QUINTE CONSERVATION

Tier 1
Water Budget (FinalDraft)

Prepared April 14, 2009

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

Quinte Region

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1. Introduction

Quinte Conservation has developed a Tier 1 water budget and quantity risk assessment for the Quinte Source Protection Region. This work is being completed to assist in quantifying the water resources available and being used in the Quinte watershed region. Through this process areas of the watershed experiencing high water use and potential hydrologic stress may be identified for further assessment. All work is being completed in accordance with the Ministry of the Environment Guidance Module 7 Water Budget and Water Quantity Risk Assessment (March 30, 2007) as discussed below.

To date a conceptual water budget has been completed to develop an understanding of how water moves through the watershed and the various reservoirs where water is being stored. A description of this work is provided in the Quinte Conservation Report Conceptual Water Budget – Quinte Region – Final Draft dated December 8, 2006. Building on this initial conceptual work the Tier 1 water budget has been undertaken at a subwatershed scale and on a monthly basis.

This work was completed by simple means using available data and a GIS water budget model developed at the Conceptual stage. This model was used to calculate the water budget from climate data to estimate volumes of available water and ground water recharge. The volumes of available surface and ground water were then compared against the volume of use to define the degree of potential watershed stress in accordance with threshold values as defined by the Ministry of the Environment Draft Guidance Module for Water Budget and Water Quantity Risk Assessment (March 30, 2007). Subject to the degree of potential stress, subwatersheds with a significant to moderate degree of stress will be required to progress onto a Tier 2 level of water budget work.

An outline of the work prepared to date is summarized below including brief overview of the Conceptual water budget and recommendations for next steps in the water budget process.

2. Overview of Quinte Source Protection Region

The Quinte Source Protection Region, as illustrated by Figure 2.1, is located in Eastern Ontario covering an area of approximately 6200 square kilometers. The Region consists of three main source protection areas namely the Moira River Watershed at 2880 km^2, the Napanee Region comprising the Salmon & Napanee River watersheds at a combined area of 1955 km^2, and the Prince Edward Region at 1365 km^2.

The Region is home to approximately 117 000 residents with the majority of population settlement in the southern portions of the watershed; largely a reflection of the variable landscape. The northern areas are rugged and form part of the Precambrian shield covering approximately 50% of the Region. This Region can be described as being largely forested with many wetlands and small lakes and has a minimal population. To the south of the Shield, the area is underlain by Paleozoic limestone bedrock with large areas of thin soil cover as well as some areas of significant soil depth along the south western boundary of the Moira River watershed. This area of greater soil depth is a result of glacial deposition as noted by various landforms including a kame moraine, eskers, and drumlin features. In the Prince Edward Region the landscape is dominated by thin soil over limestone bedrock, with some areas of topographic relief provided by glacial deposits and bedrock escarpments.

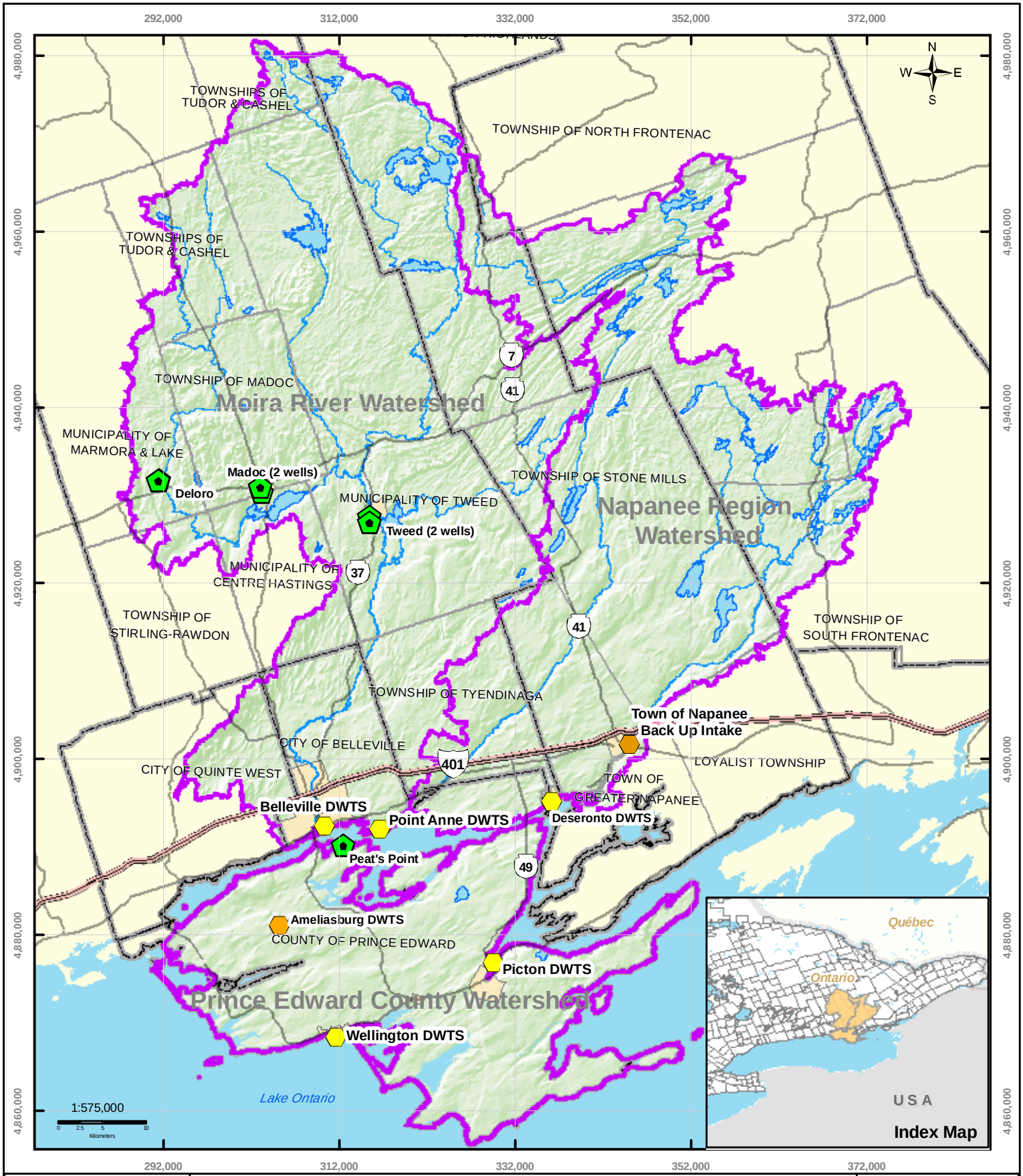
The Quinte area is known for its many significant surface water features which include the Napanee, Salmon, and Moira Rivers draining the northern Precambrian shield area into the Bay of Quinte (a connecting link to Lake Ontario) at the south. Conversely the Prince Edward Region is not drained by one main surface water course but by a number of small drainage courses leading outwards from inland plateaus towards either Lake Ontario or the Bay of Quinte. The largest of these Prince Edward water courses is the Consecon Creek covering an area of approximately 184 km^2. From a drinking water stand point, surface water is an important resource in the Quinte Region through providing supply to approximately 50% of the residents. The majority of these residents are located in the larger urban centres of the watershed listed in Table 2-1 as Belleville, Napanee, Picton, Wellington and Deseronto.

Ground water is also an important resource in the Quinte Region providing supply to the remaining 50% of the residents and base flow to the many surface water features. Of the residents using ground water the majority are on private wells, with approximately 3% on municipal ground water systems as listed in Table 2-1. In the Quinte Region ground water is typically found in a shallow unconfined fractured bedrock aquifer made up of either limestone or Precambrian rock. The records for approximately 22000 wells installed in the Quinte Region report that 95 % of the wells obtain supply from these bedrock aquifers. The remaining 5% obtain supply from overburden aquifers where deposits are of sufficient depth and areal extent. Well yields are typically low but

sufficient for meeting residential demand; some exceptions do occur with some high yield wells found in areas of highly fractured bedrock. Examples of this are the wells providing municipal supply to the Villages of Madoc, Tweed and Deloro.

Table 2-1: Municipal Drinking Water Systems

System Name	Population Served	Type of System	Source
Great Lakes			
City of Belleville	40000	Surface Water	Bay of Quinte
Town of Picton	5905	Surface Water	Bay of Quinte
Town of Deseronto	1700	Surface Water	Bay of Quinte
Village of Wellington	1743	Surface Water	Lake Ontario
Hamlet of Point Anne	60	Surface Water	Bay of Quinte
Inland Water			
Town of Napanee	8500	Surface Water *	Napanee River
Hamlet of Ameliasburgh	175	Surface Water	Roblin Lake
Ground Water			
Village of Madoc	1250	Ground water	Precambrian Aquifer
Village of Tweed	1558	Ground water	Precambrian Aquifer
Village of Deloro	160	Ground water	Precambrian Aquifer
Peats Point Subdivision	50	Ground water	Limestone Aquifer



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Legend

Surface Water Intakes

- Inland Intake
- Great Lakes Intake
- Municipal Wells
- Highway 401
- Highways
- Rivers
- Lakes
- Quinte Watersheds
- Populated Areas
- Township Boundaries
- County Boundaries

Figure 2.1 Quinte Source Protection Region & Drinking Water Systems

DIGITAL MAPPING SOURCES:

Digital Mapping Sources:
Base Map - Ontario Ministry of Natural Resources
Surface Water Intakes - Ontario Ministry of the Environment
Municipal Wells - Dillon Consulting

3. Overview of Conceptual Water Budget

As previously mentioned a conceptual water budget has been completed to provide a basic understanding of the hydrologic cycle in the Quinte Source Protection Region. A brief overview of this work is provided herein and the reader is directed to the formal report (Quinte Conservation, 2006) for more detailed information. This level of water budgeting provided an estimation of the volume of water (both ground and surface) available over a watershed wide basis on an annual period. Completion of this task required a review of the following water budget components:

- Climate, Geology, Physiography, Ground water, Surface water & Water Use

3.1. Water Budget & GIS Model

To assist in accounting for the various water budget elements a GIS model was developed for spatial representation of the Quinte Region. The model considers all components of the water budget and calculates ground water recharge from precipitation data after accounting for evapotranspiration from a soil moisture balance according to Thornthwaite's Method (1955). The recharge was estimated based on a recharge coefficient, developed after MOE methodology (1995), which was modified to consider topography, soil type, and land cover. The results were compared against known stream gauge data and base flow separation to provide an indication of the accuracy.

The average annual water budget for the Region, for 1971-2000 was calculated by the model as 919 mm of precipitation with 550 mm used by evapotranspiration, leaving 369 mm available for ground water recharge and runoff. In terms of ground water recharge an average recharge coefficient of 0.44 was developed suggesting an average annual recharge in the order of 162 mm. These results are in general agreement with stream gauge data (Water Survey of Canada) and base flow indexes (ground water) developed by the United States Geological Survey (2005).

3.2. Water Demand & Stress

To determine potential hydrologic stress in the Region an assessment of annual water demand was completed using GIS to analyse the spatial distribution of both ground and surface water use. To determine water use various sources of information were reviewed including water well records, population distribution data, agricultural water use statistics (Deloe et al. 2002), and Ministry of the Environment Permit to Take Water data.

From this assessment the total water use (ground and surface water) was calculated at a depth of 5 mm annually for the total Quinte Region area. This is equivalent to 1.3% of the volume of available water after accounting for evapotranspiration. Such a low percentage would be indicative of low stress potential; however on an annual period and Regional scale this does not reveal localized areas that may be experiencing potential water stress. The Tier 1 water budget contains analyses of subwatersheds considering a monthly time period which may reveal areas of potential stress.

4. Scope of Work & Methodology

The objective of the Tier 1 water budget is to estimate the degree of potential hydrologic stress within the Quinte Region through analysis at a refined time period and spatial scale. This entailed completion of the following:

1. Estimation of the water budget at a subwatershed scale,
2. Estimation of volumes of ground water recharge and surface water supply on a monthly basis,
3. Estimation of the consumptive use of both ground and surface water on a monthly basis,
4. Calculation of potential surface and ground water stress,
5. Delineation of significant ground water recharge areas,
6. Quantification of the uncertainty associated with the water budget estimates.

This work was completed in accordance with the Ministry of the Environment Water Budget and Water Quantity Risk Assessment Guidelines (March 30, 2007). An outline of the methodology is presented below.

4.1. Water Budget Elements

Assessment of the monthly water budget elements in the Quinte Region was completed to quantify the various components of the following general equation:

$$P + GW_{in} = ET + Q + \Delta S + U$$

Where:

P = Precipitation
GW_{in} = Horizontal ground water flow in
ET = Evapotranspiration
Q = Stream flow out (ground water discharge + direct runoff)
ΔS = Change in storage
U = Net water use including withdrawals and returns

To complete this work, sources of available field data were reviewed and a GIS model was incorporated. This model enabled assessment of the spatial distribution of the various water budget elements on a monthly period, including calculation of evapotranspiration from monthly climate data for the period 1971 - 2000. To refine this model factors were incorporated to assist in estimating the volume of infiltration potentially recharging the regional aquifers. This was achieved through review of water level data for a network of monitoring wells located throughout the watershed. For surface water volume the actual stream gauge measurements were applied for gauged subwatersheds. Where gauges

do not exist the flow was prorated for these catchments. A brief summary of the methodology for individual components of the water budget exercise are provided below with additional detail in the respective sections of this report.

4.2. Spatial Scale

The spatial scale of this work was based on subwatershed areas as defined by gauged catchments and quaternary level watershed boundaries provided by the Ministry of Natural Resources. There are a total of 24 subwatersheds of which 14 are gauged. Figure 4.1 illustrates the subwatershed areas.

The same subwatersheds were used for the ground water part of the assessment. Please note that such surface water catchments do not always provide a reasonable representation of ground water sheds. However, in accordance with Water Budget Guidelines ground water stress is to be evaluated based on subwatershed surface water boundaries. To complete the assessment for municipal wells the subwatersheds were determined as those areas located up gradient of each well as illustrated by Figure 4.2. For comparison purposes the ground water capture zones contributing to individual wells are illustrated by Figure 4.3. The much smaller ground water capture zones were determined using the three dimensional ground water flow models developed for delineating well head protection areas around each well. These zones are thought to provide better representation of the areas of the subwatershed contributing to each well.

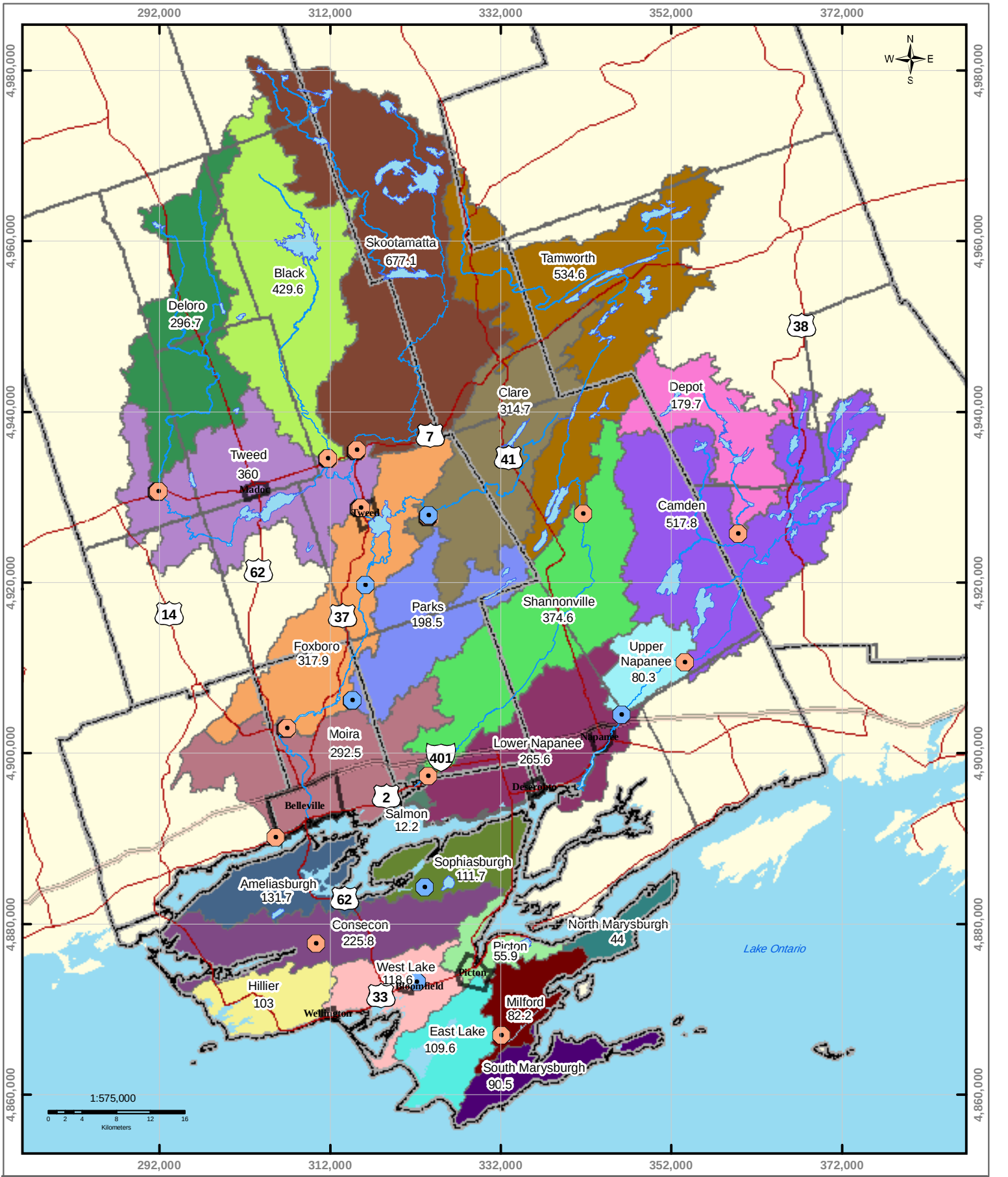
4.3. Climate (Evapotranspiration)

The climate of the Quinte Region was evaluated using Environment Canada climate station data for which spatial models were developed by Natural Resources Canada-Canadian Forestry Service (McKenney et al. 2006). For the purposes of this work both monthly precipitation and temperature data from the climate normal period of 1971-2000 was reviewed and incorporated into the GIS water budget model.

Using the GIS model, evapotranspiration over the watershed region was calculated using the Thornthwaite Method (1955) and a soil moisture balance. The spatial distribution of soil types and water holding capacities of these soils were applied as taken from mapping by Agricultural Canada and Soil Surveys of Prince Edward, Hastings, and Lennox and Addington Counties (1948, 1962-63).

4.4. Ground water Recharge/Supply

Evaluation of the potential for ground water stress requires an understanding of the volume of ground water supply being used. In a general sense this can be



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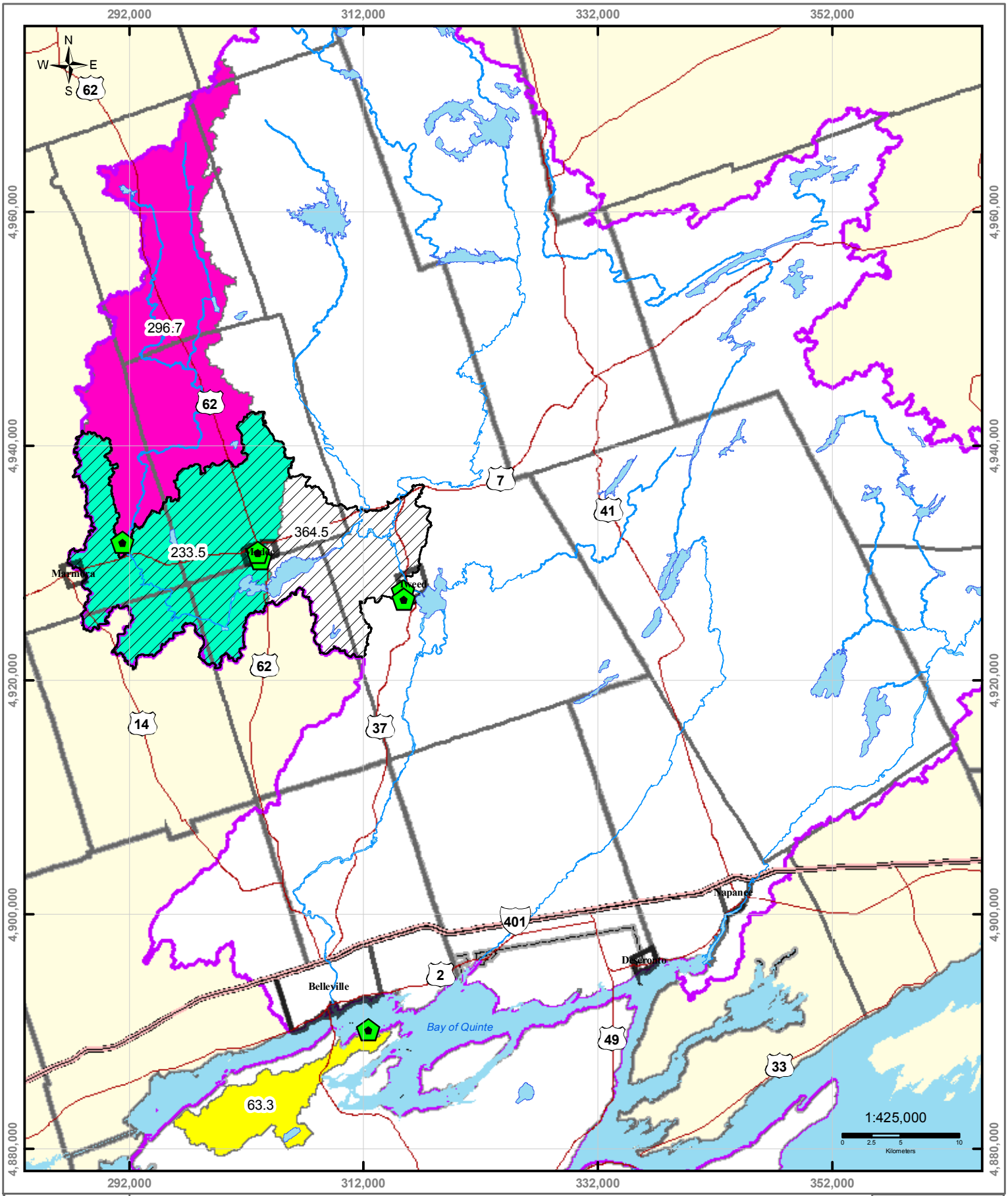
Legend

- Inactive Gauges
- Active Stream Gauges
- Highway 401
- Highways
- Rivers
- Lakes

Figure 4.1 Surface Water Catchments & Subwatersheds

DIGITAL MAPPING SOURCES:

Base Map - Ontario Ministry of Natural Resources
Subcatchments - Derived using ArcHydro
Gauge Locations - Water Survey of Canada



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Legend

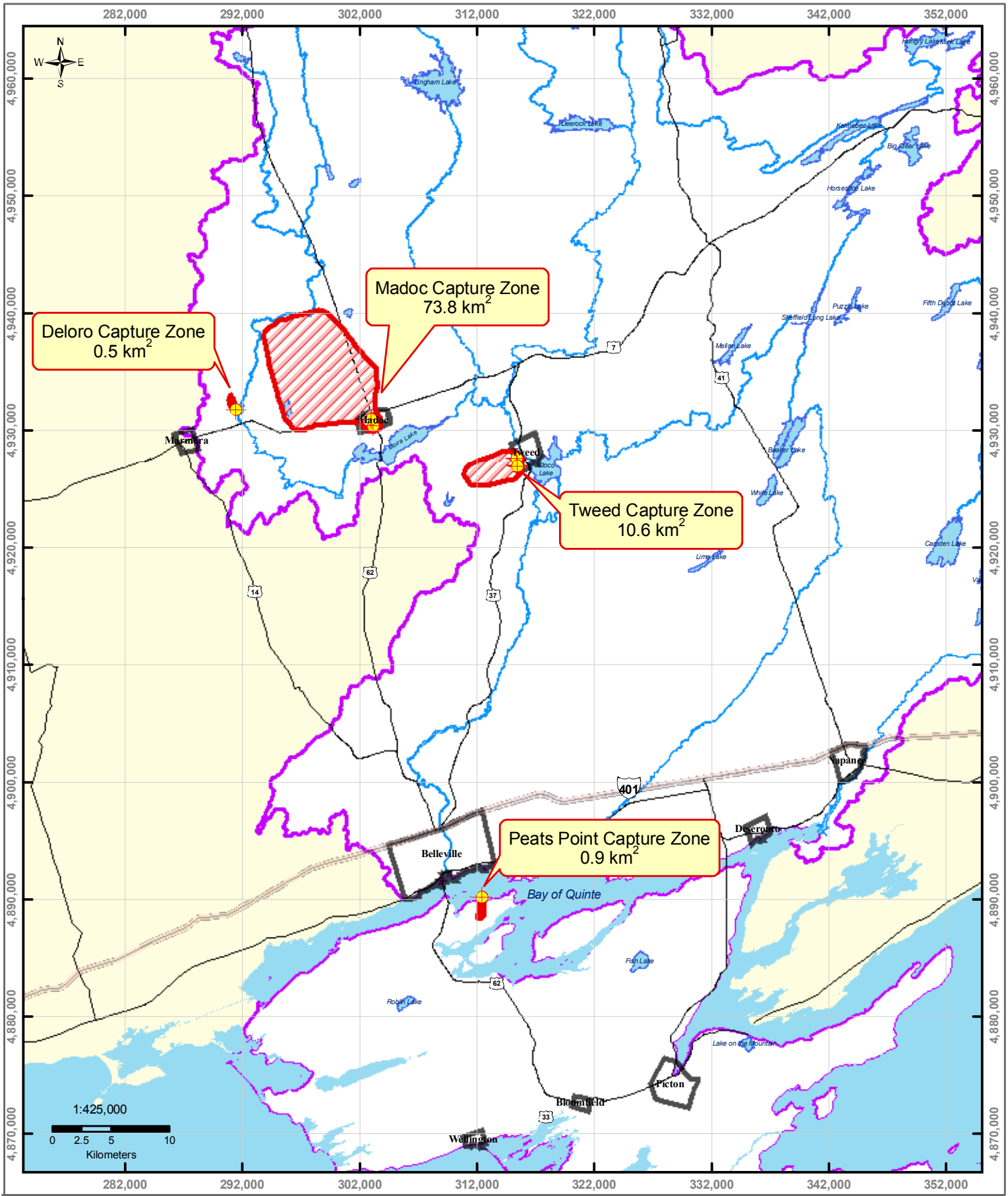
- Municipal Wells
- Highways
- Highway 401
- Rivers
- Lakes
- Tweed
- Ameliasburgh
- Deloro
- Madoc
- Quinte Region

*areas in square kilometers

Figure 4.2 Municipal Well Surface Watersheds

DIGITAL MAPPING SOURCES:

Base Map - Ontario Ministry of Natural Resources
Subcatchments - Derived using ArcHydro
Gauge Locations - Water Survey of Canada



Legend

Municipal Wells | Highways | Lakes | Populated Areas

Highway 401 | Rivers | Capture Zones | Quinte Region

Figure 4.3 Municipal Well Groundwater Capture Zones

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DIGITAL MAPPING SOURCES:

Base Map - Ontario Ministry of Natural Resources
Municipal Well Locations - Dillon Consulting

defined as a sum of recharge and net horizontal flow of ground water into the respective subwatershed. At this level of work, only the volume of recharge was considered for conservative purposes. To determine recharge the GIS water budget model was used to calculate the volume of precipitation that is available for infiltration. The proportion of this infiltration that ultimately recharges the aquifers was then estimated based on data from a network of monitor wells located throughout the watershed.

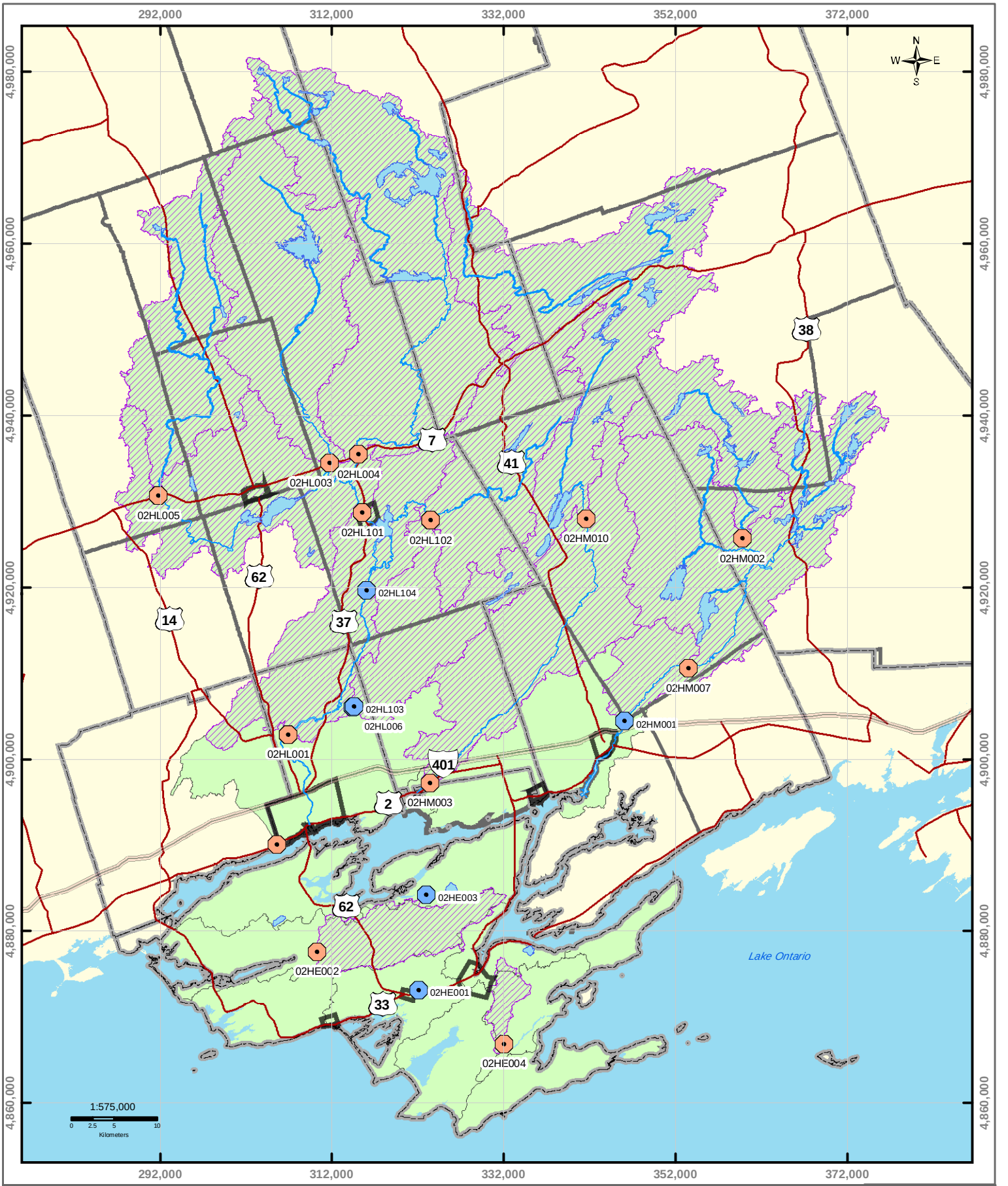
In reference to Water Budget Guidelines (2007) the volume of average annual ground water recharge derived from the GIS model was further refined by dividing this volume equally over 12 months. For safety a reserve of 10% was subtracted from this volume prior to comparing the supply against water use. The resulting ratio of supply to use was then compared against thresholds, as defined in the Guidelines to assign the level of potential hydrologic stress as significant, moderate, or low.

4.5. Surface Water Supply

To evaluate surface water stress the volume of supply was taken directly from stream gauge data for the 1971-2000 period from the Water Survey of Canada (WSC) and provided in Appendix 1. The location of gauged catchments is illustrated by Figure 4.4 which also illustrates the catchment areas to each gauge. For the areas of the watershed where gauges do not exist quaternary level watersheds as determined by the Ministry of Natural Resources were used. The volume of surface supply for these catchments was estimated through prorating. In accordance with the water budget guidance the surface water supply is estimated based on the median flow of each month after subtraction of the 10^{th} percentile flow (as a reserve) for the same month. The resulting volume is then compared with the use for the corresponding watershed.

4.6. Water Demand

The monthly water demand was assessed based on review of both permitted and non permitted takings. This included review of municipal, private, agricultural as well as other permitted and non permitted takings. Detailed information on this inventory is provided in the conceptual water budget report and also discussed further in this report. At this stage of review, consumptive factors were assigned to the water use to provide an estimate of the volume of water that is used and not directly returned to the source in a reasonable period of time. Actual water use numbers were also applied where available.



Legend

Active Stream Gauges
Inactive Gauges
Highway 401
Highways
Rivers
Lakes
Gauged Catchments

Figure 4.4 Stream Gauges and Catchments

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DIGITAL MAPPING SOURCES:

Base Map - Ontario Ministry of Natural Resources
Subcatchments - Derived using ArcHydro

4.7. Watershed Stress

Potential hydrologic stress was evaluated through calculation of the ratio of water supply to demand for both ground and surface water. For surface water this assessment was completed on a monthly basis and ground water was completed for both monthly and annual time periods. To be conservative a reserve is subtracted from the supply of both ground and surface water volumes prior to calculating the ratio. The ratio is then compared against thresholds to define the stress as significant, moderate, or low in accordance with the Water Budget Guidelines (2007). The subwatersheds containing a municipal intake (ground or surface water) that were determined as exhibiting moderate to significant hydrologic stress may be required (subject to consultation with the Ministry of Natural Resources) to proceed onto consecutive levels of water budget activity.

5. Water Budgets

The water budget for the Quinte watershed region on a long term annual and monthly basis was evaluated as described above and presented below. The general results are described with break down on the available volumes of both surface and ground water discussed in subsequent sections of this report.

5.1. Long Term Annual Water Budget

Long term annual water budgets for gauged watersheds, determined using the GIS Model, are presented in Table 5.1. The Precipitation (P) and Evapotranspiration (ET) numbers as listed for the various subwatersheds are derived from the GIS model and stream flow (Q) was taken from the Water Survey of Canada database for the corresponding period of record. In terms of the water budget equation, listed in Section 4.1, the ground water inflow and water use are considered to be negligible on an annual basis and are not reported. Likewise the change in storage over the long term is also considered to be negligible and is not considered. However, residual values are reported in order to provide an estimate of the accuracy of the water budget predictions.

This analysis indicates average annual precipitation values for the region to be in the order of 920 mm, evapotranspiration at 556 mm (60% of precipitation) and stream flow to be 392 mm (42% of precipitation). Residual values were variable and generally considered to be within the acceptable range of uncertainty.

Table 5-1: Long Term Annual Water Budgets (1971-2000) in mm

Subwatershed	Station #	P	ET	Q	Residual
Parks Creek	02HL006	921	587	362	-27
Napanee	02HM001	943	591	375	-23
Skootamatta	02HL004	913	506	396	11
Shannonville	02HM003	932	582	401	-51
Tamworth	02HM010	927	536	416	-25
Tweed	02HL007	888	555	383	-50
Foxboro	02HL001	910	559	389	-38
Deloro	02HL005	929	547	391	-9
Camden	02HM007	936	565	398	-27
Black	02HL003	900	504	441	-45
Consecon	02HE002	918	602	408	-92
Depot	02HM002	929	547	347	35

5.2. Long Term Monthly Water Budget

Long term monthly water budgets are reported for the Tier 1 purpose. At the monthly time frame there are fluxes of water in and out of the various reservoirs such as lakes, wetlands, and aquifers. These fluxes may be considered as the change in storage which are not considered at the long term annual time period, but cannot be ignored at the monthly time scale. This change in storage is not easily measured so for this level of work it will be calculated as the difference in input and output of each catchment.

The monthly budgets of four main catchments (Foxboro, Napanee, Shannonville and Consecon) are summarized in Tables 5.2 through 5.5 and Figures 5.1 through 5.4. Again the GIS model was used to estimate precipitation and evapotranspiration, while Q was taken directly from stream gauges for the respective catchment. The change in storage for each area was calculated and is listed in each table under the column labeled as **∆S.** The results for these catchments are fairly similar with relatively equal distribution of precipitation over the year, and increased evapotranspiration during the warmer summer months. The volume of water leaving the individual watersheds is highest in spring and winter months with decreased flow in the summer and fall. The change in storage corresponds with these fluxes where water goes into storage during periods of higher flow in the spring and fall and out of storage under low flow periods.

Table 5-2: Long Term Monthly Water Budget Foxboro (1971-2000)

Month	P	ET	Q	∆S
Jan	73	0	36	38
Feb	58	0	30	28
Mar	71	0	67	4
Apr	72	28	109	-64
May	76	78	45	-47
Jun	78	112	16	-49
Jul	66	105	7	-46
Aug	82	94	4	-17
Sep	88	73	7	9
Oct	76	35	10	31
Nov	84	5	24	55
Dec	80	0	35	45
Annual	905	530	389	

Figure 5-1: Long Term Monthly Water Budget Foxboro (1971-2000)

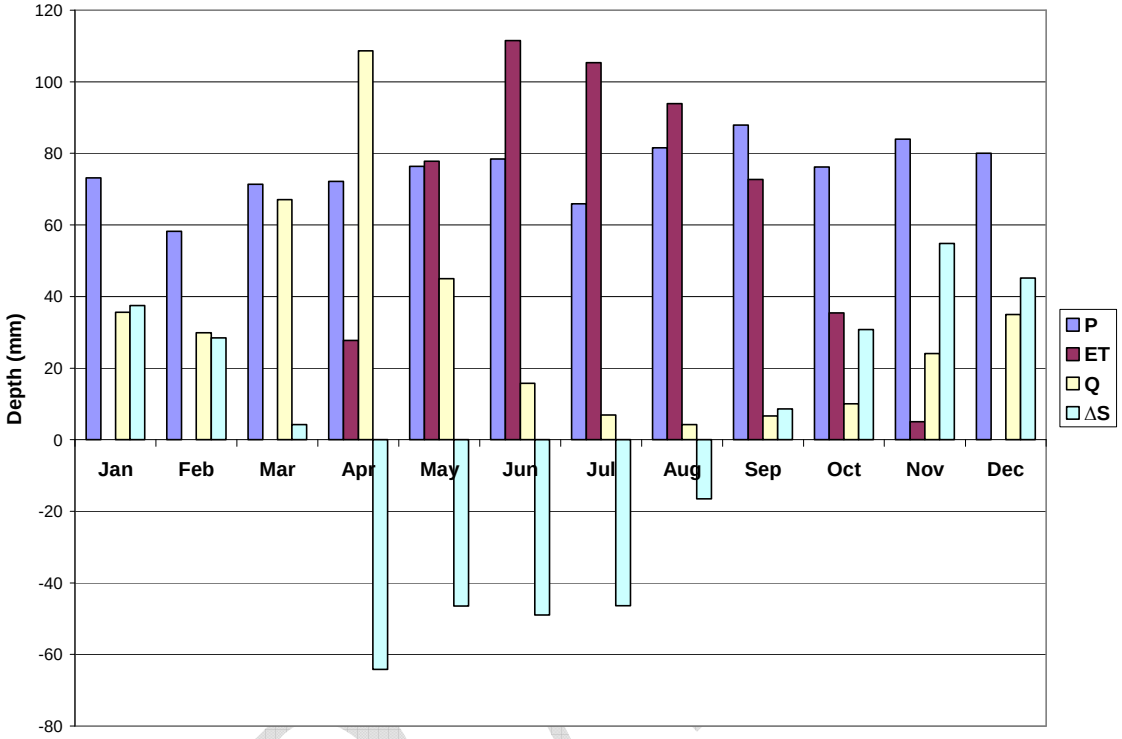


Table 5-3: Long Term Monthly Water Budget Napanee (1971-2000)

Month	P	ET	Q	ΔS
Jan	82	0	38	44
Feb	60	0	34	26
Mar	74	0	73	1
Apr	74	29	99	-54
May	76	78	40	-42
Jun	77	113	15	-51
Jul	69	129	7	-67
Aug	79	96	6	-24
Sep	92	74	10	7
Oct	78	37	13	28
Nov	90	7	24	59
Dec	84	0	37	48
Annual	935	564	398	

Figure 5-2: Long Term Monthly Water Budget Napanee (1971-2000)

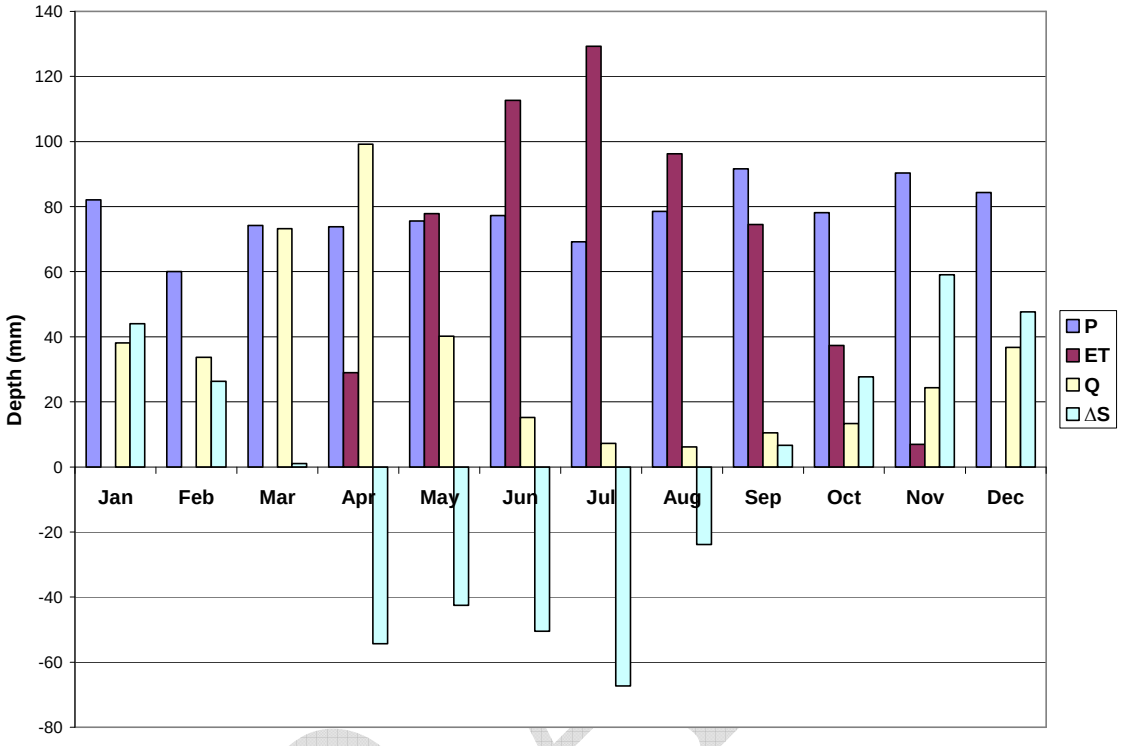


Table 5-4: Long Term Monthly Water Budget Shannonville (1971-2000)

Month	P	ET	Q	ΔS
Jan	83	0	39	44
Feb	59	0	34	25
Mar	75	0	74	1
Apr	73	28	104	-60
May	75	78	47	-49
Jun	79	112	16	-49
Jul	69	123	7	-60
Aug	78	99	3	-24
Sep	90	74	5	11
Oct	76	36	8	32
Nov	89	6	24	60
Dec	82	0	39	43
Annual	929	555	401	

Figure 5-3: Long Term Monthly Water Budget Shannonville (1971-2000)

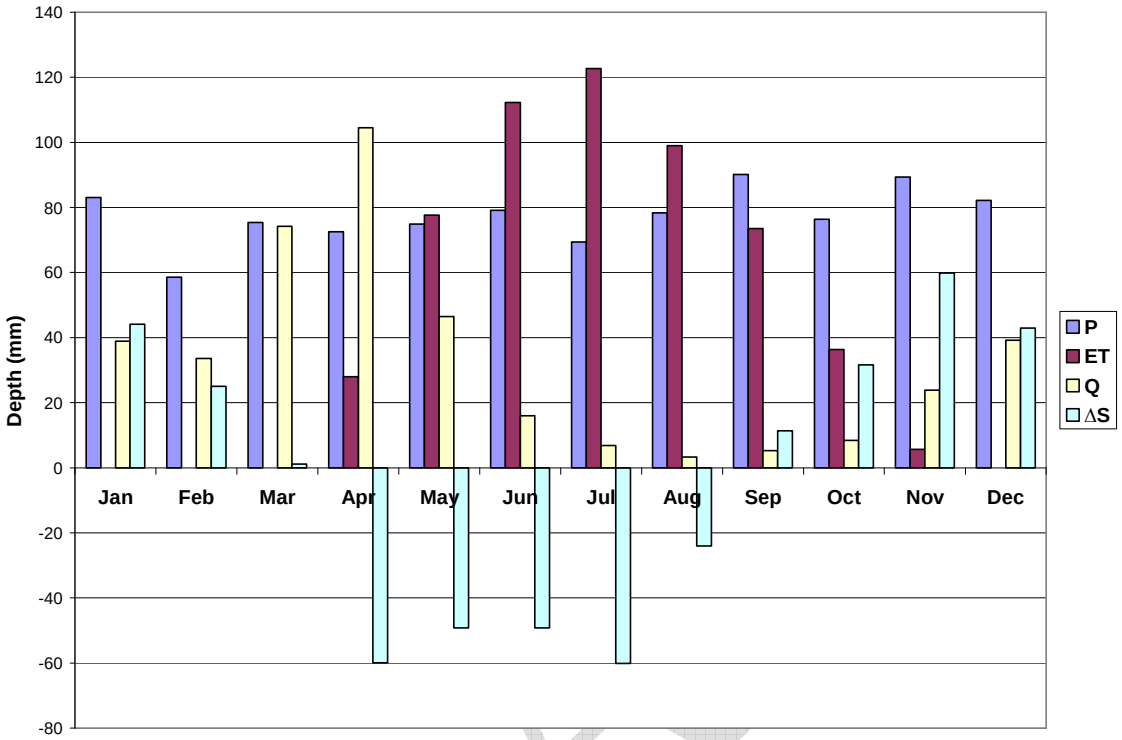
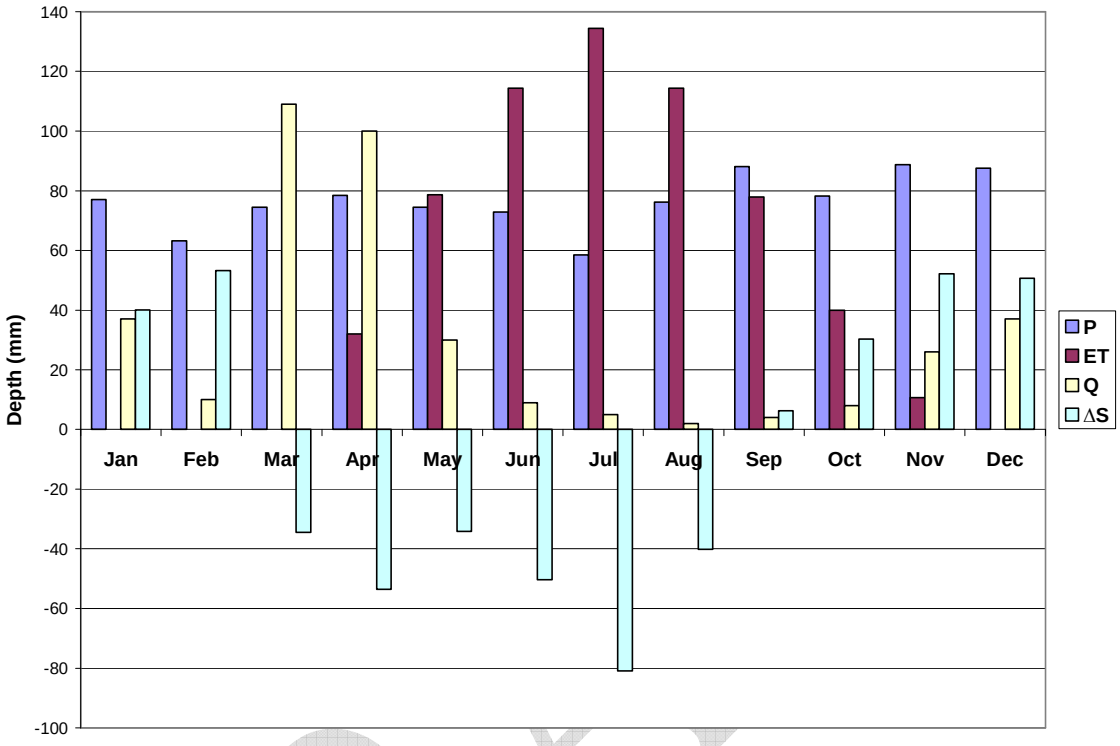


Table 5-5: Long Term Monthly Water Budget Consecon (1971-2000)

Month	P	ET	Q	ΔS
Jan	77	0	37	40
Feb	63	0	10	53
Mar	75	0	109	-34
Apr	78	32	100	-54
May	74	79	30	-34
Jun	73	114	9	-50
Jul	59	134	5	-81
Aug	76	114	2	-40
Sep	88	78	4	6
Oct	78	40	8	30
Nov	89	11	26	52
Dec	88	0	37	51
Annual	918	602	377	

Figure 5-4: Long Term Monthly Water Budget Consecon (1971-2000)



6. Water Demand

Water demand throughout the Region was estimated through a review of both permitted and non permitted takings for domestic, municipal, commercial, agricultural and other water use as described below. At this stage of the water budget a consumptive factor was applied to reflect the use of water which is not directly returned to the watershed within a reasonable time frame. Where available, actual water use numbers for municipal drinking water systems and other takings were applied. A summary of the sources of data and results are provided below.

Domestic & Commercial Use: This category is to reflect the use of individual residences and small business on private wells. The use was determined through review of water well records, of which there are 22000 for the Quinte watershed, and population census data to assess the number of persons per well at three. The total use per well was then determined at a rate of 175 litres/person/day or 525 litres/well/day. As the majority of dwellings that are serviced by wells also utilize septic systems a significant portion of the water is returned to the unconfined aquifers. In accordance with the Water Budget Guidelines (March, 2007) a consumptive factor of 0.2 was applied.

Permit to Take Water Data: The MOE permit to take water data base contains permits for takings of greater than 50000 litres/day. These permits cover various uses including agricultural, industrial, irrigation, and public supply.

Municipal Water Use: Actual water use data, provided by the municipalities, was used for the ground water systems at Madoc, Tweed, Deloro and Peats Point. The consumptive use of water at each system was reviewed to determine if the water is returned to the source within a reasonable period of time.

Agricultural (livestock watering): The agricultural water use study prepared for the MNR by Rob DeLoe (2002) was used to assess this consumption by subwatershed. This water use was further refined by considering the location and number of agricultural wells within the respective subwatershed.

6.1. Consumptive Water Use

To refine the actual use of water within the Region consumptive factors were applied to individual takings. The intent of this factor is to consider only the portion of water that is not returned directly to the reservoir or source where it was taken (i.e. municipal well with discharge of sewage to surface water would be 100% consumptive). However, in other cases consumptive use factors provided in the Guidelines. The consumptive use factors are reproduced in Table 6.1.

Table 6-1: Consumptive Water Use Factors

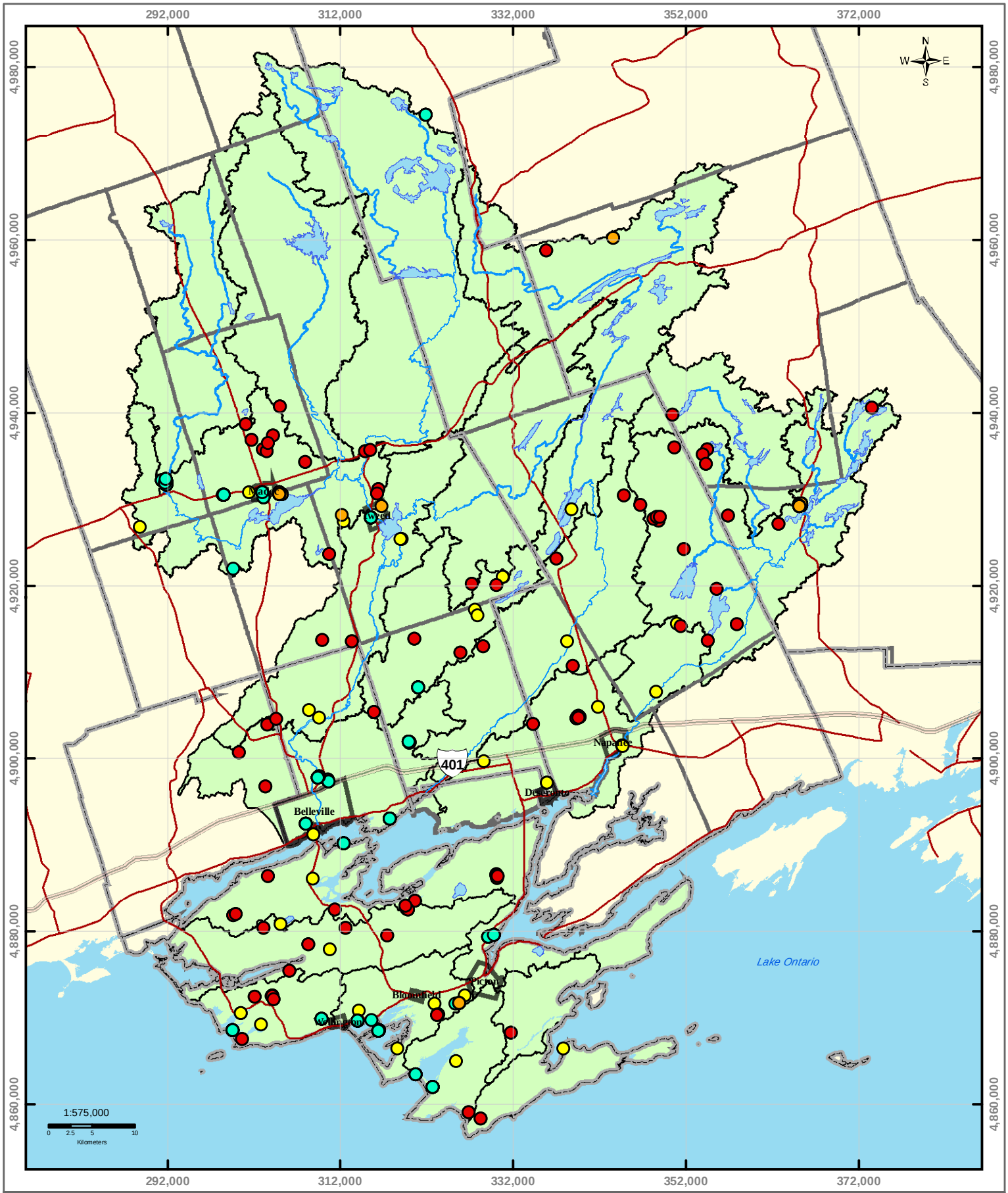
Category	Specific Purpose	Consumptive Factor *
Ground Water		
Agricultural	Fruit Orchards	0.8
Agricultural	Other - Agricultural	0.8
Commercial	Bottled Water	1
Commercial	Golf Course Irrigation	0.7
Dewatering	Pits and Quarries	0.25
Industrial	Aggregate Washing	0.25
Industrial	Other - Industrial	0.25
Remediation	Ground Water	0.5
Water Supply	Campgrounds	0.2
Water Supply	Communal	0.2
Water Supply	Municipal	0.2
Surface Water		
Agricultural	Other - Agricultural	0.8
Commercial	Golf Course Irrigation	0.7
Dewatering	Pits and Quarries	0.25
Industrial	Aggregate Washing	0.25
Industrial	Manufacturing	0.25
Water Supply	Municipal	0.2
Water Supply	Other - Water Supply	0.2

* Factors as taken from The Ministry of the Environment Water Budget & Water Quantity Risk Assessment Guidelines (Appendix 4) – March 30, 2007.

6.2. Summary of Water Use

Water use in the Quinte Region is summarized herein with a break down of ground and surface water use. From this review it was determined that as of 2004 there were 223 Ministry of the Environment permits to take water. Of these 39 will not be considered as they are takings from the Great Lakes which is part of a much larger watershed area. A further 6 permits are for dams and 89 are for wetlands which do not truly represent actual water taking and will be discussed further under the surface water section. This leaves a total of 89 permits, as summarized in Appendix 2 with the location of taking as illustrated by Figure 6.1.

From these permits 36 are for surface water, 38 are ground water and the balance of 15 is recorded as taking from both ground and surface water. Referring again to Figure 6.1, the reader again will observe the majority of takings are in the area to the south of the Precambrian shield which generally corresponds with the more populated regions. To determine water use for individual subwatershed areas the GIS Model was used to account the location of both permitted and non permitted takings.



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Legend

- Groundwater Permits
- Surface Water
- Both
- Wetland Permits
- Highway 401
- Highways
- Rivers
- Lakes
- Flow Monitoring Catchments

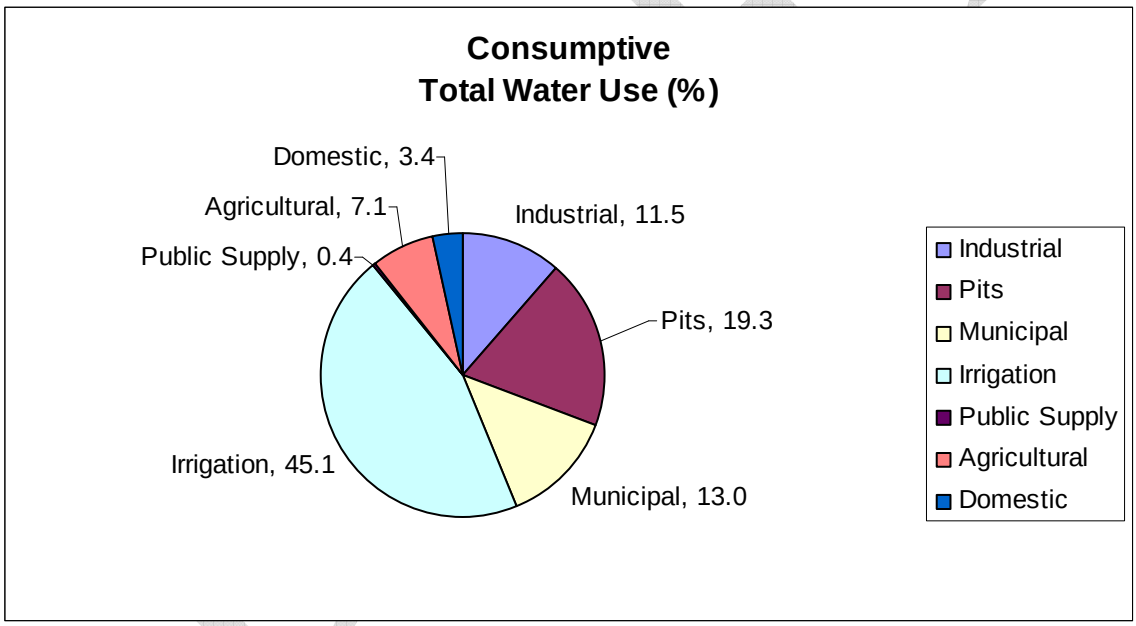
Figure 6.1 Permit to Take Water Locations

DIGITAL MAPPING SOURCES:
Base Map - Ontario Ministry of Natural Resources
Digital Elevation Model - Ministry of Natural Resources
Subcatchments - Derived using ArcHydro

The top three consumptive users of water in the Region, as illustrated by Figure 6-2, are for irrigation, pits and quarries, and then municipal takings. By separating into either ground or surface water use, one notes the highest users of surface water are irrigation, municipal, and industrial. Similarly, the highest users of ground water are irrigation, pits and quarries (dewatering), followed by agriculture.

A summary of monthly ground and surface water use (excluding wetlands and dams) is provided in Tables 6.2 and 6.3 as well as Figures 6.3 and 6.4. Ground water comprises 49% of total use at 8.31 * 10^6 m^3/year with the remaining 8.57 *10^6 m^3/year attributed to surface water. Of interest is that these totals do not include the consumptive use for wetlands which was evaluated in accordance with Water Budget Guidelines at approximately 11 times the total use of both surface and ground water.

Figure 6-2: Distribution of Overall Water Use (%)



Water use varies seasonally in the Quinte Region. For surface water the use increases over the summer months owing predominantly to irrigation. For ground water the use is relatively constant throughout the year with slight increases in the summer also due to irrigation (golf courses and agriculture). A slight increase in ground water use was also noted for the spring and fall due to increased pumping for Quarry dewatering.

Please note that the above and tabulated estimates of water use include permitted volumes of taking and not actual taking. This is important as some of the volumes reported may be misleading. For example one of the permits indicates that irrigation is taking place at a golf course during the winter months

for both surface and ground water. The timing of such taking is unlikely suggesting that there may be an error in the information recorded on the permit. Also misleading is the volume of ground water reported as being taken from Quarries for dewatering. In this Region the water pumped from many Quarries is a result of the accumulation of surface drainage as opposed to ground water. As such, permits for large takings are required to primarily pump out large volumes of surface water drainage during the spring and fall.

Table 6-2: Monthly Consumptive Ground Water Use (1000 m^3)

Month	Industrial	Pits & Quarries	Municipal	Irrigation	Public	Agricultural	Domestic
Jan	48	172	37	254	6	58	10
Feb	51	204	32	254	6	58	10
Mar	84	201	39	254	6	58	10
Apr	84	207	34	254	6	58	10
May	50	303	36	264	6	58	10
Jun	84	177	36	276	6	194	10
Jul	12	175	37	298	6	194	10
Aug	99	172	36	301	6	194	10
Sep	84	172	35	277	6	194	10
Oct	98	177	31	254	6	58	10
Nov	51	226	31	254	6	58	10
Dec	48	181	33	254	6	58	10
Annual	794	2370	418	3190	75	1240	118

Figure 6-3: Monthly Consumptive Ground Water Use

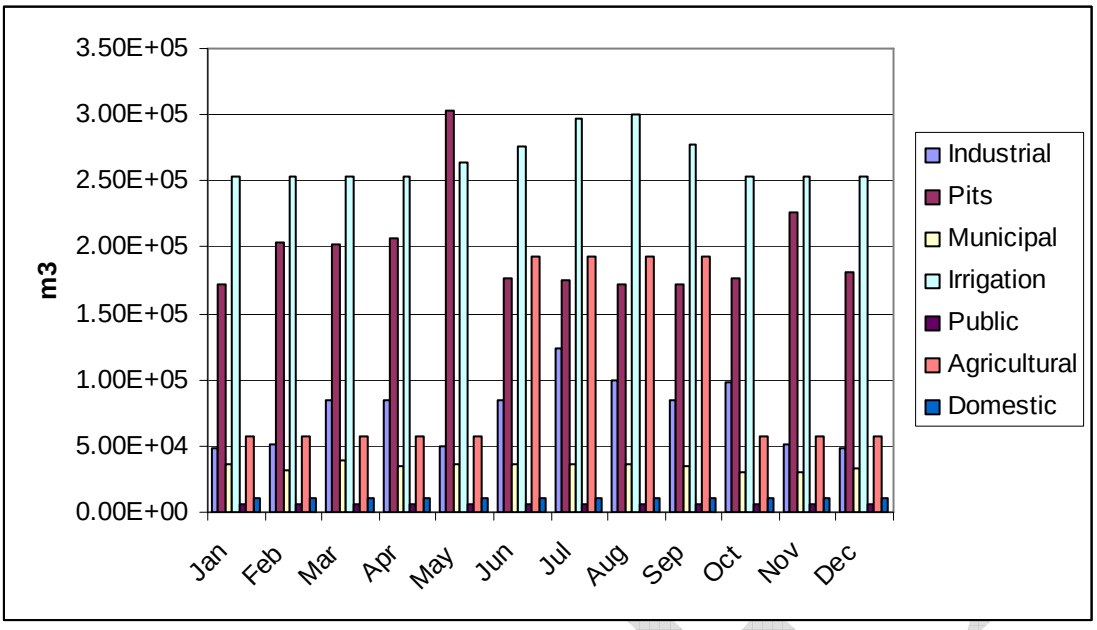
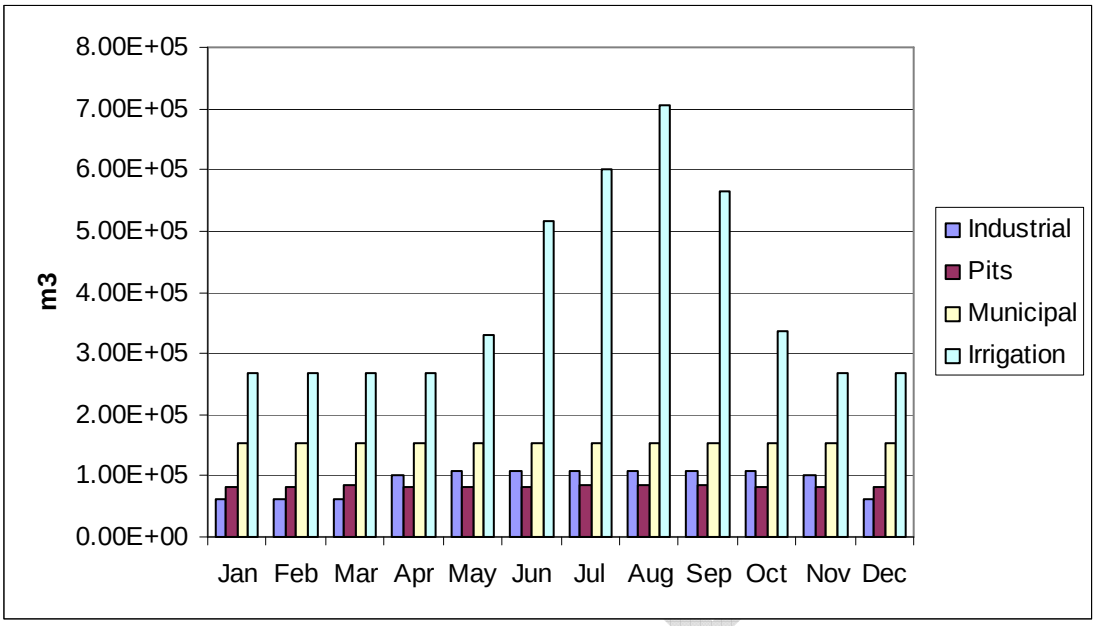


Table 6-3: Monthly Consumptive Surface Water Use (1000 m^3)

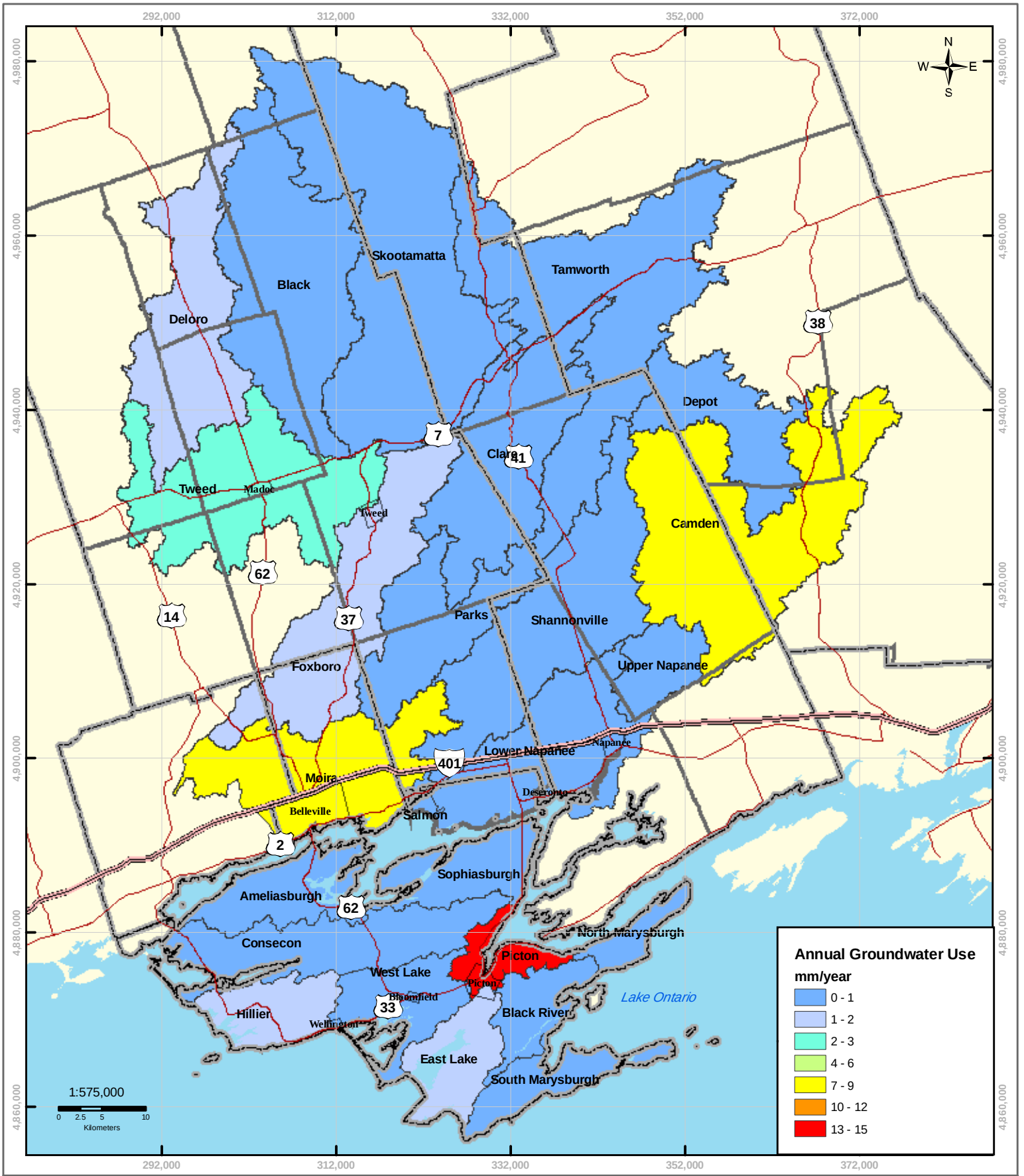
Month	Industrial	Pits & Quarries	Municipal	Irrigation
Jan	61.3	80.9	154	266
Feb	61.3	80.9	154	266
Mar	61.3	85.8	154	268
Apr	102	80.9	154	268
May	106	81.9	154	330
Jun	106	81.9	154	515
Jul	106	84.3	154	600
Aug	106	84.3	154	707
Sep	106	83.3	154	564
Oct	106	80.9	154	337
Nov	102	80.9	154	266
Dec	61.3	80.9	154	266
Annual	1090	987	1840	4650

Figure 6-4: Monthly Consumptive Surface Water Use



6.3. Subwatershed Ground Water Use

Figure 6.5 shows annual ground water use by subwatershed. Monthly ground water use expressed in depth in mm, for each individual catchment is also listed in Appendix 3. Areas of higher ground water use were identified as the Picton, Camden, and Moira subwatersheds. Annual water use in these watersheds was in the order of 6 mm for Camden and Moira with Picton even greater at 14 mm/year. These higher use watersheds are attributed to takings of ground water for Quarry dewatering as well as golf course irrigation. Further discussion is provided later in this report.



