RDRMUG **RED DEER RIVER DISASTER and HAZARD COMMITTEE**

Proposed Agenda January 17, 2013

***9:30am** Badlands Community Facility*

Committee Members: Mayor Terry Yemen –Drumheller, Councillor John Kaster - Hanna, Mayor Annette Clews - Sundre, Councillor Derek Baird - Innisfail, Dep. Reeve Earl Graham – Clearwater Cty, Counciller George Gehrke – Red Deer Cty, Dug Major – Special Areas Mr. Paul Goranson – City of Red Deer, Keith Ryder - RDRMUG

1. **Call to Order:**
   1.1. Welcome and Introductions

2. **Adoption of Agenda:**
   2.1. Additions

3. **Review of Meeting Summary:** from December 6, 2012
   3.1. Business/Actions required from meeting summary

4. **New Business:**
   Review discussion of Flood Mitigation Studies within the Red Deer River Basin

   4.1.1. Red Deer – Red Deer River Study
   4.1.2. Red Deer County & Markerville (Red Deer, Little Red Deer & Medicine Rivers)
   4.1.3. Drumheller – Red Deer River, Michichi Creek & Rosebud River
   4.1.4. Sundre – Red Deer River and Bearberry Creek
   4.1.5. Flood Mitigation Report (on members page www.rdrmug.ca

   4.2. Potential future storage

   MPE Report see http://www.environment.gov.ab.ca/info/library/7750.pdf

5. **Correspondence:**
   Reply from Alberta Trappers Association re Beavers

6. **Adjournment**

(I will have coffee ready and lunch will be provided)

RDRMUG DISASTER & HAZARD REVIEW COMMITTEE

December 6, 2012 Meeting Summary

Committee Members in Attendance: Mayor Terry Yemen – Drumheller, Councillor John Kaster – Hanna, Mayor Annette Clews – Sundre, Councillor Derek Baird – Innisfail, Dep. Reeve Earl Graham – Clearwater County, Councillor George Gehrke - Red Deer County, Dug Major – Special Areas, Keith Ryder – RDRMUG.

Agenda: Approved as presented.

Appointment of Committee Chair: Mayor Annette Clews was appointed to, and accepted the Chair of the Committee.

Mandate of Committee: After general discussion focusing on the mandate of the Committee, specific issues that the Committee should focus on, how these issues should be prioritized and what partnerships should be identified to provide information, assistance and support to Committee. (This would include identifying informational reports and documents that are available).

Items and issues that were identified to be included in the Committee Mandate are as follows. (This list is not complete and would change and be added to as new issues arise).

- Identify action items that can be initiated at a local government level. Be prepared as a Committee to present "solid" recommendations.
- Motivate the GOA and Federal Government to take action where appropriate on issues that are important to all users.
- Identify and review current studies relating to disaster mitigation, risk management and the value of these documents to the Committee. These include:
    - Provincial Flood Mitigation Report: Consultation and Recommendations (November 2006) Request update on recommendations and what is being monitored.
    - GOA Pharmaceutical Report
    - Facts About Water in Alberta: GOA Water for Life
    - Groundwater Study: GOA
    - South Saskatchewan Water Management Plan and other South Saskatchewan documents
    - RDRMUG Water Assurance Study
- Partners identified: RDRMUG Membership, RDRWA, AESRD - GOA, Government of Canada, Alberta Water Council, Industry Stakeholders and others as required. Also to review what funding may be available from partners.

PRIORITIES:

- **Flood and Drought Mitigation**
    - Future Storage Recommendations (MPE Potential Site Study – 2005)
- **Industrial Impacts**
    - Energy Sector - (including pipeline and other spills and contamination, hydraulic fracturing and dangerous goods transportation with river basin)
    - Potential pollution from all sources including pharmaceuticals.
    - Gravel extraction/mining
    - Agricultural Sector – run-off and livestock contamination
    - Municipal Sector – Waste water discharge
- **Riparian Health**
    - Review GOA Riparian Policy(s)
    - Livestock
    - Beavers destroying large numbers of trees and causing damage to municipal water supply systems

Action Items:

- Dug Major will contact Mr. Gord Edward, Executive Director, Alberta Water Council for updates and current information.

- Mayor Terry Yemen will contact the Trappers Association and Alberta Fish & Wildlife Re.: Beaver Issue.
  See response from the Trappers Association received by Mayor Yemen – Attached.

- Bill Shaw - City of Red Deer advised that Paul Goranson, Director of Development Services for the City of Red Deer, has indicated that the City has a strong interest in the potential work of the River Disaster Committee. He has expressed his willingness to be the City representative on the Committee. The Committee readily agreed to accept Mr Goranson's offer and the Exec Director will contact him and provide him with the appropriate information.

