

# FORTY MILE RESERVOIR AREA STRUCTURE PLAN



April 1994

# **Forty Mile Reservoir**

## **Area Structure Plan**

### **Schedule A**

Prepared by the  
Southeast Alberta Regional Planning Commission

for the County of Forty Mile No. 8

Adopted 22 April 1994

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## Forward

Since the Forty Mile Reservoir was first proposed in 1981, there has been persistent interest in the development of recreational facilities on the reservoir. Concern with the possible impact of unplanned development in a predominantly rural area resulted in the adoption by the Council of the County of Forty Mile No. 8 in 1988 of the document entitled Guidelines for Recreational Residential Developments. This document outlined the requirements for recreational residential subdivisions and established the Recreational Residential District in the Land Use By-law. The creation of the first Recreation Residential Land Use District in 1992 generated considerable controversy from local landowners and lead to a request from Council for staff of the Southeast Alberta Regional Planning Commission to prepare an Area Structure Plan for the reservoir. The Regional Planning Commission tabled the subdivision application to allow completion of the Area Structure Plan but it was eventually allowed under appeal by the Alberta Planning Board.

Preparation of the Plan has been a joint effort between the County, the Regional Planning Commission, and the Board of Directors of the St. Mary River Irrigation District. Following an analysis of the situation, a long term strategy is proposed, together with specific land use policies.

### 1. PURPOSE

To develop a plan for conservation and where appropriate, development of lands surrounding the Forty Mile Coulee Reservoir.

### 2. BACKGROUND

Forty Mile Reservoir is a newly constructed irrigation storage facility located in Forty Mile Coulee 25 kilometres equidistant between Foremost and Bow Island. Construction began in 1985 and was completed in 1988 at a cost of \$55 million. Funding for the dam came from the Alberta Heritage Trust Fund.

Forty Mile Reservoir consists of two earth fill dams located 9 kilometres apart. The total usable storage capacity is 86,300,000 cubic metres (70,000 acre feet). The reservoir has a maximum total water area of 650 hectares and 31 kilometres of shoreline. The full supply level is 813 metres with a maximum drawdown of 17 metres. In order to ensure the overwintering of fish stocks in the reservoir, there will always be a minimum of 6 metres of water in the reservoir.

The reservoir receives its water supply from St. Mary River Irrigation District main canal inlet spillway which has a maximum flow capacity of 34 cubic metres per second. When required for irrigation, this water is pumped by means of a system of 10 electric pumps with rated capacity of 20 cubic metres per second into the S.M.R.I.D. main canal serving the Bow Island-Medicine Hat area.

## **Terrain**

Forty Mile Coulee is a glacial meltwater channel which extends in a southeasterly direction to its junction with Chin and Seven Person Coulees. The coulee averages 45-55 metres deep and is approximately 1 kilometre wide through the reservoir area. The surficial geology of the area consists of glacial till on the surface with underlying shale and sandstone deposits from the Foremost formation. The soils on the surrounding uplands are primarily Orthic Brown Chernozems with a class 3-4 CLI agricultural rating. On the coulee slopes, soils are poorly developed. Outcrops of shale, sandstone and siltstone are still visible on the upper slopes. Lower valley slopes show evidence of past slippage and erosion.

Groundwater in the area comes from two formations. Shallow groundwater is available from the Foremost formation while a deeper confined aquifer is contained in the Milk River sandstones. The dipping of the Milk River aquifer from south to north - northeast can result in surface groundwater discharge. There are a number of springs and flowing wells in the area.

## **Existing Ownership and Land Use**

Forty Mile Coulee is located in a sparsely settled area dominated by large dryland farms producing cereal crops. A small portion of the adjacent land is irrigated.

Prior to development of the reservoir, the S.M.R.I.D. acquired the right-of-way up to the top of the coulee bank. This right-of-way is shown in Figure 1. Some of the land within the S.M.R.I.D. right-of-way that is not part of the reservoir has been leased to adjacent landowners.

Existing land use is shown in Figure 2. Authorized recreational use of the reservoir is limited at the present time to Forty Mile Park. This facility contains approximately 30 hectares which is leased from the S.M.R.I.D. by the Forty Mile Recreation Area Development Association. Existing facilities include a swimming area, campground, boat launch facility and interpretive centre. This park has become a popular recreation area for southern Alberta.

A number of irrigation pumping facilities have also been established along the north side of the reservoir to supply adjacent landowners with irrigation water. Domestic water for a number of area farmers is obtained from the Conquerville Water Co-op pumping station located in the NW 12-8-11-W 4th.

Adjacent leaseholders have also developed a number of private recreational facilities around the reservoir.

## **Vegetation**

Vegetation adjacent to the reservoir is predominantly grassland and eroding slope plant

