Bow Island Municipal Development Plan



Adopted April 26, 2010

PREPARED BY SE PLANNING

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Adopted by Council, 26 April 2010

MARCH 2010

Prepared for the Town of Bow Island

by

SE PLANNING

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Introduction



1.1. Introduction

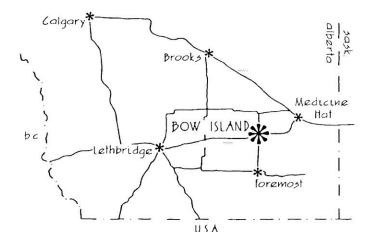
The last Bow Island Municipal Development Plan was adopted in 1988 to provide a guide to land development within the Town. Since then, a number of changes have occurred, and it is necessary to bring the municipal development plan up to date. The new plan will help to ensure that the Town's growth can be accommodated in an efficient and well planned manner.

During this review of the municipal development plan, the Council has provided an opportunity to persons or agencies affected by it to make suggestions and representations. Also, before giving second reading to the by-law adopting the new municipal development plan, Council held a public hearing on the proposed plan the in accordance with the Municipal Government Act.

1.2. Regional Context

The Town of Bow Island is located just 60 kilometres south west of the City of Medicine Hat on Highway No. 3. The community is growing and has a thriving industrial and commercial tax base. The Town is the largest centre in the County of Forty Mile and is the service centre for the irrigation area which covers the north half of the County. The market area for the Town covers the north half of the County and is estimated to be over 5,000 persons.

Figure 1: Regional Context



The Town has excellent transportation networks. Highway No. 3 passes through the Town giving good east-west connectivity to the larger centres of Medicine Hat and Lethbridge, and Secondary Highway 879 is close by, giving access to the nearby towns of Foremost and Brooks.

The municipally owned Bow Island Airport is located within the Town, with capabilities to support charter flights.

The Town is also served by rail. The east-west Canadian Pacific Crowsnest Line is a major freight

carrier. The availability of spur lines for businesses that require rail transport for shipping makes Bow Island an attractive site for future business development. The Town is an excellent location to service the thriving specialty crops sector in the irrigation industry. Viterra operates the Bow Island Bean Plant in the Town shipping a wide variety of pulse crops throughout the world. The Spitz sunflower processing plant is also located nearby.

1.3. Vision and Mission Statement

Vision BOW ISLAND

CLEAN +BEAUTIFUL +SAFE +VIBRANT + <u>DYNAMIC</u> = HIGH QUALITY OF LIFE

Mission Statement

Our mission is to maintain a high quality of life utilizing the strengths of our people and our agricultural advantage.

1.4. Goals of the Plan

The scope of the Municipal Development Plan includes all aspects of urban growth and development that may be regulated or influenced by policies of the Town of Bow Island as a municipal planning authority. Although the municipal authorities' direct influence is most apparent in the area of physical planning and development, the plan is not limited to these areas. Planning decisions of Town Council influence the economic and social well-being of the residents of the town. It is important to remember that major planning decisions will have lasting social and economic implications.

The specific objectives and policies contained in the following sections of the plan are all related to the goals of the plan which are presented below. It should be noted that in some statements, reference is made to matters or areas over which the Town as a municipal corporation at present has no jurisdictional authority. In such cases, Town Council will endeavour to achieve the stated objectives through cooperation with the appropriate authorities.

<u>Goals</u>

A. To establish a balanced growth strategy that will provide a guide for future development initiatives.

- B. To create a physical environment capable of attracting new industrial, commercial and residential development.
- C. To develop an efficient land use pattern that minimizes capital maintenance and social costs.
- D. To promote the maintenance of a physically attractive living and working environment that meets the needs of all segments of the population.

Growth and Development





2.1. Growth and Development Strategy

In this section of the Municipal Development Plan, the basic criteria for estimating the land requirements for future development of Bow Island are presented. Estimates of future population growth and land requirements are presented. The relationship between population growth and land requirements is closely examined to determine the effect of various population levels in terms of land requirements.

2.2. Population Forecasts

1. Current Population

In May 2006, a federal Census was undertaken. The population of Bow Island at that time was 1790. The Town then did a follow-up census in June 2006 and the population was 1868. Since then, the population of the Town has grown significantly but no census is scheduled until 2011. To determine current population, it necessary to rely on an estimate. The primary method of estimating population between Census years is the dwelling occupancy method. This method counts the number of building permits for new dwellings, subtracts the residential demolitions and provides an allowance for the rental vacancy rate. The resulting number of dwellings is then multiplied by the average number of persons per dwelling.

Using this method, it is estimated that the population of Bow Island has increased to between **1898 - 2034.** The details of the estimate are shown on the next page.

