Township of Moraine Department of Public Works Division of Water Supply

To: Mayor and Council From: Township Manager

Re: Executive Summary of Groundwater Supply Inventory

Date: October 14th, 2000

In order to assess the current state of groundwater resources in moraine, all wells tapping the unconfined upper (or Wisconsin) aquifer within the Township were surveyed during 1999. This involved inspection of each well site, examination of well records, and measurement of water table elevation at each location. Water table elevations were measured only after a minimum of three weeks in which there was no pumping; this was done to eliminate the cone of depression and allow an estimate of the natural groundwater elevation.

The data show that the pumping of Township wells remains well within the availability of the resource and that groundwater reserves have not been reduced as a result of overpumping. Under current average rainfall conditions it is estimated that the Township could double its removal of the groundwater resource without damaging the aquifer. This assumes that private wells do not increase their utilization of the resource.

There are no recommendations for action by the Mayor and Council. Data has been released to the owners of individual wells.

<u>Location:</u> Self-Lume Factory (well-site was reoccupied after being abandoned and sealed in 1981) (2520, 1180)

Topographic Elevation of Well: 838.40'

Bedrock Elevation: 670.50'

Water Table Elevation: 807.20'

Date of Water Table Elevation Determination: 10/8/1999

Length of Time Since Last Pumping: since 1981

Location: Roche Moutonee Vineyards ((2700,300)

Topographic Elevation of Well: 838.40'

Bedrock Elevation: 702.0'

Water Table Elevation: 807.32'

Date of Water Table Elevation Determination: 6/25/1999

Length of Time Since Last Pumping: 28 days

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Location: Roche Moutonee Vineyards (1990,390)

Topographic Elevation of Well: 834.40'

Bedrock Elevation: 685.00'

Water Table Elevation: 806.79'

Date of Water Table Elevation Determination: 7/26/1999

Length of Time Since Last Pumping: 31 days

Location: Wedging Nursery (1670,1360)

Topographic Elevation of Well: 835.60'

Bedrock Elevation: 670.50'

Water Table Elevation: 806.86'

Date of Water Table Elevation Determination: 2/26/1999

Length of Time Since Last Pumping: 35 days

<u>Location:</u> Town Well #3 (900,480)

Topographic Elevation of Well: 821.80'

Bedrock Elevation: 639.50'

Water Table Elevation: 805.99'

Date of Water Table Elevation Determination: 1/30/1999

Length of Time Since Last Pumping: 62 days

Location: Town Pumping Station #3A & Monitoring Well #16 (170, 1940)

Topographic Elevation of Well: 850.20'

Bedrock Elevation: 719.00'

Water Table Elevation: 807.28'

Date of Water Table Elevation Determination: 1/30/1999

Length of Time Since Last Pumping: never pumped