Figure 1

LAND OWNERSHIP AND LEASE ARRANGEMENT

FORTY MILE RESERVOIR

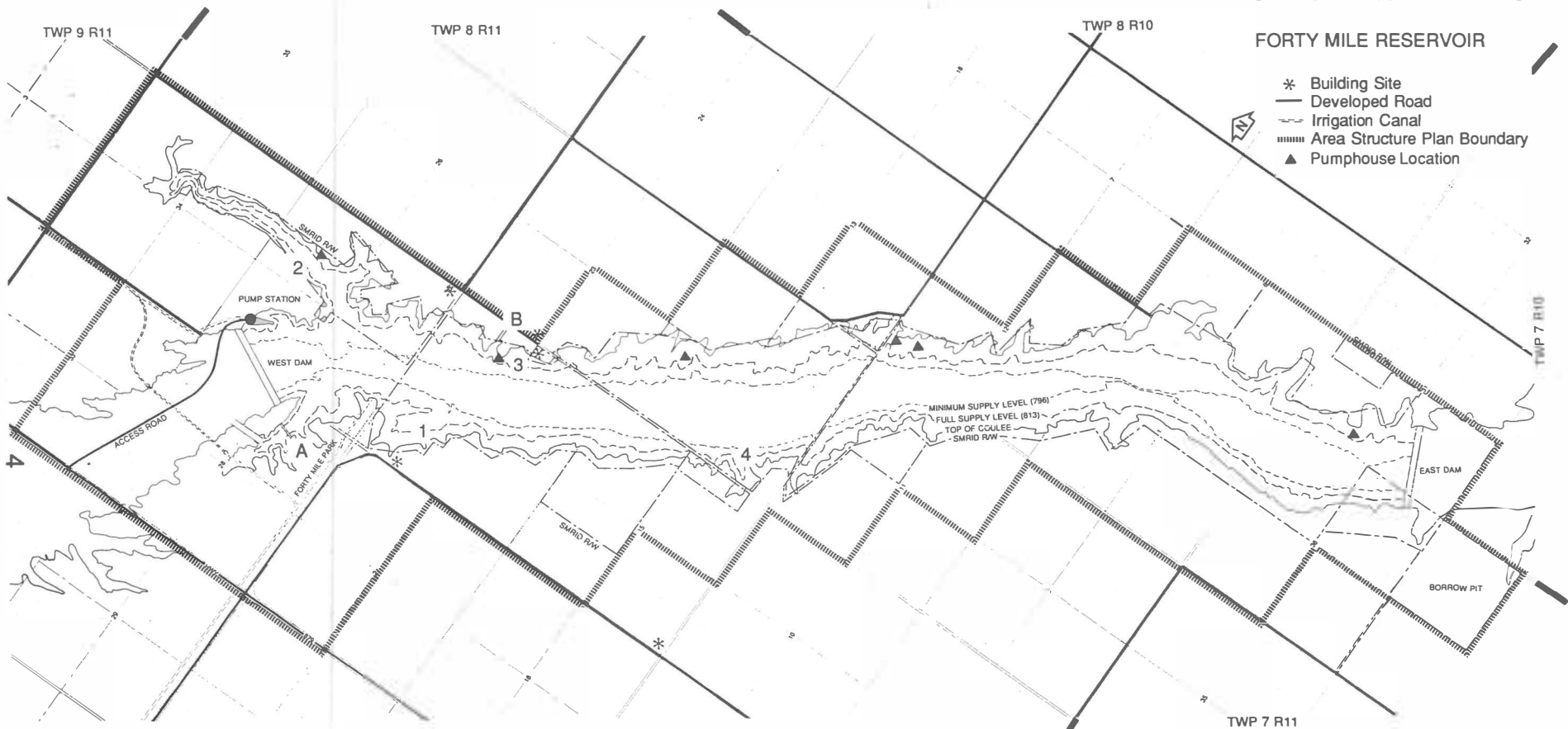
- \* Building Site
- Developed Road
- - - Irrigation Canal
- ▤▤▤▤▤ Area Structure Plan Boundary



- |                    |                      |                        |                                |
|--------------------|----------------------|------------------------|--------------------------------|
| 1 Croymans, Tony   | 5 Nelson, Morris     | 9 Proud, Bruce         | 13 Shamrock Hutterian Brethren |
| 2 Croymans, John   | 6 Kuipers, Gerald    | 10 Simon, Louis        | 14 Halpin Agencies Ltd.        |
| 3 Dillenbeck & Son | 7 Onody, Alex, Irene | 11 Proud, Richard      | 15 Ludwig Schmidt              |
| 4 Geldreich, David | 8 Perini, Bruno      | 12 Proud, Kenneth Dean |                                |

LESSEE

Figure 2  
EXISTING IMPROVEMENTS



**FORTY MILE RESERVOIR**

- \* Building Site
- Developed Road
- - - Irrigation Canal
- ▤ Area Structure Plan Boundary
- ▲ Pumphouse Location

**AUTHORIZED IMPROVEMENTS**  
 A Forty Mile Park  
 B Earl Lanz Subdivision (92 SE 16)

**UNAUTHORIZED IMPROVEMENTS**  
 1 Trailer, landscaping, pumphouse and water skiing course  
 2 Floating dock  
 3 Picnic spot and boat launch  
 4 Floating dock

communities with occasional outbreaks of tall shrub vegetation. The uncultivated upland plains and gentler slopes are occupied by spear grass and, where re-vegetation has taken place, crested wheat grass. The vegetation on undisturbed slopes consists mainly of green needle grass. Vegetation on eroded slopes is sparse, consisting mainly of greasewood, prickly pear and Indian rice grass. Sagebrush is present on 20-35% of the lower slopes. Taller shrubs are present on sheltered north facing slopes where there is greater soil moisture. Common species include buckbrush, common wild rose, chokecherry, currant, gooseberry, and saskatoon.

## **Wildlife**

Coulees in southern Alberta are an important wildlife habitat area and Forty Mile Coulee is no exception.

Due to the depth of the reservoir, and the poor habitat on the sides of the coulee, the area is not a good breeding area for waterfowl. The Fish and Wildlife Division is in the process of developing a habitat area further east in the coulee. In the fall, the reservoir does serve as an important staging area for waterfowl migration. White pelicans are fairly numerous on the reservoir as well as a number of great blue herons.

The area also supports a substantial mammal population. Small mammals such as deer mouse and jack rabbits are present in the upland areas. These represent a food source for coyotes and raptorial birds such as the marsh hawk and short eared owl nesting in the coulee. White tale and mule deer are also fairly common in the coulee. The lack of rangelands in the area limits the number of antelope. While not common, bull snakes and rattle snakes are also present in the coulee.

Insect pests are similar to other prairie habitats with a couple of exceptions. Wood ticks are present along the coulee and can create nuisance to hikers. The parasite schistosomal cercariae which causes swimmers itch is also present in the reservoir.

The development of the reservoir has stabilized water levels and improved fishing conditions. Lake whitefish, walleye, and northern pike are present in the reservoir.