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Legend

Highway 401 | Populated Areas | Township Boundaries

Highways | County Boundaries

Figure 6.5
Annual Subwatershed Groundwater Use (mm/year)

DIGITAL MAPPING SOURCES:
Base Map - Ontario Ministry of Natural Resources

6.4. Municipal Well Capture Zone Water Use

Ground water use in the subwatersheds and capture zones located around municipal wells (see Figures 4.2 & 4.3) was evaluated through use of the GIS model. The actual water use for the municipal wells was provided by the Municipalities and applied to each area in combination with other uses which included agriculture, domestic, and commercial. In the smaller ground water capture zones there were no permits for large takings. Table 6.4 was prepared to show a summary of the types of water use found in each area including average monthly water use. From this review it is evident the most significant use of water in capture zones is for municipal water. Minimal domestic and commercial use and agricultural use occurs.

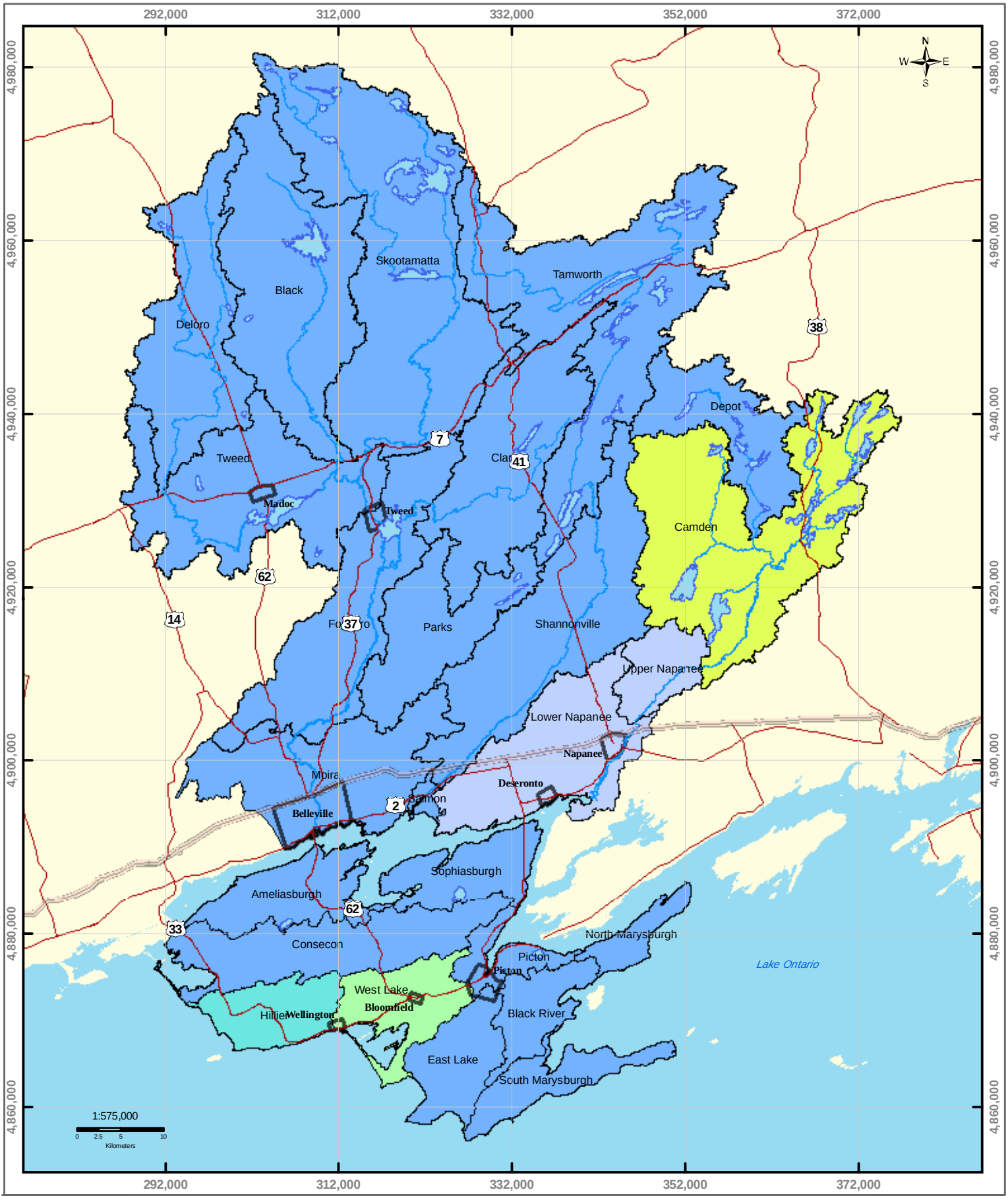
Table 6-4: Water Use in Municipal Well Capture Zones

System Name	Average Use 1000 m3/month	% of Total Consumptive Water Use		
		Domestic & Commercial	Agricultural	Municipal
Tweed	19	<1	7	93
Madoc	18	1	5	94
Deloro	<1	<1	0	99
Peats Point	<1	6	0	94

6.5. Subwatershed Surface Water Use

Figure 6.6 has been included here to provide a spatial understanding of permitted annual surface water usage across the region. Annual usage per catchment is shown as depth in millimetres across the subcatchment; this usage is very low in comparison to the annual surplus. Camden subcatchment shows the largest annual taking of about 4 mm.

Depths were calculated by summing the volumes of takings over a one year period and dividing by the area of the subcatchment. These values were converted into millimetres by multiplying that result by 1000. It is important to note that depths of the surface water takings that occurred lower in a particular watershed (i.e. not a headwater subcatchment) were calculated by dividing total usage by the accumulated catchment area. This takes into account that the point of withdrawal is fed by runoff generated from the entire catchment area, not just the particular subcatchment.



Legend

Highway 401
Highways
Populated Areas

Annual Surfacewater Use (mm/yr)

0-1
1-2
2-3
3-4
4-6

Figure 6.6
Annual Subwatershed Surface Water Use (mm/year)

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DIGITAL MAPPING SOURCES:
Base Map - Ontario Ministry of Natural Resources
Digital Elevation Model - Ministry of Natural Resources
Subcatchments - Derived using ArcHydro

7. Surface Water Supply

Evaluation of the volume of surface water supply and use has been completed in order to evaluate the potential for hydrologic stress. For the purposes of this exercise the entire data sets for each gauged catchment (see table 7.1 below) were considered and the statistics used to complete the stress assessment were based on all available stream flow data. Copies of the HYDAT tables are included in Appendix 1 for the reader's reference. The following table shows the summary statistics for all the gauged catchments.

Flow statistics were calculated using an Excel spreadsheet function on the gauged data to provide the Median and 10th percentile values. For ungauged catchments Median and 10th percentile statistics were estimated by prorating the catchment to a gauged location or by comparison to a nearby gauged catchment. The following formula, from Hydrology of Floods in Canada by Watt et al., was used to transfer the gauged statistics:

$$Q_1 = Q_2 \left(A_1 / A_2\right)^{0.8}$$

Where:

Q_1 = Flow at location of interest

Q_2 = Flow at gauged location

A_1 = Area at location of interest

A_2 = Area at gauged location

Ungauged catchments include, Lower Moira, Lower Salmon, Lower Napanee, and most of Prince Edward County with the exception of Consecon. Although Black Creek in Prince Edward County is now gauged, the period of record (two years) is too short to generate reliable statistics, nor is it available on HYDAT. The two former stations Bloomfield Creek and Demorestville Creek both have comparatively short historical records (22 years and 6 ½ years respectively). Bloomfield was noted as having unreliable data (personal communication with Jim Millman, Water Survey of Canada technician). Demorestville Creek was maintained by Ministry of the Environment for purpose of gaining knowledge of the local hydrology and was not kept to Water Survey of Canada standards. The record shows a lot of monthly average flows of 0.00 cms which would not be helpful to transfer to other sites.

All statistics for Prince Edward County catchments were derived from Consecon record and the results will be less reliable and must be used with caution. The estimated statistics for all stations are contained in Appendix 5.

Table 7-1: Stream Gauging Stations[1]

Station Name	Drainage Area (km2)	WSC ID	Period of Record	Mean Annual Flow (cms)	Runoff Expressed as mm/yr
Moira River Near Deloro	308	02HL005	1965 - 2004	3.77	386
Black River Near Actinolite	401	02HL003	1955 - 2004	5.15	405
Skootamatta River Near Actinolite	712	02HL004	1955 - 2004	8.42	373
Moira River Near Tweed	1770	02HL007	2002 - 2004	21.4	381
Moira River Near Tweed	1770	02HL101	1968 - 1977	26.9	479
Moira River Near Thomasburg	2210	02HL104	1969 - 1970	25.2	360
Clare River Near Bogart[2]	160	02HL102	1968 - 1977	2.79	550
Parks Creek Near Latta	205	02HL006	1984 - 1992	2.28	351
Parks Creek Near Latta[3]	199	02HL103	1968 - 1977	3.13	496
Moira River Near Foxboro	2620	02HL001	1915 - 2005	30.4	366
Salmon River Near Shannonville	891	02HM003	1958 - 2004	10.7	379
Napanee River at Camden East	694	02HM007	1974 - 2004	8.69	395
Napanee River at Napanee	777	02HM001	1915 - 1974	9.13	371
Depot Creek at Bellrock	189	02HM002	1957 - 2004	1.98	330
Bloomfield Creek at Bloomfield	13.9	02HE001	1970 - 1992	0.168	381
Consecon Creek at Allisonville	114	02HE002	1970 - 2004	1.48	409
Demorestville Creek at Demorestville	29.3	02HE003	1970 - 1977	0.404	435

[1] Entire flow records were used where possible to represent the subcatchments under study. Periods of record that were short or not considered reliable were not used to generate statistics for the water budget exercise. An example of this is Demorestville Creek that has 6 ½ years of record and had average flows of 0.00 for several months.

[2] Record did not compare well with Moira at Foxboro (about 20% higher). Flow records used with caveat that they were high.

[3] Record did not compare well with Moira at Foxboro and was not used as older station record was available.

7.1. Surface Water Stress

The purpose of this section is to attempt to assign a measure of how much water is being used with respect to the available water. A simple calculation is recommended in the guidance documents to assist the team to assign a level of potential stress (based on percent water demand) to the catchment. The methodology is reproduced below:

$$\% \text{ Water Demand (Stress)} = \frac{Q_{Demand}}{Q_{Supply} - Q_{Reserve}} \text{ X } 100$$

Where:

Q_{Demand} = Monthly surface water demand calculated as consumptive takings from streams, ponds, and lakes in the watershed. This demand is determined for current and for 25 year projections.

Q_{Supply} = Monthly surface water supply calculated as monthly median flow within the watershed using the flow measured at a stream gauge or prorated from nearby gauge.

$Q_{Reserve}$ = Surface water reserve is estimated, at a minimum, as the 10^{th} percentile of monthly median flow.

The percent water demand, once calculated, is compared to the thresholds in Table 7.2 to assign a stress category to the subwatershed.

Table 7-2: Surface Water Stress Threshold

Surface Water Quantity Stress Assignment	Monthly Maximum % Water Demand & 25-Year Projection
Significant	>50%
Moderate	20%-50%
Low	<20%

Two scenarios were reviewed for all the catchments to determine the potential for surface water stress. The first considered *current* usage under hydrologic conditions represented by median monthly flows at stream gauge locations. The second scenario is under *future* conditions for a 25-year growth projection. The growth projections were carried out only for catchments with municipal drinking water intakes from an inland or river source. These are the Lower Napanee and Ameliasburgh catchments containing the Napanee backup intake and the Roblin Lake intake. Refer to Figure 2.1 for the location of these.

7.2. Stress on all Catchments

The surface water stress calculations were completed on all catchments using all the current permitted takings. These have been included in the appendices for brevity. Appendix 5 contains tables showing the monthly stress values. All those in excess of 20% have been bolded to show those catchments that would be at least moderately stressed. It is of note that many catchments show at least moderate stress. Most of the Prince Edward County catchments indicate extraordinary stress. This cannot be the case. The team reviewed the takings and concluded that wetland takings should be removed. The stress calculations were again carried out with wetland takings removed. Table 7.3, has been provided below showing the water use figures on a monthly basis by category to show the scope of the wetland use. Wetland water takings are 96% of permitted usage by volume.

Table 7-3: Annual Surface Water Consumption (1000 m^3)

Month	Industrial	Municipal	Irrigation	Pits	Wetlands	Monthly Total (1000 m^3)
Jan	61	153	266	80	8,578	9,140
Feb	61	153	266	80	8,578	9,140
Mar	61	153	268	85	18,287	18,856
Apr	102	153	268	80	18,201	18,805
May	106	153	330	81	26,357	27,029
Jun	106	153	515	81	26,331	27,189
Jul	106	153	600	84	26,381	27,325
Aug	106	153	706	84	26,381	27,432
Sep	106	153	563	83	24,772	25,679
Oct	106	153	336	80	18,011	18,689
Nov	102	153	266	80	18,011	18,614
Dec	61	153	266	80	8,578	9,140
Annual Total	1,000	2,000	5,000	1,000	228,000	237,000
	0.5%	0.8%	2.0%	0.4%	96.4%	

Figure 7.1 has been prepared to visually represent the findings of the stress calculations on the individual subwatersheds. Of the Moira, Salmon, and Napanee catchments only one (Parks Creek) shows a stress exceeding 20%, which occurs in the month of August. The permitted takings were reviewed and the team discovered the source of the large August taking was irrigation for a golf course. The taking description is not clear and there appears to be duplicate water use that skews the data. July and September takings for the same catchment show 5% and 7% stress respectively. This stress is not considered to be representative of the real withdrawal for a golf course irrigation use.

Prince Edward County continues to indicate stress as high as 600% in several catchments even with the wetland takings removed. These include Hillier, West

Lake and East Lake subcatchments. Consecon and Ameliasburgh have stress indications at 65% and 31% respectively. There are several possible explanations for stresses exceeding 100%. The takings may actually be from Lake Ontario or hydraulically connected to Lake Ontario despite the stated source in the database. (Recall that all Lake Ontario or Bay of Quinte source permits were excluded from consideration). A further explanation may be that the permitted taking far exceeds actual usage. This is often the case in older permits.

Another reason for the high stress values is understood in the hydrology of the County. The catchments are defined by height of land and may have many small creeks. These creeks dry up completely in summer months and any listed taking during that time will appear as a high stress. Also, since the statistics of median and reserve flows are synthetic for most of those catchments, this makes the conclusion of stress less reliable.

In reviewing the median and reserve flows in Prince Edward County, one notes that both values are often rounded to '0.00' cms in summer months. This means that there should be a very high uncertainty placed on these results.

7.3. Stress on the Surface Water Intakes

7.3.1. Napanee Intake

The Napanee intake is a back up water supply used infrequently by the Town of Greater Napanee. At one time it was their primary drinking water source, but suffered from poor quality due to a low summer supply. In the late 1950's the Depot Lakes reservoir project was initiated with the construction of the 2nd Depot Lake Dam to help augment flows for the river during summer months to improve water quality. The last dam was completed in the early 1970's raising the storage level at 3rd Depot Lake to its current storage volume. The total augmentation storage in the Depot Lakes is 1300 hectare-metres.

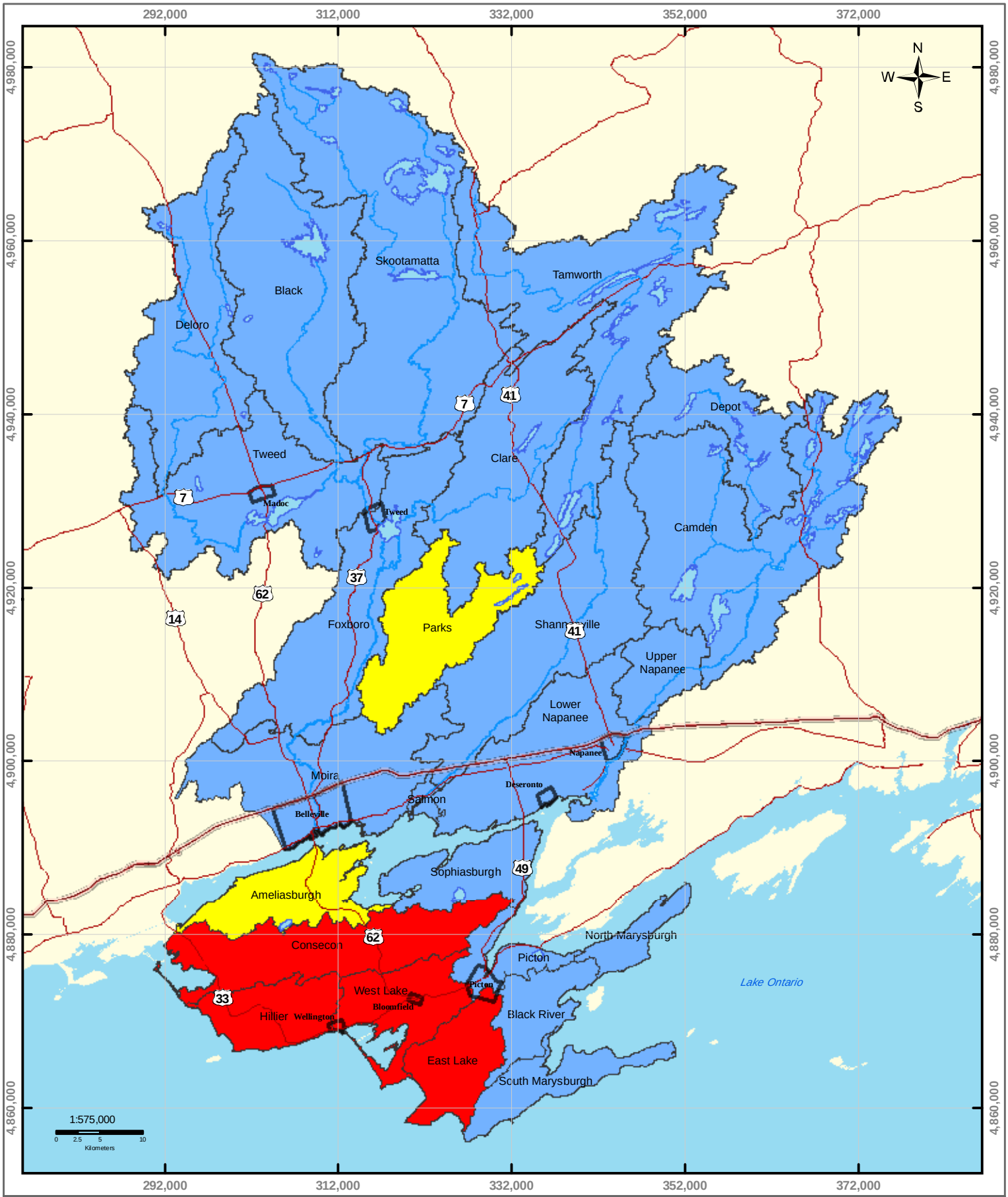
However, in the 1990's the Town of Napanee constructed an intake in Lake Ontario and has maintained the Napanee River intake as a back up only.

Based on the flow records at the former Napanee gauging station (02HM001), an evaluation of stress shows a peak stress in August of 11% under current conditions and 13% in the same month for future demand. (See Table 7.4 at the end of this section).

The team also considered the Camden East gauging station (02HM007) that has a period of record from 1974 to current and performed the same stress calculation intentionally not prorating the flows. While the Camden East stream gauge is further upstream from the intake than the former Napanee station, the flow record shows higher mean and median flows. This is due to two reasons. The first is that the Camden station has recorded a wetter period and the second is that the influence of the reservoir augmentation during low flow periods is more

pronounced in the more recent station. Stress on the intake would be reduced to 9% and 11% respectively for existing usage and future conditions using the latter stream gauge.

This intake does not meet the criteria for stress that would elevate its need for progression to a tier 2 review.



Legend

Highway 401 — Rivers — Highways — Lakes

Percent Water Demand

20 - 50 — < 20 — >50

Figure 7.1
Subwatershed Percent Surface Water Demand

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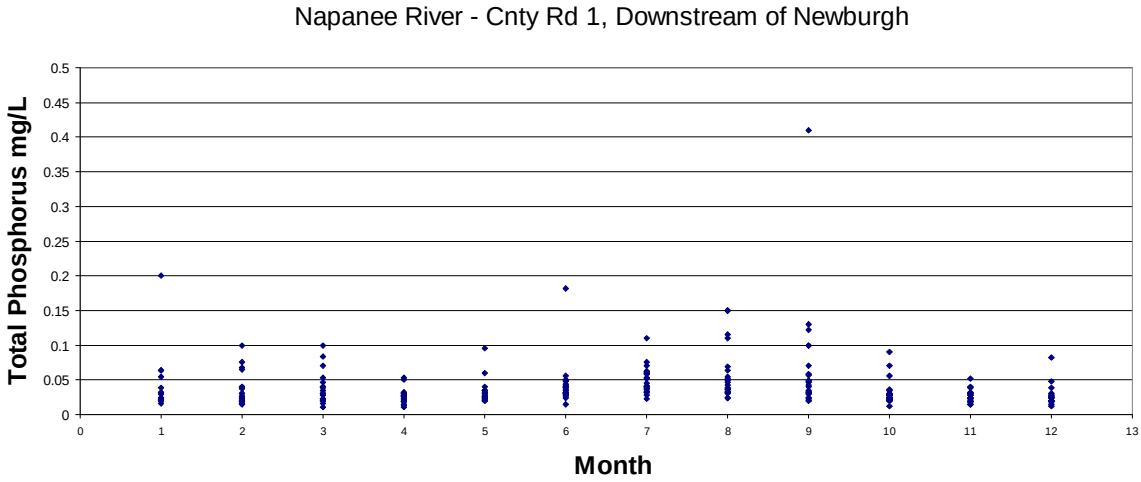
DIGITAL MAPPING SOURCES:

Base Map - Ontario Ministry of Natural Resources
Subcatchments - Derived using ArcHydro

The team also reviewed the stress potential under drought conditions for this system knowing the historical water quality issues during low flow periods. The following figure shows the concentration of phosphorus monthly. High readings of phosphorus (above 0.03) indicate poor water quality.

Figure 7-2: Water Quality at Napanee Intake



The following section contains the summary of the drought investigation performed on the Napanee River intake.

Drought

A drought scenario was developed for the two municipal systems following the example in the guidelines. A 10-year moving average of the average mean annual flows from the former Napanee station (02HM001) revealed the lowest 10-year period within the record being from 1957-1966. Using that 10-year period, the mean and 10th percentile flows were determined to be 0.66 cms and 0.53 cms respectively for the lowest flow month (September). Figures 7.3 and 7.4 show the derivation. The Napanee intake would have stress under those flow conditions as high as 48%.

Compared to the current Camden East station (02MH007) the lowest 10-year period of record is 1986-1995. It is important to note that the periods of record for the two stations do not overlap and therefore the lowest 10-year period for each would be very different. The median flow in September is 1.06 cms and the 10th percentile flow is 0.59 cms. The stress using the Camden East gauging station is calculated to be 14%. These peak stress periods would occur during the month of September. For conservatism, the Camden East gauge data was not prorated to the intake. The reason for this is that during periods of low flow the lower portion of the watershed would not be significantly contributing to flow and it would be misleading to account for the increased contributing area as contributing to additional flow.

Figure 7-3: Lowest 10-year Period Flows for Napanee Station

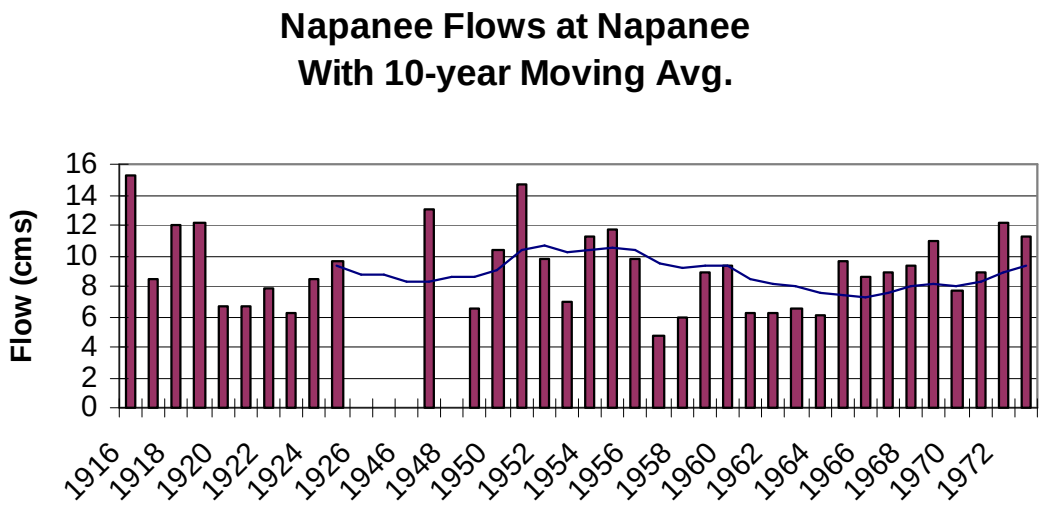
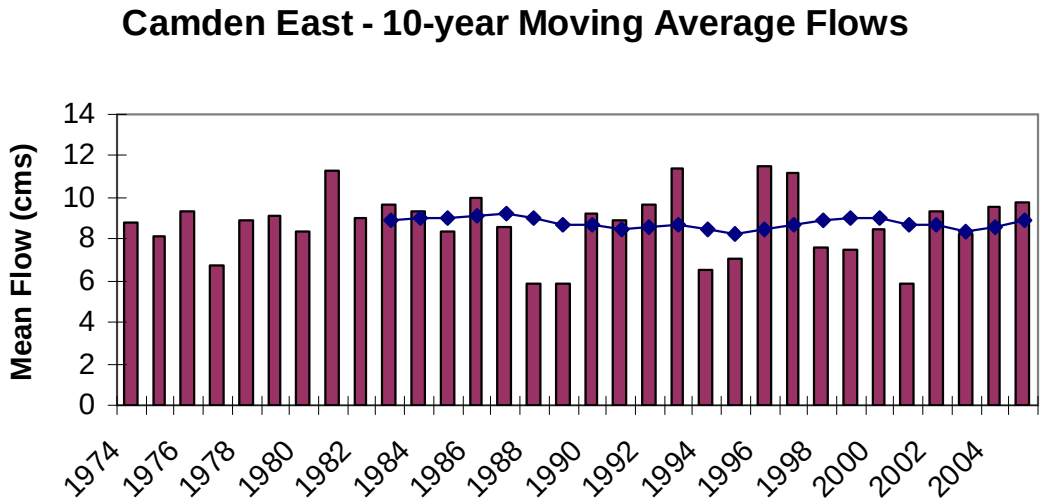


Figure 7-4: Lowest 10-year Flows at Camden East Station



The table below reports the findings for the Napanee intake with respect to the former Napanee gauge.

Table 7-4: Percent Water Demand Summary for Napanee Intake

Month	Water Availability			Demand		Drought			Percent Water Demand		
	Median cms	10% cms	Supply cms	Current cms	Future cms	Median cms	10% cms	Supply cms	Current	Future	Drought
Jan	6.99	1.95	5.04	0.06	0.06	3.25	1.80	1.45	1%	2%	4%
Feb	7.07	2.53	4.54	0.06	0.07	3.93	2.55	1.38	2%	2%	5%
Mar	23.46	10.69	12.77	0.06	0.07	12.15	8.44	3.71	1%	1%	2%
Apr	43.45	25.39	18.06	0.06	0.07	25.90	15.38	10.52	0%	0%	1%
May	14.42	7.77	6.65	0.06	0.06	9.23	5.65	3.59	1%	1%	2%

Month	Water Availability			Demand		Drought			Percent Water Demand		
	Median cms	10% cms	Supply cms	Current cms	Future cms	Median cms	10% cms	Supply cms	Current	Future	Drought
Jun	4.78	1.99	2.79	0.06	0.07	2.64	1.40	1.24	3%	3%	5%
Jul	2.00	1.24	0.76	0.06	0.06	1.44	0.66	0.77	9%	11%	8%
Aug	1.38	0.74	0.64	0.06	0.06	0.85	0.66	0.19	11%	13%	**34%**
Sep	1.38	0.66	0.72	0.06	0.07	0.66	0.53	0.13	10%	11%	**48%**
Oct	1.53	0.63	0.90	0.06	0.06	0.99	0.56	0.43	8%	9%	15%
Nov	3.75	1.35	2.40	0.06	0.07	2.37	1.08	1.29	3%	3%	5%
Dec	7.12	2.65	4.48	0.06	0.06	6.58	2.12	4.46	2%	2%	1%

7.3.2. Roblin Lake Intake

The Roblin Lake intake is located within the Ameliasburgh catchment, which encompasses an area of about 132 km^2. However, the tributary area to the intake is only 3.6 km^2. Nevertheless, the stress for the intake was investigated using the larger catchment area as per the guidance documents and a stress of 31% is discovered under current hydrologic conditions and usage during the month of September. Under future conditions stress is increased to 36%. Drought conditions would induce a marginal increase on the stress to 37%. Table 7.6 contains a summary of the review of this intake. This drinking water intake would be recommended for Tier 2 investigation.

Table 7-5: Stress Summary for Roblin Lake Intake

Month	Water Availability			Demand		Drought			Percent Water Demand		
	Median cms	10% cms	Supply cms	Current cms	Future cms	Median cms	10% cms	Supply cms	Current	Future	Drought
Jan	1.33	0.34	0.99	0.002	0.002	0.60	0.33	0.28	0%	0%	1%
Feb	1.16	0.37	0.78	0.002	0.002	0.77	0.33	0.45	0%	0%	0%
Mar	5.58	2.50	3.08	0.002	0.002	5.58	2.60	2.99	0%	0%	0%
Apr	4.02	2.30	1.72	0.002	0.002	3.64	2.01	1.64	0%	0%	0%
May	1.34	0.42	0.92	0.002	0.002	1.18	0.44	0.74	0%	0%	0%
Jun	0.31	0.03	0.28	0.002	0.002	0.34	0.04	0.30	1%	1%	1%
Jul	0.03	0.00	0.03	0.002	0.002	0.03	0.01	0.02	5%	6%	7%
Aug	0.01	0.00	0.01	0.002	0.002	0.01	0.00	0.01	**28%**	**32%**	**23%**
Sep	0.01	0.00	0.01	0.002	0.002	0.01	0.00	0.00	**31%**	**36%**	**37%**
Oct	0.03	0.00	0.02	0.002	0.002	0.02	0.01	0.02	7%	8%	11%
Nov	1.11	0.05	1.06	0.002	0.002	1.33	0.10	1.23	0%	0%	0%
Dec	1.44	0.23	1.21	0.002	0.002	1.55	0.17	1.38	0%	0%	0%

7.4. Discussion

The Napanee intake only indicates stress during drought conditions corresponding to the two lowest months of flow for August and September. Low flow problems have led to some significant investment for the drinking water source for the Town of Napanee beginning at the construction of the large headwater reservoir system at the Depot Lakes and concluding with the construction of a new intake into Lake Ontario. The Napanee River intake has experienced problems associated with low flow (albeit a water quality problem). However, using the more current data drought conditions would not reveal a stress.

The Napanee intake would not be recommended to proceed to a Tier 2 investigation.

The Roblin intake is recommended to proceed to Tier 2.

8. Ground Water Supply/Stress

Analysis of ground water stress requires estimation of the following elements:

- average annual ground water recharge,
- horizontal flow of ground water in and out of the watershed,
- ground water reserve requirements &,
- consumptive ground water demand.

Following determination of these elements the potential hydrologic stress was determined by calculating the percent water demand (ratio of demand to supply) for subwatersheds and comparing the result with Guideline thresholds (2007). For the purpose of this water budget ground water supply was restricted as being equivalent to recharge only. Given that recharge is a difficult parameter to quantify, specific methodology was developed for estimating recharge in the Quinte watershed. This methodology is outlined below including the results of the ground water stress assessment.

8.1. Ground Water Recharge

Estimation of ground water recharge was completed in the following two steps:

1) Use of the GIS model to develop an infiltration coefficient in reference to topography, soil permeability, and land cover of each subwatershed,
2) Calculation of the proportion of infiltration that recharges the aquifer based on a relationship determined using ground water hydrographs from a network of monitor wells throughout the watershed.

8.1.1. Infiltration Coefficient

An infiltration coefficient was developed based on a modified MOE methodology (1995) in consideration of topography, land cover, and soil permeability. A factor was computed in the GIS model in accordance with the following categories and corresponding range of values:

Slope	– 0.075 to 0.175
Soil Permeability	– 0.1 to 0.4
Land Cover	– 0.1-0.2

The sum of the three variables was then multiplied by the volume of surplus water (amount of precipitation available after accounting for evapotranspiration) to determine the infiltration into the soil interface. For more details on this method please refer to the Quinte Conservation Conceptual Report (Dec, 2006).

8.1.2. Recharge Calculation

Ground water recharge was calculated as a percentage of infiltration based on an analysis of water table fluctuation data from 23 ground water monitoring wells located in the watershed. This step was necessary as fractured bedrock is the dominant aquifer type throughout the Region and calculation of infiltration in the upper soil layers does not always reflect actual recharge into this type of aquifer. This water table fluctuation method (Healey & Cook, 2002) was used for calculation of recharge. This method entails measurement of the increase in water levels in an aquifer through the use of monitor wells. The critical assumption is that an increase in water level is in response to recharge received at the water table. This change in water level is then converted to recharge through multiplication by the estimated specific yield for the aquifer using the following formula taken from Healey & Cook, 2002:

$$R = Sy * (\Delta h/\Delta t)$$

Where:

R = Recharge
Sy = Specific yield of the aquifer
ΔH = change in height of the water table in response to a recharge event
ΔT = time over which the recharge occurred

The change in water table elevation is fairly easily determined using monitor wells; however specific yield is a parameter that is not easily measured. To provide a reasonable estimate of this parameter a method was applied which entails a review of water table fluctuations in correlation with stream flow during a ground water recession period (Olmstead & Hely, 1962). This method assumes that the stream flow for the given recession period is largely comprised of ground water discharge. The following formula (taken from Risser et al. 2005) is used:

$$Sy = S/\Delta h$$

Where:

Sy = specific yield
S = stream flow volume during a recession period expressed in depth over the watershed area
Δh = average decline of the water table during the recession period.

8.1.3. Data Sources

For these calculations the data sources included water level data from the provincial ground water monitoring well network and stream flow data from the Water Survey of Canada (HYDAT) website. The ground water monitor well

network was originally established in 2002 with the period of record for this exercise chosen from 2003 to 2004. The monitor well and stream flow data for this period is included in Appendix 4.

The Quinte Conservation network of 31 monitoring wells is operated in partnership with the Ministry of the Environment. These wells have been installed in the various aquifers at the locations illustrated by Figure 8.2 with individual details listed in Table 8.1. The typical depth of the wells ranges from 6 to 30 metres with some wells ranging up to 70 metres deep. Water levels are recorded at each well on an hourly basis using pressure transducer loggers.

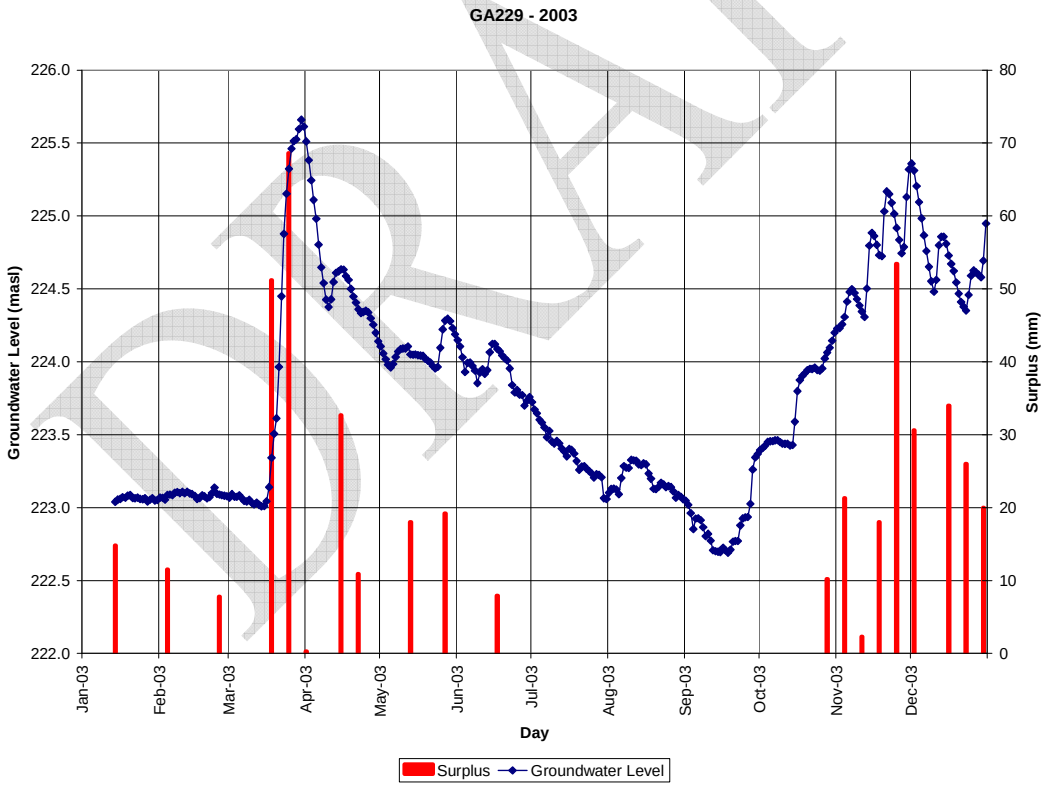
Table 8-1: Provincial Ground Water Monitoring Wells

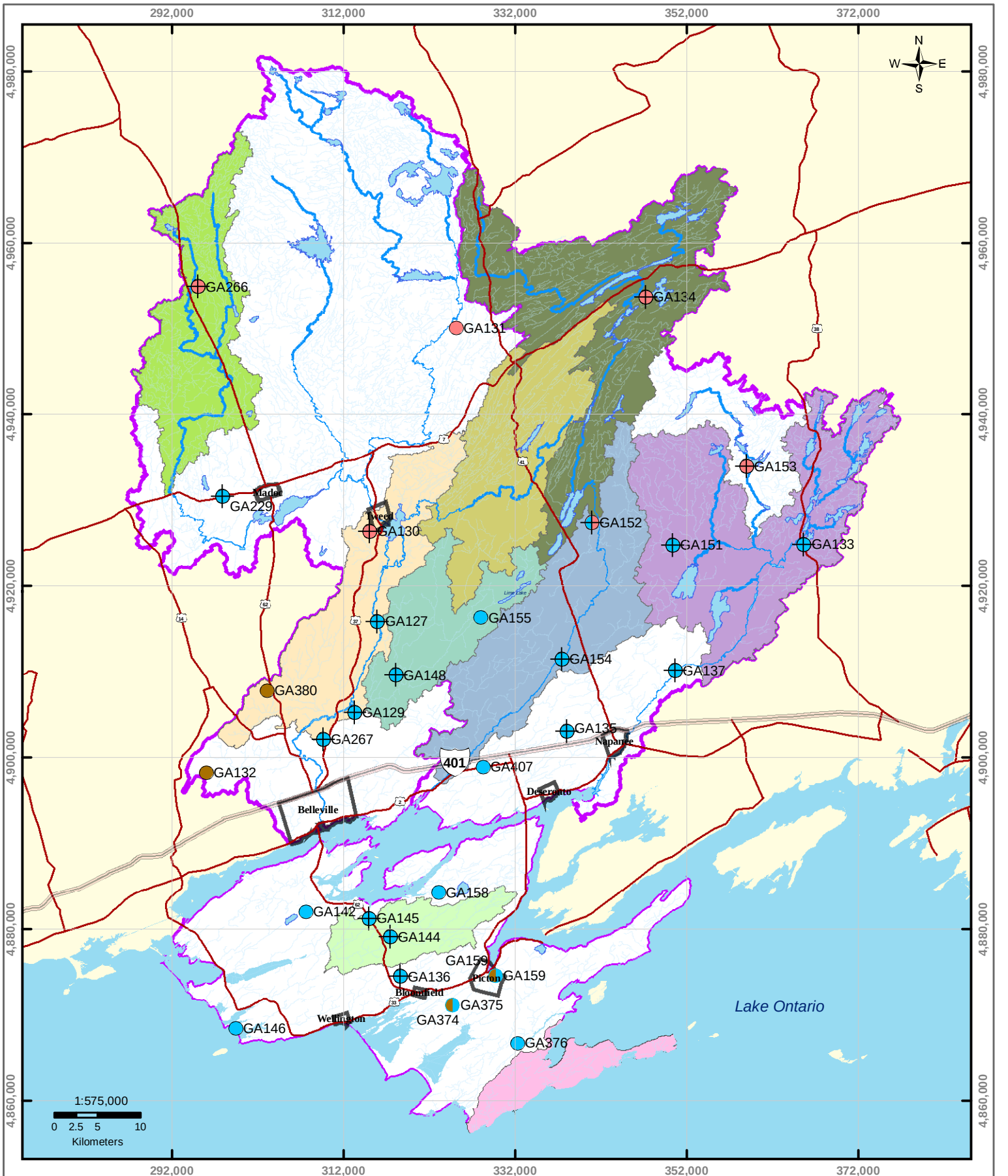
Well Number	Location	Aquifer	Static Level (metres)	Well Depth (metres)
GA127	Vanderwater	**Limestone**	6	18
GA129	Frink Centre	**Limestone**	5.7	58.6
GA133	Portland	**Limestone**	3.3	20.3
GA135	Beechwood Rd.	**Limestone**	0.9	13.3
GA136	Matthie Rd	**Limestone**	2.1	19.4
GA137	Newburgh	**Limestone**	5.1	31.3
GA142	Ameliasburgh	**Limestone**	21.5	47.2
GA144	Ben Gill Rd	**Limestone**	3.2	16.4
GA145	Hwy 62	**Limestone**	1.2	20.9
GA146	Pleasant Bay	**Limestone**	1.25	12.1
GA148	Tyendinaga	**Limestone**	1.25	23.7
GA151	Enterprise	**Limestone**	6.5	22.9
GA152	Tamworth	**Limestone/ Precambrian**	6	25.2
GA158	Demorestville	**Limestone**	14.7	39.8
GA159b	Macaulay	**Limestone**	12.2	28.3
GA154	Forest Mills	**Limestone**	3.4	9.8
GA155	Marlbank	**Limestone**	6.5	46
GA229	Madoc - Hwy7	**Limestone**	7.7	31.3
GA267	Harmony Rd.	**Limestone**	4.3	13
GA375	Ridge Road	**Limestone**	11.9	23.4
GA376	Milford	**Limestone**	11.1	16
GA407	Marysville	**Limestone**	0.4	28
GA130	Tweed	**Precambrian**	1.9	62.8
GA131	Flinton	**Precambrian**	6.6	54.4

Well Number	Location	Aquifer	Static Level (metres)	Well Depth (metres)
GA134	Arden	**Precambrian**	1.9	29
GA153	2nd Depot	**Precambrian**	8.8	64.8
GA266	Cleveland Rd.	**Precambrian**	6.8	70
GA132	Frankford Rd.	**Overburden**	3.2	16.3
GA159a	Macaulay	**Overburden**	1.3	5.9
GA374	Ridge Road	**Overburden**	12.5	21.2
GA380	Dutch Girl Rd	**Overburden**	0.4	28

Typically the depth to the water table in the Quinte Region is shallow, at 0.4 to 6 metres below ground with annual fluctuation of approximately 1 to 2 metres. A sample hydrograph for one of the monitor wells is provided by Figure 8.1, illustrating water table fluctuations over the course of the year with significant recharge occurring during the spring, recession in the summer months followed by more recharge in the fall.

Figure 8-1: Ground Water Hydrograph Monitoring Well 229





QUINTE CONSERVATION

Moira River, Napanee Region and Prince Edward Region Watersheds.
RR # 2, 2061 Old Highway # 2,
Belleville, Ontario, K8N 4Z2.
www.quinteconservation.ca, 613-968-3434

Legend

Recharge Calculation Wells

PGMN Wells
- Precambrian
- Limestone

- Overburden
- Limestone/Precambrian
- Overburden/Limestone
- Highway 401
- Highways

- Rivers
- Lakes
- Populated Areas
- Camden
- Clare
- Deloro
- Foxboro
- Parks
- Shannonville
- Tamworth
- Consecon
- Tweed
- Quinte Region

Figure 8.2 Provincial Groundwater Monitoring Well Locations

DIGITAL MAPPING SOURCES:
Base Map - Ontario Ministry of Natural Resources
Digital Elevation Model - Ministry of Natural Resources
Subcatchments - Derived using ArcHydro

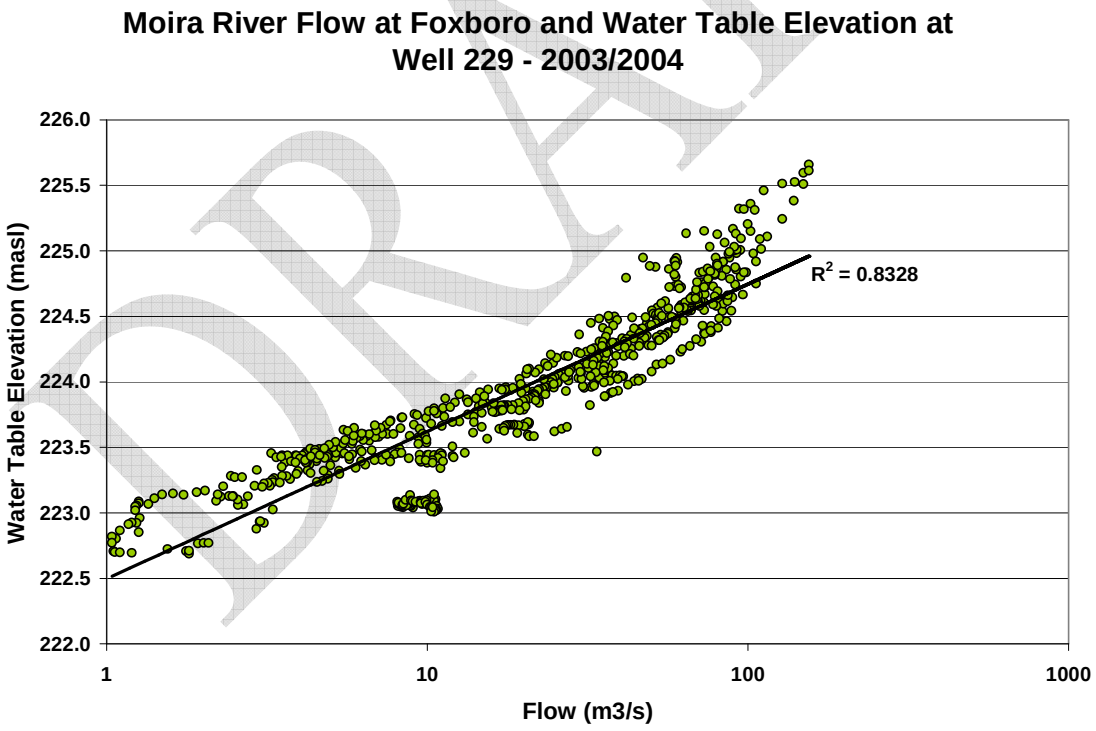
8.1.4. Results

Review of the period from 2002 to 2004 for 18 wells and 6 stream gauges provided an estimation of specific yield determination. This estimate was then used to calculate recharge from water levels for a total of 23 wells.

Specific Yield

Prior to estimating specific yield an understanding of the relationship between ground water levels and stream flow in the Quinte Region was established. A review of ground water levels in relation to stream flow discharge proved a positive correlation as exemplified by Figure 8-3, which is a scatter plot of water table levels and stream flow for one of the monitor wells (well 229 as illustrated by the hydrograph in Figure 8-1) located in a limestone aquifer. Similar relationship was found for many other wells indicating that for the unconfined aquifers of the Quinte Region that this method of estimating specific yield is suitable.

Figure 8-3: Flow vs Water Table Elevation



To complete the specific yield assessment average water table decline and baseflow in the same catchment were established. A total of seven surface water catchments and 18 monitor wells were selected as listed in Table 8-1 and located by Figure 8.2. Four of these catchments are located in the Paleozoic Region, and two are in the Precambrian area. Determination of the average

water table decline in a given catchment was deemed necessary as the water table can vary widely throughout a given subwatershed, with wells in upland recharge areas having greater fluctuations than those located in low land discharge areas. Therefore the average was thought to be a reasonable estimate of overall watershed conditions. However, the distribution of monitor wells is not uniform, therefore in some catchments with a low number of wells (i.e. northerly Precambrian areas) the confidence in the average decline is less. Regardless all data was used in the absence of a better substitution.

The specific yield estimates are reported in Table 8.2, which includes the numbers for the Napanee River Region. This region is regulated with flow controlled using the upper Depot lakes for storage therefore it is likely that the specific yield is over estimated due to controlled flow. Completion of the estimates for different periods of the year also provided a range of results as reported in Table 8.2. This range is attributed to fluctuations of the water table over the course of the year. In the spring, when the water table is high, the upper zones of the aquifer are thought to be more fractured and thus holding more water to provide a higher specific yield. Conversely, when the water table drops in the summer months, the deeper zones are thought to be less fractured and do not hold as much water.

Table 8-2: Specific Yield Calculation (No Units)

Catchment	Aquifer	Year	Range	Average
Consecon	Limestone	2003	0.004-0.028	0.015
		2004	0.002-0.021	0.011
Moira River –Foxboro	Limestone	2003	0.004-0.024	0.013
		2004	0.004-0.022	0.012
Salmon River – Shannonville	Limestone	2003	0.001-0.005	0.003
		2004	0.009-0.021	0.015
Salmon River – Tamworth	Limestone	2004	0.006-0.016	0.011
		2004	0.003-0.021	0.011
Napanee River – Camden	Limestone	2003	0.004-0.037	0.023
		2004	0.008-0.037	0.017
Moira River – Deloro	Precambrian	2003/04	0.003-0.039	0.014
Moira River – Foxboro	Precambrian	2003/04	0.005-0.017	0.011

The average specific yield for the Paleozoic limestone aquifer was assessed at 0.013 and the Precambrian bedrock aquifer was slightly lower in the order of

0.012. In fractured rocks specific yield may be considered as relatively close to the porosity of the aquifer owing to the low storage volume of such aquifers. As such the porosity of the rock can be considered as being reasonably close to the specific yield. Known values of porosity range from 0.01 to 0.2 for limestone aquifers and 0 to 0.1 for Precambrian bedrock (Driscoll, 1986), suggesting the specific yield estimates to be in order. A caution in this methodology is that estimation of specific yield, as above, may also be considered an underestimate as it is unlikely that the aquifer has been completely drained when calculating the decline of the water table. However, when calculating recharge using the water table fluctuation method, as described below, it is just as unlikely that the aquifer materials are not completely dry when the recharge occurs. Thus, the overall method may be considered suitable for these purposes.

Recharge

Ground water recharge was calculated using hydrographs for 23 monitor wells for the 2003 to 2004 period with the results summarized in Table 8.3. For the limestone aquifers it was found that annual water table fluctuations can range from 2.55 to 13.06 metres and average 7.1 metres. Using the equation listed in section 8.1.2 and specific yield estimates for the limestone aquifer annual recharge was calculated in the order of 81 to 109 mm and averaging 93 mm.

The water level fluctuations in the Precambrian aquifer were less at 3.4 to 5.2 metres and produced an average annual recharge rate of 50 mm.

Table 8-3: Annual Sum of Water Table Rises - PGMN Wells (Meters)

Catchment Name	Year	# of Wells	Range (metres)	Average (metres)	Average Recharge (mm)
Foxboro - Moira	2003	6	2.64 - 13.06	6.64	86
	2004	5	2.55 - 12.21	6.22	81
Consecon	2003	3	4.4 - 11.56	7.31	95
	2004	3	5.14 - 11.4	7.51	97
Salmon – Shannonville	2003	2	2.63 - 11.78	7.2	93
Salmon – Tamworth	2003	2	5.10 - 11.78	8.44	109
Napanee - Camden	2003	6	2.6 - 11.7	6.82	88
Precambrian	2003/04	4	3.4-5.2	4.15	50

For comparison purposes ground water recharge rates were reviewed from three dimensional ground water flow models developed for municipal wells located in the Quinte Region (Dillon, 2004). The annual recharge rates for the limestone aquifer were in the order of 100 mm and the Precambrian ranged from 90 to 190 mm depending on the individual well location and may overestimate actual recharge in these areas. Estimates of baseflow in local water courses are also considered to be in the order of 158 to 176 mm/year (USGS, 2005). The recharge estimates using ground water hydrographs are lower than the other estimates, however are considered to be the best and more representative of watershed conditions as well as being conservative.

8.2. GIS Model & Ground Water Recharge

The estimated ground water recharge values were then used to calibrate the GIS model based on the type of bedrock aquifer underlying the individual catchments. This was achieved through application of a factor to the volume of infiltration. The GIS model is then used to determine spatial distribution of average annual recharge for the individual subwatersheds and ground water capture zones. Although the model calculates the water budget and recharge rates on a monthly basis only the average annual recharge rates will be considered for the Tier 1 water budget. In accordance with the Provincial Water Budget Guidelines (March, 2007) the monthly recharge is to be considered as the average annual recharge divided equally over 12 months.

Please note that this equal distribution of recharge is not supported by either the GIS model or ground water levels as observed from monitor wells located in the Quinte watershed. From output of the GIS model and ground water hydrographs (see Figure 8.1) it is evident that ground water recharge occurs predominantly in the spring and fall months with negligible recharge in the summer. Values of annual and monthly ground water recharge (as per the water budget guidelines) are presented below in Table 8-4 and are also summarized in the water budgets for the individual subwatersheds in Appendix 3. As a result of this exercise the average annual ground water recharge values range from 52 to 95 mm and the monthly rates are 4.3 to 7.9 mm.

8.3. Ground water Stress

Using the appropriate ground water recharge rates and ground water use an assessment of potential ground water stress was completed through calculation of the ratio between the two in accordance with the Water Budget Guidelines (2007). This was completed for individual subwatersheds, municipal well capture zones and corresponding surface watersheds

Table 8-4: Annual and Monthly Ground Water Recharge by Catchment

Catchment Name	Annual Precipitation (mm)	Annual Evapotranspiration (mm)	Annual Recharge (mm)	Monthly Recharge (mm)
Ameliasburgh	930	605	75	6.2
Black	899	503	53	4.4
Milford	972	608	88	7.3
Camden	936	564	70	5.8
Clare	918	539	71	5.9
Consecon	928	607	76	6.3
Deloro	888	511	52	4.3
Depot	930	547	60	5
East Lake	950	545	74	6.1
Foxboro	905	529	63	5.2
Hillier	943	631	72	6
Moira Remainder	926	591	95	7.9
Napanee	942	587	90	7.5
North Marysburgh	1010	632	81	6.7
Parks	921	586	91	7.6
Picton	966	615	88	7.3
Salmon	977	632	70	5.8
Shannonville	931	582	83	6.9
Skootamatta	913	503	55	4.6
Sophiasburgh	955	612	82	6.8
South Marysburgh	1003	638	87	7.2
Tamworth	928	526	59	4.9
Tweed	929	546	59	4.9
West Lake	952	611	83	6.9

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8.3.1. Methodology

The potential hydrologic stress or percent water demand for ground water was calculated on a monthly and annual basis using the following formula:

$$\% \text{ Water Demand (Stress)} = \frac{Q_{Demand}}{Q_{Supply} - Q_{\text{Re}serve}} \text{ X } 100$$

Where:

Q_{Demand} = Monthly & annual demand calculated as consumptive takings for both current and 25 year projections.

Q_{Supply} = Ground water supply calculated as the average annual recharge rate divided by 12 for monthly volumes.

$Q_{\text{Re}serve}$ = Ground water reserve is estimated as 10% of the recharge.

The projected water demand is based on forecast of population growth by the Minister of Finance at 1% per year over 25 years. To account for this potential growth the current water demand was multiplied by a factor of 1.28 for municipal well assessments only. The degree of potential hydrologic stress was then determined in respect of threshold values as listed in Table 8.5.

Table 8-5: Ground Water Stress Thresholds - % Water Demand

Ground water Quantity Stress Assignment	Average Annual	Monthly Maximum
Significant	> 25%	>50%
Moderate	>10%	>25%
Low	0-10%	0-25%

A summary of the results of this exercise are reported below including a discussion of potential evidence of stress as provided through review of ground water hydrographs for the municipal wells where available.

8.3.2. Village of Deloro Municipal Ground Water System

The Village of Deloro is serviced by a single well which is drilled 30 metres deep into an unconfined fractured Precambrian bedrock aquifer. This water supply is classified as a GUDI (Ground water under the direct influence of surface water) due to the shallow unconfined nature of the aquifer. The water use at this well is relatively low with a small serviced population of approximately 150 people. After water use, the wastewater is discharged to a municipal owned subsurface septic system with an estimated 20% of the water considered to be consumptive, and the balance returning to the aquifer.

The results of the stress evaluation are summarized in Tables 8-6 and 8-7 for the surface watershed and ground water capture zones respectively. From this assessment it is evident that there is low stress at approximately 3.5% water demand both annually and monthly for the larger surface watershed area. In respect of the much smaller ground water capture zone the percent water demand, as summarized in Table 8-7 is significantly higher with a maximum monthly demand at 25% and annual at 21%. In terms of the stress thresholds and water budget Guidelines the level of stress at this system can be considered as low.

Table 8-6: Village of Deloro – Ground Water Stress Evaluation - Surface watershed

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	4	<1	4	<1	<1	4	4
Feb	4	<1	4	<1	<1	4	4
Mar	4	<1	4	<1	<1	4	4
Apr	4	<1	4	<1	<1	4	4
May	4	<1	4	<1	<1	4	4
Jun	4	<1	4	<1	<1	4	4
Jul	4	<1	4	<1	<1	4	4
Aug	4	<1	4	<1	<1	4	4
Sep	4	<1	4	<1	<1	4	4
Oct	4	<1	4	<1	<1	4	4
Nov	4	<1	4	<1	<1	4	4
Dec	4	<1	4	<1	<1	4	4
Annual	52	5	47	2	2	4	4

Table 8-7: Village of Deloro – Ground Water Stress Evaluation- Ground water capture zone

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	5	<1	5	<1	<1	16	20
Feb	5	<1	5	<1	<1	15	19
Mar	5	<1	5	<1	<1	16	20
Apr	5	<1	5	<1	1	17	22
May	5	<1	5	<1	1	16	21
Jun	5	<1	5	<1	1	17	21
Jul	5	<1	5	<1	1	20	25
Aug	5	<1	5	<1	1	19	22
Sep	5	<1	5	<1	1	17	22
Oct	5	<1	5	<1	1	17	21
Nov	5	<1	5	<1	<1	16	20
Dec	5	<1	5	<1	1	17	22
Annual	66	6.6	59	10	13	17	21

To compare with the theoretical assessment of hydrologic stress a ground water hydrograph for the municipal well was prepared from data provided by the Ontario Clean Water Agency for 2002 to 2007. This data is plotted in Figures 8.4 and 8.5 with precipitation and water use respectively. Inspection of these hydrographs does not show an overall declining trend in the water levels. One does observe a decreasing trend in water levels in the winter and summer months which is similar to natural conditions observed throughout the watershed.

There is a noticeable decline in water levels seen in Figure 8.5 in the summer of 2005. Water use that summer was 60% above normal in the Village of Deloro. However, the well met demand and recovered showing no lasting depression of ground water levels. Since this increase in use is significantly higher than the projected future demand the hydrograph does not support potential hydrologic stress at this location, which is in agreement with the theoretical evaluation.

Figure 8-4: Deloro Well Hydrograph with Monthly Precipitation

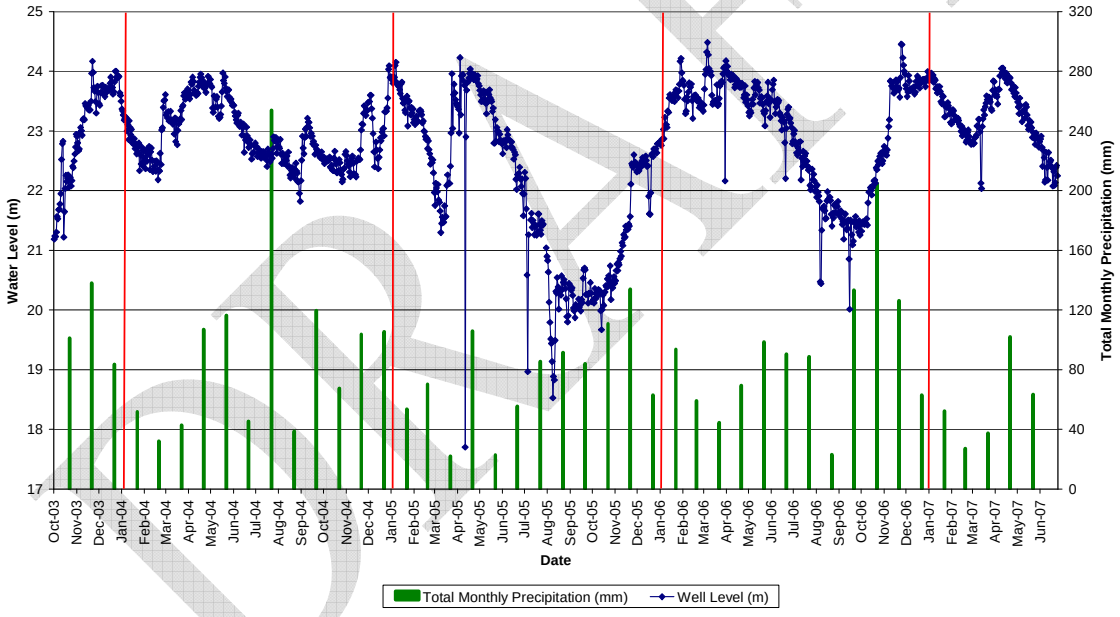
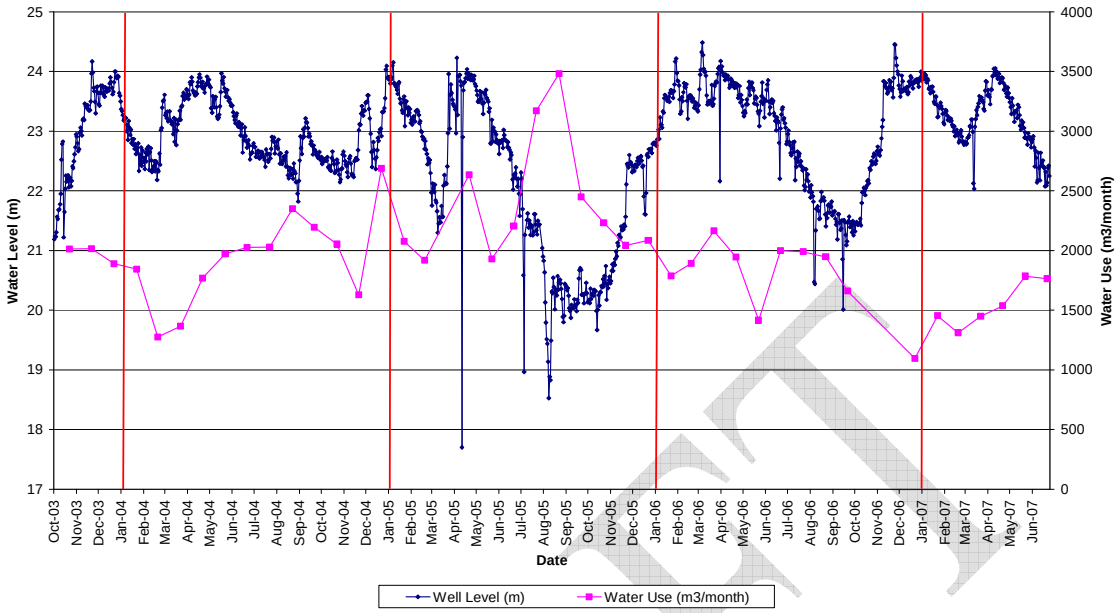


Figure 8-5: Deloro Well Hydrograph with Water Monthly Water Use



8.3.3. Peats Point Municipal Ground Water System

The Peats Point subdivision is a small development with approximately 20 residences serviced by a single well advanced to a depth of 36 metres into an unconfined limestone bedrock aquifer. After use at each residence the water is discharged to individual private septic systems, with an estimated 80% of the demand assumed to return to the aquifer.

Evaluation of potential hydrologic stress was completed using both the surface watershed boundaries and ground water capture zone. In both cases the stress was evaluated as low primarily due to the low pumping volume of this system. Water level data for this well is not available; however, there have been no water shortages reported. The results are tabulated as follows:

Table 8-8: Peats Point – Ground Water Stress Evaluation –Surface watershed

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	10	1	9	<1	<1	<1	<1
Feb	10	1	9	<1	<1	<1	<1
Mar	10	1	9	<1	<1	<1	<1
Apr	10	1	9	<1	<1	<1	<1
May	10	1	9	<1	<1	<1	<1
Jun	10	1	9	<1	<1	1	1
Jul	10	1	9	<1	<1	1	1
Aug	10	1	9	<1	<1	1	1

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Sep	10	1	9	<1	<1	1	1
Oct	10	1	9	<1	<1	<1	<1
Nov	10	1	9	<1	<1	<1	<1
Dec	10	1	9	<1	<1	<1	<1
Annual	117	12	105	1	1	1	<1

Table 8-9: Peats Point Ground water Stress Evaluation

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	10	1	9	<1	<1	1	2
Feb	10	1	9	<1	<1	1	2
Mar	10	1	9	<1	<1	1	2
Apr	10	1	9	<1	<1	1	2
May	10	1	9	<1	<1	2	2
Jun	10	1	9	<1	<1	1	2
Jul	10	1	9	<1	<1	1	2
Aug	10	1	9	<1	<1	2	2
Sep	10	1	9	<1	<1	1	2
Oct	10	1	9	<1	<1	1	1
Nov	10	1	9	<1	<1	1	2
Dec	10	1	9	<1	<1	1	2
Annual	119	12	107	1	2	1	2

8.3.4. Village of Tweed Ground Water System

The Village of Tweed is a community of approximately 1500 people which is serviced by two deep wells, one of which is used for emergency backup only. The main well (well # 3) is 122 metres deep and considered to be a GUDI well due to shallow unconfined conditions with 10 metres of permeable sandy soils over Precambrian bedrock. Annual recharge is in the range of 59 to 94 mm.

The determination of % water demand and potential hydrologic stress is summarized in Tables 8.10 & 8.11, resulting low stress conditions for the larger surface watershed area and moderate stress for the smaller ground water capture zone located in the immediate vicinity of the wells. Water level data for the main well (available for 2007 & 2008 only), is illustrated by Figures 8.6 and 8.7, without indication of a significant decline in water levels. Please note that 2 years of record is a short period for establishing trend. The hydrograph also illustrates an up and down cycling in water levels which is believed to be response of the well to pumping.

In summary, the available information and methodology suggests minimal potential for hydrologic stress at this location. However, some potential exists when considering the smaller ground watershed contributing to this well. From this high level preliminary review it is recommend that caution be exercised when considering expansion or other high volume water use in close proximity to this system.

Table 8-10: Village of Tweed Ground Water Stress Evaluation – Surface watershed

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	5	<1	4	<1	<1	4	5
Feb	5	<1	4	<1	<1	4	4
Mar	5	<1	4	<1	<1	4	5
Apr	5	<1	4	<1	<1	4	5
May	5	<1	4	<1	<1	9	10
Jun	5	<1	4	<1	<1	4	5
Jul	5	<1	4	<1	<1	4	5
Aug	5	<1	4	<1	<1	4	5
Sep	5	<1	4	<1	<1	4	5
Oct	5	<1	4	<1	<1	4	4
Nov	5	<1	4	<1	<1	4	4
Dec	5	<1	4	<1	<1	4	4
Annual	59		53	2	3	4	5

Table 8-11: Village of Tweed Ground Water Stress Evaluation – Ground water capture Zone

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	8	1	7	2	2	26	32
Feb	8	1	7	2	2	22	28
Mar	8	1	7	2	2	24	30
Apr	8	1	7	2	2	22	29
May	8	1	7	2	2	26	33
Jun	8	1	7	2	2	28	35
Jul	8	1	7	2	3	29	37
Aug	8	1	7	2	2	28	30
Sep	8	1	7	2	2	26	33
Oct	8	1	7	2	2	24	30
Nov	8	1	7	2	2	22	28
Dec	8	1	7	2	2	23	29
Annual	94	9	84	21	26	25	31

Figure 8-6: Tweed Well 3 Hydrograph with Monthly Precipitation

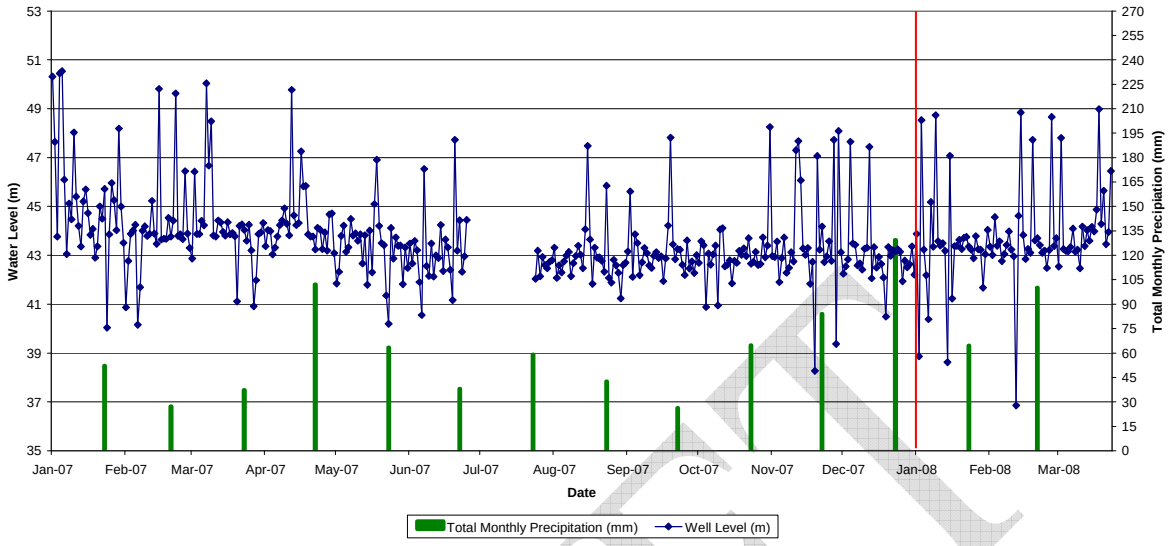
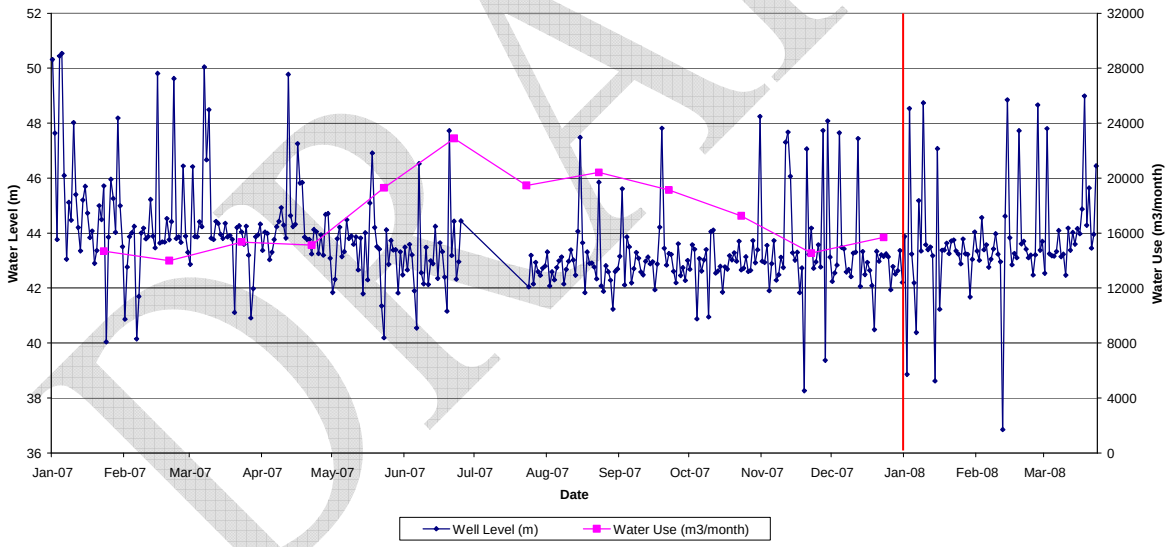


Figure 8-7: Tweed Well 3 Hydrograph with Monthly Water Use



8.3.5. Village of Madoc Ground Water System

The Village of Madoc, a community of approximately 1500 people, is serviced by two wells advanced to depths of 49 and 90 metres in an unconfined Precambrian bedrock aquifer. These wells are both considered to be GUDI and receive direct recharge from precipitation which is estimated at approximately 90 mm per year. The potential hydrologic stress assessment is summarized by Tables 8-12 and 8-13 for both the surface water catchment and ground water capture zones. In both cases the potential for hydrologic stress is evaluated as low with a higher

percent water demand observed over the ground water capture zone than the larger surface watershed. This is due to higher use of ground water near the urban centre as opposed to rural country side as ground water use is not uniform throughout the watershed.