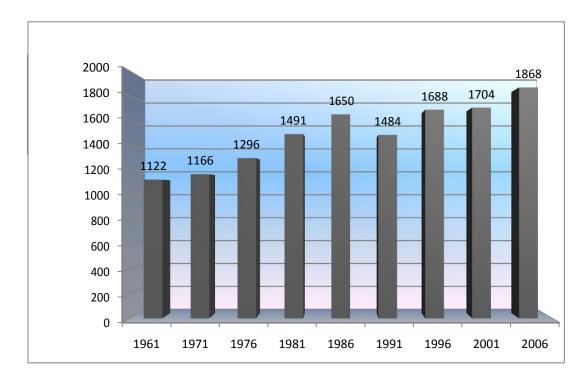
Figure 2: Bow Island 2010 Population Estimate

Population 2006	1790
Number of Dwelling Units 2006	647
- number of Vacant residential Units	52
Number of Occupied Dwelling Units 2006	595
Population per Occupied Dwelling 2006	3.0
Poulation 2009 (Estimated)	
Number of Dwelling Units 2006	647
+ Number of Dwelling Units constructed (2006-2009)	31
- Number of Vacant residential units 2009	0
- Number of Houses Demolished	0
Number of Occupied Dwellings (August 2009)	678
Estimated Persons per Dwelling (August 2009)	
@ Low Range of 2.8 = Low Estimate	1898
@ Medium Range of 2.85 = Medium Estimate	1966
@ High Range of 3.0 = High Estimate	2034
Population 2009	1898-2034

2. Past Population Growth Trends

Figure 3 shows the population growth for the Town of Bow Island since 1961. Over the past 45 years, the town experienced one sharp upturn in population in the late 1970's and early 1980's, followed by a period of population decline, recovery, and modest growth upwards.

Figure 3: Bow Island Historic Population Growth



Population Growth Projection

In order to estimate the future demand for housing and other land uses, a population projection was prepared. Changes in the population of a community are a function of the age composition of the existing population, the rate of survival, the birth rate, and the level of migration. The method by which these variables are used to project future population trends is called cohort survival analysis. A Cohort Survival Model was constructed for Bow Island. Detailed age breakdowns for the Town are shown in Appendix 1. Figure 4 shows the projected population for the Town to 2051. If current trends persist, the town should grow at an average rate of 0.9% - 1.5% per year, reaching a population of 3, 089 by the year 2051.

Bow Island has a fairly young population. Birth rates are fairly robust relative to the rest of the province, and there have been positive inmigration rates over the past 5 years. This leads to the conclusion that Bow Island will continue to experience continued population growth for the foreseeable future.

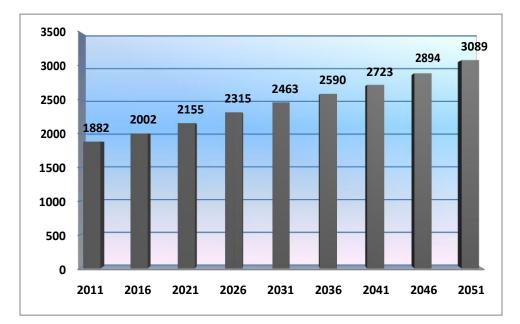


Figure 4: Bow Island Population Projection 2011-2051

2.1. Housing Projection

1. Past Housing Growth Trends

The demand for housing is derived from future population projections, taking the increase in population and then estimating the average household size from past trends to arrive at an estimate for future housing requirements.

Figure 5 shows dwelling unit construction activity from 1961 to 2006. Through this period, home construction activity has generally tracked the growth of population in the Town, slowing when population declined. In reviewing the 48 year period from 1961 to 2009, the Town has experienced an average residential growth of 9.4 residential units per year, resulting in a total increase of 460 housing units. Average annual growth over a 10 year period has varied from 14 units per year to as little as 4 units per year.

Over the same period, the Town experienced a population increase of 721 or an average of 1.6 persons per household. The low population increase per household is not uncommon, and is due to a general decline in the size of families from a high of 5.3 persons per household in 1961 to a low of 2.5 persons per household in 1991. However since 1991, the size of families has rebounded somewhat, averaging 3.0 persons per occupied household in 2006.

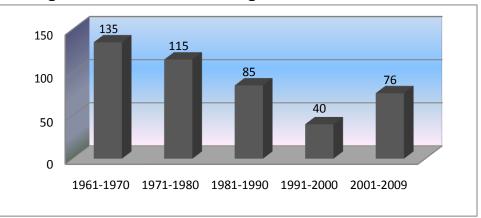


Figure 5: Bow Island Housing Construction 1961-2009

2. Future Housing Projection

Figure 6 shows projected increases in the number of homes by ten year period from 2010 to 2051.

