# RED DEER RIVER MUNICIPAL USERS GROUP

**LOOKING BACK - MOVING FORWARD 2006 - 2020 2021 - 2025** 

An enduring healthy Red Deer River system with sufficient flows through all seasons to sustain communities, the economy and healthy aquatic environments.



#### INTRODUCTION: WATER IS VITAL

As noted by the United Nations, "Water is at the core of sustainable development and is critical for socio-economic development, energy and food production, healthy ecosystems and for human survival itself." In short, water is vital to life and well-being.

In the same way, water is vital to the well-being and sustainability of municipalities, their residents, businesses and many diverse environmental features. Recognizing that water is the lifeblood of communities, municipalities served by the Red Deer River formed the Red Deer River Municipal Users Group (RDRMUG or MUG) to address the present and future use and conservation of their lifeblood - the Red Deer River. There are 74 rural and urban municipalities located wholly or partly within the Red Deer River watershed. While some of the 74 exclusively

source groundwater, a number of communities not within the watershed are served by regional water systems that extend beyond the boundaries of the watershed. In total, there are 53 municipalities that use the Red Deer River as their water source.

Because municipalities recognize water as a strategically important natural asset, a main intention of the RDRMUG is to advance municipal interests in water. But in doing so, MUG recognizes the needs of other water use sectors and, as such, encourages collaboration among all sectors with respect to the use and conservation of water and the Red Deer River watershed,

Alberta's Water for Life Strategy states: "In Alberta, our quality of life, and life itself, depends on having a healthy and sustainable water supply for the environment, for our communities and for our economic well-being."

# HANDBOOK PURPOSES, PERSPECTIVES AND CONTENT

#### **PURPOSES**

- Serve as an introduction to MUG's interests in water
- Provide water related background information to municipalities and other interested parties
- Guide MUG's activities related to water management priorities
- Encourage collaboration and partnerships among water users and other interest groups.

**PERSPECTIVES**: The handbook has two basic perspectives. The first is to spotlight key municipal interests and roles in the use, conservation and management of water. The second focusses primarily on flowing waters (i.e. the Red Deer River and its tributaries). However, groundwater and standing water (lakes, ponds, wetlands) are not overlooked, being key natural assets important to watershed conservation and source water protection.

**CONTENT:** The first part of this handbook provides an overview of the Red Deer River Municipal Users Group. The second provides an overview of the health of the Red Deer River watershed and the supply, quality and management of water. The third part addresses priority water challenges identified by MUG in 2020.

# RED DEER RIVER MUNICIPAL USERS GROUP

VISION: An enduring healthy Red Deer River system with sufficient flows through all seasons to sustain communities, the economy and healthy aquatic environments.

**FORMATION:** In 2006 municipalities from throughout the Red Deer River watershed began to meet regarding the long-term availability of water to municipalities. Three factors prompted these meetings:

- The 2006 South Saskatchewan Water Management Plan set an allocation limit of 550,000 dam<sup>3</sup> from the Red Deer River (less than expected, being only about 1/3 of its mean volume)
- Interests in new water licences, including a very large licence for agricultural and related uses
- 3. Recognition growing and competing demands for water will continue.

# **PURPOSES:** The purposes of the <u>Red Deer</u> River Municipal Users Group are:

- A forum to discuss water supply, use and quality
- An advocate of municipal interests in the supply, availability, use, delivery and quality of water
- Foster collaboration among stakeholders to achieve desired and common goals to protect, conserve and wisely use water resources
- Undertake studies and reports that encourage the vision, goals and objectives of the RDRMUG to be attained.

Water is the lifeblood of municipalities. It is vital for municipal sustainability, including economic viability, environmental integrity, social well-being and cultural vibrancy.

**Red Deer River Municipal Users Group** 

HOW TO GET THERE: Collaborative partners and stakeholders implementing purposeful, practical plans and policies for integrated watershed management and integrated water management.

**GOALS**: The goals of MUG are those of the *Alberta Water for Life Strategy*:

- Safe secure supply of drinking water for all residents
- Reliable quality water supplies for a sustainable economy
- Healthy aquatic ecosystems.

