

**Pembina River Integrated Watershed Management Plan**

**Review of  
Planning District Development Plans  
in the  
Pembina River Watershed**

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## Introduction

In Manitoba, *The Planning Act* empowers each municipality to create a plan for future development. In some cases, two or more municipalities and urban centres have formed Planning Districts in order to plan on a larger scale. Development plans provide for the orderly use of land resources, and suitable zoning of land. Within the Pembina River Watershed there are ten municipalities and a total of eight development plans. Figure 1. outlines the boundaries of these various planning districts. An integrated watershed management plan has been initiated by the ten municipalities and three conservation districts in the watershed. An integrated watershed management plan must consider and consult with the local planning districts to ensure coordinated and harmonized planning, especially in the areas of water management.

Planning District development plans are lengthy documents that address a wide range of planning concerns in rural municipalities and communities (i.e. residential, commercial, industrial development, agriculture, infrastructure, land zoning etc). In an effort to better understand how the eight development plans relate to the Pembina river watershed, relevant excerpts of all eight plans have been summarized in this document. A process of reading through every plan was conducted. Whenever any reference was made towards water use, conservation, and protection it was copied into this document. This summary will provide the reader with all relevant water related policies and plans from various development plans within the watershed. This document is not intended for complete, clear and thorough understanding of development plans, but merely provides a condensed reference document for the creation of an integrated watershed management plan.

In summary, there is a clear interest in all the planning districts in protecting groundwater resources. Groundwater is commonly seen as a valuable local resource which, once exploited, polluted, or altered will negatively affect health and future development within the region. This is especially true if residents rely on groundwater for drinking.

The zoning of livestock operations is addressed in nearly all development plans. It is well recognized that intensive livestock operations can have a negative impact on surrounding water and air quality. Some plans make provisions to have livestock operations restricted within a certain distance from communities and waterbodies. Some make reference to required sewage holding facilities.

Many other water related restrictions are outlined in each development plan. Special provisions are often made around communities and sensitive areas. These factors should be carefully considered in drafting an integrated watershed management plan.



Figure 1. Planning District boundaries in the Pembina River Watershed.

**The Killarney Area Planning District  
Development Plan  
By-law No. 2-1983**

**ISSUE # 2**  
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1. WATER TREATMENT AND DISTRIBUTION SYSTEMS

(a) Algae in the lake can cause severe taste and odour problems in the treated water if remedial measures are not implemented in time.

2. STORMWATER HANDLING SYSTEM

(a) Drainage to the lake causes turbidity and briefly increases the organic and bacterial loads on the lake during rainfall events.

**PART III**

**THE RURAL AREA**

**AGRICULTURE**

Issues and Objectives

While supportive of an expanding livestock industry, the Board also wishes to offer protection to existing development and the environment. To accomplish that goal, the Board will encourage participating Councils and Councils of adjacent municipalities to establish protected areas around urban centre, recreational areas, and shorelines of specific lakes. The Board will also encourage participating Council to consider the effect of livestock operations on ground and surface water resources in the Planning District area; especially in their decisions in approving new or expanding livestock operations.

Policies

(1)

(2)

(3)

(4) The above policy notwithstanding, Livestock Production Operations may have a detrimental effect on adjacent development due to obnoxious odours, pollution of groundwater and noise. Residents of the District shall be protected from such detrimental effects caused by new or expanded operations. Such operations shall be conditional uses. The scale of operation will be regulated under the standards outlined in the zoning by-law.

(4a) To further protect the existing development in and around the Town of Killarney from any detrimental effects from large scale livestock production operations, additional limitations on the development of new livestock operations, or the expansion of same,

will be established in the Zoning By-law especially in protected areas adjacent to the boundaries of the Town of Killarney, Killarney Lake, and the Killarney Golf Course as well as adjacent to the shore of Pelican Lake. Additional limitations will be similarly applied to protect existing development in local urban areas and seasonal recreation areas including those along the shore of Pelican Lake.

(4b) While supportive of provincial guidelines and regulations pertaining to livestock production and manure management, the Board would encourage Council to consider more stringent livestock regulations, where warranted by local conditions, and to establish those requirements in the Zoning By-law.

(7) Upon the introduction of a Conservation District and adoption of a district drainage plan, drainage of water bodies and clearing of Class 4, 5, and 6 land (Canada Land Inventory, Soil Capability for Agriculture rating) should be undertaken only after a development permit has been issued by the District Board.

(8) The District Board shall encourage tree planting programs and the maintenance of permanent grasslands in critical areas. Road rights-of-way and railway rights-of-way (including abandoned) running in an east-west direction would be suitable locations for new tree planting programs.

A development and educational approach should be taken in dealing with the clearing of existing field shelter belts.

## HOLMFIELD

### Issues and Objectives

(1) Some wells in Holmfield exceed the maximum limit for sulfates and nitrates as outlined in the Guidelines for Canadian Drinking Water Quality.

(2) The solid waste disposal ground at Holmfield may be encroaching on an area of pervious overburden, identified as a groundwater pollution hazard area. The separation from any known wells and classification as a non-chemical industrial disposal ground should reduce the possibility of contamination.

### Policies

(1) Although the current water quality situation creates minimal concern, the density of the residences and the proximity of wells to sewage disposal systems warrant a periodic analysis for public health and safety purposes. The wells should be tested annually and the wells with high levels of sulfates and nitrates should be monitored closely.

(2) Due to the potential for groundwater pollution, the solid waste site should not be designated as a disposal ground for liquid wastes from septic tanks or holding tanks, toxic

chemicals, soluble, non-biodegradable materials and agro-chemical containers and that the Provincial Department of Natural Resources either verify the suitability of the present site by approximate soil tests or identify an appropriate alternate site for the disposal grounds.

## NINGA

### Issues and Objectives

(1) Groundwater in the Ninga area is of poor quality, generally high in sodium, sulfates, hardness and iron content. Extensive drilling by the Provincial Water Resources Division has not successfully located a suitable groundwater source within the community boundaries. Due to the limited number of homes in Ninga and the high cost of developing a central water supply system, such a project has been postponed indefinitely.

(2) Soil conditions and the density of residences generally make private septic tanks and fields (currently servicing 60% of the homes) and outdoor privies with surface disposal or sullage pits (20% of the homes) unacceptable.

### Policies

(1) The District Board shall consider the development of a community well at an acceptable water source near the Pembina River some 2.5 miles (4 km) to the south of Ninga, taking advantage of Provincial and Federal cost sharing programs.

(2) In the absence of a central sewage collection and disposal system, further servicing and replacement of any present systems should be by holding tanks and truck hauling to an acceptable disposal location unless otherwise approved for specific sites by the local Public Health Inspector.

## PART IV

### GENERAL AND SPECIAL POLICY AREAS

#### KILLARNEY LAKE AREA

### Issues and Objectives

Killarney Lake and the surrounding area offers a wide range of recreational facilities making it a popular resort. In addition to its recreation opportunities, Killarney Lake serves as the Town's water source and catchment basin for surface water. Hence, the Town's entire livelihood depends largely upon the quality of the water and the general environment of the lake.

(1) The District Board shall consider undertaking a full study of the water quality of Killarney Lake, the source of pollutants and the capability of the lake. For example, agricultural chemicals and livestock wastes through tributary streams.