Home construction is projected to average 12.4 units per year within a range of 10 to 15 for a total increase of 529 new homes.

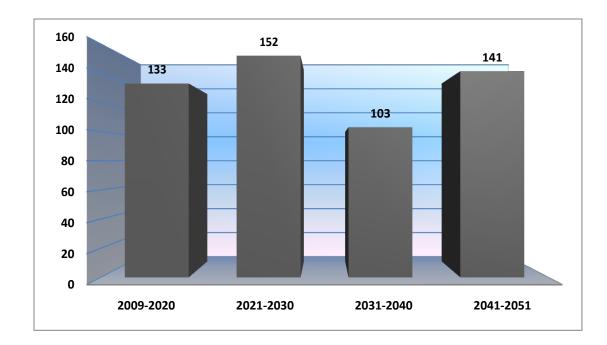


Figure 6: Bow Island Housing Growth Projection 2010 - 2051

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2.3. Future Land Requirements

1. Land Requirement Assumptions

In order to identify the amount of land required to accommodate future growth it is necessary to make certain assumptions about the form and type of future development. These standards are shown in Figure 7. They are based on existing land use in the town, typical standards of service provision in other urban centers, and judgments about the Town's utilization of existing developed land uses.

Figure 7: Bow Island Land Requirement Assumptions

Land Use	Land Use Requirements
Residential	Average Household size declining to 2.6 persons. Average Density of 10 units per gross developable hectare (includes parks, schools, roads).
Industrial	3.6 ha of clean industrial land for each 100 persons of new growth
Commercial	1.7 ha of clean commercial land for each 100 persons of new growth.
Other land uses	This Study adds 20% of the calculated residential, industrial, and commercial lands to accommodate a broad range of other uses including institutional uses and land held off of the market and unavailable for development at any particular time.

2. <u>Summary of Total Land Requirements</u>

Figure 8 identifies the amount of land that would be required within the town to accommodate a population of 3089. Using those factors and assumptions identified in Figure 7, the total amount of land required to accommodate 40 years of population growth is estimated to be 122 hectares of land, or just under 2 quarter sections. Fortunately, the Town has ample lands available within its current boundaries to accommodate that level of growth. The next section discusses land requirements by type of use in more detail.

Category	2010- 2021	2021- 2030	2031- 2040	2041- 2051	Total Land
Residential	13	15	11	10	50
Commercial - Highway	2	2	2	2	8
Commercial - Central Business					
District	1.3	1.3	1.2	1.2	5
Industrial	11	10	8	12	41
Institutional and Other Uses	5	5	4	4	18
Total Area Required	33	33	26	30	122

Figure 8: Summary of Total Bow Island Land Requirements

2.4. Existing Land Inventory

An analysis of the inventory of vacant developable land was undertaken to determine the build out capacity of the remaining lands within the Town boundary. Figures 9 and 10 identify existing and vacant lands within the Town that are suitable for development. Figure 9 shows the total amounts of developed and vacant land available within the Town by type of land use. There is currently 412 ha of occupied developed land within the Town. To accommodate future growth, there is approximately 194 ha of vacant developable land within the Town boundaries. Vacant land includes a substantial amount of residential (122 Ha) and industrial (62.9 ha) land, and a small amount of commercial land. Figure 10 shows the location of these areas.

Figure 9: Existing Bow Island Land Inventory

Category	Developed	Vacant	Total
Residential	84.6	122	206.6
Commercial - Highway	23	8.1	31.1
Commercial - Central Business District 7.8		1.1	8.9
Industrial	64.5	62.9	127.4
Parks, Institutional	88.1	0	88.1
Transportation and Utilities	144.8	0	144.8
Total Area Within Town Boundary (Ha.)	412.8	194.1	606.9