# **OBJECTIVES:** Some objectives of MUG are:

- Inform and update municipalities on water matters and concerns
- Ensure that reliable clean water supplies are available for a sustainable economy and environment throughout the watershed
- Encourage watershed conservation and source water protection
- Promote the efficient and effective use of water
- Support integrated watershed management planning through the Red Deer River Watershed Alliance
- Promote the integrated management of the waters of the Red Deer River system.

# **MUG'S PRIMARY ROLES**

- Advocate
- Collaborate
- Undertake
- Educate.

#### LOOKING BACK: ACTIONS TO DATE

#### Actions include:

 Encourage municipalities to conserve and effectively use water



- Assist the Red Deer River Watershed Alliance - Red Deer River Watershed Atlas, provide municipal perspectives information for <u>Blueprint Phase 1</u> – <u>Water Quality</u>, make presentations at forums and promoting watershed and water conservation
- Support the interbasin transfer of Red Deer River water to areas as far east as Consort and Acadia Valley and north to Lacombe, Ponoka and Bashaw
- Submission to the Province in support of floodproofing highly prone reaches of the Red Deer River



- Successfully opposed the interbasin transfer of water to CrossIron Mills which is located in the Bow River Basin
- Input to the WaterSmart report
   Adaptation Roadmap for Sustainable
   Water Management in the South
   Saskatchewan River Basin
- Input to the WaterSmart <u>report Room</u> for the River in the Red Deer River Basin
- Input to the Alberta Water Council report on source water protection
- Conduct municipal workshops and seminars in locations throughout the watershed on the importance of water, watershed conservation and source water protection



- Input to the <u>Special Areas Water Supply</u> project – questioned the large volume of water originally proposed, then generally favored a revised project requesting a smaller volume of water
- Input to the ten-year review of the <u>South Saskatchewan River Basin Water</u> Management Plan
- Input to the Province's 2013 "Water Conversations"
- Raise the future need of additional water storage within the basin.

#### **LOOKING BACK: MAJOR REPORTS**

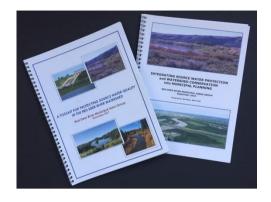
The RDRMUG has a prepared a number of reports related to municipal roles in the use, management and conservation of water and related natural resources. While rural and urban municipalities are the primary audience, the reports also are intended for use by other water use sectors, groups and the general public interested in water and watersheds

<u>Water Assurance Study</u> - provides a number of proactive approaches aimed at securing water for municipalities, including reserving water for municipal use, net diversion licencing and return flow credits.

<u>Source Water Quality Primer</u> – includes background information on water availability in the Red Deer River basin and serves as an introduction of the importance of source water quality to communities and the economy.



Toolkit for Protecting Source Water Quality in the Red Deer River Watershed - describes threats to water quality and municipal roles in water and watershed management. A key provision is a list of 'tools' to use in protecting the availability of good quality source water for communities and other water users throughout the watershed, and beyond.



Integrating Source Water Protection and Watershed Conservation into Municipal Planning - this report stresses the importance of addressing in community plans, through strategies and policies, the conservation of water and the watershed.

Municipalities are "encouraged to integrate source water protection and watershed conservation into the DNA of municipal statutory plans." RDRMUG

# Natural Assets - A Statutory Plan Guide -

provides a comprehensive list of policy guides to meaningfully address, through optional planning approaches, the conservation and use of arable land, water, air and environmentally significant areas.



#### WATER: VITAL IMPORTANCE and MUNICIPAL ROLES THEREIN

**VITAL IMPORTANCE**: Water is vital to the sustained well-being of municipalities, both rural and urban.

"No water, no municipality. Water is the lifeblood of municipalities" AUMA

The <u>Alberta Urban Municipalities Association</u> (AUMA) pointedly advises "water is essential to all five elements of municipal sustainability, both urban and rural:

- Economic viability . . .
- Environmental integrity. . .
- Social well-being . . .
- Cultural vibrancy. . .
- Governance."





#### **KEY WATER RELATED MUNICIPAL ROLES:**

The <u>Rural Municipalities of Alberta</u> (RMA) emphasizes two key municipal roles in water management and protecting water quality.