The District Board shall request that the impact of stormwater drainage to the lake be included in the requested limnological study of the Lake in 1983. A policy of monitoring the spillage into the lake is also suggested for the Town.

(3) The District Board may require as a condition of approving a subdivision the following dedication of land as a public reserve by the owner without compensation:

(a) A parcel of shoreland of such dimensions as may be determined by the approving authority, for the preservation of the shoreline, the control of erosion, the protection of the land retained by the owner against flooding, the prevention of environmental degradation of the shoreline, and public access along the shoreline.

(b) Other land as may be required to provide access to the shoreline reserve.

(4)

(5) In the absence of a central sewage collection and disposal system, further servicing and replacement of any present systems should be by holding tanks and truck hauling to an acceptable disposal location unless otherwise approved for specific sites by the local Public Health Inspector.

## Policies

### PELICAN LAKE

(1) The District Board shall regulate the development of further cottage development along Pelican Lake. Development on lands adjacent to this major recreation area shall not endanger or disrupt the recreation resources of the lake.

(2) The District Board shall stipulate some minimum standards for private roadways in recreational areas as to roadway width, condition, sight visibility and traffic signs as may be required to maintain minimum and reasonable safety requirements.

(3) The existing wells shall be monitored regularly to ensure early detection of unsafe conditions. Also, existing septic fields that break out and cause health hazards should be abandoned in favour of holding tanks and truck disposal to appropriate municipal waste disposal facilities or a central sewage collection and disposal system.

(4) The environmental sensitivity of the area indicates that where concentrations of cottages are developed, private sewage disposal shall be by holding tanks and truck hauling to a safe disposal ground approved by Council or any comparable method.

### KILLARNEY LAKE

(1) The District Board shall not permit any future development using septic fields in this area unless specific approval is granted by the public health inspector.

(2) As indicated for Pelican Lake, existing wells shall

#### A. ENVIRONMENTAL MANAGEMENT

### FISHERIES AND WILDLIFE RESOURCES

#### Issues and Objectives

Fisheries Branch indicated that the fishing potential in the District has deteriorated and is limited by the shallow, eutrophic nature of existing waterbodies, low water levels, limited watershed area, intermittent flows, a lack of flushing, soil erosion and nutrient loading and channelization programs.

It is the objective of the following policies to protect fish habitat and existing fish stocks, maintain sufficient water flows in existing rivers, streams and creeks and enhance the angling opportunity. The major problem affecting wildlife production or maintenance in the District is the disappearing habitat, both upland and wetland. The large blocks of cover which provide the major deer wintering areas are being cleared and the wetlands which provide aquatic furbearers and waterfowl habitat are being altered or drained for agricultural purposes.

It is the objective of the following policies to protect important wildlife habitats, particularly wintering range and maintain and enhance wildlife populations.

#### Policies

The above objectives shall be pursued by means of the following policies:

### FISH HABITAT

(1) The Board shall encourage the protection of fish habitat and existing fish stocks. A buffer strip of natural vegetation 300 feet wide from the ordinary high water mark should be maintained along spawning streams and creeks. Development or maintenance of appropriate vegetative cover along waterways to prevent erosion and siltation, reduce run-off and protect habitat should be encouraged.

(2) Shorelines subject to intensive use and development (cottaging, etc.) should be protected from excessive erosion and organic loading. Activities that discharge pollutants should be restricted in their location and it may be required that precautionary safeguards that mitigate the pollutant be incorporated into the development activity.



(3) Water level increases and provision for the maintenance of normal lake levels on Pelican Lake will be encouraged as will programs designed to increase the flushing of Killarney and Pelican lakes. The maintenance of water flows to maintain fish populations on a yearly basis throughout the plan area should also be encouraged.

(4)

(5) Stream crossings on the Pembina River and Long River will be designed and constructed with consideration for the Department of Natural Resources stream crossing guidelines to minimize damage to fish and fish habitat and assure sport fish spawning movements.

(6) Enrichment of natural waters (organic loading or siltation) as a result of agricultural run-off from all lands shall be discouraged.

#### WILDLIFE HABITAT

(1) Generally the destruction of significant wildlife habitat shall be discouraged, particularly;

(a) wetlands with Canada Land Inventory capability classification for waterfowl of Class 2 should not be drained or filled.

(b) all upland with CLI Ungulate Classification of 2 or 3 should be protected from the removal of woody vegetation.

be monitored regularly to ensure early detection of unsafe conditions. Also, existing septic fields that break out and cause a health hazard should be abandoned in favour of holding tanks and truck disposal to appropriate municipal waste disposal facilities or a central sewage collection and disposal system.

(3) Development on lands adjacent to this major recreation area, where possible, shall not endanger or disrupt the recreational resources of the lake.

#### B. DEVELOPMENT IN HAZARDOUS AREAS, PROTECTION OF GROUNDWATER RESOURCES AND SURFACE WATER MANAGEMENT

##### Issues and Objectives

Groundwater is an important resource for agriculture, residential and other developments. Aquifers should therefore be protected from pollution by regulating those activities which may be detrimental to the groundwater source.

It is the objective of the following policies to: maintain and protect all sources of potable water; to protect the financial investments made in acquiring potable waters; to safeguard

the health and safety of the residents and corporations in the municipality; to protect perched and shallow aquifers from becoming contaminated by septic fields.

Policies

(a) Uses shall not adversely alter, obstruct or increase water flow, flow velocities or flow stages.

(b) All structures and services shall be protected against damage and shall be functional under hazard conditions.

(c) Activities such as dumping, excavation, clearing, cultivation or excessive grazing which would accelerate or promote dangerous erosion or bank instability shall be prohibited.

(d) Natural tree and vegetative cover shall be preserved to reduce erosion.

(4) The Council shall not approve any subdivision, and the Board shall not issue any development permit if, in the opinion of Council in consultation with appropriate authorities, the subdivision, the development or its related activities endanger the potability of the groundwater resources, or if the precautionary measures taken by, or proposed by, the developer do not sufficiently mitigate the risk of polluting the groundwater.

(5) Existing land uses located in groundwater hazard zones should be monitored for activities and practises which may threaten the groundwater quality. The zoning by-law shall introduce environmental controls in the areas which have been identified as groundwater hazard areas.

(6) The Planning District needs some joint planning and implementing of land drainage and control works, supported by by-laws that retain individual rights and freedoms but within such limitations as to protect the rights of other property owners who might be affected by the undertaking of drainage and control works.

**The Louise Planning District  
Development Plan  
By-law # 1-91**

**ISSUE # 2**  
December 11, 2003

**POLICIES FOR AGRICULTURAL AREAS**

While agriculture is the dominant land use in Louise, there are a number of areas which are conducive to specialized types of agriculture such as livestock production and mixed farming. These areas are primarily adjacent to the Pembina River and its tributaries. Specific sites within these areas may also possess the features and amenities which are attractive to other types of development, such as recreational development.

*Policy 2.4  
Priority  
Of Use*                      *In order to avoid potential land use conflict the following priorities and guidelines will be used to determine the future use of the lands adjoining the Pembina River and its tributaries:*

- a) The primary use for lands along the Pembina River Valley and its tributaries shall generally be agriculture with particular emphasis on livestock; and*

*Policy 2.12  
Wildlife  
Areas*                      *Council shall encourage the preservation of wildlife habitat areas on land which, due to poor soil quality, excessive slope or other reasons, is not suitable for agricultural production. These areas shall, where possible, be linked by way of undeveloped road allowances to form an integrated wildlife habitat system.*

*Policy 2.14  
Pembina  
River*                      *Council shall encourage the protection of the natural character of the Pembina River.*

Most of the population of the Louise District depends on groundwater as their main water supply. It is essential that this resource be protected from overuse and from pollution.

