Infrastructure And Emergency Services Department

Roads And Transporation Division

Drainage Section

City Drainage Engineer, Ronald W. Norton, P. Eng.

Where Would We Be Without Water?

Drainage Engineers Are Not Very Busy In This Area.

In Sudbury, It Is Very Different, My Section Has A Motto...

The City Of Greater Sudbury Is Blessed With Some Of Canada's Finest Water Resources.

Over300LakesAndRivers

Mother Nature Provides Our Water. Sometimes She Provides Too Much!

Valley Stream Area 2006

Weather

Our Business Is Governed By Weather Systems.

Climate Change Causes Severe Events Which Have Major Impacts On Our Business.

Drainage Policy Development

Over The Past 3 Years, There have Been Some Significant Policy Initiatives.

- The Stormwater Background Study To The New Official Plan
  - Urban Drainage Policy
  - Stormwater Management Guidelines
  - Rural Drainage Policy Guidelines
- A City Lot Grading Policy

We Continue To Monitor The Development Of Best Management Practices

Sub Watershed Studies

There Are Numerous Watersheds In Greater Sudbury.

Our Priority For Sub Watershed Studies Include:

- Algonquin Road
- Lake Nepahwin
- Ramsey Lake
- Whitson River
- Junction Creek

Drainage Infrastructure Master Planning

- Assess Storm Drainage Outlets For New Subdivision Development.
- Conceive Engineering Solutions For Existing Problems On City Watercourses, Drainage Channels And Trunk Storm Sewer Systems
- Determine The Need For Stormwater Management Facilities.

Stormwater Management

Creation Of Drainage Works.

- Slow Down And Control The Quantity Of Surface Water Generated By Rain Storms Or Snow Melt.
- Improve The Quality Of Surface Runoff
- Reduce Erosion
- Prevent Flooding

What Creates The Need?

- Increased Amounts Of Paved Surfaces In Urban Areas
- Intense Rapid Rainfall Over A Period Of Time
- High Spring Temperatures Causing Rapid Snow Melt Conditions

How Do We Improve Surface Water Quality?

Control Ponds To Detain Stormwater For Settling Suspended Solids.

Municipal Drains

A Municipal Drain Is A Major Drainage Channel (Ditch) 4 To 6 Feet Deep With A Gradual 4:1 Grassed Side Slopes.

Municipa Drains Are Implemented By Petition Through The Ontario Drainage Act.

The City Has Approximately 50 Drains Usually Several Kilometres In Length.

These Drains Are Mainly In The Former Rayside Balfour And Valley East Areas.

Municipal Drains

Provide Drainage To Farms.

Provide The Basic Drainage Outlet For Rural Areas, Rural Roads And New Development.

Municipal Drains

Under The Ontario Drainage Act, The City Is Charged With The Responsibility Of Ensuring That Municipal Drains Are Kept In Good Repair.

ThisIsOftenAStruggleAsWeMustOutwitNaturesDam EngineersWhoPlugUpOurDrains.

New Capital Drainage Projects

Large Storm Sewer Construction

Environmental Improvement To City Lakes And Rivers

Effective Measures To Control Sediment And Petroleum From Entering Our Drainage Systems.

Devise Systems And Implement Methods For Removing Sediment From City Lakes.

Residential Lot Grading Problems

Insufficient Engineering

Creates Frustration, Tension And Conflict

Mediation, Understanding, Good Engineering Design

Our New Lot Grading Policy Will Help Avoid These Problems

Our Goals

To Work In Harmony With Our Partners To Protect Our Water Resources And Our Environment

To Improve The Quality Of Surface Water Entering Our Lakes

To Protect Our Citizens From Flooding Due To Severe Rainfall Events