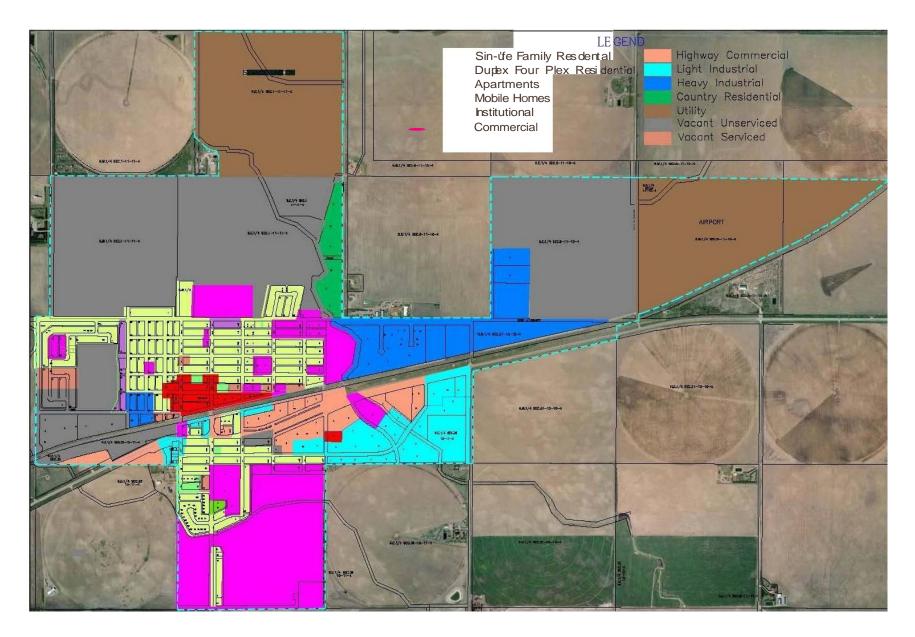


Figure 10: Bow Island Existing Land Use 2010

2.5. Preservation of Land for Urban Purposes

The Town is fortunate that there has been little subdivision adjacent to its boundaries which might hinder the Towns ability to expand. The Town has also benefitted from past decisions to bring the wastewater lagoon complex and the airport under their jurisdiction to ensure that suitable land use decisions are made with respect to their development.

2.6. The County of Forty Mile Rural-Urban Fringe Plan

The County of Forty Mile No. 8 and the Town of Bow Island adopted the Forty Mile Rural-Urban Fringe Plan in 2003. The plan recognizes that the influence of an urban centre usually extends beyond its boundary into the surrounding rural area. In addition, the uses and impacts of the surrounding rural area often extend into the urban area. The Plan contains policies to address three types of development:

- It establishes an exclusion area for Confined Feeding Operations around the Town as shown on Figure 2.
- It establishes a referral policy for new subdivision and development applications, and gives the Town veto power over Country Residential Subdivisions and noxious industries within the Rural-Urban Fringe District.

Currently, the Town has a two mile buffer around it where the County consults with it on Discretionary Use and subdivision Applications. As a general rule, it is suggested that all new private development within a mile of the town boundary be discouraged unless it is supplied with full urban services. Exceptions would be made for farmsteads, agro-industrial uses, and pubic uses.

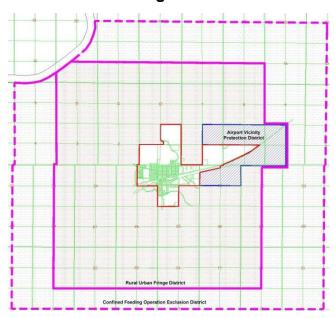


Figure 11: Rural Urban Fringe Plan

2.7. Critical Development Areas

There is one parcel located outside of the Town boundary which could hinder the ability of the Town to expand further. This parcel is located in the SW 6-11-10-W4 and has been designated as future industrial. Though not required for many years, this parcel is crucial to the future of the Town and needs to be watched closely through the inter-municipal planning process.

2.8. General Policy Objective

A. To maintain and develop balanced and controlled growth in the Town of Bow Island

Policies

• To encourage development that will provide a variety of employment opportunities for residents of the community.

- To encourage development that will broaden the tax base to lessen the tax burden on residential assessment.
- To encourage development that will provide housing for the majority of the population working in the community.
- To encourage development that will provide a greater variety of goods and services to lessen dependence on outside communities.
- To ensure controlled growth in the community through regulation of:
 - o lot sales on town owned land;
 - \circ the creation of new subdivisions;
 - \circ the provision of off-site services.

2.9. Development Concept

Figure 12 illustrates the future development concept for Bow Island. If Bow Island grows as projected, approximately two quarter sections of vacant land will be required for development by the year 2051.

