

Water Use Licensing Report: Netley – Grassmere Watershed

Protective Process:

The intent of water rights licensing is to protect the interests of licensees, domestic users, the general public and the environment with respect to the use or diversion of water or the construction and operation of water control works under licence. Licences are issued on the “first in time – first in right” principal”, established by the date the application is submitted. Priorities have also been established for various uses. Domestic purposes are given the highest priority, followed in turn by Municipal, Agriculture, Industrial, Irrigation and than "Other" uses (projects in the "Other" category include air cooling/ heating, aquaculture, fire protection, water bottling, etc). Under *The Water Rights Act* it is possible that once all water available for allocation on a particular stream or aquifer has been licensed, the right to use water for a lower priority purpose may be rescinded in favour of a higher priority use. In Manitoba, water withdrawals of less than 5500 l/day (25,000 L) do not require licensing. These projects are protected under the domestic exemption. The general and specific conditions that are included on all licenses reflect, in part, the information received from the technical and management studies that have been carried out for the project and/or water body. For surface water projects, this determination is based on an analysis of stream flow data, riparian needs, the water use requirements of senior water users, domestic needs, and instream flow requirements. For groundwater projects, this determination is based on an assessment of hydrogeological information including; geological information on aquifers, aquifer sustainable yield estimates and water allocation budgets, where available, as well as the water use requirements of senior users and domestic needs.

Water Rights Projects in the Netley – Grassmere Watershed:

Despite the abundant surface water supplies in the Netley – Grassmere watershed, residents are heavily reliant on groundwater. Eighty-one percent of all of projects on file with the Water Use Licensing Section within this watershed are groundwater sourced. Livestock producers, industrial water users and municipal distribution systems are 100% reliant on groundwater. Besides Oak Hammock Marsh’s allocation of 2467 dam³ from Wavy Creek (Ducks Unlimited is the licensee), projects listed under the “Other” category are also completely reliant on groundwater. Irrigators in this watershed are almost equally split between groundwater and surface water as their water source. Most surface water sourced irrigators are pumping from Netley Creek or Wavy Creek.

In this watershed 12,121 dam³ have already been allocated under licence for both groundwater and surface water sourced projects. Forty-one percent of all water allocated in this watershed is used for “Other” purposes but it is important to note that geothermal projects are generally non-consumptive as the water is returned to the same aquifer. Industrial and municipal water users are the second and third highest water users while the agriculture and irrigation industries are the least significant water users from a volumetric perspective within the Netley - Grassmere watershed (Figure 1).

Purpose	Allocated Under Licence (dam ³)		Total Allocation (dam ³)
	Groundwater	Surface Water	
Agricultural	1713	0	1713
Industrial	2615	0	2615
Irrigation	20	446	466
Municipal	2313	0	2314
Other	2547	2467	5014
Total	9208	2913	12,121

Figure 1: Amounts Allocated Under Licence

Figure 2 illustrates the locations of all the Water Use Licensing projects within the Netley – Grassmere watershed.

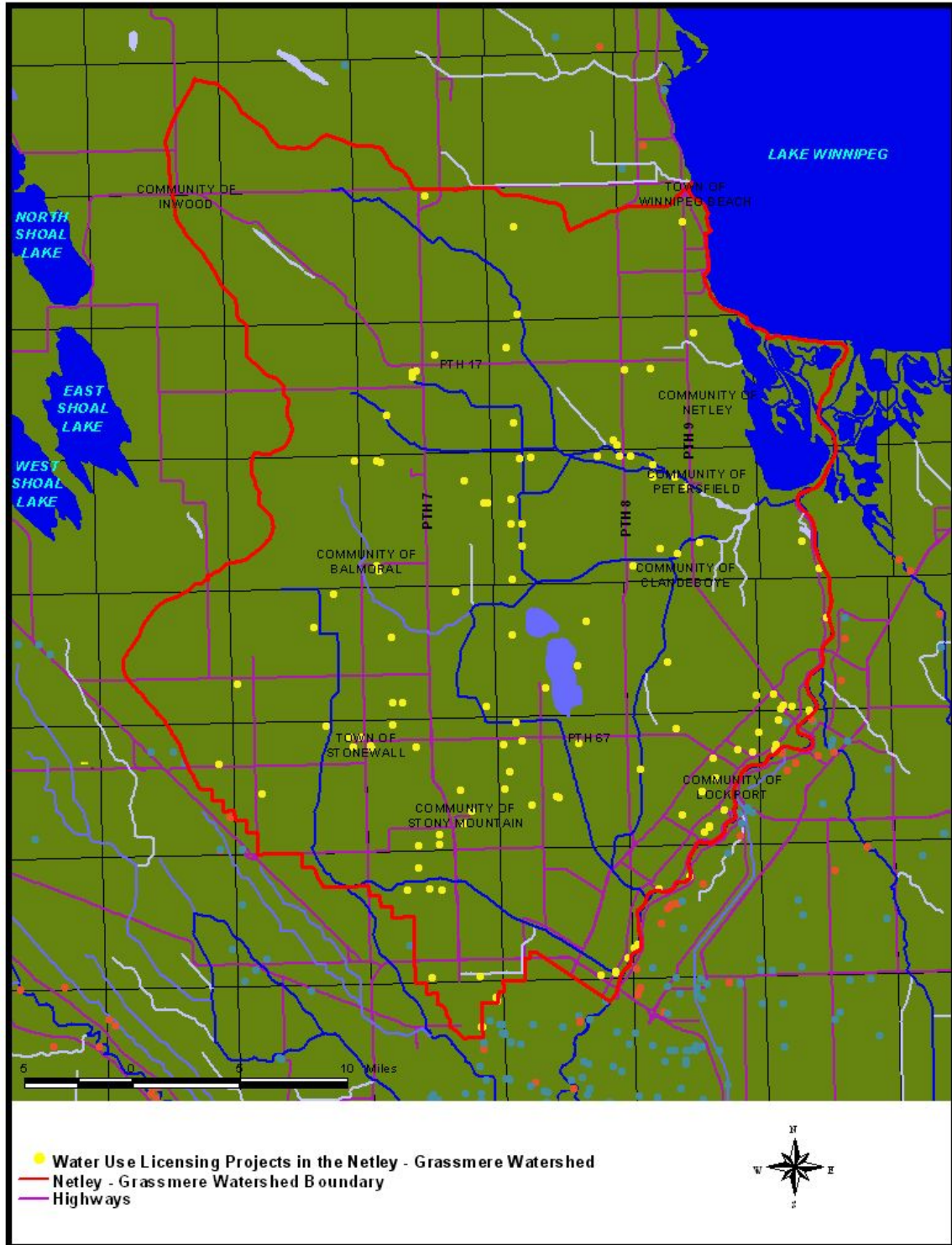


Figure 2: Location of all Water Use Licensing Projects in the Netley – Grassmere Watershed

Data Gaps:

Aquifer or whole stream budgets have not yet been established in the Netley – Grassmere watershed; therefore, licensing decisions are based on an individual site specific evaluation. Current allocations are believed to be well below the sustainable yield of the major streams and aquifers. Water Budget Models are developed by the Groundwater and Surface Water Management Sections to set allocation limits for major streams and aquifers. These models divide aquifers and waterways into individual sub-basins and reaches. Each sub-basin or reach are assigned a specific amount of water that is available for allocation. By inputting an allocation amount the model computes the amount of water available for allocation at all other points in the sub-basin or along the reach and adjacent reaches affected by the allocation. Such models have not been done for this watershed.