

# DRINKING WATER SOURCE PROTECTION

ACT FOR CLEAN WATER



Quinte Conservation, 2061 Old Highway 2, R R # 2, Belleville ON K8N 4Z2 613.968.3434

## *Drinking Water Threats from Airplane De-icing*

The management of runoff that contains chemicals used in the de-icing of aircraft is listed as a drinking water threat under Ontario's *Clean Water Act, 2006*. The main chemical currently used to de-ice planes is ethylene glycol. The risk with the practice of airplane de-icing is that runoff which is not properly managed can contaminate surface water or groundwater. This can pose a threat to the drinking water supply. There

are no large airports within the Quinte Region that require the use of de-icing fluids. In the future if an airport with de-icing facilities is proposed close to a municipal well or intake it will be considered a significant threat. While it is unlikely that such an airport will ever be established near a municipal water source, a policy is still required to address this potential threat in the Source Protection Plan.

### *How are airplane de-icing threats being addressed?*

The Source Protection Committee considered various approaches to address this threat. Airplane de-icing is an important safety activity and is currently regulated under Canadian Aviation Regulations. Airplane de-icing fluid management plans are used to mitigate the risk of aircraft de-icing.

The approach chosen was for the municipality to be involved in the development of the Airplane De-icing Fluid Management Plan. This approach will ensure that the operators of the de-icing facility are aware of the vulnerable areas and that proper emergency measures are in place in the event of a spill or containment breach.

### *Types of threats to our drinking water sources:*

#### **Waste Disposal Sites**

**On-site Sewage Systems** (septic systems)

**Sewage Works** (sewage treatment plants, municipal sewers)

**Fuel Oil** (residential heating oil)

**Liquid Fuel**

**Nutrients** (manure, bio-solids, outdoor livestock areas)

**Commercial Fertilizer**

**Pesticides**

**Road Salt and Snow Storage**

**Chemicals** (DNAPLs (toxic chemicals) and Organic Solvents)

**Aquaculture**

**Aircraft De-icing Runoff**