- "Municipalities are responsible for land-use planning and environmental decisions where water bodies or wetlands are factors.
- Municipalities play a role in managing water systems that impact residents, business and industry."

The AUMA supports these views in stating: "One of the most important ways that we can effectively manage our water is to change the way we manage our land. Land use has many impacts on our watersheds . . . "

Thus, municipalities play key roles in water conservation and water quality protection:

- drinking water management and wastewater management
- environmental conservation (e.g. wetland, riparian land and aquatic habitat protection)
- management of land use impacts (e.g. point and non-point source pollution)
- 4. land use planning, and
- 5. the promotion of land stewardship.

It is vitally important to combine land use management with watershed management to ensure that both our land and water are protected. AUMA

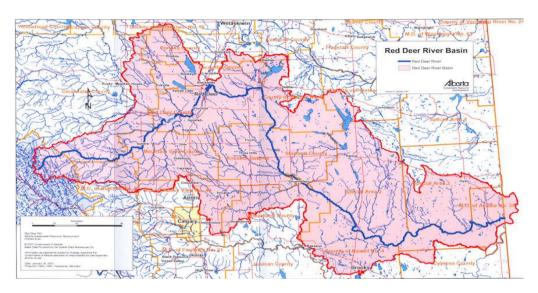
Municipalities, and especially municipalities working collaboratively and with other partners, can do much to protect water and manage water use within a watershed.



#### RED DEER RIVER WATERSHED AND ITS HEALTH

RED DEER RIVER WATERSHED: The Red Deer River watershed has an area of 49,650 km<sup>2</sup> (19,170 sq. miles). A small portion of the watershed lies within Banff National Park, while the eastern portions extends just inside the Province of Saskatchewan where the Red Deer River enters the South Saskatchewan River. The Red Deer River traverses 740 km

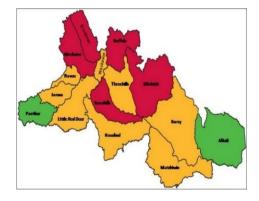
(460 miles) from the Drummond Glacier to the confluence with the South Saskatchewan River. The watershed has a diversity of landscapes and ecosystems as it contains five natural regions - the Rocky Mountain, Foothills, Boreal, Parkland and Grassland natural regions within which there are 12 subregions.



**WATERSHED HEALTH:** The <u>Red Deer River Watershed Alliance</u> has meaningfully addressed the state of the watershed in its *2009 State of the Watershed Report*.

The water quality of the Red Deer River is the report card of the health of the watershed.

Watershed health in 15 sub-watersheds was measured in terms of water quality using 20 indicators. The health (see map) of only two sub-watersheds was rated as good (green). Eight reaches were rated as fair (yellow) and five (red) as poor. Main contributors to poor ratings were linear development densities, resource exploration, extraction activities, nutrient concentrations in surface water and land conversion activities.



# **RED DEER RIVER WATER SUPPLY AND WATER QUALITY**

WATER SUPPLY: Annual precipitation in the Red Deer River watershed varies considerably, yielding a wide range in annual river flow volumes. While the mean annual flow of the Red Deer River is 1,666,000 dam³, volumes 2.5 times higher (over 4,000,000 dam³) have been recorded, while the record low at Red Deer of 660,100 dam³ is only 37% of the mean flow. As such, within the watershed there are very dry years exhibiting drought conditions and very wet years often accompanied by floods. In the 97 years between 1912 and 2009 there were eleven years of annual flow close to or higher than the 2005 flood year

WATER QUALITY: In *Blueprint*, the RDRWA reports, from background study information, that water quality in the Red Deer River generally deteriorates as the river flows downstream. Some of the causes of deterioration are natural (e.g. sedimentation) while others are caused by human activities (e.g. point source pollution). The four river reaches upstream from the Highway 21

(about 2,600,000 dam³), thus averaging about one every ten years. During the same time there were 23 years when the annual flow was less than 1,000,000 dam³ (drought conditions), or about one every five years. Thus, dry years which lead to drought conditions are much more frequent than wet years which may produce major floods. Drought conditions are more evident when dry years occur consecutively. Five times low flows occurred in two consecutive years. Twice it happened in three consecutive years (75/76/77; 2000/01/02).

crossing (Nevis) have water quality ratings ranging between excellent, good-to-excellent and good. The three reaches downstream have ratings ranging from good-to-fair and fair. While none of the reaches have marginal or poor ratings, each reach has one or more conditions that exceed general standards or guidelines.

