

# Land Cover and Key Features of the Vermilion River Watershed



### Legend

- Vermilion Watershed
  - Hydrology
  - Towns
  - Holden Drainage District
  - Rural Municipalities
- AAFC 30m Land Cover**
- Agriculture - Annual Cropland
  - Agriculture - Perennial Hay & Pasture
  - Grassland
  - Shrubland
  - Coniferous Forest
  - Deciduous Forest
  - Mixed Forest
  - Wetland
  - Water Bodies
  - Exposed Land
  - Developed Land



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### 5) Other comments

Please use the space to provide other comments about your environmental or watershed planning and management initiatives.

### 6) Requests for Additional Information:

Please use this space to request any other information about the topics addressed in this survey.

Please return your completed survey by **February 16, 2011!**

Thank you!

#### 4) Other Municipal Programs and Services

Various municipally administered programs and services can also influence watershed health and function, including environmental, conservation and community planning; water, wastewater & stormwater operations; transportation and road maintenance, and agricultural services. Existing municipal services, programs and initiatives can, and may already, incorporate and consider watershed issues. Please indicate to what level the following watershed considerations are incorporated in your current municipal programs and services.

Watershed Considerations	Not at All	Minimal	Moderate	Significant	Always	N/A
Developing key environmental policy areas		X				
Implementing conservation plans for environmentally significant areas	X					
Considering watershed amenities in community planning and economic development		X				
Using structural stormwater BMP's such as wet and dry ponds, constructed wetlands, infiltration trenches, oil/grit separators, and bioswales			X			
Promoting green roofs, rain gardens or rainwater capture	X					
Practicing water conservation, demand management, or public education	X					
Planning for source water and ground water protection	X					
Implementing wastewater treatment improvements – source control, wastewater irrigation, biosolid BMPs or advanced treatment systems		X				
Placing imitations / requirements on private sewage systems for new developments					X	
Keeping dangerous goods routes and truck routes away from water bodies	X					
Using BMPs for salt management, snow storage & treatment / disposal		X				
Controlling invasive alien species effectively and responsibly				X		
Providing market based incentives for landowners to adopt beneficial management practices	X					
Promoting alternative road design, parking design and permeable pavement	X					
Incorporating biodiversity and species at risk planning	X					
Creating and restoring wildlife habitat core areas, corridors and linkages		X				
Practicing floodplain protection and using flood management tools	X					
Practicing low impact recreational trail design			X			
Promoting schoolyard naturalization and institutional xeriscaping	X					
Promoting watershed stewardship or assisting watershed stewardship groups		X				
Practicing and promoting wetland restoration	X					
Assessing and promoting health of riparian areas		X				
Promoting off-stream watering systems for livestock			X			
Promoting conservation tillage and buffer strips		X				
Promoting rotational grazing systems		X				
Protecting woodlots and promoting agro-forestry uses	X					
Other						



### 3) Watershed Considerations within Non-Statutory Planning Documents

Land use bylaws and development standards can also influence watershed health and function. Existing non-statutory planning documents, zoning, permits and subdivision development standards can, and may already, incorporate and consider watershed issues. Please indicate to what level the following watershed considerations are incorporated in your current planning processes.

Watershed Considerations	Not at All	Minimal	Moderate	Significant	Always	N/A
Open space zoning and conservation zoning is used to protect natural areas from development	X					
Direct control districts are a tool used for controlling development on sensitive lands.		X				
Agricultural conservation easements are used as a tool for protecting agricultural land.		X				
Administering conservation easements through conservation agencies such as NCC, ACA or DUC	X					
Subdivision design standards aim to preserve and complement green infrastructure and limit development in environmentally sensitive areas		X				
Design standards strive to minimize impervious surfaces and maximize surfaces with natural vegetation			X			
Design standards utilize Best Practices for reducing stormwater impacts			X			
Design standards promote walkable communities and access to transit		X				
High density development (residential and commercial) is used to leave space for green areas (cluster development)	X					
Landscaping allows for water infiltration into soil and/or stormwater retention		X				
Using tree planting and retention policies and practices		X				
Promoting drought tolerant vegetation and natural vegetation	X					
Restricting development that will negatively impact ecological health and water quality		X				
Requiring and evaluating setbacks from water bodies based on ecological function		X				
Utilizing flood plain delineations for major water courses	X					
Considering erosion hazards and steep slopes for all developments				X		
Promoting <u>appropriate</u> development and protection near lakes			X			
Ensuring soil and groundwater assessments are completed to determine suitability of septic systems					X	
Evaluating and <u>confirming</u> sustainable water supplies (both surface and groundwater)		X				
Administering conservation easements by the municipality	X					
Other						



## 2) Watershed Considerations within Statutory Planning Documents

Municipal development plans, area structure plans and inter-municipal development plans can influence watershed health. Existing statutory planning documents can, and may already, incorporate and consider watershed issues. Please indicate to what level the following watershed considerations are incorporated in your current planning processes.

