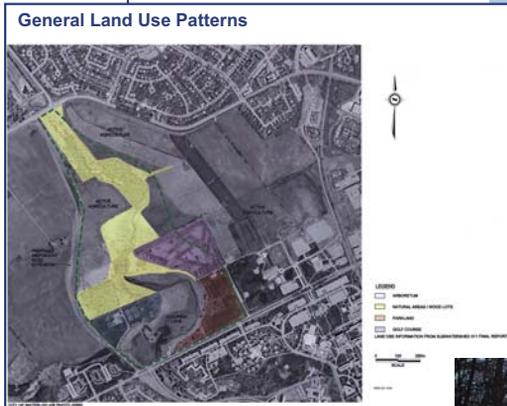


# Environmental Reserve Research and Technology Park Functional Study and Preliminary Design

## LAND USE AND ZONING AND RECREATION

The predominant land use in the North Campus is currently rural, consisting of active agricultural fields. The Environmental Reserve study area contains minimal agricultural land but is bounded by agricultural land. Another significant land use is open space. A large portion of the open space land is associated with the Laurel Creek corridor, within which the majority of the Environmental Reserve study area is situated.

*Agricultural Land in the Reserve*



*Walking Path in the Environmental Reserve Lands*



The Environmental Reserve already has a number of recreational uses that revolve around the use of the Laurel Trail and the extensive informal network of pathways associated with it. The property is actively used by the University and the broader community with activities generally centered around passive walking, cycling, jogging, bird watching, and botanizing. The adjacent development poses an interesting challenge: to meet the needs of a greater number of future users while protecting the integrity of the nature reserve. The development of specific recreational uses will be refined once the context and the complex interrelationship of the elements of the reserve are more clearly understood.

*Laurel Creek Walking Trail*



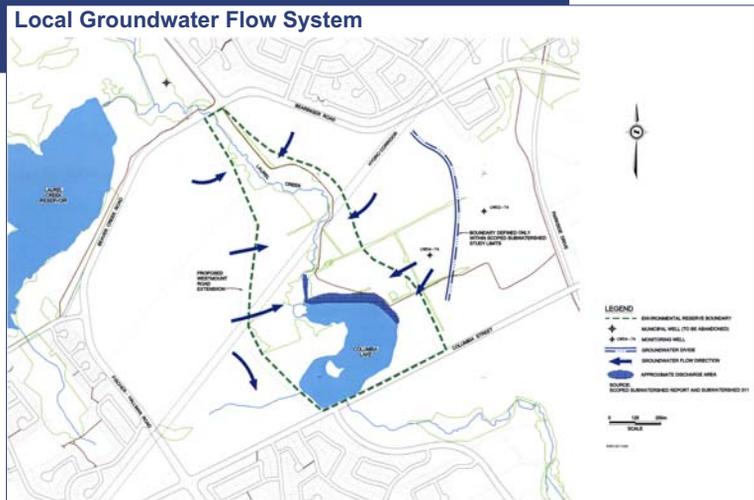


# Environmental Reserve Research and Technology Park Functional Study and Preliminary Design

## GROUNDWATER FLOW AND SURFICIAL GEOLOGY

The groundwater flow system is influenced by the seasonal variation in the water level within Columbia Lake. During low-flow, winter conditions, the lake is drawn down for flood control. This operating condition represents the most natural groundwater flow conditions in the watershed.

### Local Groundwater Flow System



The Pleistocene Geology mapping of the site indicates that the site is located on hummocky terrain underlain by Tavistock Till. The Tavistock Till is characterized as a clayey silt till. The southern limits of the reserve are geologically described as ice-contact sand and the eastern edge of the site is composed of lacustrine silt and clay deposits. The geologic mapping provides an explanation for the complex soil layering encountered at the site.

### Local Surficial Geology

