



ENVIRONMENTAL MANAGEMENT

Water Management Plans

A-E-M-O-T Groundwater Management Study

Clients: Ministry of the Environment, Townships of Artemesia, Euphrasia, Melancthon, Osprey and The Town of The Blue Mountains, Ontario

The Townships of Artemesia, Euphrasia, Melancthon, Osprey and the Town of The Blue Mountains (referred to as **A-E-M-O-T**) are the headwaters of several Ontario major river systems, including the Grand, the Nottawasaga, the Saugeen and the Beaver. Groundwater discharge supports stream baseflow and, in the headwater areas, high quality cold water stream habitat. Groundwater also supports a diverse range of agricultural, commercial and recreational land uses, and provides water supplies for the majority of the 14,000 residents. In 1998, the ability of the groundwater system to meet demands placed on it was called into question when parts of the A-E-M-O-T Study Area were severely stressed as drought dried up wells and affected livestock and crop operations. Against this backdrop and with low water conditions again in 1999 and proposed increases in groundwater use (specifically by water bottling operations) concerns were raised among residents that the groundwater resources may not be sufficient to sustain current groundwater uses even without meeting new demands. Of particular concern is the export of water from the Study Area.



To resolve this challenging dilemma, **GREENLAND** integrated state-of-the-art computer modelling and analysis technology. These tools included our ISWMS™ software to develop a Groundwater Management Plan in 2001. Our shared community rooted vision for the Study Area included a focus on the creation a “living document”, interactive website, emphasis on public education and bridging the gap between the Study and long-term implementation by forming community links and partnerships. To accomplish this objective, we also developed a unique “Partnership Model” for implementation after the Study. This management framework includes Geomatics and remote sensing technologies for long-term monitoring of the groundwater system and the power of the Web, to effectively unite this watershed community.