Watershed Considerations	Not at All	Minimal	Moderate	Significant	Always	N/A
Identifying, protecting and restoring green spaces and corridors		X				
Limiting development in environmentally sensitive areas		X				
Assessing watershed or drainage impacts of proposed development patterns				X		
Relieving development pressures on agricultural or environmentally significant lands near urban areas by promoting densification or infill development		X				
Encouraging brownfield site reclamation and redevelopment		X				
Developing comprehensive policies for protecting agricultural land, with agri-environmental practices		X				
Requiring that environmental impacts be considered for all land uses, including transportation and infrastructure decisions		X				
Setting priorities to identify and manage natural areas		✓				
Creating policies and incentives for development that prevents, mitigates, or minimizes environmental impacts		✓	✓			
Preserving all water features including wetlands, stream banks and riparian areas.				✓		
Identifying sensitive areas for environmental reserves		✓				
Avoiding watercourse alterations that may increase stream velocity or risk of erosion						✓
Promoting cluster development where appropriate		X				
Considering conservation of important natural areas when determining location of roads, pipelines and other infrastructure		X				
Creating efficient public transportation and walkable communities		X				
Adopting and promoting smart growth principles in urban and nearby areas						X
Requiring environmental information or impact statements before land use decisions are made		X				
Reclaiming contaminated lands		X				
Directing development away from unserviced, open space or agricultural lands to already developed areas	X					
Redevelopment areas incorporate new strategies, priorities, policies and information to promote watershed health and function	X					
Other site-specific issues and priorities <i>request geotechnicals</i>			X			



## 1) Information Used

A wide range of information is needed to help municipalities set watershed goals and priorities, to determine watershed management strategies and to measure the success of watershed efforts. Sources include information gathered by government and non-government groups, information gathered by developers, information gathered by municipalities, and environmental studies conducted within municipalities. To what extent does your municipality utilize the following sources of information related to municipal, environmental, and watershed planning?

Information sources used	Not at	Minimal	Moderat	Significa	Always	N/A
State of the North Saskatchewan River Watershed (NSWA, 2005) <sup>1</sup>	X					
NSWA Municipal Guide (2006) <sup>2</sup>		X				
Vermilion River Water Supply and Demand Study (2009) <sup>3</sup>	X					
NSWA (2010). Economic Activity and Ecosystem Services in the North Saskatchewan River Basin. <sup>4</sup>	X					
VROAC – Recommendations Report (December 2000) <sup>5</sup>	X					
Regional Groundwater Assessment Reports <sup>6</sup>	X					
Water quality monitoring reports from municipalities, Alberta Environment and allied organizations <sup>7</sup>	X					
Ecologically Significant Areas <sup>8</sup>			X			
Municipal Sustainability Strategies					X	
Riparian Health Inventories / Assessments <sup>9</sup>	X					
Land Stewardship Centre of Canada <i>Green Communities Guide</i> . <sup>10</sup>	X					
Other (please list)						

<sup>1</sup> <http://nswa.ab.ca/content/state-of-the-watershed>

<sup>2</sup> <http://nswa.ab.ca/content/municipal-resource-guide>

<sup>3</sup> <http://nswa.ab.ca/content/vermillion-water-supply-and-demand>

<sup>4</sup> <http://nswa.ab.ca/economics>

<sup>5</sup> <http://www.vroac.ca/docs.htm>

<sup>6</sup> <http://hcl.ca/reports.asp>

<sup>7</sup> <http://www.environment.alberta.ca/01256.html>

<sup>8</sup> <http://www.tpr.alberta.ca/parks/heritageinfocentre/environsigareas/default.aspx>

<sup>9</sup> <http://www.cowsandfish.org/riparian/health.html>

<sup>10</sup> <http://www.landstewardship.org/green-communities-guide/>. Online copy at <http://www.olds.ca/communtiy/green.pdf>.