*Policy 2.16  
Groundwater  
Protection*                      *The use of any groundwater supply and the development of land overlying an aquifer shall be subject to the following criteria:*

- a) *intensive development and high capacity wells should be permitted only in areas where they will not cause a reduction in water supply for existing users;*
- b) *groundwater consumption should not exceed the total sustained yield of an aquifer;*
- c) *wells should be installed in a manner that will not have a detrimental effect on aquifers;*
- d) *activities that may cause pollution under normal operating conditions or by accident should not be permitted in groundwater pollution hazard areas unless it can be proven by adequate field investigation that the proposed activities will not cause pollution of existing or potential groundwater supply in the area.*

Surface water systems provide the benefits of good drainage for agricultural areas, a water supply for Pilot Mound and the focus of an important natural and wildlife system along the Pembina Valley. However, surface runoff can also lead to costs in terms of erosion and flood damage. The use and development of land should provide for the protection of an effective drainage system, minimize property damage from flooding, erosion or landslides.

*Policy 2.17  
Surface  
Water*

*The use and development of land near a drain, creek, river or body of water shall be subject to the following criteria:*

- a) *only agricultural uses (excluding buildings) or open space recreational uses shall be permitted in flood prone areas unless the flooding has been adequately protected against;*
- b) *development shall not be permitted on land subject to bank instability, landslides or subsidence;*
- c) *dumping, excavating, clearing, cultivating or excessive grazing shall not be permitted in areas where such activity would accelerate or promote dangerous erosion or bank instability;*
- d) *uses which may cause water pollution in any drain, creek, river or body of water shall be restricted or prohibited as necessary to protect the surface water system.*

*Policy 2.18  
Water  
Retention*

*Council supports the concept of surface water retention and encourages the Pembina Valley Conservation District and any other conservation organizations to undertake such works as necessary to assist in the retention of surface water in the upper water shed areas.*

Shelterbelts and other tree cover provide a number of benefits to the District. They hold the soil and prevent erosion from wind or water. They trap snow and slow spring melting so that more water is added to the groundwater supply. They provide habitat for a variety of wildlife as shelterbelts or on slopes and marginal land. Tree cover should be protected.

*Policy 2.19  
Tree  
Cover*

*Council shall encourage the development and protection of shelterbelts and the preservation of tree cover on slopes, marginal land and any other areas that are not suitable for agricultural uses.*

*Policy 2.20  
Wetland  
Protection*

*Wetlands provide habitat for wildlife and can be an important part of the local drainage pattern. Wetlands should be protected and should be drained only when there is a clear benefit and only when the environmental impact is clearly understood.*

Conservation of soil and water through effective planned management is essential to the District to maintain the existing quality of these resources.

*Policy 2.21  
Soil and  
Water  
Conservation*

*Council supports the conservation of soil and water resources and where possible shall:*

- a) support the efforts of the Pembina Valley Conservation District; and*
- b) encourage conservation practices through public awareness.*

**Sewer & Water**

Building community water and sewer services and extending those services to all areas of Pilot Mound is important. But it is equally important to

maintain these services and ensure that they continue to be effective and meet the needs of the community in an economical manner. A recent engineering evaluation shows that the supply, treatment and distribution of water and the collection and treatment of sewage are effective. It pointed out only two potential areas of concern.

- 1.
2. The capacity of the sewage lagoon may be too small for the sewage being pumped into it.

Crystal City has a community sewer system but no water. Groundwater supplies are generally adequate although the water quality varies. While a treated, piped community water supply may be desirable, cost estimates are prohibitively high. The sewage collection system operates effectively but the lagoon may not be large enough to handle the demand. The intent of these policies is to ensure proper servicing of new development and the upgrading and maintenance of existing services.

Crystal City depends on groundwater as the principal water supply for the community therefore it is important to preserve the quality and the quantity of that water supply.

*Policy 3.28 Groundwater supplies used by the residents and Groundwater businesses of Crystal City shall be protected:*

- a) *by ensuring that the total consumption for business or personal use does not exceed the recharge capacity of the groundwater system; and*
- b) *by restricting activities that may cause groundwater pollution under normal operating conditions or by accidental spills or discharge.*

**The South Central Planning District  
Development Plan  
By-law No. 3-2003**

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Water resources, both surface and groundwater, are expected to play an important role in the Planning District for potable water and irrigation. All communities and rural residents of the Planning District rely upon groundwater wells for their potable water supply.

**Water resource long-term sustainability** within the Planning District, is one of the keys to community aspirations, health and economic diversification. The Development Plan includes objectives and policies to protect water quality and quantity, in support of the South Central Planning District guiding objectives.

## **2 Shaping the South Central Planning District**

### **2.2 General Objectives**

- .1 This Plan will create clear directions for the diversification of agriculture and management of livestock production, by addressing concerns associated with environmental protection, odours, manure storage and application to fields, separation distances from residences, designated communities and environmental sensitivity areas.
- .6 This Plan protects the natural groundwater and surface water resources and the environment within the Planning District for the continued well being of the area residents.
- .7 This Plan promotes 'sustainable' uses of the renewable and non-renewable resources to ensure that future residents enjoy the same quality of life as present citizens.
- .8 This Plan will preserve, connect, and enhance natural areas in recognition of their value for eco-tourism, agriculture, health and recreation, by promoting partnerships with private landowners, conservation districts and the community, to improve District economic development and opportunities to enhance the quality of environmental well-being enjoyed by residents.

#### **2.3.3 Hazardous Uses**

- .1 Facilities or developments, which manufacture, handle, store or distribute hazardous materials, will be governed by the following:
  - (a) Where new development or expansion of a potentially hazardous use is proposed, information may be required relating to the nature of any potential discharges into the air, soil or water; the nature of outside storage

### **2.3.4 Natural Areas & Environmental Conservation**

**Strong communities and a competitive agricultural economy need a healthy environment. Clean air, soil, surface water, groundwater and natural eco-systems underlie the health and well-being of a community and attract people to work and invest in the District. Planning for the future development of the South Central Planning District will involve protecting and enhancing the natural environment as one of the aims of good stewardship and community building.**

**The District Planning Board recognizes the natural environment is complex. It does not recognize municipal boundaries and there are varying limits to the stress of human activity it can absorb.**

.3 Identify and protect significant natural areas and sensitive environmental areas where human activities may create potential to stress the environment, by managing these activities as conditional uses in the municipal zoning by-laws.

.4 Although there is a desire to provide for conservation areas, there is also a concern that these areas should be balanced with agricultural interests, particularly with regard to the potential loss of land for agricultural activities. Therefore, where privately initiated habitat conservation land leases, or land transfers are proposed for consideration to Manitoba Conservation, the Department will be encouraged to consult with the District Municipalities affected prior to approving the designation of a private habitat conservation area.

.5 Encourage implementation and inter-municipal cooperation in application of environmental protection measures in association with the region's Conservation Districts.