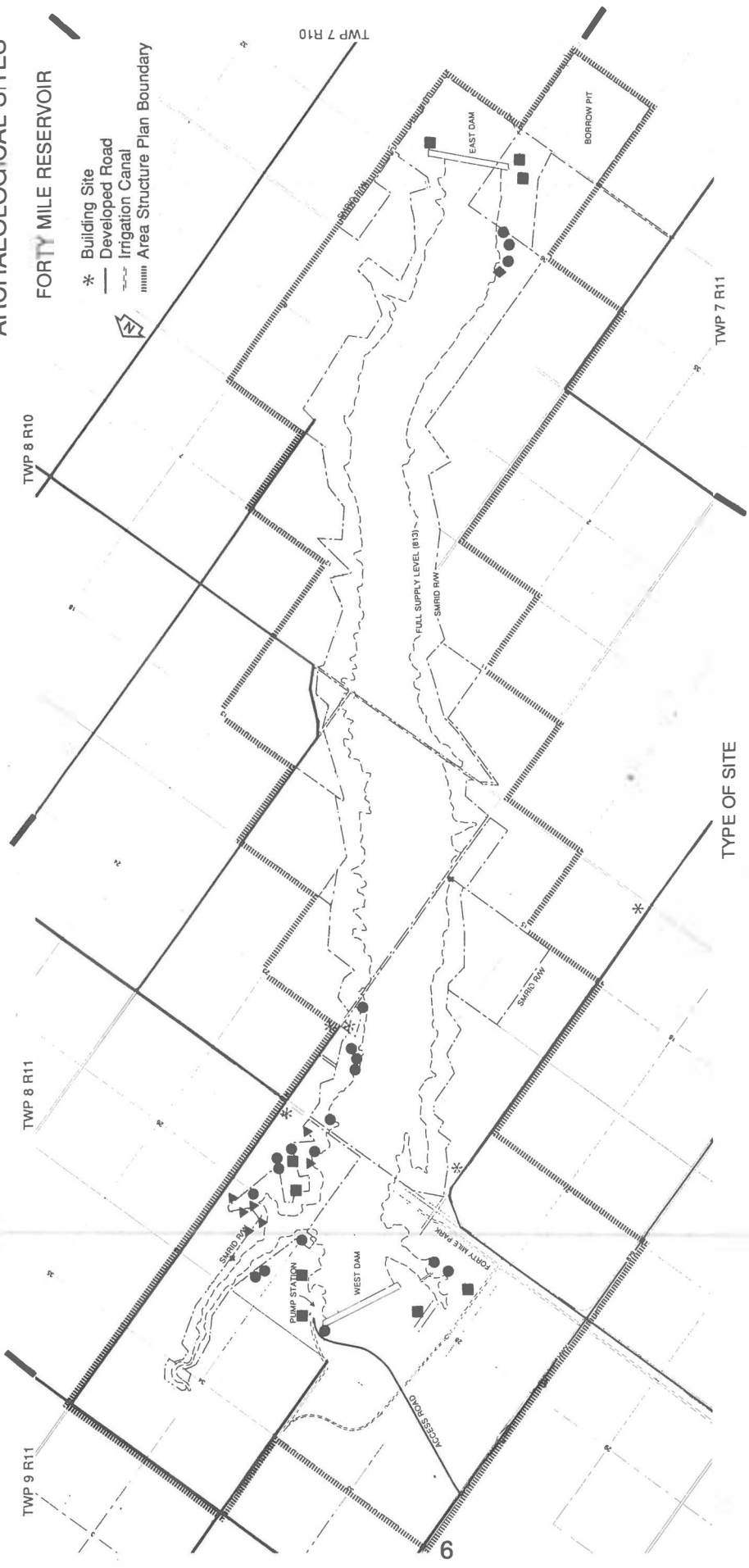
## **Historical Resources**

Historical Resources investigations were conducted by Ethos Consultants Ltd. prior to construction of the reservoir. The survey identified a large number of stone features left by aboriginal peoples who likely were ancestral to the Peigan Indians who are native to this area. Many of these artifact discovery sites were inundated by the flooding of the reservoir but the approximate locations of the surviving features are shown in Figure 3.

The evidence collected to date indicates that Forty Mile Coulee was heavily utilized by prehistoric peoples as a campsite area. They travelled in small groups and hunted bison which were processed and consumed in the immediate area. The Historic



Figure 3  
 ARCHAEOLOGICAL SITES



TYPE OF SITE

- Stone Circle
- ▼ Cairn
- Stone Circle and Cairn
- ◆ Other (i.e. bone find)

Resources Act requires that further historical resources investigation be conducted prior to development being undertaken adjacent to the coulee.

### **3. OBJECTIVES**

The purpose of the area structure plan may be achieved through the realization of more specific objectives. These objectives are important to the plan as they address local planning concerns and clarify the intent of the document. These objectives are:

1. To minimize the impact of recreational development on the irrigation function of the reservoir.
2. To conserve better agricultural land.
3. To encourage non-agricultural uses to locate on poor agricultural land.
4. To adopt development related criteria which will guide planning decisions on future development and subdivision applications.
5. To minimize land use conflicts, especially between recreational uses and prevailing agricultural activities.
6. To accommodate future demand for recreational development where practical to do so in locations with adequate services and amenities.
7. To minimize the impact of development on the natural environment and critical wildlife habitat.
8. To provide opportunities for public recreational use such as municipal parks or private facilities.
9. To ensure a safe and efficient road network.
10. To minimize conflicts between developments and transportation routes.
11. To identify and protect historical resources from the impact of future development, and to conserve these resources for future generations.

### **4. DEFINITIONS**

Unless otherwise provided in the Area Structure Plan, a word or terms takes the definition given in the Planning Act.

1. **Act** means the Planning Act, Chapter P-9 of the Revised Statutes of Alberta

1980, with revision thereto.

2. **Agricultural Land**

(a) **Better agricultural land** means land having a CLI classification of 1 to 4 for agriculture other than:

- (i) cut-off parcels of 5 acres or less;
- (ii) land which the County of Forty Mile No. 8 determines as so badly fragmented by the existing use or ownership that the land has a low agricultural capability or cannot logically be used for agricultural purposes.