Ground water level data for the wells was provided by the Ontario Clean Water Agency for the period extending from 2004 to 2008. This data was plotted against precipitation and water use numbers as illustrated by Figures 8-8 through 8-11. This data indicates that both wells may be experiencing stress with Well 1 illustrating decreased water levels during a period of higher than normal water use and low precipitation. A review of water use data indicates that during this period well 1 was the sole source of supply as well 2 was not being used. Regardless, the water levels of well 2 shows a decreasing trend over the same period, although not in use, confirming the potential for stress conditions at this system. Reports from the municipality confirm that well 1 was pumped dry on several occasions during the summer of 2007 and not able to meet demand.

Table 8-12: Village of Madoc – Ground Water Stress Evaluation – Surface watershed

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	8	1	7	<1	<1	2	2
Feb	8	1	7	<1	<1	1	2
Mar	8	1	7	<1	<1	2	2
Apr	8	1	7	<1	<1	1	2
May	8	1	7	<1	<1	7	7
Jun	8	1	7	<1	<1	1	2
Jul	8	1	7	<1	<1	1	2
Aug	8	1	7	<1	<1	1	2
Sep	8	1	7	<1	<1	1	2
Oct	8	1	7	<1	<1	1	1
Nov	8	1	7	<1	<1	1	2
Dec	8	1	7	<1	<1	1	2
Annual	92		83	2	2	2	2

Table 8-13: Village of Madoc – Ground Water Stress Evaluation – Ground Water Capture Zone

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jan	7	1	6	<1	<1	4	5
Feb	7	1	6	<1	<1	4	5
Mar	7	1	6	<1	<1	5	6
Apr	7	1	6	<1	<1	4	5
May	7	1	6	<1	<1	4	5
Jun	7	1	6	<1	<1	4	5

Month	Recharge mm	Reserve mm	Supply mm	Demand (mm)		% Water Demand	
				Current	Future	Current	Future
Jul	7	1	6	<1	<1	4	5
Aug	7	1	6	<1	<1	4	5
Sep	7	1	6	<1	<1	4	5
Oct	7	1	6	<1	<1	3	4
Nov	7	1	6	<1	<1	3	4
Dec	7	1	6	<1	<1	4	5
Annual	86	9	78	3	4	4	5

Figure 8-8: Madoc Well 1 (Rollins) Hydrograph with Monthly Precipitation

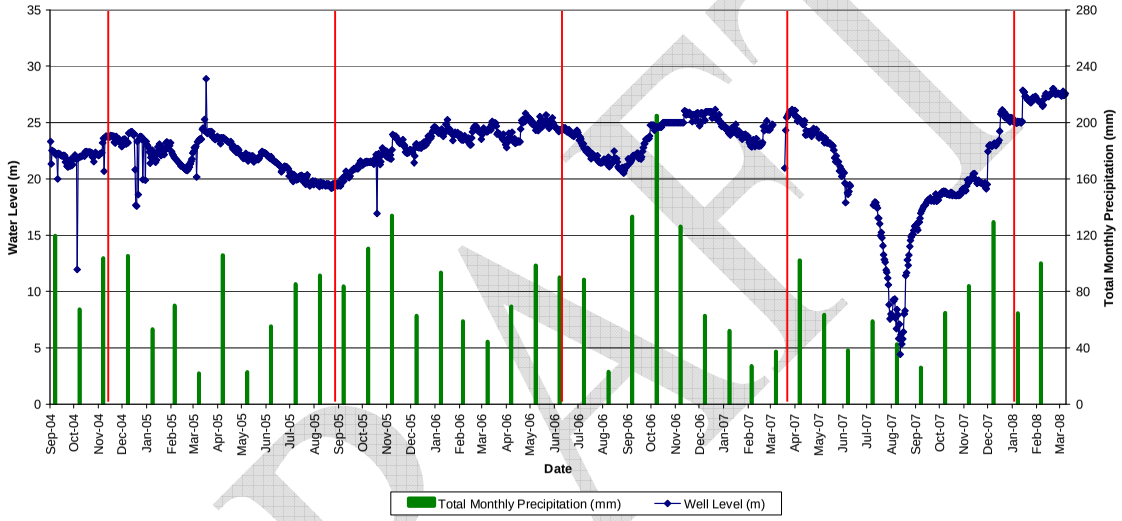


Figure 8-9: Madoc Well 1 (Rollins) Hydrograph with Monthly Water Use

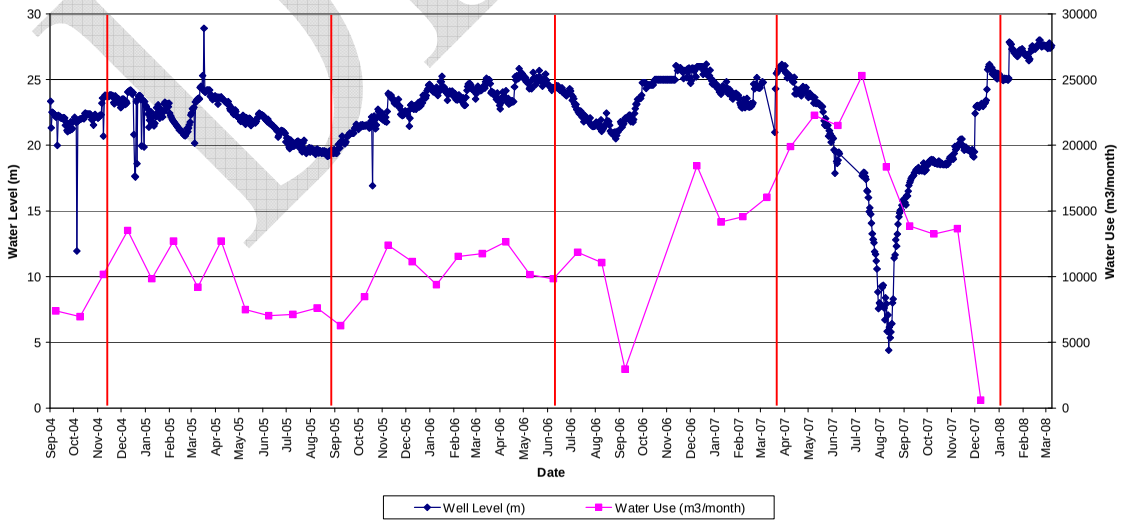


Figure 8-10: Madoc Well 2 (Whytock) Hydrograph with Monthly Precipitation

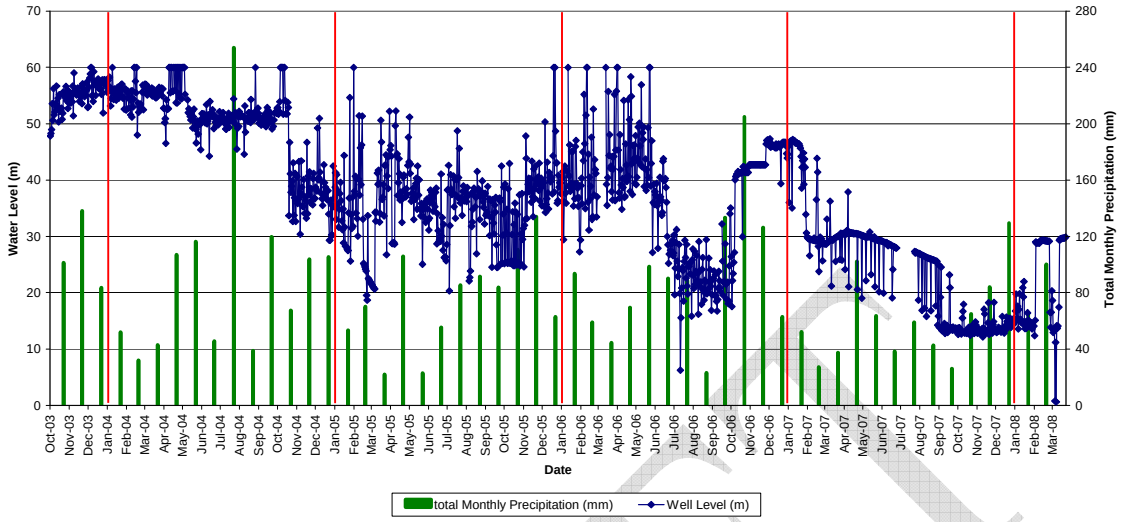
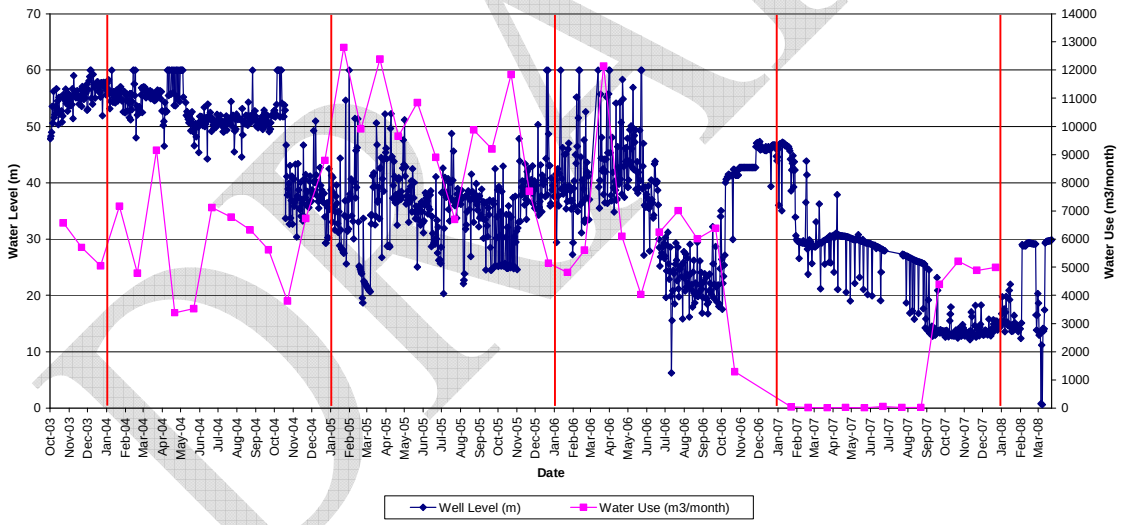


Figure 8-11: Madoc Well 2 (Whytock) Hydrograph with Monthly Water Use



Discussion

From this assessment of potential hydrologic stress using large surface water shed boundaries it would appear that the municipal wells do not exhibit signs of hydrologic stress. However a review of ground water hydrographs for the Village of Madoc wells and direct evidence indicates that under dry summer conditions this system is not able to meet demand. This stress condition was not detected by the Guideline methodology which requires equal distribution over 12 months. From ground water monitoring well observations in the watershed it is evident that equal distribution of recharge does not occur. Therefore it can be concluded

that the methodology is not accurate. In addition to the monitor well results, anecdotal evidence of many private wells in the parts of the Quinte Region indicates that many people are required to purchase hauled water in dry summer period and sometimes in the winter under frozen ground conditions.

In summary form this assessment it is recommended that the Madoc well system proceed onto the next level of water budgeting in order to more accurately define the degree of hydrologic stress.

8.3.6. Subwatersheds

In addition to the assessment of potential hydrologic stress around municipal well, percent water demand was also calculated for all of the Quinte Region subwatersheds using the GIS model. Ground water recharge rates, water use, and % water demand calculations for each catchment are provided in Appendix 3.

Overall the percent water demand throughout the Quinte Region is relatively low with monthly stress for the majority of the catchments at less than 2% and annual at less than 1%. The distribution of percent water demand for the individual subwatersheds is illustrated by Figure 8.12. This figure presents the results for the month of August which is one of the highest water use months due to higher demand for meeting irrigation needs. From this figure it is evident that higher water use subwatersheds include Moira around the City of Belleville, Camden, and Picton. For the Moira watershed, higher percent water demand is expected given higher development and location of Quarries with large water takings.

The results of the percent water demand for both the Picton and Camden catchments are reported in Tables 8.14 and 8.15 and discussed below. In both cases the annual % water demand is indicative of moderate stress conditions. The monthly demand for the Picton catchment in the spring months is also close to the moderate stress threshold. A review of water takings in these catchments indicates that there are permits to take water in each that account for the majority of use. In the Picton area there are permits for large water takings at a cement plant for dewatering of Quarries and operation of the cement plant. These permits are classified as ground water which may be misleading as such quarries typically receive significant surface water drainage resulting in high pump volumes in order to maintain dry conditions (this would explain higher pumping in the spring months). Through discussion with the permit holders it was also found that actual taking is much less than the permitted values. In addition one of the permits is for water that is taken from a Quarry used in the cement plant and then returned with a very low consumptive use. Values of actual water use were provided by the permit holders and used in the stress assessment. In the Camden catchment there is a permit for irrigation of a golf course from both surface and ground water year around. The source and timing of this use are speculative and more information is required to confirm potential stress.

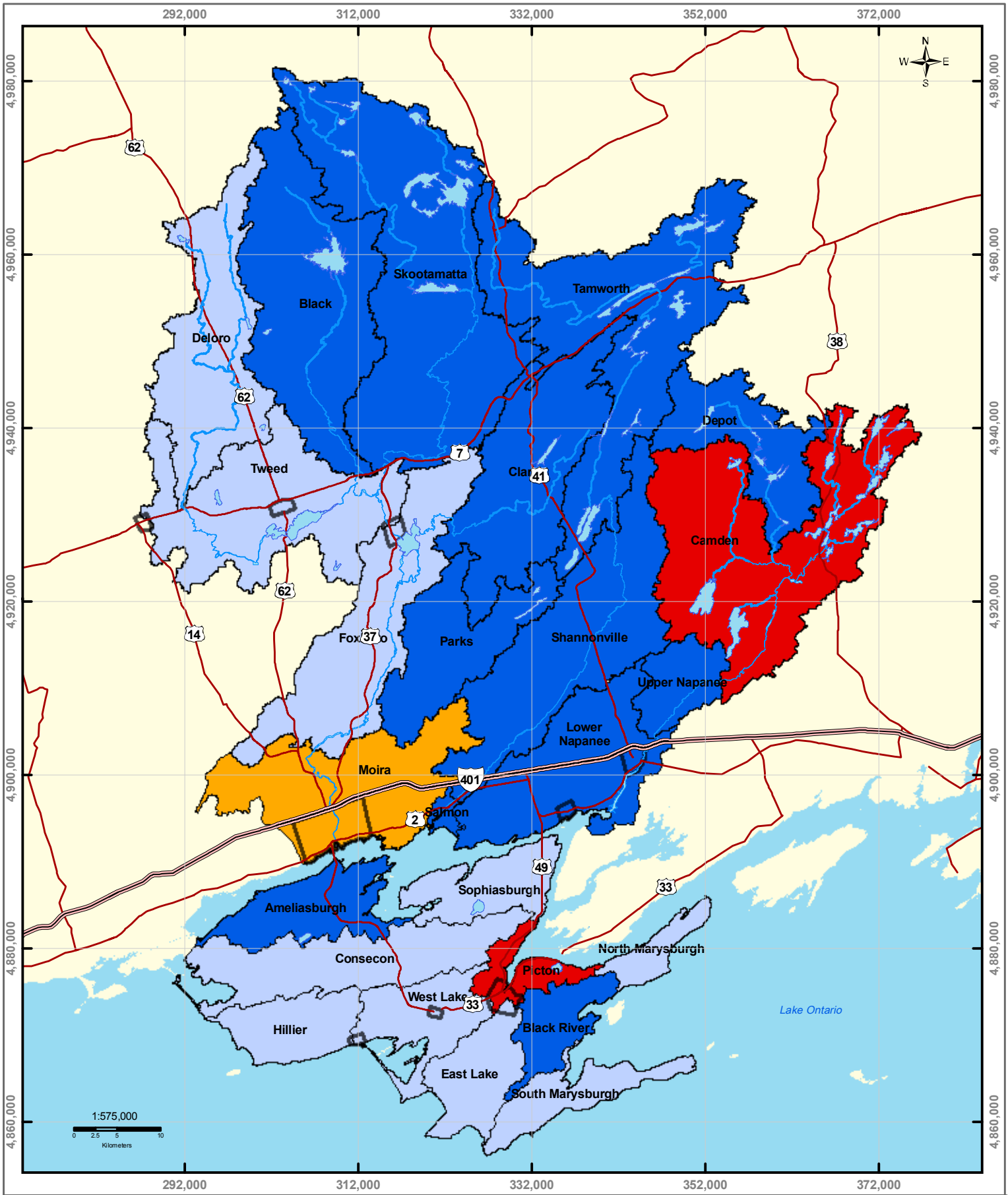
In summary the assignment of hydrologic stress to these subwatersheds is speculative and would warrant further evaluation to assign any degree of confidence in the findings.

Table 8-14: Picton Catchment Ground Water Stress Evaluation

Month	Recharge mm	Reserve mm	Supply mm	Demand mm	% Water Demand
Jan	7	1	7	1	14
Feb	7	1	7	2	24
Mar	7	1	7	2	23
Apr	7	1	7	2	25
May	7	1	7	1	18
Jun	7	1	7	1	17
Jul	7	1	7	1	15
Aug	7	1	7	1	13
Sep	7	1	7	1	15
Oct	7	1	7	1	16
Nov	7	1	7	1	16
Dec	7	1	7	1	17
Annual	88	9	78	14	18

Table 8-15: Camden Catchment Ground Water Stress Evaluation

Month	Recharge mm	Reserve mm	Supply mm	Water Use mm	% Water Demand
Jan	6	1	5	1	10
Feb	6	1	5	1	10
Mar	6	1	5	1	10
Apr	6	1	5	1	10
May	6	1	5	1	10
Jun	6	1	5	1	11
Jul	6	1	5	1	11
Aug	6	1	5	1	11
Sep	6	1	5	1	11
Oct	6	1	5	1	10
Nov	6	1	5	1	10
Dec	6	1	5	1	10
Annual	70	7	62	6	10



Legend

Highway 401
Highways
Rivers
Lakes

Percent Water Demand

1 - 5
5 - 10
10 - 20
0 - 1

Figure 8.12
Subwatershed Percent Groundwater Demand (Annual)

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DIGITAL MAPPING SOURCES:
Base Map - Ontario Ministry of Natural Resources
Stress - Calculated by WHI

9. Significant Ground water Recharge Areas

As part of the water budget process significant ground water recharge areas are to be identified, given such areas may be considered vulnerable from both a quality and quantity perspective. Through the source protection planning process these areas are to be considered for the protection from development which could restrict recharge and introduce contaminants. In terms of the water budget guidance document (2007) a two step process is required as follows:

1.0 First delineate High Volume Recharge Areas where the greatest volume of recharge is occurring over the smallest area,
2.0 Consider which of these areas may be considered as significant.

The Guidance document provides a series of methods which can be used for delineating significant ground water recharge areas. The methodologies that were selected as being appropriate for the Quinte Region are as follows:

Method 1: Use of quaternary soils mapping to identify areas of sand and gravel. Such soils are known to have high infiltration capacity with further refinement by consideration of topography as well as water table mapping.

Method 2: This method entails application of the GIS Water Budget Model as described above to define those areas that have a recharge/infiltration rate of greater than 55% of the annual surplus water (precipitation less evapotranspiration). Please note that this method also corresponds with Draft Directors Rule Number 44(2) (June, 2008).

The results of this exercise are illustrated by Figures 9.1 and 9.2 (methods 1 and 2 respectively). Method 1 resulted in the identification of approximately 5.5% of the watershed as being either high volume or significant recharge and method 2 increased this area to 16%. Following completion of the 2 methods a comparison of both was completed to provide an indication of those areas confirmed by both methods. However, classification of many such areas as being significant ground water recharge was determined as inconclusive. Therefore further refinement of this mapping was completed as follows:

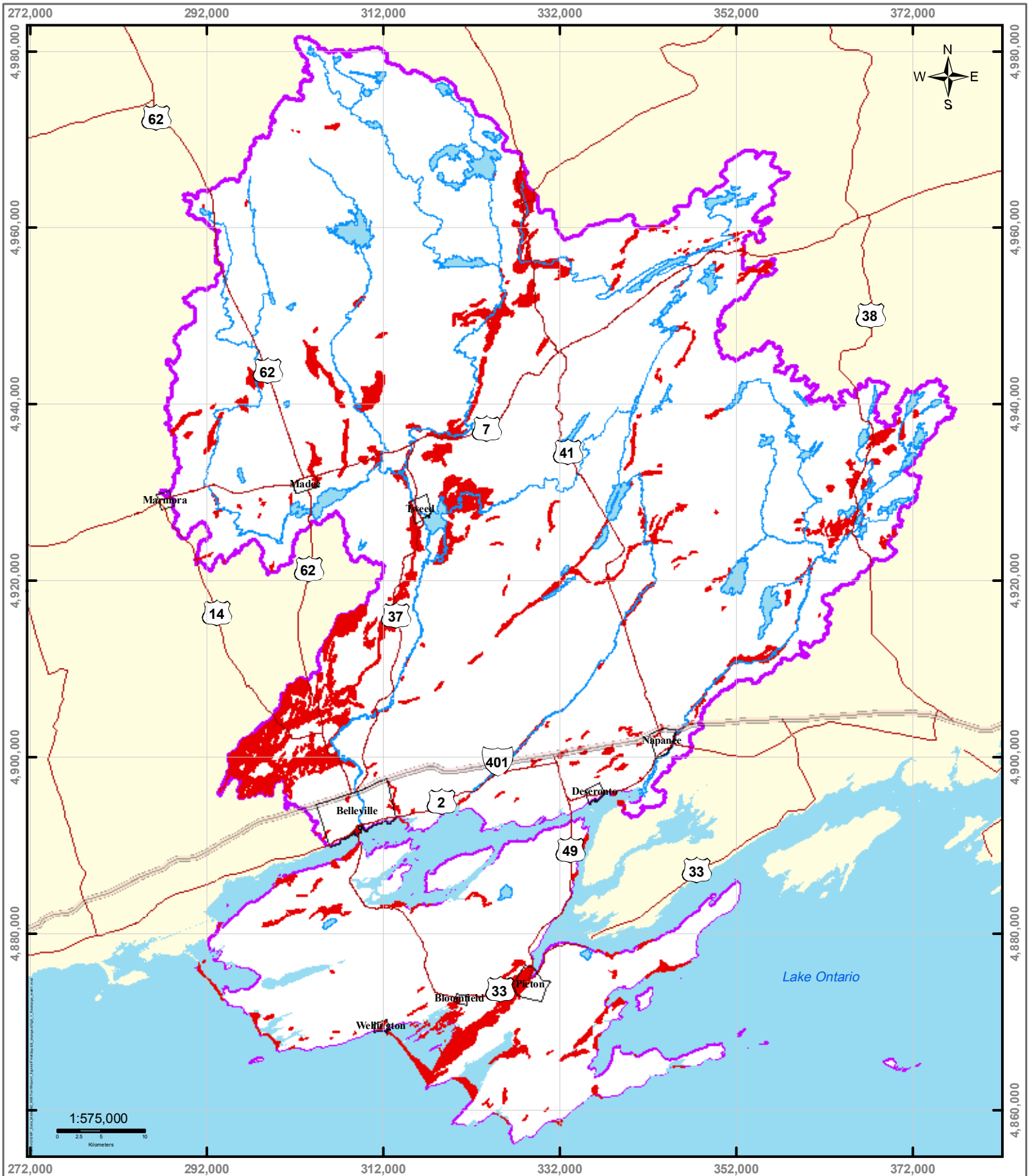
1) Selection of areas where methods 1 and 2 overlapped,
2) Overlay of mapping with water table elevation contours to exclude areas in obvious ground water discharge zones,
3) Overlay of mapping with glaciofluvial deposits of sand and gravel such as eskers as well as other notable formations such as a kame moraine, to exclude modern alluvial deposits of sand and gravel as well as other minor deposits,
4) Overlay of mapping with cold water streams and wells to determine hydrological connection to a surface water body or aquifer that is a source of drinking water for a drinking water system.

4) Overlay of mapping with cold water streams and municipal well capture zones to determine potential linkage and identify significant ground water recharge areas.

The results of this exercise are illustrated by Figure 9.3 which shows areas of both high volume and significant recharge covering approximately 4% of the watershed region (1% High Volume and 3% significant). Some of the more notable units which were mapped as significant are as follows:

- the Tweed esker connected with the Tweed municipal ground water supply,
- the Picton esker connected with the Warings Creek cold water stream,
- the Oak Hills (Kame Moraine) connected with several cold water stream such as Chrysal Creek, Palliser Creek, Number 10 Creek, and Parks Creek.

To confirm that the Creeks linked to significant recharge areas are in fact cold water streams, Quinte Conservation has been collecting water temperature data from 2006 to 2007. Review of this data in accordance with the Ontario Stream Assessment Protocol has confirmed that following creeks associated with significant recharge areas are in fact cold water streams: Warings, Chrysal, Palliser, Number 10 and Parks.



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Legend

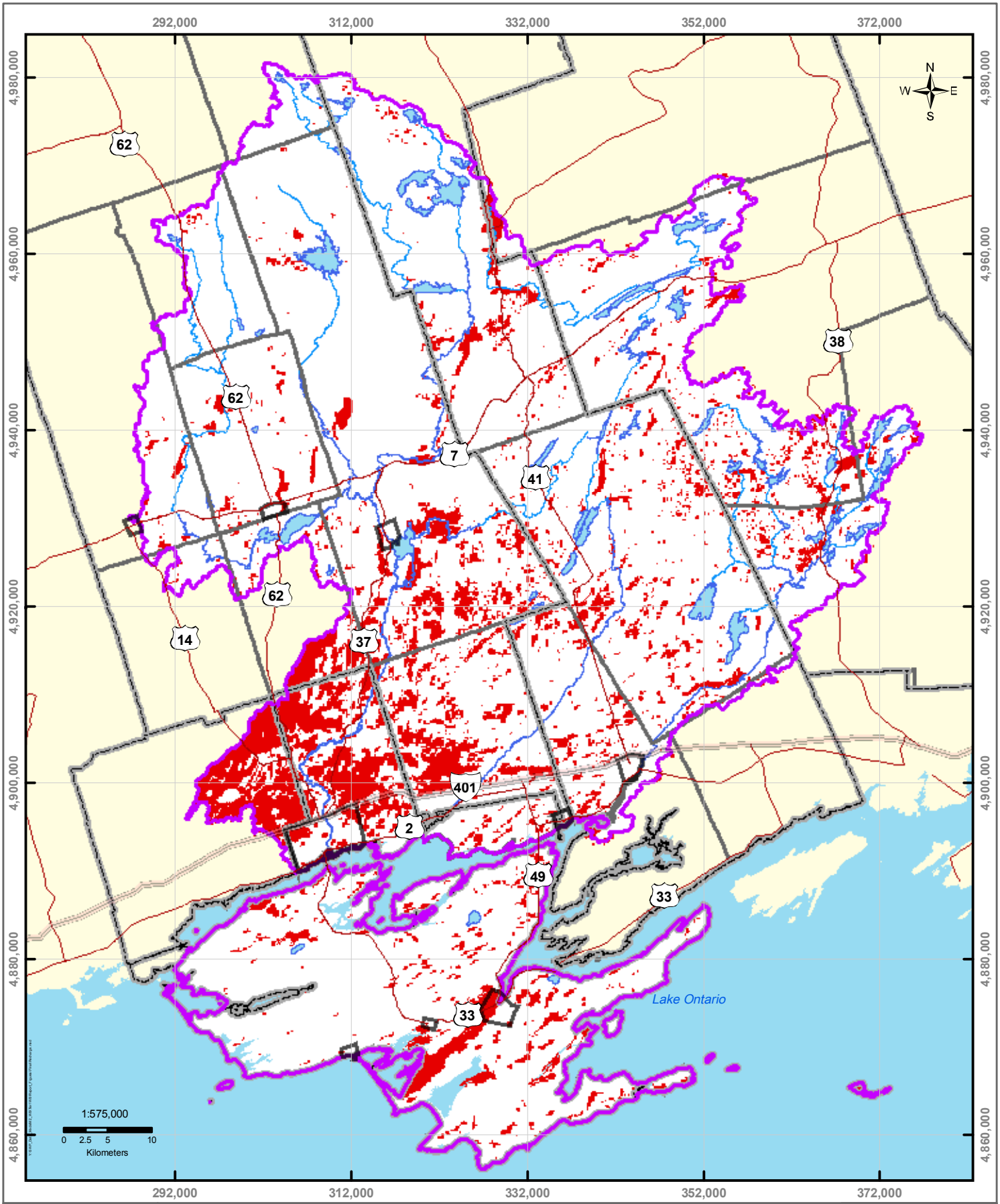
Highway 401 — Rivers — Populated Areas — Significant Recharge

Highways — Lakes — Quinte Region

Figure 9.1 Significant Groundwater Recharge Areas - Method 1

DIGITAL MAPPING SOURCES:

Base Map - Ontario Ministry of Natural Resources
Recharge Area - Ministry of Natural Resources



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Legend

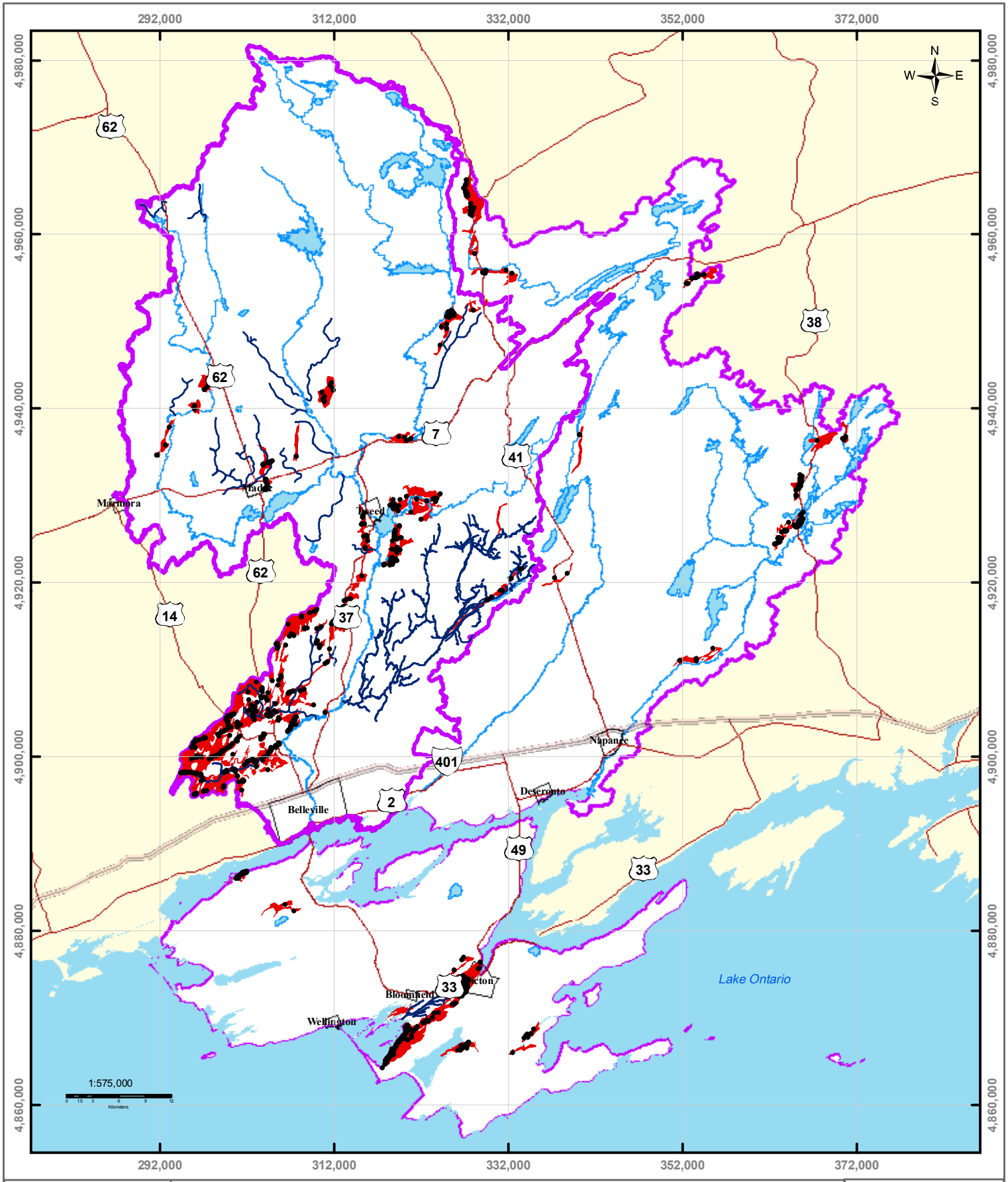
Highway 401
Highways
Rivers
Lakes
Populated Areas
Quinte Region

Groundwater Recharge Coefficient

0.275 - 0.55
0.55 - 0.78

Figure 9.2 Significant Groundwater Recharge Areas - Method 2

DIGITAL MAPPING SOURCES:
Base Map - Ontario Ministry of Natural Resources



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Legend

- Wells
- Highway 401
- Highways
- Coldwater Streams
- Rivers
- Lakes
- Populated Areas
- Quinte Region
- Significant Recharge Areas

Figure 9.3 Refined Significant Groundwater Recharge Areas

Data is projected in NAD 83 UTM Zone 18N.

DIGITAL MAPPING SOURCES:
Base Map - Ontario Ministry of Natural Resources

10. Uncertainty

Uncertainty is often associated with measurement of input data in any water budget process. Errors in measurement of stream flow, precipitation, water well records, ground water recharge etc. are common. To allow for such uncertainty the assessment process used herein has attempted to be conservative in order to serve as a preliminary screening of subwatersheds that may be experiencing stress. This has included consideration of permits and other locations of water use that have a high degree of uncertainty. Much of the uncertainty at this stage has been associated with the estimate of water use and the source of information used to derive these numbers. A brief discussion of uncertainty for each of the areas identified as exhibiting stress is provided below including a qualitative ranking of uncertainty as high or low.

Village of Deloro Ground Water System

A low level of hydrologic stress was identified for this system which was evaluated using conservative estimates of ground water recharge and water use. The ground water hydrograph for this well supports that this system may be under stress conditions. As a result a low level of uncertainty is associated with this assignment of potential stress.

Village of Tweed Ground Water System

Using conservative estimates of ground water recharge and water use the potential hydrologic stress at this system was evaluated as low using subwatershed boundaries. The ground water hydrograph for the well is relatively short but does not indicate signs of potential stress. Regardless, because of the short nature of the water level data a moderate to low degree of uncertainty is assigned to this system.

Village of Madoc Ground Water System

Using conservative estimates of recharge and ground water use the potential for hydrologic stress at this area was assigned low. However, the ground water hydrographs for the municipal wells would indicate that the system has experienced stress recently. This information indicates high uncertainty with the methodology for determining stress and may be associated with the large watershed boundaries that were used. Further assessment is required.

Picton and Camden Catchments

These areas were identified as exhibiting ground water stress. However the uncertainty is high due to the permit to take water information which may be misleading. Further assessment is required. For the remaining subwatersheds uncertainty has been assigned as low due to low water use in these areas.

Ground Water Recharge Uncertainty

Ground water recharge is a parameter that is highly uncertain and difficult to measure. The methods applied in this work are considered the best available in terms of using field data to represent actual conditions. The exclusion of horizontal inflow was also thought to assist in providing a conservative estimate such that areas of potential stress could be identified. Nonetheless potential error is associated with these estimates especially in terms of calculating specific yield as described earlier. To account for potential uncertainty a reduction of recharge estimates by 10% was applied and the stress calculations repeated for the municipal ground water capture zones. Through this exercise none of the municipal systems were identified as being elevated to a higher level of stress.

Surface Water Use

Surface water use is highly skewed by Wetland permitted takings. The study team opted to remove these takings from consideration to reveal more meaningful water use data. Despite this effort, several Prince Edward County subcatchments show unusually high stress by the methodology followed in the report preparation. Wetland takings should not be given such a high consumption rate. In fact, it is arguable whether wetlands really take water at all. Dam permits also do not add meaningful information on takings.

Surface Water Availability on Ungauged PEC Subcatchments

Water availability on the smaller ungauged subcatchments was determined by prorating or comparison to nearby gauged catchments. This means that results for ungauged subcatchments will be less certain. Consequently, potential stress levels may not be as reliable.

Data and Knowledge Gaps

Data gaps have been identified as being associated with the accuracy and completeness of the Permit to Take Water database, as well as the Ontario water well record database. As such further data collection will be required to confirm the potential level of stress associated with these areas. This work is to be completed at the next phase of water budget activities.

11. Recommendations

Through completion of the Tier 1 water budget the majority of subwatersheds in the Quinte watershed were identified as not being under hydrologic stress. However, areas noted as potentially experiencing hydrologic stress are identified as follows:

Ground water: Village of Madoc Well System, Picton & Camden Catchments.

Surface Water: Ameliasburgh (Roblin Lake).

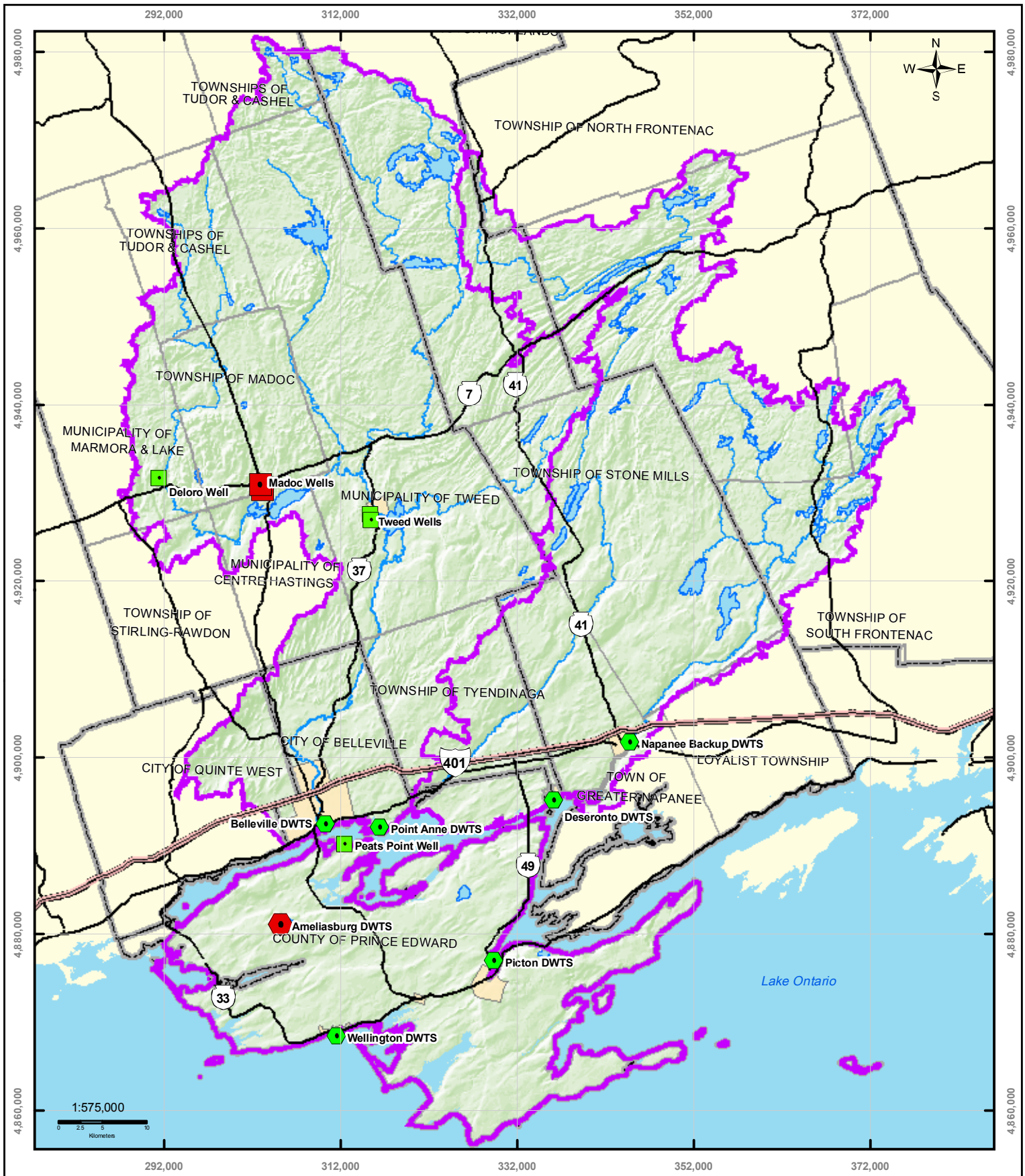
The locations of the municipal systems that may be under stress are as identified by Figure 11.1 and are recommended to proceed to the next phase of water budget activity. Other catchments identified as exhibiting potential ground water stress include the Picton and Camden catchments; however these areas do not contain municipal ground water wells and are not required to proceed with further water budget activities. Of consequence is that further information about the permits to take water and actual water taking in these areas would be beneficial to the understanding of water use in the Quinte Region.

11.1. Surface Water

Refine the permit to take water database to improve accuracy and completeness in order to confirm water use. This would include the implementation of actual water use numbers where available. Undertake surface water modeling for the Ameliasburgh subcatchment to simulate the monthly flow statistics. It would assist the modeling exercise if some flow measurements could be recorded to improve the model.

11.2. Ground Water

Refine and verify water use in the ground water capture zone and subwatershed. This assessment would include actual water use numbers where available and include better estimates of seasonal variation in ground water recharge. Refine the water well record database to confirm or delete points of water use within the areas of interest. The current GIS model may be built on and developed to more accurately reflect ground water flow as well as horizontal inflow. Alternatively a three dimensional ground water flow model, currently available for this well system, may be modified to reflect the monthly time scale and reduced recharge.



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Legend

Stress Condition

- Stressed Intake
- Non Stressed Intake
- Stressed Well
- Non Stressed Well
- Highway 401
- Rivers
- Lakes
- Quinte Watersheds
- Populated Areas
- Township Boundaries
- County Boundaries

Figure 11.1 Stress Conditions of Municipal Wells and Surface Water Intakes

DIGITAL MAPPING SOURCES:

Digital Mapping Sources:
Base Map - Ontario Ministry of Natural Resources
Surface Water Intakes - Ontario Ministry of the Environment
Municipal Wells - Dillon Consulting

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Appendix 1: Stream Flow Data

Appendix 2: Permit to Take Water

Appendix 3: Subwatershed Groundwater Supply, Demand, Percent Demand

Appendix 4: Monitoring Well Water Level and Stream Flow Data (2003/04)

Appendix 5: Ungauged Subwatershed Data

Appendix 1:

Stream Flow Data

Environment Canada Environnement Canada Canada

BLOOMFIELD CREEK AT BLOOMFIELD (02HE001)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	0.072	0.143	0.519	0.380	0.137	0.057	0.099	0.021	0.021	0.039	0.152	0.198	0.153
1971	0.127	0.154	0.460	0.949	0.142	0.057	0.037	0.021	0.015	0.021	0.019	0.074	0.172
1972	0.123	0.116	0.417	0.569	0.119	0.067	0.046	0.039	0.014	0.063	0.243	0.312	0.177
1973	0.371	0.281	0.538	0.406	0.147	0.053	0.016	0.007	0.006	0.008	0.014	0.065	0.159
1974	0.390	0.189	0.281	0.400	0.201	0.078	0.033	0.010	0.014	0.016	0.038	0.120	0.147
1975	0.255	0.239	0.517	0.391	0.100	0.110	0.024	0.010	0.017	0.027	0.067	0.125	0.156
1976	0.136	0.554	0.687	0.333	0.260	0.110	0.052	0.026	0.022	0.059	0.065	0.083	0.198
1977	0.062	0.049	0.808	0.291	0.075	0.026	0.015	0.012	0.021	0.115	0.229	0.400	0.177
1978	0.417	0.174	0.461	0.938	0.142	0.040	0.013	0.008	0.009	0.012	0.042	0.118	0.197
1979	0.230	0.137	1.02	0.518	0.118	0.030	0.011	0.009	0.021	0.074	0.184	0.315	0.223
1980	0.176	0.055	0.510	0.313	0.114	0.046	0.110	0.078	0.098	0.101	0.159	0.238	0.167
1981	0.082	0.769	0.206	0.091	0.046	0.042	0.030	0.025	0.175	0.086	0.142	0.070	0.142
1982	0.202	0.065	0.420	0.328	0.098	0.142	0.045	0.028	0.020	0.154	0.228	0.226	0.164
1983	0.174	0.214	0.232	0.367	0.305	0.065	0.019	0.015	0.012	0.015	0.128	0.523	0.172
1984	0.143	0.626	0.362	0.638	0.248	0.061	0.031	0.021	0.016	0.011	0.034	0.046	0.184
1985	0.046	0.177	0.784	0.281	0.066	0.035	0.022	0.017	0.019	0.028	0.230	0.161	0.155
1986	0.266	0.174	0.563	0.230	0.133	0.083	0.038	0.035	0.134	0.287	0.202	0.465	0.219
1987	0.152	0.102	0.387	0.435	0.064	0.033	0.024	0.025	0.030	0.035	0.061	0.276	0.136
1988	0.115	0.157	0.366	0.256	0.093	0.029	0.016	0.007	0.004	0.009	0.062	0.095	0.101
1989	0.144	0.082	0.367	0.331	0.200	0.106	0.017	0.009	0.007	0.040	0.111	0.063	0.123
1990	0.302	0.295	0.438	0.383	0.351	0.122	0.070	0.028	0.006	0.038	0.091	0.606	0.228
1991	0.279	0.362	0.582	0.328	0.140	0.035	0.019	0.013	0.012	0.011	0.013	0.047	0.152
1992	0.144	0.235	0.482	0.605	-	-	-	-	-	-	-	-	-
Mean	0.192	0.233	0.496	0.424	0.150	0.065	0.036	0.021	0.032	0.057	0.114	0.210	0.168
Max	0.417	0.769	1.02	0.949	0.351	0.142	0.110	0.078	0.175	0.287	0.243	0.606	0.228
Min	0.046	0.049	0.206	0.091	0.046	0.026	0.011	0.007*	0.004	0.008	0.013	0.046	0.101

* Asterisk - occurs more than once.

* DRAINAGE AREA REVISED OCT 1983 USING NEW INFORMATION

This report was produced on May 06, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada Canada

MOIRA RIVER NEAR FOXBORO (02HL001)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1915	-	-	-	-	-	-	-	-	-	9.37	11.6	14.2	-
1916	32.6	56.3	29.0	163	69.3	107	32.5	7.47	3.86	3.07	4.40	10.1	42.9
1917	9.52	7.53	54.4	133	38.4	21.7	10.5	3.52	1.79	3.89	18.5	6.25	25.7
1918	2.05	4.22	66.8	130	37.1	17.4	11.5	4.57	6.38	15.6	38.3	50.4	32.1
1919	36.3	14.2	78.0	100	101	39.6	8.46	3.49	1.45	1.61	22.0	19.5	35.6
1920	5.45	4.80	66.5	75.7	33.4	8.03	6.50	2.79	0.942	1.55	4.47	20.2	19.2
1921	19.2	9.50	110	74.8	31.2	8.60	3.57	1.85	1.87	4.10	9.47	19.8	24.7
1922	9.04	6.85	64.7	156	49.1	17.6	5.30	2.64	1.22	0.929	1.14	1.05	26.3
1923	1.14	1.63	6.88	97.2	54.2	42.1	7.63	1.58	1.31	2.12	2.28	22.5	20.0
1924	23.6	25.1	52.2	108	58.4	22.4	5.83	3.47	2.88	10.4	5.63	7.28	27.0
1925	3.31	19.6	94.3	93.2	30.6	15.6	7.00	4.39	4.36	7.78	53.9	42.8	31.4
1926	18.8	13.2	23.3	146	75.8	22.7	7.66	4.58	6.34	15.1	82.4	41.7	38.1
1927	16.4	20.1	106	60.9	39.8	32.8	21.5	14.5	5.57	8.57	35.8	81.2	37.1
1928	45.9	23.6	71.5	170	51.5	27.2	23.3	38.4	15.5	69.7	70.9	54.3	55.2
1929	62.7	27.6	121	131	95.5	23.5	7.24	3.90	3.20	2.40	5.33	4.25	40.8
1930	42.2	31.4	68.7	97.2	46.3	16.4	6.73	2.75	2.43	2.62	1.89	1.59	26.6
1931	1.08	1.08	8.56	57.7	36.9	18.5	6.00	3.37	2.77	3.36	10.6	27.2	14.8
1932	78.4	62.0	32.0	147	46.2	11.8	5.11	4.66	2.38	5.38	34.7	44.2	39.2
1933	36.5	20.0	20.0	175	56.9	12.3	3.45	1.53	1.11	1.02	1.28	4.67	27.7
1934	6.88	4.62	34.9	162	38.0	14.1	5.65	1.99	2.60	2.07	3.48	14.1	24.2
1935	14.7	11.1	71.5	59.4	26.0	30.4	22.1	7.63	2.74	2.07	18.8	27.9	24.6
1936	10.9	9.09	145	163	49.2	13.3	3.68	1.73	1.56	5.99	26.1	13.8	36.9
1937	105	48.7	24.4	107	94.3	23.2	6.99	4.08	2.73	3.39	32.5	20.3	39.3
1938	12.0	47.6	96.2	87.6	31.1	12.1	4.40	3.60	3.81	5.21	5.33	5.78	26.0
1939	7.85	6.26	10.3	155	75.8	15.5	5.51	5.92	3.52	4.32	5.57	5.60	25.0
1940	3.57	1.81	2.78	144	92.0	68.6	13.2	4.59	3.17	2.79	8.45	23.5	30.6
1941	47.6	13.8	15.7	87.2	15.3	3.66	3.06	1.76	1.19	1.97	18.0	29.1	19.8
1942	29.4	12.2	96.3	73.3	40.9	31.2	6.41	2.05	2.57	3.33	36.7	21.4	29.7
1943	18.4	23.3	78.8	149	156	42.3	7.83	3.47	1.37	2.95	8.91	6.45	41.6
1944	3.07	3.13	14.4	71.5	62.2	16.0	8.45	2.88	1.94	1.85	1.14	2.82	15.8
1945	3.15	3.17	75.4	77.2	70.6	50.2	22.4	9.95	8.17	47.3	30.5	20.5	35.1
1946	24.1	15.3	94.8	41.0	22.2	14.3	4.06	2.08	1.63	1.91	6.69	23.9	21.1
1947	29.1	36.1	43.3	185	76.2	72.5	26.0	20.5	5.37	4.00	4.72	8.49	42.4
1948	7.68	9.10	111	115	66.9	27.0	9.90	3.60	1.82	1.92	4.89	9.54	30.7
1949	20.7	29.5	58.8	118	34.3	7.24	3.42	2.21	1.94	2.33	3.61	39.4	26.7
1950	84.5	33.0	39.0	157	38.4	13.4	4.53	2.90	2.46	1.90	4.27	20.6	33.4
1951	33.9	25.8	82.2	170	57.7	16.5	19.5	5.72	8.11	7.45	36.2	40.3	41.9
1952	40.2	45.4	54.9	167	44.0	21.7	4.83	3.20	2.74	2.05	2.20	15.9	33.5
1953	14.2	15.6	51.9	70.4	54.0	23.5	11.2	8.99	4.26	4.07	6.29	21.2	23.8
1954	13.3	25.9	77.8	128	48.4	11.9	3.71	2.67	5.25	21.6	35.1	32.2	33.7

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1955	24.4	14.0	68.0	137	31.6	11.1	3.55	2.34	2.10	62.7	52.8	16.8	35.5
1956	13.5	7.22	13.1	141	102	59.1	9.35	5.91	6.91	3.68	4.87	15.6	31.8
1957	18.4	22.0	48.4	65.6	33.2	14.0	9.30	2.89	2.93	3.23	7.77	43.4	22.6
1958	32.3	12.7	34.5	88.7	35.6	9.37	3.35	1.81	3.06	1.96	3.66	7.10	19.5
1959	6.07	8.05	22.6	149	42.5	7.57	4.45	1.76	1.82	3.21	15.2	28.9	24.2
1960	14.8	25.2	22.5	216	69.6	19.8	6.31	3.06	0.859	0.795	1.58	2.07	31.6
1961	1.81	4.94	21.3	66.2	61.9	28.9	8.05	4.93	3.76	3.03	3.55	11.2	18.3
1962	7.05	5.32	30.8	102	28.6	8.23	2.70	2.38	2.11	3.86	23.5	23.4	19.9
1963	12.0	8.81	28.7	92.7	45.0	13.4	2.68	2.21	2.13	1.63	7.71	18.1	19.6
1964	18.6	19.5	44.3	67.7	42.6	11.7	2.70	1.31	1.87	1.62	2.05	8.91	18.5
1965	13.9	28.8	35.9	119	45.4	6.16	3.41	1.93	4.07	22.4	48.7	63.4	32.7
1966	37.3	19.7	80.6	48.7	27.0	16.8	1.99	1.23	1.49	1.52	20.3	86.1	28.7
1967	29.1	29.1	27.9	105	40.1	16.5	16.1	4.33	4.24	27.2	64.4	46.0	34.1
1968	25.4	31.1	65.0	68.1	20.9	24.7	15.6	3.59	3.68	4.56	13.1	26.6	25.1
1969	21.6	32.6	54.4	113	97.9	29.1	10.1	6.88	3.17	3.14	12.3	21.7	33.8
1970	10.8	14.1	24.0	103	49.9	14.0	8.24	3.32	3.12	3.66	18.0	27.5	23.2
1971	18.7	19.7	32.7	157	50.9	8.32	3.15	2.12	3.47	4.73	6.18	26.6	27.7
1972	24.1	18.0	22.0	151	81.7	23.8	21.1	16.8	6.59	13.6	44.8	44.2	38.9
1973	54.4	46.0	143	89.6	36.2	12.7	2.89	2.35	1.66	1.89	8.71	19.4	34.9
1974	31.3	32.6	73.4	127	82.8	19.7	6.57	2.75	2.49	4.74	11.9	19.9	34.5
1975	24.0	19.9	76.4	118	51.4	11.2	1.67	1.54	1.77	1.50	3.04	14.1	27.0
1976	15.3	32.2	115	144	33.5	9.96	4.01	2.54	2.20	4.24	6.74	7.73	31.3
1977	7.93	8.05	93.4	64.7	16.9	3.81	1.66	2.80	2.71	8.88	19.2	48.4	23.3
1978	51.7	41.7	40.9	163	56.5	9.14	2.02	1.75	1.90	2.83	11.6	19.9	33.4
1979	27.5	20.6	117	131	44.5	16.2	1.93	1.40	1.28	5.06	15.7	41.7	35.3
1980	42.8	13.0	82.0	96.8	44.5	13.1	5.55	3.19	3.53	7.47	20.6	34.9	30.7
1981	14.0	106	85.9	42.2	29.4	23.3	12.0	8.70	43.8	27.6	48.0	26.9	38.4
1982	19.7	14.1	34.3	149	40.9	21.5	5.99	3.69	4.14	5.25	25.3	68.9	32.7
1983	52.1	39.1	56.9	72.2	78.4	22.5	3.23	2.09	1.25	2.68	9.71	39.1	31.6
1984	20.8	76.7	67.9	149	65.6	17.0	7.38	6.94	5.69	2.66	9.89	18.8	37.1
1985	32.1	26.1	108	112	31.2	10.4	4.26	2.29	15.8	12.0	63.9	40.6	38.2
1986	34.3	28.6	69.0	80.4	26.4	29.9	11.0	13.8	29.1	63.2	30.7	38.4	37.9
1987	26.8	17.0	55.5	140	19.0	9.46	3.80	1.26	2.52	4.98	17.7	58.8	29.7
1988	29.1	35.4	54.1	103	26.0	5.09	1.32	1.15	1.92	4.80	12.7	15.0	24.0
1989	18.8	15.9	26.5	84.7	37.0	22.7	7.52	1.53	1.79	9.60	43.2	27.9	24.7
1990	27.6	35.5	85.3	89.2	46.7	14.2	5.80	3.00	1.13	6.34	15.1	56.1	32.2
1991	63.6	30.0	86.4	141	31.8	8.37	1.43	1.27	0.578	1.80	2.26	10.2	31.5
1992	12.6	9.99	44.5	127	48.9	6.87	2.62	3.86	24.3	17.7	73.2	48.6	34.9
1993	79.3	27.1	29.6	163	39.2	23.1	12.6	1.71	2.79	13.0	24.0	55.3	39.2
1994	16.1	14.3	28.6	97.8	46.4	22.6	7.66	7.42	3.20	4.67	9.14	23.6	23.4
1995	84.7	35.6	43.2	24.4	24.8	20.1	2.18	1.69	1.76	7.79	54.6	33.5	27.8
1996	50.5	72.3	60.2	88.1	80.0	22.7	6.90	5.21	19.8	31.1	53.8	64.4	46.1
1997	54.6	49.4	78.0	133	63.0	14.3	8.27	1.75	4.66	9.75	34.2	28.1	39.8
1998	54.1	26.7	73.3	100	10.6	5.17	7.22	2.40	2.76	3.58	6.92	13.3	25.5
1999	24.8	37.9	38.6	97.9	10.3	5.10	2.28	0.435	0.530	4.81	31.6	42.6	24.5

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
2000	31.6	19.7	47.3	57.9	67.3	47.1	38.9	15.8	5.80	6.60	14.5	38.3	32.7
2001	25.4	43.9	44.4	98.7	15.0	6.25	1.23	0.401	0.503	2.14	6.14	37.6	23.2
2002	29.4	26.0	56.7	87.8	74.4	67.0	21.6	3.03	1.24	2.43	7.86	10.3	32.3
2003	9.11	9.19	42.6	71.5	35.8	24.6	4.61	2.65	2.10	11.5	61.7	76.9	29.4
2004	54.2	19.4	54.4	69.6	45.4	21.8	7.26	8.21	19.7	7.83	21.0	60.7	32.5
2005	67.1	28.3	23.5	113	30.8	12.1	4.77	0.797	1.02	5.66	18.4	38.2	28.6
Mean	27.7	23.9	57.4	111	49.4	21.1	8.08	4.44	4.52	8.48	20.4	28.3	30.4
Max	105	106	145	216	156	107	38.9	38.4	43.8	69.7	82.4	86.1	55.2
Min	1.08	1.08	2.78	24.4	10.3	3.66	1.23	0.401	0.503	0.795	1.14*	1.05	14.8

* Asterisk - occurs more than once.

* IN 1997, MAX/MIN INSTANTANEOUS VALUES ARE ACTUALLY THE RECORDED HOURLY EXTREME VALUES.

This report was produced on November 26, 2007 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

NAPANEE RIVER NEAR NAPANEE (02HM001)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1915	-	-	-	-	-	-	-	-	-	-	3.30	4.47	-
1916	8.68	19.8	15.2	58.1	25.4	36.2	14.7	2.08	1.23	1.36	1.29	1.22	15.3
1917	1.65	1.81	20.6	46.6	7.79	5.47	2.09	1.23	1.07	3.55	5.55	3.63	8.40
1918	1.98	3.67	28.9	45.6	9.07	5.59	4.23	1.55	2.84	8.49	15.5	16.4	12.0
1919	12.8	4.69	28.8	32.1	36.3	16.3	3.11	0.994	0.903	1.14	4.63	4.12	12.2
1920	1.28	1.12	25.1	27.3	8.88	2.08	2.23	0.863	0.288	0.262	1.44	9.43	6.71
1921	6.95	3.69	30.5	21.1	7.88	1.60	0.637	1.04	1.11	0.342	2.06	3.55	6.73
1922	2.45	2.08	22.8	40.2	12.9	4.60	2.89	2.81	1.77	1.08	0.369	0.532	7.88
1923	0.680	0.481	5.01	32.6	13.7	10.1	2.76	1.09	1.49	0.448	1.26	5.04	6.21
1924	6.62	6.15	19.8	33.4	18.9	5.65	2.12	1.59	1.12	2.62	1.31	1.50	8.39
1925	0.425	12.4	38.5	25.6	8.08	3.71	2.00	1.88	0.718	0.772	7.83	13.4	9.59
1926	5.15	3.06	9.32	50.1	18.9	4.76	2.62	1.28	1.13	2.83	-	-	-
1945	-	-	-	-	-	-	-	-	-	5.97	7.25	-	-
1946	-	-	24.2	8.28	4.69	3.28	1.48	0.551	0.752	1.16	2.63	6.87	-
1947	6.17	11.2	14.7	59.6	19.8	30.5	5.13	3.22	1.66	1.43	1.44	2.59	13.0
1948	-	-	32.9	34.5	11.9	6.21	1.58	0.501	0.380	0.630	2.34	2.48	-
1949	4.96	8.58	19.6	31.0	6.17	1.48	0.891	0.595	0.603	0.139	0.700	4.18	6.54
1950	21.4	8.18	12.2	56.0	8.42	3.45	1.08	0.421	0.350	1.17	4.13	7.60	10.3
1951	18.0	11.8	35.3	51.0	13.4	2.69	5.84	1.95	2.98	3.07	13.1	17.8	14.7
1952	14.2	16.9	16.0	47.6	8.84	4.80	1.07	0.950	0.814	0.943	1.11	4.60	9.74
1953	3.95	4.85	20.0	20.1	14.6	4.36	1.56	2.69	2.02	1.49	1.72	5.63	6.93
1954	3.97	10.3	32.8	44.5	17.0	3.78	1.55	1.11	1.31	2.70	7.20	8.21	11.2
1955	5.90	3.24	29.5	43.9	6.18	1.92	1.15	0.654	1.09	15.2	26.8	4.66	11.7
1956	3.74	2.08	3.73	58.0	30.5	13.1	2.36	1.01	0.649	0.577	0.506	2.28	9.83
1957	2.80	4.63	11.1	14.3	5.88	3.30	2.44	1.28	0.532	0.759	1.83	7.86	4.73
1958	9.78	3.23	12.3	23.1	8.63	3.38	1.47	0.681	1.27	2.01	2.30	3.11	5.94
1959	1.93	2.63	8.56	55.5	6.63	1.41	1.40	0.975	1.16	3.30	9.80	13.8	8.89
1960	4.54	7.13	7.39	66.3	17.4	3.45	1.47	1.03	1.18	1.02	1.15	1.07	9.35
1961	0.592	2.76	9.42	23.9	16.9	8.16	3.17	1.68	1.47	1.25	1.66	3.57	6.21
1962	2.10	1.82	13.3	35.0	7.25	1.48	1.00	0.703	0.595	0.950	3.69	6.06	6.16
1963	3.70	2.74	12.0	27.9	11.5	6.64	1.53	1.23	0.623	0.701	2.44	7.10	6.51
1964	8.31	10.1	14.0	23.5	9.83	1.98	0.674	0.724	0.595	0.500	0.416	2.24	6.05
1965	2.37	11.9	17.5	31.1	11.0	1.32	1.01	0.715	0.698	2.60	15.0	21.6	9.69
1966	11.8	7.70	28.2	15.5	3.53	1.76	0.571	0.447	0.490	0.564	6.37	25.7	8.59
1967	10.2	8.65	9.66	30.1	8.18	2.19	1.42	0.754	0.958	5.60	16.1	13.2	8.88
1968	7.49	10.0	20.4	19.8	5.21	5.97	3.15	1.61	7.72	4.05	10.9	16.2	9.35
1969	9.93	11.6	19.9	34.2	23.6	9.62	2.92	2.18	1.17	1.02	6.15	9.43	11.0

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1970	4.87	4.34	11.4	34.6	11.9	2.69	2.48	1.16	0.809	1.38	6.65	9.88	7.66
1971	6.86	7.68	13.2	51.6	14.4	1.64	1.17	0.879	1.06	1.54	1.25	5.17	8.82
1972	6.18	5.03	7.49	51.8	20.0	9.19	6.66	3.02	1.51	4.47	14.2	17.4	12.2
1973	19.5	17.8	36.9	30.0	11.3	4.33	1.50	1.48	1.13	0.931	3.69	6.46	11.2
1974	15.9	19.5	25.8	40.1	19.9	-	-	-	-	-	-	-	-
Mean	6.84	7.25	19.1	36.9	13.1	6.16	2.49	1.30	1.26	2.25	5.43	7.69	9.13
Max	21.4	19.8	38.5	66.3	36.3	36.2	14.7	3.22	7.72	15.2	26.8	25.7	15.3
Min	0.425	0.481	3.73	8.28	3.53	1.32	0.571	0.421	0.288	0.139	0.369	0.532	4.73

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

DEPOT CREEK AT BELLROCK (02HM002)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1957	1.47	1.44	4.14	5.12	2.11	0.982	0.605	0.203	0.012	0.006	0.046	2.72	1.57
1958	2.45	0.806	2.27	5.48	3.32	1.06	1.61	0.795	0.889	1.57	0.210	0.423	1.75
1959	0.400	0.480	3.04	11.4	0.730	0.011	0.570	0.464	0.551	0.895	3.05	3.90	2.12
1960	1.98	2.27	1.76	12.8	1.92	0.543	0.609	0.890	0.575	0.360	0.263	0.214	2.00
1961	0.192	0.187	0.899	4.81	3.77	1.25	0.550	1.26	0.852	0.909	0.596	0.678	1.33
1962	0.604	0.494	2.35	7.34	0.966	0.495	0.824	0.602	0.417	0.343	0.567	2.40	1.45
1963	1.15	0.780	2.04	4.42	2.74	1.18	0.808	0.670	0.487	0.646	0.549	1.39	1.41
1964	1.98	2.72	2.13	4.92	1.69	0.612	0.544	0.616	0.542	0.431	0.292	0.304	1.39
1965	0.344	3.01	2.59	7.33	1.30	0.367	0.582	0.570	0.443	0.945	4.67	4.71	2.22
1966	2.86	1.93	4.27	2.25	0.842	0.580	0.632	0.529	0.423	0.338	1.56	6.43	1.89
1967	2.57	2.37	1.52	4.49	1.43	0.854	0.662	0.645	0.556	1.07	3.64	2.96	1.89
1968	2.09	1.95	2.42	3.14	0.661	1.31	1.04	1.23	1.47	1.01	1.30	3.39	1.75
1969	1.79	2.27	2.95	6.92	6.04	0.987	0.710	0.694	0.548	0.684	1.76	1.62	2.24
1970	1.02	0.683	1.46	5.77	1.86	0.724	0.633	0.551	0.487	0.429	0.758	2.30	1.39
1971	1.87	1.90	3.41	8.91	1.63	0.660	0.504	0.577	0.509	0.350	0.283	0.505	1.75
1972	1.72	1.72	1.43	8.85	2.36	1.97	1.60	1.18	0.863	0.776	2.47	4.42	2.44
1973	4.42	4.06	6.24	4.50	1.59	0.638	0.682	0.658	0.650	0.474	0.541	0.870	2.10
1974	2.10	2.18	4.95	6.48	3.58	0.777	0.733	0.780	0.774	0.747	0.793	1.20	2.09
1975	2.79	2.04	3.38	5.35	0.895	0.846	0.939	1.42	1.57	0.702	0.542	1.18	1.80
1976	1.91	3.00	7.00	4.78	2.10	1.08	1.54	1.43	1.06	0.762	0.551	0.371	2.13
1977	0.391	0.437	3.09	2.61	1.43	1.57	1.62	1.47	0.908	0.764	0.759	1.26	1.37
1978	4.27	5.35	1.75	4.68	0.702	1.31	1.31	1.41	1.05	1.58	0.638	0.654	2.03
1979	0.782	0.644	4.37	4.67	1.64	1.57	1.49	1.47	1.29	1.04	0.891	1.81	1.81
1980	2.35	2.00	2.29	4.02	3.24	1.31	1.37	1.40	1.27	1.11	1.00	1.61	1.91
1981	1.28	4.47	3.35	0.782	1.57	2.11	1.37	1.70	5.83	4.43	2.30	3.67	2.72
1982	1.70	1.40	2.00	5.85	1.94	1.76	1.36	1.38	1.78	1.50	1.50	2.95	2.09
1983	4.97	2.04	2.45	2.44	5.04	1.81	1.44	1.69	1.22	0.992	1.56	3.73	2.46
1984	4.02	3.47	4.89	3.81	2.59	1.82	1.66	1.71	1.33	1.06	0.752	0.775	2.32
1985	1.34	2.27	4.21	3.28	0.708	0.750	1.40	1.08	1.66	1.79	2.72	4.11	2.11
1986	3.24	1.76	3.39	1.25	1.19	1.33	1.28	2.06	3.50	4.22	4.15	4.00	2.62
1987	2.78	1.39	2.63	3.62	1.24	2.08	1.57	1.30	1.04	0.556	1.47	3.36	1.92
1988	5.13	1.85	2.97	2.70	1.67	0.908	1.07	1.07	1.02	0.828	0.658	0.655	1.71
1989	0.802	0.976	1.98	3.18	3.08	1.12	1.17	1.20	0.554	0.824	1.23	1.31	1.45
1990	1.91	2.87	3.48	4.39	3.30	1.49	1.10	0.976	1.04	1.79	1.03	2.58	2.16
1991	4.44	4.05	4.19	5.46	2.57	1.20	0.950	0.642	0.042	1.30	1.26	0.718	2.22
1992	0.655	0.542	2.19	5.97	2.87	0.962	0.946	1.01	1.94	2.57	4.61	4.94	2.43
1993	5.61	4.82	3.27	6.05	2.46	1.45	1.12	1.33	1.25	1.49	1.84	3.35	2.82

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1994	2.78	1.94	1.98	3.66	2.35	1.88	1.11	0.916	0.891	0.955	0.861	0.881	1.68
1995	2.99	3.42	3.39	1.04	0.828	0.580	0.504	0.439	0.587	0.973	2.23	2.90	1.65
1996	3.04	3.85	3.91	4.20	4.06	1.35	0.744	0.741	1.12	1.91	3.19	4.03	2.67
1997	3.70	3.42	4.08	5.61	3.30	0.914	0.873	0.951	1.18	1.44	1.72	2.46	2.46
1998	2.81	1.99	4.84	4.67	0.845	0.881	0.810	0.788	0.832	1.07	0.885	0.907	1.77
1999	1.70	2.34	3.15	5.58	0.937	0.706	0.760	0.672	0.635	0.801	0.849	1.68	1.64
2000	1.60	1.61	1.89	4.67	3.52	1.91	1.63	1.28	1.07	1.26	1.64	2.06	2.01
2001	1.80	2.35	3.73	4.66	1.23	0.782	0.729	0.726	0.832	0.855	0.435	0.877	1.58
2002	1.13	1.45	3.53	5.18	4.34	5.87	2.14	1.79	1.80	1.98	1.97	1.90	2.76
2003	1.03	0.687	2.31	3.92	2.68	1.34	0.678	0.581	0.492	0.660	1.72	5.42	1.80
2004	4.22	1.88	2.69	4.61	3.02	2.15	0.864	0.899	1.19	0.805	1.22	3.40	2.25
Mean	2.25	2.12	3.09	4.95	2.21	1.25	1.03	1.01	1.06	1.12	1.45	2.29	1.98
Max	5.61	5.35	7.00	12.8	6.04	5.87	2.14	2.06	5.83	4.43	4.67	6.43	2.82
Min	0.192	0.187	0.899	0.782	0.661	0.011	0.504*	0.203	0.012	0.006	0.046	0.214	1.33

* Asterisk - occurs more than once.

