Ig. (South City Limits):	24	33	20	13

*MT Dept. of Transportation, Highways Division, Traffic Operation Section 1991.
**Number adjusted from original data, MT Dept. of Transportation 1992

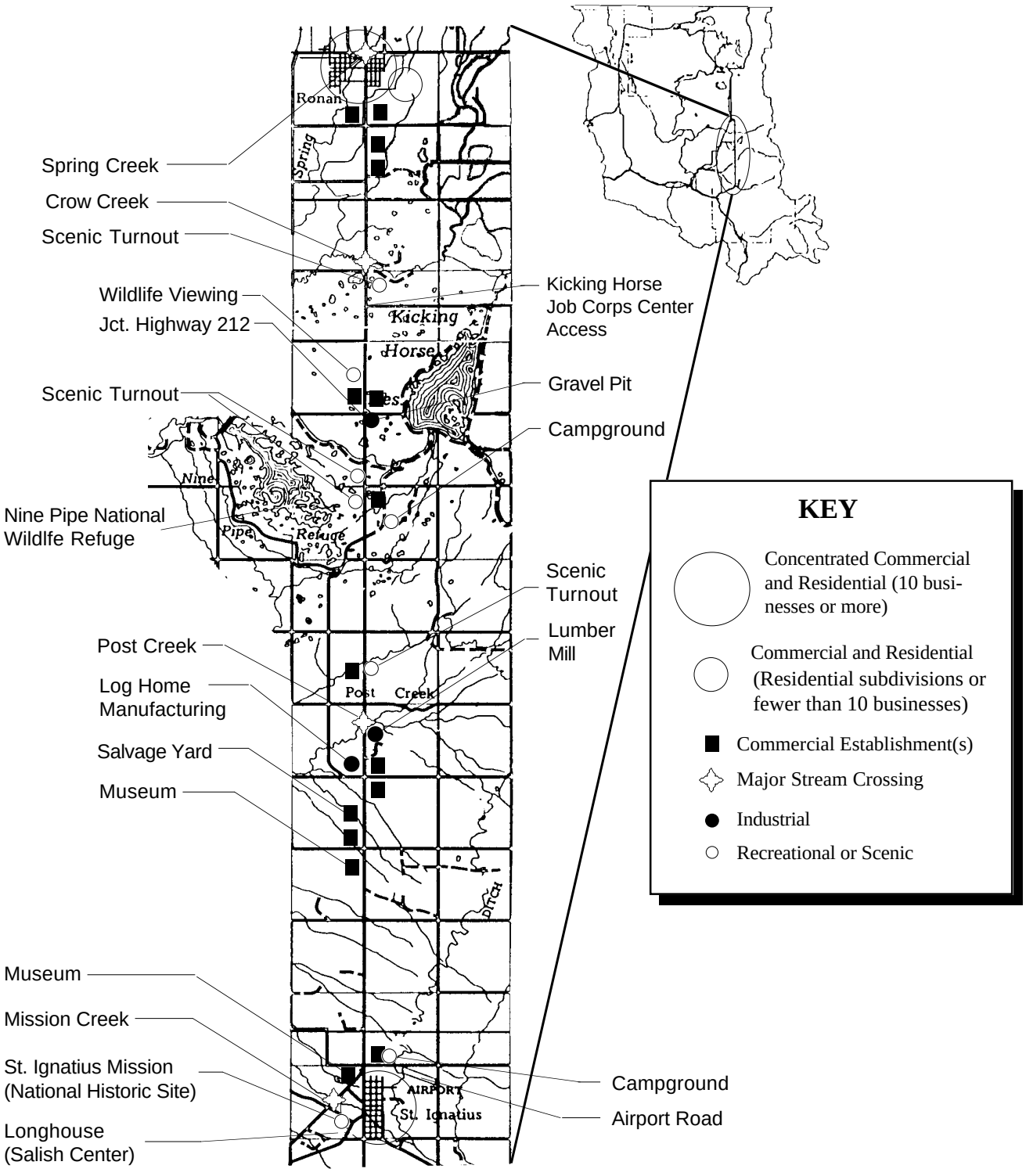


Figure 7.4. Corridor Section 3 - Major features, 1991. Elevation: 3,066 feet at Ronan, 2,913 feet at St. Ignatius. Section length: 13.5 miles. Communities: Ronan, Post Creek and St. Ignatius.

Corridor Section 4 - St. Ignatius to Arlee

One of the main features of this segment is a long hill next to the National Bison Range. From the top of this hill there is a spectacular view of the Mission Mountains and the Bison Range. From the base of the hill to Arlee, the highway parallels the Jocko River. This section of Highway 93 is the gateway to the Mission Valley from the south. It provides access to the National Bison Range, a museum, the Historic Catholic Mission at St. Ignatius, a fish hatchery, and the Jocko River. Mission, Sabine and Spring Creeks, the Jocko River and the riparian areas associated with them provide important habitat for fish and wildlife. The primary land use is agriculture.

Areas of Concern: Access to and from the many tourist attractions found in this section is a concern, as are the signs announcing these sites. Other areas of concern include a major east-west wildlife corridor south of Ravalli, cultural resources, stream and canal crossings, power transmission lines, the railroad, and residential development.

Traffic Volume* (Average Daily Trips in 1990)	All Vehicles	Com-mercial
St. Ignatius	5335	
Arlee:	5280	828

Traffic Accidents*	1984	1986	1988	1990
St. Ig. (south end) to Hwy 200 at Ravalli:	17	14	11	12
Ravalli to Arlee (Pow Wow Rd.):	27	44	22	29

*MT Dept. of Transportation, Highways Division, Traffic Operation Section 1991.

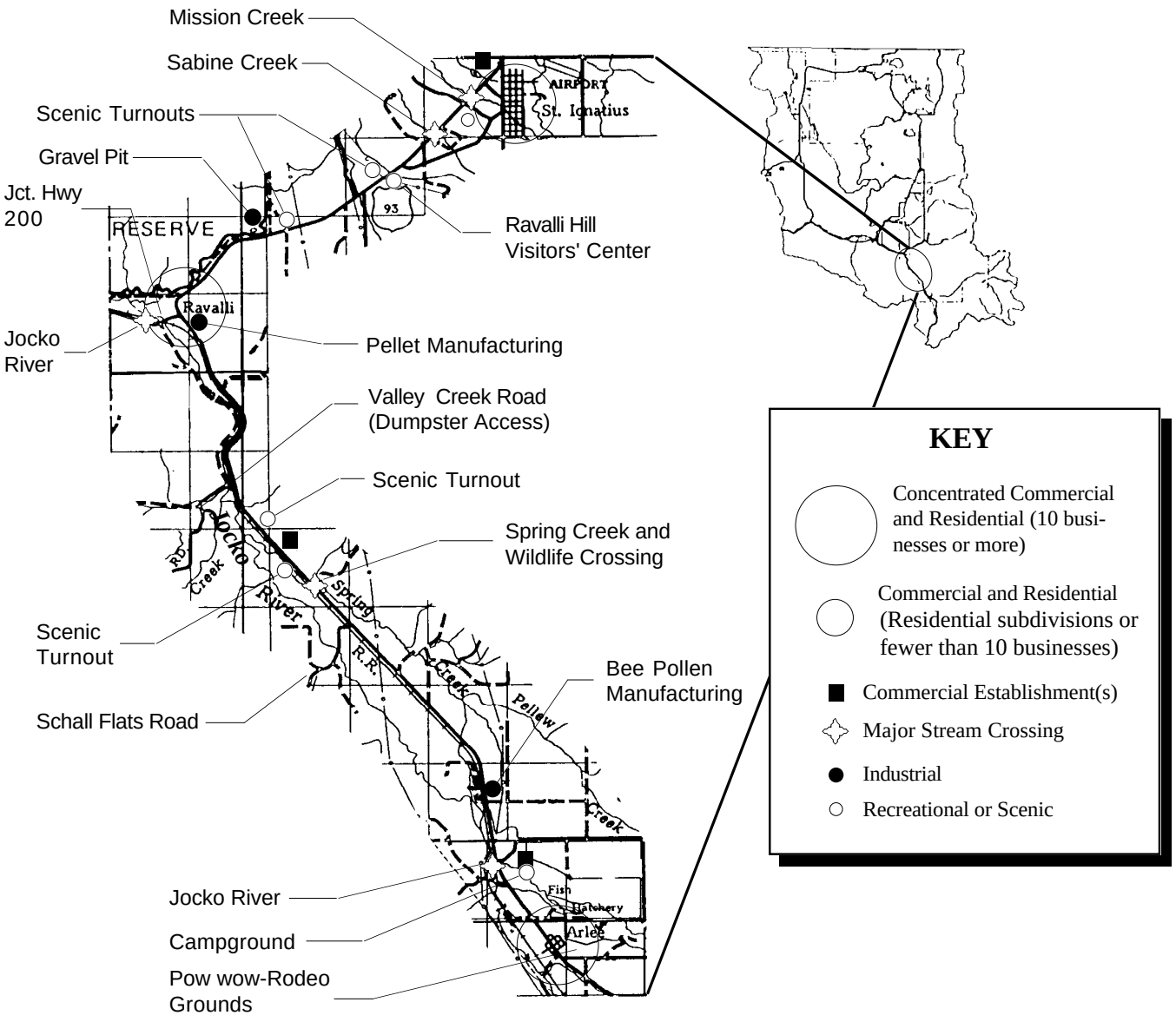


Figure 7.5. Corridor Section 4 - Major features, 1991. Elevation: ranges from 3,178 feet (at Ravalli Hill) to 2,913 feet (at St. Ignatius). Section length: 16.0 miles. Communities: St. Ignatius, Ravalli and Arlee.

Corridor Section 5 - Arlee to Evaro

This section of Highway 93 divides the southernmost part of the Reservation. Because it is closest to the Missoula urban area, it carries a high volume of commuter traffic. Agricultural fields, ranch homes and meadows dominate the upper part of the section. The lower part is timbered and dotted with subdivisions. Near Schley the highway crosses a major wildlife travel corridor linking two major mountain ranges. The railroad, a pipeline and high-voltage transmission lines parallel much of this section.

Areas of Concern: This part of the highway is the most susceptible to unplanned residential development by Missoula commuters. The outdoor arena and commercial area near Finley Creek, as well as unplanned commercial development and poor access management throughout the corridor, pose certain hazards. The wildlife travel corridor at Evaro must be protected. Other areas of concern include billboards, cultural resources next to the highway, the potential contamination of groundwater aquifers in the Arlee area, and stream and canal crossings, especially at Finley and Agency Creeks. These streams provide important fish habitat.

Traffic Volume* (Average Daily Trips in 1990)	All Vehicles	Com-mercial
Missoula Co.-Lake Co. Line:	6020	903
Evaro:	6025	903

Traffic Accidents*	1984	1986	1988	1990
Arlee (Pow Wow Rd.) to South Res. Bound.:	34	23	43	34

*MT Dept. of Transportation, Highways Division, Traffic Operation Section 1991.

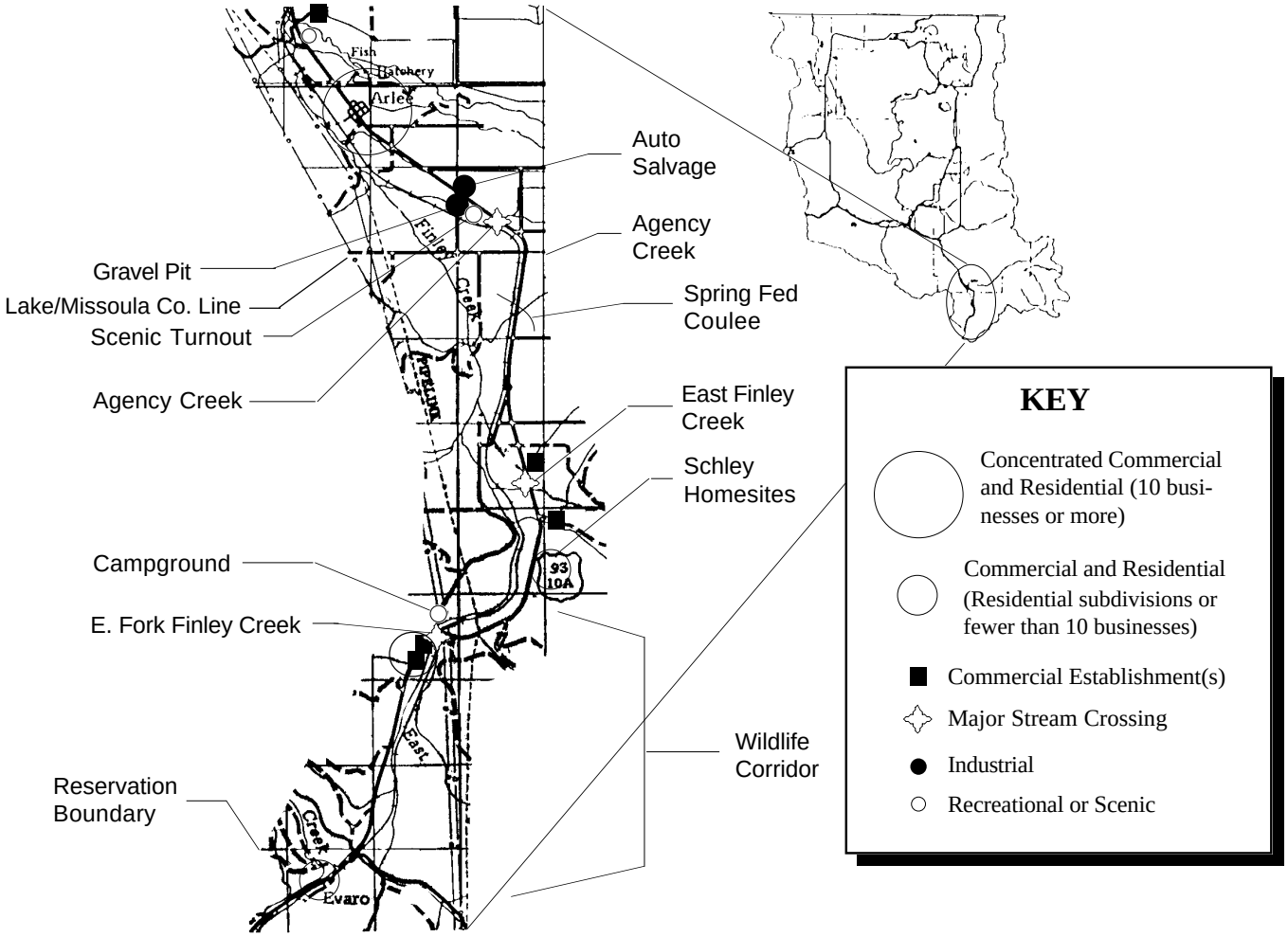


Figure 7.6. Corridor Section 5 - Major features, 1991. Elevation: varies from 3,090 feet (at Arlee) to 3,958 feet (at Evaro, the highest point of the Reservation Transportation Corridor). Section length: 9.5 miles. Communities: Arlee, Schley and Evaro.

ISSUES

Future development along Highway 93 must be planned to facilitate economic growth, to harmonize with the surrounding landscape, to minimize impacts on the culture of the Indian community, and to improve safety. The Tribes' resource managers developed the following list of issues to emphasize these and other concerns about highway expansion and the growth that might accompany it.

- ❑ Safety is a significant problem with Highway 93. The Transportation Department needs to evaluate and resolve hazards at major intersections and other access points for pedestrians as well as vehicles.

- ❑ Livestock crossings occur at several locations along Highway 93. The Transportation Department needs to maintain and in some cases develop underpasses to avoid potential hazards associated with these crossings. It also needs to study design provisions for slow-moving farm vehicles.

- ❑ Two wildlife travel corridors, one at Evaro and one south of Ravalli, connect major mountain ranges. Threatened and endangered species like the grizzly bear and wolf use both of them to move from one part of the Reservation to another. Highway design should protect these and all other wildlife travel corridors.

- ❑ Wetlands, riparian areas, streams, rivers and other wildlife habitats along Highway 93 receive use by many species including grizzly bears, peregrine falcons, and bald eagles. These areas require special protection.

- ❑ In the past, agencies have developed borrow areas (gravel pits or other sources of road materials) along the highway without considering the environmental impacts or site reclamation. This practice must stop.

- ❑ Signs along the highway should be regulated to protect the aesthetics of the Mission and Jocko Valleys.

In addition, the Tribes believe the Transportation Department should consider the following issues in their plans to expand Highway 93:

- ❑ Highway expansion will affect prime farmlands, wetlands, riparian areas, fisheries and other scenic and rural qualities of the Reservation. There will also be cumulative and secondary impacts on these and other resources. It is essential that a reasonable range of alternative designs and mitigation measures be explored and developed.

- ❑ The Transportation Department should emphasis landscaping as a tool during highway construction to protect scenic qualities, reduce highway noise, prevent stream pollution, and provide a buffer between conflicting uses.

- ❑ The Reservation is already experiencing residential development in rural areas and commercial development along the highway. These pressures will increase with the widening and improvement of Highway 93 as will demands on infrastructure and impacts on air, land, water and wildlife.

- ❑ Increased automobile emissions, sanding operations and rural developments associated with the proposed expansion will degrade air and water quality and could affect the Reservation's Class I Air Quality designation.

- ❑ In the past, trucking-related hazardous material spills have endangered human health and safety and damaged the environment. The Transportation Department should consider measures to reduce the threat of hazardous spills.

Tribal elders have also expressed concern about impacts of highway expansion on the Indian community and the Reservation. Not only would the rural character and natural resources of the Reservation be threatened by increasing development pressure, but the cultural environment would be in jeopardy. In June of 1992, the Flathead Culture Committee stated the following:

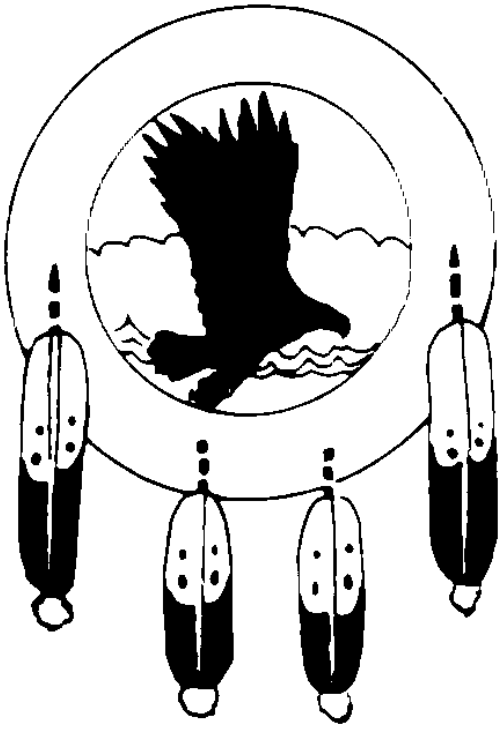
> For our culture to survive, our people must live in a place that continues to hold a powerful sense of tribal identity, of community, of familiarity. The open spaces need to be kept open, the pristine places that nurture our bodies and souls need to be kept pristine, and the preponderance of tribal people in certain areas of the Reservation needs to be protected....
>
> There are countless laws and regulations and agency guidelines on the books committing the US Government to protecting Native American cultural integrity. If the Highway 93 project turns these valleys into an overwhelmingly non-Indian suburbia, we would see that as a serious violation of all of those promises.

The Tribes may raise additional issues as the study of the Highway 93 Transportation Corridor progresses. Other community members and agencies have also expressed concerns about Highway 93. Their issues are being compiled by Morrison-Maierle/CSSA, the consultant hired by the Montana Department of Transportation to write the Environmental Impact Statement for the proposed expansion of the highway.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

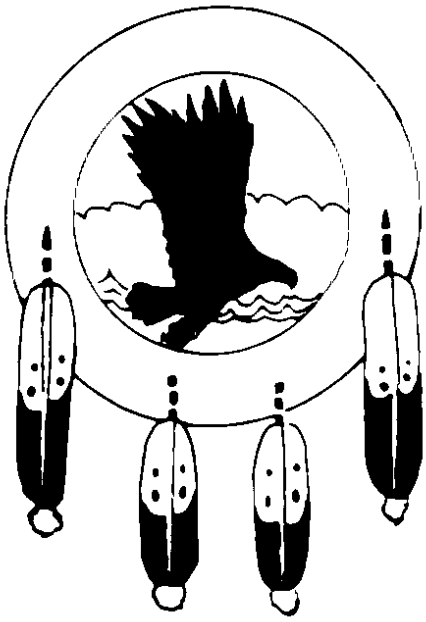
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 8



AIR

GOAL: To maintain the clean, Class I air quality status of the Flathead Reservation



AIR

The Confederated Salish and Kootenai Tribes have the inherent authority to protect the Reservation environment for the benefit of future generations. The Tribes pass this responsibility on to each succeeding generation. A clean and healthful environment contributes to the quality of life of Tribal members, but it also benefits non-Indians who live on the Reservation.

When, in 1977, the federal government established the Clean Air Act Amendments, it granted Indian tribes of the United States the opportunity to reclassify reservation airsheds to protect air quality. On the Flathead Reservation, the Tribal Council created the Tribal Air Quality Program to pursue reclassification. Eventually the Tribes requested a change from a Class II status to Class I, the most stringent classification under federal law. Environmental Protection Agency (EPA) approved the change in 1980.

Since then the Air Quality Program has continued to gather air quality data in Reservation communities, at industrial areas, and near Reservation boundaries. It coordinates its efforts with the EPA to insure that the Reservation meets federal Clean Air Act standards and maintains its Class I status.

This chapter includes information about the existing condition of Reservation air quality, the Tribes' monitoring program, the Tribes' policies, and key air quality issues.

EXISTING CONDITIONS

What is Class I Air Quality?

The Clean Air Act of 1970 directed that National Ambient Air Quality Standards (NAAQSs) be established to protect public health and welfare. The federal government has set NAAQSs for six pollutants: ozone, carbon monoxide, particulate matter, lead, sulfur dioxide and nitrogen dioxide. Because some geographical areas have levels of these pollutants substantially below the NAAQSs, 1977 Amendments introduced requirements for the Prevention of Significant Deterioration (PSD) of the air quality in these areas.

PSD requirements limit increases in ambient pollution and establish a system for the review of major new sources. There are three PSD classes:

Class I: Permits very small increases in existing ambient concentration
Class II: Permits moderate increases
Class III: Allows larger increases, usually for industrial development, although NAAQSs may not be exceeded

Class I areas are generally those in which any deterioration of air quality is significant. Table 8.1 lists Federal Class I Areas in Montana. The EPA has designated the rest of Montana Class II.

Table 8.1. Federal Class I Areas in Montana

Montana Class I Areas
Glacier National Park
Yellowstone National Park
Bob Marshall and Great Bear Wilderness Areas
Anaconda-Pintlar Wilderness Area
Selway-Bitterroot Wilderness Area
Cabinet Mountains Wilderness Area
Scapegoat Wilderness Area
Gates of Mountains Wilderness
Mission Mountains Wilderness Area
Red Rocks Lakes National Wildlife Refuge
Medicine Lake National Wildlife Refuge
U.L. Bend National Wildlife Refuge
Northern Cheyenne Reservation
Fort Peck Indian Reservation
Flathead Indian Reservation

Reservation Air Quality

This section describes the air quality of Reservation study areas[1]. Monitoring sites are shown in figure 8.1. More specific information for Polson and Ronan follows the study area descriptions.

[1] In this discussion, the term *good* means air quality is well within allowable standards. *Marginal* means particulate levels are close to exceeding the standard. These are non-technical terms used here for discussion purposes only.

Lake and River Corridor. Air quality in this area is generally good, although occasional degradation occurs around the lake from dust raised by traffic on logging roads and from slash burning associated with timber sales and cherry orchards. Pesticide spraying at cherry orchards also degrades air quality around the lake. Traffic dust, refuse burning and home heating fuel emissions impact air quality of areas near Polson.

Mission Valley. Air quality in the Mission Valley is marginal for two principal reasons. First, as the Reservation's most populated study area, the Mission Valley is affected by impacts from refuse and home heating fuel burning. Second, the valley has a high number of unpaved roads. Dust from these roads and from winter sanding materials on paved roads creates high levels of airborne particulates. Highway 93, the main

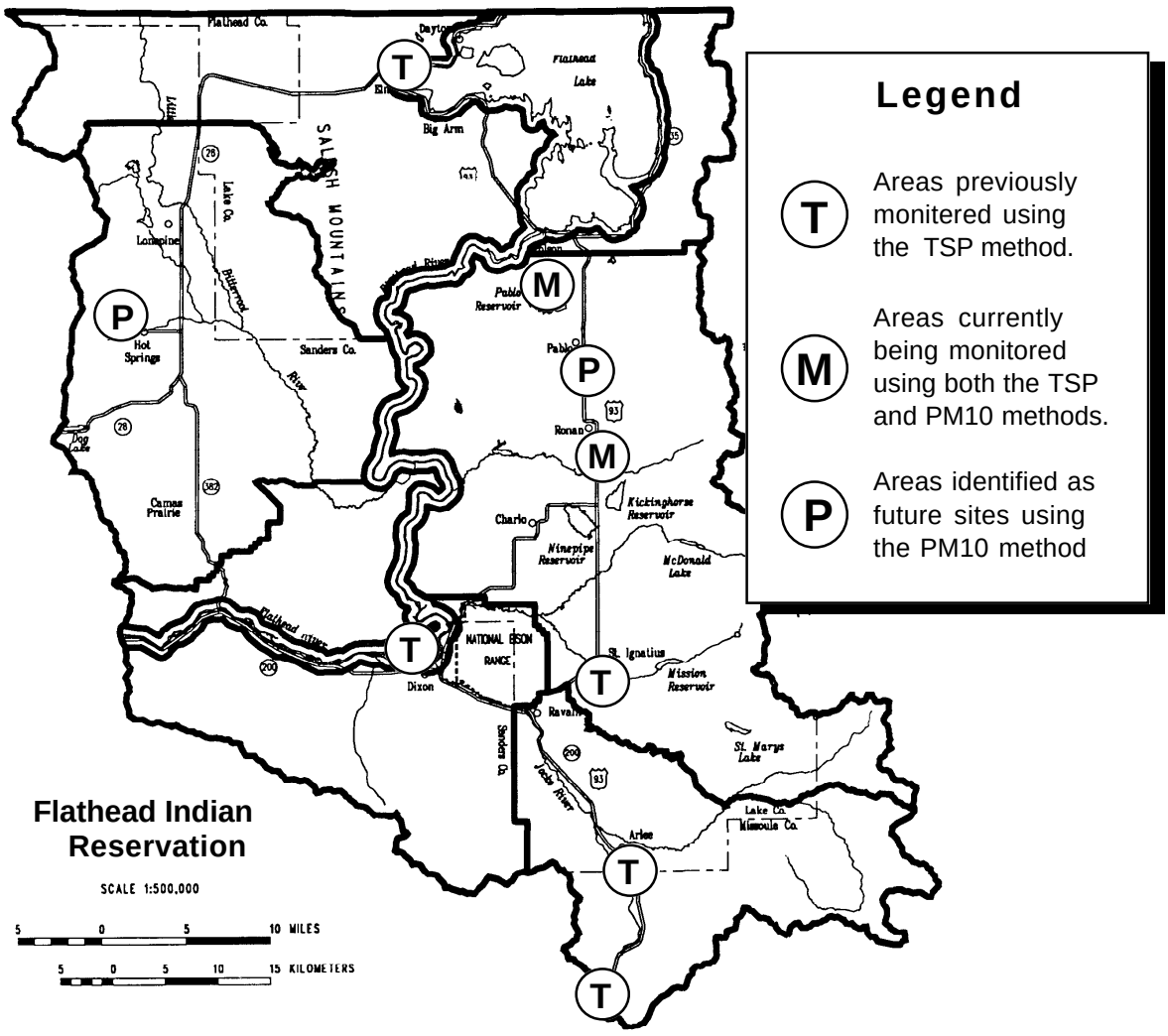


Figure 8.1. Current air quality monitoring sites.

thoroughfare and truck route between Missoula and Kalispell, also contributes to the problem, as do agricultural practices such as tilling, pesticide spraying and burning. Slash burning and other logging activities further diminish the area's air quality.

St. Ignatius exceeded the federal PSD standard for total suspended particulate in 1984, but has met the standard since then.

Data collected between 1981 and 1987 showed that during this period Ronan consistently bordered or exceeded the PSD standards for total suspended particulate (fig. 8.5).

Jocko Valley. Even though this study area is close to Missoula, its air quality is good, apparently because the Jocko Valley is well ventilated. Pollution sources include road dust, smoke from residential wood stoves and slash burning.

Perma/Dixon. Air quality in this study area is also good due to favorable ventilation. Smoke and dust from logging activities are among the only sources of pollution.

Camas/Hot Springs. The Air Quality Program has not monitored the Camas/Hot Springs study area for particulate matter. However, air quality there appears to be good. There are occasional impacts to the airshed from logging activities to the west.

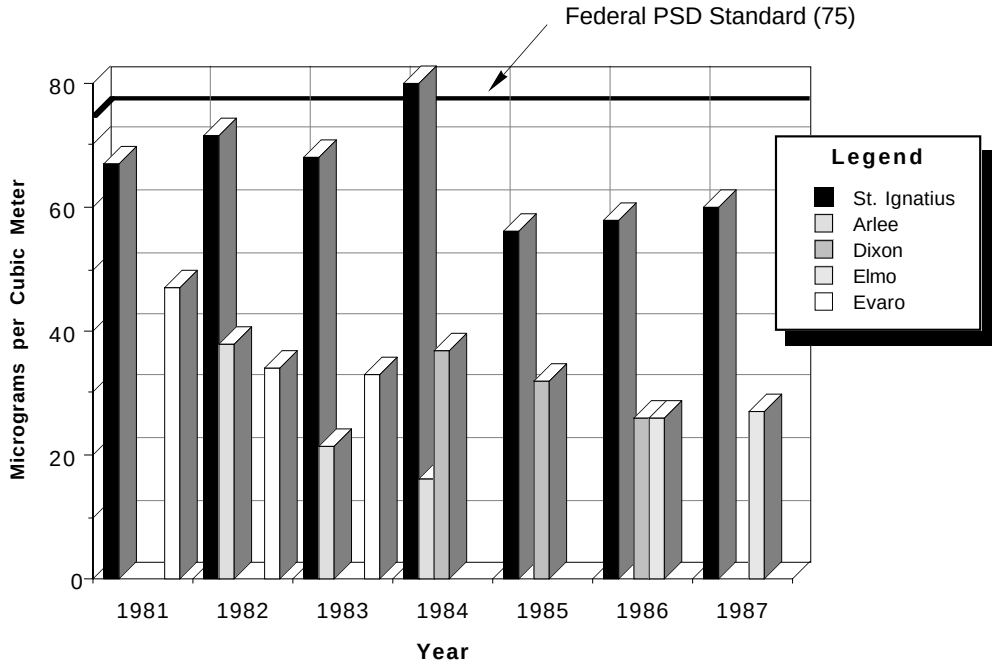


Figure 8.2. Annual geometric means of total suspended particulate (St. Ignatius, Arlee, Dixon, Elmo, and Evaro)

Polson/Elmo. Air quality in this region is marginal and influenced by the Lake County Landfill, heavy traffic and wood burning in the Polson area. Logging activities also affect air quality.

Data collected between 1984 and 1987 showed that during this period Polson consistently bordered or exceeded the PSD standard for total suspended particulate (fig. 8.3).

The Tribal air quality program has ceased monitoring sites at St. Ignatius, Arlee, Dixon, Elmo, and Evaro because particulate levels in these towns are below levels of concern. It continues to monitor Polson and Ronan, however, because EPA categorizes both of these communities as sites with potential health hazards.

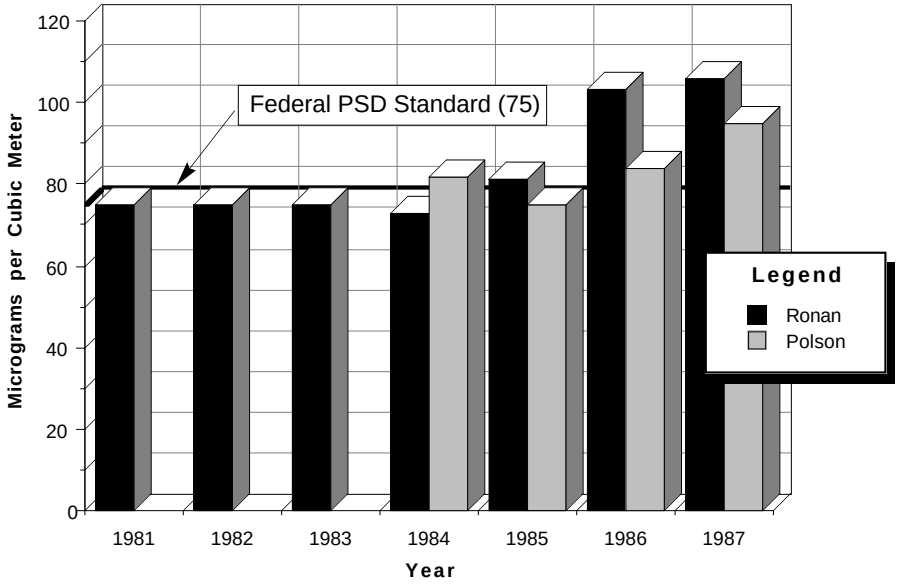


Figure 8.3. Annual geometric means of total suspended particulate (Ronan and Polson)

In 1988 EPA set new air quality standards. The agency also determined Polson and Ronan would exceed these standards without intervention. It classified both communities as Group One sites, Non-Attainment areas, and required air quality monitoring on a 24 hour basis with PM/10 samplers.[2]

EPA is supporting the development of a Tribal Implementation Plan (TIP) to reduce the PM/10 particulate in Ronan and Polson over a five-year period. The plan includes the following objectives:

[2] PM/10 samplers measure the amount of particulate smaller than 10 micrograms in size. These particles are capable of being ingested into human lungs.

- ❑ To develop an emissions inventory of the study area
- ❑ To develop a plan, based on the emissions inventory, that will reduce the particulate levels
- ❑ To develop a cooperative working relationship between the Tribes, the EPA and the communities of Polson and Ronan to enforce the plan
- ❑ To continue to monitor PM/10 levels to show the results of plan implementation

The Tribes are also working to establish PM/10 monitoring sites at Pablo and Hot Springs to develop baseline data for these communities. Testing for other pollutants (lead and sulfur) has shown levels far below national standards.

Meteorological Conditions and Resulting Impacts

During the winter, 90 percent of the Reservation's pollution comes from residential wood stove burning and road dust from street sanding and unpaved roads. Temperature inversions and low wind speeds, which are common in the winter, trap pollutants in the valleys.

During the spring, summer and fall, slash and residential wood stove burning accounts for a minimum of 75 percent of the Reservation's air quality problems (Engineering Science 1988). The remaining 25 percent comes from agricultural burning and dust raised by agricultural activities.

The Reservation can only accommodate new industry if community or sub-regional emissions are within the standard set by the EPA or the Tribes. The only areas that are prohibitive at this time are Ronan and Polson. Current pollution levels even in these areas would allow certain industries. The preferred industrial sites from an air quality perspective are most of the central, western and southern areas of the Reservation.

PROGRAMS AND POLICIES

The mission of the Tribal Air Quality Program has changed over the years. Initially its charge was to establish baseline data on the Reservation's airshed. In 1985, it began to operate under Section 105 of the Clean Air Act. Under this act, its chief responsibility was to establish of a Reservation-wide program for the prevention and control of air pollution and for the implementation of National Ambient Air Quality Standards. Today, its functions include the following:

- ❑ The operation of meteorological stations and the PM/10 monitoring network
- ❑ To conduct public education on air quality
- ❑ To monitor weather conditions in order to regulate open controlled burning in cooperation with Montana Air Quality Bureau and Tribal Forestry

- ❑ To review environmental assessments and site and construction plans for various types of development on the Reservation
- ❑ To monitor lumber mills, large boilers and factories for excessive stack emissions

The Indian Health Service (IHS) and the Tribes' Division of Lands have been monitoring some Tribal housing and government offices for radon levels. Work is ongoing.

ISSUES

The air quality issues confronting the Tribes are many and varied in scope. They include the following:

- ❑ The continuous monitoring of pollutant-emitting industry
- ❑ The degradation of the airshed from open burning, slash burning and residential wood stove burning, especially during periods of inversion
- ❑ The paving of roadways and highway approaches to reduce airborne dust
- ❑ The enactment and enforcement of regulations governing all aspects of compliance
- ❑ The quantity, quality and timing of road sanding or alternative de-icing methods, and clean up
- ❑ The continued monitoring and mitigation of radon levels on the Reservation

Tribal elders expressed the following concerns:

- ❑ The need for monitoring and regulation
- ❑ Avoiding industrial emissions
- ❑ Educational programs on the quality and proper use of wood stoves

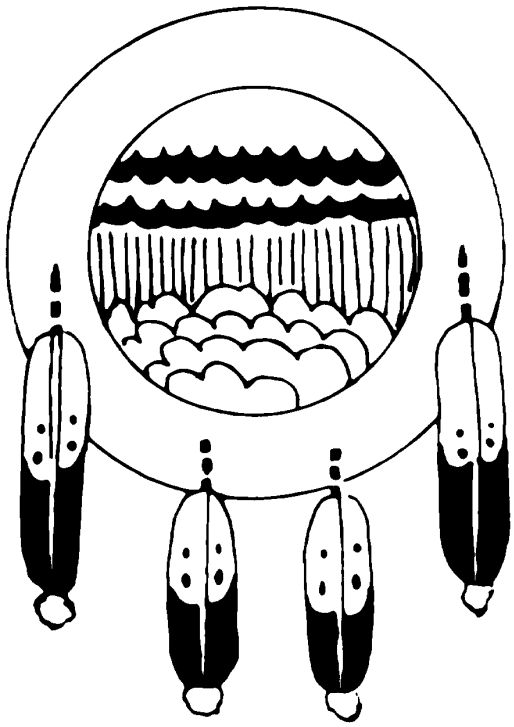
Other agencies and community members expressed additional concerns about:

- ❑ Winter road sanding
- ❑ Stove emission controls
- ❑ Pulp mill odors from Missoula
- ❑ Pollutants affecting the Reservation that originate off the Reservation (such as acid rain from a proposed Canadian coal-fired power plant)
- ❑ Current impacts from acid rain
- ❑ The sharing of educational resources and research materials
- ❑ Increasing the awareness of management practices which could reduce dust

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

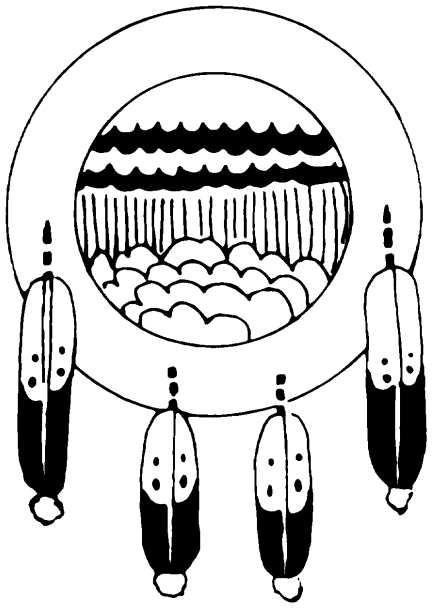
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 9



WATER

GOAL: To protect and enhance the quality and quantity of Reservation water resources



WATER

The water resources of the Flathead Indian Reservation are extensive. They include three rivers; the largest natural freshwater lake in the western United States; many high mountain lakes; three small alpine glaciers; hundreds of streams, potholes and wetlands; and substantial volumes of groundwater, including geothermal reserves.

The Reservation's streams and lakes remained relatively undisturbed until the Flathead Allotment Act of 1904. This act eventually led to the construction of an extensive network of irrigation canals and impoundments that altered the natural flows of many streams. The network now includes approximately twelve hundred miles of canals and seventeen reservoirs operated by the Bureau of Indian Affairs (Bureau of Reclamation and Bureau of Indian Affairs 1985). In addition, several hundred private ditches and many roads, highways and culvert crossings have altered the natural drainage system. Several public water supply systems, three hydroelectric generating plants and thousands of wells, some of which are artesian, have also been developed on the Reservation.

These diversions, impoundments and facilities have changed the timing, magnitude and distribution of surface and groundwater in the valleys. In some areas, diversions cross watershed divides.

Land uses have also substantially altered the entire hydrologic system of the Reservation, including wetlands and riparian areas. Agricultural producers graze and farm most of the lower valleys and mountain foothills. Cattle and sheep also graze some of the higher valleys and mountains. Much of the timbered country has been logged. Fluctuating water levels caused by the operations of Kerr Dam impact the Lower Flathead River system.

The following chapter describes water on the Reservation and the programs, policies, and issues related to its management.

EXISTING CONDITIONS

Precipitation

Precipitation occurs as both snow and rain. Rainfall peaks in June and averages between 2 and 2.5 inches. Snowpack accumulation peaks near mid-May. In general, total precipitation is lower on the west side of the Reservation. In the Little Bitterroot drainage, the annual mean ranges from 11 inches on the valley floor to above 30 inches on the mountain ridges. In the Mission and Jocko valleys, the annual mean precipitation is from 14 to 16 inches on the valley floor and increases to as much as 100 inches on the top of the Mission Range.

Surface Water

Late spring and early summer snowmelt from mountainous areas controls the runoff pattern for Reservation streams. Typically during spring runoff, streamflows increase dramatically and periodically cause flooding. As snowmelt diminishes, streamflows recede to their low-flow levels. The cycle is shown in figure 9.1, a hydrograph of Mission Creek upstream from Mission Reservoir.

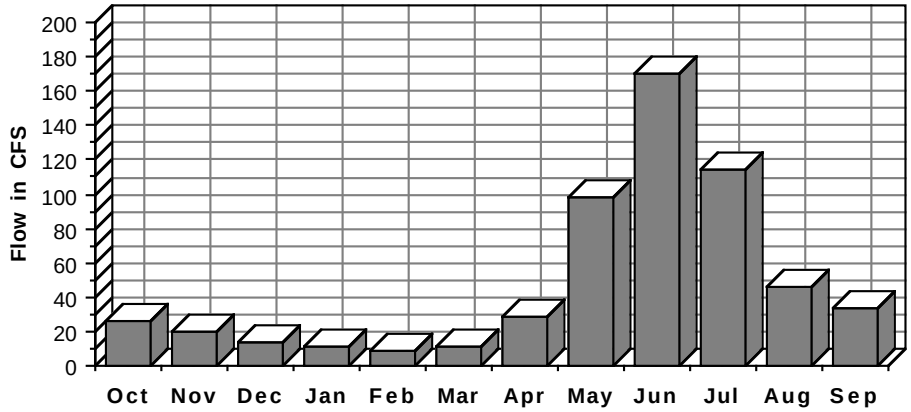


Figure 9.1. Monthly mean discharge in cubic feet per second for Mission Creek above Mission Reservoir (1983-1992)

Aside from the Flathead and Little Bitterroot rivers, all tributaries flowing on the Reservation arise in headwaters located on Tribal land (fig. 9.2). These tributaries all flow into the Flathead River which flows off of the Reservation downstream from Perma. Together these tributaries comprise the lower one fifth of the Flathead River watershed, a basin known internationally for its abundant and clean water.

The largest and most prominent surface water features are the south half of Flathead Lake and the Lower Flathead River, which leaves the lake at Polson. Other major watersheds include

Mission and Crow creeks which drain the Mission Valley and the Jocko and Little Bitterroot rivers which drain their respective valleys.

Other large watersheds include Camas Creek, White Earth Creek and streams that flow directly into Flathead Lake or the Lower Flathead River.

Wetlands and Riparian Areas

Water at or just beneath the earth's surface often creates what are called wetlands and riparian areas. Wetlands are areas inundated or saturated by surface or groundwater long enough to support plants adapted to living in saturated soils. These areas provide habitat for a large variety of insects, fish, shorebirds, waterfowl, and water-dependent mammals. Riparian areas, the green zones which often border wetlands, lakes, streams, irrigation canals, reservoirs, potholes, springs, and bogs, are the single most productive type of wildlife habitat found on the Reservation. They are vital for maintaining water quality, water quantity, bank stability, and fish habitat and are utilized extensively for cattle grazing and by recreationists. Riparian areas also shelter many cultural sites, especially along the shorelines of lakes and rivers.

The Reservation has an abundance of both wetlands and riparian areas. It contains roughly twenty-two thousand acres of wetlands and holds another 75,840 acres of lakes and four thousand miles of streams and rivers. Most of the lakes, streams and rivers are bordered by riparian plant communities. Together, these habitats support most of the Reservation's fish and wildlife, and consequently are of enormous value to the Tribes.

Groundwater

Most wells on the Reservation draw water from valley-fill aquifers (aquifers formed in valley sediments). To the west, artesian wells draw from confined gravel aquifers, often overlaid by at least 100 feet of impermeable silt. Yields from these wells can exceed 500 gallons per minute. In the Mission and Jocko Valleys, most wells draw from unconfined valley-fill aquifers. Yields of these wells range from less than one to greater than 1,000 gallons per minute. Average yields are in the 10 to 25 gallon per minute range. In the Mission Valley, aquifer recharge occurs along the front of the Mission Range and discharge occurs along the Flathead River near Dixon. This pattern of groundwater flow, where water flows in the direction of the valley trend, is true for most Reservation valleys (Slagle 1988).

Water Quality and Use

Waters entering the Reservation and streams arising in the high country on the Reservation are generally of good to excellent quality. The quality decreases, however, as human activities in the valleys pollute streams, lakes and aquifers. A summary of these activities and the impacts they have on water quality follows:

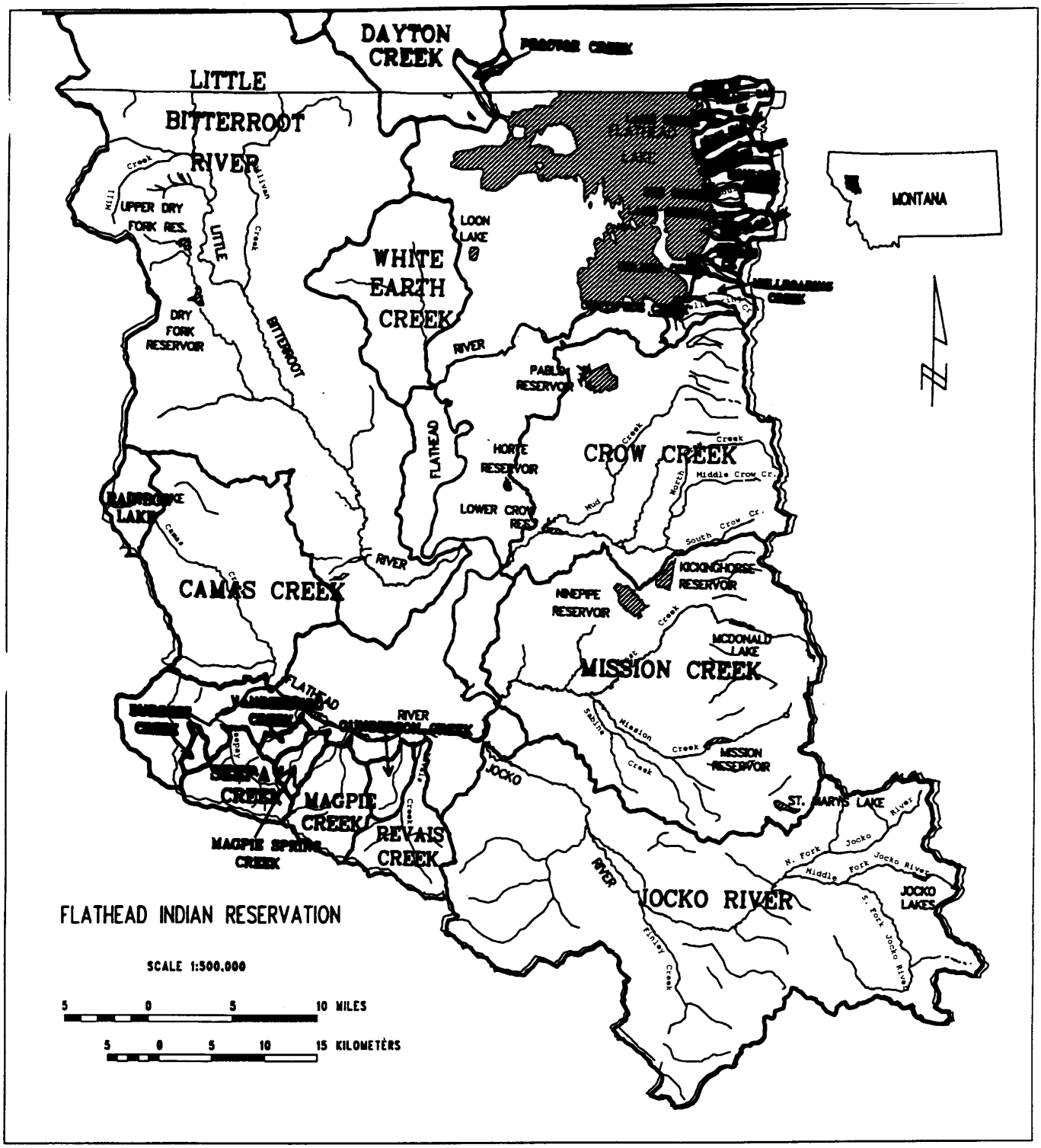


Figure 9.2. Major streams, lakes and basins

Cultural. The cultural traditions of the Tribes developed in a relatively pristine, natural environment. Besides being fundamental to the health of individual Tribal members, clean water is essential to the Tribes' hunting and fishing traditions and many Tribal religious ceremonies.

Municipal and Other Development Uses. There are three municipal water systems that use surface water to supplement groundwater sources:

- ❑ Polson draws from Hellroaring Creek,
- ❑ Ronan draws from Middle Crow Creek, and
- ❑ The City of Hot Springs previously drew from Hot Springs Creek.

Other community systems—such as in St. Ignatius, Charlo, Dixon and Arlee—pump water from aquifers, as do most individual homes and businesses. The Salish and Kootenai Housing Authority operates several community water systems built by the Indian Health Service.

Proper sewage and solid waste disposal, fuel and chemical storage, and construction practices are essential for maintaining both groundwater and surface water quality. The Tribal Housing Authority maintains several community sewage systems on the Reservation. These systems are described in Chapter 21.

Fish, Wildlife and Recreation. Native fish species such as cutthroat, bull trout, and mountain whitefish depend on clean water, adequate instream flows, and high quality stream and lake habitats. Most of the amphibians, reptiles, birds, and mammals indigenous to the Reservation also require clean water and the food and cover that borders streams, ponds and lakes. Larger mammals like grizzly bears use riparian zones as feeding areas and travel corridors.

Water-based recreational activities abound on the Reservation. Boating, rafting, water skiing, fishing, and swimming are some of the most popular. Clean water is essential for most of these activities.