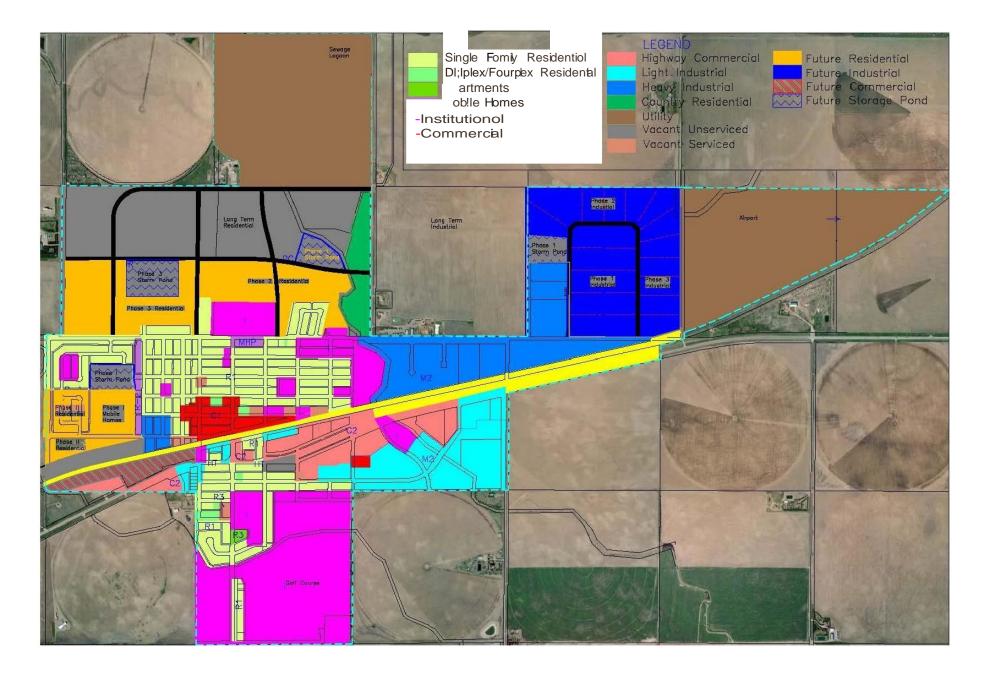


Figure 12: Bow Island Future Development Plan

2. Residential Development Policies



3.1. Residential Development Policies

3.2. Residential Development Concept

The town has approximately two quarter sections (122 ha) of vacant residential land within its boundaries. Theoretically, that amount of land is more than sufficient to accommodate all the residential development within the town for the next 60 years. There is a need to develop in a logical manner from south to north in order to minimize the cost of servicing. All recommendations in this study are in accordance with the **Town of Bow Island Infrastructure Master Plan** prepared by MPE Engineering Ltd.

The West subdivision should be capable of accommodating all new development for the next 5-10 years. A storm water pond will be developed in the north part of the old water reservoir site, and the south portion will be developed for mobile homes as the sewer is not deep enough for basements in that area. The CPR has a new recommendation against development of residential uses within 75 metres of their right-of-way which may limit how far the Town may extend development adjacent to the railway.

After that, it will be necessary for development to move north of First Avenue. The plan proposes two phases of development here, one adjacent to School Crescent on Town owned land, and another in the SW 1-11-11-W4 on privately owned land. Each of these areas should be able to accommodate 20 years of development. It will be necessary to construct a storm water pond in each of these areas, and a shared lift station. A collector road network has been sketched in which allows for the development of a series of culde-sacs containing 15-20 lots each at regular intervals. Each sector should be able to handle a year or two of development. While these are separate developments, the shared servicing arrangement makes it critical that there be adequate east-west connections between the two development areas to facilitate servicing.

In that regard, it is important that a long narrow parcel of land lying between the two larger parcels, commonly known as Postage Stamp Ranch, be tied into overall development plans for this area. This area is currently designated as a Country Residential Land Use District. With careful planning, this might be a suitable use for this area. More likely, the need to run services through the area to make the overall servicing plan work will make an R-1 designation necessary.

General Policy Objective

A. To plan for residential development based on demand, the social and economic structure of the community, and convenience for residents of various activities.

Policies

- To ensure orderly and efficient development and redevelopment of residential areas to minimize initial capital outlay and future maintenance costs.
- To promote infill development on vacant lots in existing residential areas.
- To promote a variety of housing types in areas adjacent to the central business district.
- To maintain the role of the community as the primary developer of residential lots.
- To acquire land well in advance of demand in order to plan for efficient extensions of residential areas.
- To ensure the location, design, and expansion of residential areas shall reflect concerns regarding conflicts of uses.
- To ensure appropriate standards in private developments by entering into service agreements for all new residential subdivisions.
- 3.3. Housing

General Policy Objective

A. To ensure an adequate supply of housing that takes into account the age, family and economic structure of the residents of the community.

<u>Policies</u>

- To ensure appropriate subdivision designs which provide for a variety of housing types.
- To monitor the need for housing and develop a housing strategy which makes appropriate requests to the provincial government.
- To accept and anticipate higher densities as an outcome of providing a greater variety of housing.
- To encourage the development of duplexes, row housing (townhouses), four plexes and multi-family low rise apartment buildings as housing alternatives.
- To encourage the rehabilitation of older houses through the promotion of rehabilitation programs and redevelopment proposals.
- To utilize the financial aid programs of the Province of Alberta for the purpose of land-banking and for municipal services.