The health of our waters is the principal measure of how we live on the land. Luna Leopold.

Low winter flows in the Red Deer became very problematic in the '60s and 70s. Aquatic health was being impacted by low oxygen levels, while concerns arose about abnormally low flows impacting the ability to withdraw water from the river. Government responses included higher standards for wastewater returns, funding to upgrade sewage treatment plants and to develop storage on the Red Deer River, primarily to augment low winter flows. In determining the required storage volume of Dickson Dam, the desired minimum winter flow at Red Deer was set at 16.0 m³/s. This was subsequently recognized by the

Province in 2007 when water conservation objectives (WCOs) were adopted by regulation for all Southern Alberta rivers.



### WATER MANAGEMENT AND AVAILABILITY

A fundamental tenant of the *Approved Water* Management Plan for the South Saskatchewan River Basin (Alberta) is the interprovincial sharing of the waters of the South Saskatchewan River among Alberta, Saskatchewan ad Manitoba. A general principle of the 1969 Master Agreement on Apportionment is that the waters of the South Saskatchewan River are to be divided equitably between Alberta and Saskatchewan. Even though the Red Deer River flows into Saskatchewan on its own, Alberta has opted to consider the Red Deer and to be an integral part of the South Saskatchewan for purposes of apportionment calculations. This opened the option of the Red Deer basin not being entitled to have 50% of its water allocated for use within the basin.

The 2006 Approved Water Management Plan for the South Saskatchewan River Basin set the amount of water that can be licenced for withdrawal from rivers. For the much larger Bow and Oldman Rivers the allocation limits were set at approximately 70% based on existing licences, such that these rivers were deemed 'closed' (no new licences). The allocation limit for the Red Deer was set at 550,000 dam³, just 33% of the mean annual flow. This limit was seen as a way to regularly meet water conservation objectives.

Of the 550,000 dam<sup>3</sup> limit, 55% or 300,000 dam<sup>3</sup> has been allocated. Total municipal allocations, including regional water systems, are about 81,000 dam<sup>3</sup>, or 27% of total allocations. Of the 250,000 dam<sup>3</sup> remaining to be allocated, proposed agricultural and irrigation projects in the Special Areas and Acadia Valley may take 90,000 dam<sup>3</sup>, leaving 160,000 dam<sup>3</sup> for other water use sectors. When the allocation limit of 550,000 dam<sup>3</sup> is

approached, the Province is to review the health of the river. If conditions warrant, the allocation limit may be increased to 600,000 dam<sup>3</sup>.

The 2006 Approved Water Management Plan for the South Saskatchewan River Basin also set Water Conservation Objectives (WCOs) for the southern rivers and their tributaries. WCOs address the need to protect aquatic environments and other in-stream uses of water. They have the affect of water licences. The regulation for the Red Deer River established all licences dated after May 1, 2005 are junior licences to the WCOs. Many regional water systems in the Red Deer basin are junior to the WCO. As shown in the table below, even with Dickson Dam augmenting winter flows, the WCO frequently is not met, being situations whereby the Government can choose to require junior licence holders to cease or restrict water withdrawals so the WCO can be met.

% of days WCO not met: 2005-13

Month	Red Deer	Bindloss
Jan	30%	48%
Feb	35%	40%
March	4%	10%
Nov	4%	5%
Dec	13%	36%

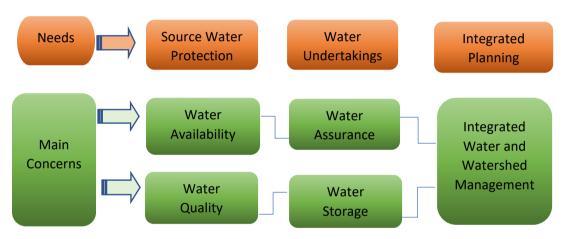
Also worthy of note, the majority of water licences in the Red Deer River watershed are junior to the senior irrigation water licences in southern Alberta. In periods of major droughts across the entire South Saskatchewan River basin, junior licences in the Red Deer watershed are subject to use limitations in favor of the senior licences to provide them water assurances.