(b) **Poor agricultural land** means land which is not better agricultural land.

3. **Area Structure Plan** means the Forty Mile Reservoir Area Structure Plan.

4. **CLI** means Canada Land Inventory

5. **Commission** means the Southeast Alberta Regional Planning Commission.

6. **Cottage** see seasonal residences

7. **Critical wildlife zone** means areas which are critical to a significant number of individuals of a species during at least part of the year. This can mean, for example, wintering areas for ungulates, nesting or staging areas for waterfowl, colony sites for colonial nesting birds, and over-wintering areas for upland game birds.

8. **Cut-off parcel** means a parcel of land that is separated from the major area of the lot by:

- (a) a permanent irrigation canal as defined by the irrigation district;
- (b) a permanent watercourse normally containing water throughout the year;
- (c) a railway;
- (d) a graded public roadway or highway;
- (e) an embankment; or
- (f) other physical features;

and is impractical to farm or graze either independently or as part of a larger operation, including nearby land.

9. **Intensive Agricultural Use** means the concentrated raising of livestock or crops or both.

10. **Intensive Livestock Operation** means any land enclosed by buildings, shelters, fences, corrals or other structures which may be capable of confining,

rearing, feeding, dairying or auctioning livestock, and excepting the wintering of a basic herd of cattle, unless so provided for in a land use by-law or a statutory plan.

11. **May** means, within the context of a policy, that a discretionary action is permitted.
12. **Regionally significant area** means a public park, designated historic or archaeological site, environmentally sensitive area, or any similar facility owned and/or administered by a level of government.
13. **Shall** means, within the context of a policy, that the action is mandatory.
14. **Should** when used within the context of a policy, means that the action is advised but compliance is subject to the discretion of the appropriate authority.

## 5. LAND USE STRATEGY

Preparation of the Plan began in June of 1992. It covers an area of 42 quarter sections (2720 hectares) and extends approximately 1.6 kilometres from the edge of the reservoir. Staff of the Regional Planning Commission prepared a background report outlining five development alternatives for Forty Mile Coulee reservoir together with their advantages and disadvantages. These alternatives ranged from no development on the reservoir to unlimited development.

The overall objective of the Plan is to try and maintain the environment of the coulee as close to the original condition as possible in order to maintain water quality and preserve the existing habitat for wildlife. A Reservoir Vicinity District is proposed around the reservoir in which all new construction would require a Development Permit. In order to maintain water quality, there would be controls within the Reservoir Vicinity District on the method for disposal of manure, sewage disposal and storm water management. Excessive cutting into the bank of the coulee would be discouraged wherever possible.

The recommended development Plan is shown in Figure No. 4. It allows for limited residential development around the rim of the coulee and continued development of Forty Mile Park.

Residential development would be permitted around the rim of the coulee provided that it met the established guidelines contained in section 7 of the Plan and Council approved the re-classification to a Recreation Residential District. These guidelines are concerned with the need to preserve prime agricultural land, vehicular access, utilities, and accessibility to the reservoir. Residential development would take place in clusters around the edge of the coulee. Each site would be serviced by a communal water supply and have a common access point to the reservoir. To minimize

Figure 4

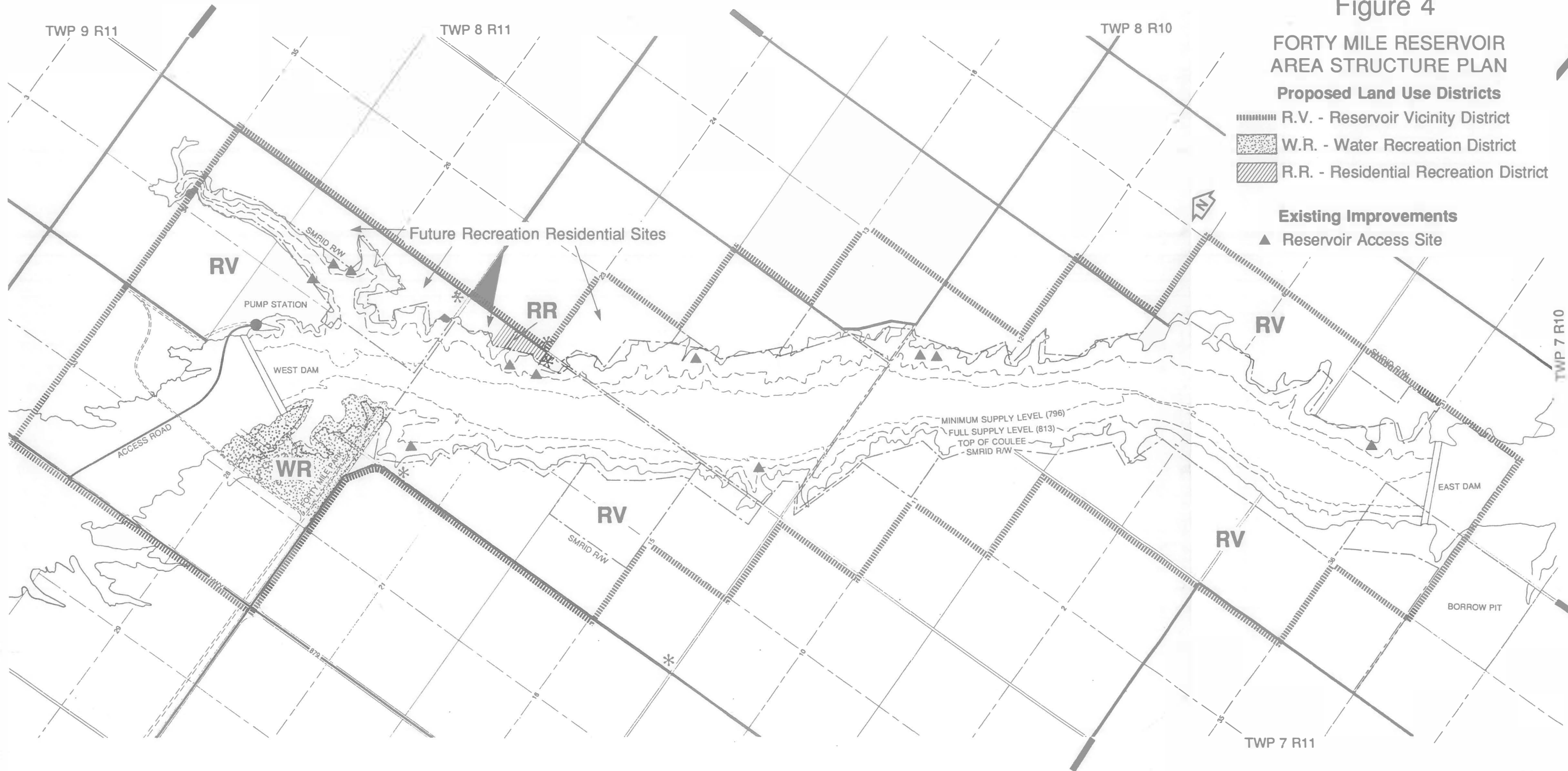
FORTY MILE RESERVOIR  
AREA STRUCTURE PLAN