Agriculture and the Irrigation System. While most of the land located within the upper reaches of Reservation watersheds is Tribally owned, privately owned farms and ranches downstream compete for a large share of the available water resource. The federal government has developed an extensive irrigation system and agricultural producers have created many private diversions in the valleys. This system, operated by the Flathead Agency Irrigation Division (FAID) of the Bureau of Indian Affairs (BIA), serves approximately 127,000 acres in the Mission, Jocko and Little Bitterroot Valleys (BOR and BIA 1985). (fig. 9.5)

Water diversions for irrigation historically left many streams without enough water to support aquatic life, changed natural water courses, and adversely altered vegetative

growth and fish and wildlife habitats. In response to legal action taken by the Tribes in 1985, the BIA implemented interim minimum instream flows for some creeks and rivers, and minimum pool levels for irrigation reservoirs. The Tribes fought for these actions to prevent further habitat degradation and to provide basic protection of fisheries resources.

The physical condition of irrigation structures is another problem related to the irrigation system. The Department of Interior, Bureau of Reclamation's Dam Safety Program (1991) ranked ten Flathead Reservation dams in the top 150 dams nationwide with the greatest hazards. Program Seed Reports from 1982 to 1989 documented the following conditions that could result in dam failure (Bureau of Reclamation, Division of Dam Safety 1982, 1984-1986, 1988,1989):

- ❑ Many of the reservoirs have spillways that cannot pass a large flood, potentially resulting in flood waters overtopping dams, thereby weakening dam structure.
- ❑ Several dams have extensive seepage through their earthen fill that has resulted in piping (formation of a pipe-like hole through the dam), again weakening the structure.
- ❑ Earthquakes could cause some dams to "liquefy." A quake could shake compacted fill making it behave as a liquid rather than a solid.

In addition to these problems, many irrigation system canals are losing large amounts of water from seepage. Leaks occur through the porous soils from which the canals were built, through the holes of burrowing rodents, and from vegetation growing in and along the banks of the canals. These conditions, aggravated by livestock grazing the banks, have resulted in the deterioration and collapse of some canal reaches.

Overgrazing on canal and stream banks also affects water quality. The loss of vegetation leads to bank instability, erosion and sediment entering the water way. Irrigation return flows and run-off from range and croplands carry sediment, nutrients and pesticides back to streams. In 1992, the Tribes completed a water quality assessment report for the Reservation. The report documents water quality degradation in the downstream reaches of most streams. It recommended that a comprehensive monitoring program be implemented to address the impacts from pollutants (CSKT Natural Resources Department, Water Quality Program 1992). A monitoring program was initiated in the fall of 1992.

Hydroelectric Power. Kerr Dam is a large-scale hydropower facility located just below Flathead Lake on the Lower Flathead River. Water level fluctuations resulting from its operation have adversely affected natural processes of the river, processes vital to fish, aquatic insects and some wildlife species (Cross and DosSantos 1988).

There are two small-scale power plants on Hellroaring and Boulder Creeks in the Mission Mountains. These small systems also alter the natural hydrologic flow of these streams.

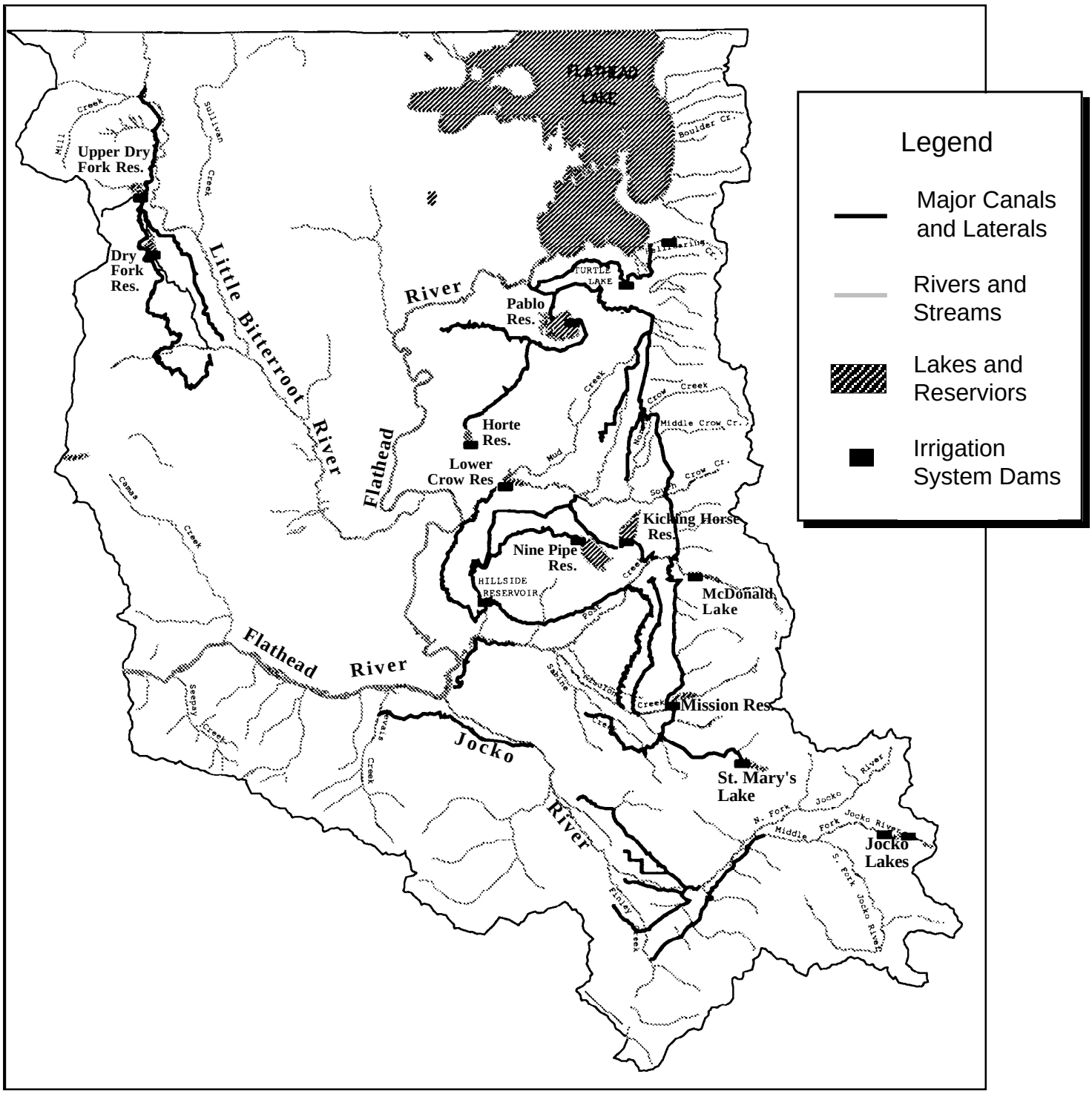


Figure 9.3. Major irrigation canals and structures

Mining. Mining wastes can contaminate surface water and groundwater. Some of the tailings and dumps from the Flathead Mine, northwest of the Reservation, are located in the Sullivan Creek drainage which enters the Reservation. The Tribes' 1992 Water Quality Assessment Report states that "sulfate plumes originating in Sullivan Creek can be tracked several miles into the confined, Sullivan Flats aquifer." Mine tailings and wastes also occur in the Revais Creek drainage on the Reservation. These are the result of copper, gold and silver mining that took place there from 1910 to 1949 (Marxen and Singer 1988). The Revais Creek tailings have shown no adverse effects on surface water quality (USGS 1993 and CSKT Water Quality Program unpublished data 1994).

Forestry. Poor forest road location and timber harvest practices change stream flow patterns, alter water temperatures and increase levels of nutrients and sediment. Foresters can limit water quality degradation by utilizing a variety of techniques often referred to as Best Management Practices (BMPs). Tribal and BIA forestry programs are striving to achieve full implementation of BMPs on the Reservation.

Maintenance and improvement of water quality on the Reservation is necessary to protect the public health and welfare, to protect fish and wildlife, to encourage economic activity that depends on a high quality of life, and to pass on to future generations a clean and healthful environment.

PROGRAMS AND POLICIES

The hydrology of the Flathead Reservation has been described in many reports based on data collected principally by the United States Geological Survey (USGS), the Montana Bureau of Mines and Geology and the University of Montana. In January of 1982, the Tribal Council established the Tribal Water Resources Program to quantify the volume of water arising on and flowing through the Flathead Reservation. Tribal hydrologists and technicians planned and established a network of non-recording gaging stations on the Reservation. The USGS also installed eleven continuous-recording stations; ten are in operation. These are in addition to one USGS recorder that has operated below Kerr Dam since 1907. The USGS publishes data from the stations in the annual Water Resources Data reports for Montana. In 1991 and 1993, the Tribes installed seventy additional continuous-recording stations on the Reservation.

In the summer of 1983, the Water Resources Program initiated a study in cooperation with the USGS to evaluate the groundwater resources of the Flathead Reservation. Researchers recorded and coded well inventory data into the USGS computer storage system. Scientists from the Montana Bureau of Mines and Geology analyzed water samples. The USGS published inventory data in a report titled *Geohydrology of the Flathead Indian Reservation, Northwestern Montana* (Slagle 1988).

In conjunction with the groundwater inventory, the Water Resources Program established a network of approximately 70 observation wells. It continues to monitor these quarterly.

The following Tribal programs evaluate and monitor the Reservation's water resources:

Water Management. The Tribal Water Management Program is responsible for a network of surface and groundwater monitoring stations. Under a Memorandum of Agreement with the Soil Conservation Service, the Tribes also monitor Reservation snowcourses (These include three manual measurement sites and four SNOTEL sites. SNOTEL sites measure total precipitation, snow water content and air temperature on a continual basis and transmit this information by radio signal.)

The Water Management Program has also been providing hydrologic information to FAID for management of the irrigation system.

Water Administration. The Water Administration Program monitors the water permitting and planning activities of the State of Montana.

Safety of Dams. Due to the hazard potential of the existing FAID reservoir dams, the BIA contracted with the Confederated Salish and Kootenai Tribes in 1989 to conduct a Safety of Dams Program on the Reservation. This agreement, authorized under Public Law 93-638, is designed to correct deficiencies that threaten the integrity of the dams. Following data collection and analysis, the program will, over a ten-to-fifteen-year period, complete final design and field construction. The Tribes have contracted with the Bureau of Reclamation to assist in the design and construction phase of the program.

As a safety precaution, Safety of Dams has installed early warning systems at 10 dams to monitor and transmit information used to predict dam failure. The agency has mapped the areas susceptible to flooding if any of the dams fail and is developing emergency preparedness plans.

Water Quality. Tribal programmatic involvement regarding water quality began in 1983 with the adoption of the Shoreline Protection Ordinance, #64A (Revised) and its corresponding regulations. This grew out of the Tribes' concern about the environmental problems caused by unrestricted construction activities in and along the waters of the Reservation. In 1987, the Tribes enacted the Aquatic Lands Conservation Ordinance (ALCO), #87A, to insure the protection of all aquatic lands, including wetlands.

In 1989, the Tribes applied for treatment as a state ("TAS") under Section 106 of the Clean Water Act. The Environmental Protection Agency (EPA) approved the request and granted funding for development of a Tribal Water Quality Program. The Tribes completed Phase I of the program in 1990. This involved gathering, computerizing and evaluating all water quality data pertaining to the Reservation. In 1990, the Tribes enacted Water Quality Management Ordinance, No. 89B, to provide a framework for

establishing comprehensive plans and regulations for the protection and improvement of Reservation water quality. Two additional "TAS" applications were made in 1990 and 1992 for other Clean Water Act Programs. In 1995, the EPA approved the Tribes' application for "TAS" for setting water quality standards. The 1990 application, under Section 404, is still pending.

The Tribes have since initiated Phase II of the program. It involves the classification of Reservation waters and establishment of water quality standards. Following notice and comment from the public, water quality standards were adopted in April of 1995.

Shoreline Protection. The Tribal Council established the Shoreline Protection Office and Shoreline Protection Board in 1983. The seven-member board (composed of Tribal members and non-members) now approves or disapproves all construction projects that fall under Ordinances 64A and 87A.

The Shoreline Protection Office conducts the technical and administrative steps necessary to study, evaluate and recommend a project to the board.

Salish and Kootenai Housing Authority. The community Housing Services Department of the Salish and Kootenai Housing Authority is responsible for the installation and maintenance of housing-related water and sewer systems on the Reservation. They work closely with the federal Indian Health Service which designs systems to federal standards.

In addition to these programs, the BIA manages the Reservation's irrigation network.

The Tribes have passed several ordinances to insure protection of the water resource. These include but are not limited to those listed in the following table.

Tribal Policies
Ordinance 37A - Operation and Maintenance of Federally Financed Sanitation Facilities
Ordinance 48A (Revised) - Regulations for Subsurface Sewage Disposal
Ordinance 64A (Revised) - Shoreline Protection Ordinance
Ordinance 76A - Tribal Water Planning Ordinance
Ordinance 79A - Mission Mountains Tribal Wilderness Guidelines and Policies
Ordinance 87A - Aquatic Lands Conservation Ordinance
Ordinance 89B - Water Quality Management Ordinance
Lower Flathead River Corridor Management Plan

ISSUES

There are many issues related to wise water management on the Flathead Reservation. Tribal resource managers include among these:

- ❑ Water quality impacts from fertilizers, nutrients, increased sediment loads, pesticides, heavy metals, and petroleum products; these include impacts from all sources of point and non-point pollution affecting both surface and groundwater
- ❑ The cumulative effects of water pollutants
- ❑ Hazardous materials spills
- ❑ Protection of wetlands and other riparian areas
- ❑ Safety of dams affecting the Reservation
- ❑ Small-scale hydroelectric development
- ❑ Flathead Agency Irrigation Division management impacts on fish, wildlife, and water quality and quantity
- ❑ Impacts on the quantity of surface and groundwater
- ❑ Wise management of all waters in the aboriginal territories of the Salish and Kootenai peoples
- ❑ Potential acid rain effects from the surrounding region
- ❑ Water rights

The Tribal elders expressed concerns about:

- ❑ Land use impacts on water quality
- ❑ Artificial water level fluctuations created by FAID and Kerr Dam
- ❑ Lack of access to Flathead Lake and local streams
- ❑ Maintenance of high level of water quality and quantity for cultural and religious uses

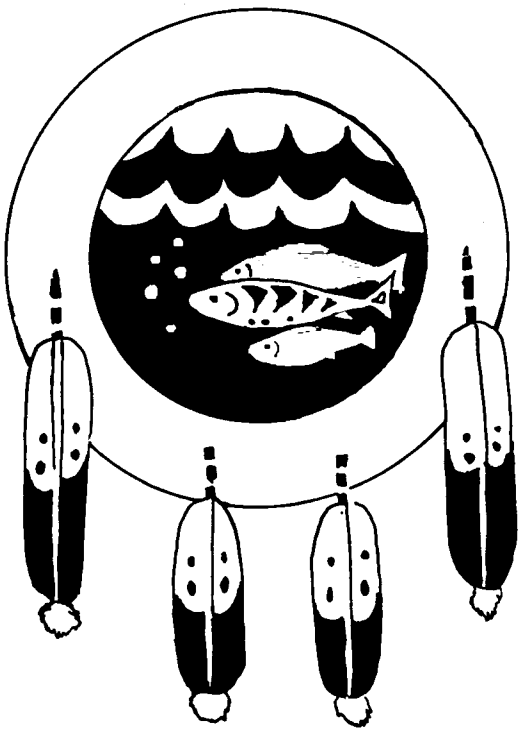
Additional concerns raised by other agencies and community members include:

- ❑ Maintenance or improvement of water quality
- ❑ No additional dam development
- ❑ “Wild and scenic river” designations
- ❑ Use water conservatively; place shutoff valves on all flowing wells
- ❑ Investigate feasible opportunities for cooperative working relationships

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

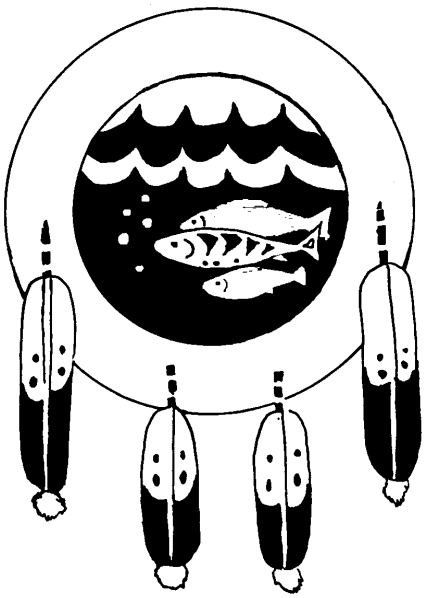
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 10



FISHERIES

GOAL: To foster and maintain wild, self-sustaining fish populations to meet cultural, subsistence and recreational needs.



FISHERIES

For thousands of years, the Tribes have fished rivers, streams and lakes on both sides of the northern Continental Divide. Today, fishing, both on and off the Reservation, remains an important cultural, subsistence and recreational activity for Tribal members. The Reservation also provides an important fishery for many non-Tribal members.

The Reservation encompasses a variety of habitats that support a diversity of fish. However, hydroelectric power development, irrigation diversions, forestry, and other land uses have damaged the ability of many of the streams and lakes to support fish. The following chapter discusses these impacts and describes the fisheries resource, its management and some of the key issues that concern the Tribes.

EXISTING CONDITIONS

Fish Populations

There are more than 70 high mountain lakes on the Reservation. These clear, cold and relatively pristine waters are ideal for trout. Many have self-sustaining populations of cutthroat and rainbow trout. Others, that lack adequate spawning habitat, are stocked. Three irrigation reservoirs at the base of the Mission Mountains support hatchery stocked trout and remnant populations of bull trout.

The south half of Flathead Lake is an important fishery. It has populations of lake, bull and cutthroat trout, lake whitefish, kokanee salmon and yellow perch. Many of the irrigation reservoirs in the valleys support populations of largemouth bass, northern pike, yellow perch and several trout species.

The Reservation has over 500 miles of streams that support fish. The Lower Flathead River, which runs from Kerr Dam to the Reservation boundary, holds northern pike, largemouth bass, mountain whitefish, and cutthroat, bull, rainbow, and brown trout.

The Jocko and Little Bitterroot Rivers and Post, Mission and Crow Creeks are important

tributaries to the Lower Flathead. They support many of the same species found in the main river and provide critical spawning sites for the river's trout species.

Degradation

Development activities have severely degraded much of the Tribal fisheries resource. The construction of water diversions for the Flathead Indian Irrigation Project blocked spawning runs of native bull and westslope cutthroat trout (figs. 10.1 and 10.2). These species are now almost nonexistent over much of their original range.

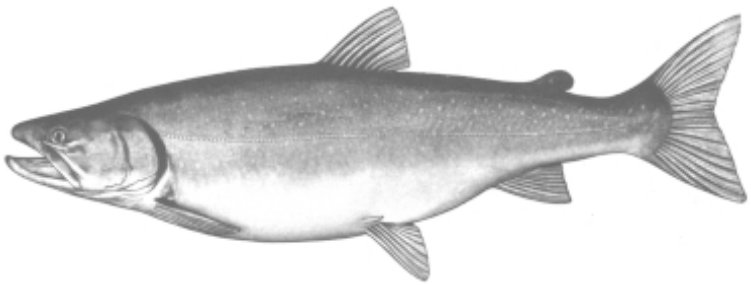


Figure 10.1. Bull trout

Water diversion structures directly influence fish production in natural streams by diverting fish into canals and onto fields. Sediment-laden irrigation return water degrades spawning gravel, buries eggs and substantially reduces the potential for successful reproduction.

Unscreened diversion structures and irrigation return waters adversely affect every major stream, including the Lower Flathead River. The lower 50 miles of the Little Bitterroot River are seasonally dewatered by diversions.

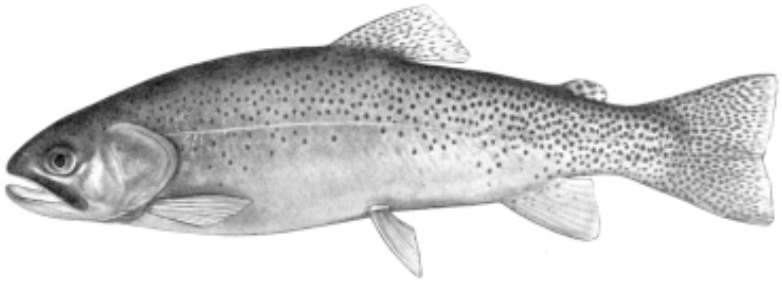


Figure 10.2 Westslope cutthroat trout

Agencies and individuals have introduced non-native species such as northern pike, brown, rainbow and brook trout, and kokanee salmon into native bull and westslope cutthroat trout habitat. Rainbow trout have degraded the gene pool of westslope cutthroat trout to the point where only a few pure strain populations exist.

Research has shown that Kerr Dam, constructed in the 1930s, has contributed to the significant reduction of trout populations and the degradation of aquatic habitat in the Lower Flathead River. Frequent and varied discharges by the dam have dewatered spawning sites, reduced the survival of fish eggs and fry, and eliminated shallow aquatic insect production zones. This has resulted in reduced stocks of trout. The dam has also hurt the ability of northern pike to spawn in the River, and it has been a factor in the elimination of shoreline-spawning kokanee salmon populations (Cross and DosSantos 1988; Beattie, Clancey and Zubick 1988).

Stream Management Classes

Managers have grouped streams on the Reservation into four classes (DosSantos 1993). The criteria used for the classification and the streams included in each are listed below:

Class I : Streams of ecological significance because of the presence of genetically pure bull or westslope cutthroat trout, or other aquatic organisms of known ecological significance. These include the following:

1. Yellow Bay Creek
2. Big Knife Creek
3. Ashley Creek
4. Seepay Creek
5. Post Creek (upper)
6. Mission Creek (upper)
7. Ashley Creek (South)
5. Tepee Creek
9. Camas Creek (upper)
10. Hot Springs Creek (upper)
11. Dry Lake Creek
12. Jocko River (North, Middle and South Forks)
13. Finley Creek (East Fork)
14. Centipede Creek
15. Magpie Creek (upper)
16. Cottonwood Creek
17. Revais Creek (upper)
18. Cold Creek

Class II : Streams with:

- ❑ High subsistence or recreational fisheries potential.
- ❑ High water quality.
- ❑ High potential for conflicting uses (e.g., hydroelectric development, livestock, irrigation, riparian use).
- ❑ Important spawning tributary for a larger stream.

The following are Class II streams:

1. Lower Flathead River
2. Jocko River (main stem)
3. Mission Creek
4. Post Creek
5. Crow Creek (main stem)
6. North Crow Creek
7. Middle Crow Creek
8. South Crow Creek
9. Ronan Spring Creek
10. Jocko Spring Creek
11. Finley Creek

Class III: Streams with**:**

- ❑ Moderate subsistence or recreational fisheries potential.
- ❑ High to moderate water quality.
- ❑ Moderate conflicting use.
- ❑ Important resident fish spawning habitat.

Class III streams include the following:

1. Valley Creek
2. Revais Creek
3. Magpie Creek
4. Mill Creek
5. Hellroaring Creek
6. Sabine Creek
7. Dayton Creek
8. Marsh Creek
9. Mud Creek
10. Little Bitterroot River: (above Camas 'Al' canal)
11. Mollman Creek
12. Eagle Pass Creek
13. Mikes Creek

Class IV: Streams with:

- ❑ Low subsistence or recreational fisheries potential and fish species diversity.
- ❑ Moderate to poor water quality.
- ❑ Ephemeral streams or segments thereof.

These include the following:

1. Little Bitterroot River: (below Camas 'Al' canal)
2. Camas Creek
3. Hot Springs Creek
4. Sullivan Creek
5. Bassoo Creek
6. Lost Creek
7. Valentine Creek
8. Power Creek
9. Ashley Creek (North)
10. Courville Creek
11. Rock Creek
12. Poison Oak Creek
13. Dry Creek

Flathead Lake falls into a class of its own because of its unique size and species composition. Unlisted streams will be classified as data become available. Figure 10.3 shows the locations of fish screens and ladders; Figure 10.4 shows critical populations and spawning area protection zones.

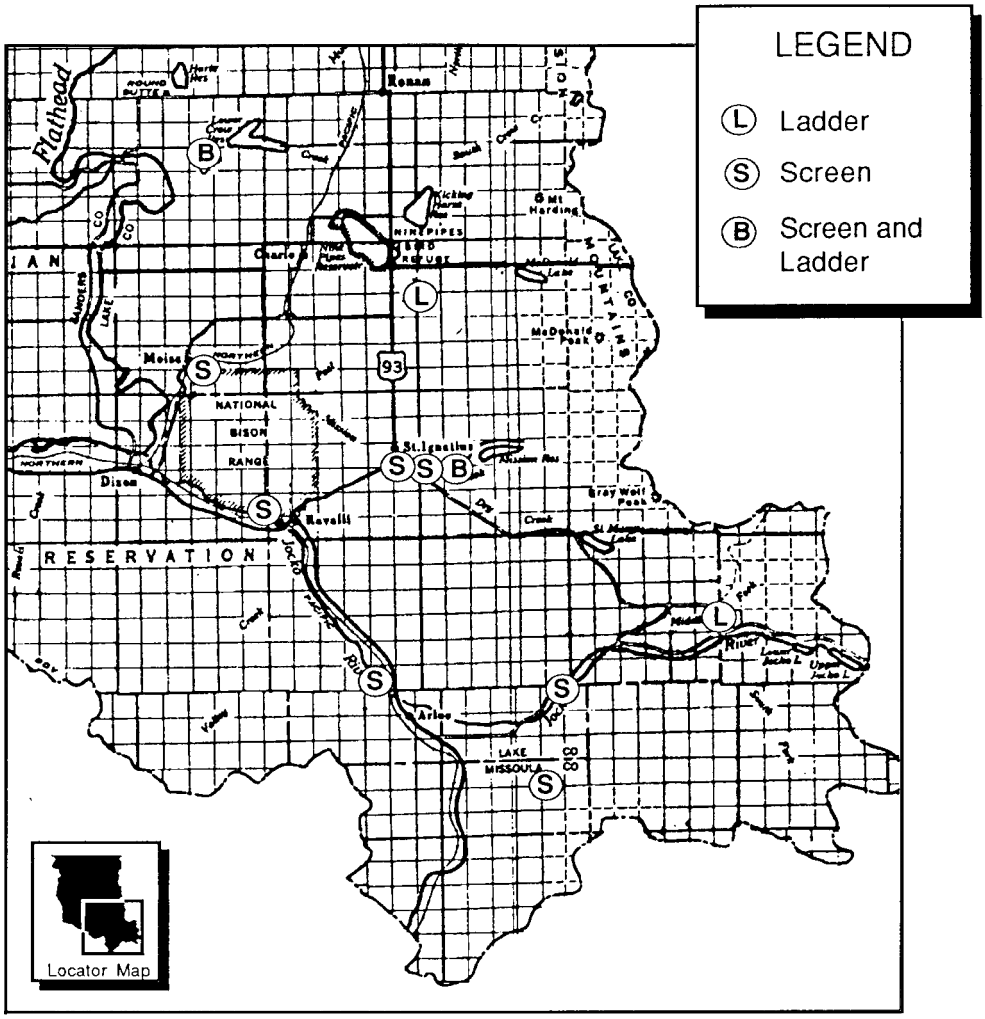
Harvest

The Tribes and the State of Montana have developed joint fishing regulations and revise them annually.

Most of the fishing pressure occurs on Flathead Lake. A lake-wide survey estimated that during the summer of 1985, the lake received 53,895 angler days[1] of use, making it one of the top three fishing lakes in the state (Hanzel 1986). Flathead Lake visitors provide nearly eight million dollars annually to the local economy (Duffield et al.).

The 1985 survey showed that kokanee salmon represented over 95 percent of all the fish

[1] The number of angler days equals the number of fishermen multiplied by the number of days they fished.



caught from the lake. In 1988, however, Flathead Lake kokanee populations collapsed and anglers turned their attention to other species. The number of tagged lake trout caught and reported, for example, has tripled since the kokanee decline (table 10.1).

The Tribes and the Montana Department of Fish, Wildlife and Parks have jointly developed a five-year management plan to cooperatively manage the fish in the lake and its major tributaries (Vashro et al. 1989). The plan seeks to:

- ❑ Preserve, protect, and enhance populations of native fish species living in the drainage. Species of special concern such as bull trout and westslope cutthroat trout shall receive top priority for protection activities.

- ❑ Maintain a diverse recreational fishery in the Flathead system. The fishery will provide a variety of opportunities for fishing during all seasons of the year, for a variety of species and sizes with trophy, sport, and harvest-oriented fishing available to the angler.

- ❑ Maintain or enhance existing water quality and aquatic habitat.

Table 10.1. Angler Creel Data for Lake Trout from Flathead Lake

Year	Number of Tagged Fish Reported	Average Length (inches)	Average Weight (pounds)
1960	65	27.7	10.2
1970	9	29.4	9.3
1981	51	31.4	13.7
1985	58	27.4	10.4
1986	155	31.3	13.8
1987	235	30.6	12.5

Source: Upper Flathead System Fisheries Management Plan 1989-1994

PROGRAMS AND POLICIES

With the exception of Flathead Lake and its inter-connected tributary system, which is co-managed by the Tribes and the Montana Department of Fish, Wildlife and Parks, Reservation fisheries are managed by the Tribal Fisheries Program.

History

During the 1930s, the Tribes realized that Flathead Irrigation Project diversion structures were dumping fish into canals and onto fields. The Tribes responded by petitioning the Secretary of the Interior to buy fish screens. This was perhaps one of the first fish conservation initiatives on the Reservation.

From the 1930s to the mid-1970s management consisted primarily of fish planting conducted by the US Fish and Wildlife Service and the State of Montana. The BIA first attempted to evaluate the Reservation fisheries in the 1970s. In 1982, the Tribes contracted with the Bonneville Power Administration for a comprehensive study to evaluate the effects of hydropower operations on Flathead Lake and the Lower Flathead River System.

In 1985, the Tribes began funding the Tribal Fisheries Program to protect and manage the

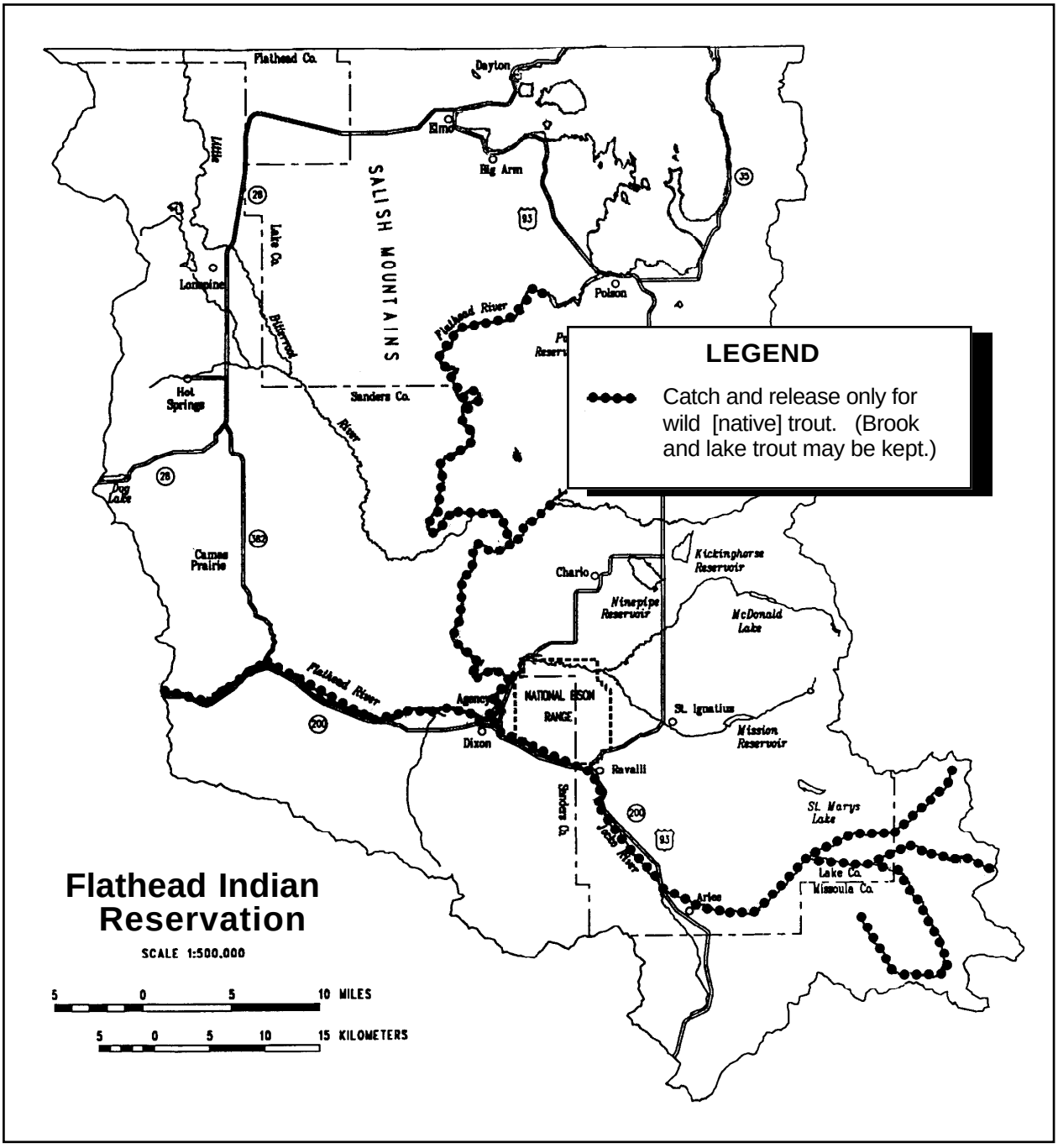


Figure 10.4. Critical populations and spawning area protection zones.

fisheries resource[2]. That year, the Tribes filed suit against the BIA to prevent them from dewatering Reservation streams for irrigation. Because of that and several subsequent lawsuits, the Tribes now have instream flow water rights for fish with a priority date of time immemorial. The BIA maintains interim instream flows in all streams affected by their irrigation diversions. They developed these flows with the technical assistance of the Tribal Fisheries Program.

[2] The Tribes established the program through Tribal Resolution 85-192.

In 1987 the Tribes adopted Ordinance 44D, the hunting, fishing and conservation ordinance, to regulate both Tribal and non-Tribal fishing, hunting and recreational activities on the Reservation. The Tribes developed fishing regulations to fit the needs of specific species and/or water bodies while being sensitive to Treaty-protected fishing rights.

In 1987, the Tribal Council also adopted the Fisheries Management Plan of the Flathead Indian Reservation. This was updated in 1993.

The US Fish and Wildlife Service provided technical assistance and hatchery fish to the Reservation until 1989. In that year the Tribes contracted the technical assistance money from the federal government, through the BIA. The Fish and Wildlife Service continues to supply Reservation waters with hatchery fish raised at the Creston National Fish Hatchery. The fish are planted under Tribal direction. Congress appropriates money for hatchery supplementation on Indian Reservations on an annual basis.

Current Tribal Fisheries Program research activities include angler use surveys, baseline data acquisition and monitoring the activities of fish populations and their habitats. Planning activities include hydropower mitigation planning, co-management activities with the State of Montana and Reservation-specific planning. Plans and policies developed in the recent years include those listed in the following table.

Recent Plans and Policies

Tribal Fisheries Policy (Resolution No. 85-192), 1985
Crow Creek Settlement and Fisheries Rehabilitation Plan, 1986
Tribal Hunting and Fishing Conservation Ordinance 44D, 1986
Tribal Fisheries Management Plan, 1987 and 1993
Fish Rescue Policy, 1988 (Tribes work with Flathead Agency Irrigation Division to relocate fish stranded in dewatered canals.)
Upper Flathead System Fisheries Management Plan, 1989-1994
Kerr Dam Mitigation Plan, 1990
Hungry Horse Dam Mitigation Plan, 1991
Lower Flathead River Corridor Management Plan, 1993

The Tribes have fisheries management authority both on and off the Reservation. Through the Upper Flathead System Fisheries Management Plan, the Tribes and the State of Montana set fishing regulations for Flathead Lake and the upper river system. In 1990, the Tribes and the State negotiated a joint agreement for cooperative fish and bird management on the Reservation. This agreement created a simplified single-licensing system and a coordinated system for regulation and enforcement.

Eleven federally trained wardens, most of whom are cross-deputized with the state, work for the Tribal Fish and Wildlife Conservation Program. These officers enforce Ordinance 44D and the joint Tribal-State gamebird and fisheries regulations. They also enforce federal wildlife conservation laws within and off the Reservation.

ISSUES

Resource managers must deal with issues that affect management direction and strategies:

- ❑ Development of appropriate fishing regulations concerning species management
- ❑ Conservation and protection of native species
- ❑ Development of appropriate instream flows
- ❑ Fish screen and ladder construction
- ❑ Development of appropriate minimum pool levels for irrigation reservoirs; accurate capacity curves
- ❑ Mitigation for the impacts of Kerr and Hungry Horse Dams
- ❑ Lack of public access to Reservation waters
- ❑ Water quality protection and preservation

Tribal elders have concerns that include:

- ❑ Improve the overall quality of habitat for fish, particularly as it relates to subsistence needs and consequent human health effects
- ❑ Develop fishing access points on valley streams, especially for Elders' use in teaching cultural ways to children

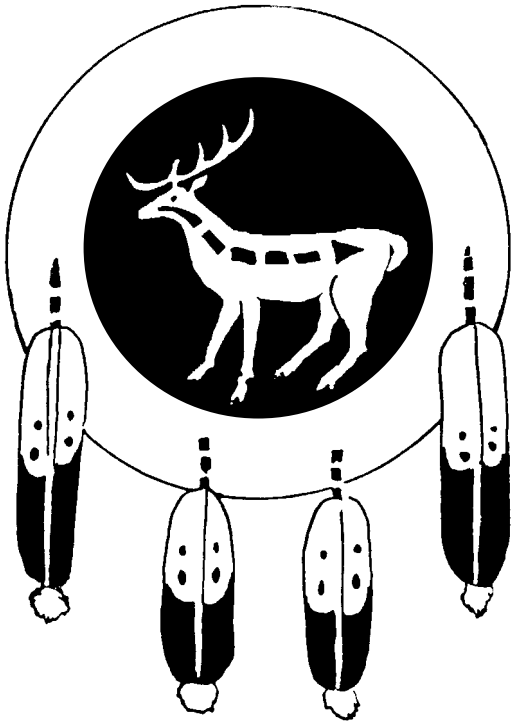
Additional concerns raised by other agencies and individuals include:

- ❑ Balance water use between irrigators and fisheries
- ❑ Attempt to restore the salmon fishery in Flathead Lake
- ❑ Disallow the introduction of any additional exotic fish species
- ❑ Attempt to optimize development of the fisheries resources, through guide services, a commercial processing plant, and a Tribal fish hatchery
- ❑ Continue to preserve natural areas for native species
- ❑ Maintain high fisheries standards
- ❑ Work cooperatively to study and clean up irrigation return flows

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

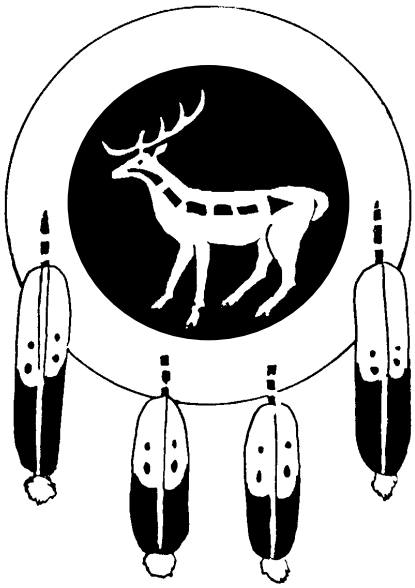
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 11



WILDLIFE

GOAL: To manage wildlife resources and habitats for viable populations of all wildlife species.



WILDLIFE

The Flathead Reservation is unique for the diversity of wildlife habitat that it encompasses, from alpine meadows in the Mission Mountains to dry prairies in the western valleys. There are moist, cool forests similar to those of the west coast, and sunny ponderosa pine forests characteristic of the Rocky Mountains. Wetlands and riparian zones, streams, lakes, wilderness, and developed agricultural land comprise a diversity that supports a tremendous variety of wildlife.

Studies indicate that at least 308 species of birds and 67 species of mammals live here either as year-round residents, seasonal migrants or transients (Ratti 1990). In addition, there are nine amphibians and nine reptiles.

Wildlife has always been an immensely important part of the lives and traditions of the Salish and Kootenai Tribes. Historically both Tribes relied heavily on game and fur-bearing animals. The introduction of the horse facilitated the hunting of buffalo on the plains east of the Rocky Mountains. As the bison disappeared in the late 1800s, local wildlife populations became the most important sources of meat and raw materials.

The federal government opened large areas of the Reservation to non-Indian ownership in the early 1900s. This brought major changes in the quantity and quality of wildlife habitat. Non-Indian settlers converted grasslands and forests to range and croplands. The changes resulted in the local eradication of some species, and the decline of others. Animals more adapted to agricultural environments increased in number. Non-Indians introduced exotic species, primarily upland gamebirds. Some of these flourished.

Today, land subdivision and development continues to diminish wildlife habitats, as does logging, agriculture, grazing and the increased use of pesticides and herbicides. Arresting this degradation and managing wildlife for the long-term benefit of Tribal members is one of the Tribes' highest priorities.

EXISTING CONDITIONS

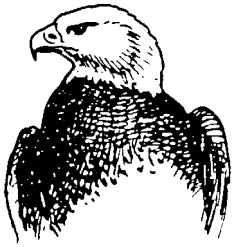
Population data is derived from wildlife research, including studies on grizzly bears conducted in the late 1970s and early 1980s.

Research on Canada goose, bald eagle, osprey, and aquatic furbearer populations done in the 1980s provides baseline data for these species. Data on waterfowl and pheasant populations is collected annually by the Tribes, the US Fish and Wildlife Service and the Montana Department of Fish, Wildlife and Parks. Additional population inventories of big game, furbearers, nongame birds and mammals, reptiles and amphibians are currently underway. The following section classifies the wildlife into seven categories and summarizes the data available for each.

Threatened and Endangered Species

The Federal Endangered Species Act of 1973 established two categories of protected species. An endangered species is in danger of extinction throughout most or all of its range. A threatened species is likely to become endangered within the near future.

Grizzly Bear. The federal government lists the grizzly bear as a threatened species in Montana. On the Reservation, grizzlies occur primarily in the Mission Mountains Tribal Wilderness and adjacent areas, although there have been occasional observations in the southern parts of the Reservation. The most recent population estimate of 25 grizzly bears is based on research conducted by Christopher Servheen in the late 1970s. Present population levels may be somewhat lower.



Bald Eagle. The federal government lists the bald eagle as a threatened species in Montana. Fourteen breeding territories occur within the Reservation. Migrant and over-wintering bald eagles may number as high as 70 birds during peak periods.

Northern Gray Wolf. The northern gray wolf is listed as endangered in Montana. It once occupied the Reservation, but it was eliminated during the early days of settlement. People occasionally report seeing wolves on the Reservation, and wolves have denned near the south boundary. They may eventually repopulate areas of the Reservation.

Peregrine Falcon. The peregrine falcon is listed as an endangered species in Montana. Although no verified breeding records exist for it on the Reservation, the species probably inhabited portions of the Mission Mountains and possibly the Flathead River. Peregrines are observed as occasional migrants during fall and spring, and have been seen during the summer as recently as 1990. In 1992 the Tribes began reintroduction efforts on the Reservation.

Big Game

The taking of big game on the Flathead Reservation is an exclusive right of the Confederated Salish and Kootenai Tribes, guaranteed by the 1855 Treaty of Hellgate and subsequent court interpretations.

Elk. Elk use forest habitats throughout the Reservation. Calving occurs in moist, dense stands of timber. In the summer they use a mosaic of cover types and high elevation wet meadow areas. In the winter, they move into lower elevation dense forest stands near open shrub and bunchgrass ranges.

Moose. Moose occur in forests and certain wetlands and forested riparian zones on the Reservation. Harvest of this species is allowed on a permit basis only.

Mule Deer. Mule deer live in forested areas and river breaks. Key habitats include forests and open west and south-facing shrub and grass-covered slopes.

White-tailed Deer. White-tailed deer live primarily at lower to middle elevations in forests and riparian areas.

Mountain Goat. Mountain goats occupy cliff and subalpine habitats at the south end of the Mission Mountains. They also occur in parts of the Jocko Primitive Area.

Pronghorn Antelope. There are only small numbers of antelope on the Reservation. They occur in sage and grassland habitats in the Ferry Basin area. The Tribes introduced these populations in 1988 and are evaluating the feasibility of supplementing them in the future. Harvest of this species is currently closed.

Bighorn Sheep. Bighorn sheep populations occur in the southwestern corner of the Reservation. They occupy open ponderosa pine and bunch grass habitats near rock outcroppings. The Tribes are evaluating the potential for relocating sheep from this herd into other areas of the Reservation. Harvest is allowed on a permit basis only.

Black Bear. Black bears are common in timbered habitats throughout the Reservation.

Mountain Lion. Mountain lions occupy deer and elk ranges on the Reservation. Harvest of this species is currently restricted.

Upland Gamebirds

Ring-necked Pheasant. This introduced species is abundant in the valleys wherever there is a mosaic of croplands and grasslands.

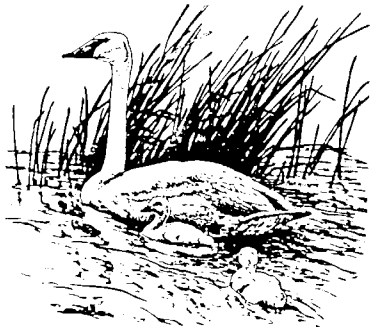
Gray Partridge. Gray or Hungarian partridge live in grassland areas and habitats similar to those used by ring-necked pheasants.

Wild Turkeys. There are only a small number of wild turkeys on the Reservation, and their distribution is limited. They prefer low elevation ponderosa pine forests. Existing stocks developed from birds released in the Kalispell area, regional game farms and local releases.

Grouse. There are three species of mountain grouse on the Reservation: blue, spruce and ruffed. Blue grouse use higher elevation open areas within coniferous forests. Spruce grouse prefer spruce forests and pine habitats, and ruffed grouse live in mixed or deciduous stands. Viable populations of Columbian sharp-tailed grouse apparently no longer exist on the Reservation.

Waterfowl

Geese. Canada geese nest on Flathead Lake, the Lower Flathead River, and in wetlands and reservoirs throughout the Reservation. Their population levels are increasing due largely to habitat management and the placement of nesting structures. White-fronted, snow and Ross geese occur as migrants.



Swans. Two swans, the trumpeter and the whistling swan, migrate through the Reservation. Neither nest locally, although trumpeters may have nested on the south end of Flathead Lake in the past.

Ducks. Twenty-six species of ducks inhabit the Reservation. Of these, dabbling ducks such as mallards, teal, shovellers, pintails, widgeons, and gadwalls are the most common. Diving ducks like the redhead, canvasback, goldeneye, and bufflehead are also common, but occur more seasonally.

Sensitive Species

Sensitive species are those for which current viability is a concern, as evidenced by significant current or predicted downward trends in their population status or habitat quality. All the species listed under the Federal Threatened and Endangered Species Act are considered sensitive, as are those identified below. The Tribal Wildlife Management Program continually evaluates sensitive species determinations as part of its planning efforts.

Mammals. Pending further study, Tribal regulations prohibit the taking of river otters, wolverine, lynx, fishers and bobcat.

Birds. The Migratory Bird Treaty Act protects nearly all species of resident birds. The Tribal Wildlife Management Program places special emphasis on the species listed below because of documented or suspected population declines.

Bald Eagle
Barred Owl
Falcon
Pileated Woodpecker
Clay-colored Sparrow
Merlin
Cooper's Hawk
Northern Saw-whet Owl
Great Gray Owl
Harlequin Duck
Bobolink
Long-eared Owl
Prairie Falcon
Northern Goshawk
Golden Eagle
Northern Pygmy Owl
Olive-sided Flycatcher
Peregrine
Long-billed Curlew
Brewer's Sparrow
Burrowing Owl
Upland Sandpiper
Sharp-tailed Grouse

Amphibians and Reptiles. The Tribal Wildlife Management Program considers the tailed frog and the Van Dyke's salamander sensitive species. Populations of amphibians and reptiles are currently being evaluated by the Tribal Wildlife Management Program.

The Tribal Wildlife Management Program is assessing the status of wildlife on the Reservation and will develop a list of proposed sensitive species for the Tribal Council to consider. The Council will then set the management direction to conserve sensitive species.

Furbearers

Sixteen species of furbearers inhabit the Reservation:

Badger
Beaver
Bobcat
Coyote
Fisher
Long-tailed Weasel
Lynx
Marten
Mink
Muskrat
Northern Gray Wolf
Raccoon
Red Fox
River Otter
Short-tailed Weasel
Wolverine

The Tribal Wildlife Management Program is conducting ongoing inventories of river otters, wolverines, lynx, fishers, bobcats and northern gray wolves.

Nongame

Nongame wildlife includes all species not classified as game or harvested through hunting or trapping. The Reservation supports a variety of nongame species.

Current global and regional concerns regarding declines in neotropical migrant bird populations (including several species of songbirds and raptors) have increased concern for nongame birds on the Reservation. Similar declines of many amphibian species are currently being documented.

PROGRAMS AND POLICIES

The Hellgate Treaty guaranteed the Tribes' rights to hunt and fish on the Reservation and at other "usual and accustomed places." Tribal activity in the field of technical wildlife management dates back to the 1930s. Activities since then have included transplants of elk, pronghorn antelope and bighorn sheep; the acquisition or establishment of protected areas for elk, grizzly bears and bighorn sheep (fig. 11.1); harvest closures on pronghorn antelope, bighorn sheep, grizzly bears and several furbearing species; the periodic closures of forest roads; and the establishment of hunting regulations and an enforcement program for both Tribal members and non-members.

In 1978, the Tribal Council created the Tribal Wildlife Program, and hired a wildlife biologist to conduct population studies and provide input into timber sale planning. The Tribes assigned that employee to work for the BIA Flathead Agency.

In 1979, the BIA created its own wildlife program. That program included grizzly bear, bald eagle and big game management, and protection of treaty hunting rights on ceded lands. During this period, the Tribes and the BIA adopted the Flathead Indian Reservation Grizzly Bear Management Plan, the Montana Bald Eagle Management Plan, and established the Mission Mountains Tribal Wilderness. In 1988, the Tribes contracted management responsibilities from the BIA and created the Tribal Wildlife Management Program. It operates under the authority of the Natural Resources Department and its activities include:

- ❑ Planning mitigation for Kerr, Hungry Horse and Libby Dams
- ❑ Monitoring wildlife within Tribal Wildlife Management Units
- ❑ Development of a Tribal Wildlife Management Plan
- ❑ Promulgation of Tribal wildlife regulations on an annual basis to regulate harvest of game animals and furbearers
- ❑ Participation in interdisciplinary environmental reviews of pending Tribal, BIA and other projects (e.g., timber sales)
- ❑ Working with other agencies to coordinate wildlife research and habitat management goals, and to insure consideration of treaty rights in its management activities

- ❑ Establishment of working relationships with academic institutions and environmental interest groups to facilitate research on selected wildlife species and topics of special concern to the Wildlife Program
- ❑ Public relations and education

Two other agencies and one private organization have wildlife management responsibilities for areas on the Reservation. The US Fish and Wildlife Service manages the National Bison Range and Pablo and Ninepipe national wildlife refuges. Congress established the National Bison Range in 1908 to maintain and enhance one of the last viable populations of bison in the US. The area provides a parklike setting for bison, elk, deer, antelope, bighorn sheep and mountain goats. While Ninepipe and Pablo Reservoirs are managed first for irrigation purposes, the establishment of national wildlife refuges on Tribal lands in and around these reservoirs has preserved breeding and wintering habitat for migratory waterfowl and other wildlife. Acquisition of wildlife management and waterfowl production areas near Ninepipe Wildlife Refuge by the Montana Department of Fish, Wildlife and Parks and Fish and Wildlife Service has provided additional habitat for upland gamebirds, waterfowl and many other species. The Fish and Wildlife Service, in cooperation with the Tribes and the state, conduct periodic surveys of breeding and wintering waterfowl on the Reservation and adjacent lands.