.6 Public access to natural areas and wildlife and fisheries habitat will be encouraged, where feasible, to foster appreciation for and enjoyment of nature, but such access should not lead to levels of activity which will exceed the capability of the area to sustain the environment and ecosystem integrity. In cases where private lands are involved, access to these areas will be subject to the approval of landowners.

### **2.3.5 Hazard Lands, Flooding & Erosion**

.1 Developments subject to the policies in this section will generally be directed away from hazard areas illustrated in the District Reference Map#4: Drainage & Flood Risk and Treherne Reference Map #5: Treherne Slope Management Area. Hazard lands include the following:

- (a) Lands subject to water erosion, including all lands which would, within a 50 year period, be eroded or become unstable due to the action of water contained in an adjacent waterway or water body.



.2 Land assessed as having high risk of soil erosion due to slope and soil type will be encouraged to employ soil management and agricultural practices which minimize the risk of impacts of erosion and impacts upon surface water.

Developments should, however, be carefully controlled and planned to ensure that they are compatible with the risks or that the hazard has been eliminated or protected against. In these instances, the following criteria should be applied:

- (a) Proposed developments should not obstruct, increase or otherwise adversely alter water and flood flows and velocities;
- (b) There should be no added risk to life, health or personal safety;
- (c) Structures and services must be protected against flood damage and should be fully functional during hazard conditions;
- (d) Activities which alter existing slopes and may accelerate or promote erosion or bank instability should be prohibited, unless appropriate mitigation measures are taken to minimize the potential of such erosion or bank instability; and
- (e) Existing tree and vegetation cover should be preserved where appropriate to reduce erosion and maintain bank stability.

### **2.3.7 Water & Shore Land**

.1 Developments will be encouraged in a manner, which ensures that waterways, water bodies, shore land areas and groundwater resources are sustained. Development proposals, which in the opinion of the Planning District Board, may impact upon water ways or water bodies will be referred to the Department of Water Stewardship for review and advice prior to approval.

.3 Waterways, water bodies and shore lands in the Planning District may require protection to limit impacts of development. This may be achieved through site-specific planning programs and cooperation with Federal, Provincial or regional programs. The extent of protection required will be directly related to the characteristics of the local situation. The size and configuration of the waterway, water body or shore land; the need for public access; environmental characteristics; and economic potential will all have a bearing on the method of protection adopted. In order to provide protection, shore land reserves may be created.

.4 In the case of development proposals, which require significant volumes of surface water and/or groundwater, including irrigation projects, the proponent will be required to investigate the need for a Provincial Water Rights License. Development approval may be withheld until such time as a license is issued.

.5 The use of best management practices for agricultural enterprises, particularly with regard to manure management and chemical applications, shall be encouraged in order to minimize risks to groundwater and surface water.

.6 The preferred locations for major development or activities that may cause pollution under normal operating conditions or by accident are outside sensitive environmental areas as defined by locations displaying soil characteristics associated with high risks of groundwater impacts and slope conditions where erosion risks have the high potential of surface water impacts.

.12 Municipal road allowances should be maintained for public access. Any proposals for clearing, cultivation or cropping of unimproved road allowances shall be subject to review and approval by the Municipal Council.

### **3.3.2 Agriculture**

.5 Agricultural operations that involve the field application of organic or synthetic fertilizers to land will be guided by the policies under Sub-section 3.3.5 Nutrient Management Areas. Policies for the Nutrient Management Areas endeavour to protect soil, surface and ground water resources within the District from environmental degradation.

### **3.3.3 Livestock Production**

.1 Proponents and operators of intensive livestock production operations will be required to develop facilities and conduct their operations in a manner which reduces the production of offensive odours and the potential for pollution of soils, groundwater and surface water. Reference Map #9 illustrates the type and location of livestock operations within the Planning District.

.3 The purpose of the nutrient management standards is to ensure the Planning District's land use decisions and agricultural operating practices regulated by the province are co-ordinated. The objective of this co-ordination is to ensure the capabilities of the various soil groups to utilize nutrients can be sustained without risk of leaching, surface runoff or of degrading of soils, ground and surface water quality within the Planning District and neighbouring areas. Implementation of this policy will be guided by Sub-Section 5.2.2.

### **3.3.5 Nutrient Management Areas**

**Sustainable agricultural practices place increasing responsibilities upon farmers and municipal councils to address public concerns over farm management & environmental protection. Farmers are asked to assume more responsibilities including public relations for neighbour acceptance and understanding of operations and more direct responsibility for environmental stewardship. Much of the community's concerns over farm management relate to limited public information on how best practices will be specifically applied to local conditions.**

.1 Development Plan Reference Map #10, entitled Soil Nutrient Management Areas, identifies the location of nutrient management groups associated with the various soil resources within the Planning District. The nutrient management groups reflect

the capacity of different soil characteristics to sustain agricultural activity and assess the risk of nutrient loss to leaching or surface run off.

- .2 Reference Map #10 will guide development and use of environmentally sustainable nutrient management standards for District agriculture and rural development. The nutrient management standards will be based upon the determination of the maximum annual nitrogen application rates determined by crop uptake potential and leaching risk based on season of application and soil properties.
- .5 To work co-operatively with the Department of Water Stewardship to maintain intensive livestock operations involving the storage and application of manure and chemical nutrients within the Nutrient Management Soil Groups designated in the Planning District. Monitoring may require annual assessment of residual nutrient levels in the soil, ground and local surface water by a qualified professional recognized by the Department of Water Stewardship, demonstrating:

The development and on-going operation of activities associated with the land use will not pose a risk or cause pollution of the soil, surface water or groundwater resources; and

  - a) The precautionary measures which are required to be taken to sufficiently mitigate the potential risks of endangering soil, surface and groundwater quality resources.
- .6 The District Board will seek technical input from the Province of Manitoba to prepare Nutrient Management Standards, under Section 5.2 Implementation, specifying nutrient management standards which address the application rates, schedule, season of application, crop nutrient requirements and monitoring programs for livestock and agricultural operations within the District's designated Nutrient Management Groupings.

## **Implementation**

### **5.1.13 Special Studies**

Proponents may be required to undertake and submit special studies as part of the approval process for certain types of development proposals. Engineering or other professional studies may be required including traffic studies to determine impacts upon the District's road and highway system, to assess development of intensive livestock operations, for lands affected by flooding hazards, endangered species, heritage resources, potential for ground and surface water pollution, and general risk to health and the environment.

### **5.2.2 Nutrient Management Standards**

**Nutrient Management Standards** – providing guidelines for rural development and agriculture operations within the Planning District's Nutrient Management Soil Groups.

## **Policies**

- .1 Initiate the development of Nutrient Management Standards for the Planning District based upon Manitoba Department of Agriculture, Food and Rural Initiatives research, soil characterization and detailed mapping of the District's soil characteristics.
- .2 Seek input from The Department of Water Stewardship, the District's Conservation Authorities and area stakeholders in the application of Nutrient Management Standards to rural land use decision making.
- .3 Under the technical guidance of Manitoba Agriculture, Food and Rural Initiatives and Manitoba Conservation use the guidelines to promote best agricultural practices and sustainable rural development in the protection, maintenance and/or conservation of soil, surface and ground water resources within the Planning District.
- .4 The Nutrient Management Standards will provide direction regarding:
  - a) The capabilities of the various soil groups to sustain the application of nutrients without risk of leaching or surface runoff which may have the impact of degrading soils, ground and surface water quality within the District and neighbouring areas.
  - b) specifying nutrient management standards for application rates, season of application, crop nutrient requirements and monitoring programs for livestock and agricultural operations within each of the nutrient management soil groups ;
  - c) Identifying nutrient management standards respecting rural land use and development of private residential and non-residential waste disposal systems within each of the nutrient management soil groups; and
  - d) Identifying the requirements and make recommendations on how nutrient management standards developed with input from Manitoba Agriculture, Food and Rural Initiatives; Department of Conservation and Department of Water Stewardship may be integrated with land use planning decision processes by the Planning District and Municipalities.

