

## Section 7.0 – Watershed Development

### Section 7.5.1 – Landcover Summary of the La Salle River Watershed as of 2001 (Source: Manitoba Conservation – Remote Sensing Branch)

The information below describes the landcover conditions of the La Salle River Watershed based on satellite imagery interpretation from 2001. The image these statistics are based on is contained in Section 7.5.2.

Simplified Version: (Contains a condensed version of land cover classes which are found in the La Salle River Watershed)

#### LaSalle River Watershed (7 Class) - Area Calculation

Land Cover Class	Code	Pixels	Hectares	%Image
Agriculture	1	2120239	190821.52	79.09
Forested	2	172125	15491.25	6.42
Water Bodies	3	4724	425.16	0.18
Grassland	4	269116	24220.44	10.04
Wetlands	6	2452	220.68	0.09
Cultural	13	7528	677.52	0.28
Roads	16	104690	9422.10	3.91
Image total	*****	-----	-----	-----
			241278.67	100.00

Complete Version: (Contains all land cover classes from satellite image)

#### LaSalle River Watershed (17 Class) - Area Calculation

Land Cover Class	Code	Pixels	Hectares	%Image
Agriculture	1	2008804	180792.36	74.93
Deciduous	2	168853	15196.77	6.30
Water Bodies	3	4724	425.16	0.18
Grassland	4	269116	24220.44	10.04
Mixedwood	5	0	0	0.00
Marsh	6	2452	220.68	0.09
Treed Bog	7	0	0	0.00
Treed Rock	8	0	0	0.00
Coniferous	9	0	0	0.00
Burnt Areas	10	0	0	0.00
Open Deciduous	11	3272	294.48	0.12
Forage Crops	12	111435	10029.15	4.16
Cultural	13	7135	642.15	0.27
Forest Cutover	14	0	0	0.00
Sand Gravel	15	393	35.37	0.01
Roads	16	104690	9422.10	3.91
Fens	17	0	0	0.00
Image total	*****	-----	-----	-----
			241278.67	100.00

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### CLASSIFICATION SCHEME

#### LAND COVER MAPPING OF SOUTHERN MANITOBA

1.     **AGRICULTURAL CROPLAND:**     Consists of all lands dedicated to the production of annual cereal, oil seed and other speciality crops. These lands would normally be cultivated on an annual basis.
  
2.     **DECIDUOUS FOREST:**         Forest in which 75% to 100% of the canopy is deciduous. Dominant species are trembling aspen, balsam poplar and white birch. May include small patches of grassland, marsh or fens less than two hectares in size.
  
3.     **WATER BODIES:**             Consists of all open water - lakes, rivers, streams, ponds and lagoons.
  
4.     **GRASSLAND/RANGELAND:**     Consists of mixed native and/or tame prairie grasses and herbs. May also include scattered stands of associated shrubs such as willow, chokecherry, saskatoon and pincherry. Many of these areas are also used for the cutting of hay while others are grazed. Both upland and lowland meadows fall into this class. There is normally less than 10% shrub or tree cover.
  
5.     **MIXEDWOOD FOREST:**         A forest type in which 25% to 75% of the canopy is coniferous. May include patches of treed bogs, marsh or fens less than two hectares in size.
  
6.     **MARSH AND FENS:**           Grassy, wet areas with standing or slowly moving water. Vegetation consists of grass and sedge sods, and common hydrophytic vegetation such as cattail and rushes. Areas are frequently interspersed with channels or pools of open water.
  
7.     **TREED & OPEN BOGS:**         Peat covered or peat-filled depressions with a high water table. The bogs are covered with a carpet of sphagnum spp. and ericaceous shrubs and may be treeless or treed with black spruce and/or tamarack.
  
8.     **TREED ROCK:**                Areas of exposed bedrock with less than 50% tree cover. The dominant species is jackpine and occasional areas of shrub.

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9. CONIFEROUS FOREST: Forest in which 75% to 100% of the canopy is coniferous. Jackpine and spruce are combined under this class. May include patches of treed bogs, marsh or fens less than two hectares in size.
10. BURNT AREAS: Burned forested areas with sporadic regeneration and can include pockets of unburnt tree stands.
11. OPEN DECIDUOUS: Consists of lands characterized by rough topography, shallow soil or poor drainage which supports a growth of shrubs such as willow, alder, saskatoon and/or stunted trees such as trembling aspen, balsam poplar and birch. An area could contain up to 50% scattered tree or shrub cover.
12. FORAGE CROPS: Consists of perennial forage such as alfalfa and clover or blends of these with tame species of grass. Fall seeded crops such as winter wheat or fall rye are included here.
13. CULTURAL FEATURES: Built-up areas such as cities and towns, peat farms, golf courses, cemeteries, shopping centres, large recreation sites, auto wreckyards, airports, cottage areas, race tracks.
14. FOREST CUTOVERS: Areas where commercial timber has been completely or partially removed by logging operations. includes areas which have been replanted.
15. BARE ROCK, GRAVEL AND SAND: Exposed areas of bedrock with little or no vegetation, or exposed areas such as sand dunes and beaches. Also included are all gravel quarry/pit operations, mine tailings, burrow pits, and rock quarries.
16. ROADS AND TRAILS: All highways, secondary roads, trails and cut survey lines or right-of-ways such as railway lines and transmission lines.
17. FENS: Wetlands with nutrient-rich, minerotrophic water and organic soils composed of the remains of sedges and/or mosses. Sedges, grasses, reeds and mosses predominate, but could also include shrubs and sparse tree cover of black spruce and/or tamarack. Much of the vegetative cover composition of fens would be similar to the vegetation zones of marshes.