Proposed Land Use Districts

- ▬ R.V. - Reservoir Vicinity District
- ▨ W.R. - Water Recreation District
- ▩ R.R. - Residential Recreation District

Existing Improvements

- ▲ Reservoir Access Site



disturbance to the banks of the coulee, these access points should be limited to existing trails.

To prevent the proliferation of undeveloped parcels with little chance of being developed, an initial limit of 40 subdivided and registered parcels would be established. Once that ceiling was reached, no further subdivision would be allowed until the vacancy rate declined to a maximum of 50% of total registered parcels.

The Plan also recognizes that there will be gradual intensification of development within and perhaps adjacent to Forty Mile Park. To permit further development, the Council proposes to designate the area as a Water Recreation District. Any development outside of the Park other than what is currently allowed by the Land Use By-law will require a Land Use By-law amendment.

A conceptual plan for Forty Mile Park is shown in Figure 5. Conceived in 1981, this facility has enjoyed tremendous success. The site is located on a small side coulee directly south of the west dam. It includes a boat launch into the main reservoir extending down to 802 metres or halfway between full and minimum supply levels. A swimming pond has been created in the inner portion of the side coulee and a dyke with a crest elevation of 822.5 metres has been built to retain water in the pond during reservoir drawdown. There is also an outlet from the main canal to maintain water levels in the swimming reservoir during dry periods.

The Forty Mile Park Committee has been extremely aggressive in its efforts to secure provincial, municipal and corporate sponsorship for the park. Over \$500,000 in donations has been raised. Facilities developed in the park to date are:

swimming area	washrooms
Boat launch	20 stall campground
fencing	irrigation system
bridge	caretakers residence
landscaping	maintenance shop
change rooms	interpretive centre
play ground	

Future plans for the area have not been finalized but will likely include a group campground, serviced RV park, and possibly a small golf course.

Due to the proximity of the park to the reservoir and the depth of bedrock from the surface of the ground, the establishment of major facilities will likely require the installation of off-site sewage disposal facilities and a central water treatment plant.

Figure 5



SCALE 1:2000



- A ARCHAEOLOGICAL SITE
- T TOILET
- ⊙ TREE



S.MRID R W

## 6. RECLASSIFICATION PROCEDURE

1. All of the land not currently designated for a use will be designated as a Reservoir Vicinity District. It is intended that implementation of the plan take place as a result of amendments to the existing land use classification system set out in the Land Use By-law. These amendments would conform with guidelines set out in the Area Structure Plan.
2. The initial contact between the County and the developer would occur at the Municipal Planning Commission. This would consist of a general discussion of the basic concept.
3. If this proved satisfactory the Development Officer would then request the developer to supply the following information necessary to adequately assess the proposal.
  - a. 25 sets of plans of the proposal including the application form and a sketch of the proposal showing legal descriptions and contour information;
  - b. geotechnical evaluations where there are topographical constraints and the possibility of slope instability;
  - c. detailed water supply and sewage disposal plans acceptable to the Department of Labour and/or the Department of Environmental Protection;
  - d. Reservoir Access Permit from the S.M.R.I.D.
  - e. Any other information required by the Development Officer.
4. The information shall be referred to the planning advisor from the Southeast Alberta Regional Planning Commission prior to being presented to Council for first reading of the proposed Land Use By-law Amendment. If accepted by Council, the proposal shall be advertised in the Forty Mile Commentator for a Public Hearing and comments will be solicited from the following agencies.

Adjacent municipalities, AGT Limited, Trans Alta Utilities, Forty Mile Gas Co-op, St. Mary River Irrigation District, Southeast Alberta Health Unit, Alberta Environment Protection, Alberta Agriculture, Alberta Community Development (Archaeological Survey of Alberta), Alberta Labour (Provincial Plumbing Branch), Alberta Economic Development and Tourism, Other affected agencies.



Before a land use reclassification is approved, Council shall:

- a. Hold a Public Hearing and consider all comments of those in attendance.
- b. Consider all pertinent information received from the referral agencies.

After all information has been reviewed, Council shall either reclassify the area, refuse the request, or request more detailed plans for the area prior to making a decision.

## **7. SUBDIVISION AND DEVELOPMENT GUIDELINES**

### **1. Better Agricultural Land**

It is particularly important that development within the Area Structure Plan boundary should not be located on irrigated land or dry land with a high agricultural capability. The following parameters shall be used by the County in dealing with this matter:

- a. Better agricultural land is land having a Canada Land Inventory (CLI) agricultural capability rating of Class 1, 2 or 3.
- b. Land not rated as CLI Class 1, 2 or 3 may be included if the land is cultivated, improved or potentially irrigable, and the municipality considers the land to be better agricultural land.
- c. Certain types of CLI Class 1, 2 or 3 land may be excluded from this definition if the applicant can show that the land to be subdivided does not have a high capability for agriculture.
- d. The developer is responsible for showing that the land to be subdivided is of low agricultural capability, if the C.L.I. rating is questioned.
- e. The County may request the developer to submit a report prepared by a professional agronomist or soils technician that evaluates the agricultural productivity of the land which is the subject of a proposed development.
- f. The County may request the opinions of representatives of Alberta Agriculture on the capability of the subject land for agricultural purposes.
- g. The County, at its discretion, may utilize rural farmland assessment ratings for the area to be developed to assess the agricultural capability of the land.