- To recognize that in times of peak demand, private developers have a role to play in assisting with the supply of residential lots.
- To ensure through the land use by-law that a variety of housing is permitted by providing sufficient R2 areas and by incorporating duplexes into R1 areas where appropriate.
- To ensure the provision of mobile home parks and subdivisions in appropriate locations.
- To ensure mobile home developments are grouped in well-designed parks and/or subdivisions.
- 3.4. Residential Design Principles

General Policy Objective

A. To encourage the use of residential design principles by Council and the Municipal Planning Commission in the review and evaluation of residential developments.

Policies

• To incorporate a variety of housing types into all residential developments.

- To locate housing so that it does not front onto heavily travelled roadways or adjoin railway corridors
- To locate utilities underground to add to the aesthetic appearance of residential areas.
- To reduce the amount of land used for road surfaces so as to minimize construction, servicing and maintenance costs.
- To encourage the design of more energy efficient residential developments through reduced road lengths, more south facing lots, and proper siting of trees and buffers to maximize winter sunlight and summer shade.
- To encourage the inclusion of private outdoor areas in the design of multi-family dwellings.
- To ensure that there is open space readily available for all subdivisions.

3.5. Mobile Home Subdivision and Parks Design Principles

General Policy Objective

A. To encourage the use of design principles by Council and the Municipal Planning Commission in the review and evaluation of mobile home subdivisions and park developments.

Policies

- To encourage the variation of lot sizes in mobile home subdivisions and parks in order to allow for variation in mobile home size.
- To encourage variation in the front yard setback of mobile homes by providing sufficient lot depth.

- To encourage variation in the shape of mobile home subdivision lots through the use of cluster design or cul-de-sacs.
- To ensure park, open space and walk-way specifications in mobile home subdivisions are similar to conventional residential developments.
- To ensure adequate areas are provided for the storage needs of residents of mobile home developments.

4. Commercial Development Policies



4.1 <u>Commercial Development Policies</u>

The Town has two commercial areas, a Central Business District (CBD) which is currently functioning at a fairly high level, and a Highway Commercial District which is currently somewhat underutilized due to competition with retailers in other centres. Ample room for expansion of the CBD has been designated to the east of the current location, but most new retail development no longer favours a downtown location because of the typical site constraints on parking. If retail conditions improve, it is thought that new commercial development might take place on the Highway Commercial sites, possibly with plaza style retail developments. Those uses might also supplant some of the light industrial uses along the highway.

4.2 General Commercial

General Policy Objective

A. To ensure appropriate standards of commercial development in the community.

Policies

- To ensure that an adequate amount of land is available for current and future commercial development.
- To ensure adequate provisions are made for on-site parking and traffic circulation at commercial sites.
- To ensure commercial facilities are developed to standards which are compatible with adjacent non-commercial developments.
- To ensure that existing commercial areas are fully developed and, where appropriate, expanded prior to the development of new commercial areas.

4.3 Central business District

General Policy Objective

A. To maintain, enhance and support the Central Business District (CBD) of Bow Island.

Policies

• To promote the CBD as the prime area for commercial activity in Bow Island.

- To encourage the expansion of commercial space in the existing CBD through infilling on vacant lots and redevelopment or rehabilitation of abandoned buildings.
- To direct new commercial development into areas adjacent to the existing CBD.
- To encourage improvements of the appearance of the CBD through renovation, rehabilitation and beautification of the buildings and street.
- To encourage owners of dilapidated buildings in the CBD to demolish the structures and sell or redevelop the land for commercial purposes.
- To encourage the development of office space on the second floor of new commercial development in the CBD.

4.4 <u>Highway Commercial</u>

General Policy Objective

A. To encourage development of highway commercial areas for uses not readily accommodated by the CBD.

Policies

- To encourage highway developments geared toward servicing passing traffic.
- To encourage uses such as a shopping centre that cannot be accommodated in the CBD because they require a large area of land.

5. Industrial Development Policies



5.1 Industry Development Policies

The Town has over 1 ½ quarter sections (103.6 ha) of vacant industrial land within its boundaries. Given past trends with respect to industrial land consumption, this land should be sufficient to accommodate industrial development within the Town for the next 40 years, even if a major manufacturing company purchases and develops land within the town boundary.

5.2 Industrial Strategy

General Policy Objectives

- A. To present Bow Island as an attractive location for industry.
- B. To plan for and maintain adequate reserves of industrial land to meet future needs.