**The Roblin-Cartwright Planning District  
Development Plan  
By-law # 23/2002**

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**1.3.4 Natural Resources**

Rock Lake, Louise Lake and Lorne Lake fall partially within the boundaries of the Roblin-Cartwright Planning District. There is significant recreational and habitat capability at these lakes. Various forested areas exist along the lakeshores and streams in the planning district and some grassland and wetlands are found throughout the RM. In places, groundwater resources in the district may be prone to negative environmental impact from activities such as irrigation and other agricultural activities.

**2.2 GENERAL OBJECTIVES**

**2.2.1** To preserve and manage the natural resources of the municipality, including water, wildlife, gravel and natural treed areas in a way that provides the greatest benefit to present and future residents.

**2.2.2** To promote wise use of renewable and non-renewable resources including aggregates, minerals, forests, soils and water.

**2.3.1.3** The Board and Councils shall continue to ensure that, where feasible, a safe municipal potable water supply is available.

**2.3.1.4** The Board and Councils shall ensure that wastewater and solid waste disposal facilities are sited and/or maintained in such a way that the impact on surrounding uses is minimal, and that these facilities meet provincial regulations.

**2.3.2 Hazardous Uses**

(b) where new development of a potentially hazardous use is proposed, information may be required relating to the nature of any potential discharges into the air, soil or water; the nature of outside storage requirements; the compatibility of surrounding land uses; and plans for buffering such activities from adjacent uses.

**2.3.3.2** The R.M. of Roblin shall encourage the retention of tree cover as wildlife habitat areas on unused road allowances, lands which have a low capability for agricultural production and sloped areas which are unsuitable for agriculture.

## **2.3.4 Hazard Lands, Flooding & Erosion**

**2.3.4.1** Development will generally be directed away from hazard areas. Hazard lands include the following:

(b) lands subject to water erosion – all lands which would, within a 50 year period, be eroded or become unstable due to the action of water contained in an adjacent waterway or waterbody;

**2.3.4.2** Land subject to significant flooding, erosion or bank instability should be left in its natural state or only developed for low intensity uses such as open space recreation, grazing, cropping, forestry and wildlife habitat.

**2.3.4.3** Consistent with Policy 2.3.4.2 above, any development to be permitted on or near hazard lands shall:

(a) maintain the natural capability of waterways to convey flood flows; and

**2.3.4.4** For waterways where flood level or erosion information is not available, the following policies shall be implemented:

development shall generally not be permitted within the meander belt of the waterway; and

**2.3.4.5** Development proposals that are potential sources of pollutants shall provide for safeguarding hazard areas susceptible to surface and groundwater pollution. These include intensive livestock production operations, lagoons, waste disposal grounds, septic systems, commercial and chemical fertilizer storage facilities, fuel tanks and similar uses.

## **2.3.5 Waterways and Groundwater**

**2.3.5.1** Development will be encouraged in a manner, which ensures that waterways and groundwater resources are sustained.

**2.3.5.2** The Board shall encourage the retention of wildlife habitat and the preservation of native vegetation in the form of natural treed areas or uncleared land or along creeks, drains, unused road allowances or other areas which are not suitable for agriculture or which may create more benefit when left in a natural state.

**2.3.5.4** Development or activities that may cause pollution under normal operating conditions or by accident will be directed away from groundwater sensitivity areas. Where this is not feasible or practical, development or

activities, which could cause pollution, may be considered in groundwater sensitivity areas provided:

- (a) the proponent can prove by adequate engineering or hydro-geological investigation that the proposed activity will not cause pollution of the groundwater supply; or,
- (b) appropriate precautionary measures have been or will be taken to sufficiently mitigate the risk of endangering the quality of the water supply for domestic potable water supply purposes.

### **3.3 POLICIES FOR AGRICULTURAL AREAS**

#### **3.3.1 Agriculture**

**3.3.1.1** Activities in the General and the Restricted Agricultural Areas must be cognizant of the natural environment and the built human environment. Although agriculture is the dominant land use in the R.M. of Roblin, steps should be taken to ensure that other important areas are protected from potentially harmful agricultural activities (i.e. settlement centres and watercourses).

#### **3.3.2 Livestock**

**3.3.2.1** Proponents, owners and operators of livestock production operations must develop facilities and conduct these operations in a manner which reduces the creation of offensive odours and reduces the potential for pollution of soils, groundwater and surface water.

**3.3.2.2** Livestock production operations must be located where they will be compatible with surrounding land use and where they will not pose a pollution risk to soils, groundwater or surface water. Where necessary, operations must incorporate mitigative measures that ensure there is no risk to the environment.

### **3.4 POLICIES FOR ENVIRONMENTAL AREAS**

The policies in this section are intended to apply to the "environmental" areas of the district where the greatest value comes from their natural amenity. These environmental areas are to be preserved as natural habitat or developed for uses, such as recreation or seasonal residential development, which benefit from the "natural" characteristics of the area.

Map No.1 identifies the environmental areas along the south shore of Rock, Lorne and Louise Lakes. While this is the principal area of application for these policies, the Board is aware of the need to protect all environmentally sensitive areas in the district and preserve wildlife habitat in other parts of the municipality, as described in Policy 2.3.3.3.

### **3.4.1 Lake Improvement and Development**

The lakes are underused but they are a valuable natural resource in the district. They provide habitat to a wide range of fish and wildlife and are a focus for recreation and cottage uses for a population well beyond the boundaries of this district. They are underused primarily because of the lack of fish and the poor water quality caused by algae and weed growth. The Board recognizes those efforts being made to improve the lakes, but efforts must continue and involve other affected municipalities and the Provincial Government.

**3.4.1.1** The Board and the Councils shall work toward protecting the environmental significance, improving the water quality and identifying the recreation potential of the lakes, specifically Rock Lake, by:

- (a) consulting with other municipalities around the lake system;
- (b) co-ordinating land use regulations with other jurisdictions; and
- (c) obtaining assistance from the Provincial and Federal Governments to identify recreation capabilities and water quality improvement options.

**3.4.1.2** Land use around the lakes shall be regulated in a manner which:

- (a) preserves the natural character of the lakes; and
- (b) ensures a balance between recreational use, cottage development and wildlife that is compatible with this natural character.

### **3.4.2 Seasonal Residential Development**

- (a) all building, structures or accessory uses are setback an adequate distance from the shoreline in order to minimize any potential negative impacts on water quality. These setback distances are outlined in the zoning by-law.

**3.4.2.8** Seasonal residential developments must be capable of accommodating private sewage disposal systems that will not have a negative impact on water quality in the lakes and that conform with the appropriate provincial regulations.