Next Meeting: January 17, 2013 (9:30am Prior to Regular RDRMUG meeting in Drumheller)
Focus to be on Flood Mitigation – Exec Director will send information prior

Red Deer - Red Deer River - Flood Hazard Study

Community City of Red Deer
Red Deer County

Stream Red Deer River

Basin Red Deer River - 5C

This study delineates flood hazard areas and determines design flood levels along an approximate 18 km reach of the Red Deer River through Red Deer. The design discharge for the Red Deer River is 1470 m^3/s.

The headwaters of the Red Deer River are located in the Rocky Mountains. Flows in the study area have been regulated by Dickson Dam since 1983 and the selected design discharge reflects regulation. Flooding in the study area has historically occurred during both the open water and ice-affected seasons. However, flooding caused by ice jam activity has not been considered a major concern since the construction of the Dickson Dam. Open water flooding is the design case for this study and is typically caused either by intense summer rainstorm events or by a combination of spring rainfall and snowmelt runoff. High flows are most likely to occur in June and July.

A digital representation of the flood hazard maps prepared as part of this study can be viewed using the Flood Hazard Map Application. For more information regarding specific flood hazards in your community, please contact Alberta Environment by email at aenv-flood.risk-maps@gov.ab.ca.

Flood Hazard Study Details

Study Status Final

Study Name Red Deer River at Red Deer Hydraulics Study

Study Author W-E-R Engineering Ltd., Calgary, Alberta

Study Date June 1991

Flood information available after study completion may not be reflected in the current study report or flood hazard mapping.

Provincial Designation Details

Designation Status Designated

Designation Date 11 October 1995

Related Information and Links

Related Studies Red Deer - Waskasoo Creek
Red Deer (County) and Markerville - Red Deer, Little Red Deer and Medicine Rivers

Red Deer (County) and Markerville - Red Deer, Little Red Deer and Medicine Rivers - Flood Hazard Study

Community Hamlet of Markerville
Red Deer County

Stream Red Deer River
Little Red Deer River
Medicine River

Basin Red Deer River - 5C

This study delineates flood hazard areas and determines design flood levels along the Red Deer, Little Red Deer and the Medicine Rivers through Red Deer County, including Markerville. The study area includes an approximate 50 km reach of the Red Deer River, an approximate 12 km reach of the Little Red Deer River and an approximate 17 km reach of the Medicine River. The Red Deer River design discharge ranges from 1450 m^3/s at the upstream study extent to 1750 m^3/s at the downstream extent. The design discharges for the Little Red Deer and Medicine Rivers are 419 m^3/s and 283 m^3/s respectively.
The headwaters of the Red Deer River are located in the Rocky Mountains and flows in the study area have been regulated by Dickson Dam since 1983. The selected design discharges for the Red Deer River are based on naturalized data and do not reflect the effects of regulation.
Flooding along the Red Deer River generally occurs during the open water season as a result of intense rainfall events, either alone or in combination with snowmelt runoff. The Little Red Deer River has its origins in the foothills and the Medicine River flows out of Medicine Lake in a prairies. Flooding along both tributary rivers generally occurs between April and July, but high water levels along the Medicine River can be driven by ice jam activity. Open water flooding is the design case for this study.
A digital representation of the flood hazard maps prepared as part of this study can be viewed using the Flood Hazard Map Application. For more information regarding specific flood hazards in your community, please contact Alberta Environment by email at aenv-flood.risk-maps@gov.ab.ca.

Flood Hazard Study Details

Study Status Final

Study Name Red Deer River, Dickson Dam to Red Deer Including Markerville, Flood Risk Mapping Study

Study Author AMEC Earth & Environmental, Calgary, Alberta

Study Date March 2007

Flood information available after study completion may not be reflected in the current study report or flood hazard mapping.

Provincial Designation Details

Designation Status Pending

Drumheller - Red Deer River, Michichi Creek and Rosebud River - Flood Hazard Study

Community Town of Drumheller
Kneehill County
Starland County
Wheatland County
Special Area No. 2

Stream Red Deer River
Rosebud River
Michichi Creek

Basin Red Deer River - 5C

This study delineates flood hazard areas and determines design flood levels along the Red Deer River, Michichi Creek and the Rosebud River through the Drumheller and surrounding area. The study area includes about 36 km of the Red Deer River and almost 2 km lengths of Michichi Creek and the Rosebud River upstream of their confluences with the Red Deer River. The Red Deer River design discharge ranges from 2290 m^3/s at the upstream study extent to 2560 m^3/s at the downstream extent. The design discharges for Michichi Creek and the Rosebud River are 68.0 m^3/s and 276 m^3/s respectively.