C. To minimize possible conflict between industrial and adjacent land uses.

<u>Policies</u>

- To encourage the promotion and marketing of Bow Island as a viable location for many types of industry.
- To encourage the relocation of objectionable uses to more appropriate locations in new industrial areas.
- To encourage appropriate traffic patterns and road design for industrial use.
- To ensure new industrial areas offer a variety of lot sizes to reflect the needs of a variety of industries.

6. Parks, Recreation and Community Facilities Policies



6.1 <u>Parks, Recreation and Community Facilities</u> <u>Policies</u>

The Town currently has 88.1 ha of institutional land within its boundaries. Many of these uses are known as foundation uses; once you have them, you don't need to expand or replace them. However, there will be need for further institutional uses as the town grows. Typically, an additional 20% of land will have to be held in reserve for those uses. Within the time frame of this plan, that amounts to approximately 18 hectares of land.

Approximately half of that area will come from Public Reserve dedications for new parks and schools. Additional land will be required for health facilities, senior homes, public utilities, etc. There will also be land that for various reasons remains vacant and not available for development.

6.2 Parks and Recreation

General Policy Objectives

A. To ensure that the development and operation of all public parks and recreation facilities are properly planned, designed, and maintained.

- B. To provide a range of parks which serve the needs and interests of all ages in bow Island.
- C. To facilitate safe access to parks and recreation facilities in the Town

<u>Policies</u>

- Recreational facilities should be planned in relation to a hierarchy of recreational functions:
 - a. Local Parks and Facilities to serve small areas and have safe access and well maintained creative play areas.
 - Community Parks and Facilities to serve a variety of age groups and interests throughout the entire community.
 - c. Regional Parks and Facilities to serve all residents, as well as visitors to the community.
- To ensure that suitable land for recreational use is provided prior to development in all residential subdivisions.

- To support the Recreation Department as it works towards the provision of improved and increased recreational opportunities in the community.
- To support private organizations in providing increased recreational opportunity for the community.

6.2 <u>Community Facilities</u>

General Policy Objectives

- A. To ensure that the upgrading of community facilities and services is commensurate with the town's growth.
- B. To ensure that land use planning takes into consideration the land and locational requirements of community facilities and services.
- To ensure that nursing homes and senior citizen homes are located close to appropriate amenities.
- To ensure that, wherever possible, new and existing public buildings and facilities are accessible to the physically disabled.

Policies

- To encourage the utilization of school facilities for community use.
- To ensure adequate land is designated in appropriate locations to meet the present and future requirements of the School Boards.
- To ensure that adequate hospital facilities are developed and maintained to meet the needs of the community.
- To ensure that a sufficient level of police protection is maintained in the community.
- To ensure that adequate fire protection facilities are planned and developed to meet the future requirements of the town.

7. Utility Services and Transportation Policies



7.0 Utility Services and Transportation Policies

All of the areas identified for development in this plan have been reviewed for servicing capability by the Town Engineers, MPE Engineering Ltd. Details can be obtained from the Town of Bow Island Infrastructure Master Plan.

Bow Island has few environmentally sensitive areas, being constructed for the most part on flat agricultural land. The one possible exception to this generalization is Cherry Coulee, the natural drainage channel which runs diagonally through the Town from the southeast corner to the northwest. This drainage course will become more important as the town develops a system of stormwater management ponds. These ponds will release water gradually into the water course and create opportunities for natural areas and wildlife habitat within the Town.

The plan proposes a collector road system for new development areas within the Town. The future of Highway No. 3 has not been addressed in this document as that will be the subject of a future functional planning study to be conducted by Alberta Transportation and Civil Engineering in approximately two years.

7.1. Utility Services

General Policy Objective

A. To provide orderly, economical and efficient utility infrastructures and facilities.

Policies

- To ensure that facilities are constructed in order that future expansion can occur easily and economically.
- To ensure new and expanded facilities relate closely to long-term development directions.
- To ensure the design and placement of future facilities are not undertaken in isolation from other utility facilities.
- To encourage full utilization of existing serviced areas before opening new areas for development.
- Servicing agreements should ensure that the costs of utility systems are passed on to those who directly benefit.

(Water Supply)

• To ensure that the Highway 3 Regional Water Services Commission is advised of water requirements for future development well in advance of construction.

(Sanitary Sewer)

• To plan for a sanitary sewer system commensurate with community growth.

(Solid Waste Disposal)

• To ensure that the North Forty Mile Regional Waste Management Services Commission has identified suitable sites for the disposal of solid wastes.