The Nature Conservancy, a private, non-profit conservation organization, owns and manages the Safe Harbor Marsh Nature Preserve north of Polson. The Montana Department of Fish, Wildlife and Parks manages Wild Horse Island State Park and other wildlife management areas owned by the state.

The Fish and Wildlife Service enforces federal wildlife conservation laws within the Bison Range, Pablo and Ninepipe wildlife refuges, and on federal Waterfowl Management Areas. Federally trained state game wardens, cross-deputized with the Tribes, enforce federal laws as well as the joint Tribal/State gamebird and fisheries regulations that apply to non-members. Only Tribal members can legally hunt big game and trap on the Reservation.

Eleven federally trained wardens, most of whom are cross-deputized with the state, work for the Tribal Fish and Wildlife Conservation Program. These officers enforce Ordinance 44D and the joint Tribal-State gamebird and fisheries regulations. They also enforce federal wildlife conservation laws within and off the Reservation.

ISSUES

Tribal resource managers identified the following wildlife management issues:

- ❑ Habitat loss, degradation and fragmentation and illegal harvests may be reducing the population levels of some species
- ❑ Differences in Tribal and State wildlife regulations create confusion for wildlife resource managers and the public

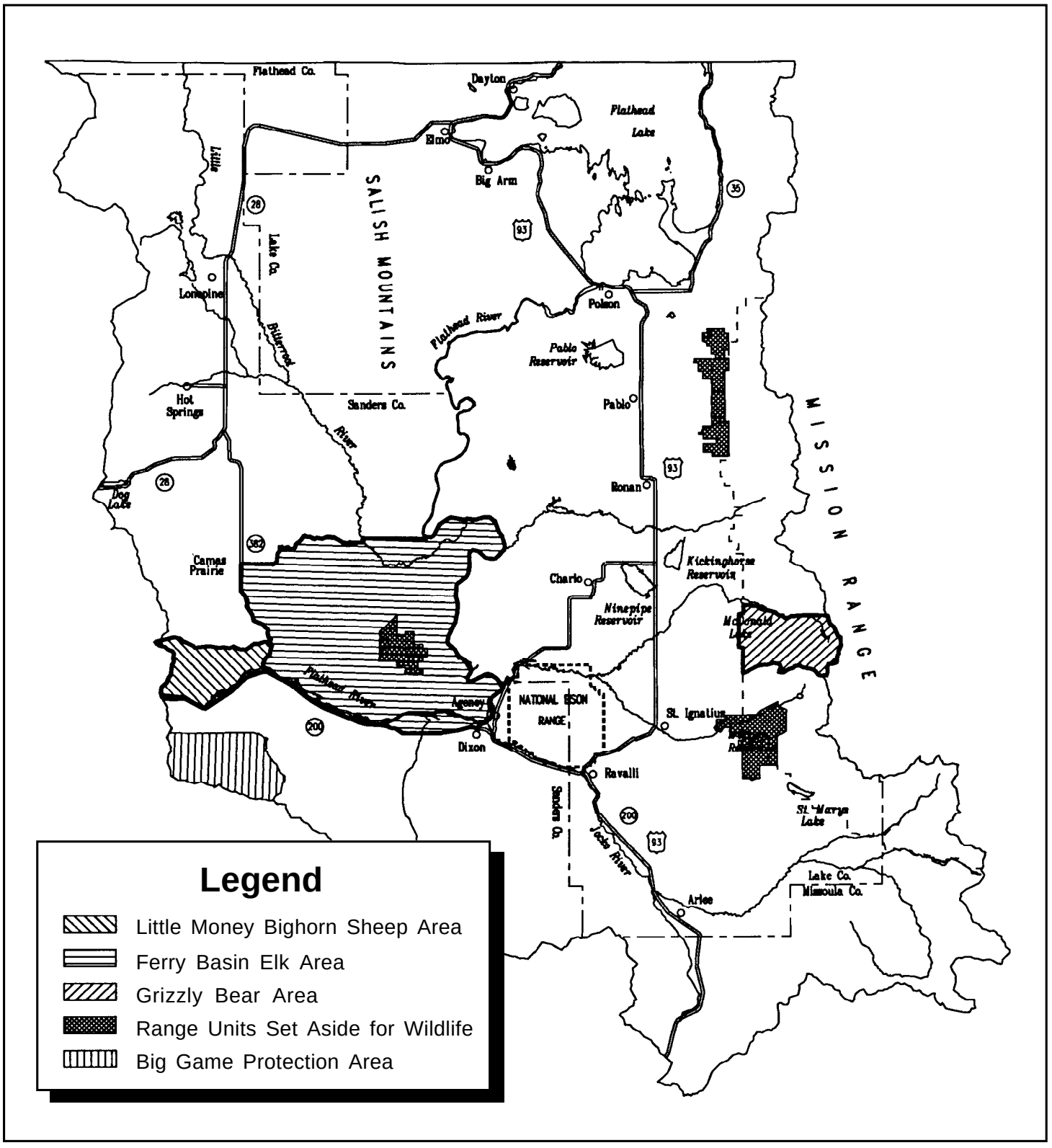


Figure 11.1. Wildlife conservation areas

- ❑ Land use impacts on biological diversity, threatened and endangered species, sensitive species and important wildlife habitat such as riparian areas, wetlands and old growth habitat
- ❑ Maintenance of important wildlife travel corridors on the Reservation and adjacent lands
- ❑ Cooperation between resource management agencies
- ❑ Reintroduction of species which have been eliminated on the Reservation
- ❑ Impacts of seasons and limits on certain big game species
- ❑ Hunter education and awareness
- ❑ Public willingness to be regulated in their use of the wildlife resource if that regulation will result in more favorable conditions for the resource
- ❑ Public opinion of endangered, threatened and sensitive species management on the Reservation
- ❑ Collection of wildlife harvest information from Tribal members
- ❑ Wildlife impacts from game farm operations

The Tribal elders also expressed concern about:

- ❑ Respect for subsistence needs and cultural and religious practices
- ❑ Perpetuation of traditional hunting practices and wildlife use
- ❑ A need for continued planning and habitat preservation

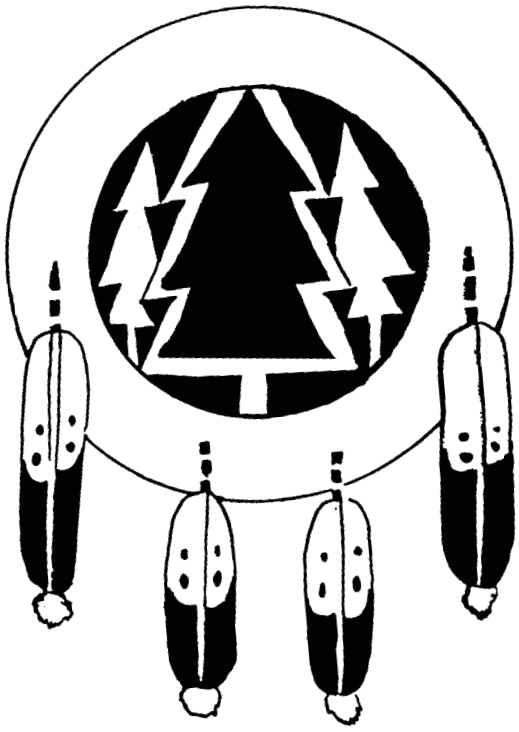
Other community members and agencies expressed concerns about land use management impacts on wildlife, such as:

- ❑ Chemical spraying
- ❑ Forestry road density and other forestry-habitat conflicts
- ❑ Burning
- ❑ Overgrazing
- ❑ Destruction of wetlands and streamside vegetation
- ❑ Recreational vehicle use
- ❑ Emphasize native species preservation in management activities
- ❑ Protect non-game species; they are important to ecological balance, wildlife watchers and other non-consumptive wildlife users
- ❑ Educate landowners on wildlife habitat needs
- ❑ Place greater emphasis on management of threatened and endangered species
- ❑ Place greater emphasis on sensitive species to prevent them from becoming threatened or endangered

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

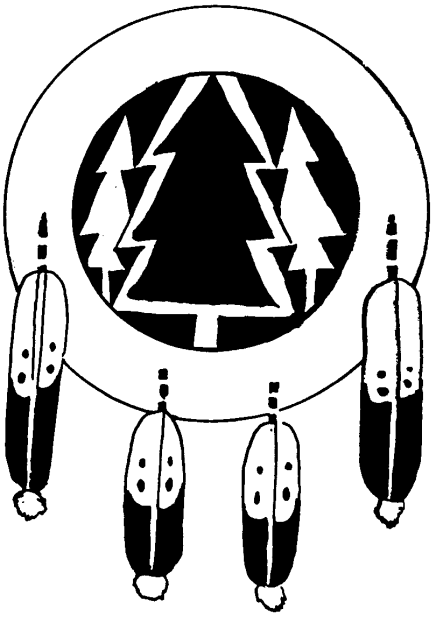
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 12



FOREST

GOAL: To enhance forest values and maintain a perpetual source of forest resources and opportunities



FOREST

Forests cover most of the Tribal land base. They encompass about four hundred and fifty thousand acres on the Reservation[1]. The hills and mountains along the perimeter and central portions of the Reservation are generally timbered, as are many areas along the Flathead River (fig. 12.1.). Forests range from dry ponderosa pine and Douglas fir types to subalpine fir and alpine larch.

The Tribes manage forests for timber, fish, wildlife, recreation, range, cultural and scenic resources, and watershed protection. The Tribes manage about 75 percent of the total forest base for timber production.

Timber harvest is the second largest revenue generating activity on Tribal lands. The forest products industry is a major component of the Reservation economy and supports about 192 person years[2] of Tribal member employment each year (Sassman 1989). Reservation forest products are crucial to the stability of local sawmills, as well as Tribal members who make a living in the industry. The volume cut from the Reservation is about 3 percent of the statewide harvest.

Before the early 1900s, most of the timber cut on the Reservation went for the construction of the St. Ignatius Mission complex, the Jocko Agency, the Northern Pacific Railway and Indian farms. In the early 1900s, non-Indian settlement, the timber demands of World War I, and changes in national Indian policy contributed to the onset of large-scale commercial logging operations (Historical Research Associates 1977). Much of the revenue generated helped fund the construction of the Flathead Irrigation system.

Since 1911 an average of twenty-eight million board feet of timber per year has been harvested from Tribal lands (Historical Research Associates 1977; Gulick 1993). Tribal members have also harvested firewood and other forest products. More recently Tribal members have cut large numbers of Christmas trees and post and poles.

In recent years the federal government has reduced timber harvest on surrounding national forest lands. They have done this to respond to the cumulative effects of large-scale harvests on private lands and public pressure to preserve non-timber resources and values. As a result,

[1] Based on a 1980 inventory which is the most recent Reservation-wide timber type project. This figure includes all Tribally owned and individually owned trust land.

[2] One person-year is equivalent to one person employed for twelve months.

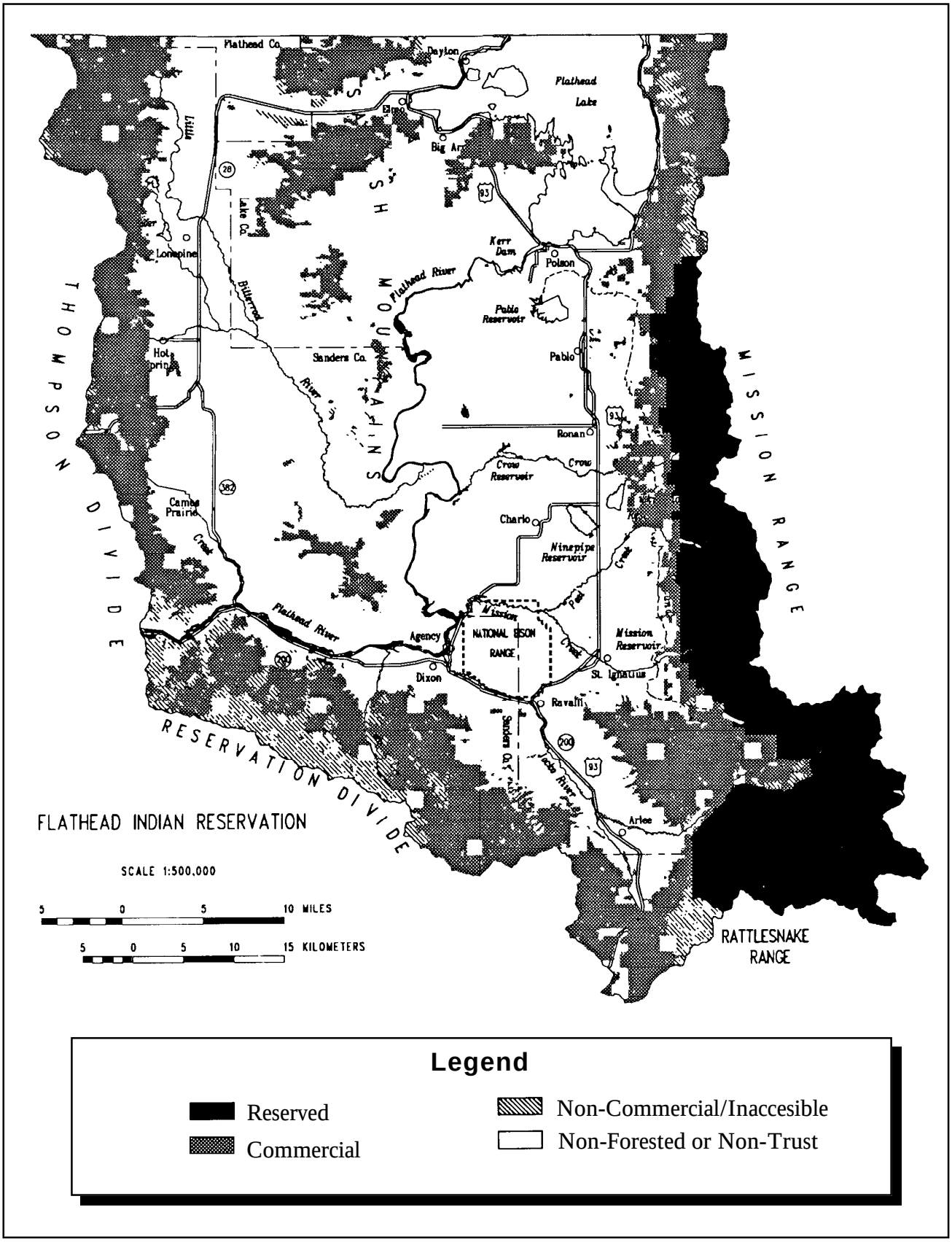


Figure 12.1 Forested areas on trust land

off-Reservation logging companies now show a greater interest in Tribal timber. The Tribes are responding to this increased demand while providing for multiple use of forest resources. The following provides further background about timber management on the Flathead Reservation, and lists several issues that affect the Tribes' forest resources.

EXISTING CONDITIONS

Forest Habitat Types

Inventories of the types and ages of forest trees and other plants provide critical information about timber supplies and other resources. Foresters have identified forty-one forest habitat types on the Reservation. They have categorized these into seven groups:

Group A - Ponderosa Pine and Very Dry Douglas Fir. This group consists of ponderosa pine and/or Douglas fir growing in relatively open, bunchgrass areas. These are the warmest and driest sites that support forest trees. Soils are generally rocky and shallow. Annual precipitation is usually less than 15 inches. Forage or grass and brush production is good, which is important for big game winter range and livestock grazing. Reforestation is difficult after logging disturbances.

Group B - Dry Douglas Fir. This group consists of Douglas fir habitat types that have understories in transition between bunchgrass and shrubs. Precipitation varies from 14 to 17 inches annually. Forage production is fair to good, but timber production is moderate. Soils are low in organic matter. This group is important as big game winter range. Wildlife use in general is high. Historically, fire played an important role in maintaining ponderosa pine. Natural reforestation is difficult following logging.

Group C - Moist Douglas Fir. Shrub understories mixed with pine grass and/or beargrass characterize these habitat types. Moisture is sufficient to support western larch and lodgepole pine. Timber productivity is moderate to moderately high. Intensive management improves productivity. Some sites are valuable for big game winter range and elk calving. Vegetative recovery after logging disturbances is moderate. This group makes up the largest portion of the commercial forest.

Group D - Grand Fir. Moisture and temperature approach optimum conditions for tree growth in this group. Climax species include grand fir, western red cedar and spruce. Minimal site preparation will establish natural reforestation after logging. Timber productivity is high and enhanced by intensive management. These types are of minor value as big game winter range and livestock range. Wildfire incidence is low, but catastrophic in nature. Following a burn or timber harvest, ponderosa pine, Douglas fir and larch tend to replace the stand.

Group E - Warm Subalpine Fir. These are temperate forest habitat types characterized by cool but moist conditions. Subalpine fir is the climax species. Major seral species

include Douglas fir, western larch, lodgepole pine and Engelmann spruce. Timber productivity is high and enhanced by intensive management. This group receives moderate fall and summer use by big game.

Group F - Cold Subalpine Fir. These subalpine forest habitat types are too cold and/or dry to support Douglas fir and western larch. Spruce and lodgepole pine are the major seral species. Subalpine fir is the climax species, and whitebark pine is common. Timber productivity is moderate and improves with intensive management. Wildfire incidence is low, but catastrophic in nature. These areas are important as elk summer range.

Group G - Timberline. Cold temperatures, short growing seasons, and exposed soil and rock characterize timberline habitat types. They usually exceed the upper elevation limit of continuous forests, but vary considerably in composition and density. Timber productivity is low and vegetation recovers slowly after a disturbance. These areas are important as elk summer range. They provide critical grizzly bear habitat. The smallest portion of the forest base falls within this group. Foresters prescribe extensive management employing sanitation/salvage cuttings for these areas.

Indian people use the forest for hunting, fishing, cultural practices, teepee pole and firewood cutting, and commercial cutting (sawtimber, posts and poles, Christmas trees, etc.).

Forest management on the Reservation has changed from the extensive logging of large tracts that dominated the past (an average of 57.5 million board feet of timber logged annually in the 1920s). It is now a complex, interdisciplinary process that incorporates a variety of harvest and protection strategies, including the establishment and protection of wildland areas, interdisciplinary team reviews, and sustained-yield management.

Forest Management Categories

The most recent forest management plan (Browning 1986), divided forests on Tribal and individually owned trust lands into several categories (fig. 12.2). The Tribes permit the harvest of forest products only on lands designated as commercial forest.

Definitions for these forest management categories follow:

Reserved. Reserved areas are those the Tribes have removed from the timber harvest base. The acreage listed represents estimated timbered acres, not the total acreage.

Non-Reserved. Non-reserved areas include both commercial and non-commercial forest lands.

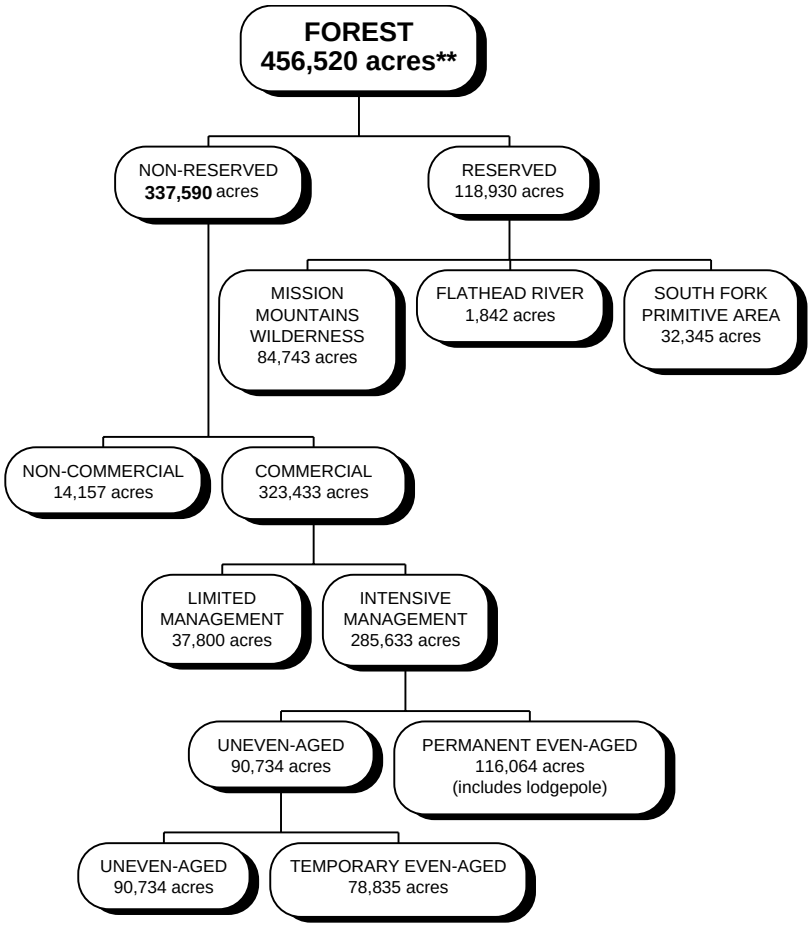


Figure 12.2. Tribal forest classification

- Acreages estimated from 1990 forest inventory preliminary data and are subject to change.

** This initial base figure was established in 1980. Land purchases since then have altered this figure slightly.

Non-Commercial. Non-commercial forests are areas the Tribes have removed from the timber base because they are unproductive, on unstable slopes, difficult to access or used for homesite development.

Commercial. Commercial forest areas consist of all productive areas that are accessible and suitable for timber harvest and that have not been withdrawn from the timber base.

Limited Management. Limited management areas consist of lands with marginal productivity, fragile soils, or where other values reduce timber yields. Some trees may be cut, but investments are not made to increase tree growth.

Intensive Management. Intensive management areas are lands capable of growing more than 20 cubic feet of timber per acre per year, and where management for other

values does not reduce timber yields. This is the largest portion of the commercial timber base and the part of the forest where the Tribes make intensive thinning and replanting investments to promote tree growth.

Permanent Even-aged. Even-aged methods include clearcutting, shelterwood, and seed-tree harvests. As indicated by the name, even-aged stands are characterized by trees of the same age. Reforestation occurs after the stand has reached the desired age or size and is harvested (approximately every 100 years).

The category is broken down further into mixed sawlog species (78,255 acres) and lodgepole pine (37,809 acres). The Tribes set a portion of the lodgepole acreage aside for continuous post and pole production.

Uneven-aged. Uneven-aged methods include individual tree selection and group selection. Trees of various ages and sizes characterize these stands. Trees are harvested singly or in small groups less than two acres in size; about 1 out of every 5 trees is harvested approximately every 20 years. Reforestation of desirable species occurs either continuously or after each harvest. Reservation foresters apply this method wherever possible throughout the intensively managed portion of the forest. They do not apply it where steep slopes, shallow-rooted species such as lodgepole pine and subalpine fir, or forest pest problems exist.

Temporary Even-aged. Temporary even-aged management uses clearcut, shelterwood and seed-tree methods on stands that have been temporarily excluded from uneven-aged management due to high mortality rates from forest pests. Foresters prescribe even-aged treatments, such as clear cuts, to control infestations. They then convert these sites to an uneven-aged system after reforestation.

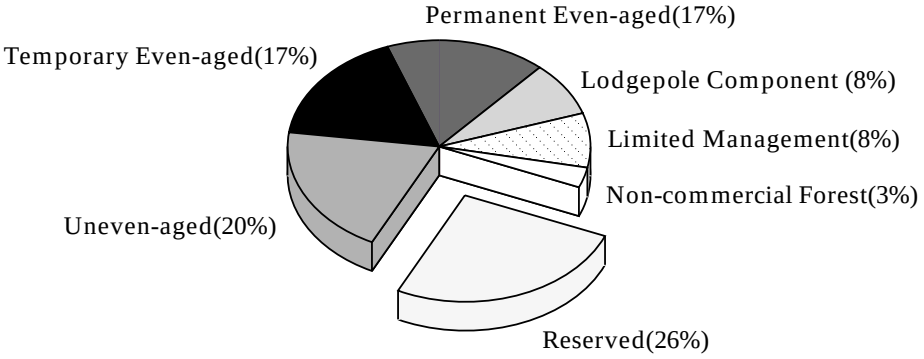


Figure 12.3. Flathead Reservation forest land classification in acres

Table 12.1. Habitat group size and type of management for the commercial forest (Beyer 1990; Becker 1991)

Habitat Type Group	Approximate Size (acres)	Management Class
A (Ponderosa Pine and Very Dry Douglas Fir)	16000	Uneven-aged (mostly limited management)
B (Dry Douglas Fir)	58000	Uneven-aged*
C (Moist Douglas Fir)	107000	Uneven-aged*
D (Grand Fir)	90000	Uneven-aged*
E (Warm Subalpine Fir)	43000	Even-aged
F (Cold Subalpine Fir)	6000	Even-aged
G (Timberline)	3000	Uneven-aged (limited management)
	TOTAL: 323,000	

*Except diseased stands managed temporarily on an even-aged basis until they regenerate with healthy trees.

Figure 12.3 shows the portion of the total forest acreage that each category represents.

Table 12.1 gives the total size of each habitat type group in the commercial forest and the type of management prescribed for that group.

Harvest Trends

About 80 percent of the commercial timber base has been logged at least once (BIA Flathead Agency Forestry Division 1989). Figure 12.4 shows the volumes of timber cut over the past several decades, along with key historical events that affected logging on the Reservation.

In addition, Tribal members have cut Christmas trees over the past 60 years. From 1977 to 1984, Tribal members sold approximately 45,300 bales per year. From 1985 to 1989 Tribal members sold approximately 22,800 bales per year (Barce 1990). The Tribes awarded an average of 430 permits each year from 1977 to 1989.

Tribal members have intensively harvested Douglas fir and other suitable Christmas tree species from much of the Reservation, although dwarf mistletoe has limited Christmas tree production. Poor harvest practices have reduced sawlog production in some areas.

Tribal members also cut firewood from the forests for personal and commercial use. From 1977 to 1989, the Tribes issued an average of 50 commercial permits and Tribal members cut approximately 2,500 cords of wood each year.

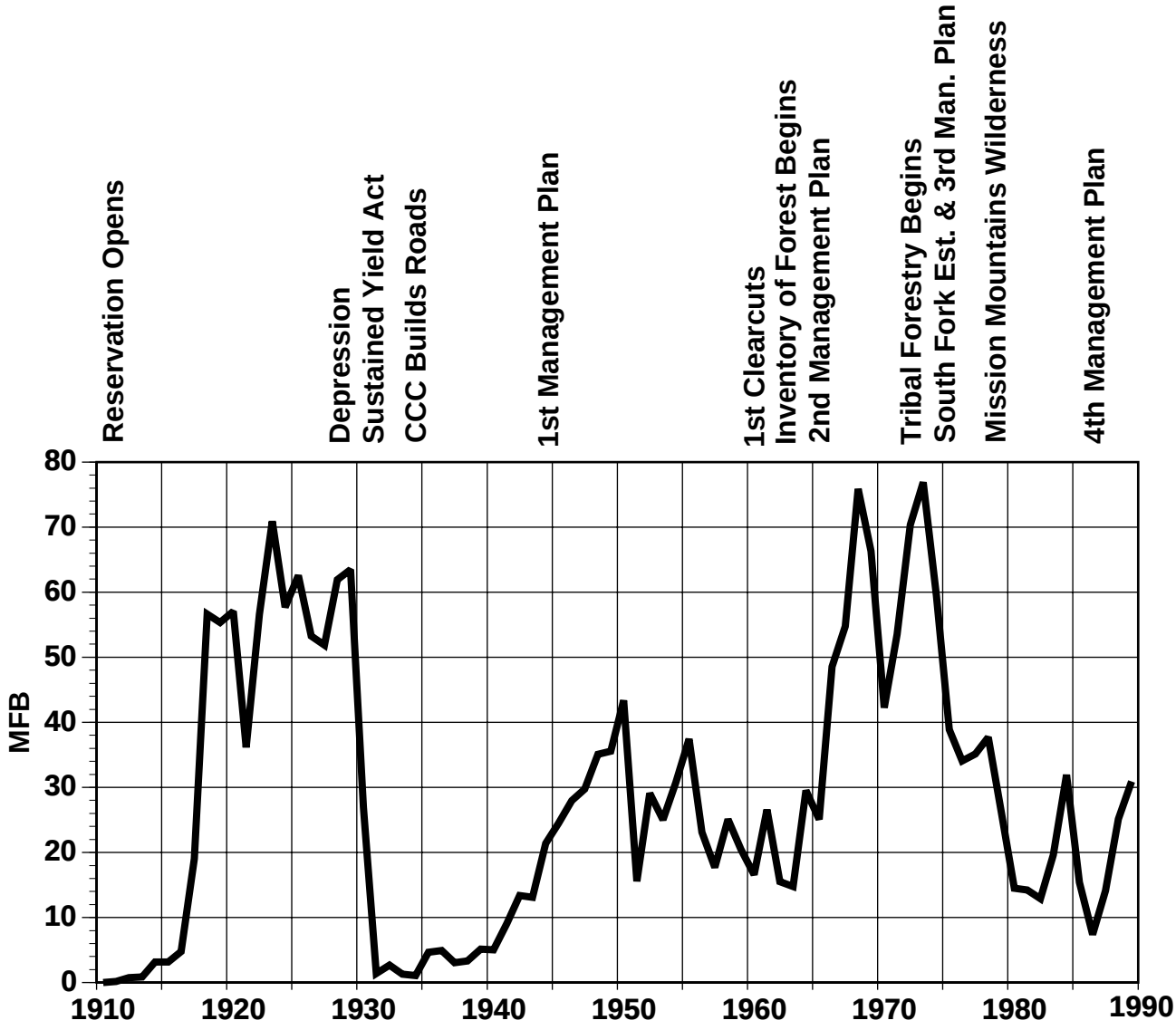


Figure 12.4. Timber Harvest History (Beyer 1990)

Tribal members selectively harvest several thousand acres of lodgepole pine stands for posts, rails, grape stakes or other products. Regulated harvest occurs in assigned lodgepole blocks. This allows for timely follow-up of reforestation activities and insures that multiple use values are addressed. Unregulated harvest has generally occurred in narrow strips above roads in unassigned lodgepole stands. It has resulted in strips that are under-stocked, non-regenerated and difficult to manage.

The selective harvest of high quality timber has occurred extensively in the past. Foresters did not use even-aged harvest techniques, such as clear-cutting, to manage tree diseases and pests until the late 1960s. Today, forest pests affect more than half of the timber stands in the commercial forest.

Forest Pests

Parasites. Dwarf mistletoe is the Reservation's most serious timber management problem. It is widespread throughout most Douglas fir stands (especially on moist sites). It also affects western larch and lodgepole pine. Although this parasite can kill trees, the greatest damage it causes is growth loss. Root-rots and needlecast fungi are other problem parasites. Both cause growth loss and tree death.

Insects. The mountain pine beetle has killed trees in lodgepole and ponderosa pine stands, and the potential exists for future losses. Spruce bark beetle has also caused extensive damage on portions of the forest. Periodic outbreaks continue to cause problems. Tree mortality caused by the engraver beetle, western pine beetle and Douglas fir beetle is low but notable.

The western spruce budworm is a serious defoliator that causes productivity losses. The Douglas fir tussock moth, pine butterfly and various other defoliators also cause damage.

Combined losses from these forest pests are considerable. Reducing them may require intensive management of the forest to provide conditions favorable to tree growth.

Fire

Wildfires can create devastating timber losses in a commercial forest. The largest recent catastrophic loss occurred in 1960 when several fires burned about 3,100 acres in and near the Jocko River drainage. The fires of 1910 burned about ten million board feet of timber in the southern and western portions of the Reservation. (Historical Research Associates 1977)

Since 1961, fire control efforts by the Tribes and the Bureau of Indian Affairs (BIA) have limited fires to an average of 10 acres.

Prescribed Fire

Wildfires once played an important role in the evolution of the Rocky Mountain forest. Today, forest management attempts to mimic this role to help establish seedbeds and enhance plant diversity and to improve vegetation for wildlife and timber.

Roads

Over 90 percent of the commercial forest is accessible by road. As of July 1990, there were 2,941 miles of forest system roads on the Reservation. The Tribes will use about 70 percent of these to access timber in the future (Marty Gulick, Telephone Interview, 30 June 1993).

Regrowth will reclaim the remainder.

Many of these roads are now used for purposes other than timber. For example, they provide recreation and fire control access. The effects these roads have on water quality, wildlife habitat, forest protection, cultural resources and other forest values concern resource specialists.

Road construction standards and guidelines attempt to reduce environmental damages. Road closures help protect big game and other forest values.

Other Forest Uses

Although timber revenues are important to the Tribal economy, so are other forest values. The protection of cultural sites, air and watershed values, and fish and wildlife is one of the Tribes highest priorities.

PROGRAMS AND POLICIES

Today, two professionally-staffed forestry programs, the Tribal Forestry Department and the BIA Flathead Agency Forestry Division, manage the timber resource in conjunction with other Tribal programs under Tribal Council direction. Tribal Forestry and the BIA Forestry Division work closely together to manage forest programs. Their responsibilities include forest inventory (monitoring), fire management, prescribing harvest and treatment options, timber sale administration, and forest development in areas of planting, thinning, seed collection, and greenhouse management. The following groups provide technical assistance:

- ❑ Tribal Culture Committees
- ❑ Tribal Natural Resources Department Programs (Wildlife, Fisheries, Wildland Recreation, Fish and Game Conservation, Water Quality, Hydrology, Minerals, Weed Management, Resources Planning, Soil Conservation, Range Conservation, and Realty)
- ❑ US Forest Service
- ❑ US Fish and Wildlife Service
- ❑ University of Montana Forestry School

The Tribes provide technical assistance to the Montana Department of State Lands for management of state-owned timbered tracts on the Reservation. The state forester occasionally manages harvests on privately owned lands. All private harvests must adhere to state slash disposal regulations.

Many federal policies affect Reservation forest management. Among these are the National Environmental Policy Act and the Endangered Species Act. Specific Tribal and BIA policies related to forest management include the following:

Tribal Policies

Cultural Resources Protection Ordinance 73A, 1980
Flathead Forest Management Plan, 1982-1992
Mission Mountains Tribal Wilderness Management Plan, 1982
Shoreline Protection Ordinance 64A (Revised), 1983
Mission Mountains Tribal Wilderness Fire Management Plan, 1986
Wilderness Buffer Zone Management Plan, 1987
Aquatic Lands Conservation Ordinance (ALCO), #87A, 1987
Flathead Indian Reservation Fuels Management Plan, 1989
Ordinance 61B, Tribal Timber Permit Policy and Regulations (as amended), 1991
Water Quality Management Ordinance 89B, 1991
Lower Flathead River Corridor Management Plan, 1993

Federal Policies

25 CFR (Code of Federal Regulations)
53 BIAM (BIA Forestry Manual)
30 BIAM (BIA Environmental Protection Manual)
Annual Fire Management Plan
Timber Use Policy Statement
P.L. 101-630 The National Indian Forest Resource Management Act

Current Harvest Policy

The 1982-1992 Forest Management Plan is the most recent long-range forest plan. It is based on the 1980 Continuous Forest Inventory Analysis, which estimated a net allowable cut of 54.1 million board feet of timber per year (Tootell et al. 1991). It requires the use of uneven-aged management (selection harvest) wherever possible.

When the Tribal Council approved the plan, they elected to harvest 38.4 million board feet of sawlogs per year. This decision removed temporary even-aged treatment options, except on a case-by-case basis, because of their high visual impact. Non-harvested stands also provide opportunities for non-timber uses such as hiding cover for big game and other wildlife.

The Tribal Council chose to optimize post and pole harvest opportunities for Tribal members.

They allow the harvest of four hundred and fifty-two thousand posts annually and have set aside approximately fifteen thousand acres of lodgepole for continuous post and pole production.

Non-Timber Resource Management

Along with economic concerns, a major objective of Reservation forest management is to protect non-timber resources such as water quality, soils, range, fish and wildlife, aesthetics, recreation and cultural resources. To protect these non-timber resources, the Tribes and the BIA have implemented an interdisciplinary (ID) team approach to plan all major timber sales. ID teams may develop harvest guidelines that go beyond those of the Forest Management Plan. The team also considers timber practices on private land or state sections, and on private and National Forest lands near the Reservation.

Resources requiring special consideration during the timber sale planning process include the following:

Visuals. Even-aged management practices, particularly those involving clearcuts, are visible on some timbered lands. Foresters attempt to reduce visual impacts by designing cuts to achieve more natural contours. ID teams develop visual quality objectives for highly visible timber sales.

Recreation. The forest presently provides recreational opportunities for hunting, fishing, hiking, camping, berry picking, horseback riding, snowmobiling and picnicking. The team considers steps to maintain or enhance these activities.

Water. Forest management activities involving road construction and timber harvest can affect water quality and quantity by altering flow regimes, increasing sediment levels and raising temperatures within productive headwaters. Guidelines contained in the Forest Plan reduce these impacts, and the ID team develops additional protective measures as needed for individual sales.

Rangelands. Designated range units encompass about 50 percent of the commercial forest base. Livestock inhibit reforestation where they tend to concentrate. The Tribes establish grazing levels through a permit system. The Tribes do not normally adjust these levels for timber sales.

Riparian Areas. Some of the most productive portions of the forests occur within riparian zones. The Forest Management Plan, Tribal regulations, improved management practices and restrictions developed by the ID team attempt to protect these sensitive areas.

Threatened, Endangered and Sensitive Species. The ID team and other federal agencies review and guide forest management activities within critical habitat for these species.

Old-Growth Forest. The Tribes and the BIA have not fully determined how much old growth exists on the Reservation. Resource specialists will conduct old growth inventories and develop management objectives for these stands during the timber sale planning process.

Cultural Resources. Culture committees review forest management activities and add conditions to timber sale contracts to protect cultural resources.

Homesites. Dense timber stands often surround rural homesites. Wildfires can put these homes at risk. The Tribes and BIA propose guidelines to reduce fire hazards.

ISSUES

Resource managers have raised many issues relating to the use of forest resources:

- ❑ Establishment of visual quality objectives to protect scenic resources and reduce impacts from forest pests
- ❑ Level of timber management within the Mission Mountains Wilderness Buffer Zone
- ❑ Reduction of hazardous fuels within the Buffer Zone
- ❑ Future forest management in the South Fork Primitive Area
- ❑ Allocation of forest lands primarily for timber management
- ❑ Protection of the increasing number of rural homes within forest lands from wildfire
- ❑ Compatibility of timber harvest on non-Tribal lands with Tribal timber policies
- ❑ Inadequate BIA road maintenance funds and policies for forest roads
- ❑ Rehabilitation and reforestation of unproductive lodgepole pine areas
- ❑ Unregulated harvest of lodgepole pine and delayed rehabilitation of unproductive sites
- ❑ Adequacy of staffing levels and data information for the timber sale planning process
- ❑ Higher operational costs and environmental damages from low standard main haul roads
- ❑ Christmas tree harvest impacts on genetic quality and future crop trees
- ❑ Expansion and coordination of Geographical Information System for forest planning
- ❑ Biological diversity of forest lands
- ❑ Continuation of current harvest levels which are significantly less than current growth rates increase the potential for pest and fire risks and future growth rate reductions
- ❑ Expansion of non-timber resource database, accurate forest development inventories and research on uneven-aged management to improve forestry-related services

Tribal elders expressed these concerns:

- ❑ The Tribes need to preserve the biological diversity of the forest for cultural and religious uses by future generations
- ❑ Forestry employment policies should be more flexible toward the use of Tribal members
- ❑ Harvest volumes within timber sales should include insect and disease losses
- ❑ The Tribes should not allow timber harvest within stream zones and sites with marginal

reforestation potential
- ❑ Forest management should not adversely affect other uses
- ❑ Slash should be disposed of properly
- ❑ Forest management activities should not rest on political decisions alone
- ❑ Burning needs to be closely monitored
- ❑ The Tribes have cut too much timber; it will take years for the forest to grow back
- ❑ Will they (Tribes and BIA) listen to us?
- ❑ Clearcuts have resulted in many impacts, especially to visual qualities
- ❑ Too many roads are being built
- ❑ Manage the forest based on a sustained yield basis
- ❑ Leave wilderness and primitive areas alone; the forest has many purposes other than timber harvest

Additional concerns raised by other community members and agencies include:

- ❑ Close roads to enhance management of forest resources
- ❑ Why burn all the slash within clearcuts? Can't some of this wood be taken to the road for Tribal member use?
- ❑ Why can't non-members also use the slash from clearcuts for firewood?
- ❑ Thistles take over many clearcuts; can't the Tribes control thistles?
- ❑ How has the closing of the Flathead Post and Pole Yard affected Tribal members who cut lodgepole, and how has it affected the Tribes as a whole?
- ❑ Design clearcut blocks better so they blend with the landscape
- ❑ Manage slash to replace soil nutrients
- ❑ Slash burning needs to be controlled during fall inversion periods
- ❑ Allow Christmas tree cutting in wilderness and primitive areas
- ❑ Manage Christmas tree harvest properly and consider producing cultured trees in the wild
- ❑ Christmas trees are an important source of income and employment for Tribal members; we need to focus on establishing new growth
- ❑ Control Christmas tree waste
- ❑ The unmanaged cutting of Christmas trees has reduced their availability
- ❑ Institute educational programs to gain public understanding of local forest ecosystems and acceptance of forest management
- ❑ Emphasize habitat needs for threatened and endangered, game and non-game species
- ❑ Maintain high standards for fisheries.
- ❑ Develop policies to insure cultural resource protection on Flathead National Forest lands
- ❑ Pursue opportunities for cross-training personnel

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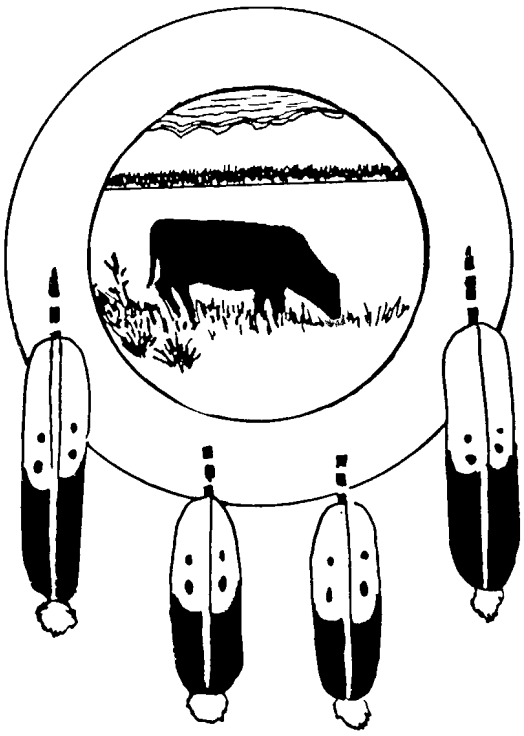
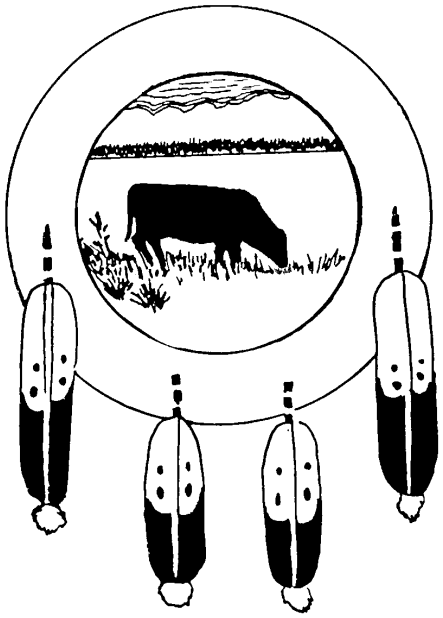
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 13



RANGE

GOAL: To enhance and maintain multiple range resource values and opportunities



RANGE

Over half of the Tribal land base is designated rangeland. These timbered and open grazing lands sit along the boundary and central portions of the Reservation, in mountain, foothill and prairie country. Over three hundred and twenty thousand acres are managed as fifty-one separate range units.

It is Indian Stockmen, primarily, that use these range units to support cattle operations. The units vary in size from 240 to 31,611 acres (fig. 13.1). The Tribes also manage approximately one hundred and twenty thousand acres for farm-pasture leases.

The Tribes first used grasslands for livestock in the late 1600s or early 1700s after acquiring horses. The Tribes grazed herds throughout the region. Cattle came to the Reservation in the late 1800s. Within a few years some Tribal people had established large herds of cattle and buffalo. Others ran small herds for subsistence.

In the early part of this century, immediately before non-Indians settled on the Reservation, federal policies led to the decimation of the large Indian-owned herds of horses, cattle and buffalo. By 1910, taxation, forced sales and outright removal reduced the numbers of Indian livestock to less than one third of what they were in 1903. Non-Indian settlement further diminished herds when "homestead" claims converted important open grazing areas to croplands (CSKT 1992).

Many non-Indian livestock operators soon acquired allotments and homesteads and consolidated them into large grazing operations. By the 1930s, non-Indians ran a large number of livestock, particularly sheep, on the Reservation. Animal numbers exceeded the carrying capacity and rangelands began to deteriorate throughout some areas (Discussion with Tribal elders 1991).

The Indian Reorganization Act of 1934 enabled the Tribes to restore control over unallotted or unsettled Reservation lands, and buy additional lands. The Tribes consolidated many of these lands into timber and range tracts. This land consolidation created the basis for today's Tribal range units. The federal government established a program in the late 1940s to provide seed stock to start Tribal members in the livestock business. Some of the Tribal members who started their ranches under this program are still in business today.

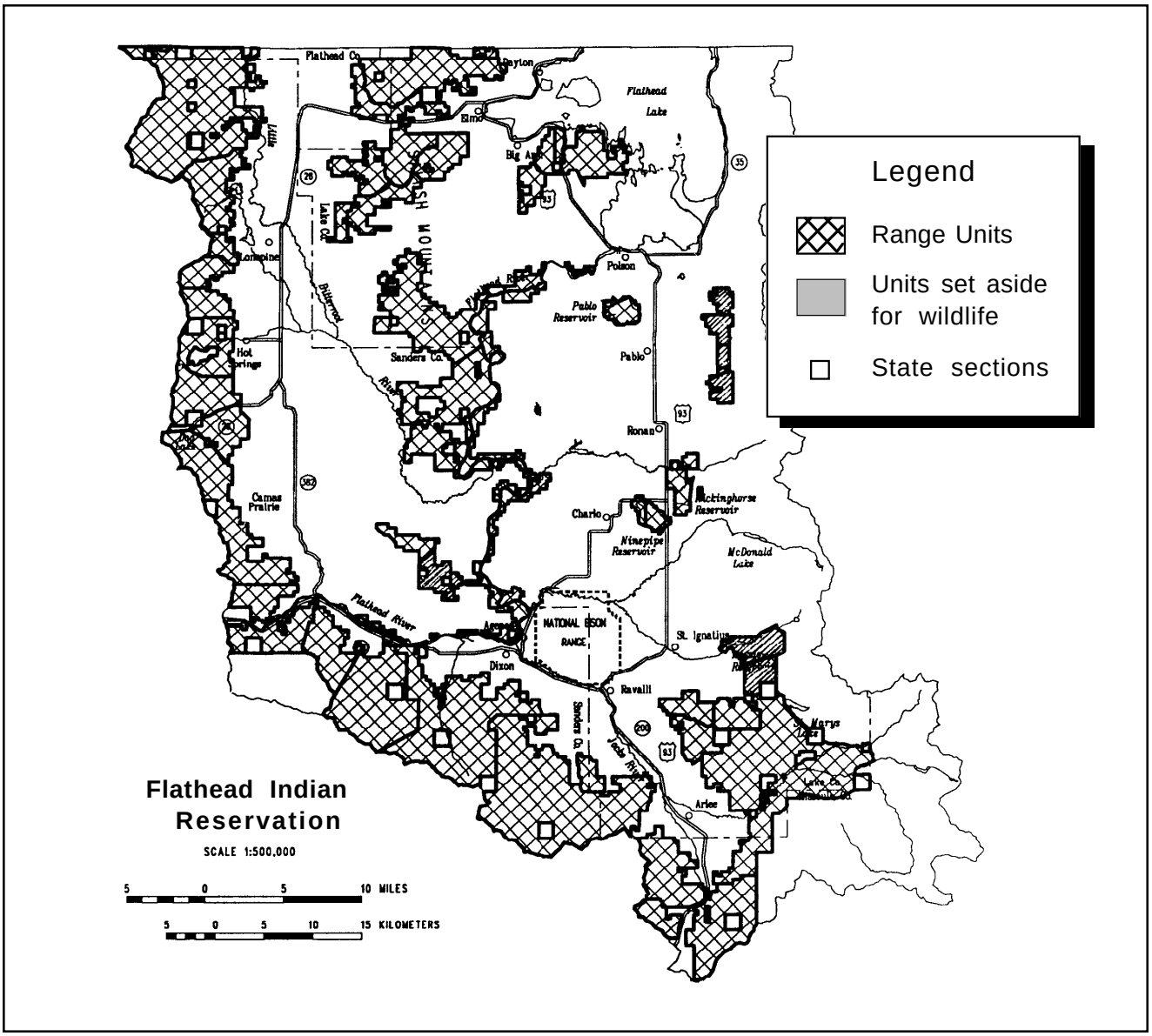


Figure 13.1 Tribal range units

The livestock industry is an important source of income for many Tribal members and is a major component of the regional economy. The demand for red meat and use of rangeland may grow as human populations increase which would increase competition for lands used for wildlife habitat, cultural plant harvesting, timber management, open space, recreation, and homesite development.

EXISTING CONDITIONS

Rangelands provide forage for native and domestic animals. They are usually unsuited for cultivation because of physical limitations (although there are areas, particularly along the Lower Flathead River, where cultivation is possible). Rangelands consist mostly of forested or open areas where elevations range from twenty-five hundred to six thousand feet. Soils are frequently gravelly, rocky and shallow. Rainfall varies from ten inches at lower elevations to over twenty-four inches in the mountains.

Present range unit stocking rates allow for about seven thousand head of cattle. The permits for most of the units are authorized for cow-calf operations, although some allow horses and occasionally other classes of livestock, such as sheep. The season of use for most of the units runs from May to October, and permits usually restrict grazing to a period of four or six months. A few units, located along the Lower Flathead River, allow fall or winter grazing.