The headwaters of the Red Deer River are located in the Rocky Mountains. Flows in the study area have been regulated by Dickson Dam since 1983 and dykes exist along the Red Deer River through Drumheller at several locations. The selected design discharges for the Red Deer River are based on naturalized data and do not reflect the effects of regulation. Floods on the Red Deer River within the study area generally occur between May and August and most commonly in June, as a result of intense rainfall in the foothills region of the basin, either alone or in combination with mountain snowmelt runoff. The Michichi Creek and Rosebud River watersheds are located in the eastern Alberta prairie. Flooding along both streams typically occurs in between late-March and early-April as a result of spring snowmelt runoff.

A digital representation of the flood hazard maps prepared as part of this study can be viewed using the Flood Hazard Map Application. For more information regarding specific flood hazards in your community, please contact Alberta Environment by email at aenv-flood.risk-maps@gov.ab.ca.

Flood Hazard Study Details

Study Status Final

Study Name Drumheller Flood Risk Mapping Study

Study Author Matrix Solutions Inc., Calgary, Alberta

(4.1.4) Sundre - Red Deer River and Bearberry Creek - Flood Hazard Study

Community Town of Sundre
Mountain View County

Stream Red Deer River
Bearberry Creek

Basin Red Deer River - 5C

This study delineates flood hazard areas and determines design flood levels along the Red Deer River and Bearberry Creek through Sundre. The study area includes an approximate 9 km reach of the Red Deer River and an approximate 7 km reach of Bearberry Creek. The design discharge for the Red Deer River is 1080 m^3/s. The design discharge for Bearberry Creek is 145 m^3/s.

The Red Deer River has its source in the Rocky Mountains. Dykes and other flood control works have existed along the Red Deer River and Bearberry Creek within the study area since 1980. Bearberry Creek was realigned and channelized downstream of Highway 22 and a drop structure was built within this reach to address velocity concerns. Flooding in the study area generally occurs in summer as a result of heavy rainfall events, but peak flows can be magnified by mountain snowmelt. High flows are most likely to occur in June and July.

A digital representation of the flood hazard maps prepared as part of this study can be viewed using the Flood Hazard Map Application. For more information regarding specific flood hazards in your community, please contact Alberta Environment by email at aenv-flood.risk-maps@gov.ab.ca.

Flood Hazard Study Details

Study Status Final

Study Name Sundre Flood Risk Mapping Study

Study Author Alberta Environmental Protection, Natural Resources Service, Water Management Division, River Engineering Branch, Edmonton, Alberta

Study Date January 1997

Flood information available after study completion may not be reflected in the current study report or flood hazard mapping.

Provincial Designation Details

Designation Status Designated

Designation Date 8 April 2003

From: Info, ATA
Sent: Friday, December 07, 2012 8:02 AM
To: 'Terry Yemen'
Cc: AJ Callbeck ; gordy Klassen
Subject: RE: Red Deer River

Hi Terry. My name is Jim Mitchell and I look after trapper education for the association. I agree that the current low price of beaver is the root of your problems. If beaver are not controlled they will certainly alter the landscape , often causing much damage by flooding and tree removal and in addition with high populations they are often susceptible to a bacterial disease called Tularemia which can cause problem to humans and water quality.

Offhand I cannot think of any trappers in the immediate Drumheller area although there must be someone there doing some trapping. Your area is not unique however as beaver have undergone a tremendous expansion as long as they can find suitable habitat. The key, in our opinion, is to manage this species by trapping when the fur has value and during a time when the young are not dependent on the nursing female. This is usually in the fall, winter and early spring. It is unwise to wait until the population is totally out of control before taking action.

To do otherwise invites waste and cruelty by wholesale destruction of dams and random shooting of this species. I like to think we are better than that. Initially , should a control program take place, there will have to be a proper habitat assessment and some culling to get the population under control and then this is followed up with an operating plan to keep the numbers in check. This is getting a little long winded but that is the principle of sustainable animal management.

To get back to your issue , the only way to remedy the situation , in my view , is to make the harvest of this fur bearer affordable to the trapper. Beaver trapping and the fur handling is time consuming and unless there is a way for a trapper to make a dollar at it, it is unlikely to happen in a meaningful way. I applaud your efforts to bring this issue to the government and unfortunately moral support is about all we can give at this time. There are animal control companies I can refer you to if you wish but be aware none of this comes without a cost.

Perhaps a bounty (incentive) might be a good first step and then perhaps some trapper courses might be in order. Details on our trapper courses can be found on our website .

The government of Alberta is well aware of our concerns which echo yours however no one seems willing to put up some funds to make management viable.

Jim