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

DEMORESTVILLE CREEK AT DEMORESTVILLE (02HE003)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	0.087	0.173	1.53	1.23	0.424	0.055	0.052	0	0	0.002	0.458	0.659	0.391
1971	0.269	0.256	1.47	2.98	0.214	0.003	0	0	0	0	0	0.043	0.434
1972	0.084	0.131	0.452	2.52	0.358	0.032	0.010	0.005	0.001	0.054	0.664	0.850	0.428
1973	0.731	0.749	1.59	0.695	0.193	0.064	0.008	0.001	0.001	0.004	0.035	0.162	0.351
1974	0.667	0.561	0.696	1.53	0.577	0.141	0.045	0.001	0	0.001	0.053	0.226	0.373
1975	0.814	0.463	1.87	0.882	0.157	0.007	0	0.001	0.004	0.011	0.069	0.346	0.387
1976	0.184	1.54	2.33	0.705	0.519	0.149	0.031	0.007	0.003	0.020	0.038	0.089	0.465
1977	0.028	0.037	2.54	0.635	0.145	0.008	-	-	-	-	-	-	-
Mean	0.358	0.489	1.56	1.40	0.323	0.057	0.021	0.002	0.001	0.013	0.188	0.339	0.404
Max	0.814	1.54	2.54	2.98	0.577	0.149	0.052	0.007	0.004	0.054	0.664	0.850	0.465
Min	0.028	0.037	0.452	0.635	0.145	0.003	0.000*	0.000*	0.000*	0.000	0.000	0.043	0.351

* Asterisk - occurs more than once.

This report was produced on May 06, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

BLACK RIVER NEAR ACTINOLITE (02HL003)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1955	-	-	-	-	-	-	-	1.66	0.923	9.47	5.78	2.01	-
1956	1.98	1.61	3.20	20.7	14.3	7.42	1.53	2.03	1.51	0.954	1.30	2.41	4.90
1957	4.00	2.87	7.60	11.5	4.95	2.04	1.67	1.05	0.971	1.51	1.80	9.20	4.11
1958	4.31	2.48	5.15	11.8	4.07	1.41	1.22	1.56	1.44	0.613	0.761	1.26	3.00
1959	0.848	1.05	2.64	22.1	6.13	1.61	1.26	1.39	1.29	1.05	3.83	6.14	4.10
1960	2.63	2.91	2.37	35.2	11.9	5.20	2.46	2.58	0.070	0.124	0.331	0.228	5.46
1961	0.184	0.249	2.07	9.95	9.20	4.00	0.884	1.34	1.67	1.30	1.29	1.69	2.83
1962	1.00	0.963	3.59	13.6	3.56	1.32	1.17	1.40	1.76	1.63	4.66	3.86	3.21
1963	2.02	1.51	7.26	12.6	7.27	1.50	1.06	1.08	1.47	1.08	2.51	2.76	3.52
1964	2.62	2.05	7.36	12.0	7.13	2.39	0.977	0.802	0.716	0.738	0.790	2.09	3.30
1965	1.53	4.17	4.22	22.4	6.91	1.33	0.752	0.734	0.928	4.49	7.84	9.03	5.34
1966	5.18	3.66	12.4	6.63	5.29	2.93	0.869	1.14	0.964	0.272	6.08	12.6	4.86
1967	4.60	4.87	5.20	15.0	6.13	3.07	3.86	1.58	2.06	6.72	12.3	8.79	6.17
1968	4.28	5.44	11.8	8.96	3.65	2.74	1.99	1.45	1.39	1.22	2.41	4.19	4.12
1969	4.00	4.63	8.82	17.1	18.5	4.35	1.90	1.05	0.889	0.688	2.28	3.81	5.67
1970	1.59	2.34	3.98	16.4	7.99	2.65	1.67	0.745	2.33	1.25	3.13	4.27	4.02
1971	2.10	1.71	6.04	27.1	7.42	1.77	0.731	0.916	0.745	0.552	0.748	4.31	4.50
1972	3.38	2.57	3.56	25.5	13.7	4.40	4.04	2.88	1.33	2.26	6.25	6.02	6.31
1973	9.42	6.69	25.5	15.3	7.25	1.80	0.776	0.937	0.531	0.321	2.01	3.45	6.18
1974	5.52	5.02	13.8	23.2	14.4	3.56	1.22	1.16	1.31	1.31	3.03	3.26	6.40
1975	3.56	2.62	13.1	22.8	8.76	2.47	0.570	0.701	0.511	0.106	0.324	2.48	4.83
1976	1.50	3.58	18.3	22.4	5.75	1.01	1.02	1.22	1.24	1.21	1.24	1.16	4.96
1977	0.925	1.02	14.8	9.45	2.69	1.12	1.03	0.714	0.612	1.15	3.39	6.65	3.65
1978	6.61	5.71	8.31	27.8	8.97	1.70	0.987	0.619	0.899	0.856	3.18	3.96	5.77
1979	6.21	4.58	22.0	22.9	9.30	3.21	0.819	0.628	0.231	1.57	4.10	7.83	6.96
1980	7.25	3.68	11.8	16.4	7.60	1.56	0.921	0.995	1.91	1.81	4.45	7.24	5.47
1981	1.79	19.7	10.4	7.37	5.13	4.09	1.54	1.57	5.79	6.23	7.66	6.44	6.37
1982	3.85	2.01	5.26	24.0	5.73	3.28	1.31	1.83	1.34	0.839	6.34	13.8	5.80
1983	8.98	7.54	11.4	12.4	15.4	4.36	1.30	1.19	0.398	0.348	1.91	5.02	5.86
1984	3.61	12.6	10.9	25.7	10.5	2.07	1.23	1.52	1.15	0.282	1.61	3.58	6.18
1985	5.00	5.80	16.6	20.2	4.31	2.37	1.44	1.24	3.66	2.34	9.79	6.88	6.62
1986	4.75	3.91	12.7	12.1	3.68	6.57	2.22	3.27	7.46	14.1	6.61	6.17	6.97
1987	3.89	2.45	10.3	21.5	2.54	1.44	0.860	0.621	0.713	1.20	4.06	10.4	5.00
1988	4.27	5.98	9.57	17.0	3.61	1.04	0.418	0.553	0.685	1.04	2.15	2.57	4.05
1989	2.61	1.88	6.52	13.4	4.79	3.58	1.32	0.604	1.33	4.08	11.1	4.93	4.67
1990	4.33	4.92	15.2	15.4	5.83	1.99	1.36	0.961	0.481	0.710	2.92	10.1	5.35
1991	8.90	4.65	16.1	24.3	4.46	1.55	0.595	0.677	0.358	0.505	0.334	2.24	5.38

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1992	2.18	1.66	7.30	23.4	6.12	1.02	0.980	2.34	5.93	4.26	15.8	8.94	6.63
1993	12.7	3.96	5.01	24.0	4.80	4.15	2.94	0.812	1.51	3.12	5.83	9.43	6.51
1994	2.44	2.33	4.41	15.6	8.26	3.23	1.36	1.98	1.67	1.81	3.29	5.55	4.33
1995	16.8	5.48	7.40	2.77	2.83	4.32	0.684	0.946	1.05	1.75	9.48	6.66	5.01
1996	10.3	12.2	10.3	15.6	11.6	3.44	1.65	1.84	4.74	5.39	8.90	13.7	8.29
1997	9.33	10.7	12.4	23.2	9.36	2.28	0.987	0.187	0.583	1.07	6.14	4.78	6.70
1998	8.60	3.59	13.4	15.8	1.42	0.602	0.505	0.351	0.798	0.177	0.665	1.76	3.97
1999	4.00	5.48	5.88	13.8	1.15	0.795	0.163	0.070	0.266	1.15	7.93	8.13	4.03
2000	5.55	3.76	6.13	7.44	11.7	9.01	4.63	2.61	1.15	1.31	3.47	7.56	5.37
2001	5.64	10.3	6.56	17.3	1.86	0.776	0.387	0.316	0.241	0.239	1.34	7.66	4.33
2002	4.80	4.26	8.25	15.6	10.6	9.60	2.40	0.551	0.516	0.645	1.36	2.31	5.07
2003	1.80	1.89	8.36	8.92	4.28	1.94	0.486	0.653	1.31	2.92	12.7	13.6	4.91
2004	7.66	2.56	10.1	10.2	5.70	2.50	1.13	1.06	2.63	1.15	5.55	11.4	5.15
2005	12.4	4.58	4.28	18.9	3.86	2.30	0.641	0.431	0.472	0.573	1.89	4.85	4.59
Mean	4.87	4.44	9.19	17.1	7.05	2.90	1.36	1.19	1.49	1.99	4.40	5.87	5.14
Max	16.8	19.7	25.5	35.2	18.5	9.60	4.63	3.27	7.46	14.1	15.8	13.8	8.29
Min	0.184	0.249	2.07	2.77	1.15	0.602	0.163	0.070	0.070	0.106	0.324	0.228	2.83

* REGULATION TO MAINTAIN SUMMER FLOW

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

SALMON RIVER NEAR SHANNONVILLE (02HM003)

2005 Daily Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

2005	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	37.7	11.0 B	7.60 B	27.6	22.2	4.59	6.92	0.712	0.159	0.621	3.49	34.3
2	33.6	10.5 B	7.68	36.3	21.7	4.37	6.79	0.664	0.135	0.571	3.68	34.7
3	43.6	10.1 B	7.15	74.8	21.2	4.10	6.48	0.610	0.126	0.521	3.64	31.6
4	40.0	9.80 B	7.21	76.8	20.4	3.88	6.05	0.589	0.120	0.485	3.61	28.6
5	37.2	9.60 B	6.93	69.4	19.0	3.65	5.67	0.601	0.106	0.451	3.37	26.3
6	32.1	9.40 B	6.75	60.1	17.7	3.29	5.31	0.598	0.100	0.411	5.96	24.0
7	29.2	9.62	6.67	54.7	16.7	3.01	4.72	0.573	0.106	0.605	10.2	22.6
8	30.4	11.2	6.10 B	52.9	15.6	2.54	4.38	0.531	0.129	3.00	10.2	21.8
9	29.5	11.8	5.80 B	52.2	14.7	2.24	4.21	0.575	0.149	3.72	10.3	21.7
10	28.7	10.5	5.50 B	51.9	13.9	2.13	3.91	0.426	0.146	3.17	16.0	21.7
11	27.2	9.80	6.06	51.1	13.4	2.14	3.59	0.369	0.135	2.77	14.5	21.3
12	26.4	9.76	5.68	49.6	12.5	2.13	3.16	0.309	0.129	2.37	13.3	19.0 B
13	29.8	9.28	5.57	47.3	11.5	2.09	2.85	0.276	0.133	2.17	12.2	16.7
14	40.1	8.85	5.37	44.6	11.1	2.09	3.30	0.254	0.120	2.26	11.2	15.9
15	30.0 B	14.8	5.28	41.6	11.0	3.05	3.27	0.231	0.124	2.32	10.5	16.1
16	27.0 B	26.5	5.28	38.9	10.7	4.09	2.85	0.206	0.134	2.31	14.3	16.0
17	24.0 B	19.3	5.22	36.4	10.2	4.33	2.72	0.189	0.144	2.16	15.3	17.6
18	22.0 B	17.0	5.06	33.8	9.64	5.28	2.56	0.163	0.120	2.08	15.1	17.4
19	21.8	14.0	5.22	31.0	9.19	5.69	2.39	0.146	0.118	2.01	14.3	16.3
20	21.2	12.4	5.77	29.0	8.76	6.01	2.18	0.146	0.113	1.94	13.6	15.6
21	18.4	11.0	7.23	27.4	8.29	6.14	1.95	0.137	0.125	1.86	13.0	14.1
22	16.8 B	10.3	9.79	25.5	7.92	6.21	1.81	0.131	0.131	1.74	12.5	13.6
23	15.7 B	10.1	10.7	25.1	7.65	6.12	1.74	0.121	0.137	2.02	11.6	14.7
24	15.0 B	9.30	10.2	30.0	7.35	6.39	1.66	0.122	0.129	2.84	11.1	14.6
25	14.2 B	8.70 B	12.3	30.9	6.88	6.62	1.53	0.115	0.132	3.25	10.6	14.7
26	13.8 B	8.50 B	13.5	29.6	6.46	6.78	1.37	0.102	0.402	3.85	10.5	15.7
27	13.2 B	8.20 B	14.1	27.8	6.31	6.87	1.24	0.094	0.577	3.99	10.4	15.9
28	12.6 B	8.00 B	16.1	25.7	6.21	6.99	1.12	0.085	0.616	3.97	10.8	15.6
29	12.1 B		18.6	24.0	5.77	7.23	0.998	0.078	0.657	3.79	17.6	15.9
30	11.8 B		20.8	22.7	5.30	7.14	0.892	0.074	0.656	3.61	32.8	15.7
31	11.3 B		22.4		4.93		0.781	0.156		3.50		13.4
Mean	24.7	11.4	8.96	41.0	11.7	4.57	3.17	0.303	0.204	2.27	11.5	19.5
Max	43.6	26.5	22.4	76.8	22.2	7.23	6.92	0.712	0.657	3.99	32.8	34.7
Min	11.3	8.00	5.06	22.7	4.93	2.09	0.781	0.074	0.100	0.411	3.37	13.4
Total	766.4	319.31	277.62	1228.7	364.16	137.19	98.401	9.383	6.108	70.365	345.65	603.1
Total Dam^3	66200	27600	24000	106000	31500	11900	8500	811	528	6080	29900	52100

Overall Mean	Maximum Daily	Minimum Daily	Total Discharge	Total Discharge in dam^3
11.6	76.8 on Apr 04	0.074 on Aug 30	4226.387	365000

Maximum Instantaneous : 84.7 on Apr 03 at 04:00 EST

Minimum Instantaneous : 0.070 on Aug 30 at 05:05 EST

Click here for further information on remarks.

A - Partial Day
B - Ice Conditions
D - Dry
E - Estimated
R - Revised within the last two years
- no symbol
* - Asterik-occurs more than once
d - Complete and Some Dry
P - Partially Dry

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada Canada

SALMON RIVER NEAR SHANNONVILLE (02HM003)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1958	-	-	-	-	-	-	-	0.181	0.280	0.335	2.04	4.10	-
1959	3.73	3.88	15.0	50.6	14.2	1.32	0.702	0.171	0.229	2.19	8.46	14.6	9.58
1960	4.41	7.26	4.48	66.3	21.0	4.89	1.28	0.390	0.143	0.137	0.418	0.377	9.18
1961	0.270	2.95	11.1	24.0	20.6	9.88	2.82	1.02	0.606	0.315	0.628	2.71	6.41
1962	1.58	1.40	14.0	26.8	3.72	0.523	0.591	0.424	0.409	0.936	7.21	9.59	5.60
1963	5.25	3.76	15.9	28.7	14.1	7.98	2.00	0.807	0.292	0.282	1.24	8.37	7.39
1964	9.23	8.15	16.4	23.4	13.5	3.84	0.919	0.254	0.214	0.317	0.608	2.22	6.57
1965	4.44	13.5	17.9	36.7	14.4	2.11	0.974	0.307	0.780	6.38	21.1	23.7	11.8
1966	11.3	5.43	25.8	16.1	6.68	4.54	0.840	0.242	0.181	0.261	7.01	26.0	8.75
1967	11.1	10.5	11.6	33.1	12.9	4.73	3.02	0.968	0.347	5.12	20.5	15.4	10.7
1968	8.55	12.1	22.1	21.6	8.36	8.39	4.69	1.22	4.62	4.14	9.80	15.8	10.1
1969	8.35	12.7	21.1	38.5	31.8	13.4	3.71	2.08	0.465	0.388	4.79	9.75	12.2
1970	4.56	5.90	12.7	34.3	18.1	6.19	3.21	1.00	0.381	1.08	11.1	14.8	9.44
1971	8.48	8.18	15.9	52.2	20.0	3.71	0.967	0.266	0.220	0.635	0.665	9.85	10.1
1972	10.8	7.52	9.24	49.9	25.4	10.5	7.87	5.08	1.36	5.91	17.3	19.0	14.1
1973	21.7	17.8	43.2	32.0	13.6	5.76	0.993	0.281	0.125	0.158	2.98	8.43	12.2
1974	15.7	12.7	26.9	42.9	27.4	8.26	2.24	0.385	0.154	0.179	2.16	11.3	12.5
1975	9.30	9.42	26.9	39.6	21.0	3.76	0.566	0.164	0.129	0.391	0.848	6.78	9.89
1976	5.58	17.3	46.8	41.8	9.58	3.74	1.21	0.335	0.200	0.593	1.54	3.22	10.9
1977	2.55	2.59	38.5	23.4	7.16	1.76	0.302	0.244	0.413	2.65	6.77	19.1	8.84
1978	20.3	14.9	15.7	53.7	17.9	2.44	0.308	0.126	0.197	0.128	1.46	7.20	11.1
1979	15.3	8.42	43.3	43.2	14.9	5.68	1.11	0.210	0.189	0.790	5.75	17.1	13.0
1980	17.3	4.20	28.9	35.2	18.6	4.38	3.11	1.40	0.622	1.87	8.97	15.2	11.7
1981	4.98	36.3	29.1	13.0	9.49	8.78	3.89	2.38	21.5	11.9	18.2	8.08	13.8
1982	6.12	3.68	18.2	49.8	16.2	8.85	3.07	0.891	0.815	1.71	9.92	25.8	12.1
1983	19.1	15.3	20.6	29.2	28.3	7.88	1.17	0.490	0.377	2.00	8.62	24.8	13.1
1984	8.57	27.3	24.0	41.6	18.8	6.06	2.27	1.66	0.923	0.415	1.59	4.86	11.4
1985	7.93	10.0	35.0	30.0	7.57	2.51	0.657	0.096	2.46	3.71	19.1	11.2	10.8
1986	12.4	8.58	21.1	22.2	9.01	9.61	4.44	4.46	8.52	21.3	11.0	15.7	12.4
1987	8.22	4.51	20.6	41.3	6.23	3.22	1.44	0.294	0.269	0.647	6.22	23.5	9.71
1988	9.81	10.7	19.0	32.3	7.20	2.01	0.370	0.169	0.085	0.707	5.19	5.29	7.70
1989	6.86	5.74	12.2	28.0	13.7	5.95	1.47	0.371	0.044	0.238	10.2	8.89	7.79
1990	10.3	14.9	29.2	31.3	17.8	5.51	1.48	0.492	0.094	2.14	5.46	22.6	11.8
1991	20.8	11.7	31.9	40.4	13.4	2.73	0.406	0.038	0.025	0.082	0.139	1.87	10.3
1992	4.65	3.07	19.4	42.2	17.6	2.69	0.574	0.686	3.34	3.72	24.8	17.1	11.6
1993	29.4	12.0	14.6	53.4	15.5	6.90	2.34	0.537	0.434	2.94	9.51	21.1	14.0
1994	5.97	4.86	13.9	35.1	16.0	8.45	2.76	0.542	0.554	0.279	1.52	6.44	8.02
1995	27.4	14.2	14.9	9.66	7.66	3.67	0.789	0.357	0.228	2.41	19.3	12.2	9.37
1996	18.6	29.2	19.8	28.7	26.3	6.65	1.90	1.12	5.11	10.4	19.2	21.5	15.6
1997	19.7	19.4	32.9	48.0	27.4	5.97	2.68	1.19	1.43	2.93	15.6	10.3	15.6

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1998	19.9	11.1	29.7	29.3	4.12	1.51	0.999	0.759	0.614	0.539	1.15	3.89	8.62
1999	9.76	17.5	19.0	32.9	4.58	1.38	0.851	0.224	0.230	0.931	5.30	13.1	8.73
2000	10.7	8.10	19.9	25.1	21.7	14.8	16.0	7.46	3.73	1.80	5.25	16.2	12.6
2001	9.39	15.9	19.3	30.5	5.98	1.95	0.367	0.065	0.054	0.454	1.14	13.5	8.15
2002	12.0	11.8	23.5	31.2	28.8	28.4	9.49	0.925	0.159	0.426	1.69	2.71	12.6
2003	3.11	2.98	17.6	26.8	14.6	9.34	2.35	1.31	0.334	2.21	20.4	30.2	11.0
2004	18.3	6.54	21.7	26.6	18.1	11.4	3.55	4.57	10.4	3.67	7.06	23.2	13.0
2005	24.7	11.4	8.96	41.0	11.7	4.57	3.17	0.303	0.204	2.27	11.5	19.5	11.6
Mean	11.2	10.8	21.7	34.8	15.4	6.14	2.38	1.02	1.55	2.40	7.97	13.1	10.7
Max	29.4	36.3	46.8	66.3	31.8	28.4	16.0	7.46	21.5	21.3	24.8	30.2	15.6*
Min	0.270	1.40	4.48	9.66	3.72	0.523	0.302	0.038	0.025	0.082	0.139	0.377	5.60

* Asterisk - occurs more than once.

* IN 1997, THE MAX/MIN INSTANTANEOUS EXTREMES ARE ACTUALLY THE RECORDED HOURLY EXTREME VALUES.

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

SKOOTAMATTA RIVER NEAR ACTINOLITE (02HL004)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1955	-	-	-	-	-	-	-	0.532	0.532	18.2	11.4	2.59	-
1956	2.43	1.44	2.07	43.0	27.0	14.1	1.96	1.48	1.46	1.26	1.64	5.40	8.57
1957	5.75	4.62	13.8	18.4	9.50	3.49	1.57	0.490	1.23	-	-	-	-
1958	-	-	9.20	25.4	9.94	2.09	0.784	-	-	0.418	0.905	1.22	-
1959	1.60	2.11	6.07	39.9	11.1	1.52	0.688	0.439	0.343	1.32	5.37	8.27	6.54
1960	3.92	6.99	5.26	58.1	15.8	3.79	0.757	0.249	0.342	0.766	0.478	0.567	8.01
1961	0.405	0.509	4.33	17.5	18.9	7.58	2.02	0.550	0.275	1.29	0.346	2.36	4.69
1962	1.43	0.879	10.7	23.9	7.79	2.16	0.530	0.255	0.330	1.51	9.35	8.51	5.61
1963	3.58	2.55	11.7	23.5	11.9	3.18	0.305	0.191	0.155	0.168	4.37	5.94	5.63
1964	5.29	4.87	12.4	18.5	11.9	3.03	0.462	0.177	1.35	0.515	0.484	3.42	5.18
1965	3.43	7.58	7.59	35.4	14.4	2.16	0.645	0.401	1.16	8.28	16.6	18.4	9.64
1966	10.3	4.23	21.2	14.9	10.2	5.43	0.723	0.226	0.471	1.22	10.7	26.0	8.84
1967	8.26	7.28	7.38	31.1	10.9	4.56	5.46	1.72	1.90	12.2	22.4	14.1	10.6
1968	7.96	8.08	18.9	18.8	5.06	5.66	3.83	0.676	0.637	0.523	3.21	6.80	6.67
1969	6.70	10.3	16.3	34.2	31.6	6.85	1.88	0.839	1.65	0.457	2.29	4.67	9.79
1970	2.46	3.25	5.11	31.7	15.2	3.93	2.98	1.73	0.732	0.604	4.34	6.95	6.57
1971	4.93	4.70	8.31	44.9	14.5	2.28	1.50	1.41	1.52	1.70	2.42	9.61	8.12
1972	8.08	6.31	6.29	41.2	25.9	5.44	7.07	3.98	1.60	3.89	14.1	13.0	11.4
1973	16.5	11.9	39.1	25.1	10.2	3.18	1.40	1.22	0.921	0.669	2.37	7.58	10.0
1974	11.4	8.58	19.7	37.7	25.2	4.69	1.36	1.14	1.26	1.67	4.83	7.88	10.4
1975	8.16	5.74	20.8	35.3	13.4	2.41	1.03	0.961	0.359	0.257	0.454	4.31	7.76
1976	4.04	8.36	32.5	37.0	8.78	2.37	0.895	0.757	0.675	1.09	2.33	2.78	8.44
1977	2.70	2.79	29.3	17.0	3.44	1.01	0.298	1.47	1.22	1.83	4.08	13.3	6.58
1978	12.7	8.85	9.90	44.2	16.4	2.08	0.755	0.717	0.655	0.645	3.52	7.18	8.93
1979	9.49	6.40	33.8	36.4	13.0	4.36	0.889	0.644	0.594	1.92	6.92	16.9	11.0
1980	11.8	3.30	21.9	28.7	11.6	3.76	1.46	0.955	0.871	2.53	6.57	11.2	8.73
1981	3.05	34.3	21.4	11.1	7.82	7.32	2.48	1.61	9.71	8.98	13.5	7.67	10.6
1982	5.62	3.15	8.67	40.0	10.6	4.38	1.48	1.06	0.803	0.936	9.16	24.3	9.18
1983	13.6	8.97	17.6	21.5	25.4	5.78	0.682	0.618	0.396	0.476	2.96	10.1	9.02
1984	5.09	22.3	16.5	41.4	17.7	2.95	0.755	0.771	0.611	0.530	2.44	5.37	9.61
1985	8.84	8.45	27.3	29.3	7.54	1.60	1.02	0.785	3.11	3.05	16.0	9.56	9.69
1986	8.71	6.45	18.9	18.5	7.53	9.78	2.81	4.44	10.9	22.8	7.75	9.57	10.7
1987	6.27	4.53	15.9	36.4	3.71	2.22	1.13	0.497	0.538	2.15	5.41	11.8	7.52
1988	7.20	11.2	15.9	25.7	5.96	1.14	0.609	0.788	0.715	2.45	3.44	4.45	6.59
1989	5.14	3.97	9.29	21.8	8.52	5.26	1.54	0.220	0.531	2.83	14.7	7.69	6.78
1990	7.78	8.26	23.7	24.8	10.2	2.86	1.24	0.668	0.407	1.65	4.05	16.7	8.53
1991	14.8	7.52	25.3	37.7	5.69	1.19	0.574	0.413	0.213	0.372	0.459	2.91	8.07

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1992	3.73	2.77	11.9	35.9	11.3	1.47	0.529	1.42	7.03	5.99	25.8	13.6	10.1
1993	19.7	6.52	8.62	42.4	7.40	5.09	2.53	0.656	0.682	3.85	8.71	14.5	10.0
1994	4.54	3.89	6.77	27.2	11.7	4.32	1.71	3.11	1.37	1.70	3.29	8.58	6.51
1995	29.4	8.68	12.0	4.51	4.97	5.77	0.454	0.379	0.791	1.83	16.6	8.10	7.79
1996	15.1	20.5	15.8	27.3	18.6	3.16	1.02	2.09	7.25	8.45	17.2	20.4	13.0
1997	15.0	15.0	20.3	35.3	17.8	2.42	1.62	0.415	0.867	2.65	9.30	6.88	10.6
1998	13.9	6.38	19.7	28.1	1.76	0.582	1.25	0.599	0.924	1.09	1.99	3.38	6.63
1999	7.90	9.02	9.91	25.8	2.40	1.17	0.457	0.226	0.450	1.56	11.0	12.5	6.82
2000	8.48	5.93	11.2	16.0	17.9	13.0	8.39	5.18	1.32	2.33	5.91	11.6	8.95
2001	7.80	13.2	10.4	26.2	2.92	1.19	0.214	0.169	0.196	0.931	3.25	13.2	6.57
2002	7.76	7.23	15.7	25.4	18.8	15.8	4.83	0.820	0.643	0.534	1.65	2.44	8.46
2003	2.51	2.65	13.4	15.3	8.17	4.31	0.798	0.604	0.645	3.53	20.9	22.4	7.96
2004	12.4	5.39	14.1	17.0	11.8	3.92	1.39	1.85	5.39	2.30	6.70	16.9	8.28
2005	18.7	6.59	5.78	31.4	6.86	3.41	1.35	0.440	0.504	1.28	4.12	8.62	7.40
Mean	8.29	7.44	15.0	29.0	12.1	4.22	1.64	1.06	1.56	2.98	7.16	9.64	8.40
Max	29.4	34.3	39.1	58.1	31.6	15.8	8.39	5.18	10.9	22.8	25.8	26.0	13.0
Min	0.405	0.509	2.07	4.51	1.76	0.582	0.214	0.169	0.155	0.168	0.346	0.567	4.69

* SEASONAL REGULATION

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

MOIRA RIVER NEAR DELORO (02HL005)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1965	-	-	-	-	-	-	-	-	0.312	3.46	6.75	8.04	-
1966	3.54	2.11	9.95	6.22	4.20	1.38	0.080	0.017	0.018	0.019	2.74	11.1	3.47
1967	2.36	2.75	3.17	13.7	4.82	1.92	1.71	0.292	0.288	6.32	8.10	5.79	4.26
1968	2.39	3.40	8.59	7.87	2.16	2.31	1.04	0.169	0.272	0.280	1.36	2.99	2.73
1969	2.93	4.12	6.09	14.5	11.4	2.61	1.08	0.414	0.065	0.248	1.61	2.44	3.95
1970	0.961	1.03	1.28	13.4	5.40	0.962	1.34	0.220	0.045	0.241	2.70	3.47	2.58
1971	1.60	1.41	2.82	19.8	4.90	0.503	0.097	0.019	0.041	0.138	0.569	3.53	2.94
1972	2.32	1.72	1.77	18.5	10.5	2.45	2.75	1.37	0.368	1.38	5.34	4.85	4.44
1973	7.04	4.45	18.0	10.3	3.42	1.20	0.164	0.043	0.011	0.067	1.42	2.88	4.09
1974	4.56	3.34	5.68	16.8	10.4	2.10	0.440	0.145	0.159	1.10	3.15	2.73	4.21
1975	3.43	2.59	8.92	17.6	5.80	0.964	0.093	0.041	0.027	0.044	0.149	1.98	3.46
1976	1.41	2.56	13.0	16.9	3.91	0.543	0.300	0.078	0.089	0.183	0.488	0.792	3.35
1977	0.415	0.367	10.3	7.77	1.44	0.113	0.050	0.048	0.068	0.664	3.17	5.88	2.54
1978	5.89	3.64	3.57	21.3	6.68	0.607	0.052	0.026	0.193	0.814	2.46	2.47	3.96
1979	3.27	1.94	14.3	17.5	5.74	1.64	0.125	0.131	0.061	0.453	2.34	5.53	4.43
1980	3.83	0.884	10.2	12.9	4.74	0.725	0.314	0.246	0.103	0.915	2.65	3.61	3.43
1981	1.18	16.5	6.91	6.56	3.13	2.45	0.680	0.285	3.76	4.04	5.32	2.80	4.37
1982	1.26	0.814	2.54	19.3	3.71	1.72	0.202	0.136	0.118	0.350	4.63	10.6	3.78
1983	5.11	4.25	8.00	9.92	11.6	2.16	0.139	0.060	0.044	0.075	0.683	2.70	3.73
1984	1.12	6.90	6.20	19.6	7.22	0.948	0.152	0.209	0.157	0.076	1.06	2.51	3.81
1985	2.76	3.61	11.4	16.6	3.30	1.42	0.451	0.086	2.21	1.22	7.96	4.65	4.62
1986	2.78	2.05	9.58	10.1	3.44	6.02	0.979	1.03	4.10	8.40	3.19	3.04	4.56
1987	1.64	1.25	6.96	15.8	1.44	0.896	0.282	0.014	0.054	0.499	2.59	7.09	3.21
1988	2.38	3.92	5.15	12.9	3.23	0.278	0.048	0.014	0.035	0.130	2.08	1.54	2.62
1989	1.72	1.05	4.30	10.6	5.56	3.95	1.17	0.072	0.230	0.715	7.17	2.14	3.21
1990	2.66	2.84	11.3	11.9	6.08	1.26	0.507	0.109	0.212	0.916	2.44	6.33	3.89
1991	4.95	2.51	16.1	19.0	2.81	0.698	0.031	0.019	0.020	0.080	0.177	1.11	3.96
1992	0.999	1.03	6.71	19.6	5.07	0.530	0.108	0.966	3.41	2.53	11.4	4.20	4.68
1993	8.07	1.78	3.89	20.5	3.52	3.39	1.33	0.201	0.068	1.54	2.93	5.25	4.37
1994	1.02	1.04	3.14	14.3	6.73	2.05	0.646	1.02	0.196	0.483	1.54	3.18	2.94
1995	12.2	2.20	6.98	3.13	3.01	4.01	0.077	0.062	0.018	1.43	8.31	2.63	3.68
1996	8.04	10.7	8.31	15.2	9.05	3.69	0.732	0.990	3.58	4.32	6.82	9.61	6.73
1997	6.26	8.28	9.73	17.7	7.49	1.46	0.942	0.248	0.811	1.10	3.98	2.40	5.00
1998	6.31	1.83	10.3	12.5	1.04	0.676	0.804	0.464	0.495	0.566	1.37	1.93	3.19
1999	2.23	2.99	3.71	12.1	1.12	0.674	0.068	0.006	0.016	0.567	5.37	5.25	2.82
2000	2.91	1.82	6.17	8.15	10.8	6.58	3.59	1.24	0.348	0.483	1.91	3.61	3.98
2001	2.10	5.76	5.73	14.4	1.52	0.740	0.163	0.060	0.016	0.172	1.29	5.44	3.09

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
2002	2.73	2.93	7.60	12.3	7.51	7.47	1.82	0.088	0.034	0.132	0.948	1.14	3.71
2003	0.897	0.965	4.95	8.37	4.83	2.89	0.317	0.226	0.141	2.13	8.61	8.01	3.53
2004	4.19	1.18	7.27	9.26	6.32	2.04	1.54	1.21	1.90	0.975	3.56	6.93	3.88
2005	9.33	1.81	1.83	15.8	2.82	3.21	0.347	0.063	0.049	0.430	1.24	2.89	3.32
Mean	3.52	3.16	7.31	13.8	5.20	2.03	0.669	0.303	0.589	1.21	3.45	4.27	3.76
Max	12.2	16.5	18.0	21.3	11.6	7.47	3.59	1.37	4.10	8.40	11.4	11.1	6.73
Min	0.415	0.367	1.28	3.13	1.04	0.113	0.031	0.006	0.011	0.019	0.149	0.792	2.54

* IN 1997, MAX/MIN INSTANTANEOUS VALUES ARE ACTUALLY THE RECORDED 15-MINUTE EXTREME VALUES.

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

PARKS CREEK NEAR LATTA (02HL006)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1984	-	-	-	-	-	-	-	-	-	-	-	1.44	-
1985	1.77	2.40	9.06	7.85	2.45	1.10	0.285	0.146	0.581	0.894	5.30	2.81	2.88
1986	2.58	2.42	5.97	5.05	2.29	1.36	0.353	0.228	0.859	2.21	2.05	3.91	2.44
1987	2.46	1.13	5.24	8.73	2.10	0.946	0.338	0.142	0.272	0.549	1.46	4.61	2.33
1988	2.51	2.71	5.34	6.31	2.31	0.630	0.270	0.117	0.122	0.391	0.923	0.858	1.87
1989	1.05	1.24	2.61	4.93	3.40	1.69	0.334	0.208	0.170	0.328	1.82	1.23	1.58
1990	2.44	3.10	6.46	7.14	4.02	1.50	0.688	0.294	0.131	0.769	1.13	3.93	2.63
1991	4.17	2.48	7.22	8.32	2.58	0.808	0.209	0.064	0.052	0.145	0.177	0.433	2.22
1992	1.27	0.778	5.08	9.95	-	-	-	-	-	-	-	-	-
Mean	2.28	2.03	5.87	7.29	2.74	1.15	0.354	0.171	0.312	0.755	1.84	2.40	2.28
Max	4.17	3.10	9.06	9.95	4.02	1.69	0.688	0.294	0.859	2.21	5.30	4.61	2.88
Min	1.05	0.778	2.61	4.93	2.10	0.630	0.209	0.064	0.052	0.145	0.177	0.433	1.58

* STATION ACTIVATED NOV 1984

This report was produced on June 11, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

MOIRA RIVER NEAR TWEED (02HL007)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
2002	-	-	-	-	-	-	13.9	1.68	1.08	1.37	5.01	7.07	-
2003	6.08	5.65	29.4	45.2	23.8	14.8	2.62	1.69	2.05	9.61	47.7	52.8	20.2
2004	33.9	12.8	37.4	48.0	32.4	14.6	5.40	6.27	13.1	5.92	17.6	42.6	22.5
2005	48.5	17.9	15.6	79.1	19.2	10.1	3.48	0.944	1.05	2.85	8.49	21.5	19.0
Mean	29.5	12.1	27.5	57.4	25.1	13.2	6.35	2.65	4.32	4.94	19.7	31.0	20.6
Max	48.5	17.9	37.4	79.1	32.4	14.8	13.9	6.27	13.1	9.61	47.7	52.8	22.5
Min	6.08	5.65	15.6	45.2	19.2	10.1	2.62	0.944	1.05	1.37	5.01	7.07	19.0

* REGULATED BY DAM DOWNSTREAM IN TWEED.

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

NAPANEE RIVER AT CAMDEN EAST (02HM007)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1974	8.64	11.1	21.0	35.9	17.0	3.12	1.14	1.22	1.14	0.855	1.51	3.96	8.84
1975	9.45	6.98	21.7	31.5	10.0	2.69	1.22	1.26	2.28	1.31	2.53	6.74	8.12
1976	5.54	9.71	36.9	36.1	9.99	4.24	2.18	1.81	1.73	1.65	1.63	1.33	9.38
1977	1.16	1.28	25.8	19.9	5.83	2.31	1.40	1.89	1.66	3.02	5.43	10.1	6.69
1978	13.0	14.9	11.1	43.7	10.2	2.07	1.22	1.32	1.48	1.79	2.75	4.66	8.93
1979	5.55	4.59	32.1	30.1	9.23	4.47	1.54	1.62	2.16	2.98	4.24	10.7	9.13
1980	10.6	4.93	18.2	28.3	15.7	2.64	1.83	2.34	1.95	2.36	4.21	7.64	8.40
1981	4.35	23.6	24.4	7.64	5.66	6.25	3.13	3.79	19.8	13.7	15.1	9.32	11.3
1982	5.78	4.45	11.4	37.2	10.6	7.56	2.97	1.60	2.38	3.11	6.71	14.6	9.02
1983	14.2	11.2	14.5	18.0	20.5	5.44	1.39	1.51	1.30	1.69	6.14	20.3	9.68
1984	10.3	21.7	17.4	31.1	12.5	5.12	2.90	2.48	2.38	1.72	1.93	3.64	9.35
1985	4.84	6.29	27.4	20.2	3.84	1.87	1.56	1.18	4.24	4.25	13.9	10.9	8.37
1986	8.75	6.58	17.9	16.8	8.15	7.68	2.70	3.06	9.04	14.0	10.7	13.9	9.96
1987	9.95	5.70	16.4	27.6	4.79	5.18	2.60	1.43	1.98	1.83	5.50	20.5	8.62
1988	9.81	7.73	14.3	22.0	5.23	1.59	0.802	0.818	0.911	1.32	2.88	2.70	5.82
1989	3.35	4.04	8.84	23.2	11.1	4.09	1.45	1.17	0.625	1.26	5.59	5.19	5.81
1990	7.22	11.4	22.3	22.9	13.5	5.49	1.84	1.37	1.07	3.16	4.67	15.4	9.19
1991	19.5	11.1	24.2	30.8	11.8	2.77	1.02	0.628	0.262	1.15	1.70	2.13	8.90
1992	3.10	2.36	12.1	32.0	12.3	2.38	1.27	1.49	4.95	7.20	21.0	16.0	9.66
1993	20.5	12.5	11.4	42.2	12.6	5.37	2.60	1.51	1.47	3.86	6.66	16.3	11.4
1994	6.37	5.81	9.66	28.9	10.2	5.80	2.23	1.40	1.04	0.935	2.26	4.07	6.53
1995	18.9	11.6	14.6	6.34	4.25	1.67	0.727	0.619	0.788	2.84	12.7	9.65	7.04
1996	15.0	17.1	16.0	19.0	18.9	4.96	1.72	1.13	3.04	7.68	16.6	17.4	11.5
1997	16.3	12.6	23.0	34.9	15.8	4.20	1.85	1.04	2.03	3.18	10.3	10.0	11.2
1998	15.8	8.82	26.8	22.3	3.44	1.54	1.21	0.908	1.51	1.70	2.49	4.24	7.56
1999	10.1	14.5	16.5	29.2	4.04	1.18	1.14	0.742	0.910	1.52	3.17	7.83	7.50
2000	8.48	8.58	16.1	19.5	14.1	7.65	5.15	4.06	3.47	2.79	3.59	7.66	8.42
2001	7.06	8.37	13.7	25.0	5.10	1.28	0.628	0.543	0.683	0.798	0.906	6.11	5.82
2002	6.24	7.24	17.5	23.6	19.3	22.2	7.33	1.49	0.596	1.06	2.59	3.12	9.34
2003	3.48	3.55	13.1	21.5	9.32	6.26	1.98	1.24	1.13	2.72	12.2	23.1	8.30
2004	16.4	5.66	15.0	20.4	13.0	7.79	2.10	3.39	6.48	2.69	4.47	17.5	9.58
2005	21.4	14.1	9.74	32.0	9.43	1.73	1.11	0.904	0.905	2.56	9.16	15.2	9.80
Mean	10.0	9.38	18.2	26.2	10.5	4.64	2.00	1.59	2.67	3.21	6.41	10.1	8.73
Max	21.4	23.6	36.9	43.7	20.5	22.2	7.33	4.06	19.8	14.0	21.0	23.1	11.5
Min	1.16	1.28	8.84	6.34	3.44	1.18	0.628	0.543	0.262	0.798	0.906	1.33	5.81

* IN 1997, THE MAX/MIN INSTANTANEOUS VALUES ARE ACTUALLY THE RECORDED HOURLY EXTREME VALUES.

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

SALMON RIVER AT TAMWORTH (02HM010)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
2002	-	-	-	-	-	-	7.63	0.792	0.079	0.194	0.509	1.79	-
2003	2.80	2.53	6.63	18.2	8.74	5.07	1.62	0.601	0.141	0.386	13.3	22.1	6.85
2004	14.3	4.00	10.7	14.9	10.4	7.90	1.30	1.08	5.42	2.15	3.64	14.5	7.54
2005	16.1	6.11	3.93	22.8	7.30	3.60	2.76	0.214	0.185	1.47	5.26	12.0	6.81
Mean	11.1	4.21	7.09	18.6	8.81	5.52	3.33	0.672	1.46	1.05	5.68	12.6	7.07
Max	16.1	6.11	10.7	22.8	10.4	7.90	7.63	1.08	5.42	2.15	13.3	22.1	7.54
Min	2.80	2.53	3.93	14.9	7.30	3.60	1.30	0.214	0.079	0.194	0.509	1.79	6.81

* ABOVE BEAVER LAKE

This report was produced on June 10, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

CLARE RIVER NEAR BOGART (02HL102)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1968	-	-	-	-	-	-	-	-	-	-	1.11	-	-
1969	-	-	4.49	8.97	7.16	2.42	0.615	0.410	0.092	0.186	-	-	-
1970	0.764	1.27	2.16	9.01	3.13	0.479	0.280	0.044	0.014	0.118	1.28	2.56	1.75
1971	1.44	1.09	2.80	16.5	3.69	0.439	0.152	0.048	0.251	0.248	0.442	1.65	2.38
1972	2.06	1.60	2.08	17.5	6.20	1.90	1.35	1.40	0.362	1.11	4.38	4.73	3.71
1973	4.80	3.90	13.9	7.80	2.25	0.687	0.210	0.150	0.163	0.093	0.817	2.00	3.07
1974	3.22	3.04	7.00	13.6	6.73	1.20	0.387	0.180	0.166	0.533	0.950	1.68	3.22
1975	2.06	1.89	9.24	11.8	3.63	0.582	0.122	0.065	0.081	0.135	0.368	1.50	2.63
1976	1.35	3.11	-	-	1.77	0.632	0.293	0.146	0.124	0.269	-	-	-
1977	-	-	14.2	6.12	1.14	0.324	0.167	-	-	-	-	-	-
Mean	2.24	2.27	6.98	11.4	3.97	0.963	0.397	0.305	0.157	0.337	1.34	2.35	2.79
Max	4.80	3.90	14.2	17.5	7.16	2.42	1.35	1.40	0.362	1.11	4.38	4.73	3.71
Min	0.764	1.09	2.08	6.12	1.14	0.324	0.122	0.044	0.014	0.093	0.368	1.50	1.75

This report was produced on June 11, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Environment Canada Environnement Canada

Canada

PARKS CREEK NEAR LATTA (02HL103)

Monthly Mean Discharge (m^3/s)

Archived hydrometric data from Canada's HYDAT database.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1968	-	-	-	-	-	-	-	-	-	-	1.64	-	-
1969	-	-	5.06	7.84	5.74	2.80	1.36	0.816	0.229	0.207	0.967	2.08	-
1970	-	-	-	8.05	3.04	0.875	0.588	0.218	0.175	0.505	2.36	2.20	-
1971	1.62	2.02	3.39	17.2	4.55	1.41	0.488	0.158	0.343	0.596	0.871	2.52	2.92
1972	2.46	2.14	2.86	13.1	5.40	2.59	1.64	1.03	0.474	1.98	4.42	5.85	3.66
1973	5.52	4.91	11.2	7.10	3.66	1.86	0.380	0.198	0.128	0.277	1.11	2.43	3.23
1974	5.42	3.54	7.51	10.7	6.07	2.13	0.729	0.225	0.109	0.226	0.720	1.55	3.24
1975	1.71	2.64	8.11	9.42	3.65	1.76	0.266	0.035	0.079	0.195	0.690	2.89	2.62
1976	3.83	7.29	13.6	9.48	3.97	1.60	0.926	0.293	0.210	0.583	0.906	-	-
1977	-	-	-	7.36	2.62	0.603	0.180	-	-	-	-	-	-
Mean	3.43	3.76	7.39	10.0	4.30	1.74	0.729	0.372	0.218	0.571	1.52	2.79	3.13
Max	5.52	7.29	13.6	17.2	6.07	2.80	1.64	1.03	0.474	1.98	4.42	5.85	3.66
Min	1.62	2.02	2.86	7.10	2.62	0.603	0.180	0.035	0.079	0.195	0.690	1.55	2.62

This report was produced on June 11, 2008 using the Archived Hydrometric Data application located at http://www.wsc.ec.gc.ca/hydat/H2O/index_e.cfm?cname=main_e.cfm

Appendix 2:

Permit to Take Water Data

Permit Number	MaxLitres /Day	Days of Taking	General Purpose	Specific Purpose	Water Budget Purpose	Surface/Ground/Both	Consumptive Factor	Monthly Consumptive Use
3782-646LF2	5760.0	200.0	Commercial	Golf Course Irrigation	Irrigation	B	0.7	40.3
3782-646LF2	7200.0	200.0	Commercial	Golf Course Irrigation	Irrigation	B	0.7	50.4
3782-646LF2	282000.0	40.0	Commercial	Golf Course Irrigation	Irrigation	B	0.7	987.0
3782-646LF2	1152000.0	120.0	Commercial	Golf Course Irrigation	Irrigation	B	0.7	12096.0
3782-646LF2	5400000.0	365.0	Commercial	Golf Course Irrigation	Irrigation	B	0.7	56700.0
3782-646LF2	8400000.0	365.0	Commercial	Golf Course Irrigation	Irrigation	B	0.7	88200.0
3782-646LF2	10351000.0	365.0	Commercial	Golf Course Irrigation	Irrigation	B	0.7	108685.5
8228-5ZBJJ6	1091040.0	180.0	Industrial	Aggregate Washing	Industrial	B	0.3	4091.4
82-P-4018	477330.0	20.0	Water Supply	Other - Water Supply	Irrigation	B	0.9	4296.0
89-P-4059	654624.0	365.0	Dewatering	Pits and Quarries	Pits	B	0.3	2454.8
89-P-4059	654624.0	90.0	Dewatering	Pits and Quarries	Pits	B	0.3	2454.8
89-P-4059	3927744.0	365.0	Dewatering	Pits and Quarries	Pits	B	0.3	14729.0
93-P-4024	2045700.0	0.0	Agricultural	Other - Agricultural	Irrigation	B	0.8	24548.4
98-P-4018	3909560.0	14.0	Agricultural	Fruit Orchards	Irrigation	B	0.8	46914.7
98-P-4018	3909560.0	14.0	Agricultural	Fruit Orchards	Irrigation	B	0.8	21893.5
0182-63QRUT	113650.0	365.0	Water Supply	Campgrounds	Public Supply	G	0.2	681.9
0182-63QRUT	113650.0	365.0	Water Supply	Campgrounds	Public Supply	G	0.2	681.9
02-P-4032	1200144.0	20.0	Agricultural	Other - Agricultural	Irrigation	G	0.8	19202.3
03-P-4010	109104.0	365.0	Dewatering	Other - Dewatering	Irrigation	G	0.8	2618.5
03-P-4013	1309248.0	365.0	Commercial	Aquaculture	Commercial	G	0.1	3927.7
03-P-4070	38153.0	365.0	Remediation	Groundwater	Industrial	G	0.5	572.3
03-P-4075	16351200.0	0.0	Dewatering	Pits and Quarries	Pits	G	0.3	122634.0
03-P-4075	27252000.0	0.0	Dewatering	Pits and Quarries	Pits	G	0.3	204390.0
03-P-4101	16546240.0	20.0	Dewatering	Pits and Quarries	Pits	G	0.3	82731.2
7777-5ZLPX3	136380.0	260.0	Industrial	Other - Industrial	Industrial	G	0.3	681.9
7777-5ZLPX3	136380.0	260.0	Industrial	Other - Industrial	Industrial	G	0.3	1022.9
7801-64GREG	260000.0	365.0	Water Supply	Municipal	Municipal	G	0.2	72.8
8126-66BKKY	172000.0	365.0	Remediation	Groundwater	Industrial	G	0.5	2580.0
8126-66BKKY	345000.0	365.0	Remediation	Groundwater	Industrial	G	0.5	5175.0
8126-66BKKY	360000.0	365.0	Remediation	Groundwater	Industrial	G	0.5	5400.0
8126-66BKKY	432000.0	365.0	Remediation	Groundwater	Industrial	G	0.5	6480.0
8126-66BKKY	504000.0	365.0	Remediation	Groundwater	Industrial	G	0.5	7560.0
8126-66BKKY	700000.0	365.0	Remediation	Groundwater	Industrial	G	0.5	10500.0
8220-64ERPK	524160.0	365.0	Agricultural	Other - Agricultural	Irrigation	G	0.8	12579.8
8220-64ERPK	524160.0	365.0	Agricultural	Other - Agricultural	Irrigation	G	0.8	12579.8
85-P-4009	4320000.0	250.0	Pits and Quarries	Industrial	Industrial	G	0.3	32400.0
85-P-4009	5760000.0	40.0	Pits and Quarries	Industrial	Industrial	G	0.3	14400.0
85-P-4009	5760000.0	40.0	Pits and Quarries	Industrial	Industrial	G	0.3	43200.0
85-P-4066	432000.0	365.0	Campgrounds	Public Supply	Public Supply	G	0.2	2592.0
87-P-4063	327312.0	365.0	Water Supply	Municipal	Municipal	G	0.2	414.0
90-P-4030	9457.0	103.0	Water Supply	Campgrounds	Public Supply	G	0.2	24.6
90-P-4030	15457.0	103.0	Water Supply	Campgrounds	Public Supply	G	0.2	40.2
91-P-4024	818280.0	365.0	Water Supply	Municipal	Municipal	G	1.0	6292.0
91-P-4024	1469000.0	365.0	Water Supply	Municipal	Municipal	G	1.0	10041.0
95-P-4017	13092.0	275.0	Other - Industrial	Industrial	Industrial	G	0.3	98.2
95-P-4017	196387.0	365.0	Other - Industrial	Industrial	Industrial	G	0.3	1472.9
95-P-4066	1091040.0	180.0	Aggregate Washing	Industrial	Industrial	G	0.3	8182.8
96-P-4078	490000.0	183.0	Golf Course Irrigation	Irrigation	Irrigation	G	0.7	10290.0
97-P-4054	244800.0	365.0	Remediation	Groundwater	Industrial	G	0.5	3672.0
97-P-4114	1633000.0	365.0	Water Supply	Municipal	Municipal	G	1.0	16573.0
97-P-4128	90000.0	365.0	Water Supply	Communal	Public Supply	G	0.2	540.0
98-P-4096	13616179.0	365.0	Dewatering	Pits and Quarries	Pits	G	0.3	102121.3
99-P-4030	294490.0	365.0	Water Supply	Campgrounds	Public Supply	G	0.2	1766.9
93-P-4007	8175600.0	365.0	Industrial	Manufacturing	Industrial	S	0.3	61317.0
97-P-4053	5455200.0	200.0	Industrial	Aggregate Washing	Industrial	S	0.3	40914.0
00-P-4115	1145592.0	120.0	Irrigation	Golf Course Irrigation	Irrigation	S	0.7	24057.4
02-P-4025	1363800.0	122.0	Agricultural	Field and Pasture Crops	Irrigation	S	0.8	32731.2
02-P-4026	1363800.0	122.0	Agricultural	Field and Pasture Crops	Irrigation	S	0.8	32731.2

Permit Number	MaxLitres /Day	Days of Taking	General Purpose	Specific Purpose	Water Budget Purpose	Surface/Ground/Both	Consumptive Factor	Monthly Consumptive Use
02-P-4049	2270000.0	100.0	Irrigation	Golf Course Irrigation	Irrigation	S	0.7	47670.0
69-P-0398	524160.0	365.0	Irrigation	Other - Agricultural	Irrigation	S	0.8	12579.8
82-P-4018	477330.0	122.0	Irrigation	Other - Agricultural	Irrigation	S	0.8	11455.9
85-P-4049	654636.0	30.0	Irrigation	Other - Water Supply	Irrigation	S	0.2	3927.8
86-P-4008	90920.0	60.0	Commercial	Golf Course Irrigation	Irrigation	S	0.7	1909.3
89-P-4033	2273000.0	153.0	Irrigation	Golf Course Irrigation	Irrigation	S	0.7	47733.0
90-P-4007	909200.0	50.0	Irrigation	Other - Water Supply	Irrigation	S	0.2	5455.2
91-P-4003	590980.0	5.0	Agricultural	Other - Agricultural	Irrigation	S	0.8	14183.5
91-P-4004	1372892.0	20.0	Agricultural	Other - Agricultural	Irrigation	S	0.8	32949.4
92-P-4020	545520.0	150.0	Agricultural	Other - Agricultural	Irrigation	S	0.8	13092.5
93-P-4072	52370.0	150.0	Irrigation	Golf Course Irrigation	Irrigation	S	0.7	1099.8
97-P-4111	681900.0	100.0	Irrigation	Other - Agricultural	Irrigation	S	0.8	16365.6
97-P-4111	681900.0	40.0	Irrigation	Other - Agricultural	Irrigation	S	0.8	16365.6
97-P-4117	363680.0	120.0	Commercial	Golf Course Irrigation	Irrigation	S	0.7	7637.3
98-P-4073	567750.0	100.0	Irrigation	Other - Agricultural	Irrigation	S	0.8	13626.0
98-P-4073	567750.0	100.0	Irrigation	Other - Agricultural	Irrigation	S	0.8	13626.0
99-P-4040	386070.0	180.0	Irrigation	Golf Course Irrigation	Irrigation	S	0.7	8107.5
96-P-4112	1635316.0	150.0	Irrigation	Golf Course Irrigation	Irrigation	S	0.7	34341.6
98-P-4040	283875.0	180.0	Irrigation	Golf Course Irrigation	Irrigation	S	0.7	5961.4
0846-65ZKS6	12000000.0	365.0	Water Supply	Municipal	Municipal	S	0.2	72000.0
81-P-4007	932819.0	365.0	Water Supply	Municipal	Municipal	S	0.2	5596.9
91-P-4010	12000000.0	365.0	Municipal	Municipal	Municipal	S	0.2	72000.0
92-P-4021	47460240.0	150.0	Miscellaneous	Wildlife Conservation	Municipal	S	0.1	142380.7
04-P-4024	360000.0	365.0	Water Supply	Municipal	Municipal	S	0.2	2160.0
87-P-4042	1909320.0	30.0	Water Supply	Other - Water Supply	Municipal	S	0.2	11455.9
04-P-4037	109106.0	30.0	Dewatering	Pits and Quarries	Pits	S	0.3	818.3
04-P-4037	545400.0	2.0	Dewatering	Pits and Quarries	Pits	S	0.3	4090.5
89-P-4081	5760000.0	365.0	Industrial	Pits and Quarries	Pits	S	0.3	43200.0
89-P-4085	136380.0	100.0	Industrial	Pits and Quarries	Pits	S	0.3	1022.9
90-P-4076	1090080.0	365.0	Industrial	Pits and Quarries	Pits	S	0.3	8175.6
92-P-4088	1641600.0	365.0	Industrial	Pits and Quarries	Pits	S	0.3	12312.0
00-P-4023	167769600.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	503308.8
00-P-4024	106089600.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	318268.8
00-P-4025	111024.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	333.1
00-P-4038	120450240.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	361350.7
00-P-4039	159073920.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	477221.8
00-P-4040	120450240.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	361350.7
00-P-4041	51714720.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	155144.2
00-P-4042	288689760.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	866069.3
00-P-4062	10368000.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	31104.0
01-P-4041	9868800.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	29606.4
01-P-4041	9868800.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	29606.4
01-P-4041	9868800.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	29606.4
01-P-4041	9868800.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	29606.4
01-P-4043	1036220.0	365.0	Recreational	Wetlands	Wetland	S	0.1	3108.7
01-P-4043	1443310.0	365.0	Recreational	Wetlands	Wetland	S	0.1	4329.9
01-P-4043	1776380.0	365.0	Recreational	Wetlands	Wetland	S	0.1	5329.1
01-P-4043	1887410.0	365.0	Recreational	Wetlands	Wetland	S	0.1	5662.2
01-P-4046	1542000.0	365.0	Recreational	Wetlands	Wetland	S	0.1	4626.0
01-P-4047	106090000.0	365.0	Recreational	Wetlands	Wetland	S	0.1	318270.0
01-P-4049	1295280.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	3885.8
01-P-4049	1295280.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	3885.8
01-P-4049	1295280.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	3885.8
01-P-4049	1295280.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	3885.8
01-P-4049	33307200.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	99921.6
01-P-4052	3454080.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	10362.2
02-P-4061	1036800.0	365.0	Recreational	Wetlands	Wetland	S	0.1	3110.4
02-P-4061	1555200.0	365.0	Recreational	Wetlands	Wetland	S	0.1	4665.6

Permit Number	MaxLitres /Day	Days of Taking	General Purpose	Specific Purpose	Water Budget Purpose	Surface/Ground/Both	Consumptive Factor	Monthly Consumptive Use
02-P-4061	2937600.0	365.0	Recreational	Wetlands	Wetland	S	0.1	8812.8
02-P-4061	3110400.0	365.0	Recreational	Wetlands	Wetland	S	0.1	9331.2
02-P-4061	3283200.0	365.0	Recreational	Wetlands	Wetland	S	0.1	9849.6
02-P-4061	3283200.0	365.0	Recreational	Wetlands	Wetland	S	0.1	9849.6
02-P-4061	3801600.0	365.0	Recreational	Wetlands	Wetland	S	0.1	11404.8
03-P-4012	276480.0	365.0	Recreational	Wetlands	Wetland	S	0.1	829.4
03-P-4012	354240.0	365.0	Recreational	Wetlands	Wetland	S	0.1	1062.7
03-P-4012	400320.0	365.0	Recreational	Wetlands	Wetland	S	0.1	1201.0
03-p-4104	286440.0	160.0	Recreational	Other - Recreational	Wetland	S	0.1	859.3
03-p-4104	510840.0	160.0	Recreational	Other - Recreational	Wetland	S	0.1	1532.5
80-P-4006	818400.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	2455.2
81-P-4047	270064800.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	810194.4
83-P-4024	322906380.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	968719.1
84-P-4003	24065890.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	72197.7
84-P-4004	499052606.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	1497157.8
84-P-4021	507988800.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	1523966.4
85-P-4025	4320000.0	90.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	12960.0
85-P-4026	8640000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	25920.0
85-P-4027	4320000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	12960.0
85-P-4061	4320000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	12960.0
85-P-4062	4320000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	12960.0
86-P-4029	93938544.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	281815.6
86-P-4054	8640000.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	25920.0
86-P-4056	8640000.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	25920.0
86-P-4057	8640000.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	25920.0
86-P-4058	4320000.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	12960.0
86-P-4063	150858107.0	0.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	452574.3
86-P-4066	270071677.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	810215.0
87-P-4006	8640000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	25920.0
87-P-4009	46969272.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	140907.8
87-P-4010	46969272.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	140907.8
87-P-4011	46969272.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	140907.8
87-P-4012	46969272.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	140907.8
87-P-4020	4320000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	12960.0
87-P-4049	278869824.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	836609.5
87-P-4107	0.0	0.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	0.0
87-P-4108	11115000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	33345.0
87-P-4109	10000000.0	30.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	30000.0
87-P-4110	10000000.0	30.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	30000.0
87-P-4111	3510000.0	30.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	10530.0
87-P-4112	19512000.0	60.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	58536.0
87-P-4113	2700000.0	30.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	8100.0
87-P-4114	10150000.0	45.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	30450.0
87-P-4115	2760000.0	30.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	8280.0
88-P-4023	496106798.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	1488320.4
88-P-4030	871304544.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	2613913.6
88-P-4061	43859808.0	273.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	131579.4
89-P-4090	102775968.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	308327.9
92-P-4050	75936384.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	227809.2
93-P-4017	734351748.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	2203055.2
93-P-4018	12306931.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	36920.8
93-P-4025	82482624.0	150.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	247447.9
95-P-4043	0.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	0.0
96-P-4098	14729040.0	0.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	44187.1
96-P-4099	28803456.0	0.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	86410.4
96-P-4100	47132640.0	0.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	141397.9
97-P-4010	525990240.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	1577970.7
97-P-4039	8640000.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	25920.0

Permit Number	MaxLitres /Day	Days of Taking	General Purpose	Specific Purpose	Water Budget Purpose	Surface/Ground/Both	Consumptive Factor	Monthly Consumptive Use
97-P-4043	112278240.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	336834.7
97-P-4049	8640000.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	25920.0
97-P-4057	873432000.0	365.0	Miscellaneous	Wildlife Conservation	Wetland	S	0.1	2620296.0
81-P-4026	327312.0	365.0	Water Supply	Municipal	Municipal		0.2	1963.9

Appendix 3:

Subwatershed Groundwater Supply, Demand, % Demand

Appendix C:
Subwatershed Groundwater Supply, Demand, % Demand

Table 1

Ameliasburgh Catchment - All depths reported in mm

Month	P (Snowmelt)	ET	Infiltration	Recharge	Demand	Guideline Recharge	Stress %
Jan	78.02	0.00	21.54	11.42	0.02	5.58	0.02
Feb	65.00	0.00	27.22	14.43	0.02	5.58	0.02
Mar	76.30	0.00	54.54	28.91	0.02	5.58	0.02
Apr	79.93	32.12	28.54	15.13	0.02	5.58	0.02
May	75.58	79.39	0.00	0.00	0.02	5.58	0.02
Jun	73.29	115.47	0.00	0.00	0.12	5.58	0.12
Jul	58.16	136.15	0.00	0.00	0.12	5.58	0.12
Aug	76.80	113.85	0.00	0.00	0.12	5.58	0.12
Sep	88.83	78.17	0.00	0.00	0.12	5.58	0.12
Oct	79.02	39.87	0.00	0.00	0.02	5.58	0.02
Nov	89.51	10.32	0.07	0.04	0.02	5.58	0.02
Dec	89.83	0.00	9.29	4.93	0.02	5.58	0.02
Annual	930.26	605.35	141.21	74.84	0.63	66.96	0.8

129495000 *Area of capture zone (m^2)*

Table 2

Black Catchment - All depths reported in mm

Month	P (Snowmelt)	ET	Infiltration	Recharge	Demand	Guideline Recharge	Stress %
Jan	70.10	0.00	18.55	5.94	0.01	3.96	0.15
Feb	56.40	0.00	22.64	7.25	0.01	3.96	0.15
Mar	69.99	0.00	47.96	15.35	0.01	3.96	0.15
Apr	70.57	26.65	24.95	7.98	0.01	3.96	0.15
May	77.27	77.61	0.08	0.03	0.01	3.96	0.15
Jun	80.50	110.74	0.00	0.00	0.01	3.96	0.20
Jul	67.77	92.21	0.00	0.00	0.01	3.96	0.20
Aug	83.89	87.09	0.00	0.00	0.01	3.96	0.20
Sep	87.98	71.42	0.00	0.00	0.01	3.96	0.20
Oct	76.42	34.31	3.11	0.99	0.01	3.96	0.15
Nov	81.49	3.64	27.78	8.89	0.01	3.96	0.15
Dec	77.40	0.00	21.44	6.86	0.01	3.96	0.15
Annual	899.79	503.67	166.51	53.28	0.08	47.52	0.16

429376000 *Area of capture zone (m2*!