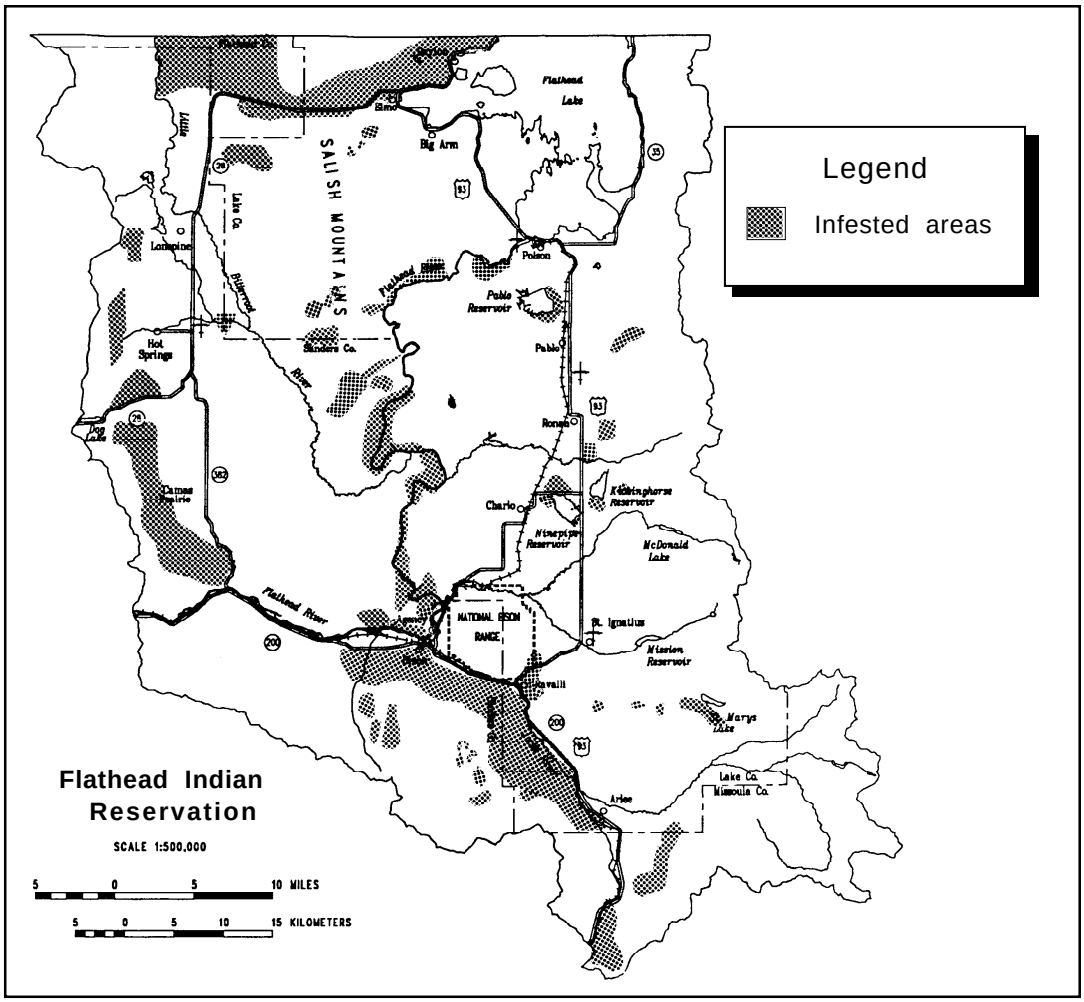


Figure 13.2. Surveyed noxious weed infestations

Overview of Range Conditions

The introduction of large numbers of livestock during the early 1900s upset the balance of native plant communities on the Reservation. Continuous, season-long grazing and over stocking has damaged rangelands. Bunchgrasses declined, and undesirable shrubs, weeds and grasses increased. Exotic species such as timothy, redtop, smooth brome and orchard grass were planted for hay and pasture and these plants displaced native rangeland vegetation in some areas.

Knapweed, sulphur cinquefoil, leafy spurge, goatweed, dalmatian toadflax, thistles and other noxious weeds were accidently introduced during the early and mid-1900s. These plants eventually out-competed many native grasses. The Tribes have surveyed approximately three hundred thousand acres of rangelands for weeds and estimate that noxious weeds occur on nearly 100,000 acres of trust lands. Figure 13.2 shows the general locations of approximately 50,000 acres of weed infestations. Tribal and other large scale weed control projects are currently in progress.

Weed infestations, heavy grazing, drought, and fire suppression are largely responsible for the poor range conditions that exist on many of the rangelands.

There are also many areas in good to excellent condition. A private consulting firm conducted a vegetation inventory in 1979 and 1980 (Prairie Winds 1981). Figure 13.3 shows the condition of each range unit as indicated by that survey, although conditions may have changed since the inventory.

Range Classification

There are three general types of range units on the Reservation: timbered, foothill-prairie, and valley range units (fig. 13.3).

Timbered Range Units. About 80 percent of the rangelands are forested. These units occur along the periphery of the Reservation where timber production is often the primary use of the land. Permittees use these units for summer grazing.

Common forage plants in timbered units include fescues, wheatgrasses, blue grasses, pine grass, and a variety of shrubs, sedges and forbs. Forage production varies. Open parks, meadows and riparian areas are highly productive, and the productivity of heavily forested zones or areas with shallow soils is low.

Range conditions in the timbered units is usually fair to good. Undisturbed sites are in excellent condition, while areas where livestock tend to concentrate are sometimes in poor condition.

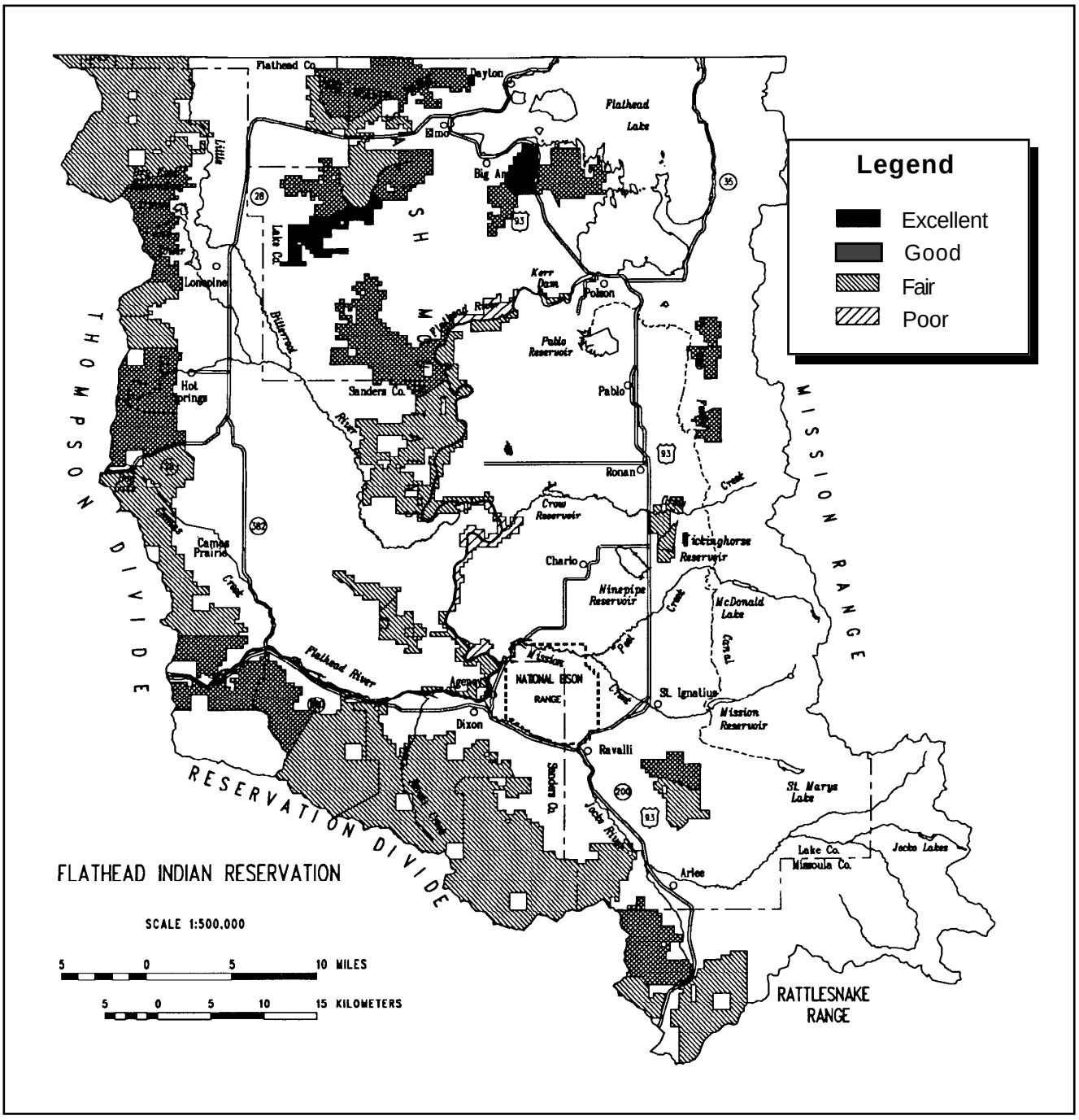


Figure 13.3. Overall range condition by inventoried range unit

Recommended stocking rates for timbered units range from three acres per animal unit month (AUM) to over twenty-five acres per AUM. Established stocking rates appear to be near proper levels for most of the timbered units that are in fair or better condition. Stocking rates appear to exceed proper use levels for timbered units in poor condition.

Noxious weeds (particularly knapweed, thistles and cinquefoil) have spread into forest access roadways and are encroaching into the open forest and parks.

Foothill-Prairie Range Units. These units lie along the Flathead River and make up the second largest category of rangelands. They encompass the open foothills, forested and prairie areas and are used largely for livestock grazing. Permittees graze them during spring, summer and fall.

Common forage plants include various wheatgrasses, fescues, blue grasses, needlegrasses, forbs, sedges, shrubs and tame (or introduced) grasses. Forage production ranges from very good in upper elevation bunchgrass communities, to very low at lower elevations.

Due to steep terrain and limited stockwater sources in the upper foothills, grazing pressure is most severe on lower prairie areas. The range condition is commonly poor in these areas, particularly where livestock concentrate and where weed infestations are most severe. Climax vegetation has declined, and undesirable species such as rabbit brush, cheatgrass and red three awn have increased. Noxious weed infestations on the Reservation are most severe in the prairie portions of these units.

Because livestock concentrate on the lower prairies, much of the land on the upper elevation foothills is in good to excellent condition. They are, however, threatened by noxious weeds. Knapweed, sulphur cinquefoil, dalmation toadflax and leafy spurge are becoming well established in these areas and pose a serious threat to native grassland communities.

Recommended stocking rates for the foothill units range from 2.5 acres per AUM on the highly productive sites that are in excellent condition, to over thirty acres per AUM on lower-producing sites in poor condition. Stocking rates were established based on livestock historical use and have not been adjusted in over 40 years to allow for "proper" or multiple use of these units.

Valley Range Units. The Ninepipe, Kicking Horse and Pablo range units largely consist of wet meadow, pothole and sub-irrigated sites. They encompass both open grassland and timbered areas. The Kicking Horse Unit has been managed primarily for livestock grazing. On the Ninepipe and Pablo Units, managers have used rest-rotational grazing systems and limited livestock numbers to protect wildlife. Permittees use all three units for spring, summer and fall grazing.

Common forage plants include bluegrasses, needle grasses, wheatgrasses, sedges and various shrubs and forbs. Soil moisture content in these units is high during the growing season, and soils are fertile. Forage production is generally very good.

Although the units are productive, the range conditions are only fair to good. This is because past land use practices have altered native grass communities. Bluegrass, timothy, orchard grass and noxious weeds now dominate portions of all three units. The sub-irrigated timbered portions of the Kicking Horse Unit are generally free of these non-native species and in good condition.

Weeds are a problem to control with chemicals in these units because of wildlife habitat values and risks of water contamination. Knapweed, cinquefoil, white top, thistles and other weeds infest all three range units.

Recommended stocking rates range from two acres per AUM to five acres per AUM. Actual numbers are below the carrying capacity for the Ninepipe and Pablo Units, but appear to exceed the proper use level on portions of the Kicking Horse Unit.

Sensitive Areas

There are several sensitive areas on the Reservation affected by livestock grazing. Overgrazing by sheep and cattle has altered plant communities, damaged riparian and other aquatic land areas and reduced wildlife habitat.

Sensitive Plant Communities. Heavy and season-long grazing, the expansion of croplands and weeds have contributed to the decline and elimination of native bunchgrass communities, rare plants and species important to the Tribes' cultures. There are still many areas of the Reservation that support healthy native plant communities. Botanists have identified rare plants at only a few sites.

Cultural Sites. There are significant prehistoric, historical and present-day cultural sites throughout the Reservation. Livestock have damaged some sites where cultural food and medicinal plants occur.

Aquatic Land Areas. Streams, riparian areas and wetlands are the rangeland's most productive and sensitive areas. Most wildlife, including threatened or endangered species, depend on these areas for food, travel corridors and cover. Many of the streams and rivers support native trout. Livestock concentrate in these areas because the vegetation is lush and there is water and shade. If their numbers exceed carrying capacities or if they are grazed too long, livestock can destroy fish and wildlife habitat, diminish water quality, and alter streamflows. Narrow riparian zones are particularly vulnerable and suffer the most from heavy grazing pressure.

Big Game Ranges. Summer and winter ranges are also important to big game. The most critical areas are wet meadows, open parks, and the higher elevation bunchgrass and shrub communities used extensively by both big game and livestock. In some of these areas, livestock out-compete big game for forage and space. The Tribes have set some range units aside to protect wildlife (fig. 13.1).

Timber Regeneration Areas. A considerable amount of forage is produced under open forest canopies. While proper grazing does minimal damage to the forest, heavy livestock use or overuse can decrease the establishment, health and survival of young trees. In these situations cows trample and sometimes graze young trees jeopardizing their survival.

Man-made Impacts

There are human activities other than those associated with grazing that affect rangelands and their use by livestock. Prominent among these are recreational uses and secondary forest uses. Rural homesite developments also cause problems for range managers.

Recreation. A broad range of resource-based recreational activities affect rangelands. These include recreational off-road vehicle use and impacts incidental to recreation, such as vandalism, theft, and wildfires. In addition, visitors sometimes disturb or harass and, on occasions, rustle livestock.

Unconfined Uses. Unconfined recreational activities and other forest uses have caused major problems for range managers. Off-road travel by hunters, wood cutters and all-terrain vehicles has damaged range resources by destroying vegetation and causing soil erosion. Group excursions using livestock place demands on limited forage and conflict with permitted livestock uses.

Rural Homesites. There is an ongoing demand for rural homesites on Tribal lands. Homesites within or next to Tribal range units can cause problems for resource managers and livestock operators. Conflicts arise when livestock and rural residents share water and access routes, and when pets harass livestock. In the most severe cases, managers have removed livestock from areas because rural residents considered the animals a nuisance.

PROGRAMS AND POLICIES

The administration of grazing use on timberlands became the responsibility of the Forestry Branch of the Flathead Agency, in 1921. By 1923, the office had assumed responsibility for all range management activities on the Reservation and this situation remained unchanged until 1954. In that year the BIA transferred range management responsibilities to their Land Operations Branch.

Following the Reorganization Act of 1934, interested Indian stockmen formed grazing associations to acquire Tribal grazing permits. Formal regulation of grazing permits started during the late 1950s when the BIA established range units, stocking rates and season of use restrictions. Stocking rates for individual units have remained essentially the same since then.

In 1990 the Tribes contracted the management of land operations (which included range management responsibilities) from the BIA. The Tribes consolidated overlapping BIA and Tribal land services into one office, the Division of Lands, within the Tribes' Natural Resources Department. Since then, the Division of Lands has increased its professional and technical staffs to reevaluate and conserve range resources. The conservation planning process for Tribal range units now involves an interdisciplinary team of Tribal and BIA resource specialists. The team addresses multiple resource concerns and develops alternative management strategies to enhance natural resource and cultural values within rangeland areas.

Under federal and Tribal policies, the Range Program within the Division of Lands is charged with the following responsibilities: to promote the sound management of range resources based on sustained yield principals, to enhance grazing opportunities for Tribal members, to produce income from trust lands, and to preserve range resources for use by future generations.

Tribal and federal laws that affect management of Tribal range resources include the following:

Tribal Policies
Tribal Land Ordinance 45B (as amended), 1973
Livestock Control Ordinance 59A, 1975
Cultural Resource Protection Ordinance 73A, 1980
Grizzly Bear Management Plan, 1981
Shoreline Protection Ordinance 64A (Revised), 1983
Aquatic Lands Conservation Ordinance 87A, 1985
Mission Mountains Wilderness Buffer Zone Management Plan, 1987
Natural Resources Department Ordinance 78B, 1987
Water Quality Management Ordinance 89B, 1991
Lower Flathead River Corridor Management Plan, 1993

Federal Policies

- 55 Bureau of Indian Affairs Manual (BIAM), Supplement 1, 1979
- 25 Code of Federal Regulations, Part 166, 1982
- 30 BIAM, Supplement 1, 1983

The Tribes, in cooperation with the US Fish & Wildlife Service, manage the range on the Ninepipe and Pablo grazing units. In addition to suppling irrigation water, a primary purpose of these areas is for wildlife protection, and the Tribes have developed grazing restrictions accordingly.

The Department of State Lands administers several grazing leases on state lands within Tribal range units. Although the established stocking rates for state sections are usually appropriate, management problems have occurred. These largely stem from inadequate fences, conflicting grazing seasons and land uses, and a lack of stock water sources on state leases.

ISSUES

The public and various resource professionals have expressed the following concerns about rangeland conditions:

- ❑ Preservation and protection of traditional food and medicinal plants
- ❑ Grazing conflicts from state lands
- ❑ Livestock grazing conflicts with other resource uses
- ❑ Biological diversity of Tribal rangelands
- ❑ Update of BIA and federal regulations to provide a more timely and effective means of enforcing and preventing trespass
- ❑ Establishment of best management practices to protect all resources
- ❑ Interdisciplinary planning, treatment methods and priorities for controlling noxious weeds
- ❑ Update of range inventories and adjustment of stocking rates
- ❑ Funding and staffing from the BIA Portland Area Office to cover range inventories, and planning and management of range resources
- ❑ Implementation of an educational program to inform Tribal members of the benefits of proper grazing practices and environmental damages caused by overgrazing
- ❑ Protection of dam embankments and other irrigation structures from grazing damages
- ❑ Vandalism, theft, fire and other disturbances from recreationists and other users

Tribal Elders' additional concerns and ideas include:

- ❑ Cultural sites are suffering erosion because of overgrazing
- ❑ The Tribe should establish equitable permitting policies for rangelands. The cattlemen's associations seem to have control of rangelands, leaving little chance for others to acquire lands for grazing livestock.

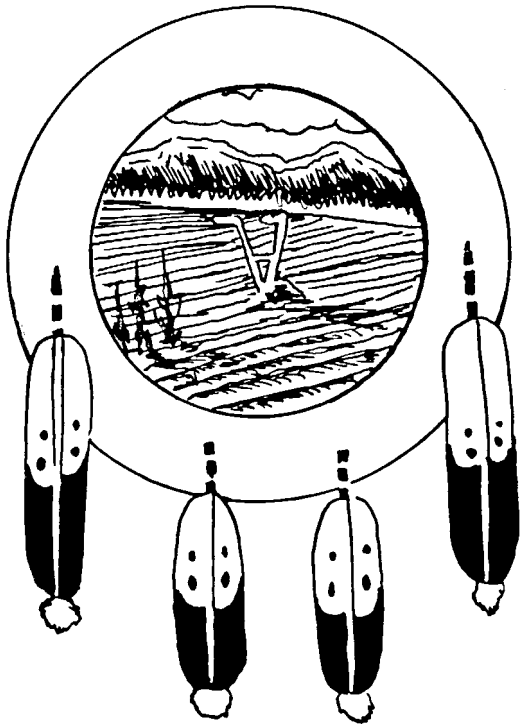
Additional concerns and ideas raised by other community members and agencies:

- ❑ Overgrazed rangelands need to be restored
- ❑ Overgrazing is causing erosion problems, spreading noxious weeds and affecting other landowners and ranchers
- ❑ Grazing practices have resulted in a large decline of suitable habitat for fish and wildlife on rangelands
- ❑ Native plant communities need to be protected
- ❑ Range units are overcrowded with the Indian Stockmen Association's cattle. It's time to reevaluate the status of rangelands
- ❑ Cattle should be kept off grazing lands along Lower Flathead River
- ❑ Protect the reservoir sites from overgrazing, especially the Kicking Horse Unit
- ❑ Experiment with different classes of livestock as a biological control of noxious weeds
- ❑ Experiment with the introduction of plant species which are tolerant to overgrazing and that are not out-competed by noxious weeds
- ❑ The effects of cattle grazing on riparian zones are exaggerated, and should be further evaluated
- ❑ The Tribes should halt the decline in condition and the disappearance of native grasslands. This decline has substantially reduced wildlife habitat.
- ❑ Control soil lost to erosion caused by improper grazing.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

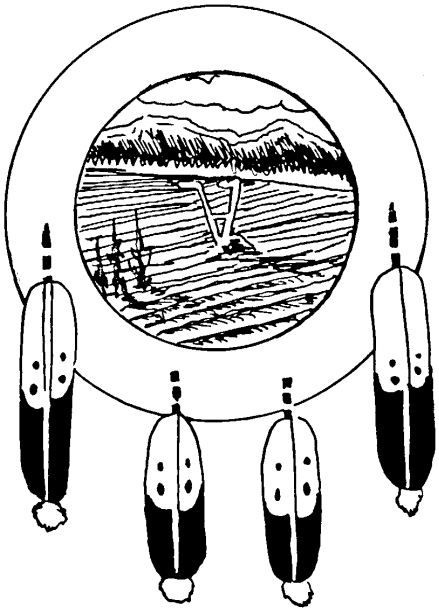
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 14



AGRICULTURE

GOAL: To manage agriculture resources for sustainable levels of production that are environmentally sound, economically viable and socially acceptable



AGRICULTURE

Agriculture is one of the most important basic industries on the Flathead Indian Reservation. The Reservation area generates the largest agricultural cash receipts in western Montana (Montana Department of Agriculture 1988). The industry is diverse; operations range from beef livestock production to seed potato and fruit crops.

Although Tribal people have always harvested wild plants, cultivation probably did not occur on the Reservation until the mid-1800s[1]. By then trappers, hunters and settlers had depleted wildlife populations that the Tribes depended on for food. Jesuit missionaries and federal agents assigned to the Reservation encouraged the Tribal members to become farmers, and many did. They tended small plots and grew wheat, oats, peas, potatoes and garden vegetables (Trosper 1974).

By 1904 Indians had approximately twenty-eight thousand acres under cultivation (Trosper 1974). Some had established large cattle and buffalo herds. But after Congress opened the Reservation to settlement, many Indians lost their lands to settlers and merchants. Soon non-Indians owned the majority of farms and ranches on the Reservation.

EXISTING CONDITIONS

Today, Tribal agricultural management focuses on the production of crops and pasture while seeking to maintain other resource values. An extensive irrigation system managed by the Flathead Agency Irrigation Division (FAID) serves much of the cultivated land in the lower valleys.

Most of the operations are either cattle ranches or small grain farms. The majority of Indians engaged in agriculture produce livestock; the Tribes manage more than half of the Tribal land on the Reservation for livestock grazing (US Bureau of Indian Affairs, Flathead Agency 1980-1988).

[1] Although Kootenai people planted and harvested native tobacco on areas off the Reservation.

Tribal Land Statistics

Besides the three hundred twenty thousand acres of Tribal range units, the Tribes manage 463 active farm-pasture leases covering approximately 77,500 acres. One hundred thirty-four Indian and sixty-six non-Indian operators hold these leases. Tracts range in size from less than ten to more than three thousand acres. About 80 percent are used for grazing, the rest for crop production. Figure 14.1 shows a breakdown of Indian and non-Indian use on range units and farm-pasture leases.

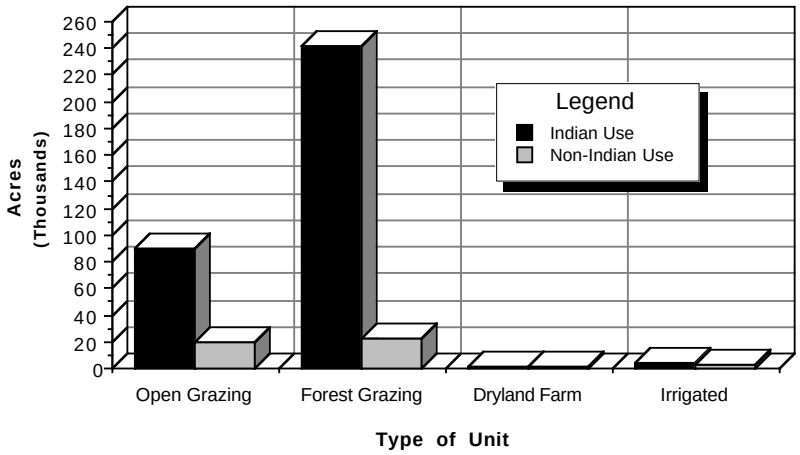


Figure 14.1. Tribal range and farm-pasture units by land use and user. Averages of the period 1980-1988 (USDI BIA Flathead Agency 1980-1988).

The FAID serves approximately 127,500 acres on the Reservation of which 12,710 acres are Tribal lands (FAID 1991). Operators use about half of these Tribal acres for crop and hay production, and half for irrigated pasture.

The amount of Tribally owned agricultural land is increasing, and the amount of individually owned trust land is decreasing. The proportion of these lands used by the Tribes and individual Tribal members is increasing.

Livestock Trends

In Lake County, beef cattle account for nearly 70 percent of all the livestock produced, and economists expect the importance of beef to the Reservation economy to increase. Other livestock include dairy cattle, horses, mules, sheep, swine and chickens. Figure 14.2 shows the distribution of livestock in Lake County during the 1980s. Within the last two decades, a

few producers have started raising exotic animals, such as llamas and emus. Although individually valuable, these animals account for only a small portion of the total value of livestock produced.

Crop Production

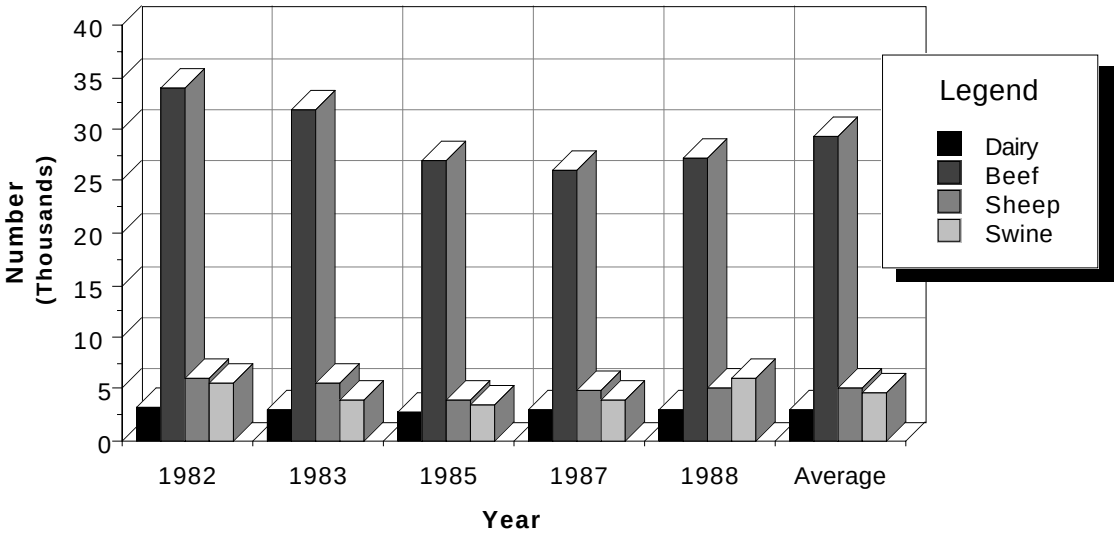


Figure 14.2. Lake County livestock distribution, excluding poultry, in the 1980s. Montana Department of Agriculture 1988, 1984.

Conventional crops produced on the Reservation include hay, wheat, barley, oats, potatoes and corn. Other crops include sweet cherries, apples, grapes, and Christmas trees.

Conventional crops. Table 14.1 shows the percentage of conventional crops produced (USDI BIA Flathead Agency 1980-1988).

Table 14.1. Crop Production

	Hay	Grain	Potatoes
Irrigated	52%	17%	3%
Dry Land	15%	13%	0%

Sweet cherries. Cold weather during the winter of 1988-1989 devastated sweet cherry orchards along the perimeter of Flathead Lake. Most growers are replanting, but it appears unlikely production will reach pre-1988 levels. Forecasters expect the apple industry to increase in importance.

Beef cattle and hay and small grain crops are produced throughout the Reservation. More intensive row crop production, primarily potatoes, is generally confined to the Mission and Moiese Valleys where soils are coarser-textured and irrigation water is accessible. Figure 14.3 is a satellite imagery interpretation of the general locations of agricultural lands on the Reservation.

Other Management Concerns

Along with the economic and climatic concerns that most farmers and ranchers confront, several other factors affect the management of agricultural resources on the Reservation.

Noxious weeds. Weeds have invaded many Reservation croplands and pastures. In recent years, the situation has deteriorated to the point that large areas are entirely unproductive. Farmers and ranchers have formed weed districts to combat weed invasions and to compete more effectively for limited governmental assistance for weed control.

Irrigation System Maintenance. The federal government has not adequately maintained irrigation system dams, canals and diversion structures. This failure has severely limited the effectiveness and efficiency of the system.

Wetlands and Riparian Areas. Agricultural areas encompass many riparian areas. Farming and ranching practices have negatively affected water quality, soils and fish and wildlife habitat in some of these areas.

Pollutants. Tilling, chemical use, irrigation and grazing, and other practices can introduce contaminants to the environment.

Livestock trespass. Trespass is a continual problem that can result in forage losses and overgrazing.

Residential and Commercial Development. Agricultural lands are usually suitable for development. Tracts are being broken up for residential subdivisions. Commercial development is growing in agricultural areas along the US Highway 93 corridor.

Traditional Food and Medicinal Plant Areas. Tillage, competition from introduced plant species, chemical use, and access restrictions have damaged or destroyed many traditional plant harvesting areas and hindered the ability of Tribal members to use them.

PROGRAMS AND POLICIES

Until recently, the BIA managed the agricultural resource on Tribal lands. In 1990 the Tribes contracted the Realty and Agriculture Programs from the BIA. Since then the Tribes have acquired funding that was unavailable to the BIA. The Tribes now manage a range program, a weed management program and a soil conservation program and are developing interdisciplinary conservation plans with other natural resource specialists.

Tribal and federal policies that guide management of agriculture on Tribal lands include the following:

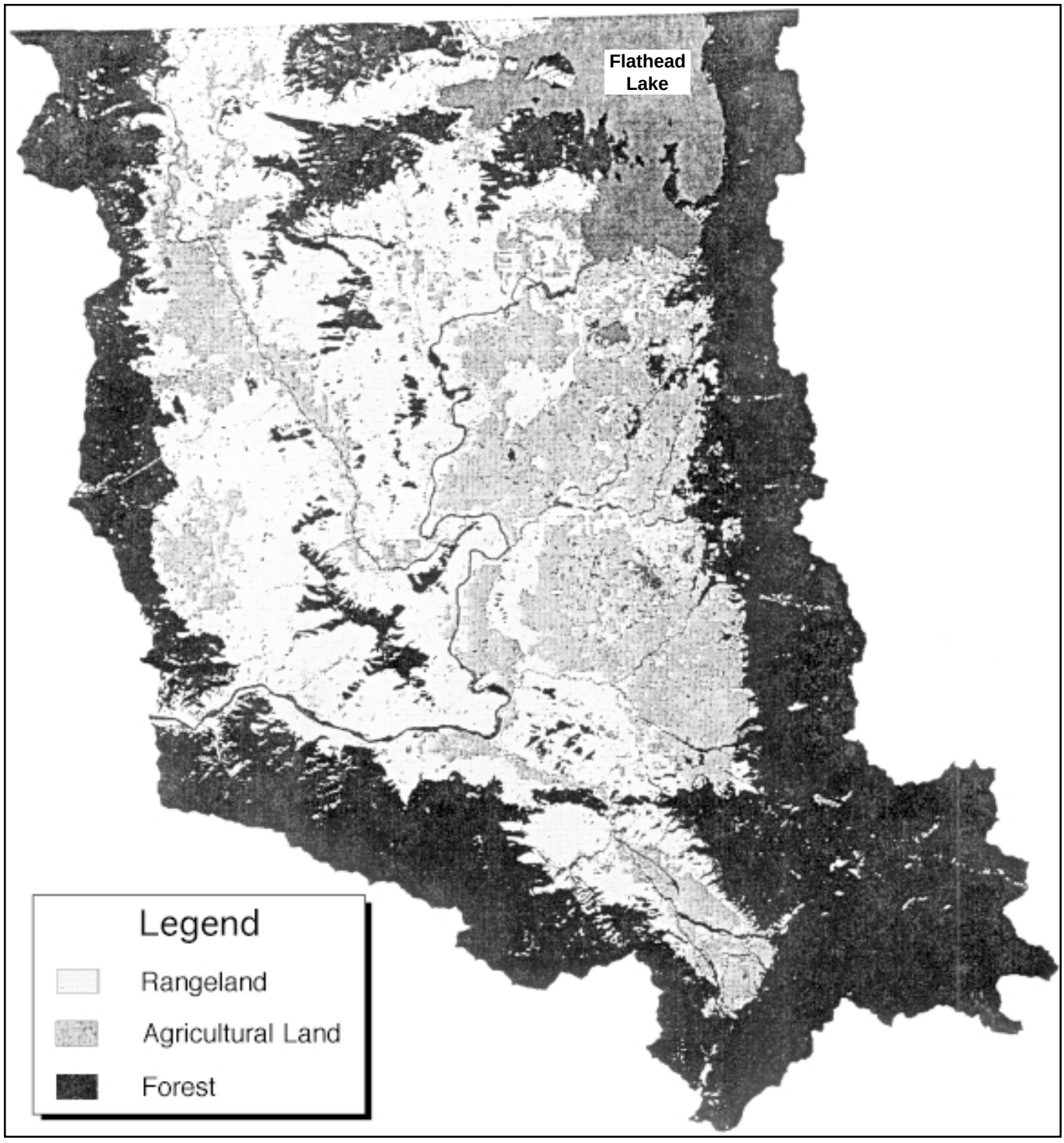


Figure 14.3. Reservation range and agricultural lands

Tribal Policies
Tribal Land Ordinance 45B, 1973, as amended Livestock Control Ordinance 59A, 1975 Cultural Resources Protection Ordinance 73A, 1980 Grizzly Bear Management Plan, 1981 Shoreline Protection Ordinance 64A (Revised), 1983 Aquatic Lands Conservation Ordinance 87A, 1985 Natural Resources Department Ordinance 78B, 1987 Mission Mountains Wilderness Buffer Zone Management Plan, 1987 Water Quality Management Ordinance 89B, 1991 Lower Flathead River Corridor Managment Plan, 1993

Federal Policies
55 Bureau of Indian Affairs Manual (BIAM) 25 Code of Federal Regulations, Part 162 30 BIAM

Other agencies that provide agriculture services include the Farm Home Administration, the Soil Conservation Service, the Agriculture Stabilization and Conservation Service, and the Montana State University Extension Service. The US Department of Agriculture funded a Reservation Extension Agent in 1992 to assist Indian farmers and educate youth about agriculture and natural resource uses.

ISSUES

The environmental impacts associated with agriculture are a concern. The Tribes recognize the value of agricultural pesticides and fertilizers for maintaining profitable production levels, but also acknowledge growing concerns about health and pollution risks associated with chemical use and misuse.

Tribal resource managers expressed the following issues and concerns:

- ❑ Priorities and funding for noxious weed management
- ❑ Rehabilitation of the irrigation system
- ❑ Irrigation water management

- ❑ Goals and priorities for livestock grazing on the Reservation
- ❑ Livestock trespass, fence construction and maintenance
- ❑ Riparian area protection, enhancement and rehabilitation
- ❑ Implementation of best management practices to protect resource values
- ❑ Allocation of Tribal lands for different uses, e.g. homesites versus agricultural production
- ❑ Loss of prime farmland to unplanned development

Tribal elders also expressed the following concerns about agriculture (these are in addition to the concerns listed in the range chapter):

- ❑ We need to look ahead to the future
- ❑ We need to make our lands more productive, to look at our land investments and returns
- ❑ Too much land is being bought for grazing and wildlife and not enough for irrigation
- ❑ Agriculture education programs are needed for young people
- ❑ Native plants have been impacted by chemical spraying on agricultural lands
- ❑ What are the qualifications and restrictions of the Tribes' leasing policy

Community members and other agencies expressed concerns about:

- ❑ Effects of chemical spraying on the health of humans, wildlife, groundwater, and other resources; controls should be developed
- ❑ Development of Tribally managed farms
- ❑ Weed problem getting worse, management needed
- ❑ Organic agriculture - should be researched
- ❑ Development of a land classification and zoning system based on productivity
- ❑ Water allocations for fisheries and irrigation; need balance
- ❑ Hunter conflicts with livestock on leased lands
- ❑ Availability of water to irrigators
- ❑ Consider wastewater use for irrigation, and conservative use of water
- ❑ Soil loss through erosion

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

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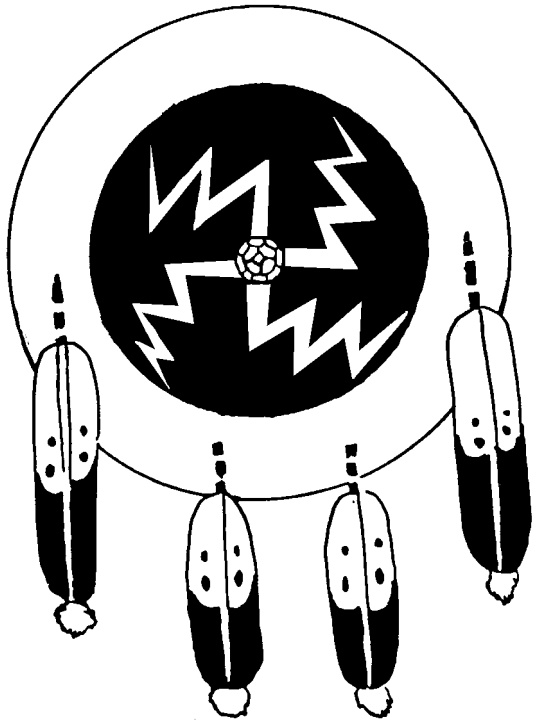
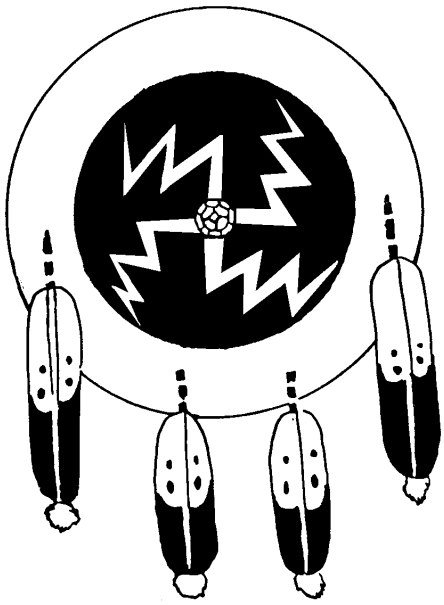


MINERALS AND ENERGY

GOAL: To use mineral and energy resouces wisely and with appropriate environmental and cultural resource safeguards



MINERALS AND ENERGY

In the past, Reservation mines yielded gold, platinum, silver and copper. Today, the Reservation produces hydroelectric power, and commercial quantities of sand, gravel, building stone, and clay, and the potential exists for mineral and geothermal energy production.

Historically, Tribal people used small amounts of stone and clay for building, hunting, fishing, warfare, and domestic and religious purposes. Commercial development of mineral resources started in the early 1900s. Miners staked many claims and established a few mining operations between 1910 and 1949 (Crowley 1963). These small-scale mines produced modest quantities of gold, silver and copper. Since 1917, when construction of the irrigation reservoirs started, work crews have mined sand and gravel. Builders have removed small quantities of building stone and clay.

Exploitation of energy resources started with the completion of the Hellroaring Creek Hydro Plant in 1917. Since then, Montana Power and the Tribes have built Kerr Dam and the Boulder Creek hydroelectric plants. The Hot Springs Bath House used geothermal water beginning in the late 1940s. More recently, the Tribes have considered using these waters as a supplemental industrial heat source.

In the mid 1980s, several oil companies leased large tracts of land and explored for gas and oil. Activity has since subsided, and companies now show little interest in further exploration.

As human populations increase, the demand for electricity, oil and gas, metallic and nonmetallic minerals will increase, and the Tribes may face pressure to develop some of these resources.

EXISTING CONDITIONS

Energy and mineral resources occur throughout the Reservation, and often in areas used for other purposes such as agriculture, timber or recreation. The Tribes value many of the areas as watersheds, fish and wildlife habitat and cultural sites.

Managers categorize mineral and energy resources into five groups: metallic minerals, nonmetallic minerals, oil and gas, geothermal energy and hydropower. A summary of each follows.

Metallic Mineral Resources

Metallic minerals on the Reservation include gold, platinum, silver, copper and zinc. Mines in the southern part of the Reservation have produced small quantities of metals in the past, but there are no mines producing today. Future production would require substantial investments in exploration and new technologies.

The Flathead Mine, two miles north of the Reservation, has produced over 7 million tons of lead-silver ore from an ancient volcanic center. The only place where these volcanic rocks occur on the Reservation is near Niarada. Hecla Mining Company is evaluating the potential for an open-pit silver and low-grade gold mine in the area. However, a mine would not be feasible unless silver prices increase considerably (Zehner 1987).

Many copper-silver deposits occur in the Ravalli Group of the Belt sediments that underlie the Cabinet Mountains just west of the Reservation. These are among the largest of their kind in the United States, but they lie in or near the ecologically sensitive Cabinet Mountains Wilderness. The same formations underlie much of the Reservation and they may contain similar deposits (fig. 15.1).

The Sullivan Mine in southern British Columbia is one of the largest lead-zinc-silver mines in North America. It is located in the Prichard Formation, which extends over a large part of the Reservation (fig. 15.1). Consequently, mining companies have expressed interest in the Reservation. Future development could involve underground or open pit mines.

The part of this chapter titled Management Concerns describes the impacts of mineral development on the Reservation.

Nonmetallic Mineral Resources

Nonmetallic mineral resources on the Reservation consist primarily of sand, gravel, clay and building stone.

The sand and gravel deposits found throughout the valleys may be the Reservation's most valuable nonmetallic mineral resource. They resulted from wind and water erosion associated with glacial activity ten to fifteen thousand years ago. Many occur on Tribal land and could be used for the reconstruction of highways and dams.

Recently, developers have expressed an interest in mining stone, clay and other deposits for large and small-scale building projects. Commercial operators mine peat in the Swan Valley

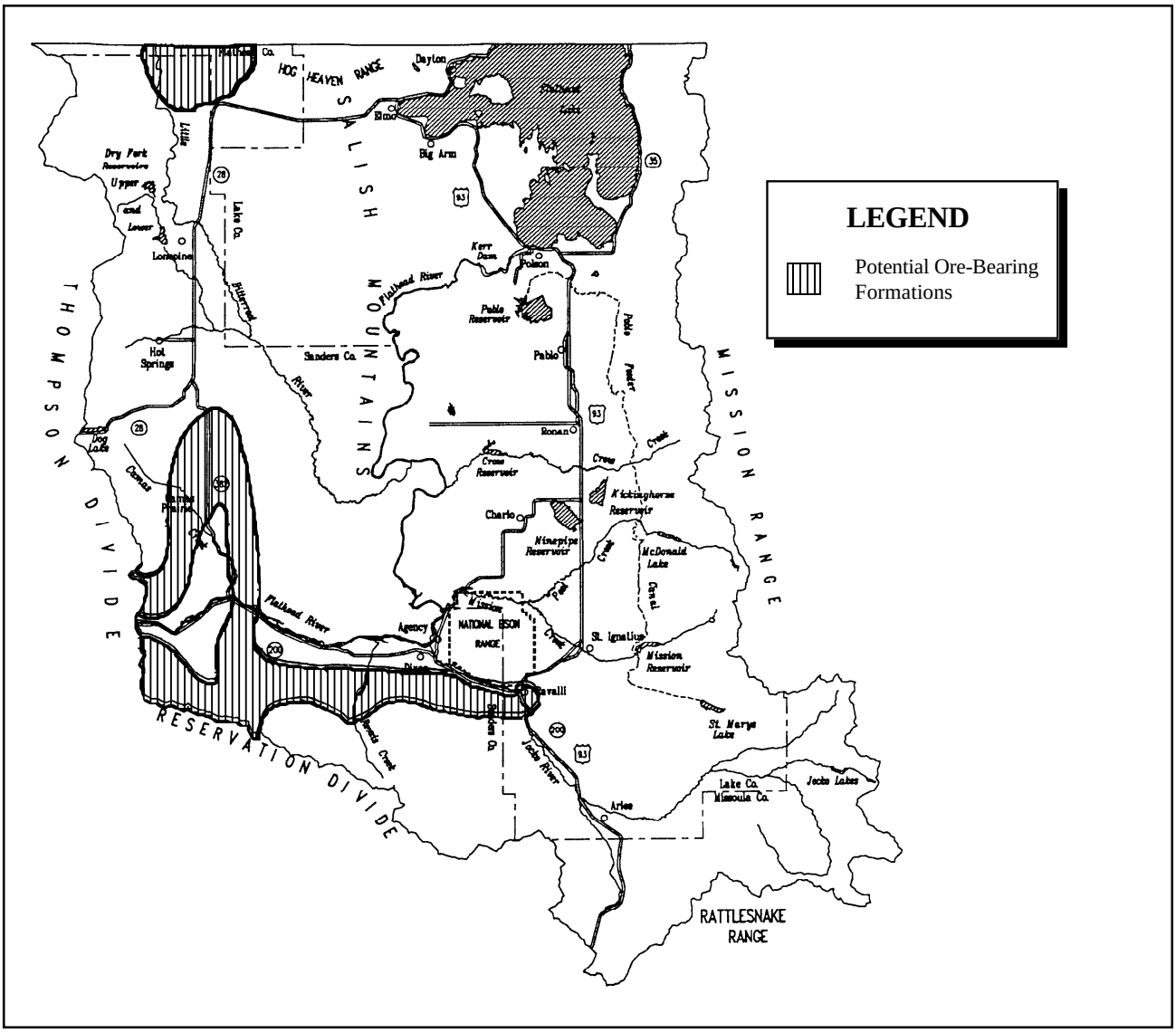


Figure 15.1. Potential ore-bearing formations

and at Lake Mary Ronan, but geologists have not found commercial deposits on the Reservation. They have, however, identified small, low-grade non-commercial deposits of coal on the Reservation (Mudge et al. 1972).

Oil and Gas

The Reservation lies within an area referred to as the overthrust belt, a geologic region that extends from Alaska to Mexico. Folds and faults trapped oil and gas in pockets throughout this region. Discoveries in northwestern Montana led some developers to speculate that similar deposits might occur on the Reservation.

In the 1980s, spurred by high crude prices, speculators acquired gas and oil leases on the Reservation. Several companies conducted geophysical surveys to search for structures with oil-bearing potential. As oil prices dropped, interest in development also declined. Since then, the companies that conducted and interpreted the surveys have shown little interest in continuing the exploration program.

Geothermal Energy

Geothermal energy resources occur from Hot Springs to the Niarada area. This groundwater, heated to about 120° F by the earth's interior, is used for baths at Hot Springs. Other uses such as heating homes, greenhouses or other buildings have been identified but not attempted. Two businesses hold Tribal leases to develop the resource further, however, the supply, yield and temperature of the water may be too low for large-scale utilization.

Hydropower

One large-scale and two small-scale hydroelectric plants operate on the Reservation (fig. 15.2).

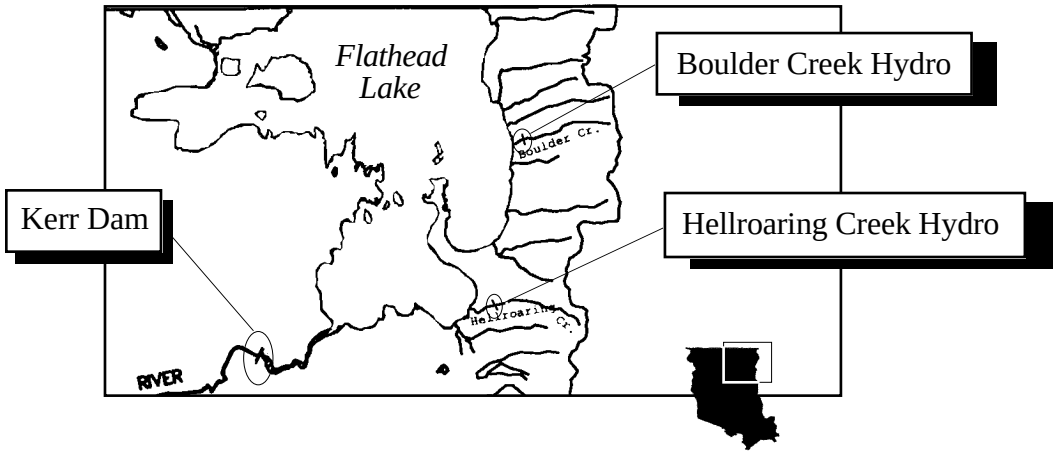


Figure 15.2. Existing dam sites

Kerr Dam, located 4.5 miles downstream from Flathead Lake, has a peak generation capacity of 180 megawatts and produces an average of 135 megawatts per hour in a normal water year. The dam, built by Rocky Mountain Power, a subsidiary of Montana Power Company (MPC), began commercial power production in 1939. MPC has operated the dam since then.

In 1985, the Federal Energy Regulatory Commission issued MPC and the Tribes a joint fifty-year license to operate the dam. Under the license, MPC maintains and operates the facility for the first 30 years (until 2015). In 2015, the Tribes can assume these responsibilities, provided the Council issues formal notice and agrees to pay a "conveyance price" for the purchase of the facility. The license expires in 2035.

The US Army Corps of Engineers has identified five additional dam sites on the Lower Flathead River. Dams at four of the sites would generate electricity. A dam at the fifth site would serve to re-regulate flow regimes modified by Kerr Dam (fig. 15.2). The largest of these dams would inundate the entire length of the Lower Flathead River and significant portions of its tributaries. For various reasons the Tribal Council has elected not to develop dams on the river.

Hellroaring Creek Hydro, one of the two smaller facilities, was completed in 1917 to supply power to a Polson area flour mill. Mission Valley Power maintains and operates the 360-kilowatt facility. The Tribes built the other small-scale facility on Boulder Creek in 1984. This plant diverts a maximum of nine cubic feet of water per second and operates at a maximum capacity of 350 kilowatts. The Tribes market power from both plants through Mission Valley Power.

In 1984 the Tribes completed a Small-Scale Hydro Plan for the Reservation. It evaluated eighty-four additional sites, proposed twenty-three for further study, and identified five with "excellent hydroelectric potential" (Farrell 1984). The option remains open for developing these sites.