## Vermilion River Watershed Management Project

9504 - 49th Street, Edmonton, Alberta T6N 2M9

Phone: 780-442-6363 Fax: 780-495-0610

### Survey of Municipal Involvement in Watershed Planning and Management

The intent of this survey is to determine the need for, and the use of, watershed-related environmental information, tools and planning processes by municipalities in the Vermilion River watershed. Results from the survey will help the VRWMP Steering Committee develop a relevant watershed management plan that provides realistic strategies to address needs and priorities across the watershed, for your communities. Survey results and additional information, data and map outputs compiled by the VRWMP Steering Committee will be shared with you at an upcoming workshop in Vegreville on Friday, March 4, 2011. Details of March 4th event will be sent to you in the coming weeks; please mark your calendars!

Please return your completed survey by February 16th by mail or fax to the address listed above, or by email: [graham.watt@nswa.ab.ca](mailto:graham.watt@nswa.ab.ca) (if you choose to fill in the survey electronically in this word document or scan your response).

For each statement or activity listed in the table rows below, please indicate your level of 'use' or 'consideration of' with a single 'X' in the response that best fits your situation. If the statement or activity listed in the table row does not apply to your situation, please select N/A for 'not applicable'.

If there are other plans, programs or initiatives you wish to note, put these in the "other" box at the bottom of each table, in the space at the bottom of each page, or in the space at the end of the survey.

We truly appreciate your time and input. Thank you.



**We request that the attached survey be completed on behalf of your municipality, by your staff and elected officials by February 16, 2011.**

Please save the date for representatives to attend a Vermilion River watershed workshop in Vegreville on Friday, March 4<sup>th</sup> (invitation forthcoming). Survey results, information and maps will be shared at this meeting and we will discuss the development and implementation of a watershed plan for the Vermilion River.

If you have any questions about the content of the survey please contact VRWMP Chairperson Pat Gordeyko (780-632-1560 / [pgordeyko@thcounty.ab.ca](mailto:pgordeyko@thcounty.ab.ca)) or NSWA Basin Planner Graham Watt (780-496-2870 / [graham.watt@nswa.ab.ca](mailto:graham.watt@nswa.ab.ca)).

Thank you!





Vermilion River Watershed Management Project  
9504 – 49th Street, Edmonton, Alberta T6B 2M9  
Phone: 780-442-6363 Fax: 780-495-0610

January 19, 2011

County of St. Paul  
5015-49 Avenue  
St. Paul, Alberta  
T0A 3A4

RECEIVED JAN 25 2011

Attention: Reeve and Council

**Re: Survey and Update on the Vermilion River Watershed Management Project**

Ladies and Gentlemen:

We are pleased to provide an update on the progress of the Vermilion River Watershed Management Project (VRWMP) to your municipality. The VRWMP is developing a plan for the Vermilion River watershed that balances social, economic and environmental needs of the watershed community. For more information go to <http://nswa.ab.ca/vermilion>.

The VRWMP is nested within the broader *Integrated Watershed Management Plan for the North Saskatchewan River in Alberta (IWMP)*. The NSWA has released a *Discussion Document* which presents draft recommendations (available at <http://nswa.ab.ca/iwmpdiscussion>) and will soon be releasing a companion *Workbook*. Note that the NSWA is hosting the IWMP in parallel to the VRWMP, and will be contacting you to discuss the draft recommendations.

The VRWMP was initiated in January 2009 as a collaborative initiative between the North Saskatchewan Watershed Alliance (NSWA); Alberta North American Waterfowl Management Plan Partners (AB NAWMP); North East Alberta Water Management Coalition (NEAWMC); Counties of Beaver, Minburn, Two Hills and Vermilion River; Towns of Vegreville and Vermilion (representing Holden, Mannville & Two Hills); Alberta Environment Vermilion River Operations Advisory Committee; Holden Drainage District; and Lakeland College.

In the past year we have identified and analyzed key issues, drafted watershed goals, and have begun preparing draft watershed management recommendations. In the coming months we will, with your input, be preparing a draft Watershed Management Plan addressing issues related to surface water (quality, quantity and aquatic ecosystem; groundwater (quality and quantity); and watershed land use and management.

We have prepared a survey to assess municipal priorities and activities related to watershed management (see attached survey). Ultimately we seek your local knowledge and expertise. In return, we are striving to provide a useful tool for municipalities that are interested in a) considering watershed planning within the current land and water planning processes, b) building beneficial partnerships and c) encouraging innovative opportunities to meet environmental outcomes.