**3.4.2.9** The Board is aware that some seasonal residential properties at Rock Lake are currently being used as year-round residences. The Board will not discourage this practice provided it can be demonstrated that:

- a) year-round use of seasonal residences will not have a greater impact on the natural environment than would be expected with normal seasonal use (ie. sewage disposal, tree cutting, etc); and
- b) municipal service provision such as snow clearing, street lighting and sewer and water service will not exceed that which would be expected with normal seasonal use or which already exists in the area.

**The MSTW Planning District  
Development Plan  
By-law No. 4-05**

**ISSUE # 1**  
January 7, 2008

**2.3 General Policies**

2.3.1 Overall

- (d) A site-specific groundwater pollution hazard appraisal may be required prior to the approval of a proposed new development or expanded facility.
  - (e) Information may be required relating to the nature of any discharges into the air, soil or water; the nature of outside storage requirements; the compatibility of the proposed development or facility expansion with adjacent land uses; and the nature of plans for buffering such activities from adjacent land uses.
- (6) Development or activities that could cause pollution under normal operating conditions may not be permitted in an identified groundwater pollution sensitivity area unless:
- (a) It can be proven by adequate engineering or hydro-geological investigation that the proposed activity will not cause pollution of the groundwater supply; or
  - (b) Appropriate remedial measures have been or will be taken to sufficiently mitigate the risk of endangering the potability of the groundwater supply.

Land subject to significant flooding, erosion or bank instability should be left in its natural state or developed for low intensity uses such as grazing, cropping, forestry, wildlife habitat or open space recreational activities.

- (d) Activities such as dumping, excavation and clearing, which would accelerate or promote damages due to causes such as erosion or bank instability, shall be prohibited.
- (e) Natural tree and vegetative cover shall be preserved to reduce erosion and assist in maintaining bank stability.

2.3.3 Water and Shoreland

A. *Objectives*

- (1) To maintain the natural capacity of waterways and waterbodies to convey flows.

- (2) To preserve and maximize the capability of waterways and waterbodies to be used for a variety of purposes.
- (3) To maintain and protect all sources of quality water to meet domestic supply and public health requirements.
- (4) To maintain and protect key shorelands and waterbodies to meet recreation, erosion protection and water table retention requirements.
- (5) To ensure the viability of critical environments for local flora and fauna.

*B. Policies*

- (1) Land shall be developed in a manner which ensures that waterways, waterbodies, groundwater and shoreland areas are sustained. The Planning District Board or the member Municipal Council in the Planning District may consult with appropriate Provincial government agencies in this regard.
- (2) Identification of waterways, waterbodies, groundwater and shorelands requiring protection will be achieved through ecological programs at the Deerwood Soil and Water Management Association as well as the Provincial, Planning District and Municipal levels. The extent of protection required will be directly related to the characteristics of the local situation. The size and configuration of the waterway, waterbody, shoreland or groundwater, the need for public access, erosion rate, the recreation potential and related criteria will all have a bearing on the mode of protection adopted. Minimum setback regulations or shoreland reserves may be created to protect shoreland, waterways, or waterbodies and their function as a recreational or domestic water supply resource. Public acquisition may also occur by direct purchase, dedication through the subdivision approval process, easement, lease or a combination thereof.
- (3) Development shall occur in a manner that protects and sustains the yield and quality of water from Lake Minnewasta, the Winkler Aquifer, Miami Aquifer, Massey Aquifer and other significant aquifers throughout the Planning District. Development proposals that could potentially endanger the quality of domestic water supply resources shall not be approved unless the development proponent incorporates mitigating measures that either eliminates the risk or reduces it to acceptable levels.
- (4) Public access to water and shoreland areas as well as the TransCanada Trail shall be encouraged for their recreational value and to foster appreciation for and enjoyment of nature, but such access shall not lead to levels of activity that will exceed the capability of the area to sustain the ecosystem and fulfill its role as a recreational or domestic water supply resource.
- (5) Groundwater pollution hazard areas identified by the Province shall be taken into account when reviewing development proposals. For sites where there is a potential for groundwater pollution, the proposed development shall not be approved unless the development proponent incorporates mitigating measures that either eliminates the risk or reduces it to acceptable levels.

- (6) The preservation and rehabilitation of native vegetation will be encouraged in sensitive environmental areas such as the shorelines of lakes, rivers, creeks and streams in order to stabilize banks, filter run-off and to promote surface water quality.
- 7) In the case of development proposals which require significant volumes of surface water and/or groundwater, the proponent shall be required to investigate the need for a *Water Rights License*. Development approval shall be withheld until such time as the need for a *Water Rights License* has been finalized.
- (8) Stream alterations shall not be undertaken without the approval of Manitoba Water Stewardship and the Department of Fisheries & Oceans.
- (9) Any proposed development adjacent to fisheries habitats, spawning sites and fish nursery areas shall conform to the following development criteria:
  - (a) Measures shall be put in place to limit nutrient and sediment inflow.
  - (b) The construction of dykes is preferred to channel deepening and straightening.
  - (c) Land shall not be cleared, cultivated or developed to the water's edge of creeks, streams and lakes.
  - (d) Organic loading or siltation from agricultural run-off shall be prohibited.
  - (e) Any approval requirements shall be obtained from applicable Provincial or Federal government departments.

#### **4.3 Policies**

- (9) The surface water quality in the area shall be protected by adherence to the guidelines of the Manitoba Water Quality Standards, Objectives and Guidelines.

**The Morton Boissevain Planning District  
Development Plan  
By-law No. 88-01**

**ISSUE # 1**  
March 23, 2004

II. RURAL AREA

OBJECTIVES

SUPPORTING

The supporting objectives of rural development are:

- a) To support the conservation activities of the Turtle Mountain Conservation District.
- b) To avoid natural hazards such as may be created by flooding and bank instability.
- c) To discourage practices which lead to soil erosion and pollution of soil, water or air.

POLICIES

- a) Development shall not be permitted if, as a result of the development
  - i)
  - ii) water flow, flow velocities or flood stages are adversely altered, obstructed or increased.
- g) Activities such as dumping, excavation, cultivation, or excessive grazing which would accelerate or promote erosion or bank instability shall be discouraged.

***Water Resources***

The groundwater supply in the Morton – Boissevain Planning District varies greatly in both quantity and quality from place to place. Shallow aquifers occur that may be susceptible to pollution. Surface water quality must be maintained for many different users.

POLICIES

- a) Intensive development involving large water consumption and high capacity wells shall be permitted only in areas where they will not cause a reduction in water supply for existing users.

- b) Activities that may cause pollution under normal operating conditions or by accident should not be permitted in areas susceptible to groundwater pollution unless it can be proven through field investigation that the proposed activities will not cause pollution of existing or potential groundwater supplies in the area.
- c) Only developments that fulfil the Manitoba Surface Water Quality Objectives, as verified by the Environmental Control Branch of the Provincial Government, may be considered for approval.

### ***Agricultural Area***

The local economy is based on agriculture and it is important to maintain its long-term viability.

#### b) Agricultural Categories

- i) Livestock Production Operations above a minimum number of Livestock Waste Units, shall be dealt with as Conditional Uses in the R.M. Zoning By-law with approval being based on requirements relating to:
  - A) land requirements for manure disposal
  - B) setback from waterways and residences
  - C) livestock waste units per acre.