Management Concerns

Mineral and energy development has affected the Reservation environment in several ways.

Natural Resource Quality. Road construction, road use, and earthwork activities have degraded air quality. Ground disturbances and the improper disposal of wastes have added sediment to natural waters. Clearings and utility lines have affected the aesthetics of some areas.

These activities have also diminished fish and wildlife habitat. The operations of Kerr Dam have had major negative impacts on biological communities. The Tribes, Montana Power Company and other agencies have developed a plan to mitigate the dam's impacts. The plan is pending review and approval by federal agencies.

Natural Resource Use. Mineral and energy developments have conflicted with existing resource uses. They have resulted in the loss of timber, agricultural and recreational lands. They have infringed on cultural sites, and impacted recreational experiences by degrading water quality and scenic values. Some who live close to mines and borrow operations consider them nuisances.

Because of these impacts, the Tribes must plan the exploration and development of mineral and energy resources carefully to minimize environmental damages and impacts on cultural resources.

PROGRAMS AND POLICIES

The Tribes need additional information before making informed decisions about the future development of Reservation mineral and energy resources. A Tribal Minerals Management Program is further defining the metallic mineral potential of Tribal lands, and helping to manage nonmetallic mineral operations on the Reservation. Tribal programs currently do not deal specifically with the development of hydroelectric, geothermal or oil and gas resources. The Tribes have created a program, however, to facilitate the Tribes' assumption of Kerr Dam operations.

With these concerns in mind, the Minerals Program is developing working relationships with mining companies interested in environmentally sound, economically viable mineral developments. The Tribes will design exploration and development agreements in accordance with the 1982 Indian Mineral Development Act and regulations contained in 25 Code of Federal Regulations (CFR) 211, 212, 216, 225. All exploratory drilling and gravel mine permitting undergoes formal cultural and environmental review, using an interdisciplinary team of Tribal and Federal resource specialists and the National Environmental Policy Act process. Other policies that apply to the development of mineral resources include:

Tribal Policies

Tribal Land Ordinance 45B, 1973, as amended
Cultural Resources Protection Ordinance 73A, 1980
Grizzly Bear Management Plan, 1981
Mission Mountains Wilderness Management Plan, 1982
Shoreline Protection Ordinance 64A (Revised), 1983
Small-Scale Hydro Plan, 1984
Aquatic Lands Conservation Ordinance 87A, 1985
Mission Mountains Wilderness Buffer Zone Management Plan, 1987
Natural Resources Department Ordinance 78B, 1987
Water Quality Management Ordinance 89B, 1991

Federal Policies

Surface Mining Control and Reclamation Act
30 Bureau of Indian Affairs Manual
30 CFR
40 CFR
25 CFR 211, 212, 216, 225
25 USC 396, et seq
25 USC 2101, et seq

The Reservation's Class I airshed designation would restrict industrial manufacturing and refinement of energy and mineral resources.

Energy and mineral development on Tribal land would involve the following agencies:

Bureau of Indian Affairs. The BIA serves as the lead agency for coordinating mineral and energy-related activities to assure that leases and/or agreements comply with the Mineral Leasing Act (25 U.S.C.A. sec. 396 a-e) or the Indian Mineral Development Act of 1982 - 25 U.S.C.A. sec. 2101 et seq.). They are also responsible for any environmental studies under 25 U.S.C.A. sec. 2101 et seq., and reviewing environmental documents.

US Geological Survey. The USGS cooperates in evaluating geologic structures and aquifer capacities using water injection.

US Bureau of Mines. The Bureau of Mines' involvement is similar to that of the US Geological Survey. The agency also studies the feasibility and economic potential of mining activities.

Environmental Protection Agency. The EPA insures compliance with environmental protection regulations contained in 40 CFR.

Minerals Management Service. This agency collects and distributes royalty and mineral revenues generated on Indian and Federal lands.

Bureau of Land Management. The BLM insures oil and gas development on Indian lands complies with Federal regulations. It also insures compliance with exploration and mining plans through a Memorandum of Understanding with the Bureau of Indian Affairs.

US Army Corps of Engineers. The Corps cooperates in the permitting of hydropower plants and sets flood control criteria for the area.

Federal Energy Regulatory Commission. FERC licenses hydropower facilities and insures license compliance.

Bureau of Reclamation. The BOR operates Hungry Horse Dam, controls pool elevations and upper Flathead River discharges.

Bonneville Power Administration. The BPA markets power for the area and is the primary funding agency for fish and wildlife restoration under the 1980 Pacific Northwest Electric Power Planning and Conservation Act.

ISSUES

Issues and concerns voiced by Tribal resource managers include:

- ❑ Future mining impacts on air and water quality
- ❑ Groundwater contamination from mineral development
- ❑ Impact of mineral and energy development on fish and wildlife, including Threatened and Endangered Species
- ❑ Reclamation of developed sites

- ❑ Development conflicts with wilderness and primitive area values
- ❑ Indirect impacts of energy and mineral development on community growth, housing and services
- ❑ Impacts on local economy following a potential “boom town” situation
- ❑ Mineral and energy development impacts on the overall integrity of cultural resources
- ❑ Environmental and economic affects of potential increases in electricity cost and demand
- ❑ Off-Reservation development impacts on Reservation air and water quality

Tribal elders added these concerns:

- ❑ Leave the Lower Flathead River alone; look what happened when they built Kerr Dam.
- ❑ Will mining operations be allowed to pollute the environment.
- ❑ Protect cultural sites during exploration and development.
- ❑ Require mining and reclamation plans for all mineral developments.
- ❑ How will energy and mineral developments affect water wells?

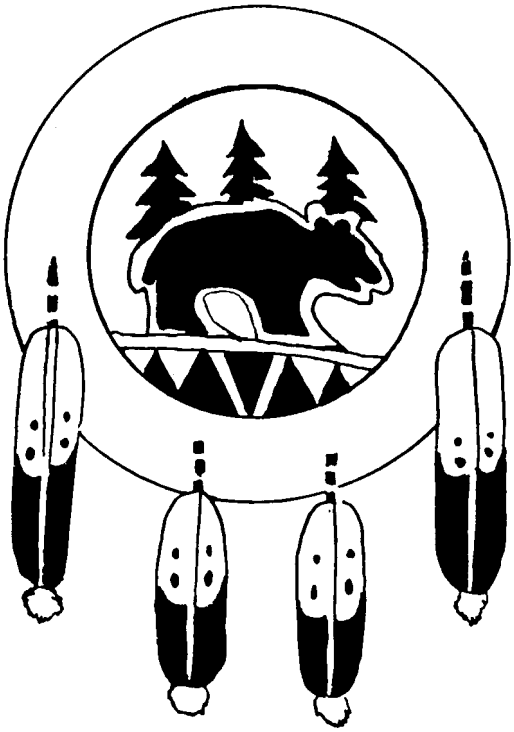
Concerns raised by other community members and agencies include:

- ❑ Do not allow future dam construction on the Lower Flathead River.
- ❑ Do not allow mining in the Mission Mountains.
- ❑ Balance mineral development with environmental protection.
- ❑ Study more areas for future development.
- ❑ Provide opportunities for training and employment of Tribal members during development.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

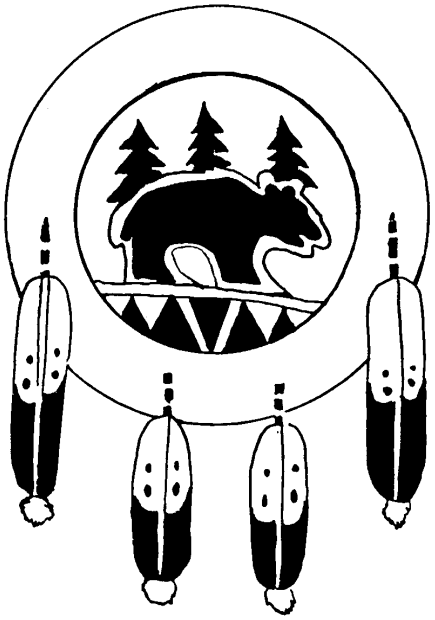
Volume I - Chapter 16



WILDERNESS AND PRIMITIVE AREAS

GOAL: To preserve specially designated areas for cultural, spiritual and recreational pursuits

WILDERNESS AND PRIMITIVE AREAS



The Tribes have always placed great value on wildlands or wilderness. These protected areas are essential for the perpetuation of Tribal cultures and traditional practices. The settlement and development that came after the Allotment Act altered much of the Reservation's natural landscape. Settlers destroyed sacred cultural sites and built roads and buildings on pristine lands. Many of the wild and untamed areas that remain are in the mountains, and it is there that Indian people find a bridge that links the past with the present.

To preserve the cultural, spiritual and recreational values of some of these mountain lands, the Tribal Council passed Resolution 4575, in 1974. The resolution designated the area surrounding the South Fork of the Jocko River as a Primitive Area, and described it as "one of the last vestiges of unspoiled land on the Flathead Reservation where Tribal members can have the opportunity for solitude and an unconfined type of recreation." In October of 1979 the Council put the boundaries and a member-only use designation for the South Fork Primitive Area to a vote of the Tribal membership. The Council did the same for another area, known as Mill Creek or Lozeau, in the northwest corner of the Reservation. The membership approved both measures (Resolutions 2-79 and 3-79) (fig. 16.1). Almost thirteen years later, on January 17, 1992, the Tribal Council approved Resolution 92-74, which expanded the South Fork Primitive Area to the west.

The Tribal Council initially designated the Mission Mountains Tribal Wilderness, which lies along the eastern boundary of the Reservation, in 1979. In 1982, they approved Ordinance 79A and Resolution 82-173 further defining the area and its management direction. The Council's action was historic; it was the first time in the United States that a Tribal government had designated a wilderness area. In recognition of the fact that outside influences can affect the wilderness, the Council established a wilderness buffer zone in 1987 to protect and preserve the integrity of the area.

For the Tribes, these primitive and wilderness areas provide sanctuaries where Tribal members can rest, hunt, fish, worship, practice cultural traditions, and recreate. They provide scenic amenities and places for educational and scientific study. They also offer protection for fish, wildlife, sensitive plants, air and water, and cultural resources.

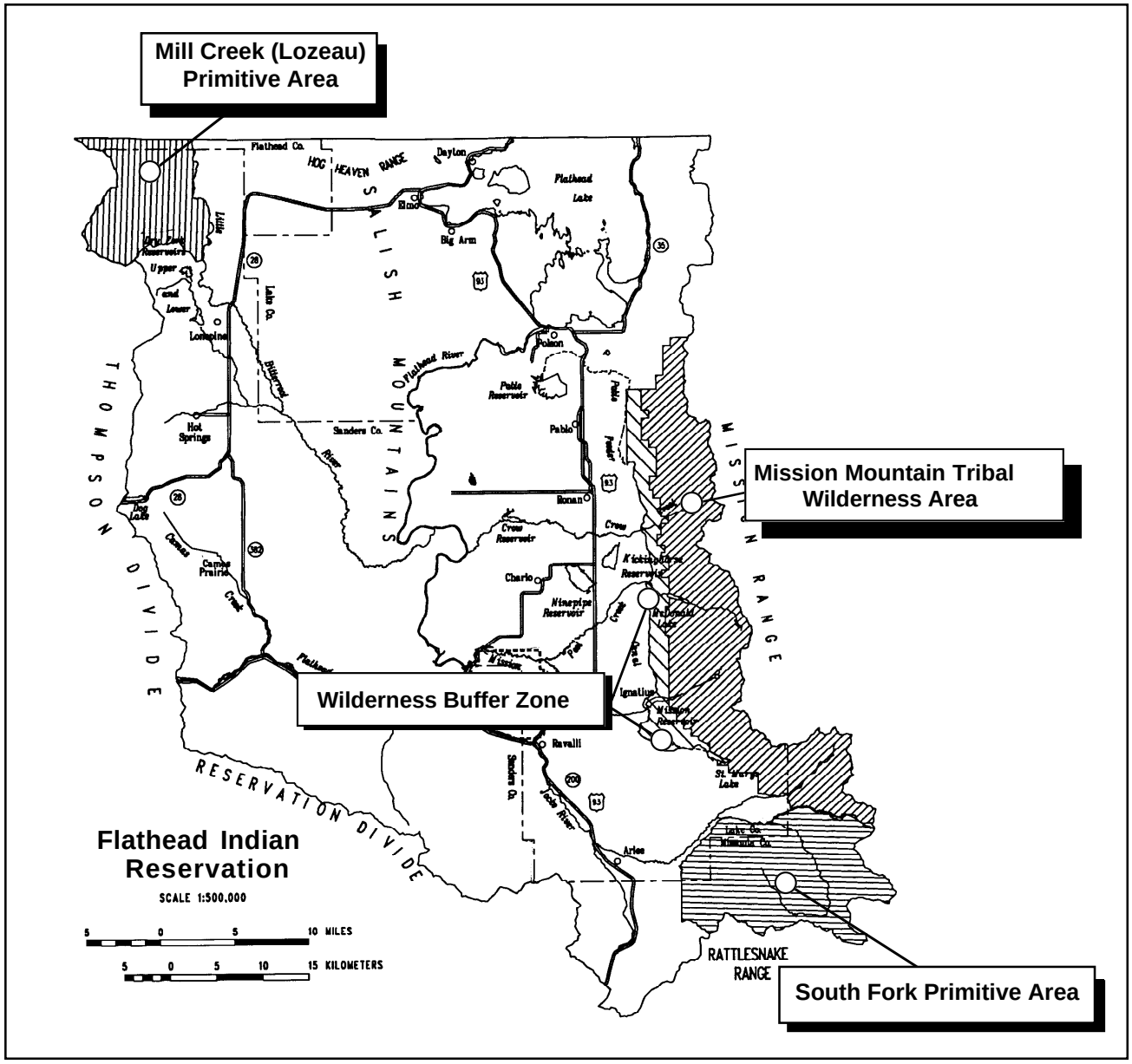


Figure 16.1. Wilderness and primitive areas

EXISTING CONDITIONS

Mission Mountains Tribal Wilderness

The Mission Mountains Tribal Wilderness is located on the western slopes of the Mission Range. The area covers approximately 91,778 acres[1]. It is roughly 34 miles long and five miles wide. Elevations range from four thousand to nearly ten thousand feet.

[1] GIS Computer estimate, 1991.

The eastern slopes of the Mission Range are a federally designated wilderness area. The federal Mission Mountains Wilderness, established in 1975, encompasses 73,877 acres.

Both the Tribal and federal areas have timbered slopes, high mountain valleys, rocky cliffs, rugged peaks, subalpine and alpine lakes, creeks and small glaciers. They provide a home for grizzly bears, elk, deer, mountain lions, mountain goats, eagles, black bears, wolverine, fisher, marten and other wildlife. The Bob Marshall Wilderness, which is itself contiguous to Glacier National Park and the Scapegoat and Great Bear wildernesses, lies within a few miles of the Mission Mountains Wilderness's eastern boundary. All these areas combine to make up a single ecological system, what biologists term the Northern Continental Divide Ecosystem.

Forest Cover. Douglas fir and subalpine fir dominate the timbered slopes of the Tribal wilderness, but there are also stands of cedar, larch, spruce, ponderosa pine, lodgepole pine, and white bark pine. Lower elevation Douglas fir forests are tending toward climax. Some of these stands have become dense and vulnerable to insects and diseases. Tree mortality and blow down is high, so is the fire hazard. During the first half of this century the Tribes logged isolated tracts in the wilderness, but the vast majority of the area remains unlogged.

Lakes and Streams. Glaciers carved dozens of high basins in the Mission Range, and these basins hold over one hundred high lakes. In the past, Indians journeying across the mountains to hunt buffalo camped on the shores of these lakes. Today, high country visitors enjoy some of the most breathtaking and memorable sights on the Reservation. They fish and swim in the lakes, watch goats, deer and occasionally bear. Some of these campers have caused damage to lake shorelines. They and their horses have compacted and eroded soils, built multiple fire rings and littered banks with garbage.

There are nine main drainages in the wilderness (fig. 16.2). They are listed from north to south in the following table.

Mission Mountains Tribal Wilderness Trails

1. Mud Creek. This drainage has four large and three small lakes.
2. North Crow Creek. This drainage encompasses four small lakes.
3. Middle Crow Creek. The drainage has two small lakes, no trails and provides drinking water for the City of Ronan. It is a sensitive area because of water quality concerns.
4. South Crow Creek Drainage; it holds six lakes, including the Upper Terrace and Terrace lakes, three South Crow Creek lakes, and Swartz Lake, which lies below the Wilderness boundary.
5. Post Creek Drainage. This, a major drainage, has eleven high mountain lakes and two small glaciers. It drains into McDonald Lake.
6. Mission Creek. There are eight lakes in the upper reaches of this drainage. When it leaves the Wilderness, Mission Creek enters Mission Reservoir in the Buffer zone.
7. Dry Lake Creek; the drainage holds four lakes and empties into St. Mary's Lake.
8. North Fork of the Jocko River. The North Fork Drainage encompasses five lakes.
9. Middle Fork of the Jocko River. Only the north half of this watershed is in the wilderness. Two lakes, the Upper and Lower Jocko Lakes, lie in the drainage but outside the wilderness.

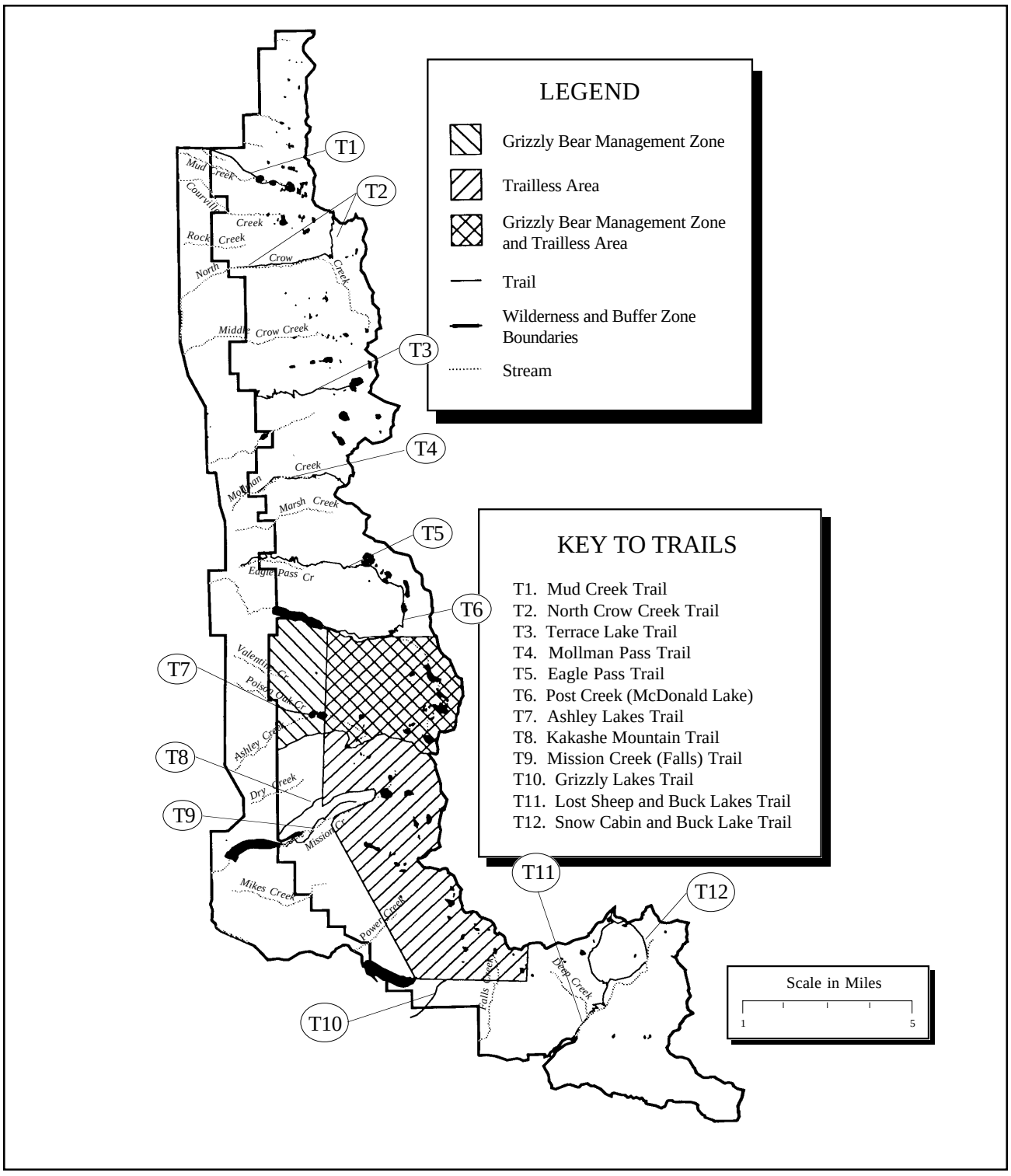


Figure 16.2. Trails and drainages in the Tribal wilderness

Campgrounds, Campsites, Trailheads, Trails and Use. Indians built the first trails into the Mission Mountains long ago; hikers still use many of them. In the 1930s the Civilian Conservation Corps (CCC) constructed additional trails to help control fires.

Some of these fell into disuse and were abandoned: a 1941 CCC's inventory counted 26 trailheads and 40 trails, a 1963 inventory counted 20 trailheads and 20 trails, and a 1972 inventory counted just 6 trailheads and 8 trails. In 1991, the Tribes maintained 9 developed trailheads and 12 major trails. These all receive regular use. Another 8 receive only sporadic use and are not maintained. Of the trailheads, most are at the wilderness boundary and have campground facilities; others have only informational signs. Figure 16.2 shows the locations of wilderness trails.

Most wilderness use occurs between June and September, although trails and lakes at higher elevations often do not receive much use until after the snow melts in midsummer. Trail registration data indicate that the predominant type of use is hiking and fishing.

Several visitor use issues concern resource managers. These include fire hazards, trail and campsite maintenance, impacts on wildlife and other resources (many of the trails are in prime wildlife habitat), and unrestricted access to cultural and historical sites.

Roads. Dozens of county, private and utility roads crisscross the Mission foothills and provide access to the wilderness. In the Buffer zone, and even in the wilderness, there are many Tribal and non-Tribal logging roads. The Tribes have ordered managers to close those that enter the wilderness; those managers are now implementing the order. (Visitors sometimes use wilderness roads for prohibited activities such as Christmas tree and lodgepole pine harvest, vehicle use, non-member hunting, and unpermitted recreation use.)

Sensitive Areas. The Tribes consider the areas and resources listed below sensitive, and give them special consideration in planning and management.

- ❑ Cultural sites
- ❑ Old growth areas
- ❑ Habitats for threatened and endangered species and other sensitive wildlife
- ❑ Habitats for native fish species
- ❑ The fragile alpine ecosystem
- ❑ Riparian areas
- ❑ Municipal watersheds
- ❑ The Trailless Area
- ❑ The Wilderness Buffer Zone
- ❑ Trails and campsites (locations, environmental impacts, and history of visitor use)

The Tribes have restricted certain activities in or near the wilderness to protect wilderness values. The following are restricted or protected areas:

Special Grizzly Bear Management Zone. This area, closed to human use between July 15 and October 1, encompasses about ten thousand wilderness acres around McDonald Peak and the Ashley Lakes drainage. The tribes established it in 1982 to protect grizzly bears that gather in the area to feed on insects. (Dates of the closure can vary according to the level of bear activity.)

The Ashley Lakes Day Use Area. This area, located within the grizzly bear management zone, is open from October to mid-July (pending the aforementioned closure dates), but is restricted to day use only. During the spring and fall, it receives heavy grizzly bear use. The Tribes established the day-use restriction to minimize the disturbance to bears and to protect visitors.

The Trailless Area. With a few minor exceptions, this area has been trailless since the establishment of the Wilderness. The terrain is rugged and trail construction is economically prohibitive. The country is open, and hikers, for the most part, do not need trails. It provides visitors opportunities for cross-country travel, a greater chance to experience solitude and a more primitive camping and hiking experience.

North Fork of Post Creek. The Tribes closed this drainage to fishing in 1989 to protect naturally reproducing trout populations in the Summit Lake Basin. The closure protects spawning runs in the tributary streams of Moon, Long, Frog and Summit lakes.

Along with these restrictions, the Tribes close the Tribal wilderness to all packing and riding stock from March 1 to June 30 and prohibit commercial guide and packing services within the wilderness. The Council enacted these measures to halt severe livestock-related erosion problems on trails and at campsites.

In general, use of wilderness areas in the Western United States has dropped since the early 1980s (Lucas and McCool 1988). Staff observations and regional wilderness information suggest that use has declined in the Tribal Wilderness as well.

Although there appears to be a downward trend in visitor use, the simple presence of wilderness brings benefits to an area. Populations over the past 15 years in counties located near wilderness areas have grown 2 to 3 1/2 times faster than other counties, according to a study of 277 counties. In Montana during the 1980s, nine of the top 12 counties in population growth were next to wilderness areas. These “wilderness counties” became “magnets to business and population because of the high quality local environmental resources, many of which are preserved and protected by wilderness” (Rudzitis 1987). They grew economically in spite of severe fluctuations in the larger economy because the natural landscape “drew people there, kept them there, and helped them permanently sustain the local communities and economies” (Power 1988).

Mission Mountains Tribal Wilderness Buffer Zone

The Tribes established a buffer zone contiguous with the western boundary the wilderness in 1987 to protect and preserve the environmental and cultural values of the wilderness (Tribal Resolution 86-47). The buffer zone is approximately twenty-five miles long by 1.5 miles wide, and comprises 24,398 acres (fig. 16.2), of which the majority are Tribally owned.

Most of the wilderness trailheads are in the buffer zone, as are six developed campgrounds. The area is important for its recreational value and as a cultural resource. Other uses include livestock grazing, agriculture, homesites, and timber and Christmas tree harvest.

Forest Cover. Ponderosa pine and Douglas fir dominate the buffer zone. South facing slopes support grand fir, lodgepole pine and old-growth ponderosa pine. Many of the stream drainages hold stands of old-growth cedar and spruce. These mixed stands are some of the most productive on the Reservation. Forest insects and diseases in the buffer zone are at endemic levels (restricted to a particular place), but as the density of young stands increases, mortality increases.

The Tribes have not harvested timber on Tribal lands in the buffer zone since portions of the South Crow Creek drainage were logged in 1976. However, fee land owners and allottees have logged about 50 percent of the forested lands they control since then. The Tribal Council has directed the Tribal and BIA forestry programs to evaluate entry into the Buffer to reduce fuel loading and promote healthy timber stands. An interdisciplinary and public review process addresses past, present and future logging impacts on water quality, fish, wildlife, aesthetics and other cultural and recreational resources.

Watersheds and Drainages. Most of the water leaving the Tribal Wilderness and buffer zone flows into canals of the Flathead Agency Irrigation Division (FAID). Four of these canals—the Pablo Feeder, Mission A, Mission DA, and Dry Creek Canals—make up the west and southwest boundaries of the buffer zone. The Pablo Feeder Canal intercepts all twenty streams that flow through the buffer zone. Nine of these streams no longer flow below the canal bank. The remaining eleven do not allow fish to pass upstream. Unregulated, private water diversions impact many of these streams.

Several streams support wild, self-sustaining populations of native, genetically pure westslope cutthroat and bull trout. The conditions necessary for the survival of these species are of critical concern to the Tribes.

FAID's major storage facilities affect streamflows. Those within or partially in the buffer zone include McDonald Lake, Mission Reservoir and St. Mary's Lake. Because McDonald and St. Mary's reservoirs were both natural lakes before the construction of the irrigation dams, their water depths are adequate to support fisheries, even when reservoir levels are at their lowest. Mission Reservoir, on the other hand, was a wetland before dam construction, as was Swartz Lake, a small reservoir created by a private individual.

Campgrounds and Trailheads. There are six semi-primitive campgrounds and eight developed trailheads within the buffer zone[2]:

Buffer Zone Campgrounds and Trailheads	
McDonald Lake Campground	Mud Lakes Trailhead
North Crow Campground	North Crow Trailhead
Mission Dam Campground	Terrace Lake Trailhead
Mission Falls Lower Campground	Mollman Lake Trailhead
St. Mary's Campground	Eagle Pass Trailhead
Swartz Lake Campsite	Post Creek Trailhead
Ashley Lakes Trailhead	North Fork Jocko Trailhead

One undeveloped trailhead, KaKaShe, also lies within the buffer zone.

Roads. County, private and Tribal roads provide access. Crews regularly maintain many of these, but several are sub-standard and are only occasionally maintained by hunters, firewood or Christmas tree cutters. Because road use creates disturbance or displaces grizzly bears, big game and other wildlife, road management is an important element of wildlife management.

Homesite Development. The highest density of residential development within the buffer zone is from the North Fork Crow Creek area north. Divisions of fee-simple lands have occurred at several locations. These subdivisions can adversely affect water quality, fish and wildlife habitat, aesthetics and other values. Only two Tribal homesite leases exist in the entire buffer zone, and they lie within the North Fork Crow Creek area.

From North Fork Crow Creek south, to about one mile north of McDonald Lake, residential density decreases and development ranges from small, single homesites to farmsteads. South of McDonald Lake there are more farmsteads and fewer homesites. This trend continues to the south end of the buffer zone.

With the exception of sewer and water system design review, land development within the buffer has occurred without site review. Consequently, developers have damaged wildlife travel corridors, pets have harassed wildlife, and private logging operations have damaged aesthetics.

[2] Semi-primitive campgrounds consist of picnic tables, fire pits, and pit or vault toilets. Drinking water, lighting and electrical hookups are not available. Developed trailheads only have parking facilities and signs.

Livestock Grazing. Several Tribal range units and farm-pasture lease tracts lie within the buffer zone. The Tribal Council has set aside the range units for wildlife use. Livestock graze several of the farm-pasture tracts.

Most of these leases lie between North Crow and Ashley creeks at low elevations. Leases are subject to interdisciplinary team review and use recommendations.

South Fork of the Jocko Primitive Area (The South Fork)

The South Fork is an area set aside for Tribal members for solitude and recreation. The only non-members that may enter the area are the spouses and minor children of Tribal members. They may recreate (but not fish or hunt) as long as their Tribal member spouse or parent accompanies them.

The South Fork primitive area encompasses 59,169 acres (including the 17,802 acres added in 1992) in the southeast corner of the Reservation (fig. 16.3). It is an area of deep valleys and steep forested slopes that provide suitable habitat for grizzly and black bears, elk, deer, mountain lions and other wildlife.

Forest Cover. Grand fir and subalpine fir habitat types dominate the South Fork. There are cedar groves in the creek bottoms and extensive subalpine fir stands at higher elevations. Although logged in the past, the Tribes have closed the area to commercial timber harvest since 1979. Individuals can still cut firewood in certain areas.

Watersheds and Drainages. The area includes about thirty lakes larger than an acre in size. The Lower Jocko Lake is the largest at thirty-four acres. The Middle Fork of the Jocko River drains the north end, but the South Fork is the largest drainage. It flows through the middle of the area; both Boles Creek and Liberty Creek drain into it.

Campgrounds, Campsites, Trailheads and Trails. Tribal management of the South Fork is not as restrictive as it is for the Tribal Wilderness. Regulations permit the construction of shelters, sanitation facilities, picnic tables, hitch racks and corrals. The Tribes constructed a cabin at the entrance for the attendant who monitors the area.

There are many non-designated campsites located along roads and lakes within the area. Gate attendant records show that during the summer months of June through September 1988, 1,439 people passed through the gate. Some visited for a few hours, while others stayed days, weeks or even months to fish, hunt, harvest berries, or plants.

Roads. The main road within the primitive area is the South Fork Road, which follows the South Fork of the Jocko River. Several roads branch off this main road, including the Middle Fork Road, which runs along the area's north boundary and into the Swan

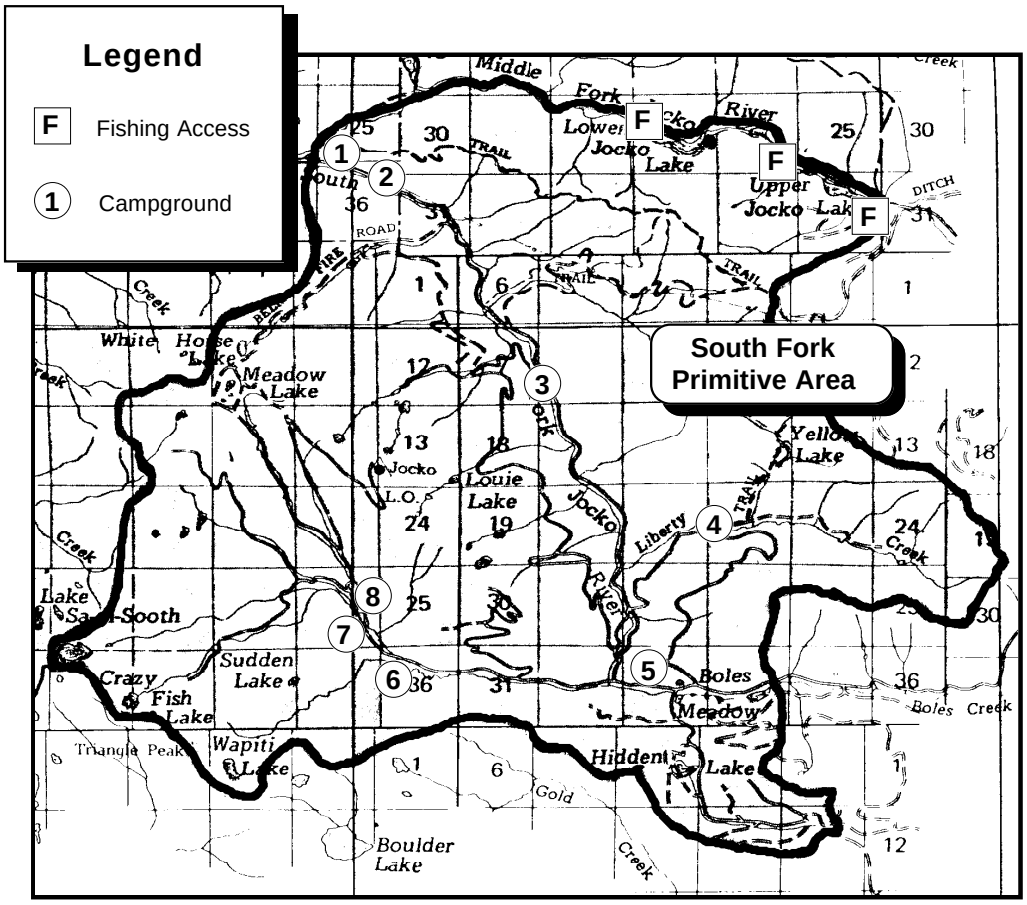


Figure 16.3. South Fork Primitive Area

Valley. Other roads include the Louie Lake, Crazy Fish Lake, White Horse Lake, Liberty Meadows, and Boles Meadow roads. These were originally used for logging and fire control purposes.

Key Management Concerns include:

1. Cultural site protection
2. Maintenance of native trout populations and habitats
3. Protection and preservation of Grizzly bear and other wildlife habitats, enhancement of elk ranges
4. Fire lookout, road and trail maintenance
5. Maintenance of power transmission lines
6. Dam rehabilitation at Jocko and Black Lake Reservoirs
7. Trespass by non-members from the Rattlesnake Wilderness Area to the south
8. Ownership and land use of state sections within the primitive area
9. Land use practices on other adjacent areas
10. Fire Management
11. Development of an overall management plan

There is not an overall management plan for the South Fork Primitive Area; managers derive policies from Tribal Council resolutions, ordinances and other actions.

Mill Creek (Lozeau) Primitive Area

The Mill Creek (Lozeau) Primitive Area, located in the northwest corner of the Reservation, covers 34,901 acres[3]. The 1979 Tribal referendum vote establishing the area did not include a legal boundary description. It referred to the Lozeau, Mill Creek, Mill Pocket and Clear Creek areas as comprising the primitive area. The approximate boundary used is the Reservation boundary to the west and north, the Little Bitterroot River to the east, and the southern boundary of the Mill Pocket watershed (fig. 16.4). These boundaries are currently being reviewed and may be revised.

The Mill Creek (Lozeau) Primitive Area encompasses both foothill and mountainous terrain. The steepest slopes lie along the west boundary. Elevations range from twenty-nine hundred feet to seven thousand feet. The area provides excellent habitat for moose, elk, deer, black bears, upland game birds and other wildlife.

The area is closed to all non-members except for spouses and minor children of Tribal members. They may recreate (but not fish or hunt) as long as their Tribal member spouse or parent accompanies them.

Forest Cover. Ponderosa pine, moist Douglas fir and grand fir habitat types dominate the area. The Tribes allow timber harvest in the area.

Watersheds and Drainages. The Mill Creek (Lozeau) Primitive Area drains into the Little Bitterroot River. Redmond and Clear creeks drain the northern corner and Bassoo Creek drains the west central portion. Mill and Mill Pocket creeks drain the southwest corner. There are no lakes.

Campgrounds, Campsites, Trailheads and Trails. In 1941, according to a project map, the CCC built four shelters in the area. The map shows no established trailheads or trails. Since then, the Wildland Recreation Program has constructed and maintained three campgrounds in the area, including the Lozeau and Little Bitterroot campgrounds, and Pike's Camp.

[3] GIS computer estimate, 1991.

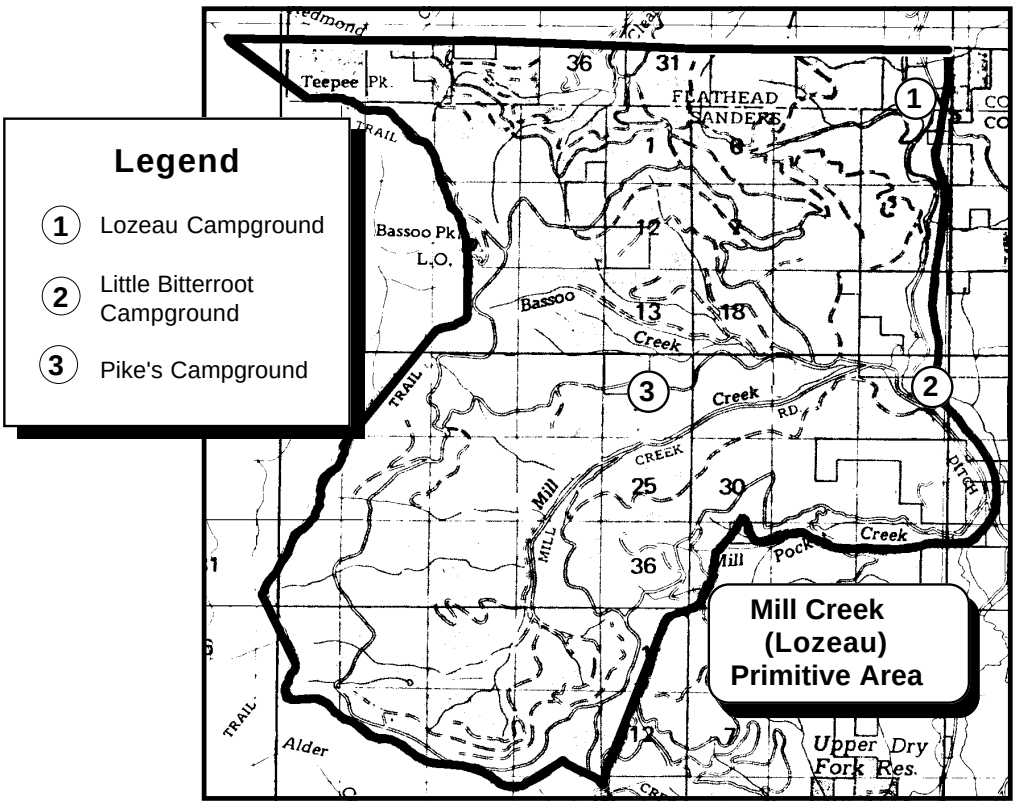


Figure 16.4. Mill Creek (Lozeau) Primitive Area

Roads. There are many logging roads in the area. The Mill Pocket, Mill Creek, Clear Creek, Bassoo Peak Lookout, and Lozeau roads receive the most use. Five outside roads access the area: two from the north, two from the west and one from the south.

Key Management Concerns addressed during the planning process include:

1. Wildlife habitats
2. Streams
3. Management of Lolo National Forest (to the west)
4. Private land uses within the Primitive Area (Fee, Trust, State Lands)
5. Maintenance of Bassoo Peak Lookout and access road
6. Cultural resource protection
7. Access management, including trespass from adjacent lands
8. Commercial logging
9. Management plan development

The Mill Creek (Lozeau) Primitive Area has no overall management plan to date. It is a favorite area for hunting moose, elk and mule deer. Tribal members use it for post and pole harvest, Christmas tree harvest, firewood gathering, and tree planting and thinning.

PROGRAMS AND POLICIES

Mission Mountains Tribal Wilderness and Buffer Zone

The Wildland Recreation Program in the Natural Resources Department is responsible for overall management of the Mission Mountains Tribal Wilderness and Buffer Zone. The program works on an interdisciplinary basis with the various resource disciplines in the Tribal Natural Resources and Forestry Departments, and with the Flathead and Kootenai Culture Committees. The Tribes' Fish and Game Department is responsible for law enforcement in the Wilderness and Buffer zone.

The 1982 Mission Mountains Tribal Wilderness Management Plan governs management of the wilderness. The plan seeks to protect and preserve the area's natural conditions in perpetuity. Managers monitor human uses and their influences, define limits of acceptable change, then act to prevent degradation or further degradation of the area and its resources.

In 1987, the Tribal Council approved the Mission Mountains Tribal Wilderness Buffer Zone Plan to buffer the wilderness from encroachment by various land uses. This plan is currently being updated.

Other plans, policies, agreements and codes that affect the wilderness include:

Policies Affecting the Tribal Wilderness
Cultural Resources Protection Ordinance 73A, 1980
Grizzly Bear Management Plan for the Flathead Reservation, 1981
Mission Mountains Tribal Wilderness Guidelines and Policies Ordinance 79A, 1982
Mission Mountains Tribal Wilderness Fire Management Plan, 1985
Fisheries Management Plan of the Flathead Indian Reservation, 1987
Hunting and Fishing Conservation Ordinance 44D, 1986
Snow Survey Measurement Agreement, 1988
Water Quality Management Ordinance 89B, 1991
Reservation Class I Airshed Designation

The Tribal Council adopted a wilderness fire management plan in 1985 to incorporate a "let-burn" policy for wilderness wildfires. It directs managers to suppress human-caused fires, fires that threaten human life or personal property, or fires that occur within a quarter mile of the western boundary of the Wilderness. It allows lightning-caused fires to burn under conditions prescribed in the plan.

The Forest Management Plan calls for manipulation of forest fuels to reduce the hazards that fires pose to structures within the 1.5 mile-wide buffer zone, to enhance other resources, and

to reduce the probability of major fires in the wilderness. The BIA has implemented annual fire management plans that follow this policy. They call for wildfire suppression in the buffer zone because of mixed land ownership and the number of homesites in the area.

Besides the policies established by the Tribes and BIA, other agencies involved in management of similar resources near the Tribal wilderness and buffer zone are making an effort to standardize interagency management goals. For example, the US Forest Service is considering adoption of the Tribes' wilderness regulation that limits group size. The Tribes and Forest Service have also developed a joint wilderness map for the Mission Mountains wilderness complex.

South Fork of the Jocko Primitive Area

Because the Tribes have not drafted a management plan for the South Fork, management of specific resources is the responsibility of designated programs or departments. However, Tribal Resolution 4575 and the aforementioned plans and policies specify the following guidelines:

- ❑ The area is open only to Tribal members and the non-member spouses and children of Tribal members (when accompanied by their Tribal member spouse or parent).
- ❑ Regulations prohibit post and pole cutting, timber harvesting or Christmas tree cutting. They allow firewood cutting but only in certain areas.
- ❑ All roads entering or leaving the primitive area, except the main South Fork Road which leads to Jocko Lookout and White Horse Lake, are closed.
- ❑ Regulations prohibit powerline construction and other development.
- ❑ Cutting of dry firewood (for personal use only) is allowed on the area south of the road to Boles Meadows. Logging trucks are not allowed.
- ❑ The Tribes have assigned a gate attendant to the South Fork entrance to prevent illegal entry by non-members.

Mill Creek (Lozeau) Primitive Area

The Mill Creek (Lozeau) Primitive Area currently has no overall management plan. Management of specific resources is the responsibility of designated programs or departments. Tribal Forestry is leading a study to determine appropriate resource uses in the area.

The area is open only to Tribal members and the non-member spouses and children of Tribal members (when accompanied by their Tribal member spouse or parent).

ISSUES

Resource managers identified the following issues:

Mission Mountains Tribal Wilderness and Buffer Zone

- ❑ Cooperative efforts with the US Forest Service and other agencies and landowners to preserve the Wilderness ecosystem and reduce Tribal member/non-member recreation use conflicts
- ❑ Residential development on buffer zone lands that impacts wildlife habitat and other Wilderness values
- ❑ Wilderness fire management policies regarding the natural role of fire in the wilderness ecosystem
- ❑ Enhancement of fish, wildlife and riparian areas within the wilderness buffer zone
- ❑ Types and quantity of recreational facility development within the buffer zone
- ❑ Preservation and enhancement of Tribal member use of the wilderness and buffer zone lands
- ❑ Protection of existing and future wildland areas while considering other resource uses and outputs
- ❑ Management of forest pests such as disease and noxious weeds

South Fork of the Jocko Primitive Area

- ❑ Consolidated management direction for all resources and uses within the primitive area
- ❑ Education and regulation compliance pertaining to non-member restrictions
- ❑ Maintenance of open roads, bridges, and power line right-of-way
- ❑ Maintenance of harvestable, native trout populations
- ❑ Management of state lands within the primitive area

Mill Creek (Lozeau) Primitive Area

- ❑ Consolidated management direction for all resources and uses within the primitive area
- ❑ Education and regulation compliance pertaining to non-member restrictions
- ❑ Management of state and private lands within the primitive area
- ❑ Timber harvest management pertaining to non-member restriction in the primitive area, fish and wildlife habitat and the old growth forest component
- ❑ Maintenance of open roads and bridges

Tribal elders' concerns and ideas include:

- ❑ Add more wilderness areas to the Reservation, such as in the southwest corner.
- ❑ The Missions are sacred; manage the buffer zone.
- ❑ Provide more access to the Wilderness.
- ❑ Leave these areas alone, especially the South Fork.

Additional concerns raised by other community members:

- ❑ Cattle should be not be allowed in wilderness and primitive areas.
- ❑ Leave the Wilderness alone, but manage the buffer zone.
- ❑ Define and protect the Mill Creek (Lozeau) Primitive Area like the South Fork.
- ❑ We need more primitive areas for the children, the elders and the people.
- ❑ Protect fish and wildlife habitat and cultural resources.
- ❑ Designate "natural areas" for the preservation of native vegetation and wildlife species.

CONFEDERATED SALISH AND KOOTENAI TRIBES
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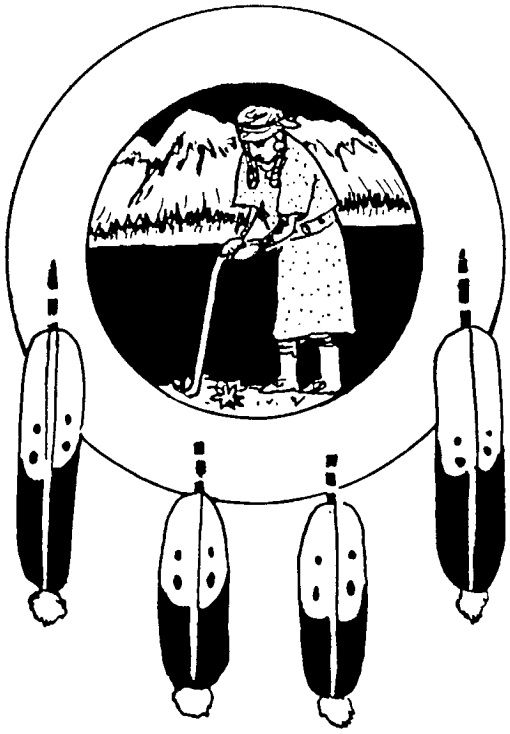
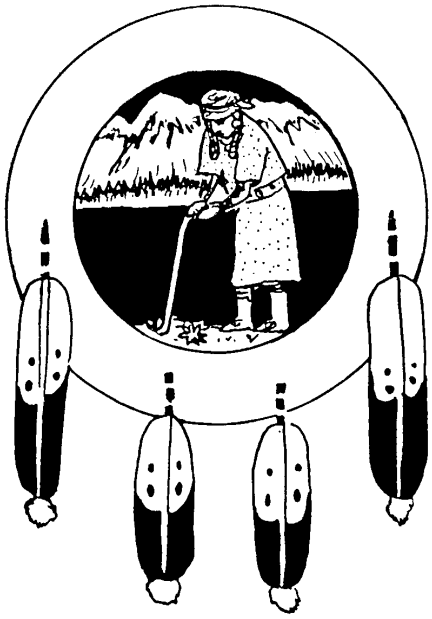


LAND-BASED CULTURAL RESOURCES

GOAL: To preserve, protect, perpetuate and enhance our histories, cultures and languages



LAND-BASED CULTURAL RESOURCES

Cultural resources are precious Tribal resources. They encompass the Tribes' elders, languages, cultural traditions, and cultural sites. They include the fish, wildlife and plants native to the region and land forms and landmarks. Tribal elders and the languages are perhaps the most vital of these resources because they teach and communicate the histories and traditional lifestyles of the Tribes. The traditions depend on land-based cultural resources, the topic of this chapter. These land-based resources include native fish and wildlife and their habitats, food and medicinal plants and the areas where they grow, prehistoric and historical use sites, and other land areas where Tribal members currently practice cultural traditions.

Hunting, fishing, plant harvesting, hide-tanning, food and medicine preparation, singing, dancing, praying, feasting, storytelling and practicing ceremonies are examples of age-old traditions that rely on the land and the community of life it supports.

Although each of the Tribes on the Reservation possess distinctive beliefs and practices, the people share one important similarity: Tribal people value the Earth—its air, water and land—as the foundation of Indian culture. In the words of the Flathead Culture Committee,

> The Earth is our historian, it is made of our ancestors' bones. It provides us with nourishment, medicine and comfort. It is the source of our independence; it is our Mother. We do not dominate Her, but harmonize with Her.

The Tribes believe everything in nature is embodied with a spirit. The spirits are woven tightly together to form a sacred whole (the Earth). Changes, even subtle changes that affect one part of this web affect other parts.

Protecting land-based cultural resources is essential if the Tribes are to sustain Tribal cultures. This is one of the most important goals of Tribal natural resource management on the Reservation. It is also a goal that the Tribes have for Tribal aboriginal territories managed by other entities.

This chapter describes the land-based cultural resources of the Salish and Kootenai Tribes. It does not describe specific locations and characteristics of sites due to their sensitivity and vulnerability.

It is difficult to describe the culture of any people in a few pages. Both the Flathead and Kootenai culture committees welcome cultural questions that this chapter does not answer.