- h. The County shall consider the suitability of the land for agricultural practices, as well as the inherent soil capabilities for agricultural production in evaluating the agricultural potential of the land.

## **2. Physical Characteristics**

In evaluating applications for development within the Area Structure Plan boundary, the County shall take into consideration the physical characteristics and natural features of the proposed site and the surrounding area. The following criteria shall be applied in this regard:

- a. Land which is within the 1 in 100 year floodplain is not considered suitable for proposed development.
- b. Wet, low lying areas with high water tables should be avoided unless adequate drainage is undertaken and proper development, including the provision of a suitable sewage disposal system, can occur.
- c. Land which has an average gradient in excess of 15 percent or which is subject to subsidence or erosion is not suitable for development.
- d. The Land Conservation Guidelines established by Alberta Environment should be consulted where a valley break, coulee or ravine is part of the proposed development.
- e. Proposed development should not occur in areas where critical fish or wildlife habitats exist. Where such habitats may be affected by the development, the comments of Recreation, Parks and Wildlife would be important considerations in approving the development.
- f. Where a proposed development is located in an area identified in Figure 3 as having significant archaeological sites, (stone circle or cairn) the Development Officer shall refer the proposal to the Archaeological Survey of Alberta for an assessment prior to a decision being made on the proposal.

## **3. Availability of Services**

The provision of utilities and services including electricity, natural gas, telephone and school bus transportation can be very costly if such services are not in close proximity to or easily provided for new development. Also, multi-parcel development can create servicing problems and lead to additional financial burdens on the municipality and the residents.

The County, in evaluating applications for development within the Area Structure Plan boundary, shall examine these in terms of proximity to rural utility

systems, schools, and other areas of country residential development:

- a. Electricity and natural gas distribution systems, and telephone service, should be available within 3.2 kilometres (2 miles) of a proposed development.
- b. The proposed development should be located along existing school bus routes or in areas that can best utilize existing school facilities.
- c. Where deemed necessary by the County, the approval of a development may be conditional upon the applicant entering into an appropriate servicing agreement with the municipality.

#### **4. Transportation and Access**

An important consideration when evaluating recreational residential developments is the provision of adequate road access without infringing upon the safety or efficiency of the road network. The County shall adhere to the following guidelines:

- a. The proposed development should be located adjacent to an all-weather road.
- b. Access to a proposed development should not occur within 800 metres (0.5 miles) of an intersection involving a primary highway nor within 300 metres (984 feet) of any other road intersection.
- c. Recreational residential development should provide access to all individual lots by means of internal collector or service roads which meet the standards set by the County.
- d. Unless unusual circumstances dictate, only one access and a maximum of two access points from a proposed development to a public roadway should be permitted.
- e. The location of the proposed development shall be examined in terms of anticipated municipal costs related to road upgrading and maintenance. The County may enter into a servicing agreement with the developer with respect to the construction and maintenance of roads within the subdivision.

#### **5. Separation Distances**

One of the primary reasons for developing the Forty Mile Reservoir Area Structure Plan is to minimize potential conflicts with other rural land uses. The

following procedures shall be used by the County to evaluate separation distances.

- a. The minimum separation distance formula contained in Schedule B of Land Use By-law No. 30/88 as amended shall be used for the siting of all development within the Area Structure Plan.
- b. To minimize odours and prevent run-off of nutrients into the reservoir all manure spread within the Area Structure Plan area will be incorporated into the soil within a maximum of 48 hours of disposal.
- c. Separation distances may be required between the development and certain types of rural industry such as agricultural processing activities. The County shall consider the need for, and extent of, such separation distances in consultation with appropriate authorities.
- d. The minimum setback from a landfill site, sewage treatment plant or sewage lagoon is 300 metres (984 feet).

## **6. Water Supply**

A major concern is the provision of water for domestic use. For a successful development, there should also be sufficient water to allow for the growth of shrubs or trees. Groundwater may not be sufficient in quality or quantity to meet these demands and other sources of supply must be utilized.

The County shall evaluate developments with respect to water supply, using the following criteria:

- a. Where groundwater is to be the source of supply, groundwater tests conducted according to Alberta Environment guidelines are a prerequisite for approval of a proposal which have the effect of creating five or more contiguous lots. A well or wells supplying a central water distribution system for a development must be licensed under the Water Resources Act. These systems are also covered by Alberta Environment's guidelines.
- b. The report shall be submitted to Alberta Environment for evaluation and, on the basis of this evaluation, it may be determined whether or not sufficient groundwater is available for the proposed subdivision, or whether more detailed field tests are necessary to properly evaluate the groundwater potential.
- c. Where it is proposed to use irrigation water for a development the developer shall consult with the S.M.R.I.D. at an early stage in order to obtain a Reservoir Access Permit and enter into a Domestic Water

Servicing Agreement. Such agreements shall be accepted by the County as evidence of an adequate supply of potable water.

- d. Clustered developments containing more than 5 lots must be serviced by a communal water system capable of supplying 2000 litres of potable water per lot per day. In addition, the water system should be capable of producing fire flows of up to 1,800 litres per minute for a period of one hour. Alternately, there should be a centrally located fire storage reservoir capable of holding 120,000 litres of raw water on a year round basis.
- e. A communal water supply system will not be constructed without first obtaining a Permit to Construct from the Director of Standards and Approvals, Alberta Environment Protection. Engineering Plans must be stamped and signed by a professional engineer.
- f. The water supply system shall be owned jointly by the residents of the subdivision through a Water Co-operative Association. The co-operative shall apply for and obtain a License to Operate from the Director of Standards and Approvals, Alberta Environment Protection before commencement of operations.
- g. Water not meeting the health related quality criteria of the Guidelines for Canadian Drinking Water Quality shall be treated. Where disinfection of the water supply is required, the procedures outlined in Alberta Environmental Protection's Standards for Water Supply, Sewage Works and Storm Drainage Systems shall be followed.
- h. The intake to the water system should be fully submerged during the navigation period so as not to present an obstacle to boating.