# PRIORITY WATER CONCERNS

ISSUES: Early in 2020 MUG members rated water issues. The top five issues were: (1) water security; (2) water quality; (3) drought; (4) water assurance; and (5) water storage. The next three were: (6) water resource management; (7) watershed impacts; and (8) flooding. Subsequent research reflected on the issue of water security as defined by UNESCO. This definition enunciates three core aspects of water security: adequate quantities of water, acceptable water quality and effective protection. Security infers each of

Water security is "the capacity of a population to safeguard access to adequate quantities of water of acceptable quality for sustaining human and ecological health on a watershed basis, and to ensure efficient protection of life and property against water-related hazards such as floods, landslides, land subsidence and droughts." UNESCO

these three **aspects** are ensured, thus requiring planning and management. This led MUG to address five main concerns in the scope of three broad needs – (1) source water protection, (2) water undertakings and (3) integrated planning.



These five main concerns address all top eight issues. While not specifically evident, drought and flooding can be addressed within water resource management and water storage, while watershed impacts can be addressed under water resource management and water quality.

"There is no one simple solution for adapting the water management systems in the Red Deer River Basin as the economic base grows, environmental considerations evolve, and the climate changes."

Alberta WaterSmart

ISSUE ACTION FRAMEWORK: To address the issues, the following pages provide a framework for MUG actions in the coming years. The directions outlined could change as life unfolds in the Red Deer River watershed and Alberta (environmentally, economically and socially). While the concerns are addressed from a municipal perspective, it is recognized there a host of other perspectives at play. The action framework identifies the various roles MUG should play. In doing so it recognizes other agencies need to perform lead roles and, above all, collaboration among water sector users and other interest groups is crucial.

# **CONCERN 1: WATER AVAILABILITY**

Water Availability: adequate supplies of water through all seasons.

**Essential Message:** Water availability is essential for any municipality's security and hope for the future.

## **Desired Key Outcome**

 Adequate stream flow in all seasons to ensure the availability of water for the operation and sustainable growth of municipalities, a viable economy and healthy aquatic environments.

#### Goals

- Year-round availability of sufficient water for municipalities, and other water use sectors
- An Increase the water allocations allowable from the Red Deer River
- During periods of low flows in the South Saskatchewan River basin, water licences in the Red Deer sub-basin are not disproportionately impacted
- Collaborative strategies and actions by key partners working together.

# Some Basic Matters

- Ensuring the primary purpose in the management of the Eastern Slopes and other headwater areas is source water protection
- Municipal statutory plans address source water protection and watershed conservation
- A commitment by the Provincial Government to review the limit placed on allocations from the Red Deer River

- The Intrabasin Water Coordinating
   Committee addresses when the sharing
   of water may be required during times
   of water shortages in all or parts the
   South Saskatchewan River basin, the
   manner of apportioning water would
   not disproportionately impact junior
   water licences in the Red Deer River
   sub-basin
- Appropriate infrastructure in place to meet future needs for water.

# **Key Actions:**

- Protection of headwaters
- Review of Red Deer River water allocation limit
- Updated report: Red Deer River water supply, uses, demands, allocations and future needs.

#### **Lead Roles:**

- Alberta Environment and Parks
- RDRMUG

# **MUG's Roles**

- Meet with Alberta Environment and Parks to discuss key water availability issues: headwater protection; adequate stream flow (water volume) in all seasons and Red Deer River allocation limits
- Continue to encourage municipalities to support source water protection and watershed conservation through beneficial land use
- Apprise and update the Red Deer River Watershed Alliance.

#### **Other Partners**

Red Deer River Watershed Alliance.

# **CONCERN 2: WATER QUALITY**

# **Essential Message:**

 Reliable clean water is significantly beneficial to municipalities and other water users, and is a reflection of the health of the watershed.

# **Desired Key Outcomes**

- Reliable access by municipalities and other water users to clean water
- Updated Water Quality Study for the Red Deer River
- Surface Water Quality Management Framework for the Red Deer River Watershed.