Table 3

Black River Catchment - All depths reported in mm

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	83.28	0.00	24.29	12.87	0.02	6.57	0.27
Feb	65.73	0.00	29.07	15.41	0.02	6.57	0.27
Mar	76.53	0.00	57.79	30.63	0.02	6.57	0.27
Apr	80.52	32.16	30.45	16.14	0.02	6.57	0.27
May	78.09	79.12	0.00	0.00	0.02	6.57	0.27
Jun	77.28	115.11	0.00	0.00	0.10	6.57	1.57
Jul	65.03	135.37	0.00	0.00	0.10	6.57	1.57
Aug	80.95	115.10	0.00	0.00	0.10	6.57	1.57
Sep	93.59	79.28	0.00	0.00	0.10	6.57	1.57
Oct	84.24	41.03	0.06	0.03	0.02	6.57	0.27
Nov	96.47	11.33	2.00	1.06	0.02	6.57	0.27
Dec	90.39	0.00	21.93	11.62	0.02	6.57	0.27
Annual	972.09	608.49	165.59	87.76	0.55	78.84	0.70

80608100 *Area of capture zone (m2*)

Table 4

Camden Catchment - All depths reported in mm

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	81.97	0.00	24.16	9.81	0.51	5.22	9.70
Feb	60.24	0.00	26.90	10.95	0.51	5.22	9.70
Mar	74.15	0.00	56.57	22.96	0.51	5.22	9.70
Apr	74.04	29.03	28.62	11.63	0.51	5.22	9.70
May	75.78	77.87	0.00	0.00	0.51	5.22	9.70
Jun	77.11	112.56	0.00	0.00	0.54	5.22	10.28
Jul	69.14	129.61	0.00	0.00	0.54	5.22	10.28
Aug	78.78	96.87	0.00	0.00	0.54	5.22	10.39
Sep	91.82	74.50	0.00	0.00	0.54	5.22	10.31
Oct	78.52	37.33	0.10	0.04	0.51	5.22	9.70
Nov	90.49	7.04	10.67	3.71	0.51	5.22	9.70
Dec	84.62	0.00	26.04	10.58	0.51	5.22	9.70
Annual	936.66	564.81	173.07	69.67	6.20	62.64	9.90

512816000 *Area of capture zone (m2)*

Table 5

Clare River Catchment - All depths reported in mm

Month	P (Snowmelt)	ET	Infiltration	Recharge	Guideline Recharge	Water Use	Stress %
Jan	80.10	0.00	23.62	9.64	5.31	0.01	0.12
Feb	58.85	0.00	26.35	10.83	5.31	0.01	0.12
Mar	74.22	0.00	56.67	23.18	5.31	0.01	0.12
Apr	72.70	28.43	28.20	11.57	5.31	0.01	0.12
May	74.88	77.94	0.00	0.00	5.31	0.01	0.12
Jun	77.83	112.03	0.00	0.00	5.31	0.01	0.14
Jul	66.89	112.03	0.00	0.00	5.31	0.01	0.14
Aug	78.36	92.96	0.00	0.00	5.31	0.01	0.14
Sep	89.10	73.73	0.00	0.00	5.31	0.01	0.14
Oct	76.05	36.47	1.09	0.40	5.31	0.01	0.12
Nov	87.81	6.03	15.74	5.48	5.31	0.01	0.12
Dec	82.11	0.00	24.17	9.83	5.31	0.01	0.12
Annual	918.89	539.62	175.85	70.94	63.72	0.08	0.13

314719000 *Area of capture zone (m2)*

Table 6

Consecon Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	77.87	0.00	21.91	11.61	0.02	5.67	0.33
Feb	63.95	0.00	27.27	14.46	0.02	5.67	0.33
Mar	75.38	0.00	54.86	29.08	0.02	5.67	0.33
Apr	79.34	32.30	28.73	15.23	0.02	5.67	0.33
May	75.28	79.37	0.00	0.00	0.02	5.67	0.33
Jun	73.74	115.38	0.00	0.00	0.11	5.67	1.92
Jul	59.19	135.66	0.00	0.00	0.11	5.67	1.92
Aug	76.98	115.42	0.00	0.00	0.11	5.67	1.92
Sep	89.08	78.61	0.00	0.00	0.11	5.67	1.92
Oct	79.12	40.30	0.05	0.02	0.02	5.67	0.33
Nov	89.76	10.77	0.35	0.18	0.02	5.67	0.33
Dec	88.61	0.00	10.04	5.32	0.02	5.67	0.33
Annual	928.30	607.80	143.21	75.90	0.59	68.04	0.86

223209000 *Area of capture zone (m2)*

Table 7

Deloro Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	64.91	0.00	17.49	5.60	0.11	3.87	2.79
Feb	56.75	0.00	23.18	7.42	0.11	3.87	2.79
Mar	67.33	0.00	46.96	15.03	0.11	3.87	2.79
Apr	70.57	27.19	25.15	8.05	0.11	3.87	2.80
May	78.60	77.88	0.31	0.10	0.11	3.87	2.79
Jun	79.41	111.13	0.00	0.00	0.11	3.87	2.82
Jul	65.63	93.95	0.00	0.00	0.11	3.87	2.82
Aug	86.08	90.93	0.00	0.00	0.11	3.87	2.82
Sep	86.86	71.72	0.00	0.00	0.11	3.87	2.82
Oct	75.96	34.51	2.24	0.72	0.11	3.87	2.79
Nov	79.74	4.08	24.73	7.92	0.11	3.87	2.79
Dec	76.97	0.00	21.52	6.89	0.11	3.87	2.80
Sum	888.82	511.40	161.58	51.72	1.30	46.44	2.80

294961000 *Area of capture zone (m2)*

Table 8

Depot Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	82.56	0.00	25.57	8.18	0.00	0.00	0.10
Feb	58.51	0.00	27.48	8.79	0.00	0.00	0.10
Mar	74.54	0.00	59.77	19.13	0.00	0.00	0.10
Apr	72.58	28.25	29.60	9.47	0.00	0.00	0.10
May	75.28	77.82	0.00	0.00	0.00	0.00	0.10
Jun	78.43	112.46	0.00	0.00	0.01	0.01	0.15
Jul	70.82	126.73	0.00	0.00	0.01	0.01	0.15
Aug	78.21	86.15	0.00	0.00	0.01	0.01	0.15
Sep	91.26	73.69	0.00	0.00	0.01	0.01	0.15
Oct	76.76	36.60	0.24	0.08	0.00	0.00	0.10
Nov	89.18	5.90	17.78	5.69	0.00	0.00	0.10
Dec	82.72	0.00	26.86	8.60	0.00	0.00	0.10
Sum	930.84	547.61	187.31	59.94		0.06	0.12

178060000 *Area of capture zone (m2)*

Table 9

East Lake Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	80.00	0.00	20.59	10.91	0.06	5.54	1.05
Feb	64.04	0.00	24.98	13.24	0.06	5.54	1.05
Mar	75.22	0.00	50.08	26.54	0.06	5.54	1.05
Apr	79.89	29.27	26.38	13.98	0.06	5.54	1.05
May	76.76	71.24	0.00	0.00	0.06	5.54	1.05
Jun	76.31	103.73	0.00	0.00	0.14	5.54	2.58
Jul	63.21	121.39	0.00	0.00	0.14	5.54	2.58
Aug	79.43	100.32	0.00	0.00	0.14	5.54	2.58
Sep	91.85	71.51	0.00	0.00	0.14	5.54	2.58
Oct	82.22	37.08	0.03	0.02	0.06	5.54	1.05
Nov	93.44	10.53	1.82	0.96	0.06	5.54	1.05
Dec	88.49	0.00	15.54	8.24	0.06	5.54	1.05
Annual	950.86	545.06	139.43	73.90	1.04	66.42	1.56

107854000 *Area of capture zone (m2)*

Table 10

Foxboro Aggregate - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	73.16	0.00	20.81	7.99	0.04	4.77	0.88
Feb	58.27	0.00	25.16	9.71	0.04	4.77	0.85
Mar	71.36	0.00	52.51	20.15	0.04	4.77	0.90
Apr	72.23	27.75	27.20	10.45	0.04	4.77	0.86
May	76.40	77.76	0.06	0.02	0.07	4.77	1.55
Jun	78.45	111.45	0.00	0.00	0.05	4.77	0.96
Jul	65.91	105.27	0.00	0.00	0.05	4.77	0.99
Aug	81.56	93.83	0.00	0.00	0.05	4.77	1.02
Sep	87.97	72.66	0.00	0.00	0.05	4.77	0.97
Oct	76.29	35.44	1.87	0.61	0.04	4.77	0.83
Nov	83.98	5.03	19.12	6.31	0.04	4.77	0.83
Dec	80.12	0.00	21.54	8.07	0.04	4.77	0.85
Sum	905.70	529.17	168.28	63.31	0.55	57.24	0.96

2585650000 *Area of capture zone (m2)*

Table 11

Hillier Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	78.14	0.00	21.27	11.27	0.02	5.40	0.45
Feb	64.43	0.00	26.59	14.09	0.02	5.40	0.45
Mar	76.55	0.00	53.92	28.58	0.02	5.40	0.45
Apr	81.35	33.57	28.33	15.01	0.02	5.40	0.45
May	76.70	81.65	0.00	0.00	0.13	5.40	2.37
Jun	75.75	118.60	0.00	0.00	0.22	5.40	4.04
Jul	60.33	139.91	0.00	0.00	0.22	5.40	4.04
Aug	78.63	123.32	0.00	0.00	0.22	5.40	4.04
Sep	91.03	81.20	0.00	0.00	0.22	5.40	4.04
Oct	80.36	41.78	0.11	0.06	0.13	5.40	2.37
Nov	90.79	11.55	0.38	0.20	0.02	5.40	0.45
Dec	89.75	0.00	4.85	2.57	0.02	5.40	0.45
	943.81	631.59	135.45	71.79	5.98	64.80	1.97

99258800 *Area of capture zone (m2)*

Table 12

Moira Remainder - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	77.72	0.00	26.31	13.94	0.39	7.11	5.47
Feb	64.96	0.00	33.36	17.68	0.40	7.11	5.60
Mar	75.80	0.00	66.43	35.21	0.51	7.11	7.23
Apr	78.65	31.26	34.74	18.41	0.51	7.11	7.23
May	75.60	79.11	0.00	0.00	0.51	7.11	7.23
Jun	72.94	114.73	0.00	0.00	0.54	7.11	7.58
Jul	58.32	131.78	0.00	0.00	0.69	7.11	9.69
Aug	76.91	109.27	0.00	0.00	0.59	7.11	8.28
Sep	88.11	76.97	0.00	0.00	0.54	7.11	7.58
Oct	78.43	38.88	0.09	0.05	0.51	7.11	7.23
Nov	88.85	9.18	2.05	1.09	0.40	7.11	5.63
Dec	89.21	0.00	17.20	9.11	0.40	7.11	5.60
	925.49	591.17	180.17	95.49	7.96	85.32	7.03

288349000 *Area of capture zone (m2)*

Table 13

Napanee Aggregate - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	82.16	0.00	24.51	9.76	0.34	5.13	6.62
Feb	60.04	0.00	27.13	10.85	0.34	5.13	6.62
Mar	74.29	0.00	57.36	22.83	0.34	5.13	6.62
Apr	73.87	28.93	28.90	11.53	0.34	5.13	6.62
May	75.66	77.83	0.00	0.00	0.34	5.13	6.63
Jun	77.29	112.51	0.00	0.00	0.36	5.13	7.06
Jul	69.21	129.17	0.00	0.00	0.36	5.13	7.06
Aug	78.63	96.17	0.00	0.00	0.37	5.13	7.13
Sep	91.65	74.40	0.00	0.00	0.36	5.13	7.08
Oct	78.24	37.24	0.13	0.05	0.34	5.13	6.63
Nov	90.38	6.92	11.31	3.84	0.34	5.13	6.63
Dec	84.37	0.00	26.06	10.36	0.34	5.13	6.62
Sum			175.41	69.21	5.77	61.56	6.78

771038000 *Area of capture zone (m2)*

Table 14

Napanee Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	82.63	0.00	24.41	12.93	0.02	6.48	0.33
Feb	62.22	0.00	27.86	14.77	0.02	6.48	0.33
Mar	74.74	0.00	57.14	30.28	0.02	6.48	0.33
Apr	75.67	29.86	29.17	15.46	0.02	6.48	0.33
May	75.85	77.65	0.00	0.00	0.02	6.48	0.33
Jun	76.01	112.46	0.00	0.00	0.03	6.48	0.53
Jul	66.18	131.87	0.00	0.00	0.03	6.48	0.53
Aug	78.75	114.03	0.00	0.00	0.03	6.48	0.53
Sep	91.56	75.41	0.00	0.00	0.03	6.48	0.53
Oct	79.90	38.17	0.05	0.02	0.02	6.48	0.33
Nov	92.49	8.42	1.07	0.57	0.02	6.48	0.33
Dec	86.55	0.00	24.38	12.92	0.02	6.48	0.33
Annual	942.54	587.88	164.07	86.96	7.25	77.76	0.40

80016900 *Area of capture zone (m2)*

Table 15

Napanee Remainder - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	82.62	0.00	22.39	11.87	0.02	5.85	0.35
Feb	64.27	0.00	26.41	14.00	0.02	5.85	0.35
Mar	76.22	0.00	53.49	28.35	0.02	5.85	0.35
Apr	78.17	30.73	27.46	14.55	0.02	5.85	0.35
May	76.98	78.17	0.00	0.00	0.02	5.85	0.35
Jun	76.24	113.36	0.00	0.00	0.05	5.85	0.92
Jul	64.43	133.14	0.00	0.00	0.05	5.85	0.92
Aug	79.50	114.96	0.00	0.00	0.05	5.85	0.92
Sep	92.04	76.49	0.00	0.00	0.05	5.85	0.92
Oct	81.25	38.90	0.06	0.03	0.02	5.85	0.35
Nov	93.50	9.31	0.55	0.29	0.02	5.85	0.35
Dec	88.97	0.00	17.40	9.22	0.02	5.85	0.35
Annual	954.18	595.04	147.76	78.31	6.53	70.20	0.54

259006000 *Area of capture zone (m2)*

Table 16

North Marysburgh - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	87.96	0.00	22.81	12.09	0.02	6.07	0.29
Feb	68.32	0.00	26.87	14.24	0.02	6.07	0.29
Mar	79.00	0.00	53.05	28.12	0.02	6.07	0.29
Apr	82.53	33.03	27.76	14.72	0.02	6.07	0.29
May	80.72	81.69	0.00	0.00	0.02	6.07	0.29
Jun	79.44	118.73	0.00	0.00	0.10	6.07	1.72
Jul	68.12	141.04	0.00	0.00	0.10	6.07	1.72
Aug	83.98	123.07	0.00	0.00	0.10	6.07	1.72
Sep	97.36	81.63	0.00	0.00	0.10	6.07	1.72
Oct	87.77	42.17	0.03	0.02	0.02	6.07	0.29
Nov	101.19	11.45	0.45	0.24	0.02	6.07	0.29
Dec	93.99	0.00	21.72	11.51	0.02	6.07	0.29
Annual	1010.40	632.80	152.70	80.93	6.74	72.79	0.77

41881200 *Area of capture zone (m2)*

Table 17

Parks Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	water Use	Guideline Recharge	Stress %
Jan	78.18	0.00	25.33	13.36	0.03	6.81	0.47
Feb	62.06	0.00	30.50	16.09	0.03	6.81	0.47
Mar	74.27	0.00	62.30	32.87	0.03	6.81	0.47
Apr	75.58	29.73	32.10	16.94	0.03	6.81	0.47
May	75.46	78.17	0.00	0.00	0.03	6.81	0.47
Jun	75.10	113.02	0.00	0.00	0.04	6.81	0.53
Jul	62.36	131.40	0.00	0.00	0.04	6.81	0.53
Aug	78.09	113.78	0.00	0.00	0.04	6.81	0.53
Sep	88.59	75.11	0.00	0.00	0.04	6.81	0.53
Oct	77.52	37.60	0.16	0.09	0.03	6.81	0.47
Nov	88.47	7.70	0.87	0.46	0.03	6.81	0.47
Dec	85.52	0.00	21.10	11.12	0.03	6.81	0.47
Annual	921.20	586.50	172.36	90.92	0.40	81.76	0.49

198497000 *Area of capture zone (m2)*

Table 18

Picton Catchment- All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	82.77	0.00	24.75	13.12	0.02	6.59	0.31
Feb	65.66	0.00	29.78	15.78	6.01	6.59	91.16
Mar	76.77	0.00	59.44	31.50	6.01	6.59	91.16
Apr	80.38	32.16	31.22	16.55	6.01	6.59	91.16
May	77.86	79.71	0.00	0.00	6.01	6.59	91.16
Jun	76.88	116.01	0.00	0.00	6.10	6.59	92.58
Jul	64.17	137.56	0.00	0.00	6.10	6.59	92.58
Aug	80.42	118.89	0.00	0.00	6.10	6.59	92.58
Sep	93.00	79.38	0.00	0.00	6.10	6.59	92.58
Oct	83.32	40.89	0.00	0.00	6.01	6.59	91.16
Nov	95.39	10.94	0.32	0.17	6.01	6.59	91.16
Dec	90.39	0.00	20.26	10.74	6.01	6.59	91.16
Annual	966.99	615.55	165.76	87.85	66.46	79.06	84.06

54636900 *Area of capture zone (m2)*

Table 19

Salmon Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	83.14	0.00	19.97	10.58	0.01	5.22	0.28
Feb	67.24	0.00	24.49	12.98	0.01	5.22	0.28
Mar	79.08	0.00	49.17	26.06	0.01	5.22	0.28
Apr	81.96	33.17	25.42	13.47	0.01	5.22	0.28
May	79.33	83.28	0.00	0.00	0.01	5.22	0.28
Jun	77.57	120.97	0.00	0.00	0.02	5.22	0.35
Jul	63.44	142.14	0.00	0.00	0.02	5.22	0.35
Aug	81.28	119.17	0.00	0.00	0.02	5.22	0.35
Sep	93.76	81.62	0.00	0.00	0.02	5.22	0.35
Oct	83.23	41.52	0.01	0.00	0.01	5.22	0.28
Nov	94.92	10.28	0.30	0.16	0.01	5.22	0.28
Dec	92.82	0.00	12.13	6.43	0.01	5.22	0.28
Sum	977.78	632.15	131.49	69.69	0.19	62.64	0.28

11464400 *Area of capture zone (m2)*

Table 20

Shannonville Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	81.14	0.00	24.02	12.14	0.02	6.21	0.24
Feb	61.58	0.00	27.66	14.01	0.02	6.21	0.24
Mar	74.88	0.00	57.40	29.02	0.02	6.21	0.24
Apr	75.19	29.59	29.18	14.77	0.02	6.21	0.24
May	75.48	78.04	0.00	0.00	0.02	6.21	0.24
Jun	76.16	113.02	0.00	0.00	0.03	6.21	0.46
Jul	65.03	129.18	0.00	0.00	0.03	6.21	0.46
Aug	78.20	111.47	0.00	0.00	0.03	6.21	0.46
Sep	90.09	75.19	0.00	0.00	0.03	6.21	0.46
Oct	78.25	37.78	0.18	0.08	0.02	6.21	0.24
Nov	90.41	7.75	3.07	1.24	0.02	6.21	0.24
Dec	85.49	0.00	22.54	11.33	0.02	6.21	0.24
Annual	931.89	582.02	164.05	82.59	0.24	74.52	0.32

374429000 *Area of capture zone (m2)*

Table 21

Shannonville Aggregate - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	83.05	0.00	24.10	9.77	0.01	5.13	0.17
Feb	58.62	0.00	25.84	10.64	0.01	5.13	0.17
Mar	75.43	0.00	56.68	23.06	0.01	5.13	0.17
Apr	72.57	27.75	27.87	11.42	0.01	5.13	0.17
May	74.97	76.88	0.00	0.00	0.01	5.13	0.17
Jun	79.15	111.08	0.00	0.00	0.02	5.13	0.32
Jul	69.45	121.43	0.00	0.00	0.02	5.13	0.32
Aug	78.35	98.03	0.00	0.00	0.04	5.13	0.79
Sep	90.24	72.74	0.00	0.00	0.02	5.13	0.32
Oct	76.41	35.98	0.56	0.19	0.01	5.13	0.17
Nov	89.38	5.62	13.02	4.32	0.01	5.13	0.17
Dec	82.24	0.00	23.37	9.41	0.01	5.13	0.17
Annual	929.86	549.51	171.45	68.80	0.00	61.56	0.26

902039000 *Area of capture zone (m2)*

Table 22

Skootamatta Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	76.01	0.00	20.51	6.56	0.00	4.14	0.05
Feb	56.25	0.00	23.01	7.36	0.00	4.14	0.05
Mar	72.49	0.00	50.63	16.20	0.00	4.14	0.05
Apr	70.72	26.20	25.64	8.21	0.00	4.14	0.05
May	76.17	77.08	0.04	0.01	0.00	4.14	0.05
Jun	81.62	110.10	0.00	0.00	0.00	4.14	0.07
Jul	70.36	95.96	0.00	0.00	0.00	4.14	0.07
Aug	81.98	85.83	0.00	0.00	0.00	4.14	0.07
Sep	89.14	71.07	0.00	0.00	0.00	4.14	0.07
Oct	76.50	34.20	3.22	1.03	0.00	4.14	0.05
Nov	84.15	3.33	28.73	9.20	0.00	4.14	0.05
Dec	78.03	0.00	22.05	7.06	0.00	4.14	0.05
Sum	913.43	503.77	173.84	55.63	0.03	49.68	0.06

675551000 *Area of capture zone (m^2)*

Table 23

Sophiasburgh Catchment - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	water Use	Guideline Recharge	Stress %
Jan	81.71	0.00	23.31	12.35	0.02	6.11	0.32
Feb	65.34	0.00	28.25	14.97	0.02	6.11	0.32
Mar	76.72	0.00	56.63	30.01	0.02	6.11	0.32
Apr	79.79	31.93	29.50	15.63	0.02	6.11	0.32
May	77.22	79.80	0.00	0.00	0.02	6.11	0.32
Jun	75.88	115.96	0.00	0.00	0.11	6.11	1.85
Jul	62.69	137.02	0.00	0.00	0.11	6.11	1.85
Aug	79.38	118.28	0.00	0.00	0.11	6.11	1.85
Sep	91.79	78.78	0.00	0.00	0.11	6.11	1.85
Oct	81.78	40.30	0.04	0.02	0.02	6.11	0.32
Nov	93.54	10.32	0.12	0.06	0.02	6.11	0.32
Dec	90.10	0.00	16.08	8.52	0.02	6.11	0.32
Annual	955.92	612.39	153.92	81.58	0.61	73.33	0.83

109118000 *Area of capture zone (m2)*

Table 24

South Marysburgh - All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	85.56	0.00	24.49	12.98	0.02	6.53	0.28
Feb	67.54	0.00	29.32	15.54	0.02	6.53	0.28
Mar	78.41	0.00	58.12	30.80	0.02	6.53	0.28
Apr	83.24	33.95	30.65	16.24	0.02	6.53	0.28
May	80.55	82.30	0.00	0.00	0.02	6.53	0.28
Jun	79.92	119.90	0.00	0.00	0.11	6.53	1.67
Jul	67.50	142.56	0.00	0.00	0.11	6.53	1.67
Aug	83.79	120.61	0.00	0.00	0.11	6.53	1.67
Sep	96.80	83.12	0.00	0.00	0.11	6.53	1.67
Oct	87.53	43.27	0.00	0.00	0.02	6.53	0.28
Nov	99.99	12.56	1.06	0.56	0.02	6.53	0.28
Dec	92.93	0.00	20.96	11.11	0.02	6.53	0.28
Annual	1003.75	638.28	164.60	87.24	0.58	78.41	0.74

85823800 *Area of capture zone (m2)*

Table 25

Tamworth - All depths in mm over the capture zone

Month	P (snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	84.43	0.00	24.16	8.09	0.00	4.42	0.10
Feb	56.52	0.00	24.55	8.25	0.00	4.42	0.10
Mar	75.84	0.00	56.18	18.82	0.00	4.42	0.10
Apr	70.73	26.44	26.95	9.04	0.00	4.42	0.10
May	74.63	76.06	0.00	0.00	0.00	4.42	0.10
Jun	81.30	109.72	0.00	0.00	0.01	4.42	0.18
Jul	72.60	115.94	0.00	0.00	0.01	4.42	0.18
Aug	78.48	88.50	0.00	0.00	0.05	4.42	1.12
Sep	90.36	71.01	0.00	0.00	0.01	4.42	0.18
Oct	75.13	34.71	0.83	0.27	0.00	4.42	0.10
Nov	88.68	4.12	20.09	6.50	0.00	4.42	0.10
Dec	79.95	0.00	23.97	8.04	0.00	4.42	0.10
Sum	928.67	526.49	176.72	59.01	0.11	53.03	0.20

527374000 *Area of capture zone (m2)*

Table 26

Tweed Catchment- All depths in mm over the capture zone

Month	P (Snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	83.05	67.32	0.00	18.90	0.12	4.50	2.61
Feb	58.62	59.55	0.00	25.36	0.11	4.50	2.49
Mar	75.43	68.23	0.00	49.60	0.13	4.50	2.85
Apr	72.57	73.16	28.90	26.88	0.12	4.50	2.59
May	74.97	76.78	78.21	0.01	0.35	4.50	7.72
Jun	79.15	75.44	112.49	0.00	0.12	4.50	2.56
Jul	69.45	61.45	115.37	0.00	0.12	4.50	2.69
Aug	78.35	82.18	104.21	0.00	0.13	4.50	2.98
Sep	90.24	85.92	73.52	0.00	0.12	4.50	2.72
Oct	76.41	75.20	36.08	0.30	0.10	4.50	2.30
Nov	89.38	82.07	6.12	8.38	0.11	4.50	2.39
Dec	82.24	80.57	0.00	18.60	0.11	4.50	2.49
Annual	929.86	887.88	554.90	148.02	1.64	54.00	3.03

354838000 *Area of capture zone (m2)*

Table 27

West Lake Catchment - All depths in mm over the capture zone

Month	P (snowmelt)	ET	Infiltration	Recharge	Water Use	Guideline Recharge	Stress %
Jan	80.03	0.00	23.36	12.38	0.02	6.21	0.33
Feb	64.75	0.00	28.65	15.19	0.02	6.21	0.33
Mar	76.24	0.00	57.59	30.52	0.02	6.21	0.33
Apr	80.62	32.89	30.20	16.01	0.02	6.21	0.33
May	77.02	80.36	0.00	0.00	0.06	6.21	0.90
Jun	76.10	116.85	0.00	0.00	0.15	6.21	2.35
Jul	62.16	135.57	0.00	0.00	0.15	6.21	2.35
Aug	79.25	113.22	0.00	0.00	0.15	6.21	2.35
Sep	91.78	80.16	0.00	0.00	0.15	6.21	2.35
Oct	81.80	41.36	0.08	0.04	0.06	6.21	0.90
Nov	92.91	11.45	2.27	1.20	0.02	6.21	0.33
Dec	89.62	0.00	14.25	7.55	0.02	6.21	0.33
Annual	952.28	611.86	156.40	82.89	0.82	74.52	1.09

115289000 *Area of capture zone (m2)*

Appendix 4:

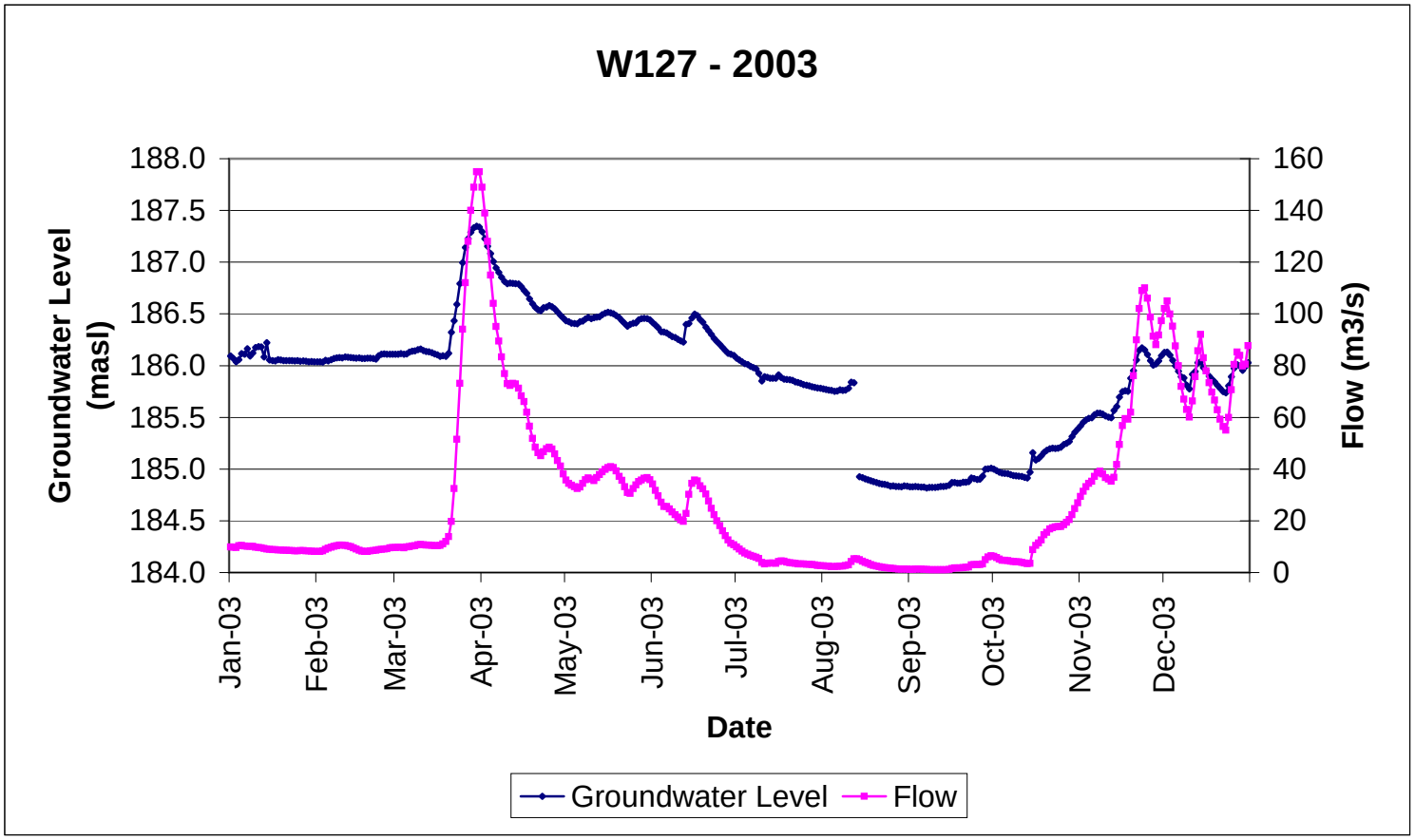
Monitoring Well Water Level

& Stream Flow Data (2003/04)

2003 Groundwater Level and Flow for W127

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	186.09	9.84	3-Mar	186.12	9.75	3-May	186.41	33.70	3-Jul	186.04	8.26
2-Jan	186.07	9.80	4-Mar	186.11	9.57	4-May	186.41	33.20	4-Jul	186.02	7.52
3-Jan	186.04	9.67	5-Mar	186.11	9.87	5-May	186.40	32.50	5-Jul	186.01	7.05
4-Jan	186.06	10.30	6-Mar	186.13	9.98	6-May	186.42	33.00	6-Jul	185.99	6.60
5-Jan	186.11	10.50	7-Mar	186.14	10.20	7-May	186.43	34.40	7-Jul	185.98	6.18
6-Jan	186.11	10.20	8-Mar	186.14	10.30	8-May	186.45	35.90	8-Jul	185.97	5.82
7-Jan	186.16	10.10	9-Mar	186.15	10.70	9-May	186.47	36.60	9-Jul	185.93	5.43
8-Jan	186.09	10.10	10-Mar	186.16	10.80	10-May	186.45	36.10	10-Jul	185.85	3.89
9-Jan	186.12	10.10	11-Mar	186.15	10.70	11-May	186.46	35.50	11-Jul	185.89	3.26
10-Jan	186.17	9.70	12-Mar	186.14	10.60	12-May	186.47	36.70	12-Jul	185.89	3.53
11-Jan	186.18	9.61	13-Mar	186.13	10.60	13-May	186.47	37.80	13-Jul	185.88	3.65
12-Jan	186.18	9.58	14-Mar	186.12	10.50	14-May	186.49	38.90	14-Jul	185.88	3.60
13-Jan	186.08	9.30	15-Mar	186.11	10.30	15-May	186.51	39.90	15-Jul	185.88	3.52
14-Jan	186.22	9.03	16-Mar	186.10	10.40	16-May	186.52	40.60	16-Jul	185.91	4.29
15-Jan	186.05	8.90	17-Mar	186.09	10.50	17-May	186.51	40.90	17-Jul	185.88	4.51
16-Jan	186.05	8.85	18-Mar	186.10	11.00	18-May	186.50	40.50	18-Jul	185.87	4.30
17-Jan	186.05	8.80	19-Mar	186.09	12.00	19-May	186.48	39.30	19-Jul	185.87	3.96
18-Jan	186.06	8.75	20-Mar	186.12	13.90	20-May	186.46	37.10	20-Jul	185.86	3.74
19-Jan	186.05	8.70	21-Mar	186.32	19.70	21-May	186.43	35.60	21-Jul	185.86	3.64
20-Jan	186.05	8.60	22-Mar	186.43	32.40	22-May	186.41	33.20	22-Jul	185.84	3.53
21-Jan	186.05	8.55	23-Mar	186.59	51.50	23-May	186.38	30.90	23-Jul	185.84	3.33
22-Jan	186.05	8.50	24-Mar	186.79	73.10	24-May	186.40	30.60	24-Jul	185.83	3.29
23-Jan	186.05	8.45	25-Mar	187.00	94.00	25-May	186.41	32.50	25-Jul	185.82	3.30
24-Jan	186.05	8.39	26-Mar	187.14	112.00	26-May	186.41	33.90	26-Jul	185.81	3.23
25-Jan	186.05	8.35	27-Mar	187.23	128.00	27-May	186.44	35.20	27-Jul	185.80	3.19
26-Jan	186.04	8.45	28-Mar	187.29	140.00	28-May	186.45	35.70	28-Jul	185.80	3.10
27-Jan	186.04	8.41	29-Mar	187.33	149.00	29-May	186.46	36.50	29-Jul	185.79	2.90
28-Jan	186.04	8.35	30-Mar	187.35	155.00	30-May	186.45	36.70	30-Jul	185.78	2.67
29-Jan	186.04	8.29	31-Mar	187.34	155.00	31-May	186.44	35.90	31-Jul	185.78	2.57
30-Jan	186.04	8.25	1-Apr	187.29	149.00	1-Jun	186.42	34.20	1-Aug	185.78	2.56
31-Jan	186.04	8.11	2-Apr	187.23	139.00	2-Jun	186.39	31.80	2-Aug	185.77	2.48
1-Feb	186.04	8.09	3-Apr	187.15	128.00	3-Jun	186.37	29.60	3-Aug	185.76	2.41
2-Feb	186.04	8.17	4-Apr	187.08	115.00	4-Jun	186.33	27.10	4-Aug	185.76	2.27
3-Feb	186.03	8.31	5-Apr	187.01	104.00	5-Jun	186.33	25.50	5-Aug	185.75	2.20
4-Feb	186.05	8.97	6-Apr	186.94	95.10	6-Jun	186.32	25.50	6-Aug	185.75	2.31
5-Feb	186.05	9.42	7-Apr	186.90	89.50	7-Jun	186.30	24.60	7-Aug	185.77	2.44
6-Feb	186.06	9.71	8-Apr	186.85	83.30	8-Jun	186.28	23.40	8-Aug	185.76	2.51
7-Feb	186.07	10.10	9-Apr	186.81	76.90	9-Jun	186.27	22.30	9-Aug	185.76	2.65
8-Feb	186.08	10.40	10-Apr	186.79	73.00	10-Jun	186.26	21.40	10-Aug	185.78	2.94
9-Feb	186.08	10.60	11-Apr	186.80	72.30	11-Jun	186.24	20.30	11-Aug	185.84	4.24
10-Feb	186.08	10.60	12-Apr	186.79	73.10	12-Jun	186.23	19.70	12-Aug	185.83	5.31
11-Feb	186.08	10.50	13-Apr	186.79	72.90	13-Jun	186.40	22.80	13-Aug		5.33
12-Feb	186.08	10.20	14-Apr	186.79	71.30	14-Jun	186.41	30.20	14-Aug	184.93	4.90
13-Feb	186.08	9.95	15-Apr	186.76	68.30	15-Jun	186.46	34.40	15-Aug	184.92	4.33
14-Feb	186.07	9.51	16-Apr	186.73	66.10	16-Jun	186.50	35.70	16-Aug	184.90	3.91
15-Feb	186.07	9.09	17-Apr	186.70	61.90	17-Jun	186.48	35.40	17-Aug	184.90	3.47
16-Feb	186.08	8.62	18-Apr	186.65	56.60	18-Jun	186.44	33.50	18-Aug	184.89	3.06
17-Feb	186.07	8.25	19-Apr	186.60	51.90	19-Jun	186.42	32.30	19-Aug	184.88	2.76
18-Feb	186.07	8.07	20-Apr	186.56	48.40	20-Jun	186.37	30.30	20-Aug	184.87	2.47
19-Feb	186.07	8.13	21-Apr	186.54	46.30	21-Jun	186.34	27.60	21-Aug	184.86	2.22
20-Feb	186.07	8.38	22-Apr	186.53	45.20	22-Jun	186.30	24.80	22-Aug	184.86	2.03
21-Feb	186.07	8.44	23-Apr	186.56	46.70	23-Jun	186.26	22.30	23-Aug	184.85	1.91
22-Feb	186.06	8.56	24-Apr	186.57	47.80	24-Jun	186.23	20.00	24-Aug	184.85	1.74
23-Feb	186.09	8.84	25-Apr	186.58	48.40	25-Jun	186.20	18.10	25-Aug	184.83	1.61
24-Feb	186.11	8.91	26-Apr	186.57	47.70	26-Jun	186.17	16.10	26-Aug	184.84	1.49
25-Feb	186.11	9.00	27-Apr	186.55	45.90	27-Jun	186.15	14.20	27-Aug	184.83	1.41
26-Feb	186.11	9.20	28-Apr	186.52	43.30	28-Jun	186.12	12.60	28-Aug	184.83	1.35
27-Feb	186.11	9.54	29-Apr	186.49	41.10	29-Jun	186.11	11.30	29-Aug	184.83	1.26
28-Feb	186.11	9.69	30-Apr	186.46	38.10	30-Jun	186.10	10.70	30-Aug	184.84	1.26
1-Mar	186.11	9.65	1-May	186.43	35.70	1-Jul	186.07	9.92	31-Aug	184.84	1.24
2-Mar	186.11	9.73	2-May	186.42	34.50	2-Jul	186.06	9.10	1-Sep	184.83	1.23

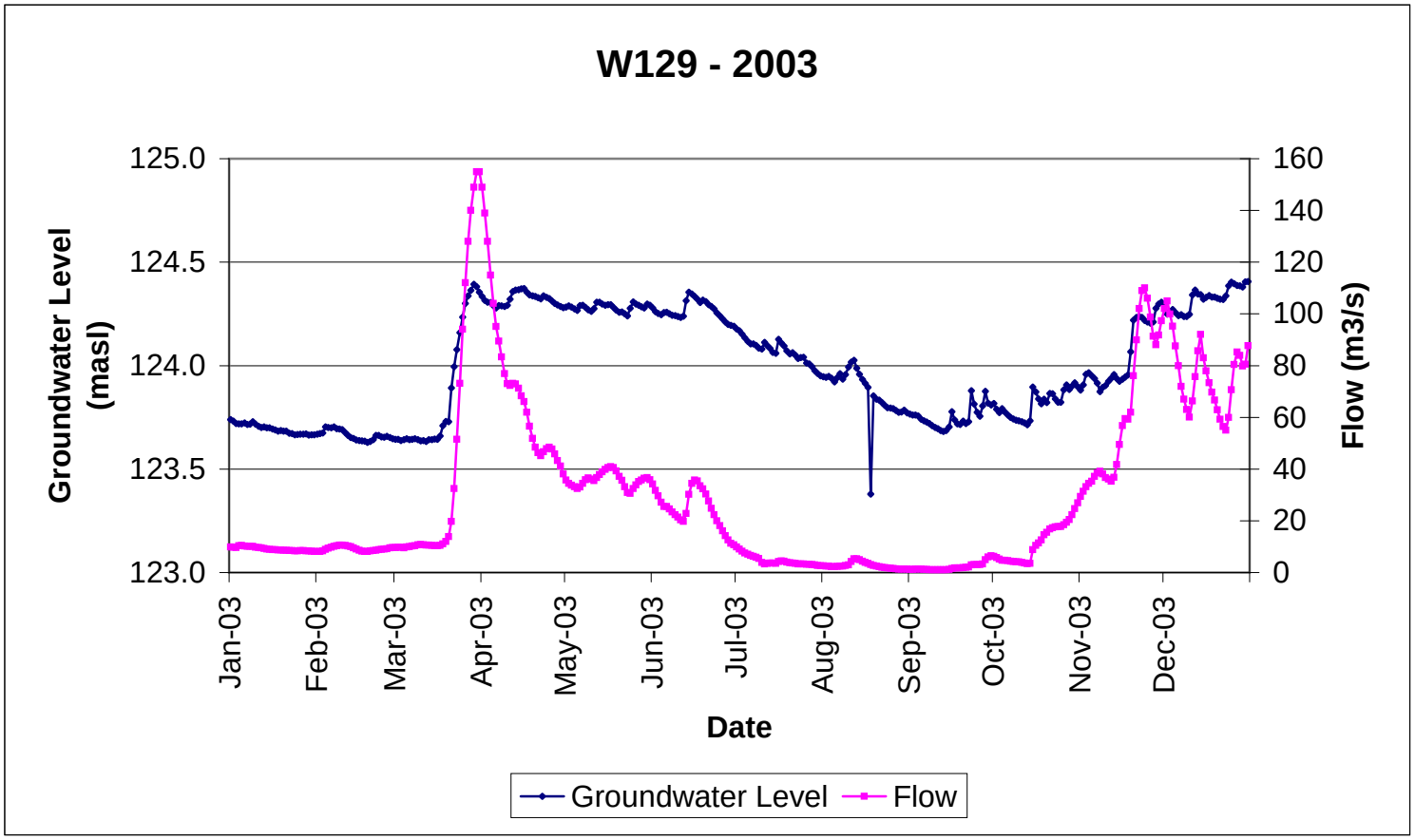
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	184.83	1.23	2-Oct	184.98	5.72	1-Nov	185.42	29.40	1-Dec	186.13	102.00
3-Sep	184.83	1.27	3-Oct	184.97	5.16	2-Nov	185.45	31.40	2-Dec	186.13	105.00
4-Sep	184.83	1.26	4-Oct	184.96	4.75	3-Nov	185.48	33.20	3-Dec	186.10	99.90
5-Sep	184.83	1.24	5-Oct	184.96	4.72	4-Nov	185.49	34.50	4-Dec	186.05	95.20
6-Sep	184.82	1.20	6-Oct	184.95	4.56	5-Nov	185.50	35.30	5-Dec	186.00	87.60
7-Sep	184.82	1.17	7-Oct	184.95	4.36	6-Nov	185.52	37.10	6-Dec	185.95	80.00
8-Sep	184.82	1.10	8-Oct	184.94	4.18	7-Nov	185.54	38.40	7-Dec	185.89	72.00
9-Sep	184.82	1.07	9-Oct	184.93	4.15	8-Nov	185.54	39.10	8-Dec	185.88	67.00
10-Sep	184.82	1.04	10-Oct	184.93	4.08	9-Nov	185.53	38.10	9-Dec	185.81	63.00
11-Sep	184.83	1.04	11-Oct	184.93	3.91	10-Nov	185.51	36.70	10-Dec	185.77	60.10
12-Sep	184.83	1.05	12-Oct	184.92	3.67	11-Nov	185.50	36.10	11-Dec	185.92	66.30
13-Sep	184.83	1.06	13-Oct	184.91	3.38	12-Nov	185.50	35.30	12-Dec	185.94	75.70
14-Sep	184.84	1.10	14-Oct	184.97	3.50	13-Nov	185.57	36.80	13-Dec	186.03	85.70
15-Sep	184.84	1.20	15-Oct	185.16	8.82	14-Nov	185.61	41.70	14-Dec	186.04	92.00
16-Sep	184.87	1.55	16-Oct	185.09	10.50	15-Nov	185.70	49.50	15-Dec	185.98	83.00
17-Sep	184.87	1.77	17-Oct	185.10	11.40	16-Nov	185.75	56.80	16-Dec	185.95	78.00
18-Sep	184.86	1.81	18-Oct	185.13	12.60	17-Nov	185.76	59.50	17-Dec	185.90	73.40
19-Sep	184.86	1.81	19-Oct	185.16	14.60	18-Nov	185.75	59.20	18-Dec	185.87	69.70
20-Sep	184.87	1.93	20-Oct	185.18	15.50	19-Nov	185.88	61.90	19-Dec	185.84	66.60
21-Sep	184.87	2.01	21-Oct	185.20	16.80	20-Nov	185.95	76.10	20-Dec	185.81	62.90
22-Sep	184.88	2.08	22-Oct	185.20	17.30	21-Nov	186.06	89.90	21-Dec	185.78	59.20
23-Sep	184.91	2.93	23-Oct	185.20	17.60	22-Nov	186.15	102.00	22-Dec	185.75	56.40
24-Sep	184.91	3.10	24-Oct	185.20	17.70	23-Nov	186.17	109.00	23-Dec	185.74	55.00
25-Sep	184.90	3.00	25-Oct	185.21	17.80	24-Nov	186.15	110.00	24-Dec	185.80	59.90
26-Sep	184.90	3.02	26-Oct	185.24	18.50	25-Nov	186.11	106.00	25-Dec	185.89	70.70
27-Sep	184.93	3.30	27-Oct	185.25	19.40	26-Nov	186.05	98.80	26-Dec	185.97	80.40
28-Sep	185.00	4.90	28-Oct	185.27	20.40	27-Nov	186.00	91.30	27-Dec	186.01	85.20
29-Sep	185.00	5.99	29-Oct	185.31	22.30	28-Nov	186.02	88.10	28-Dec	186.00	83.90
30-Sep	185.01	6.42	30-Oct	185.35	24.70	29-Nov	186.04	91.80	29-Dec	185.96	79.80
1-Oct	185.00	6.23	31-Oct	185.39	26.90	30-Nov	186.10	97.30	30-Dec	185.99	80.50
									31-Dec	186.03	87.70



2003 Groundwater Level and Flow for W129

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	123.74	9.84	3-Mar	123.64	9.75	3-May	124.28	33.70	3-Jul	124.15	8.26
2-Jan	123.73	9.80	4-Mar	123.64	9.57	4-May	124.27	33.20	4-Jul	124.13	7.52
3-Jan	123.72	9.67	5-Mar	123.65	9.87	5-May	124.27	32.50	5-Jul	124.12	7.05
4-Jan	123.72	10.30	6-Mar	123.64	9.98	6-May	124.29	33.00	6-Jul	124.10	6.60
5-Jan	123.72	10.50	7-Mar	123.64	10.20	7-May	124.29	34.40	7-Jul	124.11	6.18
6-Jan	123.72	10.20	8-Mar	123.65	10.30	8-May	124.28	35.90	8-Jul	124.10	5.82
7-Jan	123.72	10.10	9-Mar	123.64	10.70	9-May	124.27	36.60	9-Jul	124.08	5.43
8-Jan	123.72	10.10	10-Mar	123.64	10.80	10-May	124.26	36.10	10-Jul	124.08	3.89
9-Jan	123.73	10.10	11-Mar	123.64	10.70	11-May	124.27	35.50	11-Jul	124.11	3.26
10-Jan	123.72	9.70	12-Mar	123.63	10.60	12-May	124.31	36.70	12-Jul	124.10	3.53
11-Jan	123.71	9.61	13-Mar	123.64	10.60	13-May	124.31	37.80	13-Jul	124.08	3.65
12-Jan	123.70	9.58	14-Mar	123.64	10.50	14-May	124.30	38.90	14-Jul	124.06	3.60
13-Jan	123.70	9.30	15-Mar	123.64	10.30	15-May	124.29	39.90	15-Jul	124.06	3.52
14-Jan	123.70	9.03	16-Mar	123.64	10.40	16-May	124.29	40.60	16-Jul	124.13	4.29
15-Jan	123.70	8.90	17-Mar	123.66	10.50	17-May	124.30	40.90	17-Jul	124.11	4.51
16-Jan	123.69	8.85	18-Mar	123.71	11.00	18-May	124.28	40.50	18-Jul	124.09	4.30
17-Jan	123.69	8.80	19-Mar	123.73	12.00	19-May	124.27	39.30	19-Jul	124.07	3.96
18-Jan	123.68	8.75	20-Mar	123.73	13.90	20-May	124.26	37.10	20-Jul	124.06	3.74
19-Jan	123.69	8.70	21-Mar	123.89	19.70	21-May	124.26	35.60	21-Jul	124.06	3.64
20-Jan	123.68	8.60	22-Mar	123.99	32.40	22-May	124.25	33.20	22-Jul	124.05	3.53
21-Jan	123.68	8.55	23-Mar	124.08	51.50	23-May	124.24	30.90	23-Jul	124.03	3.33
22-Jan	123.67	8.50	24-Mar	124.16	73.10	24-May	124.28	30.60	24-Jul	124.04	3.29
23-Jan	123.67	8.45	25-Mar	124.23	94.00	25-May	124.31	32.50	25-Jul	124.04	3.30
24-Jan	123.67	8.39	26-Mar	124.30	112.00	26-May	124.30	33.90	26-Jul	124.01	3.23
25-Jan	123.67	8.35	27-Mar	124.34	128.00	27-May	124.29	35.20	27-Jul	124.01	3.19
26-Jan	123.67	8.45	28-Mar	124.36	140.00	28-May	124.28	35.70	28-Jul	123.99	3.10
27-Jan	123.67	8.41	29-Mar	124.39	149.00	29-May	124.28	36.50	29-Jul	123.98	2.90
28-Jan	123.67	8.35	30-Mar	124.38	155.00	30-May	124.30	36.70	30-Jul	123.96	2.67
29-Jan	123.66	8.29	31-Mar	124.35	155.00	31-May	124.29	35.90	31-Jul	123.95	2.57
30-Jan	123.67	8.25	1-Apr	124.33	149.00	1-Jun	124.28	34.20	1-Aug	123.95	2.56
31-Jan	123.67	8.11	2-Apr	124.32	139.00	2-Jun	124.26	31.80	2-Aug	123.94	2.48
1-Feb	123.67	8.09	3-Apr	124.31	128.00	3-Jun	124.25	29.60	3-Aug	123.95	2.41
2-Feb	123.67	8.17	4-Apr	124.30	115.00	4-Jun	124.25	27.10	4-Aug	123.94	2.27
3-Feb	123.67	8.31	5-Apr	124.29	104.00	5-Jun	124.26	25.50	5-Aug	123.92	2.20
4-Feb	123.70	8.97	6-Apr	124.28	95.10	6-Jun	124.26	25.50	6-Aug	123.94	2.31
5-Feb	123.70	9.42	7-Apr	124.29	89.50	7-Jun	124.25	24.60	7-Aug	123.96	2.44
6-Feb	123.70	9.71	8-Apr	124.29	83.30	8-Jun	124.24	23.40	8-Aug	123.93	2.51
7-Feb	123.70	10.10	9-Apr	124.29	76.90	9-Jun	124.24	22.30	9-Aug	123.96	2.65
8-Feb	123.70	10.40	10-Apr	124.29	73.00	10-Jun	124.24	21.40	10-Aug	123.99	2.94
9-Feb	123.69	10.60	11-Apr	124.32	72.30	11-Jun	124.23	20.30	11-Aug	124.02	4.24
10-Feb	123.69	10.60	12-Apr	124.36	73.10	12-Jun	124.24	19.70	12-Aug	124.03	5.31
11-Feb	123.68	10.50	13-Apr	124.37	72.90	13-Jun	124.31	22.80	13-Aug	123.99	5.33
12-Feb	123.66	10.20	14-Apr	124.37	71.30	14-Jun	124.35	30.20	14-Aug	123.96	4.90
13-Feb	123.65	9.95	15-Apr	124.37	68.30	15-Jun	124.35	34.40	15-Aug	123.93	4.33
14-Feb	123.65	9.51	16-Apr	124.37	66.10	16-Jun	124.33	35.70	16-Aug	123.91	3.91
15-Feb	123.64	9.09	17-Apr	124.36	61.90	17-Jun	124.32	35.40	17-Aug	123.90	3.47
16-Feb	123.64	8.62	18-Apr	124.34	56.60	18-Jun	124.31	33.50	18-Aug	123.38	3.06
17-Feb	123.64	8.25	19-Apr	124.34	51.90	19-Jun	124.32	32.30	19-Aug	123.85	2.76
18-Feb	123.63	8.07	20-Apr	124.33	48.40	20-Jun	124.31	30.30	20-Aug	123.84	2.47
19-Feb	123.63	8.13	21-Apr	124.33	46.30	21-Jun	124.29	27.60	21-Aug	123.83	2.22
20-Feb	123.63	8.38	22-Apr	124.32	45.20	22-Jun	124.29	24.80	22-Aug	123.82	2.03
21-Feb	123.64	8.44	23-Apr	124.34	46.70	23-Jun	124.27	22.30	23-Aug	123.81	1.91
22-Feb	123.66	8.56	24-Apr	124.33	47.80	24-Jun	124.26	20.00	24-Aug	123.80	1.74
23-Feb	123.66	8.84	25-Apr	124.32	48.40	25-Jun	124.24	18.10	25-Aug	123.79	1.61
24-Feb	123.66	8.91	26-Apr	124.31	47.70	26-Jun	124.23	16.10	26-Aug	123.79	1.49
25-Feb	123.65	9.00	27-Apr	124.30	45.90	27-Jun	124.21	14.20	27-Aug	123.78	1.41
26-Feb	123.66	9.20	28-Apr	124.29	43.30	28-Jun	124.20	12.60	28-Aug	123.77	1.35
27-Feb	123.65	9.54	29-Apr	124.29	41.10	29-Jun	124.19	11.30	29-Aug	123.78	1.26
28-Feb	123.65	9.69	30-Apr	124.28	38.10	30-Jun	124.19	10.70	30-Aug	123.78	1.26
1-Mar	123.64	9.65	1-May	124.28	35.70	1-Jul	124.18	9.92	31-Aug	123.77	1.24
2-Mar	123.64	9.73	2-May	124.29	34.50	2-Jul	124.17	9.10	1-Sep	123.77	1.23

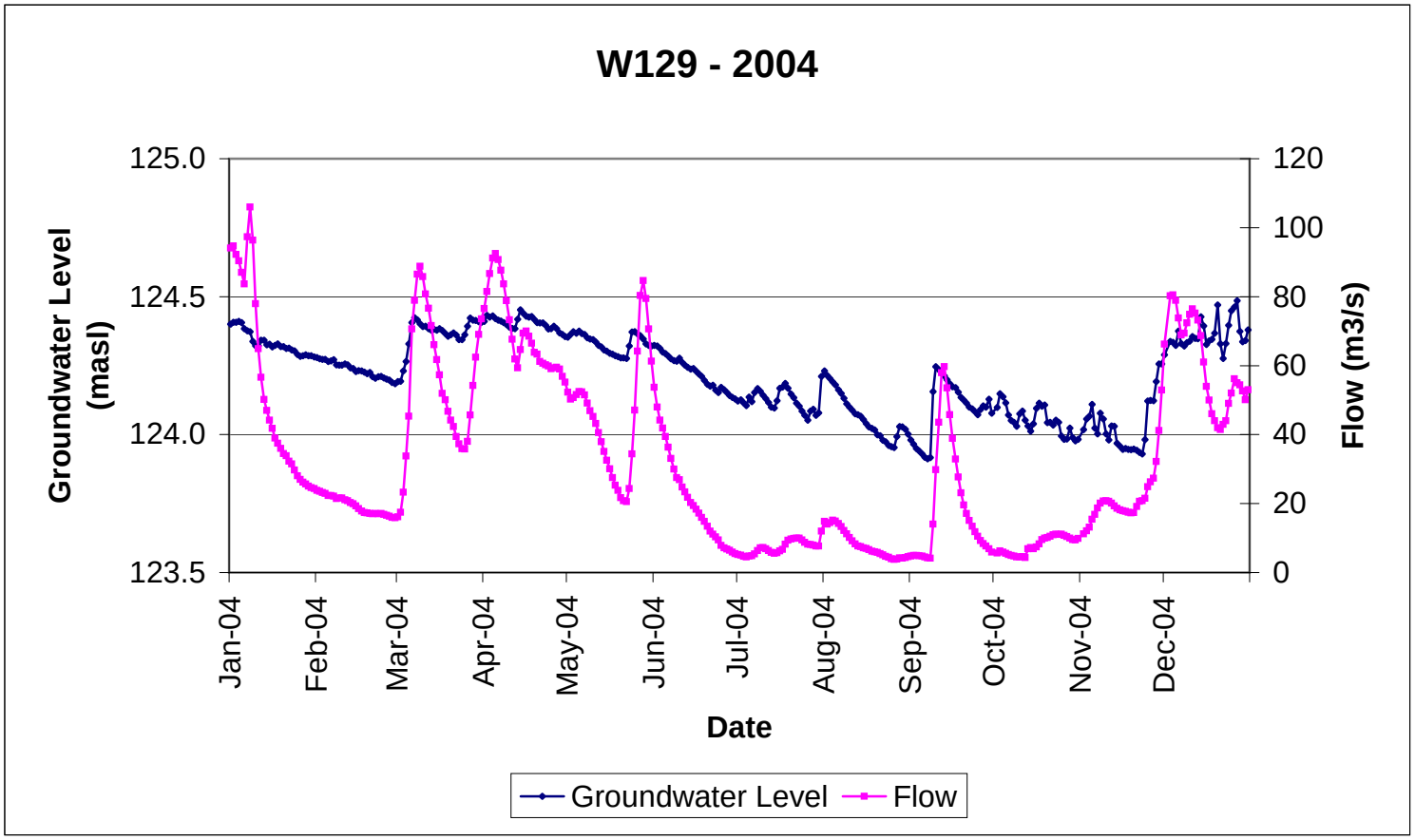
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	123.76	1.23	2-Oct	123.79	5.72	1-Nov	123.88	29.40	1-Dec	124.29	102.00
3-Sep	123.76	1.27	3-Oct	123.77	5.16	2-Nov	123.91	31.40	2-Dec	124.25	105.00
4-Sep	123.76	1.26	4-Oct	123.79	4.75	3-Nov	123.96	33.20	3-Dec	124.26	99.90
5-Sep	123.74	1.24	5-Oct	123.78	4.72	4-Nov	123.97	34.50	4-Dec	124.27	95.20
6-Sep	123.73	1.20	6-Oct	123.76	4.56	5-Nov	123.95	35.30	5-Dec	124.26	87.60
7-Sep	123.73	1.17	7-Oct	123.75	4.36	6-Nov	123.94	37.10	6-Dec	124.24	80.00
8-Sep	123.72	1.10	8-Oct	123.74	4.18	7-Nov	123.92	38.40	7-Dec	124.25	72.00
9-Sep	123.71	1.07	9-Oct	123.74	4.15	8-Nov	123.87	39.10	8-Dec	124.24	67.00
10-Sep	123.70	1.04	10-Oct	123.73	4.08	9-Nov	123.89	38.10	9-Dec	124.24	63.00
11-Sep	123.69	1.04	11-Oct	123.73	3.91	10-Nov	123.90	36.70	10-Dec	124.25	60.10
12-Sep	123.69	1.05	12-Oct	123.72	3.67	11-Nov	123.92	36.10	11-Dec	124.34	66.30
13-Sep	123.68	1.06	13-Oct	123.71	3.38	12-Nov	123.94	35.30	12-Dec	124.36	75.70
14-Sep	123.69	1.10	14-Oct	123.73	3.50	13-Nov	123.96	36.80	13-Dec	124.35	85.70
15-Sep	123.70	1.20	15-Oct	123.90	8.82	14-Nov	123.94	41.70	14-Dec	124.34	92.00
16-Sep	123.78	1.55	16-Oct	123.87	10.50	15-Nov	123.93	49.50	15-Dec	124.32	83.00
17-Sep	123.74	1.77	17-Oct	123.84	11.40	16-Nov	123.93	56.80	16-Dec	124.33	78.00
18-Sep	123.72	1.81	18-Oct	123.82	12.60	17-Nov	123.94	59.50	17-Dec	124.34	73.40
19-Sep	123.72	1.81	19-Oct	123.84	14.60	18-Nov	123.96	59.20	18-Dec	124.33	69.70
20-Sep	123.73	1.93	20-Oct	123.82	15.50	19-Nov	124.07	61.90	19-Dec	124.33	66.60
21-Sep	123.72	2.01	21-Oct	123.87	16.80	20-Nov	124.22	76.10	20-Dec	124.33	62.90
22-Sep	123.73	2.08	22-Oct	123.86	17.30	21-Nov	124.23	89.90	21-Dec	124.32	59.20
23-Sep	123.88	2.93	23-Oct	123.84	17.60	22-Nov	124.24	102.00	22-Dec	124.32	56.40
24-Sep	123.81	3.10	24-Oct	123.82	17.70	23-Nov	124.23	109.00	23-Dec	124.34	55.00
25-Sep	123.77	3.00	25-Oct	123.82	17.80	24-Nov	124.22	110.00	24-Dec	124.39	59.90
26-Sep	123.76	3.02	26-Oct	123.88	18.50	25-Nov	124.21	106.00	25-Dec	124.40	70.70
27-Sep	123.81	3.30	27-Oct	123.91	19.40	26-Nov	124.21	98.80	26-Dec	124.40	80.40
28-Sep	123.88	4.90	28-Oct	123.88	20.40	27-Nov	124.21	91.30	27-Dec	124.39	85.20
29-Sep	123.82	5.99	29-Oct	123.90	22.30	28-Nov	124.28	88.10	28-Dec	124.39	83.90
30-Sep	123.81	6.42	30-Oct	123.92	24.70	29-Nov	124.30	91.80	29-Dec	124.38	79.80
1-Oct	123.82	6.23	31-Oct	123.90	26.90	30-Nov	124.31	97.30	30-Dec	124.40	80.50
									31-Dec	124.41	87.70



2004 Groundwater Level and Flow for W129

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	124.40	94.10	2-Mar	124.19	17.50	2-May	124.36	50.30	2-Jul	124.13	4.99
2-Jan	124.41	94.70	3-Mar	124.23	23.30	3-May	124.37	50.70	3-Jul	124.11	4.70
3-Jan	124.41	92.20	4-Mar	124.26	33.80	4-May	124.37	51.60	4-Jul	124.10	4.53
4-Jan	124.41	90.40	5-Mar	124.33	45.30	5-May	124.38	52.50	5-Jul	124.14	4.76
5-Jan	124.41	87.00	6-Mar	124.41	70.60	6-May	124.37	52.40	6-Jul	124.12	4.89
6-Jan	124.38	83.70	7-Mar	124.42	78.90	7-May	124.36	51.50	7-Jul	124.15	5.38
7-Jan	124.38	97.30	8-Mar	124.42	86.50	8-May	124.35	49.10	8-Jul	124.17	6.37
8-Jan	124.37	106.00	9-Mar	124.40	88.80	9-May	124.35	46.90	9-Jul	124.16	7.15
9-Jan	124.34	96.40	10-Mar	124.39	85.80	10-May	124.34	45.20	10-Jul	124.14	7.24
10-Jan	124.32	77.90	11-Mar	124.39	80.80	11-May	124.34	43.20	11-Jul	124.13	6.89
11-Jan	124.32	64.90	12-Mar	124.38	76.60	12-May	124.32	40.60	12-Jul	124.12	6.32
12-Jan	124.34	56.60	13-Mar	124.38	71.60	13-May	124.32	37.90	13-Jul	124.10	5.83
13-Jan	124.34	50.20	14-Mar	124.38	66.00	14-May	124.31	35.10	14-Jul	124.10	5.53
14-Jan	124.33	47.00	15-Mar	124.38	61.70	15-May	124.30	32.50	15-Jul	124.12	5.70
15-Jan	124.33	44.20	16-Mar	124.38	57.30	16-May	124.29	30.10	16-Jul	124.17	6.25
16-Jan	124.32	41.80	17-Mar	124.38	51.90	17-May	124.29	27.50	17-Jul	124.17	6.71
17-Jan	124.32	39.00	18-Mar	124.37	50.10	18-May	124.29	25.30	18-Jul	124.19	8.20
18-Jan	124.33	37.50	19-Mar	124.36	46.70	19-May	124.28	23.80	19-Jul	124.17	9.39
19-Jan	124.32	36.00	20-Mar	124.36	44.20	20-May	124.28	21.70	20-Jul	124.15	9.67
20-Jan	124.32	34.50	21-Mar	124.37	42.30	21-May	124.28	20.80	21-Jul	124.13	9.85
21-Jan	124.31	33.90	22-Mar	124.36	39.40	22-May	124.28	20.50	22-Jul	124.11	9.96
22-Jan	124.31	32.30	23-Mar	124.34	37.30	23-May	124.32	24.30	23-Jul	124.10	9.95
23-Jan	124.31	31.50	24-Mar	124.34	35.90	24-May	124.37	34.40	24-Jul	124.09	9.40
24-Jan	124.30	29.70	25-Mar	124.36	35.80	25-May	124.37	47.10	25-Jul	124.07	8.77
25-Jan	124.29	28.00	26-Mar	124.39	38.00	26-May	124.36	64.20	26-Jul	124.05	8.20
26-Jan	124.28	27.00	27-Mar	124.42	45.70	27-May	124.36	80.30	27-Jul	124.09	8.09
27-Jan	124.29	26.20	28-Mar	124.42	54.20	28-May	124.35	84.60	28-Jul	124.09	7.93
28-Jan	124.29	25.70	29-Mar	124.41	62.40	29-May	124.33	79.40	29-Jul	124.07	7.63
29-Jan	124.29	25.00	30-Mar	124.41	69.00	30-May	124.32	70.60	30-Jul	124.08	7.66
30-Jan	124.29	24.60	31-Mar	124.41	73.50	31-May	124.32	61.30	31-Jul	124.21	12.00
31-Jan	124.28	24.30	1-Apr	124.41	76.50	1-Jun	124.32	53.70	1-Aug	124.23	14.80
1-Feb	124.28	23.80	2-Apr	124.43	81.50	2-Jun	124.32	48.00	2-Aug	124.21	14.00
2-Feb	124.27	23.50	3-Apr	124.43	86.70	3-Jun	124.31	44.20	3-Aug	124.20	14.50
3-Feb	124.27	23.20	4-Apr	124.43	91.20	4-Jun	124.30	41.90	4-Aug	124.19	15.20
4-Feb	124.27	22.90	5-Apr	124.42	92.50	5-Jun	124.29	39.40	5-Aug	124.18	14.90
5-Feb	124.26	22.30	6-Apr	124.42	90.70	6-Jun	124.28	36.30	6-Aug	124.16	14.20
6-Feb	124.27	22.30	7-Apr	124.41	87.60	7-Jun	124.28	33.10	7-Aug	124.15	13.30
7-Feb	124.27	22.10	8-Apr	124.41	83.70	8-Jun	124.27	30.00	8-Aug	124.13	12.20
8-Feb	124.25	21.40	9-Apr	124.40	78.80	9-Jun	124.27	27.50	9-Aug	124.11	11.20
9-Feb	124.25	21.60	10-Apr	124.39	73.30	10-Jun	124.28	26.90	10-Aug	124.10	10.10
10-Feb	124.25	21.60	11-Apr	124.38	67.60	11-Jun	124.26	24.80	11-Aug	124.09	9.13
11-Feb	124.26	21.10	12-Apr	124.38	61.90	12-Jun	124.25	23.40	12-Aug	124.08	8.32
12-Feb	124.25	20.80	13-Apr	124.42	59.30	13-Jun	124.24	21.80	13-Aug	124.07	7.70
13-Feb	124.24	20.30	14-Apr	124.45	64.60	14-Jun	124.24	20.30	14-Aug	124.07	7.47
14-Feb	124.24	19.90	15-Apr	124.44	69.40	15-Jun	124.24	19.40	15-Aug	124.05	7.16
15-Feb	124.23	19.30	16-Apr	124.43	70.00	16-Jun	124.23	18.30	16-Aug	124.04	6.93
16-Feb	124.23	18.50	17-Apr	124.43	68.50	17-Jun	124.22	17.20	17-Aug	124.03	6.60
17-Feb	124.23	17.80	18-Apr	124.43	66.50	18-Jun	124.21	16.00	18-Aug	124.02	6.16
18-Feb	124.23	17.40	19-Apr	124.42	63.80	19-Jun	124.20	14.80	19-Aug	124.02	6.03
19-Feb	124.22	17.30	20-Apr	124.41	63.30	20-Jun	124.18	13.40	20-Aug	124.00	5.86
20-Feb	124.23	17.10	21-Apr	124.41	61.20	21-Jun	124.18	12.00	21-Aug	124.00	5.47
21-Feb	124.21	17.00	22-Apr	124.41	60.70	22-Jun	124.18	11.10	22-Aug	123.98	5.09
22-Feb	124.20	17.10	23-Apr	124.40	60.20	23-Jun	124.16	10.30	23-Aug	123.97	4.68
23-Feb	124.21	17.00	24-Apr	124.38	59.90	24-Jun	124.15	9.47	24-Aug	123.96	4.38
24-Feb	124.21	17.10	25-Apr	124.38	59.10	25-Jun	124.17	7.85	25-Aug	123.96	4.01
25-Feb	124.20	16.80	26-Apr	124.39	59.30	26-Jun	124.16	7.15	26-Aug	123.95	3.76
26-Feb	124.20	16.60	27-Apr	124.38	59.50	27-Jun	124.15	6.81	27-Aug	123.99	3.88
27-Feb	124.20	16.30	28-Apr	124.37	59.00	28-Jun	124.14	6.48	28-Aug	124.03	4.22
28-Feb	124.19	16.00	29-Apr	124.36	56.90	29-Jun	124.13	5.88	29-Aug	124.03	4.18
29-Feb	124.18	15.90	30-Apr	124.36	55.20	30-Jun	124.13	5.45	30-Aug	124.02	4.32
1-Mar	124.19	16.10	1-May	124.35	52.30	1-Jul	124.12	5.19	31-Aug	124.00	4.61