#### a) Drainage

Permits are required under the Provincial Water Rights Act for certain categories of drainage activities. Local concerns must be taken into consideration to ensure that private drainage does not adversely affect other properties, municipal drains – which have been installed at considerable public expense – or the productivity of agricultural lands. Local decisions will be based on the following:

- i) is the area to be drained a permanent wetland?
- ii) how deep is the proposed drain?
- iii) will the drain intercept the water table?
- iv) what are the side slopes of the drain?
- v) will the outflow be controlled?
- vi) where does the drain exit and who owns and maintains the receiving watercourse?
- vii) are lands adjacent to the receiving watercourse subject to erosion?

- viii) have all landowners who may be affected by the drain been notified and given their approval?
- ix) recommendations of the Turtle Mountain Conservation District.
- x) a Public Hearing may be called.

b) Tree Clearing

Tree clearing will require a development permit from the Planning District Board with approval based on the following criteria:

- i) that a suitable buffer of vegetation is maintained along streams and water bodies;
- ii) that land with a degree and length of slope as specified in the R.M. of Morton Zoning By-law shall be maintained under tree cover; and
- iii) that only C.L.I. Class 1 – 4 agricultural lands may be cleared; and
- iv) that the recommendations of the Turtle Mountain Conservation District be followed:

c) Turtle Mountain Conservation District

The Turtle Mountain Conservation District has been furthering conservation in the area under various names since 1965. Its programs: shelter belt, drain reconstruction and seeding, forage crops, slough consolidation, dams and education have had a large positive impact on the conservation of natural resources in the District. The Morton-Boissevain Planning District recognizes the importance of the conservation measures undertaken by the Turtle Mountain Conservation District and establishes the following policies in support of conservation within the area:

- i) All development applications that may have a negative impact on natural resources shall be referred to the Conservation District Board.
- ii) All subdivision applications shall be reviewed by the Conservation District Board.
- iii) The recommendations of the Turtle Mountain Conservation District Board shall form the basis for the approval of tree clearing permits and for local decisions on permits under the Manitoba Water Rights Act.
- iv) All Conditional Use Applications shall be referred to the Conservation District Board for their recommendations.
- v) The Morton-Boissevain Planning District Board and the Councils of Boissevain and Morton support the programs of the Turtle Mountain Conservation District and will co-ordinate their

- vi) The following areas, mentioned in the Turtle Mountain Conservation District Management Plan as requiring conservation, should be protected from intensive uses which may degrade the natural resource:
  - A) Turtle Mountain Escarpment
  - B) Whitewater Lake and environs.

### AGRICULTURAL AREAS

- (1) To preserve natural water catchment areas that should not be developed because of their importance to the drainage system of the Town and surrounding areas.

### MUNICIPAL SERVICES AND TRANSPORTATION

#### Objectives

- (1) To ensure that the quality and quantity of community water supply is maintained and that the disposal of all sewage and solid waste is done in a safe, efficient and economical manner.

#### Policies

- i) provide for surface drainage and ensure that the existing system will not be adversely affected by new flows; and



**The Pembina Manitou Planning District  
Development Plan  
By-law No. 1-2003**

**ISSUE # 2**  
December 1, 2008

**Part 2: Shaping the Pembina Manitou Planning District**

**2.1 Introduction**

**2.2 District Objectives**

- .13 This Plan protects the natural groundwater, surface water resources, Mary Jane reservoir and the environment within the Planning District for the continued well being of the area residents.

**2.3.3 Hazardous Uses**

.1

- (c) Where new development or expansion of a potentially hazardous use is proposed, information may be required relating to the nature of any potential discharges into the air, soil or water; the nature of outside storage requirements; the compatibility of surrounding land uses; and plans for buffering such activities from adjacent uses.

**2.3.4 Natural Areas & Environmental Conservation**

- .5 Applications of environmental protection measures, as outlined in the Pembina Valley Conservation District Management Plan shall be encouraged.

**2.3.6 Hazard Lands, Flooding and Erosion**

- .1 Non-farm and confined livestock developments will generally be directed away from hazard areas. Hazard lands include the following:

- (a) The immediate area surrounding the Mary Jane Reservoir, the Town of Manitou's water supply source;

- .4 It may not be practical or desirable for economic or social reasons to restrict certain development in hazard areas. Developments should, however, be carefully controlled and planned to ensure that they are compatible with the risks or that the hazard has been eliminated or

protected against. In these instances, the following criteria should be applied:

- (a) Proposed developments should not obstruct, increase or otherwise adversely alter water and flood flows and velocities;
- (e) Existing tree and vegetation cover should be preserved where appropriate to reduce erosion and maintain bank stability.

- 8 Livestock operations and manure application in areas defined as high risk for erosion shall be subject to an impact assessment and implementation of measures to reduce livestock farming operations risk upon the environment.

### **2.3.7 Water and Shore Land**

- .1 Developments will be encouraged in a manner, which ensures that waterways, water bodies, shore land areas and groundwater resources are sustained.
- .2 The preservation and reintroduction of native vegetation will be encouraged in sensitive environmental areas, such as along the Pembina Valley slopes, to filter run-off and to maintain the quality of water in these waterways.
- .3 Waterways, water bodies and shore lands in the Planning District may require protection to limit impacts of development. This may be achieved through site-specific planning programs and referred to Manitoba Conservation for review. The extent of protection required will be directly related to the characteristics of the local situation. The size and configuration of the waterway, water body or shore land; the need for public access; environmental characteristics; and economic potential will all have a bearing on the method of protection adopted. In order to provide protection, shore land reserves may be created.
- .5 To use best management practices for agricultural enterprises, particularly with regard to nutrient management in order to minimize risks to groundwater, surface water and the Mary Jane Reservoir serving the Town of Manitou as its drinking water supply.
- .6 The preferred locations for major development or activities that may cause pollution under normal operating conditions or by accident are outside sensitive environmental areas as defined by locations such as the Mary Jane Reservoir, areas displaying soil characteristics associated with high risks of groundwater impacts and slope conditions where erosion risks have the high potential of surface water impacts.

## **Part 3: Rural Policy Areas**

### **3.1 Introduction**

### **3.2 Objectives**

- .6 Regulations should include incentives to encourage environmentally and economically sustainable livestock operations.

### **3.3.2 Agriculture**

- .5 Agricultural operations that involve the field application of organic or synthetic fertilizers to land will be guided by the policies under Sub-section 3.3.5 Nutrient Management Areas. Policies for the Nutrient Management Areas endeavour to protect soil, surface and ground water resources within the District from environmental degradation. Proposals to establish or expand agricultural operations will be guided by the nutrient application rates defined for each of the Nutrient Management Areas.

### **3.3.3 Livestock Operations Policies**

- .2 Proponents, owners and operators of livestock operations will be required to develop facilities and conduct their operations in a manner which reduces the production of offensive odours and reduces the potential for pollution of soils, groundwater and surface water. Reference Map #7: Livestock illustrates the location by type of livestock operations within the Planning District.
- .3 Livestock production operations must be located where they will be compatible with the surrounding land use, where they will not pose a pollution risk to soil, groundwater or surface water, and where they have sufficient land to spread manure. The Development Plan maps illustrate where livestock operations are permitted, permitted up to a specified number of Animal Units and where they are restricted and prohibited.