#### Goals

- Secure clean drinking water
- Avoid water contamination, especially source water for drinking
- A better understanding of contamination threats, especially close to drinking water sources
- A surface water quality framework for the Red Deer River watershed, which includes a review of WCO requirements
- Prepare and implement source water protection plans in support of drinking water safety plans
- Beneficial land use practices
- Collaborative strategies and actions by key partners working together.

#### Some Basic Matters

- Reduce, and where possible eliminate, point and non-point water polluting impacts.
- Prepare source water protection plans
- Encourage municipalities to support source water and water quality protection though beneficial land use practices and watershed conservation

- Gaining a clear understanding of how WCOs were determined and how they impact the water allocation limit for the Red Deer River
- Collaborative input to the Surface
   Water Quality Management Framework
- Promote wider community education and engagement of actions to protect water quality.

# **Key Actions:**

- Develop a Surface Water Quality
   Management Framework
- An updated water quality study
- Initiate and encourage actions to maintain and improve water quality.

#### **Lead Roles:**

- Alberta Government (re: <u>Alberta Land</u> <u>Stewardship Act</u>): Surface Water Quality Management Framework
- Red Deer River Watershed Alliance: encourage actions to maintain and improve surface water quality
- Municipalities: statutory plans guide source water protection and watershed conservation through beneficial land use planning and practices.

## **MUG's Roles**

- Provide input into the development of a Surface Water Quality Management Framework
- Continue to encourage municipalities to incorporate and implement beneficial management practices
- Input into a review of WCOs

#### Other Partners

 Municipalities, watershed stewardship groups, water and wastewater utility providers.

# **CONCERN 3: WATER ASSURANCE**

# **Essential Message:**

 Without sufficient supplies of good quality water, the long term economic, social and environmental viability and sustainability of communities will be in doubt.

# **Desired Key Outcome**

 Municipalities have very long-term water supply licences (and/or reservations) within a water allocation system that is mindful of other water use sectors.

#### Goals

- Better understanding of water supply, uses and needs, both current and future
- Productive dialogue with Alberta Environment and Parks regarding long term municipal water security
- Gain commitments to allocate water to municipalities to meet very long-term municipal needs
- Municipalities promote water conservation through the effective and efficient use of water
- Collaborative strategies and actions by key partners working together.

# **Some Basic Matters**

- Meetings with Alberta Environment and Parks to:
  - Explore water allocation options, including a Crown Reservation
  - discuss the future re-assessment
     of Red Deer River allocation limits.
- Review Water Assurance Study
- Addressing periodic water shortages.

- Municipalities implementing water conservation plans to foster the efficient and effective use of water
- Consider supporting the Intrabasin water transfer to areas where viable options for demonstrated water needs are not available.

# **Key Actions:**

- Review 2009 South Saskatchewan River Water Supply Study and other related reports
- Report on very long-term municipal water needs
- Report that guides achieving municipal water assurance, while recognizing the future needs of other water use sectors.

#### Lead Role:

• Red Deer River Municipal Users Group.

#### **MUG's Roles**

- New report on very long-term municipal water needs
- Gaining assistance from Alberta
   Environment and Parks to explore and evaluate options, including a Crown Reservation, that will provide an assured very long-term supply of water for municipalities
- Inform, update and involve, when appropriate, municipalities throughout the watershed and the Red Deer River Watershed Alliance.

#### **Other Partners**

Alberta Environment and Parks, Red Deer River Watershed Alliance, municipalities, Intrabasin Water Coordinating Committee.

# **CONCERN 4: WATER STORAGE**

# **Essential Messages:**

 A strategic need is additional water storage to provide a range of longterm benefits, including to ameliorate droughts, upgrade flood protection and meet WCO requirements.

# **Desired Key Outcomes**

- A report that addresses the need for additional water storage, including options, benefits, impacts, and recommendations
- A water storage strategy and action plan for the Red Deer River basin.

#### Goals

- Appropriate infrastructure in place to meet future water demands, maintain a healthy river and minimize the impacts of droughts and floods
- Assist in meeting Water Conservation
   Objectives, and thus aquatic health
- Provincial Government confirmation of the need to prioritize the provision of additional water storage infrastructure in the Red Deer River sub-basin.