EXISTING CONDITIONS

Cultural traditions rely on abundant populations of native fish and wildlife, healthy plant communities, clean air and water. Undisturbed spiritual sites, prehistoric and historical campsites, dwellings, burial grounds and other cultural sites are important, too, because they, in the words of the Flathead Culture Committee, "reaffirm the presence of our ancestors, how we are alive today only because of them. These places are part of the basis of our spiritual life." They provide young people with a connection to ancestors and native traditions.

Food and Medicinal Plants. Many food and medicinal plants grow on Reservation and aboriginal lands. Some grow in mountain areas, others along river and stream corridors, still others in arid places. Many have multiple uses. The Tribes have used most of them for thousands of years.

Tribal elders report that some human activities, such as logging and grazing, have damaged some of the areas where these plants grow. Work is ongoing to protect these sites.

Other Cultural Sites. There are other cultural resources on the Reservation and aboriginal lands that must be protected. These include hunting and fishing grounds, spiritual sites, dancing grounds, trails, and occupational sites.

Salish and Kootenai cultural resource specialists use the term “site” for areas of historical, cultural or spiritual importance. These areas sometimes, but not always contain artifacts. They may be the site of past or present-day Tribal activities. The Tribes do not study these areas in any scientific sense, but consider them to be a living part of Tribal culture and use them as such.

Many archaeologists and historians, however, view a site as a location of past human activity. Archaeological sites often contain physical remains or artifacts. Scientists use them for research.

Important cultural sites have been destroyed over time. Often, when the Tribes or others have disclosed their locations, visitors have stolen from or vandalized them. Many people do not understand the value of these resources to the Tribes.

> Many cultural resources are non-renewable resources. They can be one day or thousands of years old. Their destruction is a gross violation of everything we value.
>
> — Flathead Culture Committee

Tribal, federal and state laws prohibit the destruction of land-based cultural resources. The Flathead and Kootenai Culture Committees provide training to natural resource managers about the importance of cultural resources. They teach managers how to recognize them and how to protect them. To protect sites, the committees have developed cultural awareness programs for people interested in Tribal cultures and resources. They work with federal, state, and local agencies, as well as Tribal departments for cultural resource protection both on and off the Reservation.

PROGRAMS AND POLICIES

In 1975, the Tribal Council passed Resolution #4762. It formally established the Flathead and the Kootenai Culture Committees to develop Salish and Kootenai cultural awareness programs for schools so that they might “ enhance the understanding and appreciation of the past and present Indian peoples.” Since then, the responsibilities of the culture committees have grown. They now work “to preserve, protect, perpetuate and enhance” all cultural resources essential for the survival of the Salish and Kootenai cultures.

To accomplish this goal, these two committees:

- ❑ document the locations and descriptions of cultural sites, for in-house use. (Also, because new sites are being recorded, the committees review and monitor areas before

developers log or disturb them. If disturbance or development is in a sensitive area, the culture committees remain on site during the activity.)

- ❑ conduct historical research to create a repository of historical, cultural and general Tribal information for reference and study. Activities include gathering language, song and history books and tapes; photographs and genealogies; and samples of food and medicinal plants.
- ❑ act as representatives of the Elders to learning groups and Tribal organizations.
- ❑ conduct and participate in traditional activities.
- ❑ sponsor culture and language camps.
- ❑ meet with Tribal departments, schools, other tribes and agencies about cultural resource protection.

In addition, the committees work with Salish Kootenai College, Two Eagle River High School and public schools (on request) to develop further their Salish and Kootenai language programs. The Flathead Culture Committee trains Salish language teachers for the local public schools, sponsors language and culture camps, and has assisted in the development of mentor relationships between children and adult Tribal members.

The Kootenais maintain a close relationship with six other Kootenai bands located in Idaho and Canada. They hold regular meetings to discuss issues common to all Kootenai people. Once a year the Kootenai Indian Area Council, consisting of the Chiefs of the five Kootenai bands of Canada, calls a General Assembly to share and exchange information. The Kootenai Tribe of Montana hosted the assembly in the summer of 1989.

In 1990, the Confederated Salish and Kootenai Tribes established a program to build a Tribal culture center on the Flathead Reservation. This center will offer archival exhibits and provide interactive museum experiences through dramatic presentations, speakers, storytellers and demonstrations.

Existing Policy

The Tribes have, for thousands of years, maintained unwritten policies regarding cultural resources. In recent times federal and state governments have developed their own policies to protect these resources. Their actions include federal and state antiquities acts, the National Historic Preservation Act of 1966, the American Indian Religious Freedom Act of 1978, the Archaeological Resource Protection Act of 1979, and the Native American Graves Protection and Repatriation Act.

In 1980, the Confederated Salish and Kootenai Tribes adopted written legislation, Tribal Ordinance 73A, because "cultural, religious and historical artifacts and areas of importance ... continued to be jeopardized by non-Indian interests and persons not having comprehension nor respect for traditional values of the Tribes...." The ordinance stipulates that:

1. No Antiquities or Archaeological Permits shall be granted by any State or Federal Agency within the exterior boundaries of the Flathead/Kootenai Reservation without express written authorization of the Tribal Council based on prior approval of the respective Cultural Committees.
2. All Indian burial sites remain undisturbed.
3. Any Special Permits requested for study areas within the Reservation shall only be granted upon written approval of the respective Cultural Committees and shall state specifically where and what is intended to be studied.
4. No pictographs (caligraphies) bearing significance to the Indian peoples shall be defaced, destroyed or otherwise tampered with.
5. Any items of religious, cultural or historical significance which are removed from sites of Tribal importance shall be presented to the appropriate Cultural Committee for determination of disposition.

In 1984, the Portland Area Office of the Bureau of Indian Affairs (BIA) released a supplement to their handbook on rules and guidelines for archaeological survey and review of activities on Indian lands (their interpretation of their responsibilities according to the federal acts listed above). Within two days of this release, the Tribal Council passed Resolution 84-49. It states that the Tribes' culture committees had already undertaken these responsibilities and the Tribes did not recognize the need for additional BIA personnel, rules and guidelines.

A few months later, the Tribal Council passed Resolution 84-124. It cites the Tribal Constitution, Tribal Ordinance 73A, the Archaeological Resource Protection Act, and federal case law to reiterate that the Tribes had established cultural resources programs and law that comply with federal law. A month later, the Tribes passed Resolution 84-148 which stated that the Tribes "forbid entry of the BIA Archaeologist or any professional Archaeologist on lands of the Flathead Reservation."

After tremendous Tribal pressure, the federal government has begun to recognize the significance of Tribal cultural resources and the Tribes' role in protecting these resources, both on and off Reservation lands. New amendments to the National Historic Preservation Act expressly provide for the protection of sacred sites and traditional and cultural properties, and affirm Tribal authority over these resources. In 1990, the federal government passed the Native American Languages Act (Title I of Public Law 101-477) and the Native American Graves

Protection and Repatriation Act (P.L. 101-601). In addition, the National Indian Forest Resource Management Act and the Archaeological Resource Protection Act also affirm Tribal authority over cultural resources. In addition, the State of Montana passed the Montana Human Skeletal Remains and Burial Site Protection Act in 1991 which protects unmarked burials on state and private land.

ISSUES

Because the management of cultural resources is extremely sensitive, the Confederated Salish and Kootenai Tribes have many concerns; they include (but are not limited to) the following:

- ❑ Better communication between the culture committees, Tribal departments and other agencies regarding culture committee roles in resource management; expedition of the site review process; the protection of non-renewable cultural resources such as historic sites and sensitive plant harvesting areas; and reduction or avoidance of impacts to these sensitive areas from livestock grazing, forest management, cropping, pesticide use and other land uses, and establishment of cultural site protection standards from all ground-disturbing activities.
- ❑ Protection of cultural sites from vandalism.
- ❑ Prevention or mitigation of off-Reservation cultural site disturbance.
- ❑ Sustained availability of all resources through traditional efficient and non-destructive uses.
- ❑ Protection of the River Corridor from development and other land use impacts.
- ❑ Additional encouragement for our children to listen and to understand the importance of cultural resources.
- ❑ Consistent integration of cultural resource priorities into the Tribes' review of potential land acquisitions.

Along with these issues, Tribal Elders raised the following points:

- ❑ Subsistence hunters need more game.
- ❑ The Tribes should establish schools to teach traditional values, languages, beliefs and activities.
- ❑ We must remember that every resource has cultural importance.

Other community members added that:

- ❑ The Tribes need to maintain cultural cohesiveness.
- ❑ The people would like to know more about cultural resources; the schools should provide greater opportunities for cultural awareness.
- ❑ The Tribes should develop more culturally oriented multiple use facilities, and provide transportation to cultural activities, especially for the Elders.

- ❑ The Tribes should provide more non-alcohol-related activities for adult-child interaction.
- ❑ Develop a program that includes traditional games; ban non-cultural gambling.

Suggestions made by other agencies include:

- ❑ Establish better working relationships with landowners to protect and enhance cultural sites.
- ❑ Develop a cultural resources management plan to address conflicts in resource management and cultural sites, and provide for coordination with state and federal agencies on lands on and off the Reservation.

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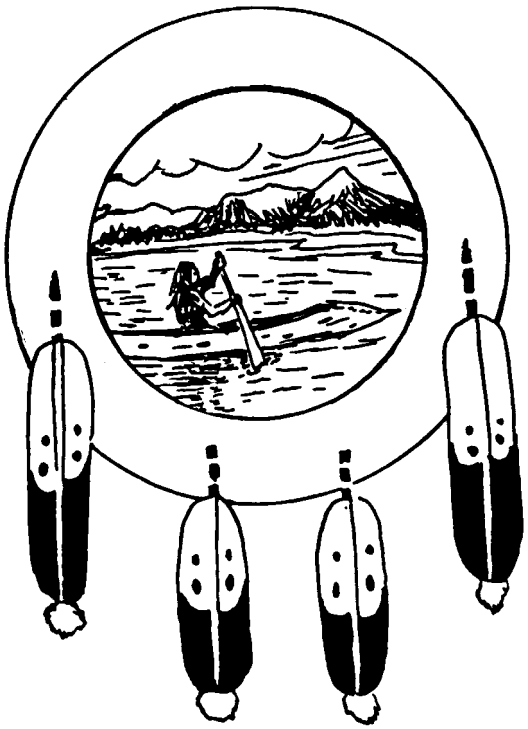
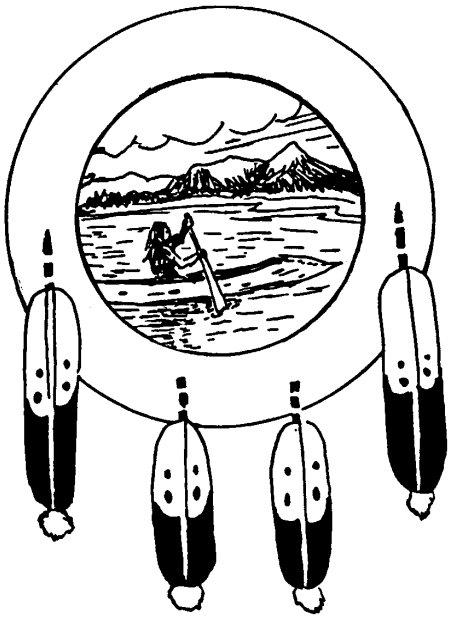


RECREATION AND SCENIC AREAS

GOAL: To protect and promote the recreational resources of the Confederated Salish and Kootenai Tribes

RECREATION AND SCENIC AREAS



Generations of Tribal members have enjoyed the beauty of the natural environment and the amenities it has to offer. The recreational resources of the Reservation continue to enrich the lives of Tribal members. In addition, they provide economic development opportunities for the Tribes.

During 1990, approximately 767,580 out-of-state vacationers drove through the Reservation on Highways 93, 200, and 28 (N. Christensen, Telephone Interview, 12 January 1992). Natural features that attract visitors to the Reservation include the Mission Mountains, Flathead Lake, the National Bison Range, the Ninepipe and Pablo Wildlife Refuges, Flathead River, and the Jocko River. These and many other areas provide the setting for a variety of recreational activities, particularly during the summer. Although recreation use is most frequent during the summer months, winter activities such as cross country skiing, snowmobiling and ice fishing are also popular. This chapter describes recreation and scenic areas, the programs and policies that manage them, and issues and concerns raised by resource managers and community members.

EXISTING CONDITIONS

Rivers, lakes, streams and roadless areas, such as the Mission Mountains Tribal Wilderness, receive the majority of recreation use on the Reservation. Most of these resources are on Tribal land.

The following summaries highlight the recreational character of each of the six Reservation study areas. Each description includes a map that identifies recreation sites and points of interest.

Lake-River Corridor

The Lake-River Corridor includes all lands within one-half mile of the shorelines of Flathead Lake and the Flathead River.

Flathead Lake. Flathead Lake is the largest natural freshwater lake in the western United States. It provides year-round subsistence and recreational opportunities, and receives the largest proportion of recreation use of any area within the Reservation. Each year millions of visitors boat, fish, camp, swim and sightsee on the lake (Vashro, et al. 1989). Local communities sponsor many special events including sailboat and motorboat races and a fishing derby.

The Tribal Council approves commercial guided fishing on the south half of the lake, which lies on the Reservation. Most of the marinas and recreation vehicle parks on the south half of the lake are concentrated at Polson and Big Arm.

Wildhorse and Bird islands are wildlife reserves. Wildhorse Island State Park attracted over 3,000 boating visitors during the summer of 1985 (Montana Department of Fish, Wildlife and Parks 1985).

Although there are many small public access points on the lake, there are less than a dozen large parking areas. Most have use restrictions and special use fees. State Parks and fishing access sites on the lake account for more than 140,000 days of fishing and boating use each year (Montana Department of Fish, Wildlife and Parks 1991).

The Montana Power Company, which operates Kerr Dam, controls lake levels so that recreational docks on the lake are accessible by Memorial Day weekend each year. It tries to insure that the lake reaches full pool by June 15. Draw down occurs after Labor Day and continues throughout the winter months until the lake reaches minimum pool elevations in April. These guidelines meet the requirements set fourth in a memorandum of understanding between the Montana Power Company and the US Army Corps of Engineers. (Federal Energy Regulatory Commission 1980).

Ice cover and wind storms late in the winter when the lake is low or during severe winters have destroyed many private recreational docks and created hazards and reduced lake accessibility.

Flathead River. The lower Flathead River is approximately 72 miles long. Sixty-eight miles of it flow through the Reservation. Many Tribal members boat, camp, swim, hunt, fish, and practice traditional activities along its banks. The River provides other opportunities as well. Because it is substantially undeveloped, has large rapids, runs and backwaters, and supports a variety of fish and wildlife species it attracts people engaged in many types of primitive and water-related recreational activities.

A 1990 summer recreation survey identified floating as the most popular recreational activity on the river. Photography and nature study, swimming, fishing, picnicking, and camping also ranked as important activities. Survey results indicate recreationists spent approximately 18,084 visitor days within the River corridor during the 1990 summer

Figure 18.1. Recreation and scenic areas on the Reservation

Legend

- Boating Access
- Camping
- Fishing
- Sheep Area
- National Bison Range
- Grizzly Bear Conservation Area
- Wildlife Refuge/Preserve
- Elk Conservation Area
- Vista (Wildlife, Scenic) Area
- Primitive Area *(Tribal Members Only)*

1. Mill Creek Primitive Area
2. Camas Hot Springs Spa
3. Wildhorse Island State Park
4. Elmo State Park
5. Standing Arrow Powwow (3rd weekend in July)
6. Big Arm State Park
7. Safe Harbor Marsh
8. Boettcher, Sacajawea and Riverside Parks
9. Polson Country Club
10. Kerr Dam Recreation Area
11. Kerr Dam Vista Point
12. Buffalo Bridge River Access
13. Sloan's Bridge River Access
14. Hoskin's Landing/Dixon River Access
15. Dog (Rainbow Lake Campground
16. Little Money Bighorn Sheep Viewpoint
18. Mission Mountains Tribal Wilderness Area
19. Yellow Bay State Park
20. Blue Bay Tribal Park
21. Finley Point State Park
22. East Bay Wetland-Ducharme Point
23. Kicking Horse Recreation Area
24. Ninepipe National Wildlife Refuge
25. Schoonover Dike Wetland
26. Pablo National Wildlife Refuge
27. Mission Mountain Country Club
28. McDonald Lake Campground
29. National Bison Range
30. Mission Mountains Scenic Turnout
31. St. Ignatius Mission
32. Lower Mission Falls Campground
33. Twin Lakes Campround
34. North Fork of the Jocko Campground
35. Jocko River Fishing Access
36. South Fork of the Jocko Primitive Area
37. Arlee Powwow and 4th of July Celebration (1st weekend in July)

months (Rockwell et al. 1991). That number includes 3,891 visitor days from commercial white water float trips. Although researchers have not quantified fall, winter and spring visits, significant levels of recreational use may occur during the fall hunting and spring fishing seasons.

The Tribes limit commercial use on the river to one outfitter, the Glacier Raft Company (GRC). GRC offers float trips on a seven mile white water stretch of river from Kerr Dam to Buffalo Bridge. Researchers estimate that this section of the river received 8,000 visitor days of use during the summer of 1990 (Rockwell, et al. 1991).

Many special use events occur annually within the River corridor. Examples include the Memorial Day weekend wagon train ride and campout, and the Charlo Fourth of July endurance race.

There are ten major access points, four of which have semi-primitive recreational facilities (Kerr Dam Boat Launch, Buffalo Bridge Recreation Area, Sloan's Bridge Recreation Area and Hoskin's Landing at Dixon). Visitors also use dozens of impromptu access sites scattered from below Buffalo Rapids to the Clark Fork River confluence.

A railroad bridge, three vehicular bridges and a petroleum pipeline cross the River. Sanders County removed the Dixon Bridge in 1987 after ice and fire damaged it in 1985. In 1989 the Tribes reclaimed the south bank as a river access site. One of the adjacent landowners granted a permanent easement that enabled the Tribes to expand the site to its present size. It is now called Hoskin's Landing.

Mission Valley

A large percentage of the Reservation's recreational use occurs in the Mission Valley. The primary activities include fishing at reservoirs, streams and lakes; waterfowl and upland gamebird hunting; and hiking and camping in the Mission Mountains Tribal Wilderness. Managers have centered recreational facilities around reservoirs and at wilderness trailheads, although they have also developed a few sites at bird hunting and viewing areas and at small, community parks.

The scenic Mission Mountains are one of the Mission Valley's main attractions. The highway department and others have developed scenic turnouts with interpretive signs along US Highway 93. Two have picnic facilities. One of these, located three miles south of Ronan, provides a view of the Mission Mountains and the pothole country. The other, at the top of Ravalli Hill, offers one of the best views of the mountains and a bird's-eye-view of the St. Ignatius area. Another turnout provides a view of the Fort Connah Historic Site near Post Creek.

Jesuits built the St. Ignatius Catholic Mission Church in 1891. It is a National Historic Site as well as a place of worship for many Indian people.

There are eleven irrigation reservoirs in the Mission Valley, two of which, Pablo and Ninepipe, are designated as National Wildlife Refuges. Along with wildlife habitat, these reservoirs and Kicking Horse Reservoir provide bird watching, bird hunting and bass fishing opportunities.

The Mission Mountains Tribal Wilderness extends along the eastern border of the Mission Valley. Recreationists hike, fish, camp, find solitude, and ride horses in the area. It also serves as an outdoor classroom for schools and groups.

Trout fishing occurs on most of the streams in the valley, however, large tracts of privately owned land limit access. McDonald Lake, Mission Reservoir, St. Mary's Reservoir and Twin Lakes provide facilities for fishing, as well as camping, picnicking and hiking.

The community of Ronan operates a public golf course just west of Ronan, and there is an auto racetrack between Polson and Pablo.

Jocko Valley

The Jocko Valley also offers a variety of quality recreational opportunities. The Jocko River and its tributaries are excellent trout fisheries. The lower reaches of the valley are good waterfowl and pheasant hunting country. The South Fork of the Jocko Primitive Area is a recreational and cultural use area reserved for Tribal members and their families. The Jocko Mountains, which border the Jocko Primitive Area and the federally designated Rattlesnake Wilderness, contain one of the largest roadless areas on the Reservation. These mountains are crossed by a series of backcountry trails that lead to high mountain lakes. The Jocko Hills, which form the northern border of the valley, are an important big game hunting area. They provide vital winter habitat for elk.

Recreational facilities and access sites in the valley are limited and concentrated in the upper mountain reaches. There is only one developed access site in the valley bottom. It sits next to the State Fish Hatchery near Arlee. There are dozens of impromptu access sites, especially near county road crossings, but private landowners often limit access at these sites. Private citizens maintain the only archery range on the Reservation. It sits near the mouth of the Jocko Canyon.

The Arlee Celebration Grounds, located outside Arlee, are the site of the Tribes' Fourth of July Powwow Celebration, one of the largest cultural events on the Reservation. Thousands of people from throughout the Reservation and the western United States attend this five to seven day event.

Perma-Dixon

The Perma-Dixon area receives a large amount of recreational use from visitors to the National Bison Range, Tribal member big game hunters, fishermen, backcountry hikers and horseback riders. Wildlife viewing at the Little Money and Ferry Basin areas has also become a popular activity. People passing these wildlife protection areas frequently stop along the road to watch herds of elk and big horn sheep.

The Lower Flathead River Corridor bisects the Dixon-Perma Study Area, and attracts bird hunters, canoeists, and fishermen to the study area.

The National Bison Range, created in 1908 and administered by the US Fish and Wildlife Service, is an 18,541-acre big game preserve. In 1991 approximately 185,000 people visited the park to watch big game animals, tour the visitor center, picnic, and fish (USFWS 1991).

The Reservation Divide along the south end of the Perma-Dixon area offers a range of backcountry recreational experiences. Many people visit and camp at the Agnes Vandenburg Cultural Camp, located in the Valley Creek drainage. It is a teaching encampment where the Salish elders pass on their language, cultures and traditions. The Three Lakes Peak, Black Tail Basin and Reservation Divide Trails receive moderate use from hikers and horseback riders.

The most popular places to fish in the Perma-Dixon area are the lakes on Three Lakes Peak, Burgess Lake, Mission Creek and the Jocko River. Smaller streams offer more limited fishing opportunities.

Camas-Hot Springs

The primary recreation activities in the Camas-Hot Springs Study Area are Tribal member big game hunting in the mountains and northern pike fishing in Rainbow (Dog) Lake, the Little Bitterroot River, Lonepine Reservoir and the Upper Dry Fork Reservoir. Other activities include hiking, horseback riding and bird hunting. Tribal members also use the area to harvest camas and bitterroot.

In the past, the Camas Bathhouse in Hot Springs was the recreational focal point of the area. It accounted for a large portion of Hot Springs' economic activity. However, the Tribes closed the facility in the early 1980s. The CAM Redevelopment Corporation, Inc. leases the Corn Hole Spring, an outdoor facility which sits next to the former bathhouse. Camas Springs, Inc. is developing a neighboring site for use as a golf course and recreational vehicle park with small hot springs pools. Camp Aqua, six miles northeast of Hot Springs, is the only fully developed hot water spring in the area.

Other recreation facility development is limited to two semi-primitive campgrounds at Rainbow Lake, sanitation facilities at Lonepine Reservoir, and a small campsite just west of the Upper Dry Fork Reservoir.

The scenery of the Camas-Hot Springs Area is unlike scenery in other parts of the Reservation. The vegetation is typical of a semi-arid landscape, and is similar to portions of eastern Montana.

Polson-Elmo

The major recreational attractions to this study area are Flathead Lake and the Lower Flathead River. These two features, although part of a separate study area, account for most of the recreational visits to the Polson-Elmo area.

Flathead Lake is one of the most photographed features on the Reservation. There are two designated scenic turnouts on US Highway 93 used for this purpose: the first, near Dayton, provides views of the lake and Chief Cliff; the other, on Polson Hill, offers a panoramic view of the lake and the Mission Mountains.

Other recreational features in the area include the Mill Creek Primitive Area, the Mission Range, the Salish Mountains and dozens of streams and lakes. The Mill Creek Primitive Area, established for the exclusive use of Tribal members and their families, offers stream fishing, camping and hunting opportunities.

The primary uses of the north end of the Mission Range include snowmobiling, crossing-country skiing, fishing, and Tribal member hunting. Boulder Road receives a large amount of snowmobile use, and the area from Hellroaring Pass to Moss Peak snow cabin receives cross-country skiing use during the winter. The Hellroaring Pass Trail also receives summer use from hikers accessing the federally designated Mission Mountains Wilderness Area to the east. Turtle Lake, a few miles southeast of Polson, is a popular place for local residents to fish and swim.

Hiking, camping and horseback riding are popular activities, particularly in the Jette-Sunny Slope area northwest of Polson. Surrounding landowners fish Jette Lake. Tribal members enjoy big game hunting in the Salish Mountains. Local residents fish streams in the Polson-Elmo area, but use is light.

PROGRAMS AND POLICIES

Recreation

The Tribal Hunting and Fishing Conservation Ordinance (44D) governs Tribal policy pertaining to fish, wildlife and recreation uses. This ordinance prescribes the regulation of Tribal member and non-member hunting and fishing on the Reservation, and recreation uses on Tribal and other trust lands and waters.

The Tribes negotiated an agreement with the State of Montana pursuant to Ordinance 44D in 1990 to further define non-member fishing and hunting activities on the Reservation. The agreement created a simplified single-licensing system and a coordinated system for regulations and enforcement throughout the Reservation. An advisory board established by the agreement recommends policy changes to the Tribal Council and the Montana Fish and Game Commission.

The Tribal Council has established the Division of Fish, Wildlife, Recreation and Conservation, which includes the Tribal Wildland Recreation Program. The Wildland Recreation Program oversees management of all recreational resources except fish and wildlife. It coordinates administrative and private activities affecting either the quality of recreational experiences or the amount, timing and distribution of recreational use. It also maintains the 44D permit system. Priority areas for the program include the Mission Mountains Tribal Wilderness, the two primitive areas, the Lower Flathead River Corridor, and Tribal parks and recreation areas.

The Tribes use an interdisciplinary approach in the management of its recreational resources. The process involves many Tribal programs and departments as well as other affected parties. An example is the Reservation Tourism and Advisory Committee established in 1988 to develop, manage and promote tourism on the Reservation. The committee consists of Tribal Council and culture committee members, and specialists from natural resource, business, legal and communication disciplines.

Scenic Areas

The Flathead Indian Reservation is one of the most scenic reservations in the United States. Maintaining the high quality visual environment concerns many Indian and non-Indian residents.

Currently, Tribal government provides only limited management direction on visual resources. Regarding timber harvesting activities, the Flathead Indian Reservation 1982-1992 Forest Management Plan (BIA 1986) states that:

> Scenic areas on the Flathead Indian Reservation that receive special visual quality consideration include areas viewed from major highways, homesites, communities, recreation facilities, Flathead Lake forest roads and trails. Some areas are more visually sensitive than others to [forest] management activities. Special visual quality protection must be given to the Mission Range, Flathead River and the Upper Jocko watershed. The visual quality objective in these special areas should retain the visual resource so man's activities are not evident to the casual observer.

The Tribes prohibit commercial forest harvest activities within the boundaries of Tribal recreation sites (Tribal Resolution #86-193), the Tribal wilderness and the South Fork Primitive Area.

Tribal, federal and state management objectives protect the aesthetics of the scenic areas listed below:

- Mission Mountains Tribal Wilderness - Mission Mountains Tribal Wilderness Management Plan, 1982
- South Fork of the Jocko Primitive Area - Tribal Resolution #4575, 1974
- National Bison Range - US Fish and Wildlife Service Refuge Manual, 1982, Release #003
- Wilderness Buffer Zone - Mission Mountains Buffer Zone Management Plan, 1987
- Ninepipe and Pablo Wildlife Refuges - US Fish and Wildlife Service Refuge Manual
- Tribal Recreation Sites - Flathead Forest Management Plan, 1982-1992 and Tribal Resolution #86-193, 1986
- Flathead River Corridor - Flathead Forest Management Plan
- North Mission Range - Flathead Forest Management Plan
- State Parks - State Park Land Classifications System, 1988

The Tribes have not specifically identified, classified or given visual management objectives to other scenic resources on the Reservation. However, the Environmental Assessment for the Flathead Indian Reservation Forest Management Plan, 1982-1991 (University of Montana School of Forestry 1984) does contain a broad aesthetic analysis of the commercial timberlands on the Reservation.

Other plans and policies that will affect recreation and scenic resources include, but are not limited to:

Plans and Policies
Reservation Class I Airshed Designation
Cultural Resources Protection Ordinance 73A, 1980
Grizzly Bear Management Plan for the Flathead Reservation, 1981
Shoreline Protection Ordinance 64A (Revised), 1983
Aquatic Lands Conservation Ordinance 87A, 1986
Tribal Fisheries Management Plan, 1987
Upper Flathead System Fisheries Management Plan, 1989-1994
Water Quality Management Ordinance 89B, 1991
Lower Flathead River Corridor Management Plan, 1993

ISSUES

Current Tribal management strategies recognize the importance of the Reservation's diverse outdoor recreation opportunities and scenic vistas. Managers determine development and

maintenance activities using integrated resource management strategies that consider the protection of cultural uses, landowner concerns, and timber and grazing values. Along with studying the concentration of recreational use or the unique form of use in an area, recreation managers consider environmental protection measures to protect water quality and sensitive plant and wildlife habitats.

Specific issues identified by resource managers include:

- ❑ Maintenance and enhancement of Tribal member recreational opportunities based upon their specific needs
- ❑ Multiple use management for areas where recreation use occurs and elimination of conflicting uses
- ❑ The amount of open space, natural areas or parklands designated for recreation communities
- ❑ Establishment and enforcement of visitor use carrying capacities for recreation areas to protect natural resource and Tribal member values
- ❑ Funding for increasing user demand for recreational area development and management
- ❑ Preservation of existing scenic qualities of the Reservation and management actions required to implement protection measures
- ❑ Types and quantity of recreational facility development to fulfill needs of the Tribes

Tribal Elders voiced the following concerns:

- ❑ Excessive use is causing erosion on many roads and trails.
- ❑ Avoid any disturbance of cultural sites during campsite selection.
- ❑ Designate the Lower Flathead River as a wild or scenic river.

Other community members expressed the following issues:

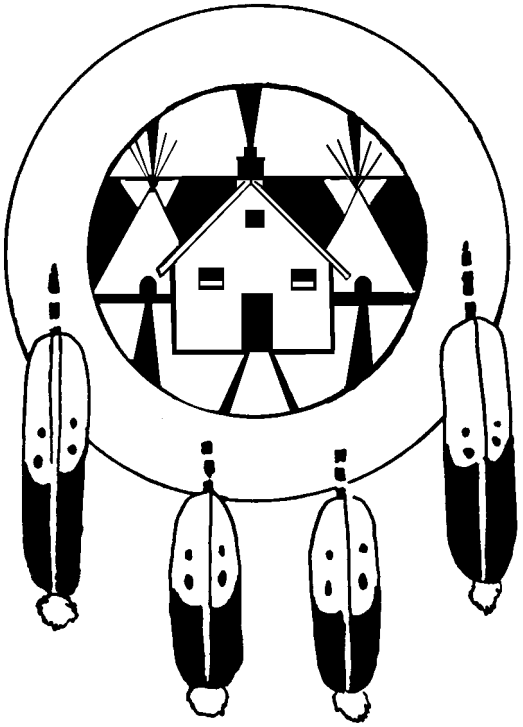
- ❑ Protect the scenic quality of US 93.
- ❑ Tribal members need more recreation facilities.
- ❑ Too many motor boats use Flathead Lake.
- ❑ Monitor recreational vehicles to avoid potential impacts on wildlife and other resources.
- ❑ The Tribes need recreation guidelines for all uses to maintain the aesthetic values and quality of life of the Reservation.
- ❑ We need better campsites at Lone Pine Reservoir.
- ❑ We need more campsites along Flathead River.
- ❑ Natural campsites are better than developed sites.
- ❑ Educate people further so they leave campsites and trails as they find them—no litter.
- ❑ We need more recreation areas with lake access.
- ❑ Some roads leading to recreation facilities are in poor condition.

- ❑ The Tribes need to maintain toilet facilities better in some areas.
- ❑ We need to develop more recreation facilities, such as a swimming pool. You could charge fees.
- ❑ We need a multiple-use center for the Pablo-Ronan-Polson area for recreation and cultural gatherings.
- ❑ Non-members should pay higher use fees to assist in wildlife management.
- ❑ The Tribes need a comprehensive recreation program.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

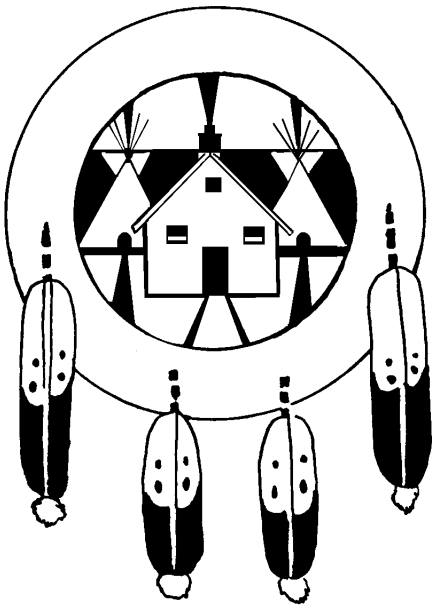
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 19



RESIDENTIAL AREAS

GOAL: To encourage housing development and maintenance which considers human resource values while protecting natural resource qualities and minimizing impacts to community infrastructure



RESIDENTIAL AREAS

Housing on the Flathead Reservation has changed dramatically over the last 100 years. It once consisted of Indian lodges that moved with the people and left virtually no marks on the land. Today housing consists of large numbers of permanent structures that have substantial environmental impacts.

Residential development on the Reservation has increased dramatically in recent years, particularly in rural areas. This growth has affected the natural environment and changed preexisting uses of the land. For example, developers have divided agricultural and forested lands to accommodate residential subdivisions. They have developed wildlife habitat and wetlands. In addition, they have compromised Tribal cultural resources and other Tribal protectable interests.

As the Reservation faces new growth it becomes increasingly important to guide development into suitable areas and to implement design standards that consider the best use of building sites and materials. This chapter discusses these issues and provides information on residential development trends and the status of Tribal housing programs on the Reservation.

EXISTING CONDITIONS

General Statistics

According to the 1990 census, the Flathead Reservation has a population of 21,259[1] and a density[2] of 11 persons per square mile (a density twice that of the state of Montana).

The census reported a total of 10,399 housing units on the Reservation. This represents an increase of 19 percent over 1980. Over 88 percent of these units are in Lake County. The remaining 12 percent are within Sanders, Missoula and Flathead counties. Housing in the Missoula County portion of the Reservation increased by 25 percent, the largest percentage increase of any county on the Reservation.

[1] Tribal and county officials believe these counts underestimate the actual population.
[2] The 1990 census defines population density as equalling "total persons divided by land area in square miles."

In 1990, 75 percent of Reservation housing units were occupied. Twenty-two percent of the occupants were Indian. Sixty percent of the Indian homes were owner-occupied, and 40 percent were renter-occupied. Seventy-three percent of the non-Indian homes were owner-occupied, and 27 percent were renter-occupied. Seasonal residents accounted for 15 percent of the total housing units on the Reservation.

The 1990 census indicates that approximately 37 percent of all Reservation houses are in the communities of Arlee, Charlo, Hot Springs, Pablo, Polson, Ronan and St. Ignatius. The remaining 63 percent are in rural and small community areas. Of these, only 7 percent are on Tribal trust lands[3]. As of July 1992, the Salish and Kootenai Housing Authority reported that 120 Indian families lived in substandard housing[4].

Subdivision activity in rural areas is high and has been for a number of years. For example, the 1988 Lake County General Plan indicates that during the 1970s, when the county was growing at a rate three times faster than the rest of the state, most of the growth occurred in rural areas. Today, landowners are sudividing their properties in the Mission and Flathead valleys faster than in any other area of the state[5]. Census figures also indicate substantial housing growth is occurring in rural parts of the Jocko Valley. This growth increases the pressure on the Reservation's natural and cultural resources.

Tribal Housing Development and Demand

Tribal residential development on trust land takes three forms: homes can be built through the Homesite Lease Program, through Salish and Kootenai Housing Authority projects, or through individual owner-financed projects.

As of December of 1991, there were 381 Tribal homesite leases[6] and 712 units administered by the housing authority[7]. There were also 438 individuals on housing authority and homesite lease waiting lists.

> ***Homesite Leases.*** The Tribes grant rural and urban homesite leases to Tribal members and their immediate families. The Natural Resources Department, Division of Lands, administers the leases and the Tribal Council approves them. The Tribes issue leases for a 25-year period with an option for renewal. The Tribes limit lease size to 2.5 acres, although the Tribal Council may increase the size if a lessee demonstrates need for a larger home and garden area.

[3] Based on information derived from Division of Lands Homesite Lease files and Housing Authority Project files, December 1991.
[4] Substandard housing is defined as homes with substantial deficiencies in plumbing, electrical systems, foundations, roofing, and/or insulation.
[5] Information derived from discussions with the Administrative Officer, Community Technical Assistance Program, Montana Department of Commerce, March 1992, and June 1993.
[6] Annual Report of Case Loads, December, 1991
[7] Management Units on file with Housing Authority, December, 1991

The Tribes grant leases in both designated (platted) and non-designated (unplatted) areas.

- In the past, the Tribal Council has designated areas of the Reservation for homesite leases. People occupy nearly all of these, however, and the council has not approved additional locations since 1980. Program managers currently place applicants on a waiting list, and assign homesites on a first-come, first-served basis. Vacancies occur when an individual relinquishes his or her lease (and sells any improvements on the land), or when a lessee fails to develop a site and turns it back to the Divisions of Lands. (The Division of Lands is now coordinating environmental reviews of potential new homesites.)

- The Tribal Council approves homesites on a case-by-case basis in *non-designated areas.* The Division of Lands coordinates an interdisciplinary review of each application. Representatives from the following programs review applications:

  Flathead and Kootenai Culture Committees
  Division of Environmental Protection (Air Quality, Water Quality and Shoreline Protection)
  Division of Fish, Wildlife and Recreation
  Division of Water (Administration, Hydrology and Safety of Dams)
  Division of Lands (Soil Conserv., Range Conserv., Minerals Management and Planning)
  Forestry (Bureau of Indian Affairs and Tribal)
  Indian Health Service (Sanitarian)
  Bureau of Indian Affairs Roads Branch

The Tribal Council may disapprove a homesite lease request if the site has poor soil percolation, threatens to conflict with cultural or natural resource uses, or threatens to degrade wildlife habitat or aquatic lands. Homesite leases (both designated and non-designated) are executed under a BIA lease agreement that requires the lessee to comply with applicable Tribal laws. Approximately 70 percent of approved homesite leases are within rural areas of the Reservation. Before October 1991, lessees developed only 70 percent of approved leases.

Housing Authority Projects. The Salish and Kootenai Housing Authority manages several housing programs. The Mutual Help Program offers affordable housing for Tribal members who have the financial capability of paying home utility and maintenance costs. The Salish and Kootenai Housing Authority builds or buys a home unit and finances the purchase for the recipient. The Authority also operates low-rent units to provide decent, safe and sanitary housing for Reservation residents with limited incomes.

The housing authority built or purchased 712 housing units between 1965 and 1991. Eighty percent of these are in urbanized areas. Figure 19.1 shows their distribution. The authority has also used project funding to construct ten non-residential structures. Table 19.1 lists these and their dates of construction.

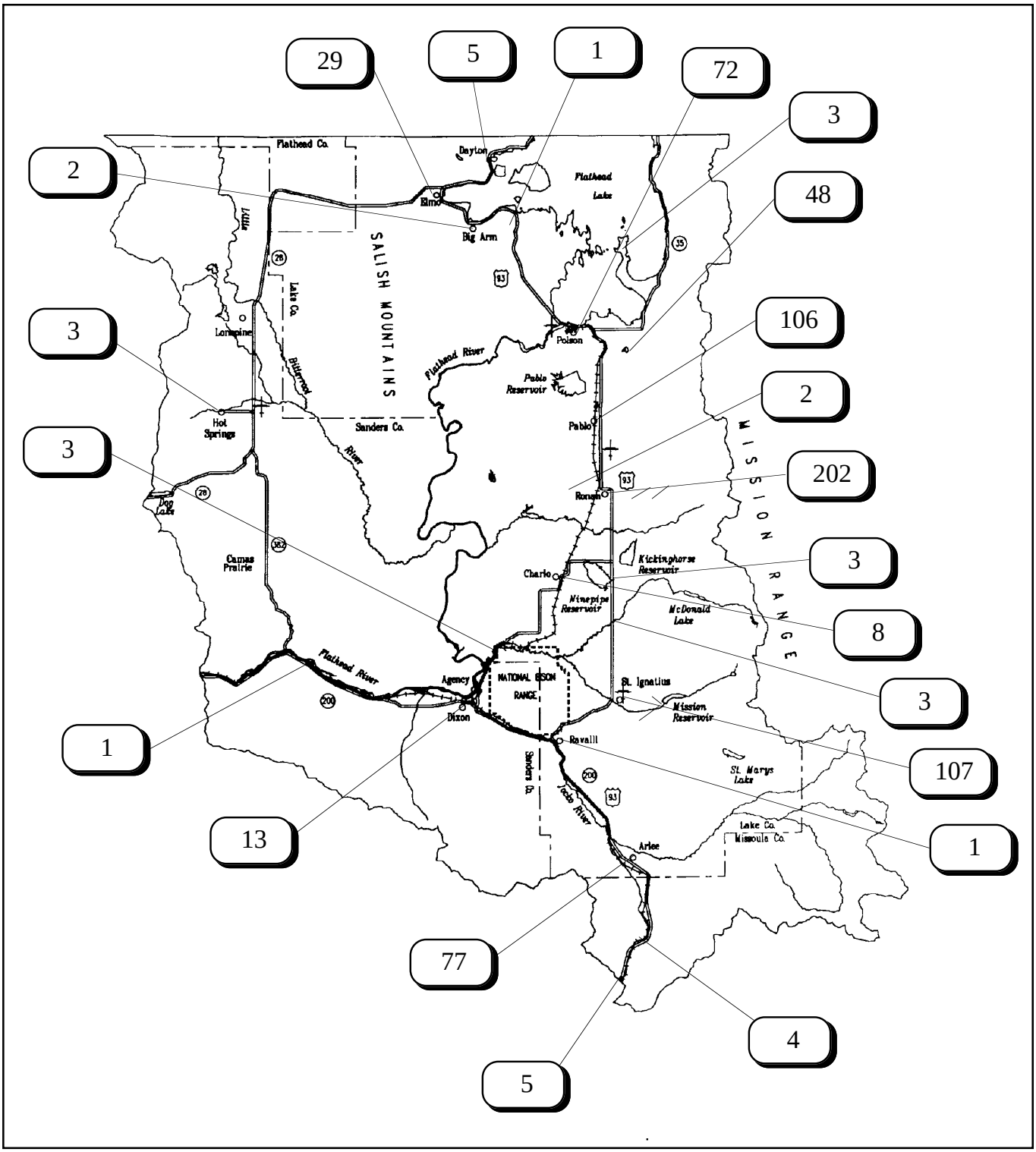


Figure 19.1. Location and density of Salish and Kootenai Housing Authority units (March 1993)

Table 19.1. Nonresidential Salish and Kootenai Housing Authority Structures

Project	Year
Ronan Indian Senior Citizens' Center	1971
Pablo Shop Building	1976
Pablo Headstart and Daycare Center	1976-1978
St. Ignatius Senior Citizens' Center	1977
Pablo Office Building	1980
St. Ignatius Daycare Center	1985
Former Pablo Office and Maintenance Building	1985
Hot Springs Senior Citizens' Center	1986
Ronan Diabetic Center	1987
New Pablo Housing Office Building	1990

From 1965 to 1986, the Salish and Kootenai Housing Authority did not have an active land acquisition program. The Tribes owned little land in or near communities, and therefore located the few housing developments built in rural areas to the areas where there was Tribal land. In 1986, the Salish and Kootenai Housing Authority started a lands acquisition program. Since then, they have bought lands for multiple housing units in or near existing communities.

The housing authority has designated parkland in many of their housing developments. In some of these parks they have developed, and now maintain, playground structures and landscaping.

The planning phases of a proposed housing project involve the coordination of Tribal and BIA resource programs. The housing authority prepares an environmental review for each rental housing project that involves several units. Individuals who have homes constructed on Tribal lease lots must obtain cultural and environmental reviews through the Tribal homesite lease program.

Waiting lists for Salish and Kootenai Housing Authority units vary by the type of program and the size requirement (determined by the number of bedrooms). Table 19.2 shows the current demand for Tribal housing on the Reservation.

Low-income families on these waiting lists are also eligible for the Salish and Kootenai Housing Authority Section 8 Voucher Program. Under this program, qualified families can occupy private rental units, and the program will pay part of the rental rate based on the family's yearly income. There are currently 50 households using this program.

Table 19.2. Salish and Kootenai Housing Authority Waiting List (as of July 1992)

Type of Housing Program	Number of Bedrooms Requested				Total Families By Program
	1	2	3	4-5	
Mutual Help*			20	30	50
Mutual Help Transfer**			8	10	18
Low Rent		42	44	33	119
Section 8 Voucher Program		15	30	5	50

*Mutual Help Programs are for Tribal members only.
**Will transfer for health reasons or overcrowding.

Division of Fee Lands

Subdivision of fee lands in the Mission Valley is occurring at a rapid pace and often with limited environmental or cultural review. Counties can approve a subdivision pending county health department or Montana Department of Health and Environmental Science approval, and if their assessment process does not reveal cultural artifacts at the site. However, there are fee lands, both within and outside the Reservation, that the Tribes consider important spiritual sites or that Tribal members use for other traditional purposes. Many do not contain cultural artifacts. As a result, counties have approved subdivisions without addressing the overall cultural importance of the areas[8]. The scope of environmental reviews is similarly limited.

In addition, most county zoning processes also fail to acknowledge Tribal protectable interests, even in areas where the Tribes own a substantial amount of land. Four counties (Flathead, Lake, Sanders and Missoula) apply residential development regulations on unincorporated fee land areas of the Reservation. Flathead, Lake and Missoula counties have adopted master plans to help guide land use decisions affecting residential development. Besides zoning in a few areas, Lake County has implemented floodplain regulations to control residential development. The incorporated towns of Ronan and Polson have also adopted zoning regulations within their city limits. Counties and communities conduct these activities according to provisions of Sections 76-1-101 through 76-5-1117, Montana Code Annotated.

Residential development has damaged natural and cultural resources. It has destroyed wildlife habitat, cultural use areas, agricultural and timber lands, and wetlands. It has diminished the wilderness, recreation and aesthetic value of some areas. It has degraded the water quality of some streams and lakes, and the air quality of several communities.

[8] Missoula County is an exception as they include the Tribes as a reviewing agency in the county subdivision review process, and have developed a Memorandum of Agreement recognizing the Tribes "as a proper governmental authority to conduct land use planning and regulation within the exterior boundaries of the Flathead Reservation."

PROGRAMS AND POLICIES

Natural Resources Department

Impacts associated with residential development on natural and cultural resources are of major concern to the Tribes. The Tribal Natural Resources Department has developed several resource management plans to address some of these impacts:

The Water Quality Management Ordinance has resulted in the development of water quality classifications and standards. A Water Quality Management Plan, containing guidelines for the management of point and non-point sources and a Reservation-wide monitoring plan, is forthcoming.

The Grizzly Bear Management Plan, which identifies habitat zones along the eastern portion of the Reservation, contains guidelines to help reduce development and human conflicts.

A Tribal Implementation Plan to reduce air particulate levels is being developed with the communities of Ronan and Polson.

The Mission Mountains Wilderness Buffer Zone Plan will help reduce residential conflicts with the Wilderness and promote resource uses compatible with wilderness values.

Cooperation in the development of an Environmental Impact Statement for the proposed expansion of US Highway 93. The Tribes are developing a study to analyze potential impacts on residential development from highway expansion. The study will evaluate ways that the Tribes can guide or control residential growth to protect the broad range of resource values and uses associated with the highway corridor.

The Lower Flathead River Corridor Plan has been approved by the Tribal Council. This plan recommends the types and levels of resource uses allowed within the river corridor. Objectives will guide future management, including the management of residential development, to insure human activities are compatible with long-term management goals for the corridor.

Homesite Lease Program

The Tribal Realty Program in the Division of Lands has administered homesite leases since the late 1950s. Besides granting homesite leases, the program grants recreational homesite leases to Tribal members. So far, the Tribes have limited these to lands along Flathead Lake.

The Tribes issue leases according to provisions contained in Tribal Land Ordinance 45B and previously mentioned plans. Other policies that apply include:

Applicable Tribal Policies
25 Code of Federal Regulations, Part 162 Cultural Resources Protection Ordinance 73A, 1980 Shoreline Protection Ordinance 64A, 1982 Aquatic Lands Conservation Ordinance 87A, 1985

Housing Authority

The BIA established the Mutual Help Housing Authority, predecessor to the Salish and Kootenai Housing Authority, in 1963, pursuant to the Public Housing Act of 1937. In 1985 the Tribal Council placed all community housing services under the administration of the Salish and Kootenai Housing Authority. These services include:

Tribal Plumbing Maintenance provides minor plumbing repairs and maintenance to Tribal members whose income is within 125 percent of the federal poverty level. It gives priority to the elderly and handicapped. Services provided include:

Water and Sewer System Repair and Maintenance
Hot Water Heater Repair and Replacement
Pump and Well Maintenance and Repair
Septic Tank Maintenance

Tribal Operations and Maintenance operates and maintains thirteen community water and/or sewer systems used by over 750 homes. These systems serve primarily Indian communities, but the program also allows non-Indian homes to access its facilities.

Salish Kootenai Operations installs water and sewer systems for Indian Health Service and the Salish and Kootenai Housing Authority. These systems serve individual home and multiple housing unit sites. The program installs 25 to 30 sewer and water systems each year.

Home Improvement Program (HIP) conducts major housing rehabilitation projects. The program selects projects on a point basis that emphasizes need. It gives priority to elders. The program's purpose is to bring the homes of low- to moderate-income Tribal members up to a determined standard. It averages thirty to forty home improvement projects per year. There is a waiting list of about 100 applicants each year. The

BIA and Department of Housing and Urban Development (HUD) provide program funding, as do Community Development Block Grants.

Indian Community Development Block Grant (ICDBG) assists enrolled Tribal members with emergency repair and rehabilitation to units considered to be substandard. New construction is not available through this program. Cost sharing is a new program available where families with adequate income, who can pay a portion of the cost, will have an amount matched by the ICDBG to do rehabilitation to their homes.

Low Income Energy Assistance Program assists low income families with their heating requirements (oil, wood, propane and electric sources) between November 1 and March 31. The program served 657 clients served during 1989 and 1990. One hundred fifty-four of these were elderly; 90 were handicapped. The Department of Health and Human Services funds the program.

Weatherization works to conserve energy in existing homes. The Department of Energy and state Exxon funds support the program. The program's highest priorities include improving furnace efficiency, insulating attic and crawl spaces and installing storm windows. Lower priorities include constructing airlocks and insulating pipes and sidewalls.