## **7. Sewage and Storm Water Disposal**

- a. Sanitary sewage disposal shall be in accordance with the Plumbing and Drainage Act.
- b. Acceptable private systems are a septic tile field or treatment mound constructed with a minimum vertical distance of 900 mm from a seasonal saturated layer and 1500 mm from an impervious layer of rock or permanent water table. The minimum parcel size for such a system shall be 1800 m<sup>2</sup>.
- c. To minimize the possibility of contamination of the reservoir, sewage effluent shall not be discharged onto the surface of the ground.

- d. Pump out tanks will only be permitted in exceptional circumstances where tile fields or treatment mounds are not feasible. Council may require multi-lot developments in close proximity to the reservoir to install off-site treatment facilities.
- e. Direct discharge of storm water into the reservoir will not be allowed. Wherever possible, storm water must be retained and the water quality must be improved through the use of infiltration trenches, infiltration ponds, grassed swales, vegetated filter strips or constructed wetlands.

## **8. Reserve Land**

The County may recommend the designation of reserve land in the following circumstances:

- a. Wetlands, gullies, ravines, coulees, creek beds, and land that is subject to flooding or erosion, or is unstable or environmentally sensitive may be designated as environmental reserve.
- b. In order to prevent pollution and to provide public access, the County may recommend as environmental reserve a strip of land not less than 20 feet (6 metres) in width abutting the bed and shore of any lake, river, stream or any other water body.

Land designated as environmental reserve must be used as a public park or must be left in its natural state. The reserve areas must be incorporated into the proposed subdivision design.

The County may request that as much as ten percent of the remaining land be dedicated for municipal or school reserve purposes:

- a. As the need for public reserve land is most often required in central locations in a rural municipality, the County shall consider money place of reserve as the most practical means of complying with the reserve requirements associated with recreational residential development.

## **8. IMPLEMENTATION AND ADMINISTRATION**

- 1. This Plan does not supersede other regulation or by-laws.
- 2. Upon adoption, the County is responsible for amendment of the Land Use By-law to conform to the Area Structure Plan and the administration of other provisions of the Plan.

3. The sequence of development has not been addressed; County of Forty Mile No. 8 Council will need to consider this aspect based on the merits of the proposal and the criteria contained in this document.
4. Council may amend the Plan and shall review it at least once every five years.
5. In addition to this Area Structure Plan, subdivision and development proposals should have consideration for the Land Use By-law and any General Municipal Plan in effect in the County of Forty Mile No. 8.

**Appendix 1**  
**Proposed St. Mary River Irrigation District**  
**Reservoir Access Guidelines**

1. In regard to all reservoirs, it must be recognized that the primary purpose of the reservoir is for irrigation use and fluctuations in water level will occur. The Board of Directors will not be responsible to maintain the water level, with the exception of specific agreements entered into at the Board's discretion.
2. Persons with a registered interest in land located adjacent to a St. Mary River Irrigation District reservoir right-of-way may apply to the Board of Directors for a Reservoir Access Permit.
3. Reservoir Access Permits shall extend for a 5 year time period with option for renewal at the Board's discretion and be subject of an annual fee as established by the Board of Directors.
4. Holders of a Reservoir Access Permit shall generally be limited to the development of a boat launch and/or pump site within a specified area of the right-of-way. No permanent buildings or living quarters will be permitted. More intensive development requiring access to water will be directed to approved parks or districts established pursuant to an approved Area Structure Plan.
5. Access to a reservoir access site will ordinarily be obtained via an existing trail. Disturbance of the right-of-way will be minimized whenever possible. Extensive cutting into the bank of the reservoir in order to develop a new access route will not be permitted unless approved by the St. Mary River Irrigation District. Fences will not generally be permitted unless required by the District to minimize disturbance to an existing lessee.
6. Multi-parcel clustered developments will be restricted to development of a single common access point to the reservoir for domestic water and/or reservoir access.
7. Prior to commencing development of a reservoir access site, all applicants must obtain a Development Permit from the local municipality. All improvements must be constructed in accordance with the Alberta Uniform Building Standards Act.
8. Use of a reservoir access site must be restricted to persons under the direct supervision of the permit holder. Inadequate supervision will constitute grounds for revoking the Permit.
9. Improper maintenance of the reservoir access site or excessive erosion of the right-of-way as a result of improper development of a reservoir access will constitute grounds for revoking the Permit.
10. The Board of Directors reserves the right to change this policy at any time or impose additional requirements on the holder of a reservoir access permit to protect the interests of the District.



## **Appendix 2 Proposed Land Use Districts**

For the purposes of regulating land uses within the Area Structure Plan boundaries, the following land use districts are proposed for incorporation into the County of Forty Mile No. 8 Land Use By-law:

1. Reservoir Vicinity District
2. Water Recreation District
3. Recreation Residential District (already existing)

The permitted and discretionary uses prescribed for each district as well as the standards that apply for each type of development are prescribed in the following sections. The attached map shows the proposed locations.

### **Reservoir Vicinity District (RV)**

The general purpose of this district is to permit activities related to agriculture which are compatible with the preservation of irrigation reservoirs or other water bodies from environmental deterioration. Existing Farmstead Permits granting blanket approval to all newly constructed farm improvements within the designated area will be honoured but no further Farmstead Permits will be issued in this district. A Development permit will be required for all new facilities requiring a Development Permit which are constructed in this District

#### **A. PERMITTED USES**

- (1) Extensive Agriculture
- (2) Farm buildings other than buildings or structures for intensive agricultural operations
- (3) Farm residences

#### **B. DISCRETIONARY USES**

- (1) Public and quasi-public buildings and uses
- (2) Farmstead separation (from a previously unsubdivided quarter section)
- (3) Reservoir access site
- (4) Gravel pit
- (5) Intensive livestock operation
- (6) Nurseries and tree farms
- (7) Bee keeping
- (8) Home occupation
- (9) Other uses similar in nature to any of the above discretionary uses

#### **Site Regulations**

#### **C. MINIMUM PARCEL SIZE**

##### PERMITTED USES

Existing title or unsubdivided quarter section.