**The 23 West Planning District  
Development Plan  
By-law No.**

1.7.1 Key Rural Findings

- .1
- .2 75% of soils in the District are considered prime agricultural lands (Canada Land Inventory Classes 1-3), yet only 61% of the rural land base is utilized for crops. Topography and excess water are the main limitations to the agricultural capability of soils, and soil erosion is a serious concern in all municipalities. These differences in land utilization for crops are likely due to soil management considerations that exist due to land variations within the District.
- .3 Groundwater supply (water used for human, domestic and farm consumption is the principal source of potable water in the District. Groundwater supplies are adequate for existing requirements and are capable of sustaining moderate levels of new development. Where a large quantity of high quality groundwater is available, groundwater resource management and protection should be a priority to assure adequate sustainable supplies for existing uses and for potential development.
- .4 The 23 West Planning District is situated in the Assiniboine Basin, major tributaries include the Souris River, Elgin Creek and Oak Creek. Several natural lakes are found in the District. Surface drainage is generally in a north and north-easterly direction through Elgin Creek, Oak Creek and several smaller tributaries to the Souris and Pembina Rivers. The soils are dominantly well drained. Relatively narrow flood plains may exist adjacent to surface water bodies. These areas represent land which is sloped greater than nine percent and therefore has a potential to be flood prone and should not be subject to development unless detailed assessments indicate flood risk is minimal.
- .5
- .6 There are approximately 362 Livestock Operations (LOs) in the Planning District including 33 large size LOs.
- .7
- .8
- .9 All four District Municipalities are members of the Assiniboine Hills Conservation District (ACD). Formation of development plan policies and municipal zoning requirements need to be coordinated with, and be consistent with, conservation principles.

**GENERAL OBJECTIVES AND POLICIES**

## 2.1 Introduction

## 2.2 General Objectives

- .1 To encourage use and development of land and natural resources in a manner that is consistent with the principles and guidelines of sustainable development.
- .2 To recognize that development will increase demand and impact on water supply quality and solid and liquid waste generation, requiring that these issues be considered in the review of development proposals.
- .3 To preserve and protect riparian areas along streams, rivers and lakes.
- .4 To ensure continued public access to public water resources (e.g. streams, rivers and lakes).

### 2.3.5 Natural Areas & Environmental Conservation

- .4 All District Municipalities are members of the Assiniboine Hills Conservation District and coordination of development activities will be encouraged.
- (d) lands adjacent to surface water bodies which have the potential to be flood prone should not be subject to development unless detailed assessments indicate flood risk is minimal. **Appendix “B” Reference Map 9** shows potential flood risk areas within the District.

.2 Land subject to significant flooding, erosion or bank instability should be left in its natural state or only developed for low intensity uses such as cropping, grazing, forestry or open space recreational activities which are generally acceptable within hazard areas. Best management practices for agricultural activities within riparian areas should be adopted. Annual cropping and unmanaged grazing activities can adversely affect riparian areas.

.3 It may not be practical or desirable for economic or social reasons to restrict certain development in sensitive areas. New development should, however, be carefully controlled and planned to ensure that they are compatible with the risks or that the hazard has been eliminated or protected against. In these instances, the following criteria should be applied:

- (a) *proposed developments should not obstruct, increase or otherwise adversely alter water and flood flows and velocities*

(b) *existing tree and vegetation cover should be preserved where appropriate to reduce erosion and maintain bank stability.*

.4 Development proposals in flood plain hazard areas should be referred to Manitoba Water Stewardship for review prior to approval by the Planning District.

### 2.3.7 Water & Shoreland

.1 Development will be encouraged in a manner which ensures that waterways, waterbodies, shoreland areas and groundwater resources are sustained, and that existing uses are not negatively impacted. **Appendix “B” Reference Map 10**, shows groundwater quality in the sand and gravel aquifers within the District. Development or activities that may cause pollution under normal operating conditions or by accident should be discouraged from locating in areas with plentiful and high quality groundwater supplies including potable water sources.

.2 The preservation and reintroduction of native vegetation will be encouraged in sensitive environmental areas, such as along the shorelines of lakes, rivers, creeks and streams in order to stabilize the banks, to filter run-off and to maintain the quality of water in these waterways.

.3 Waterways, waterbodies and shorelands in the Planning District may require protection to limit impacts of development. This may be achieved through local land use planning programs and cooperation with provincial programs. The extent of protection required will be directly related to the characteristics of the local situation. The size and configuration of the waterway, waterbody or shoreland; the need for public access; environmental characteristics; and economic potential will all have a bearing on the method of protection adopted. In order to provide protection, shoreland reserves may be created.

.4 In the case of development proposals which require significant volumes of surface water and/or groundwater, the proponent will be required to investigate the need for a Water Rights License. Development approval may be withheld until such time as a license is issued. Authorization from the Province for any undertaking of drainage work is required under the *Water Rights Act*.

.5 Development or activities that may cause pollution under normal operating conditions or by accident will be directed away from groundwater sensitivity areas. These areas are identified in **Appendix “B” Reference Map 11**. Also shown on this map are the regional solid waste disposal grounds. Where this is not feasible or practical,

development or activities which could cause pollution may be considered in groundwater sensitivity areas provided:

- (a) *it can be proven by adequate engineering or hydro-geological investigation that the proposed activity will not cause pollution of the groundwater supply; and*
- (b) *appropriate precautionary measures have been or will be taken to sufficiently mitigate the risk of endangering the quality of the water supply for domestic potable water supply purposes.*

.6 Any work in or near water that has the potential to harmfully alter, disrupt or destroy fish habitat may require

- (a) review by the Federal Department of Fisheries and Oceans; and
- (b) contact with Manitoba Conservation by a development proponent to ensure their project is in compliance with applicable regulatory requirements.

.7 Riparian areas along streams and adjacent to lakes may be required by the Board or respective Municipal Council to be established as a public reserve on a plan or established by development agreement which can be registered in Land Titles as a caveat on affected titles.

.18 Municipal road allowances should be retained for public access. Any clearing, cultivation or cropping of unimproved road allowances should be approved by the responsible member municipality. Consideration should also be given to leaving undeveloped road allowances in their natural state unless required for road development. These areas provide important wildlife habitat and travel corridors for wildlife.

### **2.3.11 Outdoor Recreational Resources**

- .4 Designated outdoor recreational uses and areas around Pelican and Rock Lakes should be protected from incompatible or potentially incompatible land uses which may threaten the integrity and/or operation of these significant recreational resources.
- .5 Proposed recreational development should not preclude access to and use of natural resources (e.g., lakes and streams).

### **3.3.3 Livestock Operations Policies**

Livestock operations are an important component of the agricultural industry. In some situations, these types of operations may have potentially adverse effects on nearby developments and the local environment, primarily due to factors such as odour, noise, insects and manure storage and handling, which are usually associated with these types of operations. They also need to be carefully planned and located so as to minimize the potential for pollution in groundwater sensitivity areas.

### **5.2.7 Integrated Watershed Management Plans**

*The Planning Act* requires Council to consider the application of any watershed management plan approved under *The Water Protection Act*. The Assiniboine Hills Conservation District has begun the process of preparing integrated watershed management plans for various parts of the District. While the early versions of these management plans have focused on “best management practices”, The Board and Councils are aware such plans relate to land use within the Planning District. Currently all subdivision applications for lands within The 23 West Planning District are circulated on a regular basis to the Conservation District Board for their comments.