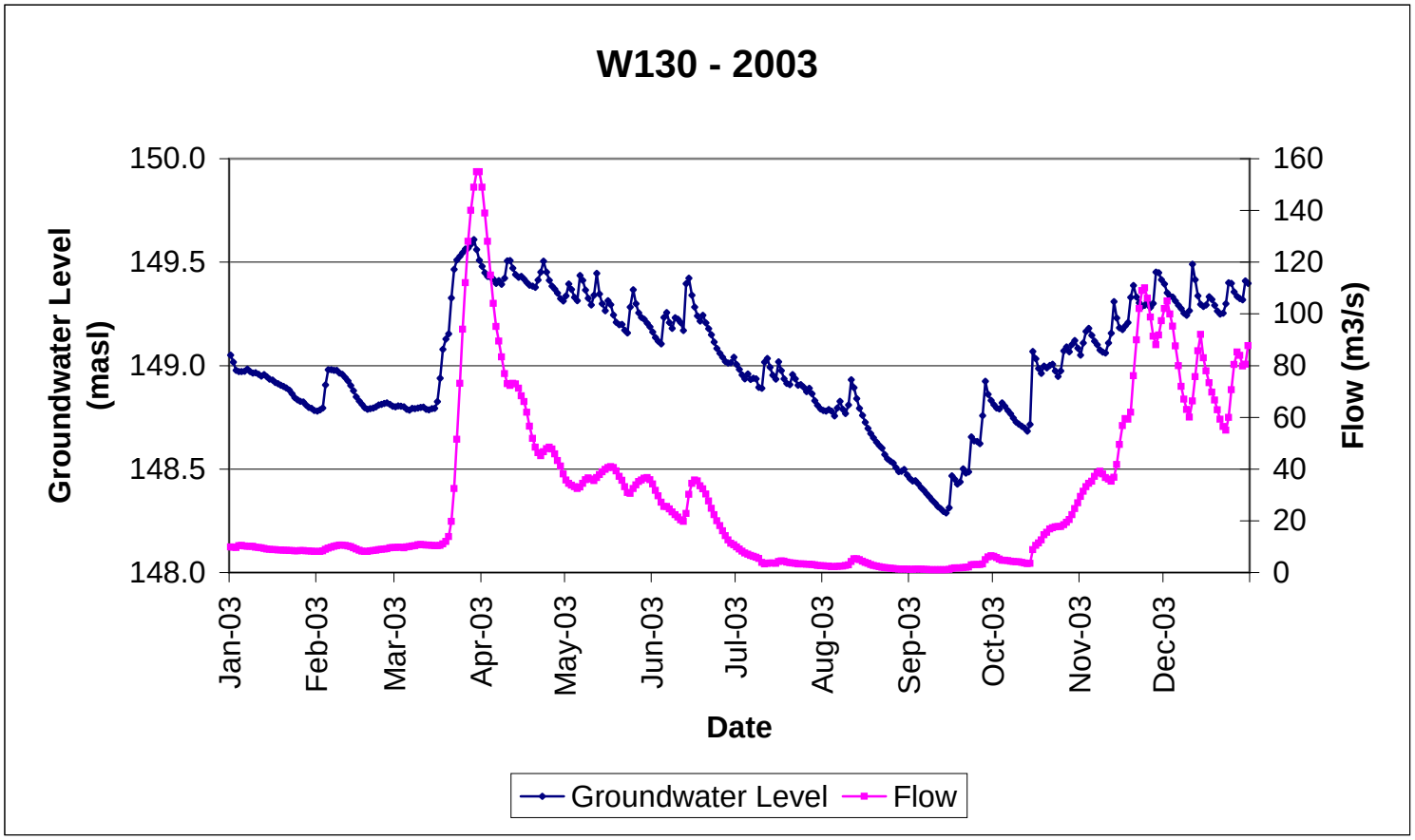
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	123.98	4.75	2-Oct	124.10	5.65	2-Nov	124.02	11.20	3-Dec	124.34	80.20
2-Sep	123.97	4.92	3-Oct	124.15	6.25	3-Nov	124.06	12.10	4-Dec	124.33	80.50
3-Sep	123.95	4.90	4-Oct	124.14	5.91	4-Nov	124.07	13.10	5-Dec	124.32	78.90
4-Sep	123.94	4.88	5-Oct	124.11	5.55	5-Nov	124.11	15.40	6-Dec	124.37	73.80
5-Sep	123.93	4.79	6-Oct	124.07	5.18	6-Nov	124.02	16.80	7-Dec	124.33	68.90
6-Sep	123.92	4.53	7-Oct	124.05	4.95	7-Nov	124.00	18.70	8-Dec	124.32	69.40
7-Sep	123.91	4.19	8-Oct	124.04	4.78	8-Nov	124.08	20.10	9-Dec	124.33	72.40
8-Sep	123.92	4.16	9-Oct	124.03	4.47	9-Nov	124.06	20.70	10-Dec	124.34	74.90
9-Sep	124.16	14.00	10-Oct	124.08	4.47	10-Nov	124.00	20.80	11-Dec	124.36	76.40
10-Sep	124.25	29.80	11-Oct	124.08	4.62	11-Nov	123.98	20.60	12-Dec	124.35	75.20
11-Sep	124.24	43.60	12-Oct	124.05	4.34	12-Nov	124.03	20.10	13-Dec	124.35	73.20
12-Sep	124.22	57.90	13-Oct	124.03	6.88	13-Nov	124.03	19.30	14-Dec	124.43	68.70
13-Sep	124.21	59.70	14-Oct	124.01	7.23	14-Nov	123.97	18.60	15-Dec	124.39	61.00
14-Sep	124.20	53.50	15-Oct	124.04	6.85	15-Nov	123.96	18.20	16-Dec	124.33	54.00
15-Sep	124.18	45.80	16-Oct	124.10	7.45	16-Nov	123.95	17.90	17-Dec	124.34	50.00
16-Sep	124.17	38.90	17-Oct	124.11	8.32	17-Nov	123.95	17.70	18-Dec	124.35	46.00
17-Sep	124.17	32.90	18-Oct	124.10	9.48	18-Nov	123.95	17.50	19-Dec	124.37	44.00
18-Sep	124.15	27.70	19-Oct	124.11	10.00	19-Nov	123.95	17.30	20-Dec	124.47	42.00
19-Sep	124.14	23.10	20-Oct	124.04	10.10	20-Nov	123.95	17.40	21-Dec	124.33	41.40
20-Sep	124.12	19.60	21-Oct	124.04	10.50	21-Nov	123.94	19.10	22-Dec	124.28	42.90
21-Sep	124.11	17.10	22-Oct	124.03	10.90	22-Nov	123.94	20.60	23-Dec	124.33	44.00
22-Sep	124.10	15.10	23-Oct	124.05	11.10	23-Nov	123.93	20.80	24-Dec	124.40	49.00
23-Sep	124.09	13.40	24-Oct	124.04	11.00	24-Nov	123.98	21.50	25-Dec	124.45	52.00
24-Sep	124.08	11.80	25-Oct	123.99	11.10	25-Nov	124.12	24.90	26-Dec	124.46	56.20
25-Sep	124.07	10.50	26-Oct	123.98	10.80	26-Nov	124.12	26.30	27-Dec	124.49	55.00
26-Sep	124.09	9.30	27-Oct	123.98	10.40	27-Nov	124.12	27.30	28-Dec	124.37	54.40
27-Sep	124.10	8.37	28-Oct	124.02	10.00	28-Nov	124.19	32.20	29-Dec	124.34	52.60
28-Sep	124.10	7.65	29-Oct	123.99	9.56	29-Nov	124.26	41.20	30-Dec	124.34	50.10
29-Sep	124.13	6.86	30-Oct	123.98	9.47	30-Nov	124.26	52.90	31-Dec	124.38	53.00
30-Sep	124.08	5.92	31-Oct	123.98	9.90	1-Dec	124.29	66.20			
1-Oct	124.07	5.49	1-Nov	123.99	10.4	2-Dec	124.32	75.6			



2003 Groundwater Level and Flow for W130

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	149.05	9.84	3-Mar	148.80	9.75	3-May	149.37	33.70	3-Jul	148.95	8.26
2-Jan	149.02	9.80	4-Mar	148.80	9.57	4-May	149.33	33.20	4-Jul	148.94	7.52
3-Jan	148.98	9.67	5-Mar	148.79	9.87	5-May	149.31	32.50	5-Jul	148.96	7.05
4-Jan	148.97	10.30	6-Mar	148.79	9.98	6-May	149.44	33.00	6-Jul	148.93	6.60
5-Jan	148.97	10.50	7-Mar	148.79	10.20	7-May	149.41	34.40	7-Jul	148.94	6.18
6-Jan	148.97	10.20	8-Mar	148.79	10.30	8-May	149.36	35.90	8-Jul	148.94	5.82
7-Jan	148.98	10.10	9-Mar	148.79	10.70	9-May	149.33	36.60	9-Jul	148.90	5.43
8-Jan	148.97	10.10	10-Mar	148.80	10.80	10-May	149.29	36.10	10-Jul	148.89	3.89
9-Jan	148.96	10.10	11-Mar	148.80	10.70	11-May	149.34	35.50	11-Jul	149.02	3.26
10-Jan	148.97	9.70	12-Mar	148.79	10.60	12-May	149.45	36.70	12-Jul	149.03	3.53
11-Jan	148.96	9.61	13-Mar	148.79	10.60	13-May	149.35	37.80	13-Jul	148.99	3.65
12-Jan	148.95	9.58	14-Mar	148.79	10.50	14-May	149.30	38.90	14-Jul	148.95	3.60
13-Jan	148.96	9.30	15-Mar	148.79	10.30	15-May	149.26	39.90	15-Jul	148.93	3.52
14-Jan	148.95	9.03	16-Mar	148.83	10.40	16-May	149.31	40.60	16-Jul	149.02	4.29
15-Jan	148.93	8.90	17-Mar	148.94	10.50	17-May	149.29	40.90	17-Jul	148.98	4.51
16-Jan	148.93	8.85	18-Mar	149.08	11.00	18-May	149.25	40.50	18-Jul	148.94	4.30
17-Jan	148.92	8.80	19-Mar	149.13	12.00	19-May	149.21	39.30	19-Jul	148.91	3.96
18-Jan	148.91	8.75	20-Mar	149.15	13.90	20-May	149.20	37.10	20-Jul	148.91	3.74
19-Jan	148.90	8.70	21-Mar	149.33	19.70	21-May	149.20	35.60	21-Jul	148.96	3.64
20-Jan	148.90	8.60	22-Mar	149.46	32.40	22-May	149.17	33.20	22-Jul	148.94	3.53
21-Jan	148.89	8.55	23-Mar	149.51	51.50	23-May	149.16	30.90	23-Jul	148.91	3.33
22-Jan	148.88	8.50	24-Mar	149.53	73.10	24-May	149.28	30.60	24-Jul	148.91	3.29
23-Jan	148.86	8.45	25-Mar	149.55	94.00	25-May	149.37	32.50	25-Jul	148.90	3.30
24-Jan	148.84	8.39	26-Mar	149.56	112.00	26-May	149.30	33.90	26-Jul	148.87	3.23
25-Jan	148.83	8.35	27-Mar	149.57	128.00	27-May	149.26	35.20	27-Jul	148.89	3.19
26-Jan	148.83	8.45	28-Mar	149.59	140.00	28-May	149.23	35.70	28-Jul	148.86	3.10
27-Jan	148.82	8.41	29-Mar	149.61	149.00	29-May	149.22	36.50	29-Jul	148.83	2.90
28-Jan	148.81	8.35	30-Mar	149.56	155.00	30-May	149.20	36.70	30-Jul	148.81	2.67
29-Jan	148.80	8.29	31-Mar	149.51	155.00	31-May	149.19	35.90	31-Jul	148.79	2.57
30-Jan	148.79	8.25	1-Apr	149.48	149.00	1-Jun	149.16	34.20	1-Aug	148.78	2.56
31-Jan	148.78	8.11	2-Apr	149.45	139.00	2-Jun	149.14	31.80	2-Aug	148.78	2.48
1-Feb	148.78	8.09	3-Apr	149.43	128.00	3-Jun	149.12	29.60	3-Aug	148.79	2.41
2-Feb	148.79	8.17	4-Apr	149.43	115.00	4-Jun	149.10	27.10	4-Aug	148.78	2.27
3-Feb	148.80	8.31	5-Apr	149.42	104.00	5-Jun	149.23	25.50	5-Aug	148.76	2.20
4-Feb	148.91	8.97	6-Apr	149.40	95.10	6-Jun	149.26	25.50	6-Aug	148.79	2.31
5-Feb	148.98	9.42	7-Apr	149.41	89.50	7-Jun	149.21	24.60	7-Aug	148.83	2.44
6-Feb	148.98	9.71	8-Apr	149.39	83.30	8-Jun	149.18	23.40	8-Aug	148.79	2.51
7-Feb	148.98	10.10	9-Apr	149.42	76.90	9-Jun	149.23	22.30	9-Aug	148.77	2.65
8-Feb	148.98	10.40	10-Apr	149.51	73.00	10-Jun	149.22	21.40	10-Aug	148.81	2.94
9-Feb	148.96	10.60	11-Apr	149.51	72.30	11-Jun	149.21	20.30	11-Aug	148.93	4.24
10-Feb	148.96	10.60	12-Apr	149.47	73.10	12-Jun	149.17	19.70	12-Aug	148.89	5.31
11-Feb	148.94	10.50	13-Apr	149.44	72.90	13-Jun	149.40	22.80	13-Aug	148.84	5.33
12-Feb	148.93	10.20	14-Apr	149.43	71.30	14-Jun	149.42	30.20	14-Aug	148.79	4.90
13-Feb	148.90	9.95	15-Apr	149.43	68.30	15-Jun	149.34	34.40	15-Aug	148.76	4.33
14-Feb	148.88	9.51	16-Apr	149.42	66.10	16-Jun	149.28	35.70	16-Aug	148.73	3.91
15-Feb	148.85	9.09	17-Apr	149.40	61.90	17-Jun	149.24	35.40	17-Aug	148.70	3.47
16-Feb	148.83	8.62	18-Apr	149.39	56.60	18-Jun	149.22	33.50	18-Aug	148.67	3.06
17-Feb	148.81	8.25	19-Apr	149.38	51.90	19-Jun	149.24	32.30	19-Aug	148.65	2.76
18-Feb	148.80	8.07	20-Apr	149.38	48.40	20-Jun	149.21	30.30	20-Aug	148.63	2.47
19-Feb	148.79	8.13	21-Apr	149.41	46.30	21-Jun	149.18	27.60	21-Aug	148.61	2.22
20-Feb	148.79	8.38	22-Apr	149.45	45.20	22-Jun	149.15	24.80	22-Aug	148.60	2.03
21-Feb	148.79	8.44	23-Apr	149.50	46.70	23-Jun	149.11	22.30	23-Aug	148.57	1.91
22-Feb	148.80	8.56	24-Apr	149.45	47.80	24-Jun	149.08	20.00	24-Aug	148.55	1.74
23-Feb	148.81	8.84	25-Apr	149.41	48.40	25-Jun	149.06	18.10	25-Aug	148.54	1.61
24-Feb	148.81	8.91	26-Apr	149.38	47.70	26-Jun	149.04	16.10	26-Aug	148.53	1.49
25-Feb	148.82	9.00	27-Apr	149.37	45.90	27-Jun	149.02	14.20	27-Aug	148.51	1.41
26-Feb	148.82	9.20	28-Apr	149.35	43.30	28-Jun	149.01	12.60	28-Aug	148.49	1.35
27-Feb	148.81	9.54	29-Apr	149.32	41.10	29-Jun	149.01	11.30	29-Aug	148.49	1.26
28-Feb	148.80	9.69	30-Apr	149.31	38.10	30-Jun	149.04	10.70	30-Aug	148.50	1.26
1-Mar	148.80	9.65	1-May	149.34	35.70	1-Jul	149.01	9.92	31-Aug	148.47	1.24
2-Mar	148.81	9.73	2-May	149.39	34.50	2-Jul	148.98	9.10	1-Sep	148.45	1.23

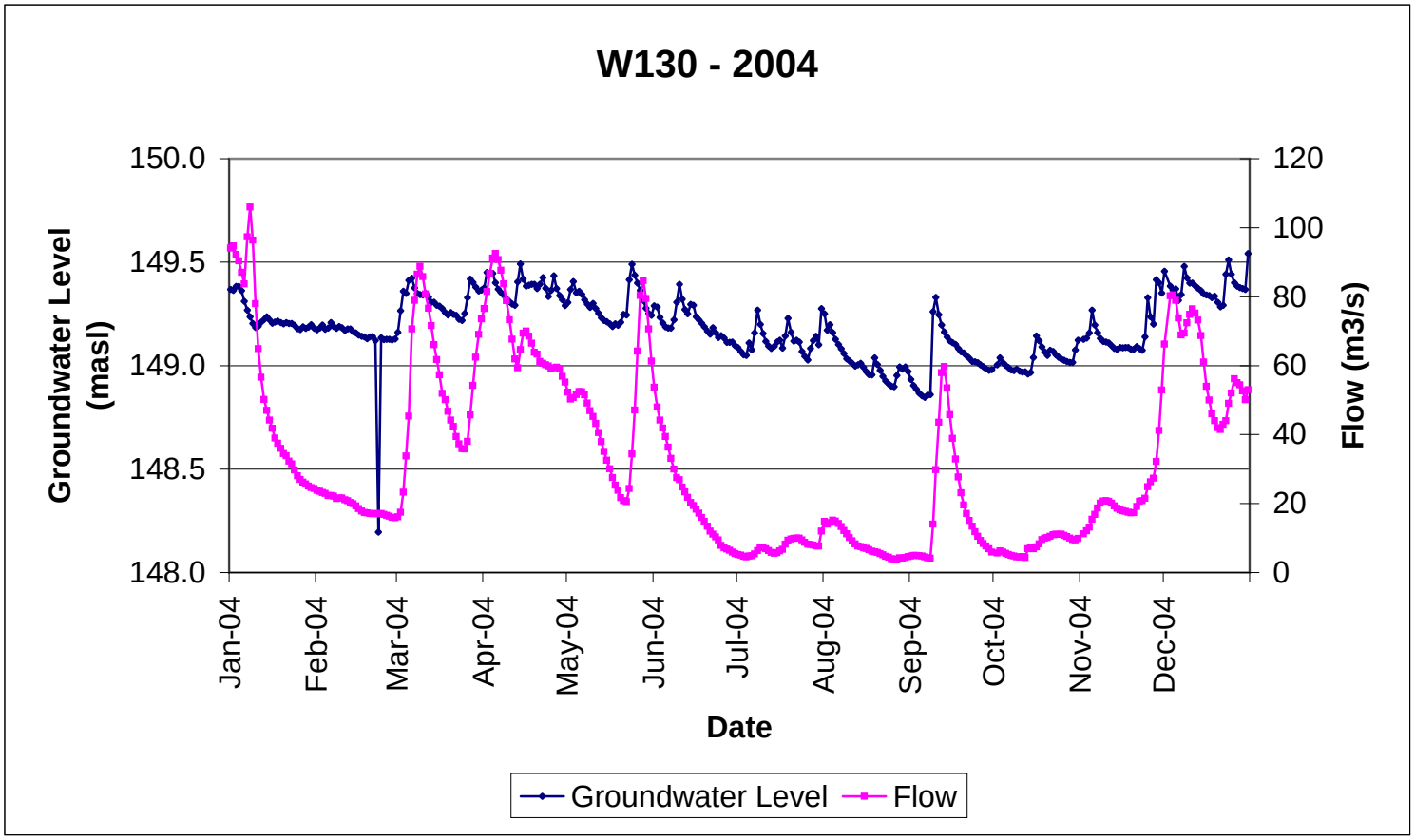
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	148.44	1.23	2-Oct	148.79	5.72	1-Nov	149.05	29.40	1-Dec	149.39	102.00
3-Sep	148.44	1.27	3-Oct	148.79	5.16	2-Nov	149.11	31.40	2-Dec	149.35	105.00
4-Sep	148.43	1.26	4-Oct	148.82	4.75	3-Nov	149.16	33.20	3-Dec	149.34	99.90
5-Sep	148.41	1.24	5-Oct	148.80	4.72	4-Nov	149.18	34.50	4-Dec	149.33	95.20
6-Sep	148.40	1.20	6-Oct	148.78	4.56	5-Nov	149.15	35.30	5-Dec	149.31	87.60
7-Sep	148.38	1.17	7-Oct	148.77	4.36	6-Nov	149.12	37.10	6-Dec	149.29	80.00
8-Sep	148.37	1.10	8-Oct	148.75	4.18	7-Nov	149.10	38.40	7-Dec	149.28	72.00
9-Sep	148.35	1.07	9-Oct	148.73	4.15	8-Nov	149.08	39.10	8-Dec	149.25	67.00
10-Sep	148.34	1.04	10-Oct	148.72	4.08	9-Nov	149.06	38.10	9-Dec	149.24	63.00
11-Sep	148.32	1.04	11-Oct	148.71	3.91	10-Nov	149.06	36.70	10-Dec	149.26	60.10
12-Sep	148.31	1.05	12-Oct	148.70	3.67	11-Nov	149.11	36.10	11-Dec	149.49	66.30
13-Sep	148.30	1.06	13-Oct	148.68	3.38	12-Nov	149.16	35.30	12-Dec	149.42	75.70
14-Sep	148.29	1.10	14-Oct	148.72	3.50	13-Nov	149.31	36.80	13-Dec	149.34	85.70
15-Sep	148.31	1.20	15-Oct	149.07	8.82	14-Nov	149.23	41.70	14-Dec	149.30	92.00
16-Sep	148.47	1.55	16-Oct	149.03	10.50	15-Nov	149.18	49.50	15-Dec	149.29	83.00
17-Sep	148.45	1.77	17-Oct	148.99	11.40	16-Nov	149.17	56.80	16-Dec	149.29	78.00
18-Sep	148.43	1.81	18-Oct	148.96	12.60	17-Nov	149.19	59.50	17-Dec	149.33	73.40
19-Sep	148.44	1.81	19-Oct	149.00	14.60	18-Nov	149.21	59.20	18-Dec	149.32	69.70
20-Sep	148.50	1.93	20-Oct	148.99	15.50	19-Nov	149.33	61.90	19-Dec	149.29	66.60
21-Sep	148.48	2.01	21-Oct	149.00	16.80	20-Nov	149.39	76.10	20-Dec	149.26	62.90
22-Sep	148.49	2.08	22-Oct	149.01	17.30	21-Nov	149.33	89.90	21-Dec	149.25	59.20
23-Sep	148.66	2.93	23-Oct	148.97	17.60	22-Nov	149.30	102.00	22-Dec	149.25	56.40
24-Sep	148.64	3.10	24-Oct	148.95	17.70	23-Nov	149.29	109.00	23-Dec	149.30	55.00
25-Sep	148.63	3.00	25-Oct	148.97	17.80	24-Nov	149.29	110.00	24-Dec	149.40	59.90
26-Sep	148.62	3.02	26-Oct	149.07	18.50	25-Nov	149.31	106.00	25-Dec	149.40	70.70
27-Sep	148.76	3.30	27-Oct	149.09	19.40	26-Nov	149.28	98.80	26-Dec	149.36	80.40
28-Sep	148.92	4.90	28-Oct	149.07	20.40	27-Nov	149.30	91.30	27-Dec	149.33	85.20
29-Sep	148.86	5.99	29-Oct	149.10	22.30	28-Nov	149.45	88.10	28-Dec	149.32	83.90
30-Sep	148.83	6.42	30-Oct	149.12	24.70	29-Nov	149.45	91.80	29-Dec	149.32	79.80
1-Oct	148.81	6.23	31-Oct	149.08	26.90	30-Nov	149.42	97.30	30-Dec	149.41	80.50
									31-Dec	149.40	87.70



2004 Groundwater Level and Flow for W130

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	149.37	94.10	2-Mar	149.26	17.50	2-May	149.37	50.30	2-Jul	149.07	4.99
2-Jan	149.36	94.70	3-Mar	149.36	23.30	3-May	149.41	50.70	3-Jul	149.05	4.70
3-Jan	149.38	92.20	4-Mar	149.35	33.80	4-May	149.35	51.60	4-Jul	149.05	4.53
4-Jan	149.38	90.40	5-Mar	149.41	45.30	5-May	149.36	52.50	5-Jul	149.11	4.76
5-Jan	149.36	87.00	6-Mar	149.42	70.60	6-May	149.34	52.40	6-Jul	149.08	4.89
6-Jan	149.31	83.70	7-Mar	149.38	78.90	7-May	149.32	51.50	7-Jul	149.16	5.38
7-Jan	149.27	97.30	8-Mar	149.35	86.50	8-May	149.30	49.10	8-Jul	149.27	6.37
8-Jan	149.24	106.00	9-Mar	149.34	88.80	9-May	149.28	46.90	9-Jul	149.20	7.15
9-Jan	149.20	96.40	10-Mar	149.34	85.80	10-May	149.30	45.20	10-Jul	149.15	7.24
10-Jan	149.19	77.90	11-Mar	149.35	80.80	11-May	149.28	43.20	11-Jul	149.12	6.89
11-Jan	149.19	64.90	12-Mar	149.33	76.60	12-May	149.25	40.60	12-Jul	149.09	6.32
12-Jan	149.21	56.60	13-Mar	149.31	71.60	13-May	149.23	37.90	13-Jul	149.08	5.83
13-Jan	149.22	50.20	14-Mar	149.31	66.00	14-May	149.22	35.10	14-Jul	149.09	5.53
14-Jan	149.24	47.00	15-Mar	149.29	61.70	15-May	149.21	32.50	15-Jul	149.11	5.70
15-Jan	149.22	44.20	16-Mar	149.29	57.30	16-May	149.20	30.10	16-Jul	149.12	6.25
16-Jan	149.21	41.80	17-Mar	149.28	51.90	17-May	149.19	27.50	17-Jul	149.08	6.71
17-Jan	149.21	39.00	18-Mar	149.26	50.10	18-May	149.20	25.30	18-Jul	149.14	8.20
18-Jan	149.22	37.50	19-Mar	149.24	46.70	19-May	149.19	23.80	19-Jul	149.23	9.39
19-Jan	149.21	36.00	20-Mar	149.26	44.20	20-May	149.21	21.70	20-Jul	149.16	9.67
20-Jan	149.20	34.50	21-Mar	149.25	42.30	21-May	149.25	20.80	21-Jul	149.12	9.85
21-Jan	149.21	33.90	22-Mar	149.24	39.40	22-May	149.25	20.50	22-Jul	149.12	9.96
22-Jan	149.20	32.30	23-Mar	149.22	37.30	23-May	149.41	24.30	23-Jul	149.11	9.95
23-Jan	149.20	31.50	24-Mar	149.22	35.90	24-May	149.49	34.40	24-Jul	149.07	9.40
24-Jan	149.19	29.70	25-Mar	149.25	35.80	25-May	149.44	47.10	25-Jul	149.05	8.77
25-Jan	149.18	28.00	26-Mar	149.33	38.00	26-May	149.40	64.20	26-Jul	149.03	8.20
26-Jan	149.17	27.00	27-Mar	149.42	45.70	27-May	149.36	80.30	27-Jul	149.08	8.09
27-Jan	149.19	26.20	28-Mar	149.40	54.20	28-May	149.31	84.60	28-Jul	149.12	7.93
28-Jan	149.18	25.70	29-Mar	149.38	62.40	29-May	149.28	79.40	29-Jul	149.14	7.63
29-Jan	149.19	25.00	30-Mar	149.36	69.00	30-May	149.25	70.60	30-Jul	149.10	7.66
30-Jan	149.20	24.60	31-Mar	149.36	73.50	31-May	149.24	61.30	31-Jul	149.28	12.00
31-Jan	149.18	24.30	1-Apr	149.38	76.50	1-Jun	149.29	53.70	1-Aug	149.25	14.80
1-Feb	149.17	23.80	2-Apr	149.45	81.50	2-Jun	149.28	48.00	2-Aug	149.17	14.00
2-Feb	149.18	23.50	3-Apr	149.44	86.70	3-Jun	149.23	44.20	3-Aug	149.20	14.50
3-Feb	149.20	23.20	4-Apr	149.45	91.20	4-Jun	149.21	41.90	4-Aug	149.16	15.20
4-Feb	149.18	22.90	5-Apr	149.40	92.50	5-Jun	149.19	39.40	5-Aug	149.13	14.90
5-Feb	149.18	22.30	6-Apr	149.37	90.70	6-Jun	149.18	36.30	6-Aug	149.10	14.20
6-Feb	149.21	22.30	7-Apr	149.35	87.60	7-Jun	149.18	33.10	7-Aug	149.08	13.30
7-Feb	149.19	22.10	8-Apr	149.34	83.70	8-Jun	149.22	30.00	8-Aug	149.06	12.20
8-Feb	149.18	21.40	9-Apr	149.32	78.80	9-Jun	149.31	27.50	9-Aug	149.03	11.20
9-Feb	149.19	21.60	10-Apr	149.31	73.30	10-Jun	149.39	26.90	10-Aug	149.02	10.10
10-Feb	149.18	21.60	11-Apr	149.30	67.60	11-Jun	149.32	24.80	11-Aug	149.01	9.13
11-Feb	149.17	21.10	12-Apr	149.29	61.90	12-Jun	149.27	23.40	12-Aug	149.00	8.32
12-Feb	149.18	20.80	13-Apr	149.41	59.30	13-Jun	149.25	21.80	13-Aug	149.00	7.70
13-Feb	149.18	20.30	14-Apr	149.49	64.60	14-Jun	149.30	20.30	14-Aug	149.01	7.47
14-Feb	149.16	19.90	15-Apr	149.42	69.40	15-Jun	149.29	19.40	15-Aug	148.99	7.16
15-Feb	149.16	19.30	16-Apr	149.38	70.00	16-Jun	149.24	18.30	16-Aug	148.97	6.93
16-Feb	149.15	18.50	17-Apr	149.39	68.50	17-Jun	149.22	17.20	17-Aug	148.96	6.60
17-Feb	149.14	17.80	18-Apr	149.39	66.50	18-Jun	149.21	16.00	18-Aug	148.96	6.16
18-Feb	149.14	17.40	19-Apr	149.39	63.80	19-Jun	149.19	14.80	19-Aug	149.04	6.03
19-Feb	149.13	17.30	20-Apr	149.37	63.30	20-Jun	149.17	13.40	20-Aug	149.01	5.86
20-Feb	149.14	17.10	21-Apr	149.39	61.20	21-Jun	149.15	12.00	21-Aug	148.98	5.47
21-Feb	149.14	17.00	22-Apr	149.43	60.70	22-Jun	149.18	11.10	22-Aug	148.95	5.09
22-Feb	149.12	17.10	23-Apr	149.37	60.20	23-Jun	149.16	10.30	23-Aug	148.93	4.68
23-Feb	148.20	17.00	24-Apr	149.33	59.90	24-Jun	149.14	9.47	24-Aug	148.91	4.38
24-Feb	149.13	17.10	25-Apr	149.36	59.10	25-Jun	149.14	7.85	25-Aug	148.90	4.01
25-Feb	149.13	16.80	26-Apr	149.43	59.30	26-Jun	149.13	7.15	26-Aug	148.90	3.76
26-Feb	149.13	16.60	27-Apr	149.37	59.50	27-Jun	149.11	6.81	27-Aug	148.95	3.88
27-Feb	149.13	16.30	28-Apr	149.34	59.00	28-Jun	149.11	6.48	28-Aug	148.99	4.22
28-Feb	149.12	16.00	29-Apr	149.32	56.90	29-Jun	149.11	5.88	29-Aug	148.98	4.18
29-Feb	149.13	15.90	30-Apr	149.29	55.20	30-Jun	149.10	5.45	30-Aug	148.99	4.32
1-Mar	149.16	16.10	1-May	149.31	52.30	1-Jul	149.09	5.19	31-Aug	148.97	4.61

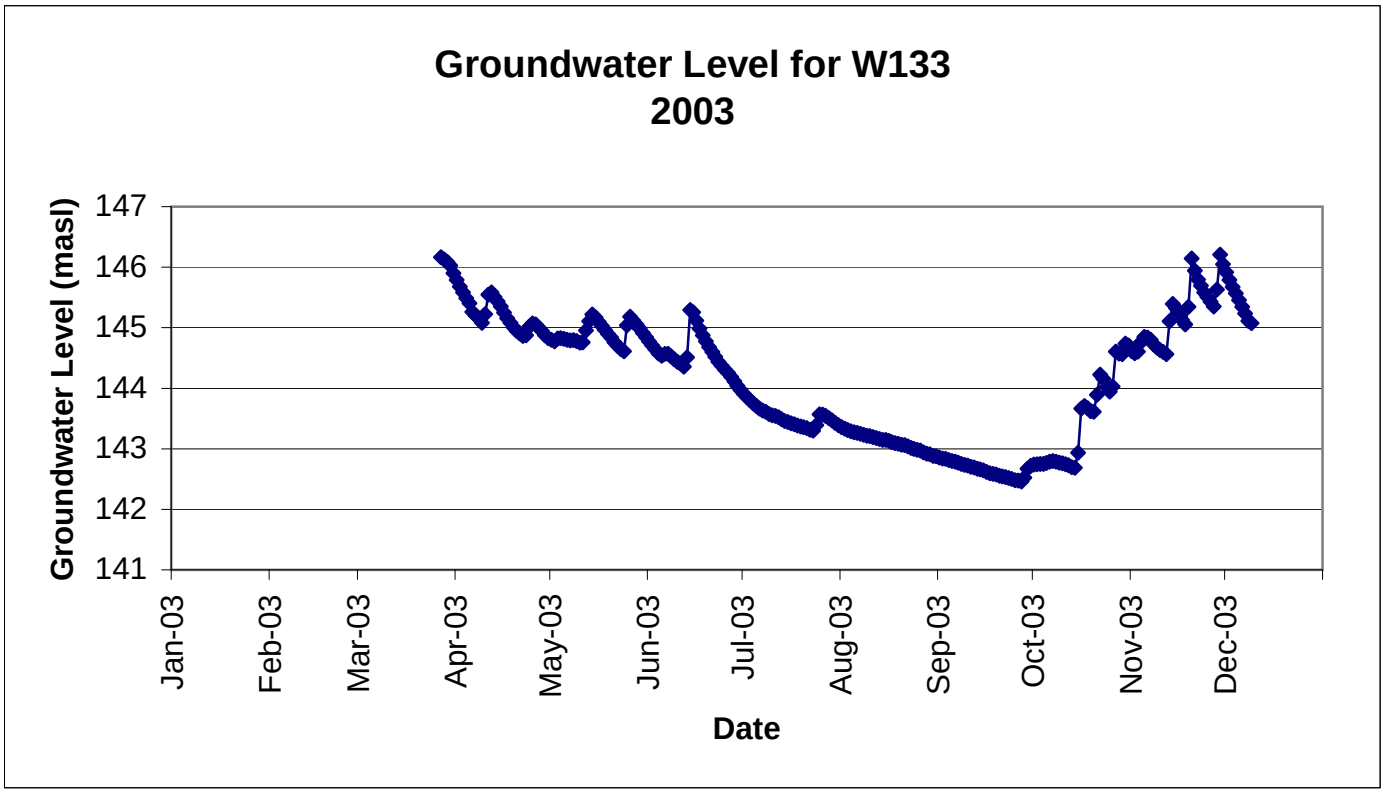
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	148.93	4.75	2-Oct	149.00	5.65	2-Nov	149.13	11.20	3-Dec	149.38	80.20
2-Sep	148.90	4.92	3-Oct	149.04	6.25	3-Nov	149.13	12.10	4-Dec	149.36	80.50
3-Sep	148.89	4.90	4-Oct	149.01	5.91	4-Nov	149.16	13.10	5-Dec	149.37	78.90
4-Sep	148.87	4.88	5-Oct	149.00	5.55	5-Nov	149.27	15.40	6-Dec	149.32	73.80
5-Sep	148.85	4.79	6-Oct	148.99	5.18	6-Nov	149.20	16.80	7-Dec	149.34	68.90
6-Sep	148.85	4.53	7-Oct	148.98	4.95	7-Nov	149.16	18.70	8-Dec	149.48	69.40
7-Sep	148.86	4.19	8-Oct	148.98	4.78	8-Nov	149.13	20.10	9-Dec	149.42	72.40
8-Sep	148.86	4.16	9-Oct	148.98	4.47	9-Nov	149.12	20.70	10-Dec	149.40	74.90
9-Sep	149.26	14.00	10-Oct	148.97	4.47	10-Nov	149.11	20.80	11-Dec	149.40	76.40
10-Sep	149.33	29.80	11-Oct	148.97	4.62	11-Nov	149.11	20.60	12-Dec	149.39	75.20
11-Sep	149.25	43.60	12-Oct	148.97	4.34	12-Nov	149.10	20.10	13-Dec	149.37	73.20
12-Sep	149.20	57.90	13-Oct	148.96	6.88	13-Nov	149.08	19.30	14-Dec	149.36	68.70
13-Sep	149.16	59.70	14-Oct	148.97	7.23	14-Nov	149.08	18.60	15-Dec	149.35	61.00
14-Sep	149.14	53.50	15-Oct	149.04	6.85	15-Nov	149.09	18.20	16-Dec	149.34	54.00
15-Sep	149.12	45.80	16-Oct	149.14	7.45	16-Nov	149.09	17.90	17-Dec	149.34	50.00
16-Sep	149.11	38.90	17-Oct	149.12	8.32	17-Nov	149.09	17.70	18-Dec	149.33	46.00
17-Sep	149.10	32.90	18-Oct	149.09	9.48	18-Nov	149.09	17.50	19-Dec	149.34	44.00
18-Sep	149.08	27.70	19-Oct	149.07	10.00	19-Nov	149.08	17.30	20-Dec	149.31	42.00
19-Sep	149.07	23.10	20-Oct	149.05	10.10	20-Nov	149.08	17.40	21-Dec	149.28	41.40
20-Sep	149.06	19.60	21-Oct	149.07	10.50	21-Nov	149.09	19.10	22-Dec	149.29	42.90
21-Sep	149.05	17.10	22-Oct	149.07	10.90	22-Nov	149.08	20.60	23-Dec	149.44	44.00
22-Sep	149.04	15.10	23-Oct	149.05	11.10	23-Nov	149.07	20.80	24-Dec	149.51	49.00
23-Sep	149.02	13.40	24-Oct	149.04	11.00	24-Nov	149.14	21.50	25-Dec	149.44	52.00
24-Sep	149.02	11.80	25-Oct	149.03	11.10	25-Nov	149.33	24.90	26-Dec	149.40	56.20
25-Sep	149.01	10.50	26-Oct	149.03	10.80	26-Nov	149.24	26.30	27-Dec	149.38	55.00
26-Sep	149.00	9.30	27-Oct	149.02	10.40	27-Nov	149.20	27.30	28-Dec	149.38	54.40
27-Sep	148.99	8.37	28-Oct	149.02	10.00	28-Nov	149.41	32.20	29-Dec	149.37	52.60
28-Sep	148.98	7.65	29-Oct	149.02	9.56	29-Nov	149.40	41.20	30-Dec	149.37	50.10
29-Sep	148.98	6.86	30-Oct	149.08	9.47	30-Nov	149.35	52.90	31-Dec	149.54	53.00
30-Sep	148.98	5.92	31-Oct	149.12	9.90	1-Dec	149.46	66.20			
1-Oct	148.98	5.49	1-Nov	149.08	10.4	2-Dec	149.43	75.6			



2003 Groundwater Level for W133

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2003		3/3/2003		5/3/2003	144.8202	7/3/2003	143.8022
1/2/2003		3/4/2003		5/4/2003	144.8295	7/4/2003	143.7511
1/3/2003		3/5/2003		5/5/2003	144.8172	7/5/2003	143.7051
1/4/2003		3/6/2003		5/6/2003	144.8005	7/6/2003	143.6637
1/5/2003		3/7/2003		5/7/2003	144.7898	7/7/2003	143.6349
1/6/2003		3/8/2003		5/8/2003	144.793	7/8/2003	143.6119
1/7/2003		3/9/2003		5/9/2003	144.7794	7/9/2003	143.573
1/8/2003		3/10/2003		5/10/2003	144.7531	7/10/2003	143.5535
1/9/2003		3/11/2003		5/11/2003	144.7567	7/11/2003	143.5418
1/10/2003		3/12/2003		5/12/2003	144.9557	7/12/2003	143.5209
1/11/2003		3/13/2003		5/13/2003	145.1091	7/13/2003	143.4876
1/12/2003		3/14/2003		5/14/2003	145.2183	7/14/2003	143.4581
1/13/2003		3/15/2003		5/15/2003	145.1717	7/15/2003	143.4424
1/14/2003		3/16/2003		5/16/2003	145.0952	7/16/2003	143.4212
1/15/2003		3/17/2003		5/17/2003	145.0287	7/17/2003	143.4045
1/16/2003		3/18/2003		5/18/2003	144.9626	7/18/2003	143.3829
1/17/2003		3/19/2003		5/19/2003	144.8969	7/19/2003	143.3695
1/18/2003		3/20/2003		5/20/2003	144.8401	7/20/2003	143.3573
1/19/2003		3/21/2003		5/21/2003	144.7594	7/21/2003	143.3419
1/20/2003		3/22/2003		5/22/2003	144.7023	7/22/2003	143.3161
1/21/2003		3/23/2003		5/23/2003	144.6473	7/23/2003	143.2979
1/22/2003		3/24/2003		5/24/2003	144.6111	7/24/2003	143.3874
1/23/2003		3/25/2003		5/25/2003	145.0399	7/25/2003	143.5694
1/24/2003		3/26/2003		5/26/2003	145.1818	7/26/2003	143.5655
1/25/2003		3/27/2003	146.1659	5/27/2003	145.1156	7/27/2003	143.5421
1/26/2003		3/28/2003	146.1264	5/28/2003	145.0564	7/28/2003	143.5069
1/27/2003		3/29/2003	146.0857	5/29/2003	144.9873	7/29/2003	143.4702
1/28/2003		3/30/2003	146.0272	5/30/2003	144.9093	7/30/2003	143.4279
1/29/2003		3/31/2003	145.9028	5/31/2003	144.8431	7/31/2003	143.3898
1/30/2003		4/1/2003	145.789	6/1/2003	144.7749	8/1/2003	143.3582
1/31/2003		4/2/2003	145.6774	6/2/2003	144.7076	8/2/2003	143.3314
2/1/2003		4/3/2003	145.5831	6/3/2003	144.6409	8/3/2003	143.3093
2/2/2003		4/4/2003	145.4883	6/4/2003	144.5754	8/4/2003	143.291
2/3/2003		4/5/2003	145.4048	6/5/2003	144.5366	8/5/2003	143.2756
2/4/2003		4/6/2003	145.261	6/6/2003	144.5668	8/6/2003	143.2632
2/5/2003		4/7/2003	145.2011	6/7/2003	144.5667	8/7/2003	143.2486
2/6/2003		4/8/2003	145.1536	6/8/2003	144.5271	8/8/2003	143.2316
2/7/2003		4/9/2003	145.0811	6/9/2003	144.4766	8/9/2003	143.2152
2/8/2003		4/10/2003	145.2255	6/10/2003	144.4364	8/10/2003	143.2107
2/9/2003		4/11/2003	145.5443	6/11/2003	144.4065	8/11/2003	143.1937
2/10/2003		4/12/2003	145.5826	6/12/2003	144.3578	8/12/2003	143.1761
2/11/2003		4/13/2003	145.5084	6/13/2003	144.5104	8/13/2003	143.1601
2/12/2003		4/14/2003	145.4376	6/14/2003	145.2933	8/14/2003	143.1484
2/13/2003		4/15/2003	145.3492	6/15/2003	145.2576	8/15/2003	143.1441
2/14/2003		4/16/2003	145.2513	6/16/2003	145.1162	8/16/2003	143.1286
2/15/2003		4/17/2003	145.1574	6/17/2003	144.9854	8/17/2003	143.1118
2/16/2003		4/18/2003	145.0799	6/18/2003	144.8741	8/18/2003	143.0952
2/17/2003		4/19/2003	145.0076	6/19/2003	144.7741	8/19/2003	143.0825
2/18/2003		4/20/2003	144.9506	6/20/2003	144.6819	8/20/2003	143.0682
2/19/2003		4/21/2003	144.9087	6/21/2003	144.6006	8/21/2003	143.0593
2/20/2003		4/22/2003	144.8661	6/22/2003	144.5195	8/22/2003	143.0393
2/21/2003		4/23/2003	144.8738	6/23/2003	144.4347	8/23/2003	143.013
2/22/2003		4/24/2003	145.018	6/24/2003	144.3702	8/24/2003	142.9972
2/23/2003		4/25/2003	145.0701	6/25/2003	144.3114	8/25/2003	142.9823
2/24/2003		4/26/2003	145.0552	6/26/2003	144.2579	8/26/2003	142.9712
2/25/2003		4/27/2003	145.0014	6/27/2003	144.1876	8/27/2003	142.9393
2/26/2003		4/28/2003	144.9507	6/28/2003	144.1112	8/28/2003	142.9181
2/27/2003		4/29/2003	144.8775	6/29/2003	144.0421	8/29/2003	142.9081
2/28/2003		4/30/2003	144.8281	6/30/2003	143.9697	8/30/2003	142.884
3/1/2003		5/1/2003	144.8004	7/1/2003	143.9081	8/31/2003	142.8761
3/2/2003		5/2/2003	144.7761	7/2/2003	143.8561	9/1/2003	142.8554

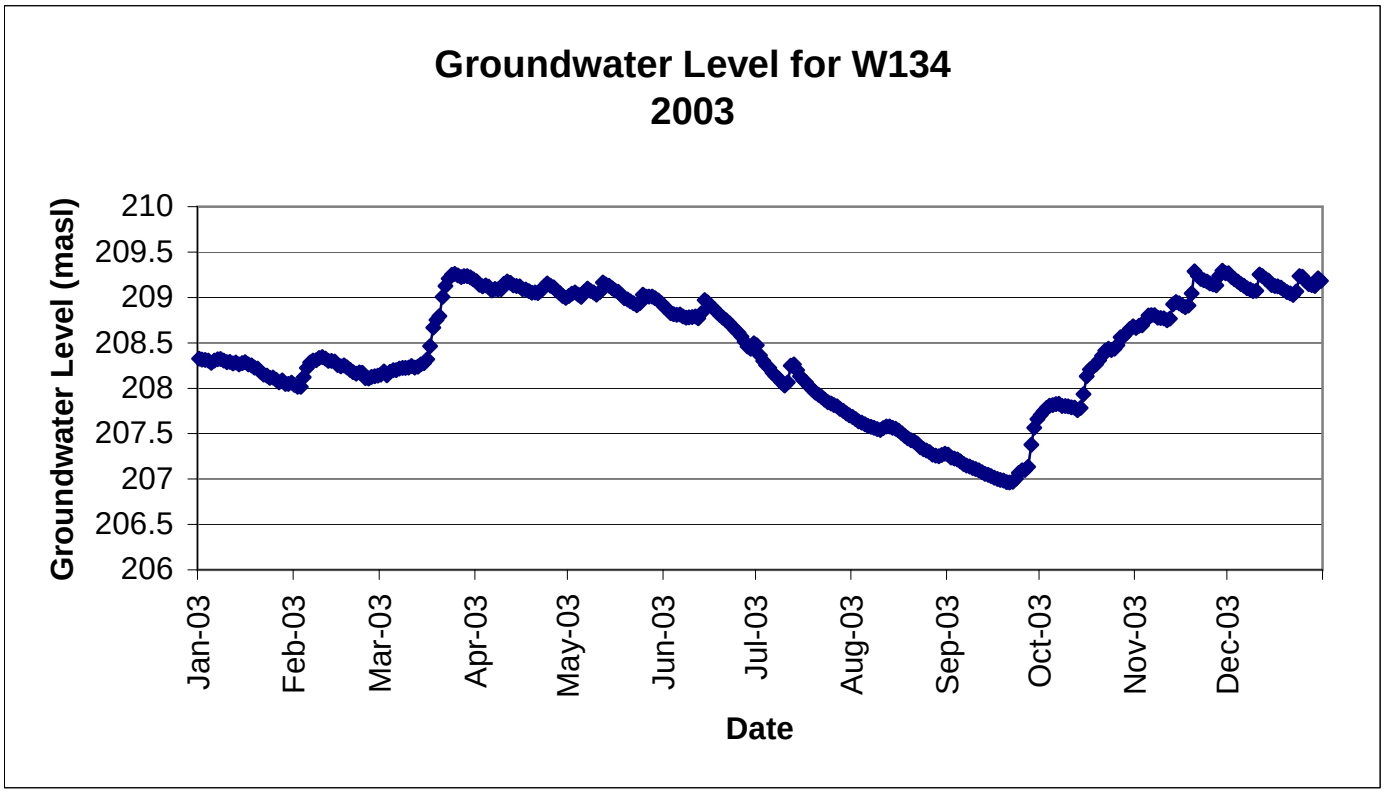
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/2/2003	142.838	10/2/2003	142.746	11/1/2003	144.6124	12/1/2003	145.9152
9/3/2003	142.8333	10/3/2003	142.7492	11/2/2003	144.5776	12/2/2003	145.7873
9/4/2003	142.8141	10/4/2003	142.7514	11/3/2003	144.6062	12/3/2003	145.6747
9/5/2003	142.7986	10/5/2003	142.7666	11/4/2003	144.7649	12/4/2003	145.5648
9/6/2003	142.7889	10/6/2003	142.7842	11/5/2003	144.8492	12/5/2003	145.4548
9/7/2003	142.7714	10/7/2003	142.7954	11/6/2003	144.8369	12/6/2003	145.3456
9/8/2003	142.752	10/8/2003	142.789	11/7/2003	144.7991	12/7/2003	145.2355
9/9/2003	142.7349	10/9/2003	142.7712	11/8/2003	144.7234	12/8/2003	145.1135
9/10/2003	142.7236	10/10/2003	142.7587	11/9/2003	144.6756	12/9/2003	145.0766
9/11/2003	142.7033	10/11/2003	142.7429	11/10/2003	144.6292	12/10/2003	
9/12/2003	142.6893	10/12/2003	142.7295	11/11/2003	144.6024	12/11/2003	
9/13/2003	142.6728	10/13/2003	142.6984	11/12/2003	144.5624	12/12/2003	
9/14/2003	142.6583	10/14/2003	142.6886	11/13/2003	145.1081	12/13/2003	
9/15/2003	142.6415	10/15/2003	142.9374	11/14/2003	145.3943	12/14/2003	
9/16/2003	142.6189	10/16/2003	143.666	11/15/2003	145.3227	12/15/2003	
9/17/2003	142.5974	10/17/2003	143.707	11/16/2003	145.2282	12/16/2003	
9/18/2003	142.5854	10/18/2003	143.6701	11/17/2003	145.1271	12/17/2003	
9/19/2003	142.5751	10/19/2003	143.6218	11/18/2003	145.056	12/18/2003	
9/20/2003	142.5538	10/20/2003	143.6119	11/19/2003	145.3435	12/19/2003	
9/21/2003	142.5418	10/21/2003	143.891	11/20/2003	146.1439	12/20/2003	
9/22/2003	142.5337	10/22/2003	144.2226	11/21/2003	145.9444	12/21/2003	
9/23/2003	142.5164	10/23/2003	144.1539	11/22/2003	145.7936	12/22/2003	
9/24/2003	142.5026	10/24/2003	144.0175	11/23/2003	145.6917	12/23/2003	
9/25/2003	142.4819	10/25/2003	143.943	11/24/2003	145.5834	12/24/2003	
9/26/2003	142.4745	10/26/2003	144.03	11/25/2003	145.5076	12/25/2003	
9/27/2003	142.458	10/27/2003	144.6042	11/26/2003	145.4296	12/26/2003	
9/28/2003	142.5236	10/28/2003	144.5741	11/27/2003	145.3524	12/27/2003	
9/29/2003	142.6716	10/29/2003	144.5651	11/28/2003	145.6315	12/28/2003	
9/30/2003	142.7179	10/30/2003	144.7357	11/29/2003	146.2095	12/29/2003	
10/1/2003	142.7411	10/31/2003	144.7059	11/30/2003	146.0471	12/30/2003	
						12/31/2003	



2003 Groundwater Level for W134

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2003	208.3243	3/3/2003	208.1428	5/3/2003	209.054	7/3/2003	208.301
1/2/2003	208.3163	3/4/2003	208.1816	5/4/2003	209.031	7/4/2003	208.2571
1/3/2003	208.3109	3/5/2003	208.2	5/5/2003	209.0047	7/5/2003	208.2221
1/4/2003	208.3032	3/6/2003	208.1994	5/6/2003	209.0634	7/6/2003	208.1712
1/5/2003	208.2815	3/7/2003	208.2173	5/7/2003	209.0964	7/7/2003	208.1367
1/6/2003	208.3037	3/8/2003	208.2252	5/8/2003	209.0738	7/8/2003	208.108
1/7/2003	208.3186	3/9/2003	208.2242	5/9/2003	209.0544	7/9/2003	208.0638
1/8/2003	208.3217	3/10/2003	208.2275	5/10/2003	209.0303	7/10/2003	208.0307
1/9/2003	208.3037	3/11/2003	208.2443	5/11/2003	209.0574	7/11/2003	208.0656
1/10/2003	208.2878	3/12/2003	208.2286	5/12/2003	209.1665	7/12/2003	208.2491
1/11/2003	208.2895	3/13/2003	208.2396	5/13/2003	209.1435	7/13/2003	208.2625
1/12/2003	208.2747	3/14/2003	208.261	5/14/2003	209.1299	7/14/2003	208.199
1/13/2003	208.2836	3/15/2003	208.275	5/15/2003	209.1023	7/15/2003	208.133
1/14/2003	208.2612	3/16/2003	208.3199	5/16/2003	209.0779	7/16/2003	208.0913
1/15/2003	208.2778	3/17/2003	208.4619	5/17/2003	209.0615	7/17/2003	208.0649
1/16/2003	208.2862	3/18/2003	208.667	5/18/2003	209.029	7/18/2003	208.0191
1/17/2003	208.264	3/19/2003	208.751	5/19/2003	208.9913	7/19/2003	207.9849
1/18/2003	208.2516	3/20/2003	208.7949	5/20/2003	208.9797	7/20/2003	207.9508
1/19/2003	208.2274	3/21/2003	209.0075	5/21/2003	208.9582	7/21/2003	207.9285
1/20/2003	208.2157	3/22/2003	209.1273	5/22/2003	208.9357	7/22/2003	207.9017
1/21/2003	208.182	3/23/2003	209.2062	5/23/2003	208.9153	7/23/2003	207.8745
1/22/2003	208.1506	3/24/2003	209.2487	5/24/2003	208.9355	7/24/2003	207.8474
1/23/2003	208.1405	3/25/2003	209.2584	5/25/2003	209.0292	7/25/2003	207.8327
1/24/2003	208.1132	3/26/2003	209.2416	5/26/2003	209.0083	7/26/2003	207.8145
1/25/2003	208.1182	3/27/2003	209.2263	5/27/2003	209.0103	7/27/2003	207.7996
1/26/2003	208.0949	3/28/2003	209.2352	5/28/2003	209.0085	7/28/2003	207.7729
1/27/2003	208.0635	3/29/2003	209.2355	5/29/2003	208.9921	7/29/2003	207.752
1/28/2003	208.0855	3/30/2003	209.2226	5/30/2003	208.9681	7/30/2003	207.725
1/29/2003	208.0492	3/31/2003	209.1998	5/31/2003	208.936	7/31/2003	207.7035
1/30/2003	208.0464	4/1/2003	209.1787	6/1/2003	208.8953	8/1/2003	207.6839
1/31/2003	208.0603	4/2/2003	209.1414	6/2/2003	208.868	8/2/2003	207.66
2/1/2003	208.0367	4/3/2003	209.1239	6/3/2003	208.8272	8/3/2003	207.6368
2/2/2003	208.0152	4/4/2003	209.1313	6/4/2003	208.8166	8/4/2003	207.6221
2/3/2003	208.0166	4/5/2003	209.1184	6/5/2003	208.8085	8/5/2003	207.6047
2/4/2003	208.1201	4/6/2003	209.0751	6/6/2003	208.8138	8/6/2003	207.5856
2/5/2003	208.2252	4/7/2003	209.095	6/7/2003	208.7926	8/7/2003	207.5756
2/6/2003	208.2827	4/8/2003	209.0881	6/8/2003	208.7782	8/8/2003	207.564
2/7/2003	208.3043	4/9/2003	209.0923	6/9/2003	208.7793	8/9/2003	207.5519
2/8/2003	208.309	4/10/2003	209.1524	6/10/2003	208.7845	8/10/2003	207.539
2/9/2003	208.3322	4/11/2003	209.1767	6/11/2003	208.7902	8/11/2003	207.5619
2/10/2003	208.343	4/12/2003	209.1595	6/12/2003	208.771	8/12/2003	207.5789
2/11/2003	208.327	4/13/2003	209.1337	6/13/2003	208.8257	8/13/2003	207.5781
2/12/2003	208.2999	4/14/2003	209.1243	6/14/2003	208.9702	8/14/2003	207.5648
2/13/2003	208.3003	4/15/2003	209.1235	6/15/2003	208.9449	8/15/2003	207.553
2/14/2003	208.2957	4/16/2003	209.0911	6/16/2003	208.907	8/16/2003	207.533
2/15/2003	208.2541	4/17/2003	209.0881	6/17/2003	208.8771	8/17/2003	207.5057
2/16/2003	208.2401	4/18/2003	209.0679	6/18/2003	208.8422	8/18/2003	207.4743
2/17/2003	208.2518	4/19/2003	209.0535	6/19/2003	208.8051	8/19/2003	207.4471
2/18/2003	208.2305	4/20/2003	209.0555	6/20/2003	208.7768	8/20/2003	207.4276
2/19/2003	208.203	4/21/2003	209.0467	6/21/2003	208.7502	8/21/2003	207.4141
2/20/2003	208.1785	4/22/2003	209.076	6/22/2003	208.7187	8/22/2003	207.3908
2/21/2003	208.1594	4/23/2003	209.1216	6/23/2003	208.6817	8/23/2003	207.3492
2/22/2003	208.1738	4/24/2003	209.1558	6/24/2003	208.6429	8/24/2003	207.3287
2/23/2003	208.1698	4/25/2003	209.1291	6/25/2003	208.612	8/25/2003	207.3156
2/24/2003	208.11	4/26/2003	209.1105	6/26/2003	208.5696	8/26/2003	207.2957
2/25/2003	208.1077	4/27/2003	209.0784	6/27/2003	208.5133	8/27/2003	207.2704
2/26/2003	208.1248	4/28/2003	209.0497	6/28/2003	208.4611	8/28/2003	207.2564
2/27/2003	208.1327	4/29/2003	209.0152	6/29/2003	208.4367	8/29/2003	207.2507
2/28/2003	208.1395	4/30/2003	208.9965	6/30/2003	208.4962	8/30/2003	207.2658
3/1/2003	208.149	5/1/2003	209.0176	7/1/2003	208.4726	8/31/2003	207.2799
3/2/2003	208.1865	5/2/2003	209.0423	7/2/2003	208.3614	9/1/2003	207.2699

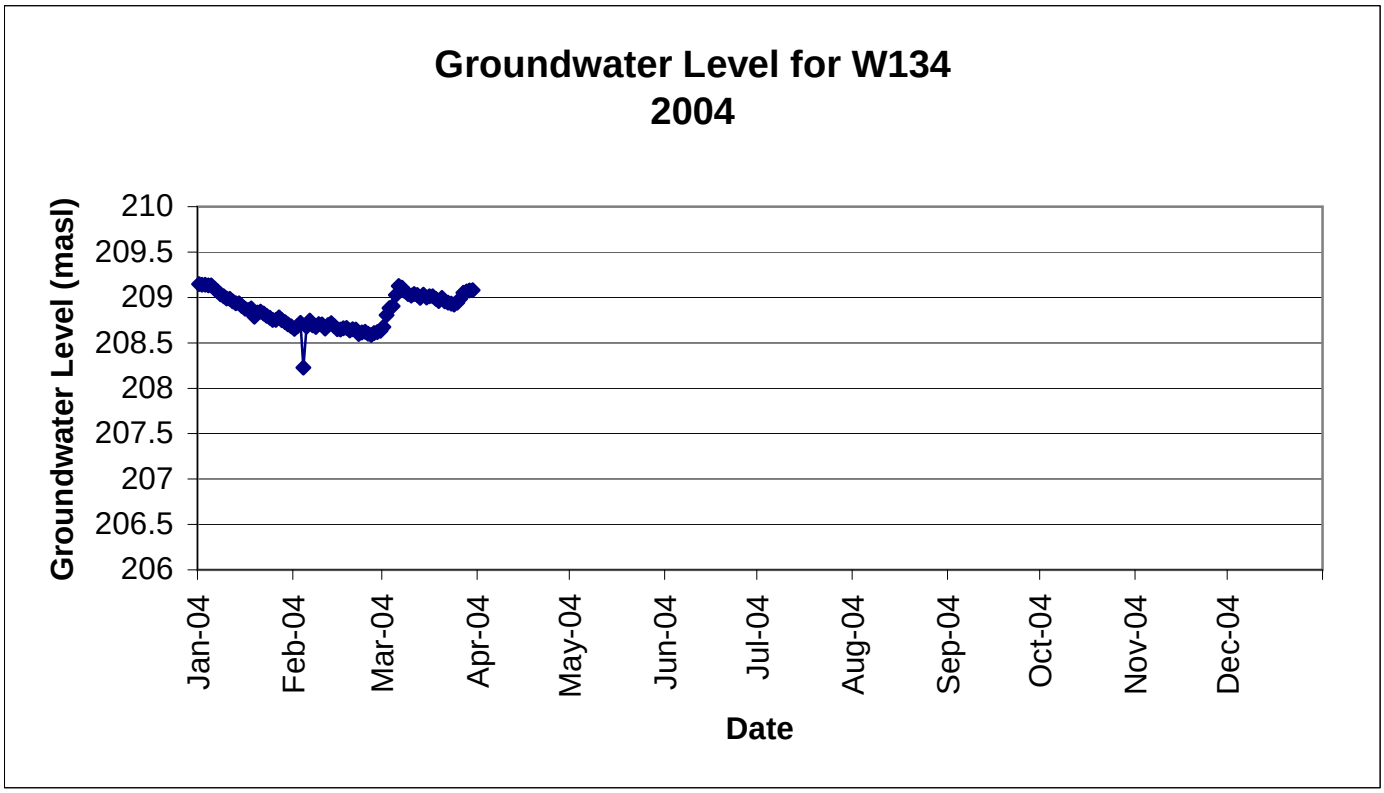
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/2/2003	207.2386	10/2/2003	207.7449	11/1/2003	208.6651	12/1/2003	209.2664
9/3/2003	207.228	10/3/2003	207.7834	11/2/2003	208.6896	12/2/2003	209.2239
9/4/2003	207.2145	10/4/2003	207.809	11/3/2003	208.6936	12/3/2003	209.2004
9/5/2003	207.1952	10/5/2003	207.8167	11/4/2003	208.7419	12/4/2003	209.1736
9/6/2003	207.1663	10/6/2003	207.8251	11/5/2003	208.8015	12/5/2003	209.1462
9/7/2003	207.1488	10/7/2003	207.8288	11/6/2003	208.807	12/6/2003	209.1299
9/8/2003	207.1366	10/8/2003	207.805	11/7/2003	208.807	12/7/2003	209.1008
9/9/2003	207.122	10/9/2003	207.803	11/8/2003	208.7763	12/8/2003	209.0862
9/10/2003	207.1093	10/10/2003	207.8016	11/9/2003	208.7748	12/9/2003	209.0683
9/11/2003	207.0975	10/11/2003	207.7915	11/10/2003	208.7702	12/10/2003	209.0727
9/12/2003	207.0741	10/12/2003	207.7878	11/11/2003	208.748	12/11/2003	209.2542
9/13/2003	207.0573	10/13/2003	207.7588	11/12/2003	208.7665	12/12/2003	209.2362
9/14/2003	207.0455	10/14/2003	207.782	11/13/2003	208.9264	12/13/2003	209.2023
9/15/2003	207.0325	10/15/2003	207.9342	11/14/2003	208.9512	12/14/2003	209.186
9/16/2003	207.0154	10/16/2003	208.1339	11/15/2003	208.9347	12/15/2003	209.1372
9/17/2003	207.0014	10/17/2003	208.2067	11/16/2003	208.9096	12/16/2003	209.1263
9/18/2003	206.989	10/18/2003	208.233	11/17/2003	208.895	12/17/2003	209.1225
9/19/2003	206.9833	10/19/2003	208.2622	11/18/2003	208.9118	12/18/2003	209.1072
9/20/2003	206.9652	10/20/2003	208.3067	11/19/2003	209.044	12/19/2003	209.0797
9/21/2003	206.9624	10/21/2003	208.3586	11/20/2003	209.289	12/20/2003	209.0604
9/22/2003	206.9688	10/22/2003	208.4133	11/21/2003	209.2396	12/21/2003	209.0457
9/23/2003	207.006	10/23/2003	208.4357	11/22/2003	209.2042	12/22/2003	209.028
9/24/2003	207.0692	10/24/2003	208.4206	11/23/2003	209.189	12/23/2003	209.0666
9/25/2003	207.0973	10/25/2003	208.4342	11/24/2003	209.176	12/24/2003	209.2336
9/26/2003	207.1004	10/26/2003	208.474	11/25/2003	209.1549	12/25/2003	209.2269
9/27/2003	207.1337	10/27/2003	208.5629	11/26/2003	209.1428	12/26/2003	209.183
9/28/2003	207.3783	10/28/2003	208.5772	11/27/2003	209.1315	12/27/2003	209.1454
9/29/2003	207.5632	10/29/2003	208.6116	11/28/2003	209.2399	12/28/2003	209.1383
9/30/2003	207.6592	10/30/2003	208.6547	11/29/2003	209.2952	12/29/2003	209.1253
10/1/2003	207.706	10/31/2003	208.6836	11/30/2003	209.2652	12/30/2003	209.2102
						12/31/2003	209.1812



2004 Groundwater Level for W134

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2004	209.1488	3/2/2004	208.8051	5/2/2004		7/2/2004	
1/2/2004	209.1384	3/3/2004	208.8817	5/3/2004		7/3/2004	
1/3/2004	209.1387	3/4/2004	208.9033	5/4/2004		7/4/2004	
1/4/2004	209.1328	3/5/2004	209.0267	5/5/2004		7/5/2004	
1/5/2004	209.1339	3/6/2004	209.1275	5/6/2004		7/6/2004	
1/6/2004	209.0965	3/7/2004	209.1077	5/7/2004		7/7/2004	
1/7/2004	209.0713	3/8/2004	209.0691	5/8/2004		7/8/2004	
1/8/2004	209.034	3/9/2004	209.0373	5/9/2004		7/9/2004	
1/9/2004	209.0127	3/10/2004	209.0218	5/10/2004		7/10/2004	
1/10/2004	208.9902	3/11/2004	209.0374	5/11/2004		7/11/2004	
1/11/2004	208.9835	3/12/2004	209.0257	5/12/2004		7/12/2004	
1/12/2004	208.9579	3/13/2004	208.9968	5/13/2004		7/13/2004	
1/13/2004	208.9357	3/14/2004	209.0302	5/14/2004		7/14/2004	
1/14/2004	208.9361	3/15/2004	208.9976	5/15/2004		7/15/2004	
1/15/2004	208.9042	3/16/2004	209.014	5/16/2004		7/16/2004	
1/16/2004	208.8767	3/17/2004	209.0119	5/17/2004		7/17/2004	
1/17/2004	208.86	3/18/2004	208.9861	5/18/2004		7/18/2004	
1/18/2004	208.878	3/19/2004	208.9618	5/19/2004		7/19/2004	
1/19/2004	208.7872	3/20/2004	208.9968	5/20/2004		7/20/2004	
1/20/2004	208.834	3/21/2004	208.9582	5/21/2004		7/21/2004	
1/21/2004	208.8431	3/22/2004	208.9425	5/22/2004		7/22/2004	
1/22/2004	208.823	3/23/2004	208.932	5/23/2004		7/23/2004	
1/23/2004	208.7973	3/24/2004	208.9203	5/24/2004		7/24/2004	
1/24/2004	208.7773	3/25/2004	208.9418	5/25/2004		7/25/2004	
1/25/2004	208.7511	3/26/2004	208.9844	5/26/2004		7/26/2004	
1/26/2004	208.7531	3/27/2004	209.052	5/27/2004		7/27/2004	
1/27/2004	208.779	3/28/2004	209.0655	5/28/2004		7/28/2004	
1/28/2004	208.7472	3/29/2004	209.077	5/29/2004		7/29/2004	
1/29/2004	208.7285	3/30/2004	209.0807	5/30/2004		7/30/2004	
1/30/2004	208.7032	3/31/2004		5/31/2004		7/31/2004	
1/31/2004	208.6829	4/1/2004		6/1/2004		8/1/2004	
2/1/2004	208.6523	4/2/2004		6/2/2004		8/2/2004	
2/2/2004	208.6805	4/3/2004		6/3/2004		8/3/2004	
2/3/2004	208.7215	4/4/2004		6/4/2004		8/4/2004	
2/4/2004	208.2257	4/5/2004		6/5/2004		8/5/2004	
2/5/2004	208.6789	4/6/2004		6/6/2004		8/6/2004	
2/6/2004	208.745	4/7/2004		6/7/2004		8/7/2004	
2/7/2004	208.6933	4/8/2004		6/8/2004		8/8/2004	
2/8/2004	208.6762	4/9/2004		6/9/2004		8/9/2004	
2/9/2004	208.7061	4/10/2004		6/10/2004		8/10/2004	
2/10/2004	208.7018	4/11/2004		6/11/2004		8/11/2004	
2/11/2004	208.6582	4/12/2004		6/12/2004		8/12/2004	
2/12/2004	208.6974	4/13/2004		6/13/2004		8/13/2004	
2/13/2004	208.7178	4/14/2004		6/14/2004		8/14/2004	
2/14/2004	208.6868	4/15/2004		6/15/2004		8/15/2004	
2/15/2004	208.6488	4/16/2004		6/16/2004		8/16/2004	
2/16/2004	208.6475	4/17/2004		6/17/2004		8/17/2004	
2/17/2004	208.6615	4/18/2004		6/18/2004		8/18/2004	
2/18/2004	208.663	4/19/2004		6/19/2004		8/19/2004	
2/19/2004	208.6354	4/20/2004		6/20/2004		8/20/2004	
2/20/2004	208.6505	4/21/2004		6/21/2004		8/21/2004	
2/21/2004	208.6466	4/22/2004		6/22/2004		8/22/2004	
2/22/2004	208.5959	4/23/2004		6/23/2004		8/23/2004	
2/23/2004	208.6155	4/24/2004		6/24/2004		8/24/2004	
2/24/2004	208.6212	4/25/2004		6/25/2004		8/25/2004	
2/25/2004	208.6005	4/26/2004		6/26/2004		8/26/2004	
2/26/2004	208.5853	4/27/2004		6/27/2004		8/27/2004	
2/27/2004	208.6088	4/28/2004		6/28/2004		8/28/2004	
2/28/2004	208.6171	4/29/2004		6/29/2004		8/29/2004	
2/29/2004	208.6336	4/30/2004		6/30/2004		8/30/2004	
3/1/2004	208.6747	5/1/2004		7/1/2004		8/31/2004	