#### **Some Basic Matters**

- AMEC reports high variability in annual natural flows indicates that storage development . . . would be helpful to better match available supply with demand on both a seasonal and annual basis . . . In light of projections of 2030 deficits, investigation of new storage opportunities . . . is prudent
- WaterSmart in the future the Red Deer sub-basin will require an additional 72,500 dam<sup>3</sup> of storage to meet Water Conservation Objectives

- requirements in view of increasing water demands
- Improve understanding of water storage requirements in relation to future water use needs, climate variability and periods of drought
- Explore the benefits of increased storage, such as greater flexibility to manage surface water runoff and supplies to meet water user needs and water conservation objectives; assist water quality and aquatic systems management; assist in alleviating the impacts of floods and droughts.

# **Key Action:**

 Preparation of a Water Storage Strategy Report.

#### **Lead Partner:**

Red Deer River Municipal Users Group

#### **MUG's Roles**

- Review previous studies and reports
- Prepare a terms of reference for the preparation of a Water Storage Strategy Report
- Establish a Steering Committee representing a number of key stakeholders
- Engage a consultant to produce the Water Storage Strategy Report
- Present the report to the Provincial Government and encourage action.

#### **Other Partners**

 Alberta Environment and Parks, Alberta Agriculture and Forestry, Red Deer River Watershed Alliance, Special Areas/Acadia Valley, other major water users.

# CONCERN 5: INTEGRATED WATER AND WATERSHED MANAGEMENT

#### **Essential Messages:**

 Water resource management for the Red Deer River can be significantly advanced through two complementary plans: Integrated Water Management Plan and Integrated Watershed Management Plan (IWMP). These plans will encourage, guide and support strategies and actions to manage land and water resources significantly advance environmental, economical and social sustainability.

# **Desired Key Outcomes**

- A Red Deer River Integrated Water Management Plan
- An Integrated Watershed Management Plans for the Red Deer River Watershed
- Dynamic collaborative relationships among basin stakeholders and the provincial government to work together to amplify and sustain the environmental, economic, community and social benefits of water and land resources throughout the watershed.

#### Goals

- Effective watershed wide perspectives, partnerships, strategies and actions
- Integration of land use planning, water resource management and watershed conservation
- Comprehensive river basin planning
- Water security (i.e. sufficient quantity of clean water in all seasons)
- Water sharing strategies and actions
- Collaborative engagement by many partners working together
- Increased water and watershed literacy.

# **Key Action:**

 Gain commitments to build upon WaterSmart reports to the Province re: integrated water management and the RDRWA's Blueprint (IWMP).

#### **Lead Roles:**

- Alberta Environment and Parks Red Deer River Integrated Water Management Plan
- Red Deer River Watershed Alliance -Integrated Watershed Management Plan for the Red Deer River Watershed.

#### **MUG's Roles**

- Encourage Alberta Environment and Parks to prioritize the preparation of a Red Deer River Integrated Water Management Plan to foster water security for municipalities and other water users, including the environment
- Encourage the Red Deer River
   Watershed Alliance to prioritize the
   completion of the Integrated
   Watershed Management Plan for the
   Red Deer River Watershed
- Participate in the preparation of a Red Deer River Integrated Water
   Management Plan and Integrated
   Watershed Management Plan
- Support positive collaborative relationships among water stakeholders within and outside the Red Deer River watershed.

#### **Partners**

 Municipalities, various Provincial Government Departments, major water use sectors, water stewardship groups.

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# **RDRMUG MEMBER MUNICIPALITIES (2021)**

Cities - Red Deer

Towns – Blackfalds, Bowden, Carstairs, Coronation, Crossfield, Didsbury, Drumheller, Hanna, Innisfail, Olds, Oyen, Stettler, Sundre, Sylvan Lake, Three Hills, Trochu

Villages - Acme, Alix, Big Valley, Consort, Delburne, Donalda, Halkirk

Counties – Clearwater, Kneehill, Lacombe, Mountain View, Newell, Red Deer, Paintearth, Starland, Stettler

**Special Areas** 

MD of Acadia Valley

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