The purpose of the Salish and Kootenai Housing Authority is to provide safe, affordable housing to qualified families. Tribal Ordinance 38B governs its operations. Other policies that apply include a verbal agreement with Mission Valley Power to develop energy-efficient housing that meets Super Good Cents and HUD standards. (The Super Good Cents Program is available to all Reservation customers for new residential construction.)

ISSUES

Concerns expressed by resource managers include:

- ❑ Future availability of suitable homesite locations on trust lands
- ❑ Tribal homesite lot size reduction for those unable to maintain 2.5 acres
- ❑ Priority regarding acquisition and reservation of land for future housing
- ❑ Identification of suitable locations for housing development near existing roads, services and facilities to lower development costs and reduce conflicts with wilderness values, agriculture and forest land uses
- ❑ Current housing impacts on wildlife habitat, distribution and migratory patterns
- ❑ Housing construction in locations where there is a high risk of groundwater contamination
- ❑ Location and maintenance of heating fuel tanks and sewage treatment systems
- ❑ Designation of sensitive areas for the protection of resources

- ❑ Continued coordination between the Division of Lands, Salish and Kootenai Housing Authority, Environmental Protection Division and Indian Health Service regarding site suitability and the design process
- ❑ Development and application of acceptable building codes and development standards to insure compatible, efficient and safe housing development
- ❑ Application and implementation of urban interface guidelines to help prevent home losses to wildfire in forested areas
- ❑ Refinement of the administrative review process for homesite lease applications to insure consistency and expediency
- ❑ Future administration of Tribal lands which are occupied by Mutual Help homes
- ❑ Information sharing and policy coordination between Tribal and county governments relating to housing development and infrastructure

Other concerns voiced by Tribal elders include:

- ❑ Coordinate residential developments on fee and trust lands with county governments.
- ❑ Cluster housing developments have negative impacts on some people; however, not all people are alike. Some like isolation, some like neighbors. As we get older, it's nice to have support nearby.
- ❑ Zoning may be needed to protect sensitive areas.
- ❑ Conduct more planning on proposed developments.

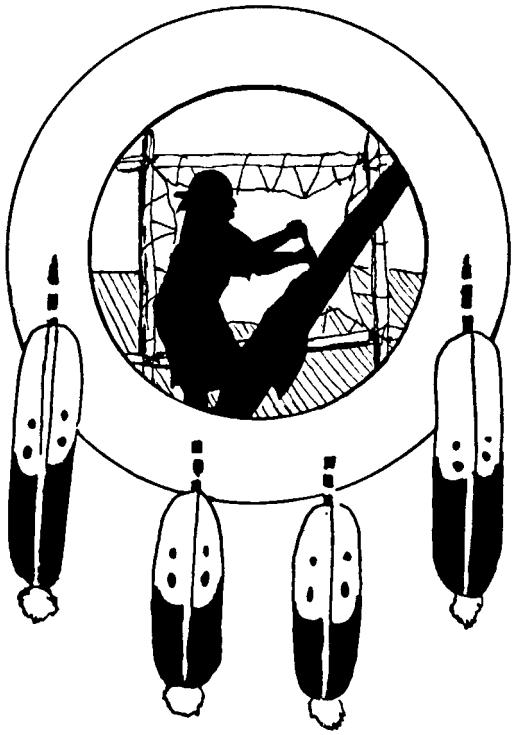
Other community members had these additional concerns:

- ❑ The Tribes need to do a better job of managing rental units.
- ❑ Restrict housing developments in wildlife areas.
- ❑ Potential water quality impacts from residential development in the Jocko Valley
- ❑ The Tribes need land use planning to reduce resource conflicts.
- ❑ Upgrade and maintain water and sewer systems along Flathead Lake.
- ❑ No more subdivisions in Elmo
- ❑ Control urban sprawl in the Arlee and Evaro areas.
- ❑ Increase lot sizes within housing projects.
- ❑ With a steady reduction of federal subsidies, will housing services be able to accommodate Tribal housing needs in the future?
- ❑ New housing developments should consider more closely infrastructure requirements and costs.
- ❑ Communicate better with residents in rural residential areas regarding tree thinning for wildfire protection.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

COMPREHENSIVE RESOURCES PLAN

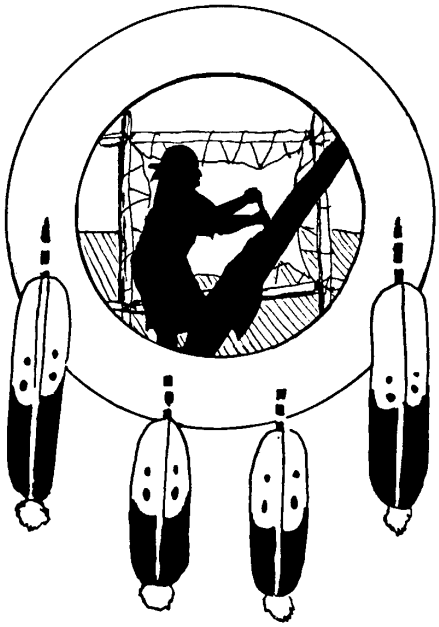
Volume I - Chapter 20



COMMERCIAL AND INDUSTRIAL AREAS

GOAL: To provide areas for commercial and industrial development that are easily accessible and have minimal impacts on the infrastructure and the surrounding environment

COMMERCIAL AND INDUSTRIAL AREAS



Trading is a long-standing tradition among Salish and Kootenai peoples. For centuries the Tribes traded goods with other tribes throughout the Northwest. Commerce with non-Indians started in the late 1700s with the establishment of the fur trade. Fort Connah, a trading post built between 1846 and 1847 near Post Creek, was the first commercial building constructed on what has since become the Flathead Indian Reservation.

Jesuit missionaries built a sawmill at the St. Ignatius Mission in 1856. It was the first industrial development in the area. By the early 1880s, when the Northern Pacific Company built a railroad line across the southwestern part of the Reservation, non-Indians had established settlements in the region. By the early 1900s, representatives in Congress opened the Reservation to non-Indian merchants, land speculators and settlers. These settlers and developers platted towns at Arlee, Ravalli, Dixon, St. Ignatius, Ronan, Polson and Dayton. Most of the commercial and industrial development on the Reservation since then has occurred at or near these towns. Today, there are over four hundred business or institutional establishments on the Reservation.

This chapter provides an overview of major commercial and industrial areas on the Reservation and discusses Tribal development programs, policies and issues.

EXISTING CONDITIONS

Thomas Power, an economist at the University of Montana, has stated that a significant expansion in economic activity taking place both north and south of the Reservation will have spill-over effects on the Reservation (Power 1992). Much of the “spill-over” will occur along US Highway 93. The highway carries most of the traffic between Missoula and Kalispell and much of the Reservation’s commercial, and industrial development already occurs along this route (fig. 20.1).

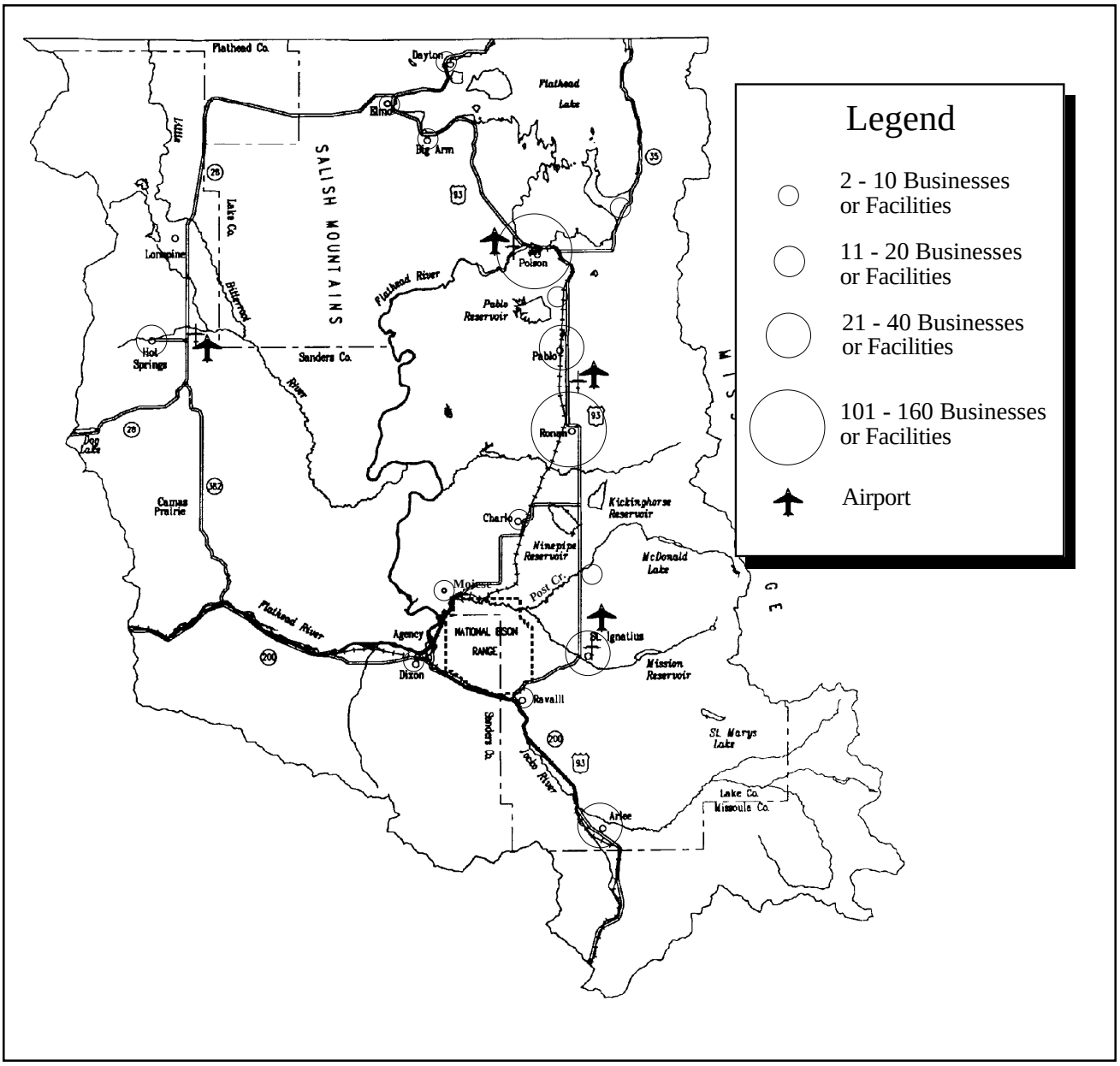


Figure 20.1. Density of community businesses and facilities

The Montana Department of Transportation widened the highway from Missoula to the Reservation's southern boundary. Since then, the south end of the Reservation has experienced increased residential and commercial development. The agency proposes to continue expanding the highway north to Polson. Reservation residents have expressed concerns about potential commercial strip development along the expanded highway. The Transportation Department is drafting an environmental impact statement to assess this issue and other social and environmental impacts associated with the project.

Commercial Development Areas

Polson and Ronan are the two major trade centers on the Reservation. Pablo, St. Ignatius, Arlee and Hot Springs are minor trade centers. The remaining communities have only limited facilities, such as gas stations and small general stores.

Figure 20.1 shows the general density of commercial and governmental-institutional development on the Reservation. This map is based on a cursory survey by Salish Kootenai College (Salish Kootenai College 1990). Table 20.1 lists the facilities identified in the study. Ninety-two percent fall along Highway 93.

Table 20.1 Flathead Reservation business profile (derived from Flathead Reservation Accessibility Survey, 1990, Salish Kootenai College)

CATEGORY	ARLEE	BIG ARM	CHARLO	DAYTON	DIXON	E. SHORE HWY 35	ELMO	HOT SPRINGS	HWY 93 S.	PABLO	POLSON	RAVALLI		
Antique Stores											2	1		
Appliance Stores											1		3	
Auto Parts, Repairs and Sales	2	1	1					3		6	9	1	8	2
Banks											4		2	1
Beauty Shops	3										7		6	2
Book Stores											2			
Building Supplies										1	1			
Churches	2			1						2	7		6	3
Clinics	2					1		1			2		11	5
Construction										1				
Department Stores	1										11		14	4
Employment Agency											2			
Entertainment							3		1		3		2	1
Fitness Centers														
Flower Shops											2		2	
Funeral Homes											1			
Furniture Stores											2			
Galleries											4			
General Merchandise Stores	4		1		2	2		1	1	1		2	1	1
Government			1					2		1	4		1	
Grocery Stores			1		1			1		2	8		5	
Hardware Stores	1										5		9	
Hospitals											1		1	
Insurance Agencies											5			
Laundromats	1							1		1	3		1	
Libraries	1										1		1	1
Lumber Yards											1			1
Manufacturing									1	1				
Motels						1			1		5	1	1	3
Office Supplies											3			
Optical											3			
Pharmacies	1							1			2			1
Post Office	1	1	1	1	1		1	1	1		1		1	1
Printing										1	2		2	
Professional Building											8		1	
Real Estate								1			4			
Restaurants	3		1					1	1	2	16		6	4
R.V. Park/Campgrounds	1	2				2							1	
Schools	3		2		1			2		3	4		4	2
Senior Citizen Centers			1					1			1		2	1
Sports Store											1			
Taverns	1	1	1					3	1	2	9	1	7	2
Thrifty Stores										1	3			
Tribal Offices											2			
Video Stores	1										3			
Winery				1										
TOTAL	28	5	10	3	5	6	4	20	7	25	158	5	103	36

Almost two-thirds of the establishments surveyed by the college are in Ronan and Polson. Ronan, and the surrounding area, is an agriculture-oriented commerce center. Polson, which has the largest year-round population on the Reservation, also serves thousands of summer residents and tourists. The Tribes recently built a resort and convention center in Polson to take advantage of tourism in the area.

Retail and food service are among the most common establishments. The survey reported that 34 restaurants, 33 department stores, 33 automobile-related facilities, 28 taverns, 18 grocery stores, and 16 general merchandise establishments operate on the Reservation.

Industrial Areas

Apart from cement plants at Polson and Pablo, and sawmills at Pablo and Post Creek, the industrial-manufacturing base on the Reservation is generally small and produces highly specialized products. The plants, most of which are in the Polson area, assemble electronic components, bee boxes, specialty furniture, cabinets and fabricated metal products. Other operations process and package a number of specialty food products, some use locally grown foods that they distribute both regionally or nationally.

Other industries include peat moss processing near Big Arm, furniture and paint manufacturing at Ronan, log home construction at Post Creek, wood pellet manufacturing at Ravalli, and the production of bee pollen products just north of Arlee.

Major Employers

Table 20.2 lists businesses on the Reservation with more than 50 employees.

Resource Concerns

The location of commercial and industrial development can have profound effects on Tribal culture and environmental quality. Road and parking lot dust, vehicular emissions and daily operational emissions can affect air quality. Noise, sewage and solid waste disposal are other concerns that the Tribes must address when planning for future development.

From a socioeconomic perspective, commercial and industrial development can provide jobs, products and services for Reservation residents. At the same time, access to and from development areas can impact transportation, communication and utility resources.

Table 20.2. Major Reservation employers as of July 1992

Major Employers	Number of Employees	Location
Confederated Salish & Kootenai Tribes	797 (total)	
- Salish Kootenai College	146	Pablo
- Mission Valley Power	79	Polson, St. Ignatius, Hot Springs, Ronan
- Kicking Horse Job Corps	62	S of Ronan
- S & K Electronics	37	Pablo
- Housing Authority, Natural Resources and other Tribal Departments	283	Pablo
	96	Ronan
	84	St. Ignatius
	10	Elmo, Polson, Blue Bay, Arlee, Hot Springs
School District 30	270	Ronan
Plum Creek Timber Company	202	Pablo
School District 23	179	Polson
St. Luke's Hospital and Nursing Home	175	Ronan
Lake County	161	Polson
Bureau of Indian Affairs - Flathead Agency	130	Pablo, St. Ignatius
Moody's Market, Inc.	107	Polson, Ronan
St. Joseph's Hospital	94	Polson
St. Joseph Convalescent Center	86	Polson
School District 8	77	Arlee
School District 28	65	St. Ignatius

PROGRAMS AND POLICIES

Tribal Government Economic Development Strategy

The Confederated Salish and Kootenai Tribes have been working to expand the economy of the Reservation for the last ten years. The Tribe's 1985 Overall Economic Development Plan listed the following three principles:

- ❑ Create enterprises based upon our natural resources
- ❑ Produce goods and services which we consume
- ❑ Develop clean, labor-intensive industry

Since that time, the Tribes have operated the following enterprises with these goals in mind:

S & K Electronics. The Tribes established this company in 1984 (incorporated January 1, 1985) to assemble electronic components and electromechanical parts. The enterprise is two miles north of Pablo on Highway 93.

S & K Developments (d.b.a.) Kwa Taq Nuk Resort. The Tribes established this company in 1989 to acquire and develop property to provide employment opportunities for Tribal members. It operates KwaTaqNuk Resort in Polson.

S & K Holding Company. The Tribes formed S & K Holding in 1992 to oversee Sovereign Leasing and Finance Company as well as direct the activities of all Tribal enterprises. Sovereign Leasing and Finance Company generates profits from the purchase and lease of equipment such as computer systems and vehicles.

S & K Holding Company also manages Gray Wolf Construction Company, a general construction management company established in 1992, and Marina, Inc., established in 1993 to oversee operation of The Marina in Polson, an existing business recently purchased by the Tribes. S&K Holding is also responsible for developing agribusiness and tourism opportunities for the Tribes.

The Natural Resources Department manages S & K Power. The Tribes established S & K Power in 1984 to provide hydroelectric power. The enterprise is in the northeast corner of the Reservation on Boulder Creek. The Natural Resources Department operates and maintains the facility.

Besides these Tribal enterprises, many Tribal members have established businesses. These include ranches, logging companies, post and pole operations, smokeshops, gasoline stations, auto repair shops, office supplies stores and restaurants.

The Natural Resources Department, Division of Lands administers commercial leases of Tribal properties. The Tribes have established approximately 60 leases on the Reservation for both Tribal members and non-members. Some expire annually; others are in effect for up to 25 years.

As a major contributor to and beneficiary of local economic assets, the Tribes have been studying the Reservation economy for several years. The Tribes estimate that Tribal organizations contribute approximately $90 million a year to the local economy (Tribal Administration 1991). The Tribes recently adopted the US Forest Service IMPLAN economic model to the Reservation economy. This model can be used to develop economic policy and guidelines for commercial and industrial development.

Non-Tribal Local Economic Development

Lake County. The county first completed its Overall Economic Development Plan (OEDP) in 1979 and updated it in 1990. The plan outlines goals and strategies in agriculture, industrial development, human resources, tourism, commercial development, and pubic facilities.

Central Lake County Economic Development District. This is a local industrial development organization formed to work in concert with the Ronan Chamber of Commerce to provide community analysis and economic promotion.

Chambers of Commerce. Polson, Ronan and St. Ignatius have chambers that meet periodically to review economic factors and develop initiatives for civic and business development in their communities.

ISSUES

Resource managers have listed several issues concerning future commercial and industrial development on the Reservation. These include the following:

- ❑ Tribal and other local economic development entities' responses to the inevitable growth of the region
- ❑ Impacts of the proposed expansion of US Highway 93 on:
  - existing businesses concentrated along the highway corridor
  - existing and future Tribal commercial leases
  - scenic viewsheds, riparian corridors and wetlands susceptible to strip development along the highway
- ❑ Potential for managing tourism and travel in the region to stimulate the economy while protecting natural resource values
- ❑ Degree to which the Tribes assist in creating service sector businesses and employment
- ❑ Level of commercial and retail support needed on the Reservation to accommodate the needs of residents and tourists
- ❑ Degree to which the Tribes want to pursue processing of local natural resources
- ❑ Designation of suitable sites for commercial and industrial development
- ❑ Development of design standards for energy efficiency, signs, dust abatement, accessibility to services, landscaping, etc. for new development
- ❑ Level of Tribal assistance for Tribal member entrepreneurs while assuring greater returns on commercial leases

Tribal Elders' have expressed additional concerns and ideas. These include the following:

- ❑ Establish a tribal store as an outlet for members to sell beadwork, artwork and other products.

- ❑ The Tribes should develop department and grocery stores, greenhouses and a bank or credit union—possibly at Pablo, a central place where many people work already. The Tribes could then develop satellite stores to serve local communities.
- ❑ Require adequate water and sewer systems for all commercial and industrial developments.

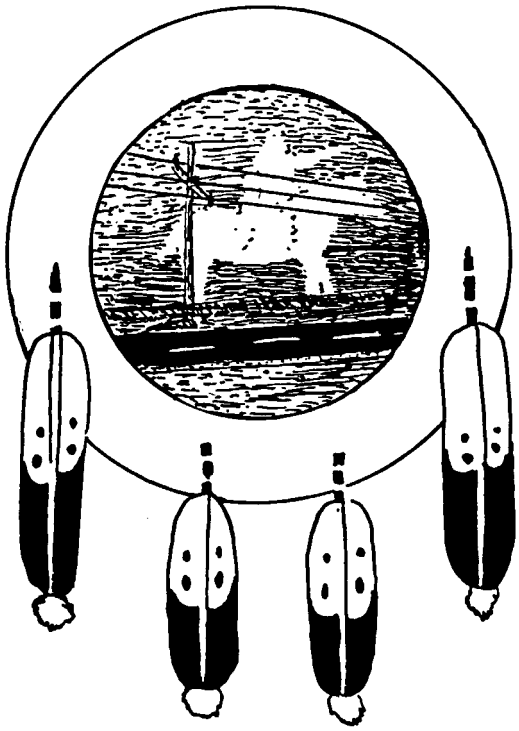
Additional concerns raised by other community members include:

- ❑ The Tribes should create enterprises to do work currently contracted out, such as housing construction, water quality analysis, etc.
- ❑ Create more employment opportunities for Tribal members.
- ❑ Promote Tribal craftsmanship and artistry more, possibly through the establishment of a cooperative association for Tribal members.
- ❑ Hot Springs needs economic development.
- ❑ Human resources development should be a priority.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

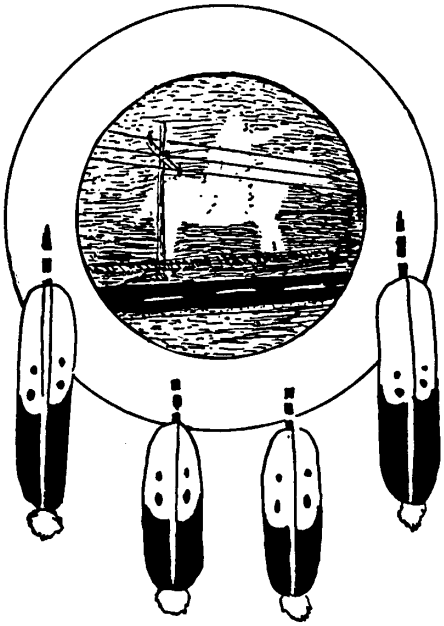
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 21



TRANSPORTATION, COMMUNICATION AND UTILITIES

GOAL: To promote a transportation system, communications network and utilities infrastructure that support existing and potential resource development and use and that is balanced with other resource qualities



TRANSPORTATION, COMMUNICATION AND UTILITIES

Before the Reservation was established in 1855 there were no roads through the Lower Flathead Valley. Indians and early trappers traveled on foot, horseback or by canoe. It was not until the late 1800s that settlers in the region established wagon and stage coach routes on the Reservation. About the same time they initiated steamboat traffic on Flathead Lake and built a railroad across the southwest corner of the Reservation. They started construction on the first highways about 1915, a few years after Congress opened the Reservation to settlement.

Since that time, governments, companies and individuals have established an extensive network of roads, powerlines, communication facilities, and utilities on the Reservation. This chapter describes these and highlights the policies, issues and impacts associated with them.

EXISTING CONDITIONS -- Transportation

Transportation facilities and services on the Reservation include:

- highways and roads
- commercial bus and taxi services
- rail connections for freight transportation
- airports which service private and commercial aircraft.

Highways and Roads

About forty-two hundred miles of Tribal, federal, state, county and private roads serve the

Reservation. The Tribal road system covers over 2,600 miles. It includes about 100 miles that overlap with the county road system and 376 miles of BIA system roads[1]. Federal and state highways total 222 miles (Cooper Consultants, Inc. 1988), and county roads extend over 1,400 miles[2].

Highways. Major transportation routes are part of the state Federal Aid Primary (FAP) highway system. The Federal government is largely responsible for funding the reconstruction and upgrade of this system, while the State is primarily responsible for maintenance. On the Reservation the FAP system includes US Highway 93 (FAP 5), State Primary Route 200 (FAP 6), State Primary 28 (FAP 36), and State Primary 35 (FAP 52). State secondary routes considered part of the Federal Aid Secondary (FAS) system include State Secondary 382 and State Secondary 212. (This classification system has been revised to designate principal arterials, minor arterials, and major collectors.)

Major features of each of these highways include the following[3]:

US Highway 93. The Reservation portion of this main north-south travel corridor extends from Dayton to Evaro. The highway is two-lanes and has a third lane for turning or passing in some sections. It is twenty-eight feet wide or wider except at Sunny Slope, Elmo, Allentown, Ravalli, Dirty Corner and south of St. Ignatius. The Montana Department of Transportation is considering an upgrade of the stretch from Evaro to Polson to 4 or 5 lanes.

This highway carried 2,500 to 6,000 average daily vehicle trips (ADT) on the rural sections and 9,400 to 10,800 ADT in Polson and Ronan. From 1984 to 1988 the Reservation portion averaged 191 accidents per year.

Highway 93 is being considered for inclusion within the National Highway System. As such it would become eligible for the highest level of highway funding, and it may be designated an international commerce route.

State Primary 35. This two lane highway provides an eastern route around Flathead Lake and receives a large amount of summer recreational traffic. It is twenty-four to twenty-six feet wide.

1990 ADT ranged from 2,420 at Finley Point to 3,740 near the junction with US 93. From 1984 to 1988 the Reservation portion averaged forty-five accidents per year.

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[1] BIA, Flathead Agency, Roads Forester and Roads Department, 1992.
[2] Miles of county road based on August 1992 telephone interviews with Lake, Missoula and Sanders counties' roads personnel.
[3] Average Daily Trips data is the weighted annual average for 1990 as determined by the MT Dept. of Transportation. Accident data is from the Indian Health Service, Flathead Service Unit's *Appraisal Report on Accidents on Reservation Highways on the Flathead Service Unit System, 1989.*

State Primary 200. This two lane highway enters the southwest corner of the Reservation and follows an east-west route before merging with Highway 93 at Ravalli. One-third of it is thirty-two feet wide; the remainder is twenty-two feet wide. Future Transportation Department plans include minor alignment changes, widening the bed to thirty-two feet and an overlay.

1990 ADT ranged from 1160 between Perma and Dixon to 1455 near Ravalli. From 1984 to 1988 the Reservation portion averaged twenty-one accidents per year.

State Primary 28 crosses the northwest part of the Reservation and connects the Little Bitterroot Valley with Highway 93 at Elmo. Most of it is twenty-two feet wide and has poor surfacing. There is a two-mile stretch near Hot Springs widened to twenty-eight feet. Plans include widening the remainder of the highway to as much as twenty-eight feet, with a new bridge and overlay.

1991 ADT ranged from 880 near Hot Springs to 660 near Elmo. From 1984 to 1988 it averaged about thirteen accidents per year.

State Secondary 382 connects Highways 200 and 28 through the Camas Prairie area. Except for four miles in the Perma Canyon that the state has widened to 28 feet, the road averages twenty feet wide and has sharp ditches and poor surfacing. Plans call for widening and an overlay of the entire route.

In 1990 Highway 382 carried 310 ADT and averaged 1.8 accidents per year from 1984 to 1988.

State Secondary 212 connects Highways 200 and 93 and the communities of Dixon, Agency, Moiese, and Charlo.

It carried 988 ADT in 1990 and averaged fourteen accidents per year from 1984-1988.

There are short segments of a few other state secondary routes on the Reservation. Round Butte Road (FAS 211) provides a nine-mile link between Ronan and county roads to the west. FAS 352 begins just north of Dayton and extends two miles before leaving the Reservation. FAS 354 connects the west ends of the Polson and Ronan areas, and is approximately 13 miles long.

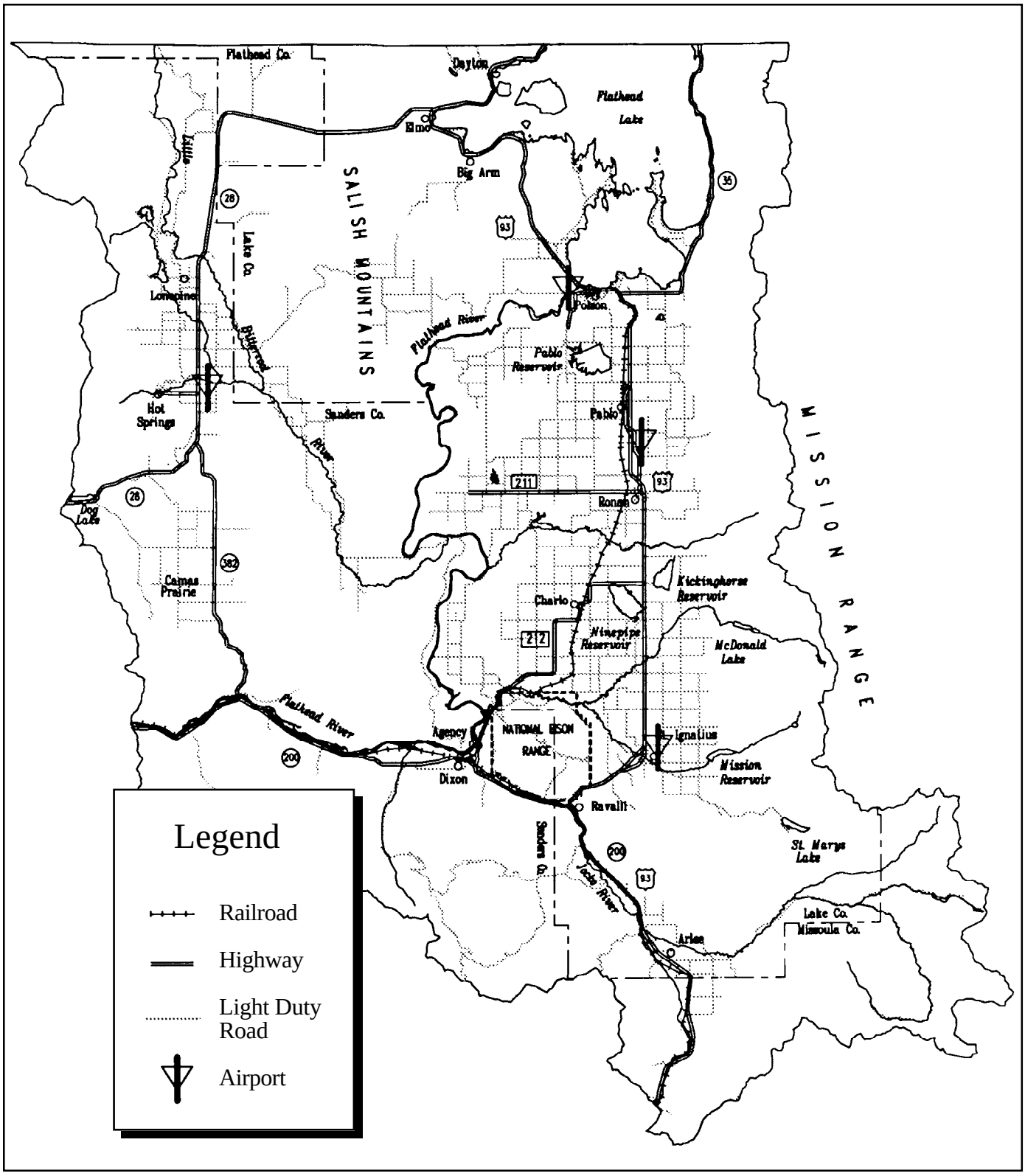


Figure 21.1. Major transportation facilities

County Collector Roads. Collector roads connect residential streets to highways. On the Reservation, counties hold the rights-of-way for the majority of these.

Lake County has the most extensive county road system on the Reservation. Most of it is in the Mission Valley and follows a grid of section lines. It includes about five hundred seventy miles[4] of gravel roads, sixteen to twenty-four feet wide; and about one hundred twenty miles of paved roads, twenty to twenty-two feet wide. All have fair to good surface conditions. The BIA and state have rebuilt and widened some paved roads to twenty-eight feet.

The **Sanders County's** road network serves the western and southern portions of the Reservation from Dixon to the Camas and Hot Springs Valleys. It follows section lines in only a few areas. The system includes about one hundred eighty miles of sixteen to twenty-four foot gravel roads in fair condition and about twenty miles of twenty to twenty-two foot paved roads in fair to good condition.

There are approximately ten miles of county roads within the few square miles of **Flathead County** that intersect the Reservation's northwest corner. They are gravel, sixteen to twenty-four feet wide and in fair condition.

Missoula County roads include one-half mile of paved road in poor condition, and about nine miles of good gravel roads twenty to twenty-four feet wide. All are in the southeastern corner of the Reservation.

The county builds and maintains most of the collector roads on the Reservation according to its priorities and available funding. The BIA has rebuilt some portions of Lake County roads that serve high numbers of Indians.

Tribal and BIA System Roads. The Tribal road system is the largest on the Reservation. Inventoried roads cover about twenty-six hundred miles, one hundred miles of which overlap with the county road system and approximately 373 miles are on the BIA system. Tribal and BIA roads that have been built for timber sale purposes are generally low standard roads, but they also include some high standard residential streets.

In addition to these roads, there are many miles of jeep trails and other impromptu use roads not inventoried.

[4] County road statistics summarized from August 1992 interviews with Lake, Sanders, Missoula, and Flathead counties' road staffs, and some updated information in 1995.

Major features of the Tribal and BIA road system include:

Residential Streets. The BIA maintains about 30 miles of homesite roads in fifteen locations. The BIA has rebuilt the majority of these within the last four years, and they are in excellent condition. They vary from twenty-eight to forty-four feet wide. Most have hot mix pavement and curbs and gutters in cluster homesites. The agency has built sidewalks where needed. The remainder of the residential roads are planned for reconstruction over the next five years. The Tribes have recently compacted this program from the BIA.

Mountain Access Roads. In 1993, the Tribes compacted maintenance of BIA roads including the aforementioned residential streets as well as 345 miles of roads for recreation, timber harvest and other resource uses. Some of these in the Jocko Valley, Squaw Peak and Hog Heaven areas lead off the Reservation. Most have generally poor surface conditions and alignment. Bridges are constructed of native timber, and many are in poor to fair condition. Maintenance funding is inadequate.

Forest Lateral Roads - The system includes another 2,580 miles of Tribal roads used for timber harvest and hunting. The Tribal and BIA forestry programs maintain these on an as-needed basis. The Tribal Wildland Recreation Program also performs some bridge maintenance.

The BIA has estimated that about one-third of the system is usable; however, most of these roads are not designed for multiple or extended use, and can cause extensive damage to some vehicles. The remaining two-thirds of the system is overgrown and generally unusable. It remains available, however, for resource activities such as fire suppression.

City Streets. Polson, Ronan, St. Ignatius and Hot Springs maintain their own street systems.

Polson has about 26.6 miles of paved streets, from thirty to sixty feet wide, and nine miles of gravel streets from twenty to twenty-five feet wide. All are in fair condition. Recent improvements include adding crushed gravel to gravel streets and implementing a chip-seal process on paved streets (L. DeVore, Telephone Interview, 8 August 1992).

Ronan has approximately four miles of good paved streets that are twenty-four feet wide. They also maintain about sixteen miles of gravel roads that are thirty feet wide. These are in poor condition. The city is working to create Special Improvement Districts to develop funding for paving (M. Summers, Telephone Interview, 13 August 1992).

St. Ignatius has seven miles of paved streets that are twenty-four to thirty feet wide, and in fair to poor condition. Crews are resurfacing the street in front of the Post Office and City Hall (L. Gottfried, Telephone Interview, 26 August 1992; J. Jenson, Telephone Interview, 26 August 1992).

Hot Springs has approximately 7.8 miles of paved and less than one-quarter mile of gravel streets. These are about 25 feet wide and in poor condition (D. Oberlander, Telephone Interview, 17 August 1992)

Trails. The Tribes, the CCC and others have built trails in the Mission Mountains Tribal Wilderness, the South Fork Primitive Area and the Reservation Divide area. Tribal members and non-members use them for subsistence hunting, fishing, and plant harvesting and other cultural purposes and recreation. The Tribes have also designated a snowmobile trail in the Boulder Road area.

Communities have also developed trails or pathways. The BIA recently built an asphalt bicycle and pedestrian path that connects the Arlee Indian homesites with the commercial district and junior high school. Polson has a bicycle lane along portions of Highway 93. Efforts are ongoing to make this a contiguous pathway through Polson. Walkways are also being proposed for St. Ignatius, Ronan, Pablo, and Hot Springs.

Railroads

In 1883 the Northern Pacific Company built a railroad across the south end of the Reservation. They completed a spur line from Dixon to Polson in the early 1900s (fig. 21.1).

Today, Montana Rail Link owns and operates both lines. They use the main line seven days a week for hauling inter- and intrastate freight. They use the spur line to Polson two days a week to haul lumber from the sawmill in Pablo. The Montana Public Service Commission (1992) reported six accidents on the main line during the past five years and none on the spur line. Montana Rail Link is considering options to increase their use of both lines.

Airports

The four public airports on the Reservation are near Polson, Ronan, St. Ignatius and Hot Springs. Each has a beacon and a windsock.

Hot Springs. This county airport encompasses 117 acres at an elevation of 2,763 feet. Its runway is 2,580 feet by seventy-five feet, surfaced with gravel, and in

good condition. It has a medium-intensity light system operating dusk to dawn. There are 425 landings or takeoffs per year. There are no fuel or repair services available.

Polson. This city-county airport encompasses ninety-seven acres at an elevation of 2,938 feet. Its runway is forty-two hundred feet by sixty feet, asphalted and in good condition. It has a pilot activated, medium-intensity light system. There are sixty-eight hundred landings or takeoffs per year. Twenty-seven single-engine aircraft are based on site. One Hundred Octane and Jet A fuels are available, as are major airframe and power plant repair services. Unicom two-way radio communication serves the facility. Charter services are available.

Ronan. This city-county airport encompasses fifty-six acres at an elevation of 3,089 feet. Its runway is thirty-six hundred feet by seventy-five feet, asphalted and in good condition. It has a medium-intensity light system that operates until 9:00 p.m. (pilot-activated after 9). The airport receives 2,250 landings or takeoffs per year. There are seven single-engine aircraft based on site and no fuel or repair services. Agricultural spraying services are nearby.

St. Ignatius. This city-county airport includes eighty acres at an elevation of 3,089 feet. Its runway is 2,610 feet by sixty feet, asphalted and in good condition. Runway lights are pilot-activated. The airport receives twenty-two hundred landings or takeoffs per year. Six single-engine aircraft are based on site. No fuel or repair services are available.

There are private airfields in the Jocko, Mission and Little Bitterroot Valleys. There are no major commercial airline or freight services on the Reservation.

Air ambulance helicopters provide life-flight services to Missoula (in most cases) and Kalispell. They serve hospitals in Polson and Ronan, and make emergency landings nearly everywhere.

The Tribes and the BIA also use helicopters to monitor natural resources and to conduct fire reconnaissance and suppression. The BIA maintains heliports at Ronan and Hot Springs for these purposes.

EXISTING CONDITIONS -- Communication

Communication services that directly affect land use include telephone, television and radio transmission lines and facilities and signs. The following section describes these.

Telephone

In recent years, telephone companies have begun upgrading telephone lines to fiber optics or microwave transmission. One microwave facility and several fiber optic lines are on Tribal land. Telephone communication systems on Tribal lands include the following:

Pacific Telecom Inc. (PTI), formerly the Northwestern Telephone System, uses fiber optics and transmission lines to serve the north end of the Reservation. Their services extend north from Polson, along both sides of Flathead Lake. They also serve a small area south of Polson and north of Pablo. Reservation communities served by PTI include Finley Point, Polson, Big Arm, Elmo and Dayton.

Ronan Telephone Company is a family-owned business that provides services to Ronan, and Pablo. Their service area extends east to the Mission Mountains, and west to portions of the Oliver Gulch area.

Hot Springs Telephone Company is another independent telephone corporation. It provides services to much of the western part of the Reservation. Its service area extends from south of Niarada to Perma and includes the communities of Lonepine, Hot Springs and Camas Prairie. The Ronan Telephone Company owns part of the Hot Springs Telephone Company and a microwave relay station at Oliver Point links the two.

Blackfoot Telephone Cooperative, Inc., is a member-owned company that provides service to the south end of the Reservation. It serves the communities of Dixon, Moiese, Charlo, St. Ignatius, Ravalli and Arlee. The cooperative also serves an extensive area throughout Sanders, Granite, Ravalli, Lake, Missoula and Powell counties in Montana and Idaho County in Idaho.

US Sprint and Telecom Resources have inter-state fiber optic systems on the Reservation. US Sprint's fiber optic cable, which originates in Spokane, Washington, and ends in Fargo, North Dakota, is within the Northern Pacific Railroad right-of-way. Telecom Resources carries AT&T communications to the Reservation using Montana Power Company's Kerr-to-Anaconda and Kerr-to- Thompson Falls powerline right-of-ways.

Television

Several northwestern Montana television stations cover the Reservation. With the exception of SKC-TV, a public broadcasting station and production facility at Salish Kootenai College, these stations are in Kalispell and Missoula. Transmission towers for the Missoula stations are on TV Mountain, just south of the Reservation boundary. Transmission towers for SKC-TV are on Tribal land at Jette Mountain northwest of Polson and at St. Ignatius and Ronan. The station is considering other sites for towers to increase their coverage of the Reservation.

Cable services on the Reservation include Premiere Communications, TCI and WestStar Group North. Premiere Communications serves the Mission and Jocko Valleys, TCI serves portions of Polson and the East Shore, and WestStar serves Hot Springs, Charlo and St. Ignatius. Transmission cables are usually within existing highway, road or utility right-of-ways.

Radio

AM and FM radio stations in Missoula, Kalispell, Whitefish and Polson cover the Reservation. The Polson station, KQ92-FM, has a broadcast tower at Jette Mountain and a small tower at the station just north of Pablo. It's sister station, KERR-AM, transmits from a tower at Pablo Reservoir. Missoula stations KUFM, KDXT-FM, KYSS-FM and KGRZ-AM transmit from Big Sky Mountain southeast of the Reservation.

TV Mountain and Point Six, another peak about two miles northeast of TV Mountain, have facilities for two-way radio transmission. Thirteen low power users, including the National Weather Service, use the Point Six site, most of which lies on Forest Service land. Part of the site is on Tribal land and serves Missoula County 9-1-1 emergency transmissions and two other users. Access to Point Six is through Tribal, Forest Service and private land (D. Stack, Telephone Interview, 12 August 1992).

Mission Valley Power, Tribal Law and Order, the Bureau of Indian Affairs and the Lake County Sheriff's Office use two-way radio transmission facilities at Oliver Point between Ronan and Hot Springs.

Signs

There are many signs along Reservation roads. The largest concentration is along US Highway 93; the highest density is near Polson. Signs are largely unregulated, and in some areas they compete with the natural scenery. The Tribal Council recently voted to withhold all Reservation sign permits until a study on their impact is completed.

EXISTING CONDITIONS -- Utilities

The following section describes electrical, fuel, pipeline, water, sewer and solid waste disposal utilities.

Electrical

The oldest power generation and distribution system on the Reservation is Hellroaring Creek Hydro. In 1914 the federal government issued a permit to the J.H. Cline Company to develop the site on the east shore of Flathead Lake to supply power to a Polson flour mill. Mission Valley

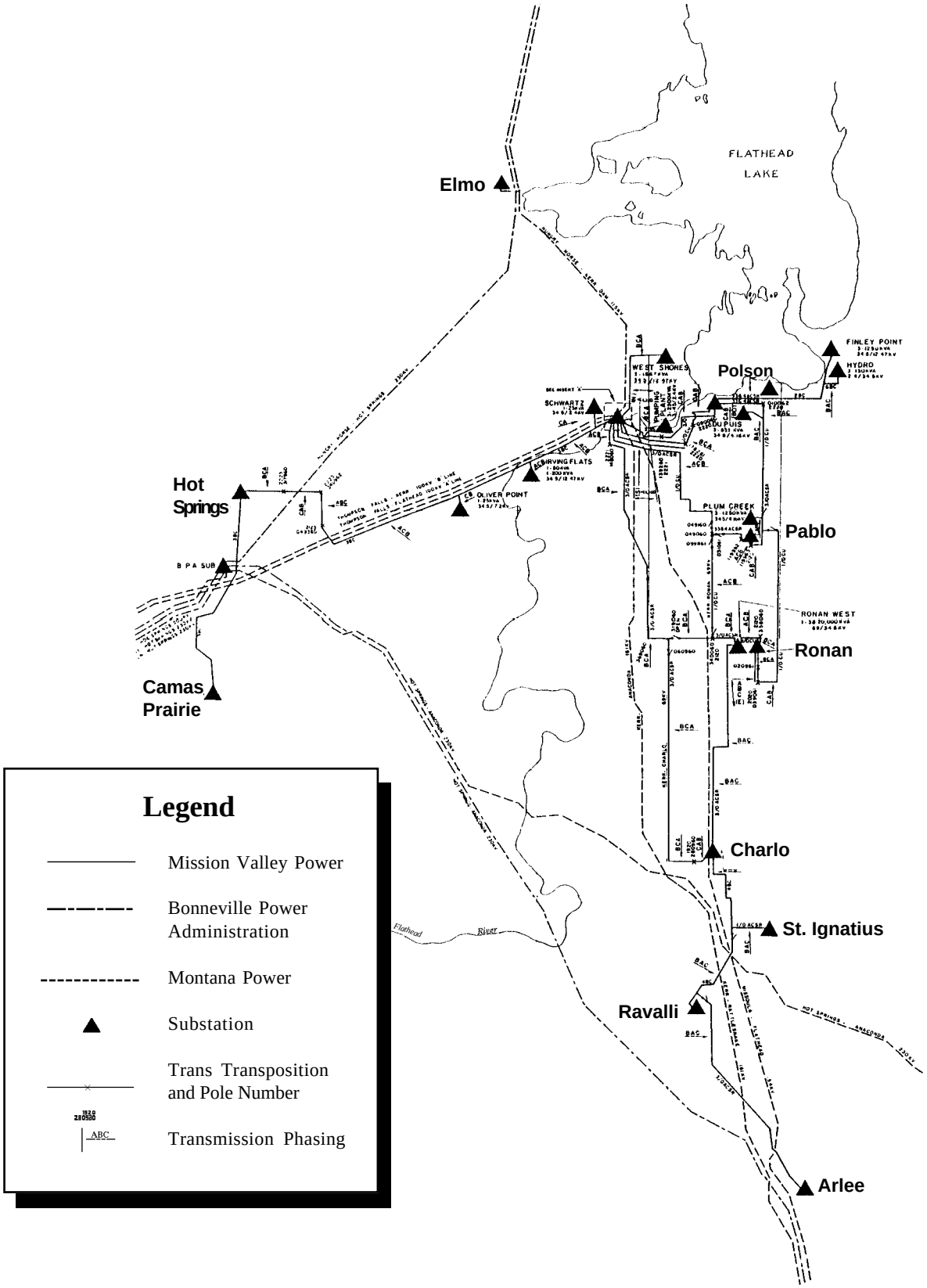


Figure 21.2 Major transmission lines and transformers

Power (MVP) maintains and operates this facility as part of the Reservation's overall electrical transmission and distribution system.

MVP is one of the largest utilities in Montana. In 1991, it served 13,373 residential, commercial, industrial and irrigation accounts and sold 250,874 megawatt hours of power. Its facilities include: twenty-one substations, over thirty-seven thousand power poles, two thousand miles of power line, and ten thousand distribution transformers.

Figure 21.2 shows the locations of the utility's major transmission lines and substations.

Table 21.1. Summary of Projected Consumer Accounts, Annual Energy Use & Peak Demand

	1989	1998	2008
Total Number of Accounts	12876	14327	16111
Total Annual Megawatt Hours	243830	279387	317443
Peak Demand (KW)	67485	79005	91772

The headquarters and main office are in Polson. Satellite offices are in Ronan, St. Ignatius and Hot Springs.

Table 21.1 lists Mission Valley Power's summary projection of the number of consumer accounts and the amount of energy demand on the system by the year 2008. Over the next twenty years the utility expects the total number of accounts to increase by 25 percent, and the amount of power sold to increase by 30 percent.

The utility recently replaced over 1,200 transformers that contained PCBs (toxic chemicals). A licensed PCB disposer incinerated the contaminated units at a facility in South Dakota. (L. Vanmeter, Telephone Interview, 17 August 1992).

Fuel

Some buildings and appliances on the Reservation use propane, oil, wood and/or coal rather than, or in addition to, electricity.

There are **propane** distributors in Polson, Ronan and Charlo. Some automotive service stations sell propane.

Oil and coal. There are fuel oil distributors in Polson and Ronan. The nearest coal distributor is in Missoula.

Wood. A number of people sell firewood on the Reservation. Tribal members can cut firewood on Tribal land for personal or commercial use. From 1977 to 1989 the Tribes issued an average of fifty commercial permits per year. These permittees cut about twenty-five hundred cords of wood per year.

Natural gas is not available on the Reservation.

Pipelines

A portion of a petroleum pipeline that connects Billings, Montana to Moses Lake, Washington crosses the south end of the Reservation. Since 1954 the Yellowstone Pipeline Company has used the facility to transport gasoline, diesel and aviation fuel. The Tribes have documented three major ruptures and a failed valve on the Reservation since 1986. The first spill occurred near Perma and created an oil slick on backwater areas of the Lower Flathead River. The second occurred in 1987, and leaked diesel fuel near Magpie Creek west of Dixon. The third was discovered in January 1993 near the headwaters of Camas Creek south of Hot Springs. Personal interviews with local residents indicate the pipeline may have been leaking for more than three months. The Tribes found evidence of gasoline, diesel and aviation fuels at the site. The Tribes issued an emergency order to Conoco, Inc. and Yellowstone Pipeline Company under Tribal Water Quality Ordinance 89B to ensure thorough clean-up and continued monitoring of Camas Creek.

Water and Sewer

Tribes and communities have developed several public water and sewer systems on the Reservation.