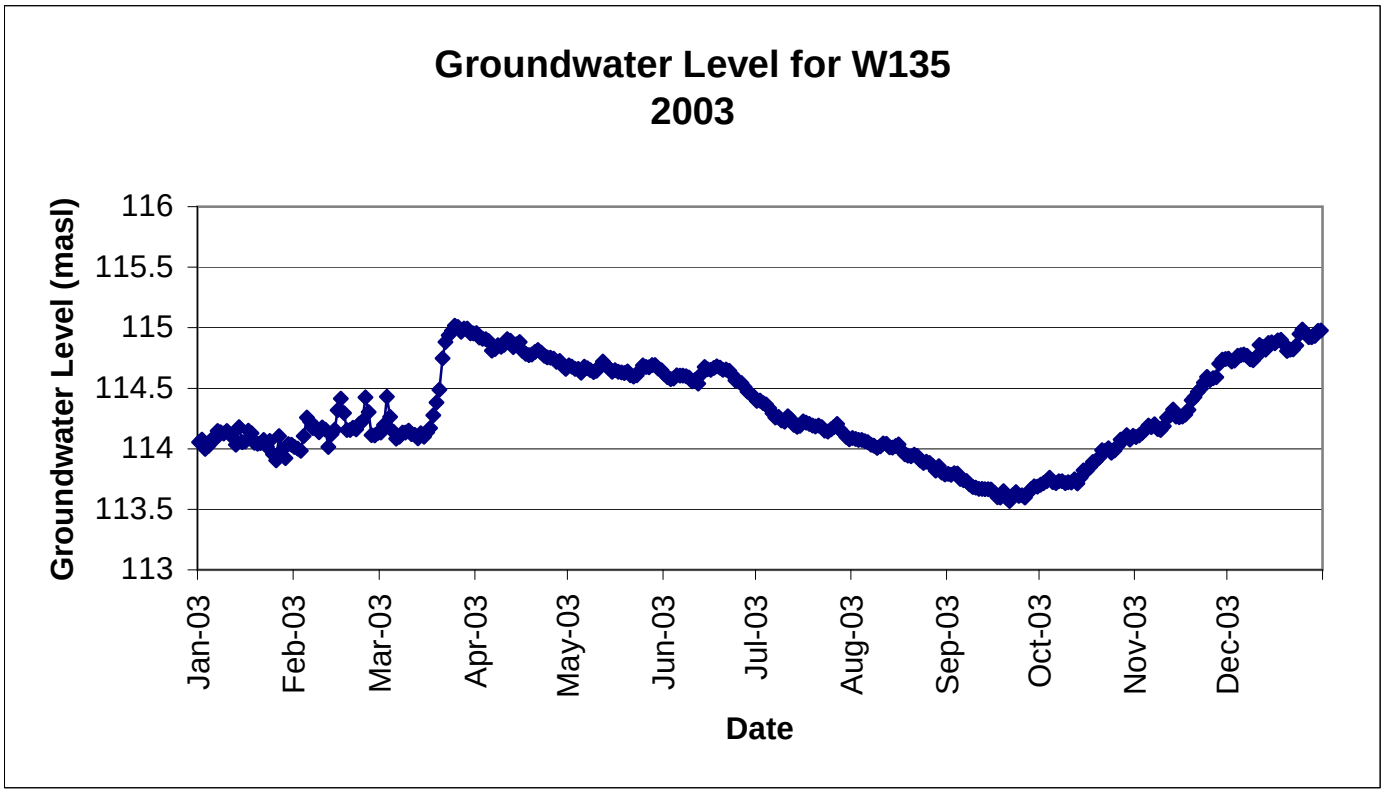
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/1/2004		10/2/2004		11/2/2004		12/3/2004	
9/2/2004		10/3/2004		11/3/2004		12/4/2004	
9/3/2004		10/4/2004		11/4/2004		12/5/2004	
9/4/2004		10/5/2004		11/5/2004		12/6/2004	
9/5/2004		10/6/2004		11/6/2004		12/7/2004	
9/6/2004		10/7/2004		11/7/2004		12/8/2004	
9/7/2004		10/8/2004		11/8/2004		12/9/2004	
9/8/2004		10/9/2004		11/9/2004		12/10/2004	
9/9/2004		10/10/2004		11/10/2004		12/11/2004	
9/10/2004		10/11/2004		11/11/2004		12/12/2004	
9/11/2004		10/12/2004		11/12/2004		12/13/2004	
9/12/2004		10/13/2004		11/13/2004		12/14/2004	
9/13/2004		10/14/2004		11/14/2004		12/15/2004	
9/14/2004		10/15/2004		11/15/2004		12/16/2004	
9/15/2004		10/16/2004		11/16/2004		12/17/2004	
9/16/2004		10/17/2004		11/17/2004		12/18/2004	
9/17/2004		10/18/2004		11/18/2004		12/19/2004	
9/18/2004		10/19/2004		11/19/2004		12/20/2004	
9/19/2004		10/20/2004		11/20/2004		12/21/2004	
9/20/2004		10/21/2004		11/21/2004		12/22/2004	
9/21/2004		10/22/2004		11/22/2004		12/23/2004	
9/22/2004		10/23/2004		11/23/2004		12/24/2004	
9/23/2004		10/24/2004		11/24/2004		12/25/2004	
9/24/2004		10/25/2004		11/25/2004		12/26/2004	
9/25/2004		10/26/2004		11/26/2004		12/27/2004	
9/26/2004		10/27/2004		11/27/2004		12/28/2004	
9/27/2004		10/28/2004		11/28/2004		12/29/2004	
9/28/2004		10/29/2004		11/29/2004		12/30/2004	
9/29/2004		10/30/2004		11/30/2004		12/31/2004	
9/30/2004		10/31/2004		12/1/2004			
10/1/2004		11/1/2004		12/2/2004			



2003 Groundwater Level for W135

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2003	114.0558	3/3/2003	114.4296	5/3/2003	114.6597	7/3/2003	114.3784
1/2/2003	114.0758	3/4/2003	114.2623	5/4/2003	114.6588	7/4/2003	114.3655
1/3/2003	114	3/5/2003	114.1406	5/5/2003	114.6295	7/5/2003	114.336
1/4/2003	114.0217	3/6/2003	114.0833	5/6/2003	114.6773	7/6/2003	114.2934
1/5/2003	114.0727	3/7/2003	114.099	5/7/2003	114.6664	7/7/2003	114.2592
1/6/2003	114.0768	3/8/2003	114.133	5/8/2003	114.6493	7/8/2003	114.2634
1/7/2003	114.1473	3/9/2003	114.1329	5/9/2003	114.6336	7/9/2003	114.2334
1/8/2003	114.1356	3/10/2003	114.1494	5/10/2003	114.6447	7/10/2003	114.2239
1/9/2003	114.125	3/11/2003	114.1194	5/11/2003	114.6813	7/11/2003	114.2691
1/10/2003	114.1475	3/12/2003	114.1154	5/12/2003	114.7198	7/12/2003	114.2455
1/11/2003	114.1227	3/13/2003	114.0852	5/13/2003	114.6929	7/13/2003	114.197
1/12/2003	114.0915	3/14/2003	114.1297	5/14/2003	114.6657	7/14/2003	114.1815
1/13/2003	114.0348	3/15/2003	114.0993	5/15/2003	114.636	7/15/2003	114.1896
1/14/2003	114.1793	3/16/2003	114.1367	5/16/2003	114.6499	7/16/2003	114.2256
1/15/2003	114.0549	3/17/2003	114.1706	5/17/2003	114.6363	7/17/2003	114.2146
1/16/2003	114.0588	3/18/2003	114.2754	5/18/2003	114.6313	7/18/2003	114.2046
1/17/2003	114.1499	3/19/2003	114.3822	5/19/2003	114.6243	7/19/2003	114.1921
1/18/2003	114.1298	3/20/2003	114.4893	5/20/2003	114.6399	7/20/2003	114.1837
1/19/2003	114.0501	3/21/2003	114.7465	5/21/2003	114.6071	7/21/2003	114.1918
1/20/2003	114.0406	3/22/2003	114.8813	5/22/2003	114.5957	7/22/2003	114.1797
1/21/2003	114.0456	3/23/2003	114.9381	5/23/2003	114.6059	7/23/2003	114.1494
1/22/2003	114.0729	3/24/2003	114.9732	5/24/2003	114.6445	7/24/2003	114.1422
1/23/2003	114.0171	3/25/2003	115.0168	5/25/2003	114.6893	7/25/2003	114.1611
1/24/2003	114.0641	3/26/2003	115.0067	5/26/2003	114.6748	7/26/2003	114.1777
1/25/2003	113.9549	3/27/2003	114.9673	5/27/2003	114.6719	7/27/2003	114.2054
1/26/2003	113.903	3/28/2003	114.9919	5/28/2003	114.6927	7/28/2003	114.1582
1/27/2003	114.1058	3/29/2003	114.992	5/29/2003	114.692	7/29/2003	114.1303
1/28/2003	113.9899	3/30/2003	114.9535	5/30/2003	114.6633	7/30/2003	114.0979
1/29/2003	113.9229	3/31/2003	114.9533	5/31/2003	114.6485	7/31/2003	114.0788
1/30/2003	114.0399	4/1/2003	114.9552	6/1/2003	114.6171	8/1/2003	114.088
1/31/2003	114.0334	4/2/2003	114.9198	6/2/2003	114.5925	8/2/2003	114.0816
2/1/2003	114.0151	4/3/2003	114.9076	6/3/2003	114.5759	8/3/2003	114.0743
2/2/2003	114.0008	4/4/2003	114.9049	6/4/2003	114.5806	8/4/2003	114.0736
2/3/2003	113.9826	4/5/2003	114.8897	6/5/2003	114.6081	8/5/2003	114.0626
2/4/2003	114.105	4/6/2003	114.8095	6/6/2003	114.6053	8/6/2003	114.0544
2/5/2003	114.2571	4/7/2003	114.8248	6/7/2003	114.6034	8/7/2003	114.033
2/6/2003	114.2225	4/8/2003	114.8545	6/8/2003	114.5982	8/8/2003	114.0244
2/7/2003	114.1718	4/9/2003	114.8427	6/9/2003	114.5887	8/9/2003	114.0076
2/8/2003	114.1742	4/10/2003	114.8573	6/10/2003	114.5568	8/10/2003	114.02
2/9/2003	114.1359	4/11/2003	114.9057	6/11/2003	114.5696	8/11/2003	114.0436
2/10/2003	114.1761	4/12/2003	114.8936	6/12/2003	114.5375	8/12/2003	114.0402
2/11/2003	114.158	4/13/2003	114.8407	6/13/2003	114.6165	8/13/2003	114.0133
2/12/2003	114.015	4/14/2003	114.8637	6/14/2003	114.6757	8/14/2003	114.0098
2/13/2003	114.1202	4/15/2003	114.8825	6/15/2003	114.6585	8/15/2003	114.0239
2/14/2003	114.1568	4/16/2003	114.8091	6/16/2003	114.6532	8/16/2003	114.0361
2/15/2003	114.3181	4/17/2003	114.7833	6/17/2003	114.6675	8/17/2003	113.9844
2/16/2003	114.4139	4/18/2003	114.7737	6/18/2003	114.682	8/18/2003	113.954
2/17/2003	114.295	4/19/2003	114.778	6/19/2003	114.6705	8/19/2003	113.944
2/18/2003	114.1563	4/20/2003	114.799	6/20/2003	114.6528	8/20/2003	113.9385
2/19/2003	114.1558	4/21/2003	114.8146	6/21/2003	114.6558	8/21/2003	113.9519
2/20/2003	114.1744	4/22/2003	114.7959	6/22/2003	114.6447	8/22/2003	113.942
2/21/2003	114.1604	4/23/2003	114.7685	6/23/2003	114.6134	8/23/2003	113.9051
2/22/2003	114.2052	4/24/2003	114.754	6/24/2003	114.5659	8/24/2003	113.8841
2/23/2003	114.2256	4/25/2003	114.7512	6/25/2003	114.5576	8/25/2003	113.8921
2/24/2003	114.4251	4/26/2003	114.7433	6/26/2003	114.5438	8/26/2003	113.8841
2/25/2003	114.3033	4/27/2003	114.7184	6/27/2003	114.509	8/27/2003	113.8596
2/26/2003	114.1123	4/28/2003	114.7255	6/28/2003	114.4731	8/28/2003	113.8191
2/27/2003	114.1095	4/29/2003	114.6869	6/29/2003	114.4511	8/29/2003	113.8553
2/28/2003	114.1304	4/30/2003	114.6605	6/30/2003	114.429	8/30/2003	113.803
3/1/2003	114.133	5/1/2003	114.6891	7/1/2003	114.3947	8/31/2003	113.7888
3/2/2003	114.197	5/2/2003	114.6787	7/2/2003	114.3975	9/1/2003	113.7928

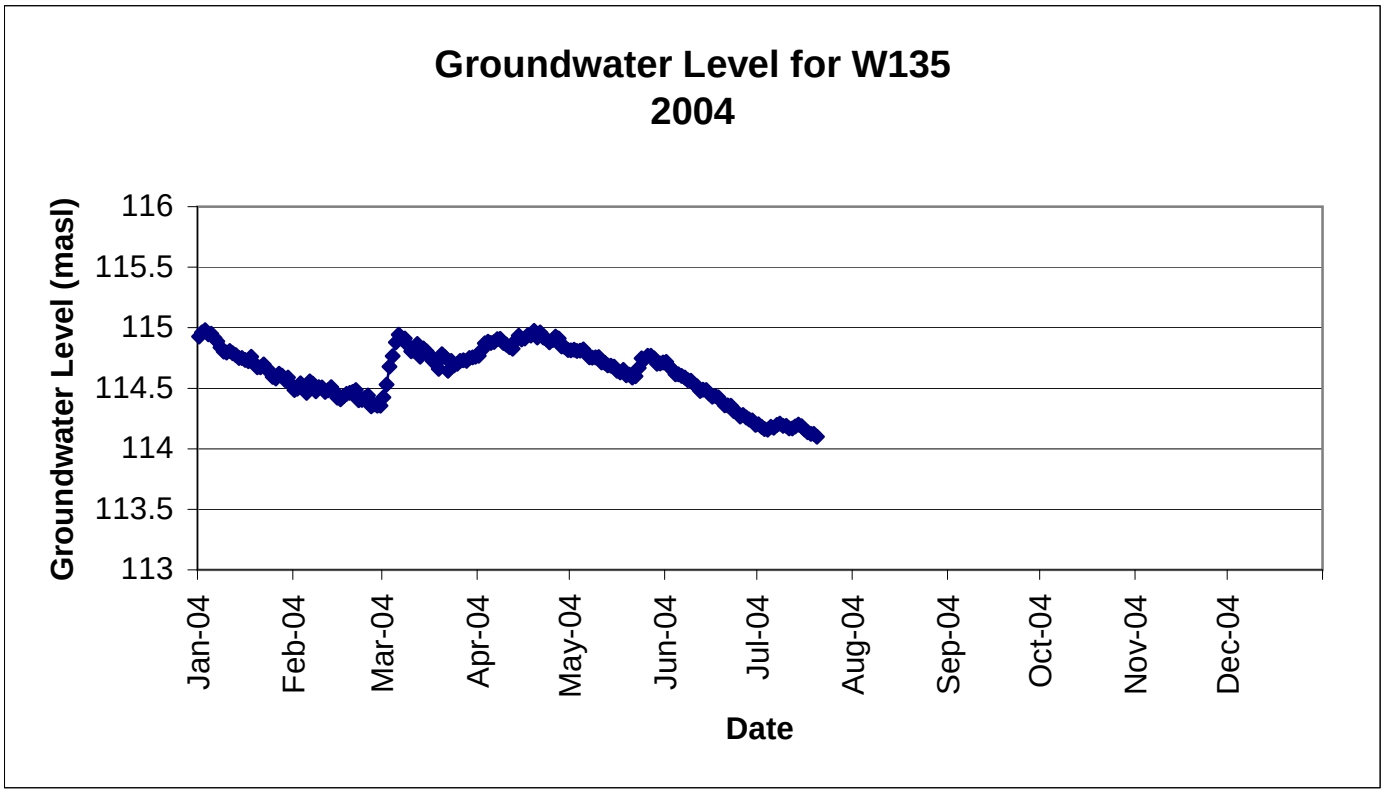
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/2/2003	113.7848	10/2/2003	113.7164	11/1/2003	114.098	12/1/2003	114.7453
9/3/2003	113.7995	10/3/2003	113.7333	11/2/2003	114.1114	12/2/2003	114.7212
9/4/2003	113.7943	10/4/2003	113.7602	11/3/2003	114.1302	12/3/2003	114.7286
9/5/2003	113.7498	10/5/2003	113.7245	11/4/2003	114.1567	12/4/2003	114.7693
9/6/2003	113.7399	10/6/2003	113.7171	11/5/2003	114.1912	12/5/2003	114.7745
9/7/2003	113.735	10/7/2003	113.7313	11/6/2003	114.1782	12/6/2003	114.78
9/8/2003	113.7053	10/8/2003	113.7313	11/7/2003	114.2022	12/7/2003	114.7684
9/9/2003	113.6835	10/9/2003	113.7173	11/8/2003	114.1641	12/8/2003	114.7397
9/10/2003	113.679	10/10/2003	113.723	11/9/2003	114.1555	12/9/2003	114.7315
9/11/2003	113.668	10/11/2003	113.7215	11/10/2003	114.1863	12/10/2003	114.7605
9/12/2003	113.6675	10/12/2003	113.7467	11/11/2003	114.258	12/11/2003	114.8594
9/13/2003	113.6672	10/13/2003	113.7145	11/12/2003	114.2736	12/12/2003	114.8432
9/14/2003	113.667	10/14/2003	113.7625	11/13/2003	114.3244	12/13/2003	114.8197
9/15/2003	113.6636	10/15/2003	113.8223	11/14/2003	114.2655	12/14/2003	114.8733
9/16/2003	113.6357	10/16/2003	113.819	11/15/2003	114.2597	12/15/2003	114.8785
9/17/2003	113.6011	10/17/2003	113.8478	11/16/2003	114.2653	12/16/2003	114.8703
9/18/2003	113.5966	10/18/2003	113.8905	11/17/2003	114.2825	12/17/2003	114.8963
9/19/2003	113.6514	10/19/2003	113.9025	11/18/2003	114.3221	12/18/2003	114.8995
9/20/2003	113.5916	10/20/2003	113.9285	11/19/2003	114.4	12/19/2003	114.8642
9/21/2003	113.5695	10/21/2003	113.9888	11/20/2003	114.4265	12/20/2003	114.809
9/22/2003	113.6155	10/22/2003	113.9839	11/21/2003	114.4699	12/21/2003	114.818
9/23/2003	113.6415	10/23/2003	114.004	11/22/2003	114.4982	12/22/2003	114.82
9/24/2003	113.6104	10/24/2003	113.9669	11/23/2003	114.5453	12/23/2003	114.8528
9/25/2003	113.6153	10/25/2003	113.9852	11/24/2003	114.594	12/24/2003	114.949
9/26/2003	113.5982	10/26/2003	114.0202	11/25/2003	114.5673	12/25/2003	114.9855
9/27/2003	113.634	10/27/2003	114.0753	11/26/2003	114.582	12/26/2003	114.956
9/28/2003	113.6689	10/28/2003	114.0759	11/27/2003	114.5925	12/27/2003	114.9206
9/29/2003	113.6903	10/29/2003	114.1138	11/28/2003	114.7015	12/28/2003	114.9217
9/30/2003	113.6877	10/30/2003	114.0759	11/29/2003	114.7374	12/29/2003	114.9319
10/1/2003	113.7024	10/31/2003	114.1062	11/30/2003	114.7415	12/30/2003	114.9736
						12/31/2003	114.9782



2004 Groundwater Level for W135

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2004	114.9268	3/2/2004	114.531	5/2/2004	114.8188	7/2/2004	114.181
1/2/2004	114.961	3/3/2004	114.6773	5/3/2004	114.809	7/3/2004	114.1625
1/3/2004	114.9798	3/4/2004	114.7655	5/4/2004	114.8106	7/4/2004	114.1588
1/4/2004	114.9463	3/5/2004	114.8782	5/5/2004	114.8213	7/5/2004	114.182
1/5/2004	114.9505	3/6/2004	114.943	5/6/2004	114.7926	7/6/2004	114.1733
1/6/2004	114.9167	3/7/2004	114.9103	5/7/2004	114.7543	7/7/2004	114.1963
1/7/2004	114.8861	3/8/2004	114.9111	5/8/2004	114.7517	7/8/2004	114.2081
1/8/2004	114.8368	3/9/2004	114.8552	5/9/2004	114.7545	7/9/2004	114.1887
1/9/2004	114.8028	3/10/2004	114.8048	5/10/2004	114.7588	7/10/2004	114.1904
1/10/2004	114.7957	3/11/2004	114.8099	5/11/2004	114.714	7/11/2004	114.1694
1/11/2004	114.8067	3/12/2004	114.8649	5/12/2004	114.7108	7/12/2004	114.1685
1/12/2004	114.7901	3/13/2004	114.7591	5/13/2004	114.69	7/13/2004	114.1843
1/13/2004	114.7727	3/14/2004	114.8292	5/14/2004	114.686	7/14/2004	114.1989
1/14/2004	114.7511	3/15/2004	114.8053	5/15/2004	114.6773	7/15/2004	114.1878
1/15/2004	114.7499	3/16/2004	114.776	5/16/2004	114.6439	7/16/2004	114.1606
1/16/2004	114.7347	3/17/2004	114.7254	5/17/2004	114.6301	7/17/2004	114.1377
1/17/2004	114.7238	3/18/2004	114.7026	5/18/2004	114.6527	7/18/2004	114.1228
1/18/2004	114.7591	3/19/2004	114.6586	5/19/2004	114.6058	7/19/2004	114.1244
1/19/2004	114.7061	3/20/2004	114.7824	5/20/2004	114.6135	7/20/2004	114.099
1/20/2004	114.672	3/21/2004	114.759	5/21/2004	114.5896	7/21/2004	
1/21/2004	114.6723	3/22/2004	114.6434	5/22/2004	114.598	7/22/2004	
1/22/2004	114.6957	3/23/2004	114.7262	5/23/2004	114.6671	7/23/2004	
1/23/2004	114.6571	3/24/2004	114.6903	5/24/2004	114.7478	7/24/2004	
1/24/2004	114.6425	3/25/2004	114.7015	5/25/2004	114.7418	7/25/2004	
1/25/2004	114.5931	3/26/2004	114.7258	5/26/2004	114.7692	7/26/2004	
1/26/2004	114.5798	3/27/2004	114.7314	5/27/2004	114.7673	7/27/2004	
1/27/2004	114.6191	3/28/2004	114.7248	5/28/2004	114.7474	7/28/2004	
1/28/2004	114.6052	3/29/2004	114.7508	5/29/2004	114.7018	7/29/2004	
1/29/2004	114.5671	3/30/2004	114.7547	5/30/2004	114.7037	7/30/2004	
1/30/2004	114.5883	3/31/2004	114.7606	5/31/2004	114.7132	7/31/2004	
1/31/2004	114.5298	4/1/2004	114.7689	6/1/2004	114.7175	8/1/2004	
2/1/2004	114.486	4/2/2004	114.8165	6/2/2004	114.6766	8/2/2004	
2/2/2004	114.4958	4/3/2004	114.8708	6/3/2004	114.6541	8/3/2004	
2/3/2004	114.5421	4/4/2004	114.8846	6/4/2004	114.6139	8/4/2004	
2/4/2004	114.4924	4/5/2004	114.8733	6/5/2004	114.6161	8/5/2004	
2/5/2004	114.4623	4/6/2004	114.883	6/6/2004	114.6014	8/6/2004	
2/6/2004	114.5565	4/7/2004	114.9066	6/7/2004	114.5885	8/7/2004	
2/7/2004	114.5396	4/8/2004	114.9093	6/8/2004	114.5672	8/8/2004	
2/8/2004	114.4736	4/9/2004	114.8743	6/9/2004	114.5627	8/9/2004	
2/9/2004	114.508	4/10/2004	114.8617	6/10/2004	114.5363	8/10/2004	
2/10/2004	114.506	4/11/2004	114.8397	6/11/2004	114.5185	8/11/2004	
2/11/2004	114.4705	4/12/2004	114.8272	6/12/2004	114.4781	8/12/2004	
2/12/2004	114.4825	4/13/2004	114.8935	6/13/2004	114.488	8/13/2004	
2/13/2004	114.5088	4/14/2004	114.9338	6/14/2004	114.4844	8/14/2004	
2/14/2004	114.4778	4/15/2004	114.9023	6/15/2004	114.4572	8/15/2004	
2/15/2004	114.4233	4/16/2004	114.9123	6/16/2004	114.4294	8/16/2004	
2/16/2004	114.4096	4/17/2004	114.9391	6/17/2004	114.4359	8/17/2004	
2/17/2004	114.4316	4/18/2004	114.9341	6/18/2004	114.4253	8/18/2004	
2/18/2004	114.4548	4/19/2004	114.9737	6/19/2004	114.3897	8/19/2004	
2/19/2004	114.4624	4/20/2004	114.92	6/20/2004	114.3581	8/20/2004	
2/20/2004	114.4699	4/21/2004	114.9617	6/21/2004	114.3599	8/21/2004	
2/21/2004	114.4843	4/22/2004	114.9192	6/22/2004	114.357	8/22/2004	
2/22/2004	114.4007	4/23/2004	114.9086	6/23/2004	114.3107	8/23/2004	
2/23/2004	114.4035	4/24/2004	114.8795	6/24/2004	114.3019	8/24/2004	
2/24/2004	114.4207	4/25/2004	114.8988	6/25/2004	114.2673	8/25/2004	
2/25/2004	114.4409	4/26/2004	114.927	6/26/2004	114.2786	8/26/2004	
2/26/2004	114.3495	4/27/2004	114.912	6/27/2004	114.2573	8/27/2004	
2/27/2004	114.3653	4/28/2004	114.8446	6/28/2004	114.2427	8/28/2004	
2/28/2004	114.3548	4/29/2004	114.8407	6/29/2004	114.2345	8/29/2004	
2/29/2004	114.3571	4/30/2004	114.8159	6/30/2004	114.1968	8/30/2004	
3/1/2004	114.4257	5/1/2004	114.813	7/1/2004	114.2025	8/31/2004	

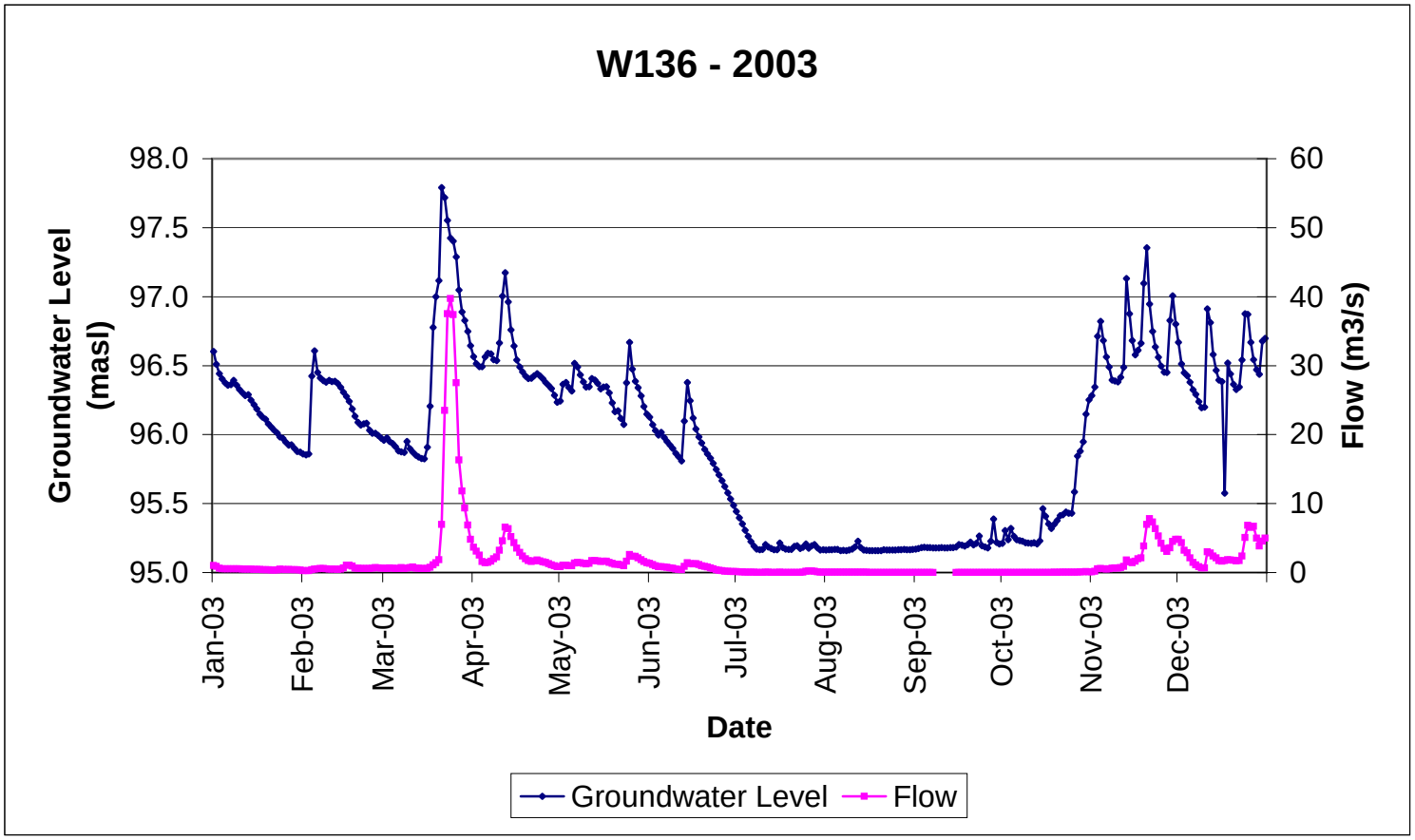
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/1/2004		10/2/2004		11/2/2004		12/3/2004	
9/2/2004		10/3/2004		11/3/2004		12/4/2004	
9/3/2004		10/4/2004		11/4/2004		12/5/2004	
9/4/2004		10/5/2004		11/5/2004		12/6/2004	
9/5/2004		10/6/2004		11/6/2004		12/7/2004	
9/6/2004		10/7/2004		11/7/2004		12/8/2004	
9/7/2004		10/8/2004		11/8/2004		12/9/2004	
9/8/2004		10/9/2004		11/9/2004		12/10/2004	
9/9/2004		10/10/2004		11/10/2004		12/11/2004	
9/10/2004		10/11/2004		11/11/2004		12/12/2004	
9/11/2004		10/12/2004		11/12/2004		12/13/2004	
9/12/2004		10/13/2004		11/13/2004		12/14/2004	
9/13/2004		10/14/2004		11/14/2004		12/15/2004	
9/14/2004		10/15/2004		11/15/2004		12/16/2004	
9/15/2004		10/16/2004		11/16/2004		12/17/2004	
9/16/2004		10/17/2004		11/17/2004		12/18/2004	
9/17/2004		10/18/2004		11/18/2004		12/19/2004	
9/18/2004		10/19/2004		11/19/2004		12/20/2004	
9/19/2004		10/20/2004		11/20/2004		12/21/2004	
9/20/2004		10/21/2004		11/21/2004		12/22/2004	
9/21/2004		10/22/2004		11/22/2004		12/23/2004	
9/22/2004		10/23/2004		11/23/2004		12/24/2004	
9/23/2004		10/24/2004		11/24/2004		12/25/2004	
9/24/2004		10/25/2004		11/25/2004		12/26/2004	
9/25/2004		10/26/2004		11/26/2004		12/27/2004	
9/26/2004		10/27/2004		11/27/2004		12/28/2004	
9/27/2004		10/28/2004		11/28/2004		12/29/2004	
9/28/2004		10/29/2004		11/29/2004		12/30/2004	
9/29/2004		10/30/2004		11/30/2004		12/31/2004	
9/30/2004		10/31/2004		12/1/2004			
10/1/2004		11/1/2004		12/2/2004			



2003 Groundwater Level and Flow for W136

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	96.60	1.00	3-Mar	95.95	0.66	3-May	96.38	1.08	3-Jul	95.35	0.08
2-Jan	96.51	0.90	4-Mar	95.94	0.61	4-May	96.34	0.99	4-Jul	95.31	0.06
3-Jan	96.44	0.60	5-Mar	95.91	0.59	5-May	96.32	0.95	5-Jul	95.26	0.05
4-Jan	96.40	0.54	6-Mar	95.88	0.59	6-May	96.52	1.37	6-Jul	95.22	0.04
5-Jan	96.38	0.52	7-Mar	95.88	0.70	7-May	96.49	1.47	7-Jul	95.19	0.03
6-Jan	96.36	0.52	8-Mar	95.87	0.60	8-May	96.43	1.41	8-Jul	95.17	0.02
7-Jan	96.36	0.51	9-Mar	95.95	0.62	9-May	96.38	1.34	9-Jul	95.17	0.02
8-Jan	96.39	0.52	10-Mar	95.90	0.73	10-May	96.34	1.25	10-Jul	95.17	0.01
9-Jan	96.36	0.52	11-Mar	95.87	0.80	11-May	96.35	1.31	11-Jul	95.20	0.03
10-Jan	96.33	0.51	12-Mar	95.85	0.62	12-May	96.41	1.70	12-Jul	95.19	0.02
11-Jan	96.30	0.50	13-Mar	95.84	0.61	13-May	96.39	1.71	13-Jul	95.18	0.02
12-Jan	96.28	0.50	14-Mar	95.83	0.60	14-May	96.37	1.68	14-Jul	95.17	0.01
13-Jan	96.29	0.49	15-Mar	95.82	0.56	15-May	96.33	1.59	15-Jul	95.17	0.01
14-Jan	96.25	0.47	16-Mar	95.91	0.57	16-May	96.35	1.63	16-Jul	95.21	0.03
15-Jan	96.22	0.46	17-Mar	96.21	0.73	17-May	96.35	1.61	17-Jul	95.18	0.02
16-Jan	96.19	0.44	18-Mar	96.78	1.09	18-May	96.30	1.45	18-Jul	95.17	0.01
17-Jan	96.15	0.43	19-Mar	97.00	1.42	19-May	96.23	1.32	19-Jul	95.17	0.01
18-Jan	96.13	0.41	20-Mar	97.12	1.85	20-May	96.17	1.20	20-Jul	95.17	0.01
19-Jan	96.11	0.40	21-Mar	97.79	6.95	21-May	96.17	1.20	21-Jul	95.19	0.01
20-Jan	96.08	0.38	22-Mar	97.72	23.50	22-May	96.12	1.09	22-Jul	95.19	0.01
21-Jan	96.05	0.35	23-Mar	97.55	37.50	23-May	96.07	0.97	23-Jul	95.18	0.01
22-Jan	96.03	0.35	24-Mar	97.42	39.70	24-May	96.38	1.61	24-Jul	95.18	0.05
23-Jan	96.01	0.37	25-Mar	97.40	37.40	25-May	96.67	2.60	25-Jul	95.21	0.16
24-Jan	95.98	0.47	26-Mar	97.29	27.50	26-May	96.47	2.35	26-Jul	95.18	0.23
25-Jan	95.97	0.44	27-Mar	97.05	16.30	27-May	96.39	2.32	27-Jul	95.19	0.22
26-Jan	95.95	0.39	28-Mar	96.89	11.80	28-May	96.34	2.10	28-Jul	95.20	0.16
27-Jan	95.92	0.45	29-Mar	96.83	9.34	29-May	96.28	1.83	29-Jul	95.18	0.10
28-Jan	95.93	0.42	30-Mar	96.75	6.86	30-May	96.20	1.58	30-Jul	95.16	0.06
29-Jan	95.90	0.40	31-Mar	96.65	4.81	31-May	96.15	1.40	31-Jul	95.16	0.04
30-Jan	95.88	0.38	1-Apr	96.57	3.66	1-Jun	96.13	1.32	1-Aug	95.16	0.04
31-Jan	95.87	0.37	2-Apr	96.51	3.08	2-Jun	96.07	1.14	2-Aug	95.16	0.03
1-Feb	95.86	0.28	3-Apr	96.49	2.52	3-Jun	96.03	0.98	3-Aug	95.16	0.05
2-Feb	95.85	0.26	4-Apr	96.49	1.60	4-Jun	96.00	0.85	4-Aug	95.17	0.05
3-Feb	95.86	0.26	5-Apr	96.56	1.40	5-Jun	96.02	0.84	5-Aug	95.17	0.04
4-Feb	96.42	0.42	6-Apr	96.59	1.45	6-Jun	95.98	0.81	6-Aug	95.16	0.03
5-Feb	96.61	0.50	7-Apr	96.59	1.65	7-Jun	95.95	0.73	7-Aug	95.16	0.03
6-Feb	96.45	0.53	8-Apr	96.54	2.00	8-Jun	95.92	0.66	8-Aug	95.16	0.03
7-Feb	96.41	0.59	9-Apr	96.54	2.25	9-Jun	95.90	0.60	9-Aug	95.16	0.02
8-Feb	96.39	0.56	10-Apr	96.66	3.20	10-Jun	95.86	0.51	10-Aug	95.17	0.03
9-Feb	96.38	0.53	11-Apr	97.00	4.60	11-Jun	95.84	0.45	11-Aug	95.18	0.03
10-Feb	96.39	0.51	12-Apr	97.17	6.58	12-Jun	95.81	0.39	12-Aug	95.23	0.04
11-Feb	96.38	0.49	13-Apr	96.96	6.34	13-Jun	96.10	0.90	13-Aug	95.18	0.04
12-Feb	96.39	0.47	14-Apr	96.76	5.22	14-Jun	96.38	1.39	14-Aug	95.16	0.03
13-Feb	96.37	0.46	15-Apr	96.64	4.32	15-Jun	96.24	1.27	15-Aug	95.16	0.03
14-Feb	96.34	0.48	16-Apr	96.54	3.51	16-Jun	96.12	1.25	16-Aug	95.16	0.02
15-Feb	96.31	0.65	17-Apr	96.49	2.89	17-Jun	96.04	1.26	17-Aug	95.16	0.02
16-Feb	96.28	1.05	18-Apr	96.46	2.36	18-Jun	95.98	1.13	18-Aug	95.16	0.01
17-Feb	96.24	1.07	19-Apr	96.42	2.00	19-Jun	95.94	0.99	19-Aug	95.16	0.01
18-Feb	96.19	0.94	20-Apr	96.41	1.71	20-Jun	95.89	0.89	20-Aug	95.16	0.01
19-Feb	96.13	0.63	21-Apr	96.41	1.58	21-Jun	95.86	0.77	21-Aug	95.16	0.01
20-Feb	96.09	0.60	22-Apr	96.43	1.69	22-Jun	95.83	0.66	22-Aug	95.16	0.00
21-Feb	96.07	0.59	23-Apr	96.44	1.80	23-Jun	95.79	0.53	23-Aug	95.16	0.00
22-Feb	96.08	0.57	24-Apr	96.43	1.69	24-Jun	95.75	0.42	24-Aug	95.16	0.00
23-Feb	96.08	0.56	25-Apr	96.40	1.56	25-Jun	95.71	0.32	25-Aug	95.16	0.00
24-Feb	96.03	0.57	26-Apr	96.38	1.45	26-Jun	95.66	0.25	26-Aug	95.16	0.00
25-Feb	96.01	0.62	27-Apr	96.36	1.27	27-Jun	95.62	0.20	27-Aug	95.16	0.00
26-Feb	96.01	0.72	28-Apr	96.33	1.12	28-Jun	95.58	0.16	28-Aug	95.17	0.00
27-Feb	95.99	0.65	29-Apr	96.28	0.97	29-Jun	95.53	0.15	29-Aug	95.17	0.00
28-Feb	95.97	0.62	30-Apr	96.23	0.84	30-Jun	95.49	0.13	30-Aug	95.17	0.00
1-Mar	95.96	0.60	1-May	96.24	0.84	1-Jul	95.44	0.12	31-Aug	95.17	0.00
2-Mar	95.98	0.59	2-May	96.36	1.04	2-Jul	95.40	0.09	1-Sep	95.17	0.00

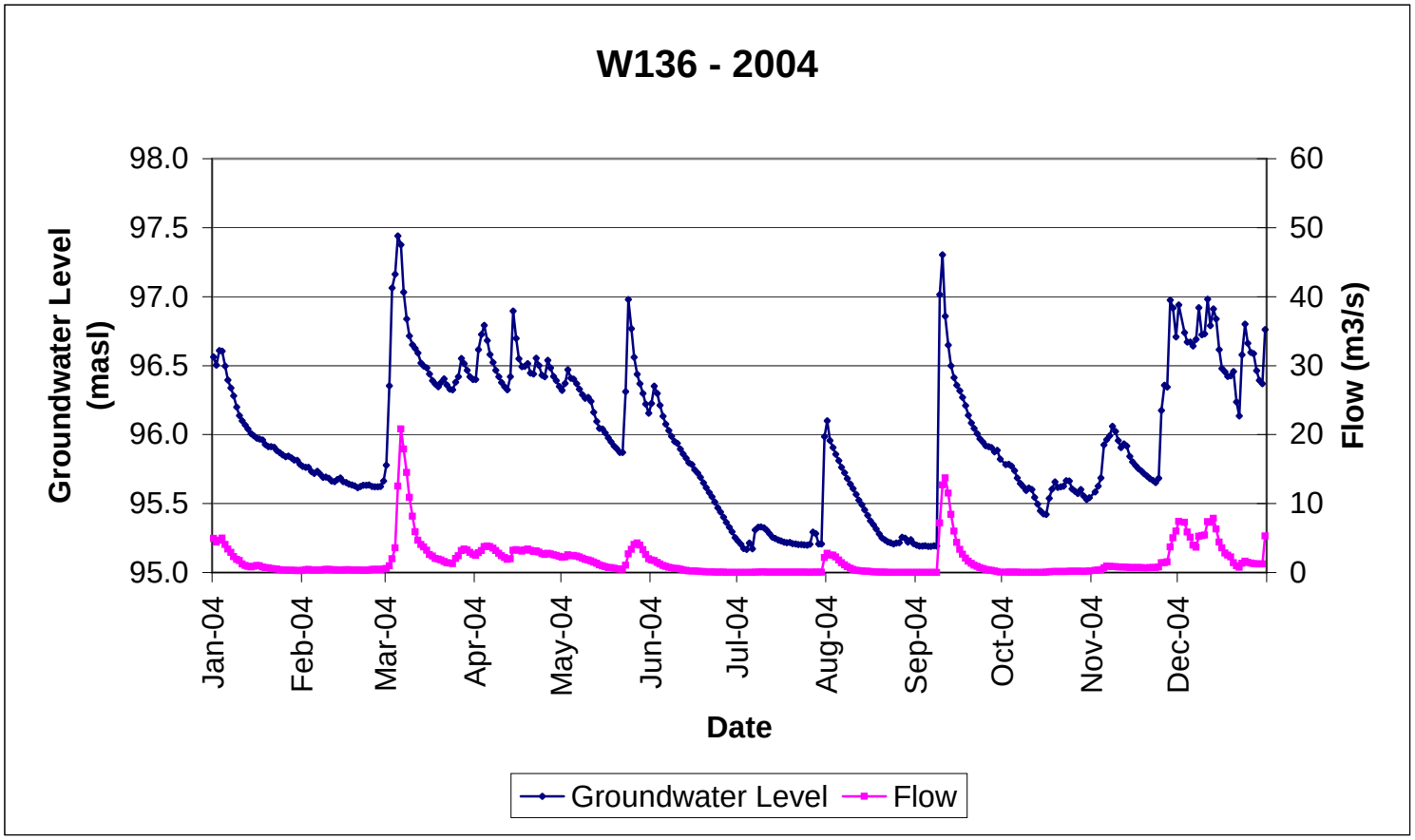
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	95.17	0.00	2-Oct	95.30	0.00	1-Nov	96.28	0.09	1-Dec	96.67	4.81
3-Sep	95.18	0.00	3-Oct	95.24	0.00	2-Nov	96.35	0.18	2-Dec	96.51	4.31
4-Sep	95.18	0.00	4-Oct	95.32	0.00	3-Nov	96.71	0.51	3-Dec	96.45	3.20
5-Sep	95.18	0.00	5-Oct	95.26	0.00	4-Nov	96.82	0.55	4-Dec	96.43	2.87
6-Sep	95.18	0.00	6-Oct	95.24	0.00	5-Nov	96.68	0.52	5-Dec	96.38	2.10
7-Sep	95.18	0.00	7-Oct	95.23	0.00	6-Nov	96.56	0.47	6-Dec	96.33	1.45
8-Sep	95.18		8-Oct	95.23	0.00	7-Nov	96.49	0.51	7-Dec	96.29	1.10
9-Sep	95.18		9-Oct	95.22	0.00	8-Nov	96.39	0.62	8-Dec	96.24	0.85
10-Sep	95.18		10-Oct	95.21	0.00	9-Nov	96.39	0.65	9-Dec	96.19	0.68
11-Sep	95.18		11-Oct	95.21	0.00	10-Nov	96.38	0.63	10-Dec	96.20	0.66
12-Sep	95.18		12-Oct	95.22	0.00	11-Nov	96.41	0.69	11-Dec	96.91	2.99
13-Sep	95.18		13-Oct	95.21	0.00	12-Nov	96.49	0.90	12-Dec	96.81	2.80
14-Sep	95.18		14-Oct	95.23	0.00	13-Nov	97.13	1.79	13-Dec	96.58	2.40
15-Sep	95.18	0.00	15-Oct	95.46	0.02	14-Nov	96.88	1.53	14-Dec	96.47	2.10
16-Sep	95.20	0.00	16-Oct	95.41	0.02	15-Nov	96.68	1.43	15-Dec	96.40	1.73
17-Sep	95.20	0.00	17-Oct	95.35	0.02	16-Nov	96.58	1.65	16-Dec	96.38	1.63
18-Sep	95.19	0.00	18-Oct	95.32	0.02	17-Nov	96.61	1.97	17-Dec	95.58	1.73
19-Sep	95.20	0.00	19-Oct	95.35	0.03	18-Nov	96.66	2.10	18-Dec	96.52	1.83
20-Sep	95.22	0.00	20-Oct	95.38	0.02	19-Nov	97.10	3.85	19-Dec	96.44	1.82
21-Sep	95.20	0.00	21-Oct	95.41	0.03	20-Nov	97.35	6.98	20-Dec	96.36	1.75
22-Sep	95.21	0.00	22-Oct	95.42	0.03	21-Nov	96.95	7.80	21-Dec	96.33	1.66
23-Sep	95.27	0.00	23-Oct	95.44	0.03	22-Nov	96.75	7.31	22-Dec	96.34	1.74
24-Sep	95.19	0.00	24-Oct	95.43	0.03	23-Nov	96.63	6.35	23-Dec	96.54	2.37
25-Sep	95.19	0.00	25-Oct	95.43	0.03	24-Nov	96.56	5.30	24-Dec	96.88	5.08
26-Sep	95.18	0.00	26-Oct	95.58	0.05	25-Nov	96.50	4.23	25-Dec	96.87	6.83
27-Sep	95.23	0.00	27-Oct	95.84	0.06	26-Nov	96.45	3.50	26-Dec	96.67	6.53
28-Sep	95.39	0.00	28-Oct	95.88	0.07	27-Nov	96.45	3.05	27-Dec	96.54	6.70
29-Sep	95.22	0.00	29-Oct	95.95	0.10	28-Nov	96.83	3.56	28-Dec	96.47	4.97
30-Sep	95.21	0.00	30-Oct	96.15	0.13	29-Nov	97.01	4.48	29-Dec	96.44	3.85
1-Oct	95.21	0.00	31-Oct	96.25	0.10	30-Nov	96.80	4.80	30-Dec	96.68	4.54
									31-Dec	96.70	4.98



2004 Groundwater Level and Flow for W136

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	96.56	4.92	2-Mar	96.35	0.95	2-May	96.37	2.25	2-Jul	95.21	0.01
2-Jan	96.50	4.41	3-Mar	97.06	1.97	3-May	96.47	2.57	3-Jul	95.17	0.01
3-Jan	96.61	4.68	4-Mar	97.16	3.57	4-May	96.41	2.44	4-Jul	95.17	0.01
4-Jan	96.60	4.96	5-Mar	97.44	12.50	5-May	96.40	2.47	5-Jul	95.21	0.02
5-Jan	96.50	4.05	6-Mar	97.38	20.80	6-May	96.37	2.39	6-Jul	95.17	0.02
6-Jan	96.40	3.40	7-Mar	97.03	17.90	7-May	96.33	2.25	7-Jul	95.31	0.03
7-Jan	96.34	2.90	8-Mar	96.84	14.50	8-May	96.29	2.06	8-Jul	95.33	0.05
8-Jan	96.28	2.30	9-Mar	96.71	10.90	9-May	96.26	1.89	9-Jul	95.33	0.08
9-Jan	96.20	1.90	10-Mar	96.65	8.17	10-May	96.27	1.82	10-Jul	95.32	0.08
10-Jan	96.14	1.70	11-Mar	96.62	5.90	11-May	96.24	1.69	11-Jul	95.31	0.06
11-Jan	96.10	1.23	12-Mar	96.59	4.68	12-May	96.16	1.49	12-Jul	95.28	0.05
12-Jan	96.07	1.02	13-Mar	96.52	4.07	13-May	96.10	1.32	13-Jul	95.26	0.04
13-Jan	96.04	0.86	14-Mar	96.50	3.70	14-May	96.04	1.12	14-Jul	95.25	0.04
14-Jan	96.01	0.80	15-Mar	96.48	3.20	15-May	96.04	0.97	15-Jul	95.23	0.04
15-Jan	95.99	0.90	16-Mar	96.44	2.60	16-May	96.01	0.86	16-Jul	95.23	0.04
16-Jan	95.98	1.00	17-Mar	96.39	2.40	17-May	95.98	0.72	17-Jul	95.22	0.04
17-Jan	95.97	0.97	18-Mar	96.37	2.02	18-May	95.95	0.68	18-Jul	95.22	0.05
18-Jan	95.96	0.78	19-Mar	96.35	1.95	19-May	95.92	0.63	19-Jul	95.22	0.05
19-Jan	95.93	0.73	20-Mar	96.38	1.80	20-May	95.90	0.55	20-Jul	95.21	0.04
20-Jan	95.91	0.65	21-Mar	96.40	1.60	21-May	95.87	0.49	21-Jul	95.21	0.04
21-Jan	95.91	0.58	22-Mar	96.36	1.42	22-May	95.87	0.48	22-Jul	95.20	0.03
22-Jan	95.91	0.54	23-Mar	96.33	1.35	23-May	96.31	1.04	23-Jul	95.20	0.04
23-Jan	95.88	0.47	24-Mar	96.32	1.30	24-May	96.98	2.69	24-Jul	95.20	0.04
24-Jan	95.87	0.41	25-Mar	96.38	2.01	25-May	96.77	3.36	25-Jul	95.20	0.03
25-Jan	95.85	0.37	26-Mar	96.42	2.43	26-May	96.56	4.07	26-Jul	95.20	0.02
26-Jan	95.84	0.34	27-Mar	96.55	3.18	27-May	96.44	4.28	27-Jul	95.29	0.04
27-Jan	95.84	0.32	28-Mar	96.51	3.41	28-May	96.37	3.96	28-Jul	95.28	0.04
28-Jan	95.83	0.30	29-Mar	96.46	3.28	29-May	96.30	3.32	29-Jul	95.21	0.03
29-Jan	95.82	0.29	30-Mar	96.42	2.93	30-May	96.22	2.60	30-Jul	95.21	0.04
30-Jan	95.81	0.29	31-Mar	96.40	2.64	31-May	96.16	2.00	31-Jul	95.98	2.16
31-Jan	95.78	0.28	1-Apr	96.40	2.49	1-Jun	96.23	1.79	1-Aug	96.10	2.77
1-Feb	95.77	0.32	2-Apr	96.62	2.86	2-Jun	96.35	1.74	2-Aug	95.96	2.53
2-Feb	95.76	0.39	3-Apr	96.73	3.18	3-Jun	96.30	1.47	3-Aug	95.91	2.50
3-Feb	95.76	0.42	4-Apr	96.79	3.74	4-Jun	96.21	1.22	4-Aug	95.86	2.27
4-Feb	95.73	0.35	5-Apr	96.68	3.82	5-Jun	96.13	1.02	5-Aug	95.81	1.82
5-Feb	95.72	0.34	6-Apr	96.58	3.75	6-Jun	96.08	0.87	6-Aug	95.76	1.42
6-Feb	95.73	0.35	7-Apr	96.52	3.53	7-Jun	96.03	0.75	7-Aug	95.72	1.09
7-Feb	95.71	0.36	8-Apr	96.47	3.17	8-Jun	95.99	0.65	8-Aug	95.68	0.83
8-Feb	95.69	0.39	9-Apr	96.42	2.79	9-Jun	95.95	0.56	9-Aug	95.64	0.62
9-Feb	95.69	0.43	10-Apr	96.38	2.44	10-Jun	95.94	0.56	10-Aug	95.61	0.44
10-Feb	95.68	0.45	11-Apr	96.35	2.14	11-Jun	95.89	0.48	11-Aug	95.57	0.33
11-Feb	95.66	0.39	12-Apr	96.32	1.89	12-Jun	95.86	0.37	12-Aug	95.53	0.25
12-Feb	95.66	0.38	13-Apr	96.42	1.99	13-Jun	95.83	0.29	13-Aug	95.49	0.20
13-Feb	95.67	0.37	14-Apr	96.90	3.20	14-Jun	95.80	0.23	14-Aug	95.45	0.18
14-Feb	95.68	0.36	15-Apr	96.70	3.31	15-Jun	95.78	0.24	15-Aug	95.42	0.16
15-Feb	95.66	0.35	16-Apr	96.55	3.23	16-Jun	95.75	0.21	16-Aug	95.38	0.13
16-Feb	95.65	0.40	17-Apr	96.49	3.10	17-Jun	95.72	0.19	17-Aug	95.35	0.10
17-Feb	95.64	0.40	18-Apr	96.49	3.25	18-Jun	95.69	0.15	18-Aug	95.32	0.07
18-Feb	95.63	0.37	19-Apr	96.51	3.38	19-Jun	95.65	0.12	19-Aug	95.28	0.06
19-Feb	95.63	0.36	20-Apr	96.45	3.22	20-Jun	95.61	0.09	20-Aug	95.25	0.05
20-Feb	95.61	0.36	21-Apr	96.44	3.02	21-Jun	95.58	0.08	21-Aug	95.23	0.04
21-Feb	95.62	0.34	22-Apr	96.56	3.11	22-Jun	95.55	0.07	22-Aug	95.22	0.02
22-Feb	95.63	0.33	23-Apr	96.50	2.94	23-Jun	95.51	0.06	23-Aug	95.22	0.01
23-Feb	95.63	0.32	24-Apr	96.43	2.75	24-Jun	95.47	0.04	24-Aug	95.21	0.01
24-Feb	95.63	0.36	25-Apr	96.42	2.58	25-Jun	95.44	0.04	25-Aug	95.21	0.01
25-Feb	95.62	0.42	26-Apr	96.54	2.77	26-Jun	95.40	0.02	26-Aug	95.22	0.00
26-Feb	95.62	0.44	27-Apr	96.48	2.67	27-Jun	95.36	0.02	27-Aug	95.26	0.01
27-Feb	95.62	0.44	28-Apr	96.42	2.55	28-Jun	95.33	0.02	28-Aug	95.25	0.01
28-Feb	95.62	0.45	29-Apr	96.39	2.48	29-Jun	95.30	0.02	29-Aug	95.22	0.01
29-Feb	95.66	0.49	30-Apr	96.35	2.33	30-Jun	95.25	0.02	30-Aug	95.24	0.02
1-Mar	95.78	0.55	1-May	96.32	2.21	1-Jul	95.23	0.01	31-Aug	95.21	0.02

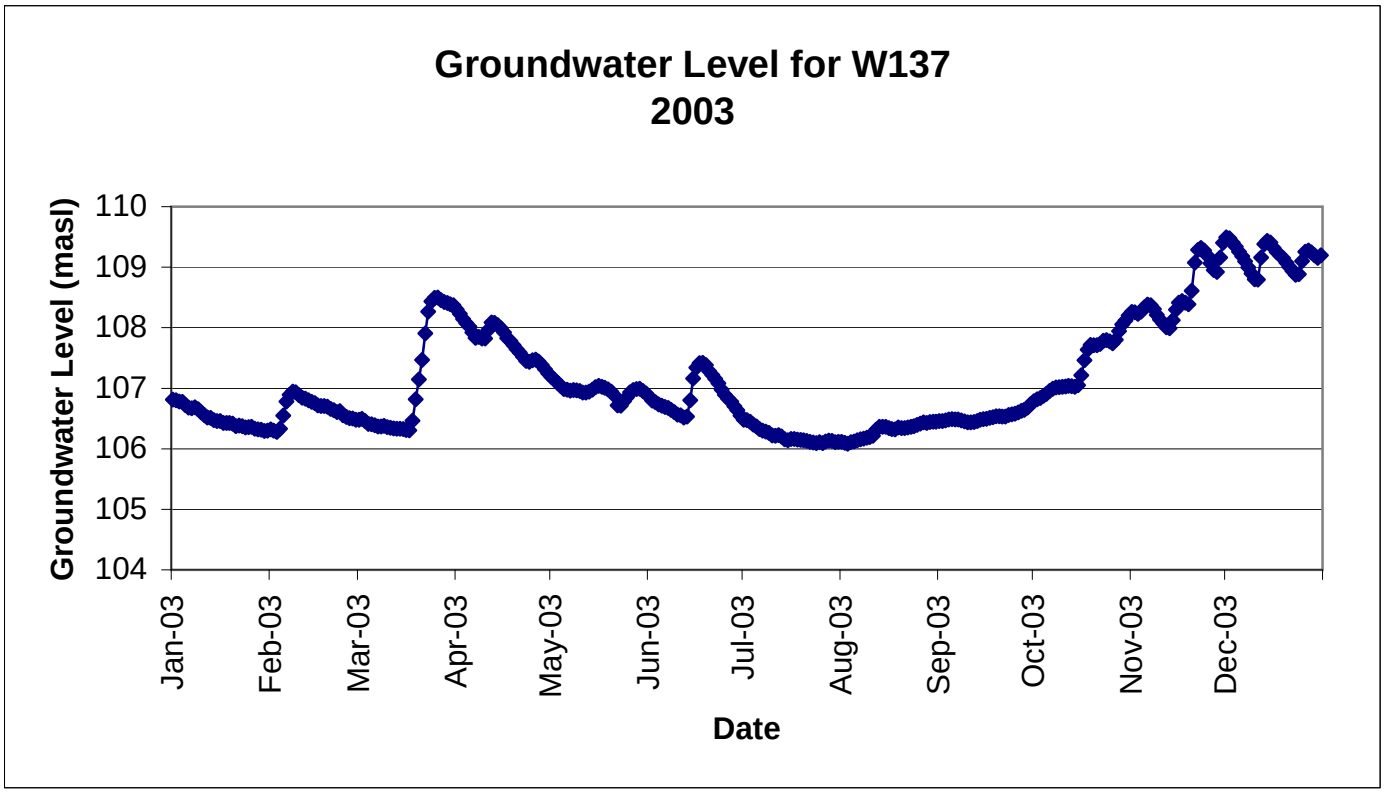
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	95.20	0.02	2-Oct	95.78	0.04	2-Nov	95.59	0.32	3-Dec	96.74	7.26
2-Sep	95.19	0.02	3-Oct	95.78	0.03	3-Nov	95.63	0.36	4-Dec	96.67	5.86
3-Sep	95.19	0.02	4-Oct	95.77	0.03	4-Nov	95.69	0.40	5-Dec	96.67	5.11
4-Sep	95.19	0.02	5-Oct	95.74	0.03	5-Nov	95.92	0.66	6-Dec	96.64	3.97
5-Sep	95.19	0.02	6-Oct	95.69	0.02	6-Nov	95.96	0.92	7-Dec	96.69	3.64
6-Sep	95.19	0.01	7-Oct	95.65	0.02	7-Nov	95.99	0.89	8-Dec	96.92	5.26
7-Sep	95.19	0.01	8-Oct	95.62	0.02	8-Nov	96.06	0.85	9-Dec	96.72	5.32
8-Sep	95.19	0.01	9-Oct	95.59	0.02	9-Nov	96.02	0.82	10-Dec	96.73	5.43
9-Sep	97.01	7.20	10-Oct	95.61	0.02	10-Nov	95.96	0.80	11-Dec	96.98	7.36
10-Sep	97.30	12.70	11-Oct	95.60	0.02	11-Nov	95.91	0.79	12-Dec	96.79	7.28
11-Sep	96.86	13.70	12-Oct	95.54	0.02	12-Nov	95.93	0.78	13-Dec	96.91	7.83
12-Sep	96.65	11.50	13-Oct	95.50	0.02	13-Nov	95.92	0.75	14-Dec	96.84	6.30
13-Sep	96.50	8.42	14-Oct	95.45	0.01	14-Nov	95.84	0.71	15-Dec	96.62	4.40
14-Sep	96.41	5.99	15-Oct	95.43	0.02	15-Nov	95.80	0.71	16-Dec	96.48	3.58
15-Sep	96.36	4.36	16-Oct	95.42	0.03	16-Nov	95.78	0.70	17-Dec	96.46	2.80
16-Sep	96.32	3.33	17-Oct	95.54	0.10	17-Nov	95.75	0.70	18-Dec	96.42	2.50
17-Sep	96.27	2.64	18-Oct	95.60	0.14	18-Nov	95.74	0.69	19-Dec	96.43	2.25
18-Sep	96.21	2.08	19-Oct	95.66	0.12	19-Nov	95.72	0.68	20-Dec	96.46	1.40
19-Sep	96.14	1.65	20-Oct	95.62	0.11	20-Nov	95.70	0.67	21-Dec	96.24	0.95
20-Sep	96.08	1.34	21-Oct	95.62	0.13	21-Nov	95.68	0.71	22-Dec	96.13	0.76
21-Sep	96.05	1.08	22-Oct	95.63	0.15	22-Nov	95.67	0.71	23-Dec	96.58	1.34
22-Sep	96.01	0.88	23-Oct	95.66	0.15	23-Nov	95.65	0.69	24-Dec	96.80	1.63
23-Sep	95.97	0.69	24-Oct	95.66	0.16	24-Nov	95.68	0.80	25-Dec	96.66	1.44
24-Sep	95.95	0.56	25-Oct	95.61	0.18	25-Nov	96.18	1.39	26-Dec	96.60	1.35
25-Sep	95.92	0.45	26-Oct	95.59	0.18	26-Nov	96.36	1.40	27-Dec	96.59	1.28
26-Sep	95.91	0.36	27-Oct	95.57	0.18	27-Nov	96.35	1.56	28-Dec	96.46	1.24
27-Sep	95.91	0.30	28-Oct	95.60	0.17	28-Nov	96.98	3.72	29-Dec	96.39	1.23
28-Sep	95.87	0.23	29-Oct	95.56	0.15	29-Nov	96.92	5.02	30-Dec	96.37	1.23
29-Sep	95.89	0.14	30-Oct	95.53	0.17	30-Nov	96.71	6.00	31-Dec	96.76	5.29
30-Sep	95.82	0.07	31-Oct	95.54	0.23	1-Dec	96.94	7.41			
1-Oct	95.80	0.044	1-Nov	95.57	0.277	2-Dec	96.88	7.88			



2003 Groundwater Level for W137

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2003	106.812	3/3/2003	106.4564	5/3/2003	107.085	7/3/2003	106.4474
1/2/2003	106.7998	3/4/2003	106.409	5/4/2003	107.0407	7/4/2003	106.4023
1/3/2003	106.779	3/5/2003	106.4077	5/5/2003	106.9884	7/5/2003	106.3677
1/4/2003	106.7735	3/6/2003	106.3883	5/6/2003	106.9745	7/6/2003	106.3243
1/5/2003	106.7234	3/7/2003	106.3669	5/7/2003	106.9583	7/7/2003	106.2974
1/6/2003	106.6814	3/8/2003	106.3673	5/8/2003	106.9725	7/8/2003	106.2846
1/7/2003	106.6717	3/9/2003	106.3797	5/9/2003	106.9639	7/9/2003	106.263
1/8/2003	106.6835	3/10/2003	106.3578	5/10/2003	106.956	7/10/2003	106.2223
1/9/2003	106.6536	3/11/2003	106.346	5/11/2003	106.9312	7/11/2003	106.2158
1/10/2003	106.6	3/12/2003	106.3368	5/12/2003	106.9278	7/12/2003	106.2233
1/11/2003	106.5558	3/13/2003	106.3296	5/13/2003	106.9455	7/13/2003	106.2043
1/12/2003	106.5148	3/14/2003	106.3308	5/14/2003	106.978	7/14/2003	106.1573
1/13/2003	106.5112	3/15/2003	106.3285	5/15/2003	107.0167	7/15/2003	106.1427
1/14/2003	106.4714	3/16/2003	106.3117	5/16/2003	107.0389	7/16/2003	106.1605
1/15/2003	106.459	3/17/2003	106.3035	5/17/2003	107.0218	7/17/2003	106.1633
1/16/2003	106.4592	3/18/2003	106.461	5/18/2003	107.0066	7/18/2003	106.1523
1/17/2003	106.4261	3/19/2003	106.8201	5/19/2003	106.9827	7/19/2003	106.1486
1/18/2003	106.4273	3/20/2003	107.1438	5/20/2003	106.9461	7/20/2003	106.1426
1/19/2003	106.4256	3/21/2003	107.4676	5/21/2003	106.8801	7/21/2003	106.1323
1/20/2003	106.415	3/22/2003	107.9056	5/22/2003	106.7164	7/22/2003	106.1153
1/21/2003	106.3729	3/23/2003	108.2663	5/23/2003	106.7097	7/23/2003	106.1054
1/22/2003	106.3838	3/24/2003	108.4345	5/24/2003	106.7836	7/24/2003	106.0953
1/23/2003	106.371	3/25/2003	108.496	5/25/2003	106.8477	7/25/2003	106.1089
1/24/2003	106.3533	3/26/2003	108.5011	5/26/2003	106.9313	7/26/2003	106.0933
1/25/2003	106.3597	3/27/2003	108.4581	5/27/2003	106.9728	7/27/2003	106.1195
1/26/2003	106.3655	3/28/2003	108.4235	5/28/2003	106.9854	7/28/2003	106.1383
1/27/2003	106.3303	3/29/2003	108.4094	5/29/2003	106.9906	7/29/2003	106.13
1/28/2003	106.3224	3/30/2003	108.3892	5/30/2003	106.9525	7/30/2003	106.1109
1/29/2003	106.3134	3/31/2003	108.37	5/31/2003	106.9142	7/31/2003	106.1131
1/30/2003	106.2966	4/1/2003	108.3035	6/1/2003	106.866	8/1/2003	106.1152
1/31/2003	106.2981	4/2/2003	108.2274	6/2/2003	106.7967	8/2/2003	106.0981
2/1/2003	106.3218	4/3/2003	108.1434	6/3/2003	106.7715	8/3/2003	106.0838
2/2/2003	106.2989	4/4/2003	108.0759	6/4/2003	106.7322	8/4/2003	106.1069
2/3/2003	106.2793	4/5/2003	108.0171	6/5/2003	106.7136	8/5/2003	106.1211
2/4/2003	106.3315	4/6/2003	107.9202	6/6/2003	106.6892	8/6/2003	106.1411
2/5/2003	106.5504	4/7/2003	107.8346	6/7/2003	106.6762	8/7/2003	106.1565
2/6/2003	106.781	4/8/2003	107.8478	6/8/2003	106.6428	8/8/2003	106.1681
2/7/2003	106.8936	4/9/2003	107.8222	6/9/2003	106.6057	8/9/2003	106.1839
2/8/2003	106.9458	4/10/2003	107.8203	6/10/2003	106.5617	8/10/2003	106.193
2/9/2003	106.9341	4/11/2003	107.9663	6/11/2003	106.5537	8/11/2003	106.2172
2/10/2003	106.8843	4/12/2003	108.0852	6/12/2003	106.5175	8/12/2003	106.3174
2/11/2003	106.8458	4/13/2003	108.081	6/13/2003	106.5299	8/13/2003	106.3639
2/12/2003	106.8293	4/14/2003	108.0417	6/14/2003	106.8006	8/14/2003	106.3642
2/13/2003	106.8033	4/15/2003	107.989	6/15/2003	107.1614	8/15/2003	106.3608
2/14/2003	106.7735	4/16/2003	107.9215	6/16/2003	107.3423	8/16/2003	106.3436
2/15/2003	106.7544	4/17/2003	107.8259	6/17/2003	107.4136	8/17/2003	106.3234
2/16/2003	106.7161	4/18/2003	107.7773	6/18/2003	107.4215	8/18/2003	106.3224
2/17/2003	106.706	4/19/2003	107.71	6/19/2003	107.3859	8/19/2003	106.3533
2/18/2003	106.7082	4/20/2003	107.6468	6/20/2003	107.2849	8/20/2003	106.3434
2/19/2003	106.6983	4/21/2003	107.5878	6/21/2003	107.2192	8/21/2003	106.3422
2/20/2003	106.6584	4/22/2003	107.5205	6/22/2003	107.1567	8/22/2003	106.3529
2/21/2003	106.6388	4/23/2003	107.4544	6/23/2003	107.0828	8/23/2003	106.3647
2/22/2003	106.6085	4/24/2003	107.4358	6/24/2003	106.9755	8/24/2003	106.3725
2/23/2003	106.6203	4/25/2003	107.4607	6/25/2003	106.8928	8/25/2003	106.3951
2/24/2003	106.5541	4/26/2003	107.4734	6/26/2003	106.8266	8/26/2003	106.4174
2/25/2003	106.5263	4/27/2003	107.4408	6/27/2003	106.7787	8/27/2003	106.4365
2/26/2003	106.508	4/28/2003	107.382	6/28/2003	106.7001	8/28/2003	106.426
2/27/2003	106.5	4/29/2003	107.315	6/29/2003	106.6376	8/29/2003	106.44
2/28/2003	106.4797	4/30/2003	107.2442	6/30/2003	106.5456	8/30/2003	106.4468
3/1/2003	106.4784	5/1/2003	107.1895	7/1/2003	106.4771	8/31/2003	106.4482
3/2/2003	106.4931	5/2/2003	107.142	7/2/2003	106.473	9/1/2003	106.4572