7.2. Transportation

General Policy Objective

A. To provide for the safe, efficient and economical movement of people and goods throughout the community.

Policies

(Roads)

- To encourage the minimization of access and the provision of service roads along Highway 3.
- To determine, in conjunction with the local RCMP, the need for increased signage at selected intersections in order to improve traffic flow and road safety in the community.

- To plan truck routes which direct truck traffic onto Highway 3 directly from origin, passing through as few residential streets as possible.
- To establish a hierarchy or roads for planning and design purposes in the community.

(Rail)

- To maintain adequate buffers between the railway and new residential development.
- To designate, where appropriate, land adjacent to the railway for industrial uses which may require access to rail services.

(Airport)

- To ensure that development adjacent to the airport is compatible with airport services.
- To ensure that developments which require airport services can be accommodated in the immediate vicinity of the airport.

8. PLAN IMPLEMENTATION, REVIEW, AND AMENDMENT



8.0. Plan Implementation, Review and Amendment

There is a great deal of co-operation necessary to ensure that the Municipal Development Plan is an effective working document. The policies in the plan need to be supported by various agencies and departments operating within the town. Such bodies would include, among others, the Boards of Education, County of Forty Mile, The FCSS Board, the Highway 3 Regional Water Services Commission, the North Forty Mile Regional Waste Management Commission, and the Bow Island Chamber of Commerce.

The Land Use By-law is one of the most important means of implementing the objectives and policies of the Municipal Development Plan. Therefore, the Land Use bylaw should be utilized wherever appropriate and the input of the Municipal Planning commission and Development Officer should play a key role in guiding the future development of Bow Island.

The Plan must be formally adopted in accordance with the provisions of the Municipal Government Act.

It will be necessary to review and amend the Municipal Development Plan from time to time. Unanticipated growth and/or changes in the economic base of the Town may require a revision of policies and strategies. Such review should acknowledge the basic goals and objectives of the Plan as they relate to the future development of the town and should occur at five year intervals.

5 Year Age Groups	2006		2011		2016		2021		2026	
	Male	Female								
0 to 4 years;	65	50	66	61	75	69	82	76	84	78
5 to 9 years	65	70	74	57	75	69	85	79	94	87
10 to 14 years	80	75	73	79	83	64	84	78	96	89
15 to 19 years	85	85	89	84	81	88	93	72	94	87
20 to 24 years	60	50	62	63	65	62	59	65	68	53
25 to 29 years	40	40	68	57	71	72	74	71	68	75
30 to 34 years	45	55	42	42	72	61	75	76	78	75
35 to 39 years	35	40	48	58	45	45	76	64	79	81
40 to 44 years	70	70	37	4	50	62	47	48	80	68
45 to 49 years	70	75	73	75	39	45	52	66	49	51
50 to 54 years	55	45	69	76	72	76	38	46	52	67
55 to 59 years	45	45	55	45	69	77	72	76	38	46
60 to 64 years	30	35	49	49	59	49	75	83	78	82
65 to 69 years	30	35	32	38	53	53	64	53	81	90
70+	95	155	83	134	78	123	94	130	113	134
Total Male/Female	870	925	921	961	987	1015	1071	1083	1152	1163
Overall Total	1790		1882		2002		2155		2315	
5 yr % Increase	4.4%		5.1%		6.4%		7.6%		7.5%	

Appendix I : Bow Island Population Projections 2006 - 2051

5 Year Age Groups	2031		2036		2041		2046		2051	
	Male	Female								
0 to 4 years;	85	79	89	82	96	89	105	96	111	103
5 to 9 years	96	89	97	90	101	94	110	102	119	111
10 to 14 years	105	98	108	100	109	101	113	105	123	114
15 to 19 years	107	99	117	110	120	112	122	114	127	118
20 to 24 years	68	65	78	73	86	81	88	83	89	84
25 to 29 years	77	61	78	74	89	84	98	93	100	95
30 to 34 years	71	79	82	65	82	78	94	89	103	98
35 to 39 years	83	80	76	84	86	68	87	83	99	94
40 to 44 years	83	86	87	85	79	89	91	73	92	88
45 to 49 years	84	73	87	91	91	90	83	95	95	78
50 to 54 years	49	52	83	74	86	93	90	92	82	96
55 to 59 years	51	67	48	52	83	74	85	93	90	92
60 to 64 years	41	50	56	73	53	56	90	80	93	101
65 to 69 years	85	89	44	54	60	79	57	61	97	87
70+	140	171	159	195	134	178	134	190	130	181
Total Male/Female	1226	1237	1289	1301	1356	1367	1445	1448	1550	1540
Overall Total	2463		2590		2723		2894		3089	
5 yr % Increase	6.4%		5.1%		5.2%		6.3%		6.8%	