The Salish and Kootenai Housing Authority manages **Tribal Operations and Maintenance Systems**. The following list (Sloan 1992) outlines the type of system, number of hookups, source of water, type of water treatment (if applicable) and method of sewage treatment:

Arlee

- 39 hookups
- Water source: two wells; 50,000-gallon storage tank; water not treated
- Sewage treatment: individual septic systems

Dayton

- 7 hookups
- Water source: two wells; 100-gallon pressure tank system; water not treated
- Sewage treatment: individual septic systems

Dixon-Old Agency

- 35 hookups
- Water source: two wells; 40,000-gallon storage tank; water filtered and treated with potassium permanganate and chlorine
- Sewage treatment: one-cell, non-aerated lagoon, discharged into an infiltration cell

Elmo

- 54 hookups
- Water source: two wells; two 10,000-gallon and one 23,000-gallon storage tanks; water not treated
- Sewage treatment: two-cell non-aerated lagoon, designed as a total retention or zero-discharge system

Evaro

- 15 hookups
- Water source: one well; 20,000-gallon storage tank; water not treated
- Sewage treatment: individual septic systems

Houle Villa-Finley Point

- 10 hookups
- Water source: two wells; 23,000-gallon storage tank; water not treated
- Sewage treatment: individual septic systems

Mission Dam

- 26 hookups
- Water source: two wells; 30,000-gallon storage tank; water not treated
- Sewage treatment: individual septic systems

Ronan-Clarice Paul

- 14 hookups
- Water source: two wells; 1,000-gallon pressure tank system; water not treated
- Sewage treatment: one-cell non-aerated lagoon

Ronan-Pache
- 65 hookups
- Water source: two wells; 90,000-gallon storage tank; water not treated
- Sewage treatment: two-cell aerated lagoon, designed as a total retention system

Ronan-Woodcock
- 35 hookups
- Water source: two wells; 35,000-gallon storage tank; water not treated
- Sewage treatment: upgraded to a two-cell, non-aerated lagoon designed as a total retention system

Safety Bay
- 6 hookups
- Water source: one well; 8,000-gallon storage tank; water not treated
- Sewage treatment: individual septic systems

Schley
- 34 hookups
- Water source: one well; 40,000-gallon storage tank; water not treated
- Sewage treatment: individual septic systems

Southside-St. Ignatius
- 130 water hookups, 155 sewer hookups
- Water source: two wells; 25,000-gallon storage tank, with proposed upgrade to 300,000; water not treated
- Sewage treatment: two-cell aerated lagoon, discharges into Sabine Creek

Turtle Lake
- 56 water hookups, 46 sewer hookups
- Water source: two wells; one 47,000-gallon and one 30,000-gallon storage tank; water not treated
- Sewage treatment: two-cell non-aerated lagoon, discharges into infiltration beds

The Housing Authority, the Tribal Water Quality Program and the Indian Health Service developed a list of needed upgrades for 1992:

Needed Upgrades for 1992

1. Dixon-Old Agency sewage treatment facility upgrade
2. Arlee Sewer development (estimated at $1.2 million)
3. Mission Dam water system upgrade
4. Telemetry (radio) Control System development for all systems, to be centrally controlled from Pablo to free up personnel for other maintenance priorities
5. Elmo water system upgrade
6. Schley water system upgrade
7. Schley Sewer development
8. Dixon-Old Agency water system upgrade

These agencies have identified smaller maintenance projects for the Turtle Lake, Woodcock, Houle Villa, Pache and Evaro water systems and the Pache sewer system. They have added the Blue Bay community to the Tribal Operations and Maintenance network; but have not established priorities for the site.

Community Water and Sewer Systems serve other communities on the Reservation. The following list identifies the owner of each system, number of hookups, source of water, type of storage treatment (if applicable) and method of sewage treatment for each community:

Charlo

- Charlo Water Users Association, 115 hookups (R. Strawn, Telephone Interview, 20 August 1992)
- Water source: two wells, 450 feet deep; 40,000-gallon storage tank; water not treated
- Sewage treatment: three-acre, single-cell aerated lagoon, discharged into Mission Creek

Dixon

- Dixon Water and Sewer District (facilities Tribally owned), 64 hookups (G. Pitts, Telephone Interview, 20 August 1992)
- Water source: two wells; 200,000-gallon storage tank; water not treated
- Sewage treatment: three-cell, non-aerated lagoon

Hot Springs

- Hot Springs Public Water and Sewage Treatment Facility, approximately 325 hookups (D. Oberlander, Telephone Interview, 17 August 1992)
- Water source: three wells; 200,000-gallon storage tank; water not treated
- Sewage treatment: three-cell aerated lagoon, discharged into Hot Springs Creek

Pablo

- Pablo Water Board, 300 water and 175 sewer hookups (M. Salway, Telephone Interview, 20 August 1992)
- Water source: four wells, approximately 400-450 feet deep; 200,000-gallon storage tank; water not treated
- Sewage treatment: three-cell non-aerated lagoon, designed as a zero discharge system

Polson

- Polson City Water and Sewer Departments, 1,792 water and 1,344 sewer hookups (J. Campbell, Telephone Interview, 17 August 1992)
- Water source: three wells, 155-450 feet deep and Hellroaring Creek watershed lease; four 500,000-gallon and two 250,000-gallon storage reservoirs; water from creek is chlorinated
- Sewage treatment: three-cell aerated lagoon plus one settling pond, discharged into the Flathead River

Ronan

- City of Ronan, 772 water and 670 sewer hookups (C. Bockman, Telephone Interview, 24 August 1992))
- Water source: two wells (newest at 417 feet deep) and Middle Crow Creek watershed lease; one 150,000-gallon and one 750,000-gallon storage reservoirs; surface water chlorinated and treated with ozone
- Sewage treatment: three-cell aerated lagoon, discharged into Crow Creek

Round Butte

- Round Butte Water Company, 118 hookups (B. Baker, Telephone Interview, 20 August 1992)

- Water source: artesian well; 125,000-gallon concrete storage tank; water not treated
- Sewage treatment: individual septic systems

St. Ignatius

- St. Ignatius Community Water Supply System, approximately 275 water and 190 sewer hookups (L. Gottfried, Telephone Interview, 26 August 1992; J. Jenson, Telephone Interview, 26 August 1992)
- Water source: two wells; 300,000-gallon storage tank; water not treated
- Sewage treatment: single-cell aerated lagoon with settling pond, discharged into Matt Creek

Yellow Bay-Flathead Lake

- University of Montana Biological Station, 220 hookups (M. Potter, Telephone Interview, 24 August 1992; D. Stewart, Telephone Interview, 24 August 1992)
- Water source: spring; estimated 3,000-gallon storage; water not treated
- Sewage treatment: tertiary treatment system with extended aeration, settling and phosphorous removal tanks, multi-media filtration before discharge into Flathead Lake

Solid Waste

Landfills and Dumps. Lake County operates the only licensed county landfill on the Reservation. The landfill, rated as a Class II facility, is about 2.5 miles southwest of Polson (fig. 21.4). It accepts municipal wastes such as paper, plastic, metal, asphalt, yard trimmings, and mixed demolition materials. It also accepts appliances, railroad ties, contaminated soils, asbestos and uncontaminated soils if notified in advance. The fifty-one acre facility receives approximately twenty-one thousand tons of solid waste each year. The county expects it to reach its capacity in 1998 or 1999 and proposes to expand the facility onto an adjacent 55-acre parcel, of which they will use 20 acres for disposal (Brueggeman 1992).

Reservation residents either haul waste directly to the Polson landfill, or use roll-off waste containers located near Charlo, Ravalli and Elmo. Lake County has an agreement with Sanders County to haul refuse from a Hot Springs container site to the Polson landfill. Missoula and Flathead Counties have no solid waste disposal facilities on the Reservation;

however, BFI Waste Systems serves the Missoula County portion of the Reservation. It hauls the waste to its Missoula landfill.

Lake county also operates a demolition pit 2.5 miles north of Pablo for the disposal of

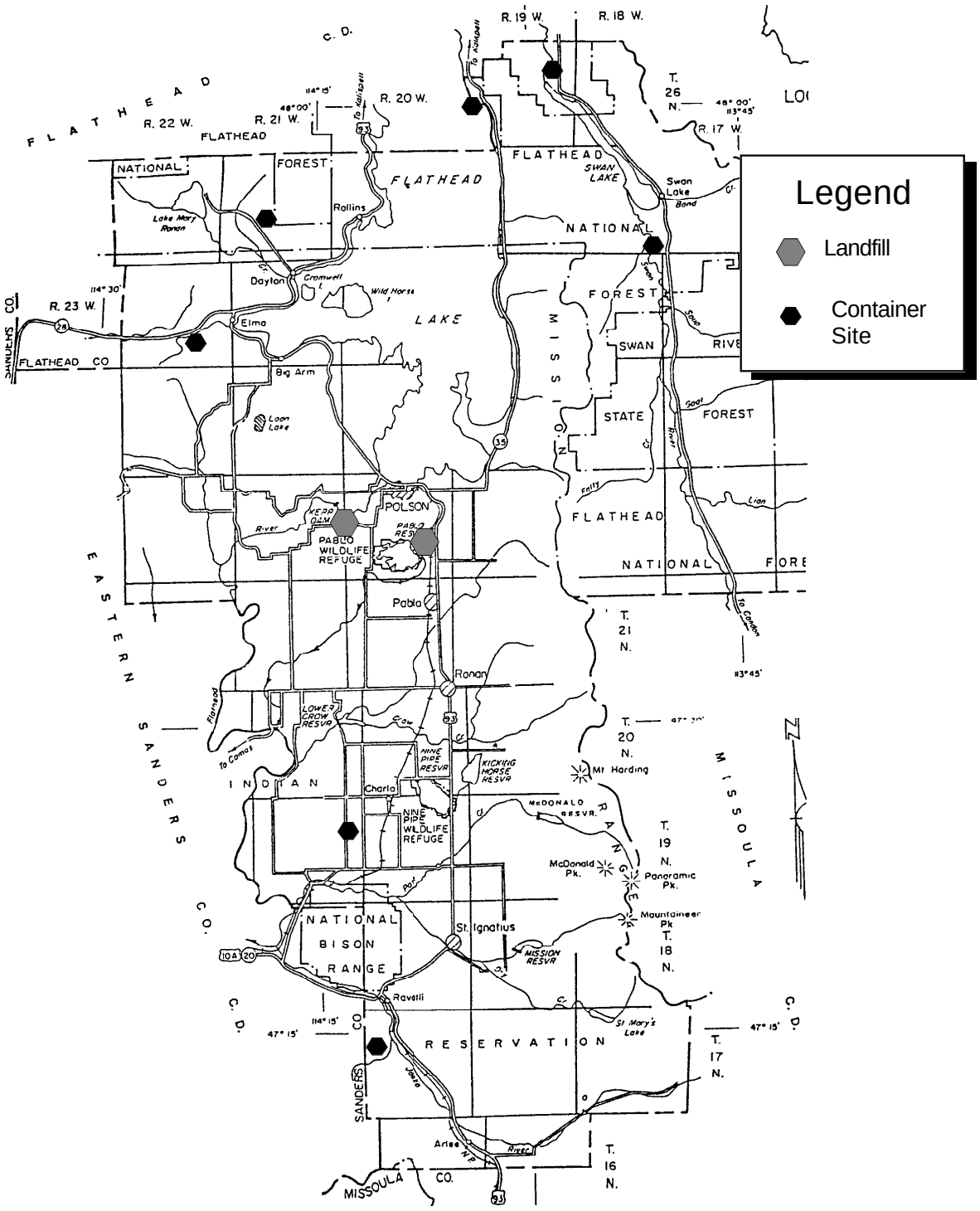


Figure 21.3. County landfill and roll-off container sites

untreated wood waste, concrete, brick, rock, tires and tree stumps. It manages a burning area near this site for tree trimmings, stumps, brush and untreated wood (Brueggeman 1992).

There are also a number of closed county landfills on the Reservation. The Tribes' Water Quality Assessment Report of 1992 reports these sites may represent a significant source of water pollution because there were minimal dumping restrictions in place when they operated. There are many other dumps on the Reservation that rural residents have and, in some cases, still use to dispose of household and agriculturally related waste. Further study will determine the extent of water or soil pollution caused by these dumps. The Tribes intend to establish water-quality monitoring wells at the Polson Landfill in September 1992.

There are three other licensed class III solid waste disposal facilities on the Reservation. All are located on US Highway 93, between one and 2.5 miles north of Pablo. One is a used tire disposal business, the other two are wood waste disposal sites. The nearest toxic waste disposal site is in Idaho.

Wrecking Yards. There are several wrecking yards on the Reservation. These include one southeast of Arlee, one a few miles north of Pablo, and one southwest of Ronan at the confluence of Mud Creek and West Miller Coulee. Another yard, located one mile south of Lower Crow Reservoir, recently closed. The owner removed most of the vehicles from the site. There are reports that residents have buried vehicles at a site southeast of the confluence of Mission Creek and the Flathead River.

Most of these wrecking yards offer used automotive parts for sale and recycle aluminum, copper, radiators, batteries, gasoline, lubricants and coolants. They sell hundreds of cars to a company that crushes and sells them to steel recyclers in Washington and Utah (W. Talsma, Telephone Interview, 21 August 1992).

Recycling. With concerns for air and water pollution that can result from waste incineration or dumping, and the lack of suitable space for landfills, many people have turned to recycling. The Folkshop, a non-profit organization that employs some handicapped workers, accepts the following items for recycling at Polson, Ronan and St. Ignatius (D. Haynes, Telephone Interview, 21 August 1992):

- newspaper
- cardboard
- brass
- car batteries
- ledger paper
- glass
- copper
- computer paper
- aluminum cans
- scrap aluminum

The Folkshop also accepts and resells donations of used clothing and furniture.

Some recyclers transport their materials to the Missoula Recycling Center. The center accepts the items listed above and steel cans, radiators and plastic milk jugs and plastic pop bottles. The price paid per pound (or per item in the case of car batteries and radiators) is usually small; they take some items on a donation basis only due to the high cost of transporting recyclables out of Montana.

Two other Missoula companies will accept certain recyclables from the Reservation. Pacific Steel and Recycling accepts beef hides and deer and elk hides during the state hunting season. They also take #1 and #2 plastics and scrap iron, along with the same items accepted by the Missoula Recycling Center. Ozzie's Drain Oil Pickup and Collection works with some Reservation farmers and automotive centers to collect used oil, antifreeze, oil filters and some hydrocarbons for recycling in Great Falls.

Appliance dealers must now recycle freon and other refrigerants if necessary during repairs, and before disposing of old appliances. Hodge Radiator in Ronan recycles freon and antifreeze.

PROGRAMS AND POLICIES

The Tribes' Division of Lands under the Natural Resources Department administers rights-of-way on Trust lands for most transportation, communication and utility systems. Regulations governing these rights-of-way are contained in 25 Code of Federal Regulations, Part 169, and additional guidelines are included in section 30 of the Bureau of Indian Affairs Manual. Tribal consent is required before BIA approval of rights-of-way across Tribal lands.

Federal and Tribal officials carefully review right-of-way placement. The Tribes conduct on-site field reviews to assess any foreseeable environmental or cultural impacts, and prescribe measures to avoid or mitigate the impacts. A major right-of-way, such as for a pipeline, requires completion of an environmental Impact Statement.

In recent years, the Tribal Council has favored a permit system for rights-of-way, rather than easements, because permits are usually non-transferable, revocable, and for a single purpose over a specific time.

Transportation

The Tribal Planning Office in the Division of Lands has been working with the BIA Flathead Agency as well as state agencies, cities, counties and citizens to plan the development and maintenance of residential streets and connections to other city streets, county collector roads and highways. The Tribes will complete a Reservation-wide transportation plan by 1995.

The BIA Agency Roads Department is responsible for surveying, designing, construction, and maintenance. They base policies on BIA manuals and construction guidelines, and federal regulations. The Tribal Council establishes construction priorities, and has recently elected to compact these functions from the BIA as Tribal programs.

Forest road planning is ongoing. Tribal and BIA forestry programs recently developed a new set of standards to augment the standards and policies outlined in the 1982-1992 Forest Management Plan. A forestry committee is working to finish these interim guidelines. Tribal resource specialists have also assisted in development of road management plans, including closures and reclamation requirements for individual timber sales.

The Federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 provides road construction funding and sets aside money for adding community or environmental value to a transportation system. Tribes, states and other entities can use these funds for projects such as historic preservation, scenic beautification and the development of pedestrian and bicycle facilities. The Tribes are pursuing opportunities for this funding on the Flathead Reservation. The Tribes are also working as a cooperating agency with the Montana Department of Transportation on the development of an environmental impact statement for proposed expansion of Highway 93.

The Missoula District of the Montana Department of Transportation serves the primary and secondary highways south of Polson. The Kalispell District manages those north of Polson. District engineers are responsible for interpreting and administering state maintenance policies.

County maintenance and construction crews manage county roads based on policies set by their county commissions. Each county roads department is divided into road districts. The Cities of Hot Springs, Polson, Ronan and St. Ignatius maintain city streets.

The Tribes' Wildland Recreation Program maintains the network of recreational trails established on Tribal trust lands. The Lower Flathead River Corridor Management Plan makes recommendations concerning Tribal and BIA roads within one-half mile of the river.

The Montana Department of Public Service Regulation enforces railroad safety standards developed by the Federal Railroad Administration, and regulates proposed facility closures. The department and the Interstate Commerce Commission establish the rates for services (W. Budt, Telephone Interview, 3 September 1992).

All airports on the Reservation must comply with Federal Aviation Administration (FAA) regulations. Additional policies vary by location. The Lake County Airport Board manages the Polson, Ronan and St. Ignatius airports and sets policies for the Ronan and Polson airports. The board is composed of one member from each city, and two at-large members appointed by the county commissioners. The Ronan and Polson Airports must also comply with the terms of federal grant funding monitored by the FAA office in Helena. Sanders County sets policy for the Hot Springs Airport.

Communication

The Tribal Division of Lands administers sign permits on Tribal lands and the Tribal Council approves or denies them. The Division of Lands reviews proposed locations but does not control height, size, density or other factors. Permit fees, however, are based on square footage. The Tribal Council recently voted to withhold all future permits until a sign study is completed.

City governments regulate signs within incorporated communities. Missoula and Lake counties recently passed interim county-wide sign regulations. No other counties have implemented sign controls within the Reservation.

The Montana Department of Public Service Regulation regulates private telephone companies. The Missoula District of the Lolo National Forest has developed use restrictions and visual quality objectives for television and radio transmission sites on US Forest Service lands near Evaro. The stations must also comply with Federal Communications Commission regulations.

Utilities

The first federal statute related to power development on the Reservation was the Act of February 15, 1901 (31 Stat. 790). It regulated the granting of rights-of-way for the issuance of permits for hydroelectric plants. The federal government granted the permit for the Hellroaring site pursuant to this act in 1914.

The Act of March 3, 1909 (35 Stat. 796) authorized the Secretary of the Interior to reserve Reservation lands for power development. The Act of May 10, 1926, provided $395,000 for power plant development. In 1928, the federal government acted to use the unexpended balance for construction and operation of a power distribution system. The Federal Power Commission issued a license to the Rocky Mountain Power Company, a subsidiary of the Montana Power Company, in May of 1930 for the construction of Kerr Dam. The company built the dam in 1938, and started delivering power locally in 1939.

In 1931, the United States Government bought the Hellroaring hydroelectric facility and placed it under the management of the BIA Flathead Agency. They managed it and a federally constructed distribution system as part of the Flathead Indian Irrigation Project (FIIP). FIIP continued to manage the Reservation electric utility until 1988, when the Tribes contracted the utility's management responsibilities from the BIA. The federal government continues to own the system, which the Tribes have renamed Mission Valley Power.

A five-member utility board develops plans and policies for Mission Valley Power and oversees the utility's general manager. The general manager is responsible for day-to-day operations and implementation of policies set by the board and the federal government. A seven-member consumer council provides customers with opportunities to advise the utility board in the

development of utility policies and rates. The consumer council also hears complaints that management has not resolved.

The Tribal Council is ultimately responsible for contract compliance and management of the utility. The BIA provides oversight and performs periodic inspections. It also has the authority to revise and promulgate federal regulations governing the utility.

The Bonneville Power Administration (BPA) offers the following energy conservation programs through Mission Valley Power:

> ***Electric Ideas.*** This program provides a toll free number for customers to obtain information on methods and applications to increase electrical energy efficiency and promote conservation for existing commercial, industrial and agricultural buildings and equipment.
>
> ***Super Good Cents Program*** provides cash incentives to homeowners and builders for incorporating energy saving features into the design and construction of new homes. The utility pays the incentives after completion of the home and final inspection.
>
> ***Energy Smart Design Program*** provides review of architectural designs and recommends energy saving features for new commercial facilities. This service is also available for major remodeling or renovation of existing commercial structures. The utility offers incentives based on the energy saved versus standard building practices. The Tribal Council requires all commercial development on Tribal lands to use the program.

Three programs under the Salish and Kootenai Housing Authority manage tribal community water and sewer systems:

> ***Tribal Operations and Maintenance*** is responsible for the general operation and maintenance of the thirteen Tribal community systems. Income received from water and sewer service charges funds the program. A contract with the Pablo Water District provides for maintenance and technical assistance in the operation of Pablo's water and sewer system.
>
> ***Salish and Kootenai Operations*** installs water and sewer systems for the Housing Authority and the Indian Health Service. Indian Health Service (IHS) funds most of the program. IHS is also responsible for system design and environmental review regarding these systems.
>
> ***Tribal Plumbing and Maintenance*** maintains Tribal elders' and low-income Tribal members' individual wells and septic systems. The Tribes fund the program.

The Indian Health Service, Flathead Reservation Service Unit conducts environmental reviews and designs for Tribal community and individual water and sewer systems.

Non-Tribal community water and sewer systems are operated by their users' associations, districts or communities.

Various federal regulations apply to all water and sewer systems on the Reservation. In addition, the Tribes have enacted the following ordinances, some of which are specific to Tribal systems:

Tribal Ordinances
Ordinance 37A - Operation and Maintenance of Federally Financed Sanitation Facilities Ordinance 38B - Salish and Kootenai Housing Authority Ordinance 48A (Revised) - Regulations for Subsurface Sewage Disposal Systems Ordinance 76A - Water Planning Ordinance 89B - Water Quality Management

The Tribes address concerns relating to pipelines through the Environmental Protection and Lands divisions of the Tribal Natural Resources Department. The Tribes are also developing programs for the control of underground storage tanks and solid waste. Tribal employees have been recycling office waste since 1990.

The Montana Department of Health and Environmental Sciences (MDHES) licenses solid waste disposal sites on fee lands within the Reservation. The Lake County Solid Waste Management District manages the sites. A Tribal representative attends District board meetings.

The Tribes have organized a Disaster Emergency Committee to assist with emergency situations such as hazardous material spills and natural disasters. The group includes Tribal, Indian Health Service and Bureau of Indian Affairs representatives. It can render physical assistance and establish communications between the scene and officials or specialists at other locations.

ISSUES

Tribal and Bureau of Indian Affairs resource managers expressed the following management concerns about transportation, communication and utility systems:

- ❑ Environmental and cultural impacts of Reservation transportation systems including air and water quality impacts, energy efficiency, safety, land use impacts, aesthetics and effects on cultural resources

- ❑ Funding for road construction and maintenance
- ❑ Lack of sidewalks and bicycle paths, especially in urban areas
- ❑ Effects of road access to sensitive wildlife or cultural areas
- ❑ Aircraft impacts on wildlife in the Mission Mountains Tribal Wilderness
- ❑ Identification of suitable future sites and corridors for placement of communication facilities and transmission lines
- ❑ Impacts of uncontrolled signs
- ❑ Aesthetic and other environmental affects of utility poles, transmission lines and pipelines
- ❑ Greater use of energy conservation measures
- ❑ Water and sewer line mapping
- ❑ Inventorying and monitoring of solid waste disposal sites on the Reservation
- ❑ Uniform recycling and waste reduction policies within the Reservation
- ❑ Future landfill development

Tribal elders' concerns include:

- ❑ What are trucks and the railroad hauling? The Tribes should monitor this and periodically report to the people.
- ❑ The Tribes should ban the transportation of toxic materials on the Reservation.
- ❑ Are people being cited for illegal dumping?
- ❑ We need to enhance Tribal awareness of environmentally contaminating products. The Tribes should use radio and television to promote environmental awareness.

Other community members added the following concerns:

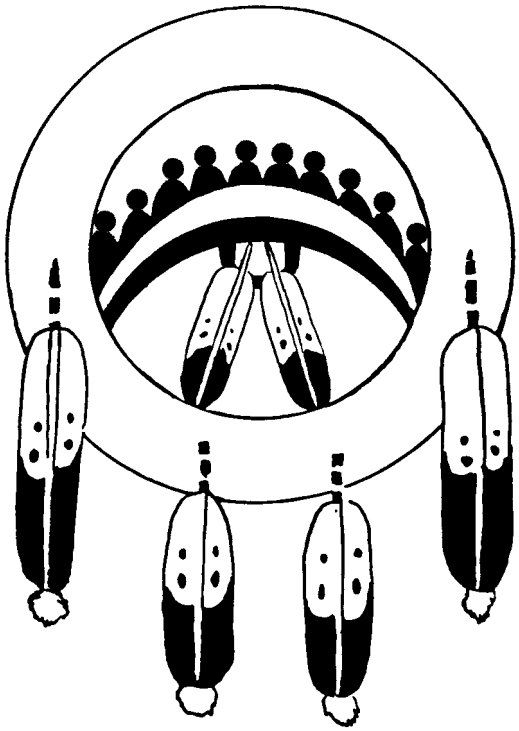
- ❑ Maintain Tribal roads used for hunting and other recreation better.
- ❑ Road closures are good for wildlife. Notice of such closures would be helpful.
- ❑ We need higher standard roads in the forest.
- ❑ Pave roads serving residential areas.
- ❑ There is too much litter along roadsides.
- ❑ Crop dusting over population centers is a serious threat to public health and safety.
- ❑ Control the transportation of hazardous materials.
- ❑ Control weed infestations along railroad and road rights-of-way.
- ❑ Establish a Tribal-county road maintenance crew.

Other agencies had no comments regarding develpment of transportation, communication, and utility facilities on the Reservation.

CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

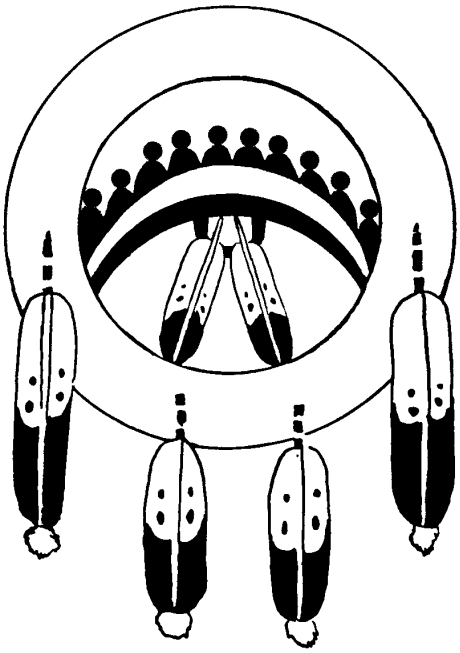
COMPREHENSIVE RESOURCES PLAN

Volume I - Chapter 22



GOVERNMENT AND INSTITUTIONAL FACILITIES

GOAL: To provide government and service facilities on an environmentally suitable basis, to insure protection of public health, welfare and safety and to improve educational opportunities



GOVERNMENT AND INSTITUTIONAL FACILITIES

Government and institutional facilities include the facilities of Tribal, Federal, State and County governments and educational, health care and public safety institutions. This chapter does not evaluate the facilities themselves, but rather the locations and services of the facilities, which are important from a land use and development perspective. For example, fire protection, school and health facilities often influence the siting of housing developments which can impact natural resources.

This chapter briefly describes the locations of government and institutional facilities on the Reservation and discusses natural resource management issues concerning their development.

EXISTING CONDITIONS

Government Facilities

Many workers on the Reservation hold government related jobs. In 1991, the Confederated Salish and Kootenai Tribal government employed a total of 462 people (excluding enterprise, utility and school staffs), Lake County employed 161 and the BIA employed 92.

Most government offices and facilities are in the Polson, Pablo, Ronan and St. Ignatius areas. Pablo is the center of Tribal and BIA activities. Polson is the Lake County seat. The Indian Health Service, US Fish and Wildlife Service and Soil Conservation Service also have offices on the Reservation. The State of Montana, municipal governments, agencies and associations created by incorporated communities have facilities such as town halls, lots for snow removal, and sanding vehicles.

Tribal Government. Figure 22.1 shows the structure of the Confederated Salish and Kootenai Tribal government. A tribal council governs the Tribes. The membership elects the ten council members by district. Council members serve four-year terms. The council selects its own chairman, vice chairman, secretary, and treasurer. Tribal attorneys, three enterprise organizations, four boards, and the two culture committees report directly to the council.

The Tribal chairman, the Tribes' chief executive officer when the Council is not in session, manages the day-to-day operations of the Tribes. The executive treasurer, executive secretary, internal auditor and directors of the Tribes' nine departments make up the balance of the upper level of Tribal administration. Many Tribal departments have multiple programs and divisions. Figure 22.1 shows the overall structure of the Tribal organization.

Most of the Tribal offices are in the Tribal Complex in Pablo. The locations of other offices are shown in table 21.1.

Table 22.1. Locations of Tribal offices

Locations of Tribal Offices	
Tribal Complex	Pablo
Salish Kootenai College	Pablo
Salish Kootenai Housing Authority	Pablo
Flathead (Salish) Culture Committee	St. Ignatius
Kootenai Culture Committee	Elmo
Mission Valley Power (main office)	Polson
Mission Valley Power (satellite offices and facilities)	Ronan, St. Ignatius & Hot Springs
Tribal Health and Human Services Department (main office)	St. Ignatius
Tribal Health and Human Services Department (satellite offices)	Ronan, Polson, Elmo & Hot Springs
Tribal Forestry	Ronan
Human Services Departments	Ronan
Kicking Horse Job Corps	South of Ronan

Bureau of Indian Affairs. The offices of the Superintendent of the Flathead Indian Agency are in the Tribal Complex at Pablo. While the majority of BIA employees work at the Tribal complex, a few work out of the irrigation division offices in St. Ignatius and irrigation satellite offices in Ronan, Hot Springs, Charlo and Lonepine. Figure 22.2 shows the BIA's organizational structure.

County Governments. Parts of four counties overlap onto the Flathead Reservation. Only Lake County has a county seat on the Reservation. It is at Polson. The other county seats are at Kalispell (Flathead County), Thompson Falls (Sanders County) and Missoula (Missoula County).

Educational Facilities

Educational facilities on the Reservation range from elementary, middle and high schools to libraries, pre-schools and higher education facilities.

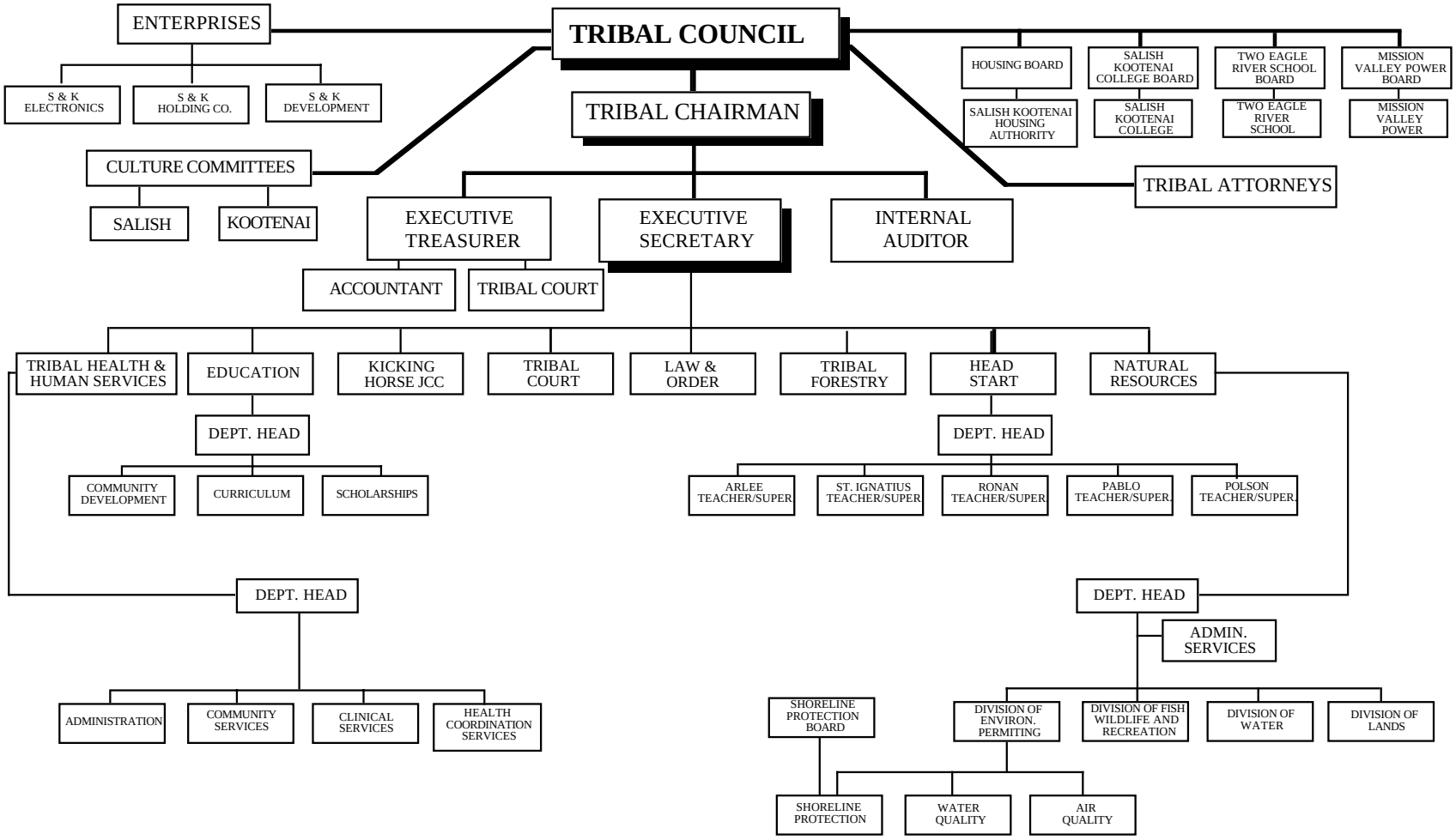


Figure 22.1. Confederated Salish and Kootenai Tribes' organizational structure

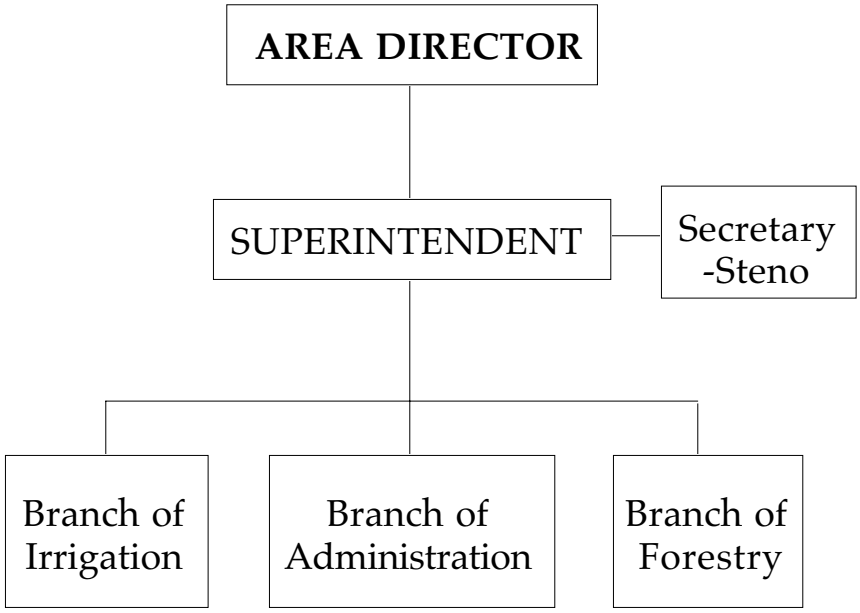


Figure 22.2. Flathead Agency structure

Schools. Figure 22.3 shows the distribution of the larger educational facilities on the Reservation, including higher education facilities. Pablo is the site of Two Eagle River School, a Tribal high school. In 1991, Two Eagle had fourteen teachers, twelve staff members and an enrollment of 134 students.

Salish Kootenai College is a Tribally affiliated college. It offers post-secondary educational programs that include Associate of Arts, Associate of Science, Associate of Applied Science and Bachelor of Arts Degrees, as well as certification and apprenticeship programs. The school is planning to expand its four-year program offerings to include a Bachelor degree program in natural resources management. Fall 1991 enrollment totalled 749 students, of which 539 were Indian. The college employs over sixty faculty members and eighty staff members.

Kicking Horse Job Corps Center, established in 1970, provides job training for Indian youth between the ages of sixteen and twenty-one. The Tribes manage the center under a contract with the US Department of Labor. Enrollment in the Fall of 1991 totalled 250. Thirteen instructors comprise the faculty. The center also employs a staff of forty-nine.

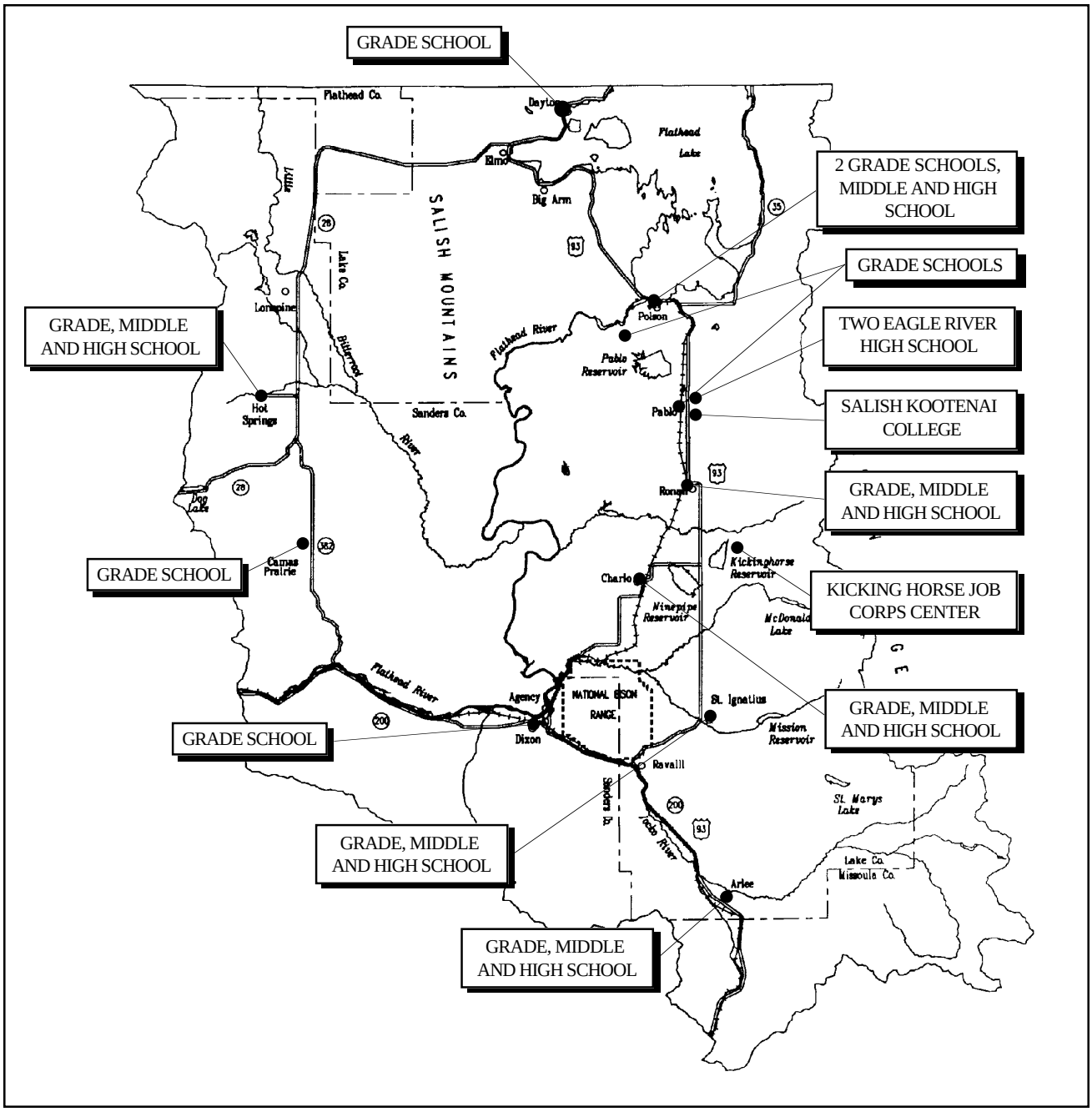


Figure 22.3. Reservation school facilities

Table 22.2. Flathead Reservation public schools (Statistics as of February 1992)

Community	District	Grade Level	Students Total/Indian	Faculty	Staff
Arlee	8-J	Grade, Middle, High School	412/309	36	47
Camas Prairie	11	Grade School	11/8	2	2
Charlo	7-J	Grade, Middle, High School	275/45	22	18
Dayton	33	Grade School	19/0	2	1
Dixon	9	Grade School	45/40	5	4
Hot Springs	14-J	Grade, Middle, High School	163/26	15	16
Polson	23	2 Grade Schools, Middle, High School	1,565/331	109	83
Ronan/Pablo	30	Grade, Middle, High School	1,476/763	110	92
St. Ignatius	28	Grade, Middle, High School	595/289	50	45
Valley View	35	Grade School	16/1	2	2
TOTAL:			**4,577/1,812**	**353**	**310**

Table 22.2 lists public school facilities. The Lake County public school districts reported total enrollment increased 7.5 percent from 1990 to 1993. High school enrollment increased by 6.8 percent, while enrollment in grades K-6 increased by 7.8 percent.

Other Educational Facilities. There are Indian cultural centers in St. Ignatius, Elmo and Dayton, and the Tribes are planning others for the Pablo and Arlee areas. There are libraries in Arlee, St. Ignatius, Ronan, Polson and Hot Springs and preschool or child care facilities in nearly every community on the Reservation. The Tribes run Head Start centers in Polson, Ronan, St. Ignatius, and Arlee.

Community Centers

Table 22.3 lists senior citizens' centers and community centers. There are also several local grange halls and club houses on the Reservation.

Churches

There are churches and other religious centers in most communities on the Reservation.

Table 22.3. Community and senior centers

Community and Senior Citizen Centers
Arlee Community Center (Brown Building)
Arlee Senior Citizen Centers (Tribal and non-Tribal)
Charlo Senior Citizen Center
Dayton Round House
Elmo Community Centers (Koostahtah Hall, former bowling alley and new center)
Hot Springs Senior Citizen Centers (Tribal and non-Tribal)
Moiese Community Center
Polson Senior Citizen Centers (Tribal and non-Tribal)
Ronan Community Center
Ronan Senior Citizen Centers (Tribal and non-Tribal)
St. Ignatius Community Center
St. Ignatius Long House
St. Ignatius Senior Citizen Centers (Tribal and non-Tribal)

Youth Homes

The Second Circle Lodge in Ronan is a short-term shelter facility for up to twelve children, ages ten to eighteen.

Health Facilities

Hospitals. There are two hospitals on the Reservation and another four within a thirty minute drive. All are general medical and surgical, short-term care facilities.

St. Luke Community Hospital is in Ronan. It has three active physicians on staff, twenty-five licensed beds and offers pharmacy, blood bank, and emergency room services.

St. Joseph Hospital is in Polson. It has nine active physicians on staff and forty licensed beds. It offers the following services: a post-operative recovery room, an intensive cardiac care unit, an intensive care unit, a pharmacy, a blood bank, respiratory therapy, premature nursery, physical therapy, occupational therapy, speech pathology, pediatrics, and an emergency room.

Clark Fork Valley Hospital is in Plains, just west of the Reservation. It has four active physicians on staff and twenty licensed beds. It offers an intensive care unit, a pharmacy, a blood bank, and physical therapy.

Kalispell Regional Hospital is in Kalispell. It has fifty-three active physicians on staff and 91 licensed beds. It offers the following services: a post-operative recovery room, radium therapy, dialysis, physical therapy, a pharmacy, pediatric care, maternity care, psychiatric care, speech pathology, alcoholic and detoxification unit, neo-natal intensive care, and an emergency room.

Glacier View Hospital is also in Kalispell and provides facilities for mental health counseling and drug and alcohol addiction treatment.

St. Patrick Hospital is in Missoula. It has one hundred active physicians on staff and 217 licensed beds. It offers the following services: cobalt therapy, radium therapy, a diagnostic radioisotope facility, a therapeutic radioisotope facility, a histopathologic laboratory, an eye bank, a blood bank, inhalation therapy, renal dialysis, physical therapy, occupational therapy, chemotherapy, pediatric care, psychiatric unit, speech therapy, speech pathology, a cat scanner, and an emergency room.

Missoula Community Hospital is also in Missoula. It has eighty-two active physicians on staff and 115 licensed beds. It offers the following services: a diagnostic radioisotope facility, a histopathologic laboratory, a blood bank, inhalation therapy, a premature nursery, physical therapy, occupational therapy, pediatric care, maternity care, neo-natal intensive care, and an emergency room.

Clinics. Five Reservation communities have medical clinics:

Arlee - Family Practice, Homeopathy
Hot Springs - General Practice, one day per week
Polson - Chiropractics, Family and General Practice, Opthalmology, Surgery
Ronan - Chiropractics, Family Practice, Obstetrics, Surgery
St. Ignatius - Family Practice

Dental Services are available in Polson, Ronan and St. Ignatius. Arlee and Hot Springs have satellite clinics that provide services one day a week.

Other Medical Facilities. Other facilities include the Mental Health Center, the Tribal Human Services Department, and the Diabetic Self Help Group Center in Ronan, Indian Health Service and the Tribal Health and Human Services Department in St. Ignatius, the Blue Bay Healing Center on the east shore of Flathead Lake, and the Family Crisis and Resource Center in Polson. There are alcohol outreach facilities in Arlee, St. Ignatius, Polson and Elmo.

Ambulance Services. Polson, Ronan, St. Ignatius and Hot Springs have ambulance services.

Nursing Homes. There are nursing homes in Polson, Ronan, St. Ignatius and Hot Springs.

Public Safety

Public safety services on the Reservation include fire protection, police protection and miscellaneous enforcement and emergency response agencies such as Tribal Fish and Game and search and rescue.

Table 22.4. Reservation fire departments

Department Location	# of Members	# of Trucks
Arlee	not avail.	4
Big Arm	13	3
Bigfork (just off the Reservation)	20	6
Charlo	18	4
Dayton	22	2
Dixon	12	2
Elmo	9	1
BIA Forestry (Ronan)	10	7
Hot Springs	20	not avail.
Moiese	30	1
Montechate (Finley Point)	17	5
Pablo	20	3
Polson City/Rural	28	6
Ronan	23	7
St. Ignatius	12	4
Yellow Bay	5	1

Fire Protection. Table 22.4 shows the results of a 1990 survey of fire protection personnel and equipment (Giffin 1989). Most of the fire departments listed are volunteer.

Police Protection. There are several agencies involved in law enforcement on the Reservation. These include the following:

The Confederated Salish and Kootenai Tribal Police Department has a staff of fifteen that includes two investigators and eight patrol officers. The headquarters for the department is in Pablo.

The Tribal Fish and Game Conservation Program enforces fish, wildlife and recreation regulations on the Reservation. The agency has eleven federally trained wardens; most are cross-deputized with the State of Montana. Federal and state wardens also enforce fish and wildlife regulations. Most of these officers are cross-deputized with the Tribes.

The City of Polson has seven full-time officers and one part-time officer. Ronan has four full-time and several part-time officers. St. Ignatius has one full-time and one part-time officer. Hot Springs has one full-time Chief of Police. The Montana State Highway Patrol has four officers who regularly patrol Reservation highways. In addition, Lake, Sanders, Missoula and Flathead county sheriff's officers patrol parts of the Reservation.

There are also three Tribal juvenile probation officers and one adult probation officer. The Tribal jail is in Pablo. The nearest juvenile detention center is in Kalispell. Lake County has two juvenile probation officers who serve non-Indians in Lake and Sanders Counties.

PROGRAMS AND POLICIES

Many areas of the Reservation are sparsely populated, especially in the west and southwest. There are few health facilities and other services in these areas. Funding for development and maintenance of satellite facilities in rural areas is difficult to obtain.

There are environmental issues concerning the expansion of basic services into remote areas. New facilities often promote increased residential development that can impact wildlife habitat or water quality. Developing new facilities and services near population centers can help to minimize environmental impacts, keep service line extension costs to a minimum and shorten the response times for ambulances, police and fire departments.

Tribal Government and Institutional Facilities

Tribal Administration coordinates the development of Tribal facilities. Salish Kootenai College and the Salish Kootenai Housing Authority coordinate the development of their facilities with their boards.

The newly reorganized Tribal Health and Human Services Department manages all Indian health services and facilities on the Reservation, as a result of a recent compact with the federal government. These services were formerly managed by the Indian Health Service (a branch of the U.S. Public Health Service), the Tribal Health Department and the Tribal Human Services Department.

The new department now provides the following:

- ❑ contractual arrangements with existing health care providers (including ambulance services) from the private sector
- ❑ Community health, dental and pharmaceutical services through clinics in St. Ignatius and Polson
- ❑ environmental health programs such as sanitation
- ❑ fitness centers in St. Ignatius, Ronan and Elmo
- ❑ full-time nurses who provide home visits, follow-up care, immunizations, etc.
- ❑ community health representatives who provide medical and transportation assistance
- ❑ health education
- ❑ medical social work
- ❑ WIC - nutritional education and food supplements to women, infants and children
- ❑ elderly food nutrition (Titles III & VI) - provides meals for senior citizens
- ❑ elderly assistance - provides additional assistance to the elderly on a needs-be basis, solely derived from Tribal revenues
- ❑ speech and language
- ❑ mental health counseling
- ❑ drug and alcohol counselling
- ❑ other human services

Outreach offices are located in Arlee, Hot Springs, St. Ignatius, Polson, and Elmo. The Department also manages the Blue Bay Healing Center on Flathead Lake.

ISSUES

Resource managers have listed the following issues concerning the development of government and institutional areas on the Reservation.

- ❑ Salish Kootenai College students need additional housing

- ❑ Affects of federal government spending slowdowns on facilities and services
- ❑ Adequacy of existing facilities and priorities for future development
- ❑ Criteria for site and building review processes
- ❑ Number, type and location of additional facilities for Tribal member training
- ❑ Develop a social resources plan for the Reservation to complete the comprehensive planning process
- ❑ Develop Tribal retirement homes and at-home care options

Tribal elders listed the following concerns:

- ❑ We need better communication between programs. With such a large number of programs, good management is critical to keep the Tribal organization operating as one unit.
- ❑ The Tribes should develop more facilities for education, health and law enforcement.
- ❑ Existing fire protection may not be able to reach some rural homes.
- ❑ The police are not able to respond quickly enough in some situations.
- ❑ No hospital or emergency medical facilities exist in St. Ignatius.
- ❑ Develop Tribally operated medical, optical and dental clinics.
- ❑ We need child care and Head Start programs in Elmo.
- ❑ We need library facilities in each town.
- ❑ Teach Indian history and culture in all schools.
- ❑ We need more youth homes for children who have no place to go and no one to talk with.
- ❑ There should be a community activity center in every community. These should be available for youth and elders' activities and teaching opportunities.

Other community members raised the following concerns:

- ❑ Consider dorms for Two Eagle River students.
- ❑ The Tribes and other agencies need to inform the public better about environmental issues.
- ❑ The people need police protection and health care facilities in Elmo.
- ❑ Some state policies and procedures interfere with our rights to handle our own resources in harmony with other agencies.
- ❑ The Tribes need additional office space at the Tribal complex.

Other agencies had no comment regarding government and institutional facility development on the Reservation.