##### DISCRETIONARY USES

Existing title or as required by the Municipal Planning Commission.

#### D. MINIMUM YARD REQUIREMENTS

##### FRONT YARD

All buildings including shelter belts, dugouts and disposal fields shall comply with the County's Setback By-law 21/77 as amended, except for developments that are within 300 metres (984 feet) of a primary highway where the setback shall be in compliance with the Highway Development Act.

##### SIDEYARD

The minimum width of sideyards shall be 15 metres (49.2 feet) unless a corner parcel, where the minimum sideyard shall be the same as the front yard, unless otherwise specified by the Municipal Planning Commission.

##### REAR YARD

The minimum depth of the rear yard shall be 15 metres (49.2 feet).

#### E. ADDITIONAL REQUIREMENTS

- (1) Setbacks from coulees, watercourses and water bodies - see section 26.
- (2) In addition, there may be a need for additional setbacks from slopes for the construction of berms or a lagoon to minimize run-off into adjacent water bodies.
- (3) Access roads on steep slopes will require landscaping to minimize erosion.

## **WATER RECREATION DISTRICT (WR)**

The general purpose of this district is for public and commercial recreational developments.

### **A. PERMITTED USES**

- (1) Public day use areas
- (2) Public picnic areas
- (3) Snack bars and other commercial facilities located in an approved park.

### **B. DISCRETIONARY USES**

- (1) Campgrounds
- (2) Golf courses
- (3) Club houses
- (4) Public boat launch
- (5) Institutional camps
- (6) Marinas
- (7) Rodeo grounds
- (8) Other uses similar to the above permitted or discretionary uses as approved by the Municipal Planning Commission

### **C. MINIMUM PARCEL SIZE**

- (1) No water distribution of sewage collection systems: 1859 m<sup>2</sup> (19,914 sq. feet) with a minimum width of 30 metres (98.4 feet).
- (2) Water distribution but no sewage collection system: 1390 m<sup>2</sup> (14,962 sq. feet) with a minimum width of 30 metres (98.4 feet).
- (3) Water distribution and off-site sewage collection system: at the discretion of the Municipal Planning Commission.

### **D. MINIMUM YARD REQUIREMENTS**

<b>Front</b>	<b>Flankage</b>	<b>Side</b>	<b>Rear</b>
*10 metres (32.8 feet)	*10 metres (32.8 feet)	3 metres (9.8 feet)	5 metres (16.4 feet)

- \* Minimum yard distances from subdivision streets or service road only. Setbacks from district roads shall be in compliance with the County's Setback By-law 21/77.

### **E. BUILDING RESTRICTIONS**

#### ACCESSORY BUILDINGS

- Maximum floor area 100 m<sup>2</sup> (1,076 sq. feet)
- Maximum height - 5 metres (16.4 feet)
- Maximum number of buildings per lot - 2
- Building separation - 1.5 metres (4.9 feet)

## **F. UTILITIES**

- (1) Every development will be required to install sewage disposal systems approved by the authority having jurisdiction.
- (2) All developments must have access to an on-site water supply or a communal water supply meeting the requirements of Alberta Environmental Protection.

## **G. ADDITIONAL REQUIREMENTS**

- (1) Setbacks from coulees, watercourses and water bodies - see section 26.
- (2) In addition, there may be a need for additional setbacks from slopes for the construction of berms or a lagoon to minimize run-off into adjacent waterbodies.
- (3) Access roads on steep slopes will require landscaping to minimize erosion.

## RECREATIONAL RESIDENTIAL DISTRICT (RR)

The general purpose of this district is for smaller lot developments which are intended for recreational residential development.

### A. PERMITTED USES

- (1) Cottage or Seasonal Residence
- (2) Dwelling
- (3) Accessory Buildings and Uses

### B. DISCRETIONARY USES

- (1) Recreation Facilities (Public and Private)
- (2) Public Parks and Playgrounds
- (3) Private Parks and Playgrounds
- (4) Other similar buildings and uses as approved by the Municipal Planning Commission

### C. PARCEL SIZE

#### MAXIMUM SIZE

1 Hectare (2 ½ acres).

#### MINIMUM SIZE

- (1) No water distribution or sewage collection systems: 1850 m<sup>2</sup> (19,914 sq. feet) with a minimum width of 30 metres (98.4 feet).
- (2) Water distribution but no sewage collection system: 1390 m<sup>2</sup> (14,962 sq. feet) with a minimum width of 30 metres (98.4 feet).

### D. MINIMUM YARD REQUIREMENTS

Front	Flankage	Side	Rear
*10 metres (32.8 feet)	*10 metres (32.8 feet)	3 metres (9.8 feet)	5 metres (16.4 feet)

\* Minimum yard distances from subdivision streets or service road only. Setbacks from district roads shall be in compliance with the County's Setback By-law 21/77.

### E. BUILDING RESTRICTIONS

#### ACCESSORY BUILDINGS

Maximum floor area 100 m<sup>2</sup> (1,076 sq. feet)  
Maximum height - 5 metres (16.4 feet)  
Maximum number of buildings per lot - 2.  
Building separation - 1.5 metres (4.9 feet)

### F. OBJECTS PROHIBITED OR RESTRICTED IN YARDS

- (1) Not more than two holiday trailers shall be stored or parked on the lot.
- (2) The keeping of livestock or poultry for pets or other purposes is prohibited.
- (3) The keeping of more than 2 dogs not including unweaned pups is prohibited.