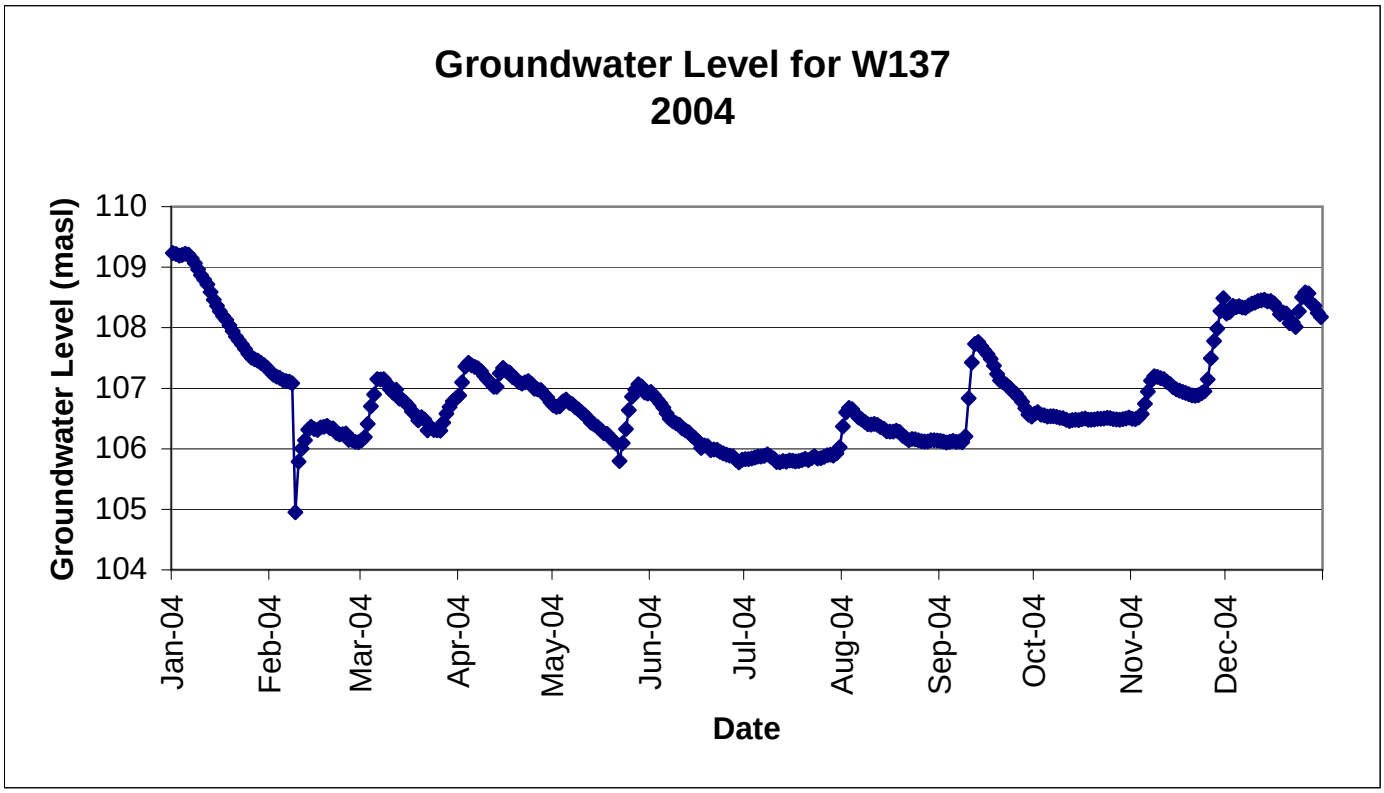
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/2/2003	106.457	10/2/2003	106.8199	11/1/2003	108.2616	12/1/2003	109.4919
9/3/2003	106.4696	10/3/2003	106.84	11/2/2003	108.2567	12/2/2003	109.4745
9/4/2003	106.4832	10/4/2003	106.874	11/3/2003	108.2294	12/3/2003	109.408
9/5/2003	106.4891	10/5/2003	106.9066	11/4/2003	108.2636	12/4/2003	109.34
9/6/2003	106.4844	10/6/2003	106.9537	11/5/2003	108.3357	12/5/2003	109.2559
9/7/2003	106.4866	10/7/2003	106.9938	11/6/2003	108.3818	12/6/2003	109.1788
9/8/2003	106.471	10/8/2003	107.0138	11/7/2003	108.3706	12/7/2003	109.0941
9/9/2003	106.452	10/9/2003	107.0178	11/8/2003	108.3063	12/8/2003	108.9957
9/10/2003	106.4375	10/10/2003	107.0225	11/9/2003	108.2137	12/9/2003	108.8957
9/11/2003	106.439	10/11/2003	107.0301	11/10/2003	108.1345	12/10/2003	108.7994
9/12/2003	106.4422	10/12/2003	107.041	11/11/2003	108.0729	12/11/2003	108.7931
9/13/2003	106.4584	10/13/2003	107.0336	11/12/2003	108.0071	12/12/2003	109.1602
9/14/2003	106.4771	10/14/2003	107.0238	11/13/2003	107.9931	12/13/2003	109.3827
9/15/2003	106.4876	10/15/2003	107.0483	11/14/2003	108.1233	12/14/2003	109.4352
9/16/2003	106.4973	10/16/2003	107.2139	11/15/2003	108.3002	12/15/2003	109.4057
9/17/2003	106.5088	10/17/2003	107.4621	11/16/2003	108.4141	12/16/2003	109.3178
9/18/2003	106.5203	10/18/2003	107.6356	11/17/2003	108.4391	12/17/2003	109.2471
9/19/2003	106.5396	10/19/2003	107.7142	11/18/2003	108.4142	12/18/2003	109.1944
9/20/2003	106.5399	10/20/2003	107.7091	11/19/2003	108.3857	12/19/2003	109.1466
9/21/2003	106.531	10/21/2003	107.7123	11/20/2003	108.6108	12/20/2003	109.0763
9/22/2003	106.5326	10/22/2003	107.7345	11/21/2003	109.0746	12/21/2003	109.0045
9/23/2003	106.5565	10/23/2003	107.7865	11/22/2003	109.2889	12/22/2003	108.9374
9/24/2003	106.5684	10/24/2003	107.7956	11/23/2003	109.3187	12/23/2003	108.8735
9/25/2003	106.5796	10/25/2003	107.7742	11/24/2003	109.2765	12/24/2003	108.8848
9/26/2003	106.5999	10/26/2003	107.7429	11/25/2003	109.1895	12/25/2003	109.0995
9/27/2003	106.628	10/27/2003	107.7998	11/26/2003	109.063	12/26/2003	109.2561
9/28/2003	106.645	10/28/2003	107.9445	11/27/2003	108.9533	12/27/2003	109.2745
9/29/2003	106.6795	10/29/2003	108.0521	11/28/2003	108.9208	12/28/2003	109.2428
9/30/2003	106.7368	10/30/2003	108.1171	11/29/2003	109.1608	12/29/2003	109.195
10/1/2003	106.7876	10/31/2003	108.2025	11/30/2003	109.4028	12/30/2003	109.1522
						12/31/2003	109.1945



2004 Groundwater Level for W137

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2004	109.2317	3/2/2004	106.1949	5/2/2004	106.6918	7/2/2004	105.8274
1/2/2004	109.2193	3/3/2004	106.4114	5/3/2004	106.7006	7/3/2004	105.8388
1/3/2004	109.1938	3/4/2004	106.6994	5/4/2004	106.783	7/4/2004	105.853
1/4/2004	109.2026	3/5/2004	106.8948	5/5/2004	106.814	7/5/2004	105.8708
1/5/2004	109.2237	3/6/2004	107.1526	5/6/2004	106.7607	7/6/2004	105.8693
1/6/2004	109.2064	3/7/2004	107.1438	5/7/2004	106.7374	7/7/2004	105.8816
1/7/2004	109.1442	3/8/2004	107.1508	5/8/2004	106.683	7/8/2004	105.9065
1/8/2004	109.0637	3/9/2004	107.0878	5/9/2004	106.6491	7/9/2004	105.8716
1/9/2004	108.9656	3/10/2004	106.9848	5/10/2004	106.5979	7/10/2004	105.8393
1/10/2004	108.8688	3/11/2004	106.9277	5/11/2004	106.5535	7/11/2004	105.7838
1/11/2004	108.7957	3/12/2004	106.9753	5/12/2004	106.4985	7/12/2004	105.7766
1/12/2004	108.7136	3/13/2004	106.8278	5/13/2004	106.4308	7/13/2004	105.7955
1/13/2004	108.5906	3/14/2004	106.8076	5/14/2004	106.3974	7/14/2004	105.7848
1/14/2004	108.4605	3/15/2004	106.7648	5/15/2004	106.3628	7/15/2004	105.8058
1/15/2004	108.3598	3/16/2004	106.7058	5/16/2004	106.3177	7/16/2004	105.8038
1/16/2004	108.2737	3/17/2004	106.6172	5/17/2004	106.2549	7/17/2004	105.793
1/17/2004	108.1905	3/18/2004	106.5728	5/18/2004	106.2466	7/18/2004	105.7955
1/18/2004	108.128	3/19/2004	106.4701	5/19/2004	106.1883	7/19/2004	105.8132
1/19/2004	108.0411	3/20/2004	106.5202	5/20/2004	106.1413	7/20/2004	105.8326
1/20/2004	107.9443	3/21/2004	106.4859	5/21/2004	106.0838	7/21/2004	105.8129
1/21/2004	107.8562	3/22/2004	106.3055	5/22/2004	105.7992	7/22/2004	105.8446
1/22/2004	107.7886	3/23/2004	106.3575	5/23/2004	106.0939	7/23/2004	105.8787
1/23/2004	107.7239	3/24/2004	106.3098	5/24/2004	106.3286	7/24/2004	105.8405
1/24/2004	107.6468	3/25/2004	106.3042	5/25/2004	106.6363	7/25/2004	105.8471
1/25/2004	107.5689	3/26/2004	106.2995	5/26/2004	106.8608	7/26/2004	105.865
1/26/2004	107.5054	3/27/2004	106.431	5/27/2004	106.9754	7/27/2004	105.8944
1/27/2004	107.4801	3/28/2004	106.5823	5/28/2004	107.0658	7/28/2004	105.9054
1/28/2004	107.457	3/29/2004	106.6891	5/29/2004	107.028	7/29/2004	105.8882
1/29/2004	107.4192	3/30/2004	106.7873	5/30/2004	106.9307	7/30/2004	105.9224
1/30/2004	107.3816	3/31/2004	106.8331	5/31/2004	106.9117	7/31/2004	106.025
1/31/2004	107.3334	4/1/2004	106.8792	6/1/2004	106.9397	8/1/2004	106.3658
2/1/2004	107.2747	4/2/2004	107.0968	6/2/2004	106.8814	8/2/2004	106.5996
2/2/2004	107.2246	4/3/2004	107.3575	6/3/2004	106.8097	8/3/2004	106.6733
2/3/2004	107.1952	4/4/2004	107.4214	6/4/2004	106.7472	8/4/2004	106.6522
2/4/2004	107.1717	4/5/2004	107.3789	6/5/2004	106.6786	8/5/2004	106.5799
2/5/2004	107.134	4/6/2004	107.35	6/6/2004	106.5848	8/6/2004	106.5186
2/6/2004	107.1164	4/7/2004	107.3302	6/7/2004	106.4939	8/7/2004	106.4835
2/7/2004	107.1107	4/8/2004	107.2803	6/8/2004	106.4503	8/8/2004	106.4437
2/8/2004	107.0823	4/9/2004	107.2061	6/9/2004	106.4215	8/9/2004	106.4058
2/9/2004	104.9503	4/10/2004	107.1376	6/10/2004	106.3928	8/10/2004	106.4026
2/10/2004	105.7888	4/11/2004	107.0906	6/11/2004	106.3358	8/11/2004	106.4127
2/11/2004	106.0021	4/12/2004	107.0249	6/12/2004	106.3065	8/12/2004	106.3936
2/12/2004	106.1413	4/13/2004	107.0213	6/13/2004	106.2705	8/13/2004	106.3603
2/13/2004	106.3161	4/14/2004	107.2478	6/14/2004	106.2137	8/14/2004	106.329
2/14/2004	106.361	4/15/2004	107.3381	6/15/2004	106.1748	8/15/2004	106.2892
2/15/2004	106.3258	4/16/2004	107.2848	6/16/2004	106.1181	8/16/2004	106.2841
2/16/2004	106.309	4/17/2004	107.2633	6/17/2004	106.0128	8/17/2004	106.2838
2/17/2004	106.3529	4/18/2004	107.1838	6/18/2004	106.0577	8/18/2004	106.3008
2/18/2004	106.362	4/19/2004	107.161	6/19/2004	106.047	8/19/2004	106.2791
2/19/2004	106.3776	4/20/2004	107.1054	6/20/2004	105.9756	8/20/2004	106.2128
2/20/2004	106.3403	4/21/2004	107.0774	6/21/2004	105.9893	8/21/2004	106.182
2/21/2004	106.334	4/22/2004	107.099	6/22/2004	105.9816	8/22/2004	106.1418
2/22/2004	106.2623	4/23/2004	107.1183	6/23/2004	105.949	8/23/2004	106.163
2/23/2004	106.2363	4/24/2004	107.072	6/24/2004	105.9256	8/24/2004	106.1548
2/24/2004	106.2411	4/25/2004	106.9943	6/25/2004	105.902	8/25/2004	106.1432
2/25/2004	106.254	4/26/2004	106.9825	6/26/2004	105.8871	8/26/2004	106.1246
2/26/2004	106.1449	4/27/2004	106.9726	6/27/2004	105.8744	8/27/2004	106.1211
2/27/2004	106.1438	4/28/2004	106.9041	6/28/2004	105.8211	8/28/2004	106.1206
2/28/2004	106.1136	4/29/2004	106.8513	6/29/2004	105.7763	8/29/2004	106.1385
2/29/2004	106.1069	4/30/2004	106.7693	6/30/2004	105.817	8/30/2004	106.1415
3/1/2004	106.1388	5/1/2004	106.7166	7/1/2004	105.8317	8/31/2004	106.1337

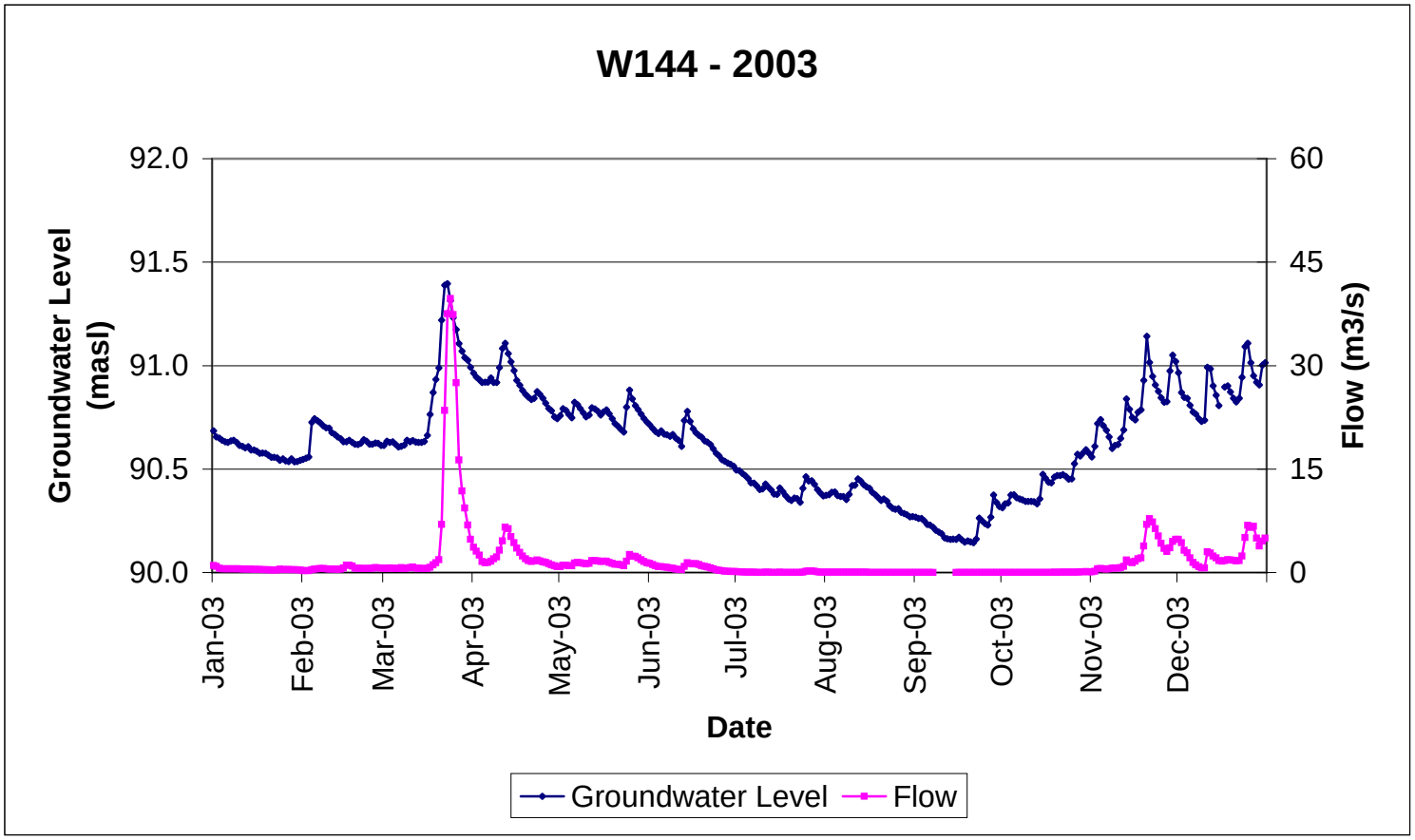
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/1/2004	106.1318	10/2/2004	106.6071	11/2/2004	106.4888	12/3/2004	108.3638
9/2/2004	106.1193	10/3/2004	106.5652	11/3/2004	106.5166	12/4/2004	108.3409
9/3/2004	106.1063	10/4/2004	106.554	11/4/2004	106.5725	12/5/2004	108.3561
9/4/2004	106.117	10/5/2004	106.5296	11/5/2004	106.7422	12/6/2004	108.3369
9/5/2004	106.1311	10/6/2004	106.539	11/6/2004	106.9441	12/7/2004	108.3285
9/6/2004	106.1162	10/7/2004	106.5349	11/7/2004	107.1226	12/8/2004	108.365
9/7/2004	106.12	10/8/2004	106.5249	11/8/2004	107.1958	12/9/2004	108.3988
9/8/2004	106.1106	10/9/2004	106.5103	11/9/2004	107.1892	12/10/2004	108.4154
9/9/2004	106.2063	10/10/2004	106.5052	11/10/2004	107.1676	12/11/2004	108.4413
9/10/2004	106.8324	10/11/2004	106.4782	11/11/2004	107.1526	12/12/2004	108.4535
9/11/2004	107.4253	10/12/2004	106.4594	11/12/2004	107.1109	12/13/2004	108.4597
9/12/2004	107.7324	10/13/2004	106.4742	11/13/2004	107.073	12/14/2004	108.4338
9/13/2004	107.7632	10/14/2004	106.4806	11/14/2004	107.0208	12/15/2004	108.4405
9/14/2004	107.6935	10/15/2004	106.4766	11/15/2004	106.9805	12/16/2004	108.4034
9/15/2004	107.6244	10/16/2004	106.4911	11/16/2004	106.9586	12/17/2004	108.3338
9/16/2004	107.5621	10/17/2004	106.5005	11/17/2004	106.9396	12/18/2004	108.2261
9/17/2004	107.4857	10/18/2004	106.4789	11/18/2004	106.9249	12/19/2004	108.2501
9/18/2004	107.374	10/19/2004	106.4772	11/19/2004	106.9036	12/20/2004	108.2358
9/19/2004	107.2361	10/20/2004	106.4823	11/20/2004	106.8809	12/21/2004	108.0766
9/20/2004	107.1269	10/21/2004	106.4972	11/21/2004	106.8782	12/22/2004	108.0883
9/21/2004	107.0971	10/22/2004	106.4953	11/22/2004	106.8844	12/23/2004	108.0104
9/22/2004	107.0558	10/23/2004	106.4987	11/23/2004	106.9188	12/24/2004	108.2737
9/23/2004	107.0098	10/24/2004	106.5098	11/24/2004	106.9491	12/25/2004	108.5034
9/24/2004	106.9463	10/25/2004	106.5073	11/25/2004	107.1465	12/26/2004	108.585
9/25/2004	106.9052	10/26/2004	106.4915	11/26/2004	107.4953	12/27/2004	108.5668
9/26/2004	106.8423	10/27/2004	106.4864	11/27/2004	107.7778	12/28/2004	108.3968
9/27/2004	106.7765	10/28/2004	106.4787	11/28/2004	107.9864	12/29/2004	108.3621
9/28/2004	106.6691	10/29/2004	106.4906	11/29/2004	108.2758	12/30/2004	108.247
9/29/2004	106.5663	10/30/2004	106.501	11/30/2004	108.4874	12/31/2004	108.1748
9/30/2004	106.5341	10/31/2004	106.5173	12/1/2004	108.2339		
10/1/2004	106.5791	11/1/2004	106.4963	12/2/2004	108.2587		



2003 Groundwater Level and Flow for W144

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	90.68	1.00	3-Mar	90.63	0.66	3-May	90.78	1.08	3-Jul	90.48	0.08
2-Jan	90.65	0.90	4-Mar	90.63	0.61	4-May	90.76	0.99	4-Jul	90.47	0.06
3-Jan	90.65	0.60	5-Mar	90.62	0.59	5-May	90.75	0.95	5-Jul	90.45	0.05
4-Jan	90.64	0.54	6-Mar	90.61	0.59	6-May	90.82	1.37	6-Jul	90.43	0.04
5-Jan	90.63	0.52	7-Mar	90.61	0.70	7-May	90.81	1.47	7-Jul	90.43	0.03
6-Jan	90.63	0.52	8-Mar	90.62	0.60	8-May	90.79	1.41	8-Jul	90.42	0.02
7-Jan	90.64	0.51	9-Mar	90.64	0.62	9-May	90.77	1.34	9-Jul	90.40	0.02
8-Jan	90.64	0.52	10-Mar	90.63	0.73	10-May	90.75	1.25	10-Jul	90.40	0.01
9-Jan	90.63	0.52	11-Mar	90.64	0.80	11-May	90.76	1.31	11-Jul	90.43	0.03
10-Jan	90.61	0.51	12-Mar	90.63	0.62	12-May	90.80	1.70	12-Jul	90.41	0.02
11-Jan	90.61	0.50	13-Mar	90.63	0.61	13-May	90.79	1.71	13-Jul	90.40	0.02
12-Jan	90.60	0.50	14-Mar	90.63	0.60	14-May	90.78	1.68	14-Jul	90.38	0.01
13-Jan	90.61	0.49	15-Mar	90.63	0.56	15-May	90.76	1.59	15-Jul	90.38	0.01
14-Jan	90.59	0.47	16-Mar	90.66	0.57	16-May	90.78	1.63	16-Jul	90.41	0.03
15-Jan	90.59	0.46	17-Mar	90.76	0.73	17-May	90.79	1.61	17-Jul	90.39	0.02
16-Jan	90.59	0.44	18-Mar	90.87	1.09	18-May	90.77	1.45	18-Jul	90.37	0.01
17-Jan	90.58	0.43	19-Mar	90.93	1.42	19-May	90.74	1.32	19-Jul	90.36	0.01
18-Jan	90.58	0.41	20-Mar	90.99	1.85	20-May	90.72	1.20	20-Jul	90.35	0.01
19-Jan	90.58	0.40	21-Mar	91.22	6.95	21-May	90.71	1.20	21-Jul	90.36	0.01
20-Jan	90.57	0.38	22-Mar	91.39	23.50	22-May	90.69	1.09	22-Jul	90.36	0.01
21-Jan	90.56	0.35	23-Mar	91.40	37.50	23-May	90.68	0.97	23-Jul	90.34	0.01
22-Jan	90.56	0.35	24-Mar	91.31	39.70	24-May	90.80	1.61	24-Jul	90.41	0.05
23-Jan	90.55	0.37	25-Mar	91.23	37.40	25-May	90.88	2.60	25-Jul	90.46	0.16
24-Jan	90.54	0.47	26-Mar	91.17	27.50	26-May	90.84	2.35	26-Jul	90.44	0.23
25-Jan	90.55	0.44	27-Mar	91.11	16.30	27-May	90.81	2.32	27-Jul	90.44	0.22
26-Jan	90.54	0.39	28-Mar	91.07	11.80	28-May	90.79	2.10	28-Jul	90.43	0.16
27-Jan	90.54	0.45	29-Mar	91.04	9.34	29-May	90.77	1.83	29-Jul	90.40	0.10
28-Jan	90.55	0.42	30-Mar	91.03	6.86	30-May	90.74	1.58	30-Jul	90.38	0.06
29-Jan	90.53	0.40	31-Mar	90.99	4.81	31-May	90.73	1.40	31-Jul	90.37	0.04
30-Jan	90.54	0.38	1-Apr	90.96	3.66	1-Jun	90.71	1.32	1-Aug	90.37	0.04
31-Jan	90.54	0.37	2-Apr	90.95	3.08	2-Jun	90.70	1.14	2-Aug	90.38	0.03
1-Feb	90.55	0.28	3-Apr	90.93	2.52	3-Jun	90.68	0.98	3-Aug	90.39	0.05
2-Feb	90.55	0.26	4-Apr	90.92	1.60	4-Jun	90.67	0.85	4-Aug	90.39	0.05
3-Feb	90.56	0.26	5-Apr	90.92	1.40	5-Jun	90.68	0.84	5-Aug	90.37	0.04
4-Feb	90.73	0.42	6-Apr	90.92	1.45	6-Jun	90.67	0.81	6-Aug	90.37	0.03
5-Feb	90.74	0.50	7-Apr	90.94	1.65	7-Jun	90.67	0.73	7-Aug	90.37	0.03
6-Feb	90.73	0.53	8-Apr	90.92	2.00	8-Jun	90.66	0.66	8-Aug	90.35	0.03
7-Feb	90.72	0.59	9-Apr	90.92	2.25	9-Jun	90.67	0.60	9-Aug	90.38	0.02
8-Feb	90.71	0.56	10-Apr	90.99	3.20	10-Jun	90.65	0.51	10-Aug	90.42	0.03
9-Feb	90.70	0.53	11-Apr	91.08	4.60	11-Jun	90.64	0.45	11-Aug	90.42	0.03
10-Feb	90.70	0.51	12-Apr	91.11	6.58	12-Jun	90.61	0.39	12-Aug	90.45	0.04
11-Feb	90.68	0.49	13-Apr	91.06	6.34	13-Jun	90.74	0.90	13-Aug	90.44	0.04
12-Feb	90.67	0.47	14-Apr	91.02	5.22	14-Jun	90.78	1.39	14-Aug	90.43	0.03
13-Feb	90.66	0.46	15-Apr	90.98	4.32	15-Jun	90.73	1.27	15-Aug	90.41	0.03
14-Feb	90.65	0.48	16-Apr	90.93	3.51	16-Jun	90.70	1.25	16-Aug	90.41	0.02
15-Feb	90.63	0.65	17-Apr	90.90	2.89	17-Jun	90.68	1.26	17-Aug	90.39	0.02
16-Feb	90.63	1.05	18-Apr	90.88	2.36	18-Jun	90.66	1.13	18-Aug	90.38	0.01
17-Feb	90.64	1.07	19-Apr	90.86	2.00	19-Jun	90.65	0.99	19-Aug	90.36	0.01
18-Feb	90.63	0.94	20-Apr	90.85	1.71	20-Jun	90.64	0.89	20-Aug	90.35	0.01
19-Feb	90.62	0.63	21-Apr	90.84	1.58	21-Jun	90.63	0.77	21-Aug	90.36	0.01
20-Feb	90.62	0.60	22-Apr	90.84	1.69	22-Jun	90.62	0.66	22-Aug	90.34	0.00
21-Feb	90.63	0.59	23-Apr	90.87	1.80	23-Jun	90.60	0.53	23-Aug	90.32	0.00
22-Feb	90.64	0.57	24-Apr	90.86	1.69	24-Jun	90.58	0.42	24-Aug	90.31	0.00
23-Feb	90.63	0.56	25-Apr	90.84	1.56	25-Jun	90.56	0.32	25-Aug	90.31	0.00
24-Feb	90.62	0.57	26-Apr	90.82	1.45	26-Jun	90.55	0.25	26-Aug	90.31	0.00
25-Feb	90.62	0.62	27-Apr	90.79	1.27	27-Jun	90.54	0.20	27-Aug	90.29	0.00
26-Feb	90.63	0.72	28-Apr	90.78	1.12	28-Jun	90.53	0.16	28-Aug	90.29	0.00
27-Feb	90.62	0.65	29-Apr	90.75	0.97	29-Jun	90.52	0.15	29-Aug	90.28	0.00
28-Feb	90.61	0.62	30-Apr	90.74	0.84	30-Jun	90.51	0.13	30-Aug	90.27	0.00
1-Mar	90.61	0.60	1-May	90.76	0.84	1-Jul	90.50	0.12	31-Aug	90.27	0.00
2-Mar	90.64	0.59	2-May	90.79	1.04	2-Jul	90.49	0.09	1-Sep	90.27	0.00

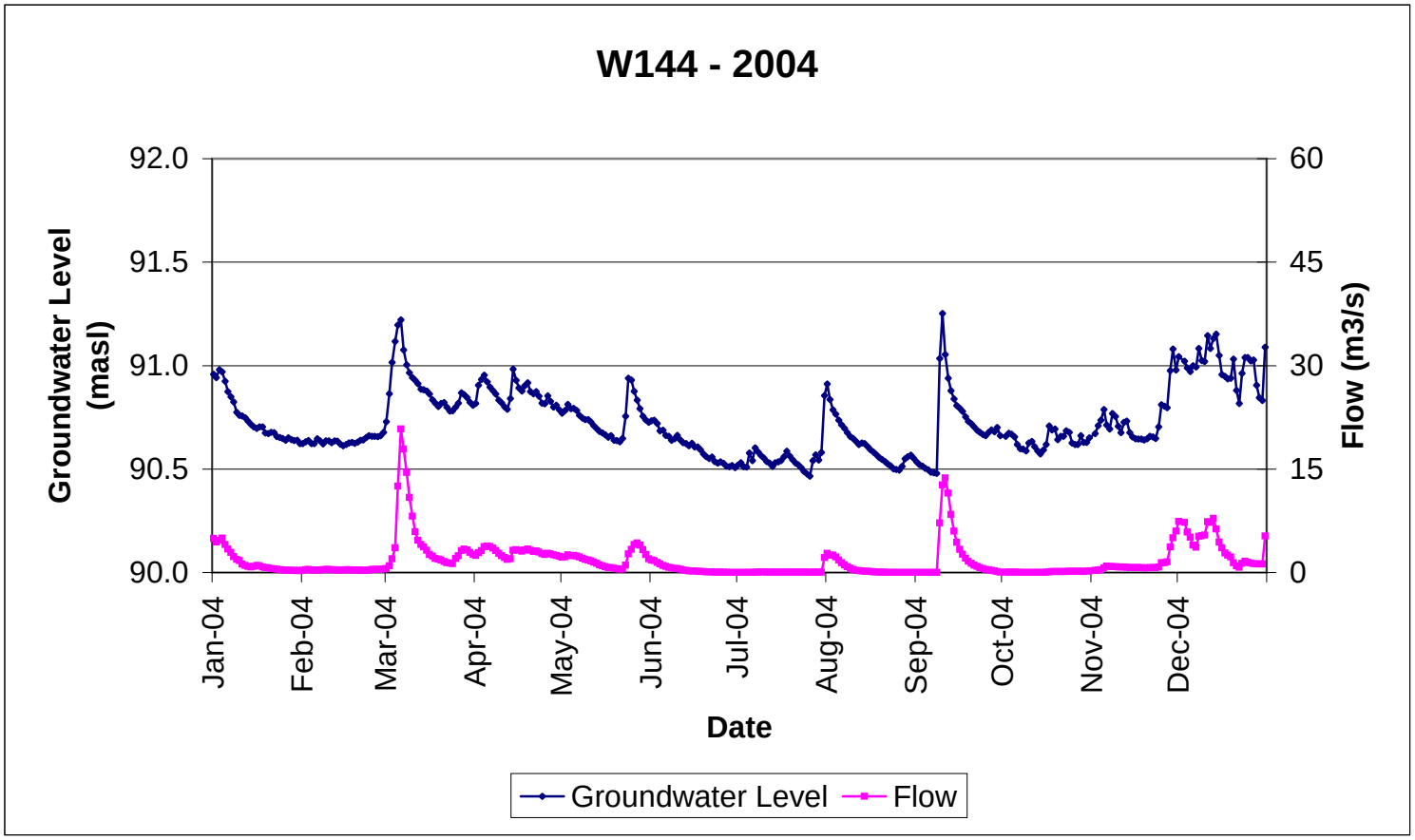
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	90.26	0.00	2-Oct	90.33	0.00	1-Nov	90.56	0.09	1-Dec	90.97	4.81
3-Sep	90.26	0.00	3-Oct	90.34	0.00	2-Nov	90.61	0.18	2-Dec	90.87	4.31
4-Sep	90.25	0.00	4-Oct	90.37	0.00	3-Nov	90.72	0.51	3-Dec	90.85	3.20
5-Sep	90.23	0.00	5-Oct	90.38	0.00	4-Nov	90.74	0.55	4-Dec	90.84	2.87
6-Sep	90.23	0.00	6-Oct	90.36	0.00	5-Nov	90.71	0.52	5-Dec	90.81	2.10
7-Sep	90.22	0.00	7-Oct	90.36	0.00	6-Nov	90.69	0.47	6-Dec	90.78	1.45
8-Sep	90.20		8-Oct	90.35	0.00	7-Nov	90.66	0.51	7-Dec	90.77	1.10
9-Sep	90.20		9-Oct	90.34	0.00	8-Nov	90.60	0.62	8-Dec	90.74	0.85
10-Sep	90.19		10-Oct	90.34	0.00	9-Nov	90.61	0.65	9-Dec	90.73	0.68
11-Sep	90.17		11-Oct	90.34	0.00	10-Nov	90.62	0.63	10-Dec	90.74	0.66
12-Sep	90.16		12-Oct	90.34	0.00	11-Nov	90.65	0.69	11-Dec	90.99	2.99
13-Sep	90.16		13-Oct	90.33	0.00	12-Nov	90.69	0.90	12-Dec	90.99	2.80
14-Sep	90.16		14-Oct	90.36	0.00	13-Nov	90.84	1.79	13-Dec	90.90	2.40
15-Sep	90.16	0.00	15-Oct	90.47	0.02	14-Nov	90.79	1.53	14-Dec	90.86	2.10
16-Sep	90.17	0.00	16-Oct	90.46	0.02	15-Nov	90.75	1.43	15-Dec	90.81	1.73
17-Sep	90.16	0.00	17-Oct	90.44	0.02	16-Nov	90.74	1.65	16-Dec		1.63
18-Sep	90.15	0.00	18-Oct	90.43	0.02	17-Nov	90.77	1.97	17-Dec	90.90	1.73
19-Sep	90.15	0.00	19-Oct	90.46	0.03	18-Nov	90.79	2.10	18-Dec	90.90	1.83
20-Sep	90.15	0.00	20-Oct	90.47	0.02	19-Nov	90.93	3.85	19-Dec	90.87	1.82
21-Sep	90.14	0.00	21-Oct	90.47	0.03	20-Nov	91.14	6.98	20-Dec	90.84	1.75
22-Sep	90.16	0.00	22-Oct	90.47	0.03	21-Nov	91.02	7.80	21-Dec	90.82	1.66
23-Sep	90.26	0.00	23-Oct	90.47	0.03	22-Nov	90.95	7.31	22-Dec	90.84	1.74
24-Sep	90.25	0.00	24-Oct	90.45	0.03	23-Nov	90.91	6.35	23-Dec	90.94	2.37
25-Sep	90.24	0.00	25-Oct	90.45	0.03	24-Nov	90.88	5.30	24-Dec	91.09	5.08
26-Sep	90.23	0.00	26-Oct	90.53	0.05	25-Nov	90.85	4.23	25-Dec	91.11	6.83
27-Sep	90.27	0.00	27-Oct	90.57	0.06	26-Nov	90.82	3.50	26-Dec	91.01	6.53
28-Sep	90.37	0.00	28-Oct	90.56	0.07	27-Nov	90.83	3.05	27-Dec	90.95	6.70
29-Sep	90.34	0.00	29-Oct	90.58	0.10	28-Nov	90.97	3.56	28-Dec	90.92	4.97
30-Sep	90.32	0.00	30-Oct	90.59	0.13	29-Nov	91.05	4.48	29-Dec	90.91	3.85
1-Oct	90.31	0.00	31-Oct	90.58	0.10	30-Nov	91.02	4.80	30-Dec	91.00	4.54
									31-Dec	91.01	4.98



2004 Groundwater Level and Flow for W144

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	90.96	4.92	2-Mar	90.86	0.95	2-May	90.78	2.25	2-Jul	90.53	0.01
2-Jan	90.94	4.41	3-Mar	91.01	1.97	3-May	90.81	2.57	3-Jul	90.51	0.01
3-Jan	90.98	4.68	4-Mar	91.12	3.57	4-May	90.79	2.44	4-Jul	90.51	0.01
4-Jan	90.97	4.96	5-Mar	91.20	12.50	5-May	90.79	2.47	5-Jul	90.58	0.02
5-Jan	90.92	4.05	6-Mar	91.22	20.80	6-May	90.78	2.39	6-Jul	90.54	0.02
6-Jan	90.88	3.40	7-Mar	91.08	17.90	7-May	90.76	2.25	7-Jul	90.60	0.03
7-Jan	90.85	2.90	8-Mar	91.00	14.50	8-May	90.75	2.06	8-Jul	90.58	0.05
8-Jan	90.82	2.30	9-Mar	90.96	10.90	9-May	90.74	1.89	9-Jul	90.57	0.08
9-Jan	90.77	1.90	10-Mar	90.94	8.17	10-May	90.74	1.82	10-Jul	90.55	0.08
10-Jan	90.76	1.70	11-Mar	90.93	5.90	11-May	90.73	1.69	11-Jul	90.54	0.06
11-Jan	90.76	1.23	12-Mar	90.91	4.68	12-May	90.71	1.49	12-Jul	90.53	0.05
12-Jan	90.75	1.02	13-Mar	90.89	4.07	13-May	90.70	1.32	13-Jul	90.51	0.04
13-Jan	90.73	0.86	14-Mar	90.88	3.70	14-May	90.68	1.12	14-Jul	90.53	0.04
14-Jan	90.72	0.80	15-Mar	90.88	3.20	15-May	90.68	0.97	15-Jul	90.54	0.04
15-Jan	90.70	0.90	16-Mar	90.86	2.60	16-May	90.67	0.86	16-Jul	90.54	0.04
16-Jan	90.70	1.00	17-Mar	90.83	2.40	17-May	90.65	0.72	17-Jul	90.56	0.04
17-Jan	90.70	0.97	18-Mar	90.82	2.02	18-May	90.66	0.68	18-Jul	90.59	0.05
18-Jan	90.70	0.78	19-Mar	90.80	1.95	19-May	90.64	0.63	19-Jul	90.56	0.05
19-Jan	90.67	0.73	20-Mar	90.82	1.80	20-May	90.64	0.55	20-Jul	90.54	0.04
20-Jan	90.67	0.65	21-Mar	90.82	1.60	21-May	90.63	0.49	21-Jul	90.53	0.04
21-Jan	90.68	0.58	22-Mar	90.80	1.42	22-May	90.65	0.48	22-Jul	90.52	0.03
22-Jan	90.68	0.54	23-Mar	90.78	1.35	23-May	90.76	1.04	23-Jul	90.51	0.04
23-Jan	90.66	0.47	24-Mar	90.78	1.30	24-May	90.94	2.69	24-Jul	90.49	0.04
24-Jan	90.65	0.41	25-Mar	90.80	2.01	25-May	90.93	3.36	25-Jul	90.48	0.03
25-Jan	90.65	0.37	26-Mar	90.82	2.43	26-May	90.88	4.07	26-Jul	90.47	0.02
26-Jan	90.64	0.34	27-Mar	90.87	3.18	27-May	90.83	4.28	27-Jul	90.54	0.04
27-Jan	90.65	0.32	28-Mar	90.86	3.41	28-May	90.79	3.96	28-Jul	90.57	0.04
28-Jan	90.64	0.30	29-Mar	90.84	3.28	29-May	90.76	3.32	29-Jul	90.54	0.03
29-Jan	90.64	0.29	30-Mar	90.82	2.93	30-May	90.74	2.60	30-Jul	90.58	0.04
30-Jan	90.64	0.29	31-Mar	90.81	2.64	31-May	90.73	2.00	31-Jul	90.86	2.16
31-Jan	90.62	0.28	1-Apr	90.82	2.49	1-Jun	90.73	1.79	1-Aug	90.91	2.77
1-Feb	90.62	0.32	2-Apr	90.90	2.86	2-Jun	90.74	1.74	2-Aug	90.84	2.53
2-Feb	90.63	0.39	3-Apr	90.93	3.18	3-Jun	90.72	1.47	3-Aug	90.79	2.50
3-Feb	90.64	0.42	4-Apr	90.95	3.74	4-Jun	90.69	1.22	4-Aug	90.77	2.27
4-Feb	90.62	0.35	5-Apr	90.92	3.82	5-Jun	90.69	1.02	5-Aug	90.74	1.82
5-Feb	90.62	0.34	6-Apr	90.90	3.75	6-Jun	90.66	0.87	6-Aug	90.71	1.42
6-Feb	90.65	0.35	7-Apr	90.88	3.53	7-Jun	90.66	0.75	7-Aug	90.70	1.09
7-Feb	90.64	0.36	8-Apr	90.86	3.17	8-Jun	90.64	0.65	8-Aug	90.68	0.83
8-Feb	90.62	0.39	9-Apr	90.83	2.79	9-Jun	90.65	0.56	9-Aug	90.66	0.62
9-Feb	90.64	0.43	10-Apr	90.82	2.44	10-Jun	90.66	0.56	10-Aug	90.65	0.44
10-Feb	90.64	0.45	11-Apr	90.80	2.14	11-Jun	90.64	0.48	11-Aug	90.63	0.33
11-Feb	90.63	0.39	12-Apr	90.79	1.89	12-Jun	90.63	0.37	12-Aug	90.62	0.25
12-Feb	90.64	0.38	13-Apr	90.84	1.99	13-Jun	90.62	0.29	13-Aug	90.63	0.20
13-Feb	90.64	0.37	14-Apr	90.98	3.20	14-Jun	90.61	0.23	14-Aug	90.62	0.18
14-Feb	90.62	0.36	15-Apr	90.93	3.31	15-Jun	90.62	0.24	15-Aug	90.61	0.16
15-Feb	90.61	0.35	16-Apr	90.89	3.23	16-Jun	90.61	0.21	16-Aug	90.59	0.13
16-Feb	90.62	0.40	17-Apr	90.88	3.10	17-Jun	90.61	0.19	17-Aug	90.58	0.10
17-Feb	90.63	0.40	18-Apr	90.90	3.25	18-Jun	90.59	0.15	18-Aug	90.57	0.07
18-Feb	90.63	0.37	19-Apr	90.92	3.38	19-Jun	90.57	0.12	19-Aug	90.56	0.06
19-Feb	90.62	0.36	20-Apr	90.87	3.22	20-Jun	90.56	0.09	20-Aug	90.55	0.05
20-Feb	90.63	0.36	21-Apr	90.86	3.02	21-Jun	90.55	0.08	21-Aug	90.54	0.04
21-Feb	90.64	0.34	22-Apr	90.87	3.11	22-Jun	90.56	0.07	22-Aug	90.52	0.02
22-Feb	90.64	0.33	23-Apr	90.85	2.94	23-Jun	90.54	0.06	23-Aug	90.52	0.01
23-Feb	90.65	0.32	24-Apr	90.82	2.75	24-Jun	90.53	0.04	24-Aug	90.50	0.01
24-Feb	90.66	0.36	25-Apr	90.82	2.58	25-Jun	90.53	0.04	25-Aug	90.50	0.01
25-Feb	90.66	0.42	26-Apr	90.85	2.77	26-Jun	90.53	0.02	26-Aug	90.49	0.00
26-Feb	90.66	0.44	27-Apr	90.83	2.67	27-Jun	90.51	0.02	27-Aug	90.51	0.01
27-Feb	90.66	0.44	28-Apr	90.80	2.55	28-Jun	90.51	0.02	28-Aug	90.55	0.01
28-Feb	90.66	0.45	29-Apr	90.81	2.48	29-Jun	90.52	0.02	29-Aug	90.56	0.01
29-Feb	90.68	0.49	30-Apr	90.79	2.33	30-Jun	90.51	0.02	30-Aug	90.57	0.02
1-Mar	90.73	0.55	1-May	90.77	2.21	1-Jul	90.52	0.01	31-Aug	90.55	0.02

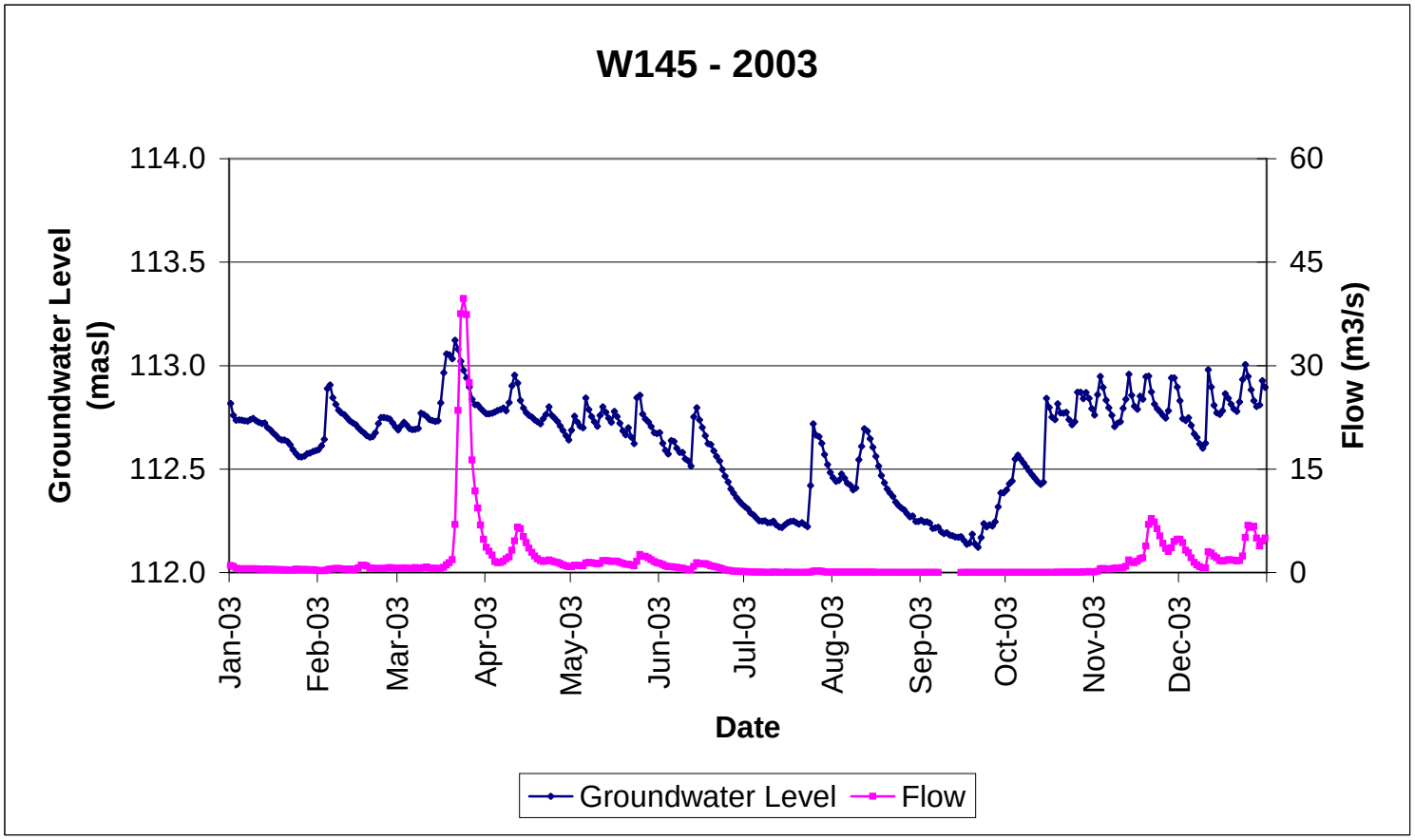
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	90.53	0.02	2-Oct	90.66	0.04	2-Nov	90.67	0.32	3-Dec	91.02	7.26
2-Sep	90.52	0.02	3-Oct	90.67	0.03	3-Nov	90.71	0.36	4-Dec	90.99	5.86
3-Sep	90.51	0.02	4-Oct	90.67	0.03	4-Nov	90.74	0.40	5-Dec	90.97	5.11
4-Sep	90.50	0.02	5-Oct	90.66	0.03	5-Nov	90.79	0.66	6-Dec	91.00	3.97
5-Sep	90.50	0.02	6-Oct	90.62	0.02	6-Nov	90.71	0.92	7-Dec	90.99	3.64
6-Sep	90.48	0.01	7-Oct	90.60	0.02	7-Nov	90.69	0.89	8-Dec	91.08	5.26
7-Sep	90.48	0.01	8-Oct	90.60	0.02	8-Nov	90.77	0.85	9-Dec	91.02	5.32
8-Sep	90.48	0.01	9-Oct	90.59	0.02	9-Nov	90.75	0.82	10-Dec	91.02	5.43
9-Sep	91.03	7.20	10-Oct	90.63	0.02	10-Nov	90.71	0.80	11-Dec	91.15	7.36
10-Sep	91.25	12.70	11-Oct	90.63	0.02	11-Nov	90.68	0.79	12-Dec	91.08	7.28
11-Sep	91.05	13.70	12-Oct	90.61	0.02	12-Nov	90.73	0.78	13-Dec	91.13	7.83
12-Sep	90.94	11.50	13-Oct	90.59	0.02	13-Nov	90.73	0.75	14-Dec	91.15	6.30
13-Sep	90.88	8.42	14-Oct	90.57	0.01	14-Nov	90.68	0.71	15-Dec	91.05	4.40
14-Sep	90.84	5.99	15-Oct	90.59	0.02	15-Nov	90.66	0.71	16-Dec	90.96	3.58
15-Sep	90.81	4.36	16-Oct	90.62	0.03	16-Nov	90.65	0.70	17-Dec	90.95	2.80
16-Sep	90.79	3.33	17-Oct	90.71	0.10	17-Nov	90.64	0.70	18-Dec	90.94	2.50
17-Sep	90.78	2.64	18-Oct	90.69	0.14	18-Nov	90.64	0.69	19-Dec	90.94	2.25
18-Sep	90.75	2.08	19-Oct	90.69	0.12	19-Nov	90.64	0.68	20-Dec	91.03	1.40
19-Sep	90.73	1.65	20-Oct	90.64	0.11	20-Nov	90.65	0.67	21-Dec	90.88	0.95
20-Sep	90.72	1.34	21-Oct	90.66	0.13	21-Nov	90.66	0.71	22-Dec	90.82	0.76
21-Sep	90.70	1.08	22-Oct	90.66	0.15	22-Nov	90.66	0.71	23-Dec	90.96	1.34
22-Sep	90.69	0.88	23-Oct	90.69	0.15	23-Nov	90.65	0.69	24-Dec	91.04	1.63
23-Sep	90.68	0.69	24-Oct	90.68	0.16	24-Nov	90.70	0.80	25-Dec	91.04	1.44
24-Sep	90.67	0.56	25-Oct	90.63	0.18	25-Nov	90.81	1.39	26-Dec	91.02	1.35
25-Sep	90.66	0.45	26-Oct	90.62	0.18	26-Nov	90.80	1.40	27-Dec	91.03	1.28
26-Sep	90.68	0.36	27-Oct	90.62	0.18	27-Nov	90.80	1.56	28-Dec	90.91	1.24
27-Sep	90.69	0.30	28-Oct	90.66	0.17	28-Nov	90.98	3.72	29-Dec	90.85	1.23
28-Sep	90.68	0.23	29-Oct	90.63	0.15	29-Nov	91.08	5.02	30-Dec	90.83	1.23
29-Sep	90.70	0.14	30-Oct	90.63	0.17	30-Nov	90.98	6.00	31-Dec	91.09	5.29
30-Sep	90.66	0.07	31-Oct	90.65	0.23	1-Dec	91.04	7.41			
1-Oct	90.65	0.044	1-Nov	90.66	0.277	2-Dec	91.07	7.88			



2003 Groundwater Level and Flow for W145

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	112.82	1.00	3-Mar	112.73	0.66	3-May	112.73	1.08	3-Jul	112.29	0.08
2-Jan	112.76	0.90	4-Mar	112.71	0.61	4-May	112.71	0.99	4-Jul	112.28	0.06
3-Jan	112.74	0.60	5-Mar	112.70	0.59	5-May	112.70	0.95	5-Jul	112.26	0.05
4-Jan	112.74	0.54	6-Mar	112.69	0.59	6-May	112.84	1.37	6-Jul	112.25	0.04
5-Jan	112.74	0.52	7-Mar	112.69	0.70	7-May	112.79	1.47	7-Jul	112.25	0.03
6-Jan	112.73	0.52	8-Mar	112.70	0.60	8-May	112.75	1.41	8-Jul	112.25	0.02
7-Jan	112.73	0.51	9-Mar	112.77	0.62	9-May	112.73	1.34	9-Jul	112.24	0.02
8-Jan	112.74	0.52	10-Mar	112.76	0.73	10-May	112.71	1.25	10-Jul	112.24	0.01
9-Jan	112.74	0.52	11-Mar	112.75	0.80	11-May	112.76	1.31	11-Jul	112.25	0.03
10-Jan	112.73	0.51	12-Mar	112.74	0.62	12-May	112.80	1.70	12-Jul	112.23	0.02
11-Jan	112.73	0.50	13-Mar	112.73	0.61	13-May	112.77	1.71	13-Jul	112.22	0.02
12-Jan	112.72	0.50	14-Mar	112.73	0.60	14-May	112.75	1.68	14-Jul	112.22	0.01
13-Jan	112.72	0.49	15-Mar	112.73	0.56	15-May	112.73	1.59	15-Jul	112.23	0.01
14-Jan	112.70	0.47	16-Mar	112.82	0.57	16-May	112.78	1.63	16-Jul	112.24	0.03
15-Jan	112.69	0.46	17-Mar	112.97	0.73	17-May	112.75	1.61	17-Jul	112.25	0.02
16-Jan	112.67	0.44	18-Mar	113.06	1.09	18-May	112.72	1.45	18-Jul	112.25	0.01
17-Jan	112.66	0.43	19-Mar	113.05	1.42	19-May	112.68	1.32	19-Jul	112.24	0.01
18-Jan	112.65	0.41	20-Mar	113.03	1.85	20-May	112.67	1.20	20-Jul	112.23	0.01
19-Jan	112.64	0.40	21-Mar	113.12	6.95	21-May	112.70	1.20	21-Jul	112.24	0.01
20-Jan	112.64	0.38	22-Mar	113.08	23.50	22-May	112.65	1.09	22-Jul	112.23	0.01
21-Jan	112.63	0.35	23-Mar	113.02	37.50	23-May	112.62	0.97	23-Jul	112.22	0.01
22-Jan	112.62	0.35	24-Mar	112.98	39.70	24-May	112.84	1.61	24-Jul	112.42	0.05
23-Jan	112.59	0.37	25-Mar	112.94	37.40	25-May	112.86	2.60	25-Jul	112.72	0.16
24-Jan	112.57	0.47	26-Mar	112.90	27.50	26-May	112.77	2.35	26-Jul	112.66	0.23
25-Jan	112.56	0.44	27-Mar	112.84	16.30	27-May	112.74	2.32	27-Jul	112.66	0.22
26-Jan	112.56	0.39	28-Mar	112.81	11.80	28-May	112.73	2.10	28-Jul	112.62	0.16
27-Jan	112.56	0.45	29-Mar	112.81	9.34	29-May	112.71	1.83	29-Jul	112.57	0.10
28-Jan	112.57	0.42	30-Mar	112.79	6.86	30-May	112.68	1.58	30-Jul	112.52	0.06
29-Jan	112.58	0.40	31-Mar	112.78	4.81	31-May	112.67	1.40	31-Jul	112.48	0.04
30-Jan	112.58	0.38	1-Apr	112.77	3.66	1-Jun	112.68	1.32	1-Aug	112.46	0.04
31-Jan	112.59	0.37	2-Apr	112.77	3.08	2-Jun	112.62	1.14	2-Aug	112.44	0.03
1-Feb	112.59	0.28	3-Apr	112.77	2.52	3-Jun	112.59	0.98	3-Aug	112.45	0.05
2-Feb	112.61	0.26	4-Apr	112.78	1.60	4-Jun	112.57	0.85	4-Aug	112.48	0.05
3-Feb	112.64	0.26	5-Apr	112.78	1.40	5-Jun	112.64	0.84	5-Aug	112.46	0.04
4-Feb	112.89	0.42	6-Apr	112.79	1.45	6-Jun	112.63	0.81	6-Aug	112.43	0.03
5-Feb	112.91	0.50	7-Apr	112.79	1.65	7-Jun	112.60	0.73	7-Aug	112.42	0.03
6-Feb	112.84	0.53	8-Apr	112.78	2.00	8-Jun	112.58	0.66	8-Aug	112.40	0.03
7-Feb	112.81	0.59	9-Apr	112.82	2.25	9-Jun	112.58	0.60	9-Aug	112.41	0.02
8-Feb	112.78	0.56	10-Apr	112.90	3.20	10-Jun	112.55	0.51	10-Aug	112.55	0.03
9-Feb	112.77	0.53	11-Apr	112.95	4.60	11-Jun	112.54	0.45	11-Aug	112.61	0.03
10-Feb	112.76	0.51	12-Apr	112.92	6.58	12-Jun	112.51	0.39	12-Aug	112.69	0.04
11-Feb	112.75	0.49	13-Apr	112.83	6.34	13-Jun	112.75	0.90	13-Aug	112.68	0.04
12-Feb	112.73	0.47	14-Apr	112.79	5.22	14-Jun	112.80	1.39	14-Aug	112.65	0.03
13-Feb	112.72	0.46	15-Apr	112.77	4.32	15-Jun	112.74	1.27	15-Aug	112.60	0.03
14-Feb	112.72	0.48	16-Apr	112.76	3.51	16-Jun	112.70	1.25	16-Aug	112.56	0.02
15-Feb	112.70	0.65	17-Apr	112.75	2.89	17-Jun	112.66	1.26	17-Aug	112.51	0.02
16-Feb	112.69	1.05	18-Apr	112.74	2.36	18-Jun	112.62	1.13	18-Aug	112.47	0.01
17-Feb	112.68	1.07	19-Apr	112.73	2.00	19-Jun	112.62	0.99	19-Aug	112.43	0.01
18-Feb	112.66	0.94	20-Apr	112.72	1.71	20-Jun	112.59	0.89	20-Aug	112.40	0.01
19-Feb	112.65	0.63	21-Apr	112.74	1.58	21-Jun	112.56	0.77	21-Aug	112.38	0.01
20-Feb	112.66	0.60	22-Apr	112.76	1.69	22-Jun	112.54	0.66	22-Aug	112.37	0.00
21-Feb	112.68	0.59	23-Apr	112.80	1.80	23-Jun	112.50	0.53	23-Aug	112.34	0.00
22-Feb	112.72	0.57	24-Apr	112.76	1.69	24-Jun	112.47	0.42	24-Aug	112.32	0.00
23-Feb	112.75	0.56	25-Apr	112.75	1.56	25-Jun	112.44	0.32	25-Aug	112.31	0.00
24-Feb	112.75	0.57	26-Apr	112.73	1.45	26-Jun	112.40	0.25	26-Aug	112.30	0.00
25-Feb	112.75	0.62	27-Apr	112.71	1.27	27-Jun	112.38	0.20	27-Aug	112.28	0.00
26-Feb	112.74	0.72	28-Apr	112.69	1.12	28-Jun	112.36	0.16	28-Aug	112.27	0.00
27-Feb	112.72	0.65	29-Apr	112.66	0.97	29-Jun	112.34	0.15	29-Aug	112.27	0.00
28-Feb	112.70	0.62	30-Apr	112.64	0.84	30-Jun	112.33	0.13	30-Aug	112.25	0.00
1-Mar	112.69	0.60	1-May	112.69	0.84	1-Jul	112.32	0.12	31-Aug	112.25	0.00
2-Mar	112.71	0.59	2-May	112.76	1.04	2-Jul	112.31	0.09	1-Sep	112.25	0.00

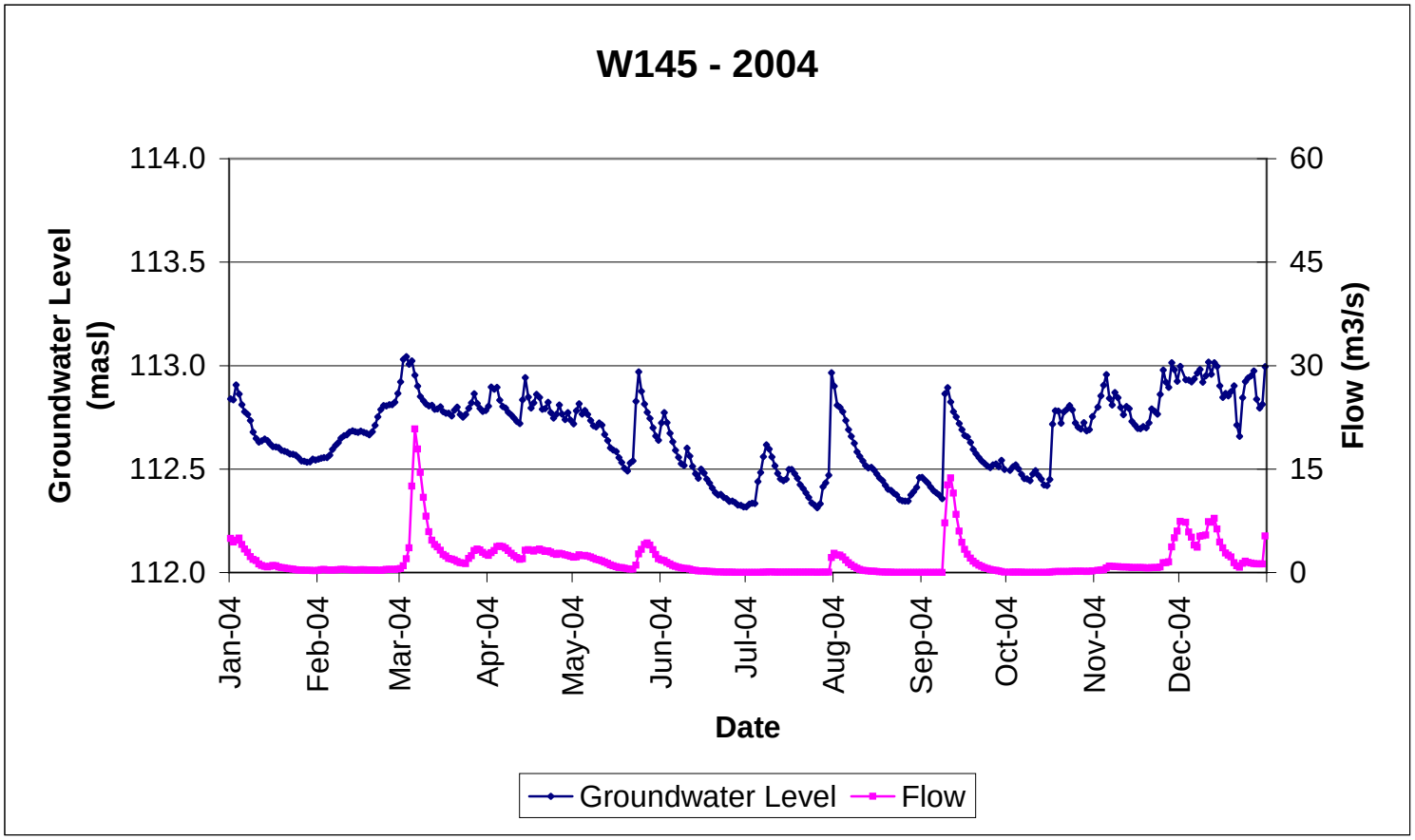
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	112.24	0.00	2-Oct	112.43	0.00	1-Nov	112.76	0.09	1-Dec	112.83	4.81
3-Sep	112.25	0.00	3-Oct	112.44	0.00	2-Nov	112.86	0.18	2-Dec	112.74	4.31
4-Sep	112.24	0.00	4-Oct	112.55	0.00	3-Nov	112.95	0.51	3-Dec	112.73	3.20
5-Sep	112.21	0.00	5-Oct	112.57	0.00	4-Nov	112.90	0.55	4-Dec	112.75	2.87
6-Sep	112.22	0.00	6-Oct	112.55	0.00	5-Nov	112.83	0.52	5-Dec	112.71	2.10
7-Sep	112.22	0.00	7-Oct	112.53	0.00	6-Nov	112.80	0.47	6-Dec	112.67	1.45
8-Sep	112.20		8-Oct	112.51	0.00	7-Nov	112.76	0.51	7-Dec	112.65	1.10
9-Sep	112.19		9-Oct	112.49	0.00	8-Nov	112.70	0.62	8-Dec	112.62	0.85
10-Sep	112.19		10-Oct	112.47	0.00	9-Nov	112.72	0.65	9-Dec	112.60	0.68
11-Sep	112.18		11-Oct	112.46	0.00	10-Nov	112.73	0.63	10-Dec	112.63	0.66
12-Sep	112.18		12-Oct	112.44	0.00	11-Nov	112.79	0.69	11-Dec	112.98	2.99
13-Sep	112.17		13-Oct	112.43	0.00	12-Nov	112.84	0.90	12-Dec	112.90	2.80
14-Sep	112.17		14-Oct	112.44	0.00	13-Nov	112.96	1.79	13-Dec	112.81	2.40
15-Sep	112.17	0.00	15-Oct	112.84	0.02	14-Nov	112.86	1.53	14-Dec	112.77	2.10
16-Sep	112.16	0.00	16-Oct	112.80	0.02	15-Nov	112.80	1.43	15-Dec	112.76	1.73
17-Sep	112.14	0.00	17-Oct	112.75	0.02	16-Nov	112.79	1.65	16-Dec	112.78	1.63
18-Sep	112.14	0.00	18-Oct	112.74	0.02	17-Nov	112.85	1.97	17-Dec	112.86	1.73
19-Sep	112.19	0.00	19-Oct	112.82	0.03	18-Nov	112.84	2.10	18-Dec	112.84	1.83
20-Sep	112.14	0.00	20-Oct	112.77	0.02	19-Nov	112.95	3.85	19-Dec	112.81	1.82
21-Sep	112.12	0.00	21-Oct	112.77	0.03	20-Nov	112.95	6.98	20-Dec	112.79	1.75
22-Sep	112.17	0.00	22-Oct	112.78	0.03	21-Nov	112.87	7.80	21-Dec	112.78	1.66
23-Sep	112.24	0.00	23-Oct	112.74	0.03	22-Nov	112.81	7.31	22-Dec	112.83	1.74
24-Sep	112.22	0.00	24-Oct	112.71	0.03	23-Nov	112.79	6.35	23-Dec	112.93	2.37
25-Sep	112.23	0.00	25-Oct	112.73	0.03	24-Nov	112.78	5.30	24-Dec	113.00	5.08
26-Sep	112.22	0.00	26-Oct	112.87	0.05	25-Nov	112.76	4.23	25-Dec	112.95	6.83
27-Sep	112.25	0.00	27-Oct	112.87	0.06	26-Nov	112.75	3.50	26-Dec	112.88	6.53
28-Sep	112.32	0.00	28-Oct	112.84	0.07	27-Nov	112.78	3.05	27-Dec	112.83	6.70
29-Sep	112.39	0.00	29-Oct	112.87	0.10	28-Nov	112.94	3.56	28-Dec	112.80	4.97
30-Sep	112.39	0.00	30-Oct	112.84	0.13	29-Nov	112.94	4.48	29-Dec	112.81	3.85
1-Oct	112.40	0.00	31-Oct	112.79	0.10	30-Nov	112.90	4.80	30-Dec	112.93	4.54
									31-Dec	112.89	4.98



2004 Groundwater Level and Flow for W145

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	112.84	4.92	2-Mar	113.03	0.95	2-May	112.78	2.25	2-Jul	112.33	0.01
2-Jan	112.83	4.41	3-Mar	113.04	1.97	3-May	112.82	2.57	3-Jul	112.34	0.01
3-Jan	112.91	4.68	4-Mar	113.01	3.57	4-May	112.77	2.44	4-Jul	112.33	0.01
4-Jan	112.86	4.96	5-Mar	113.02	12.50	5-May	112.78	2.47	5-Jul	112.44	0.02
5-Jan	112.81	4.05	6-Mar	112.95	20.80	6-May	112.76	2.39	6-Jul	112.48	0.02
6-Jan	112.78	3.40	7-Mar	112.90	17.90	7-May	112.73	2.25	7-Jul	112.56	0.03
7-Jan	112.76	2.90	8-Mar	112.85	14.50	8-May	112.71	2.06	8-Jul	112.62	0.05
8-Jan	112.73	2.30	9-Mar	112.83	10.90	9-May	112.70	1.89	9-Jul	112.60	0.08
9-Jan	112.68	1.90	10-Mar	112.81	8.17	10-May	112.72	1.82	10-Jul	112.56	0.08
10-Jan	112.65	1.70	11-Mar	112.81	5.90	11-May	112.71	1.69	11-Jul	112.52	0.06
11-Jan	112.63	1.23	12-Mar	112.81	4.68	12-May	112.67	1.49	12-Jul	112.48	0.05
12-Jan	112.64	1.02	13-Mar	112.79	4.07	13-May	112.64	1.32	13-Jul	112.45	0.04
13-Jan	112.64	0.86	14-Mar	112.79	3.70	14-May	112.60	1.12	14-Jul	112.44	0.04
14-Jan	112.64	0.80	15-Mar	112.80	3.20	15-May	112.59	0.97	15-Jul	112.45	0.04
15-Jan	112.62	0.90	16-Mar	112.78	2.60	16-May	112.58	0.86	16-Jul	112.50	0.04
16-Jan	112.61	1.00	17-Mar	112.77	2.40	17-May	112.56	0.72	17-Jul	112.50	0.04
17-Jan	112.61	0.97	18-Mar	112.77	2.02	18-May	112.53	0.68	18-Jul	112.48	0.05
18-Jan	112.60	0.78	19-Mar	112.76	1.95	19-May	112.50	0.63	19-Jul	112.46	0.05
19-Jan	112.59	0.73	20-Mar	112.79	1.80	20-May	112.49	0.55	20-Jul	112.42	0.04
20-Jan	112.59	0.65	21-Mar	112.80	1.60	21-May	112.53	0.49	21-Jul	112.41	0.04
21-Jan	112.58	0.58	22-Mar	112.76	1.42	22-May	112.54	0.48	22-Jul	112.39	0.03
22-Jan	112.57	0.54	23-Mar	112.75	1.35	23-May	112.83	1.04	23-Jul	112.36	0.04
23-Jan	112.57	0.47	24-Mar	112.76	1.30	24-May	112.97	2.69	24-Jul	112.34	0.04
24-Jan	112.57	0.41	25-Mar	112.79	2.01	25-May	112.88	3.36	25-Jul	112.33	0.03
25-Jan	112.56	0.37	26-Mar	112.82	2.43	26-May	112.81	4.07	26-Jul	112.31	0.02
26-Jan	112.54	0.34	27-Mar	112.86	3.18	27-May	112.77	4.28	27-Jul	112.33	0.04
27-Jan	112.54	0.32	28-Mar	112.82	3.41	28-May	112.75	3.96	28-Jul	112.41	0.04
28-Jan	112.53	0.30	29-Mar	112.79	3.28	29-May	112.70	3.32	29-Jul	112.43	0.03
29-Jan	112.54	0.29	30-Mar	112.78	2.93	30-May	112.66	2.60	30-Jul	112.47	0.04
30-Jan	112.55	0.29	31-Mar	112.78	2.64	31-May	112.64	2.00	31-Jul	112.97	2.16
31-Jan	112.54	0.28	1-Apr	112.80	2.49	1-Jun	112.72	1.79	1-Aug	112.90	2.77
1-Feb	112.55	0.32	2-Apr	112.90	2.86	2-Jun	112.77	1.74	2-Aug	112.81	2.53
2-Feb	112.55	0.39	3-Apr	112.89	3.18	3-Jun	112.72	1.47	3-Aug	112.80	2.50
3-Feb	112.55	0.42	4-Apr	112.90	3.74	4-Jun	112.67	1.22	4-Aug	112.78	2.27
4-Feb	112.56	0.35	5-Apr	112.83	3.82	5-Jun	112.63	1.02	5-Aug	112.73	1.82
5-Feb	112.57	0.34	6-Apr	112.80	3.75	6-Jun	112.59	0.87	6-Aug	112.69	1.42
6-Feb	112.60	0.35	7-Apr	112.80	3.53	7-Jun	112.56	0.75	7-Aug	112.66	1.09
7-Feb	112.61	0.36	8-Apr	112.78	3.17	8-Jun	112.53	0.65	8-Aug	112.62	0.83
8-Feb	112.63	0.39	9-Apr	112.76	2.79	9-Jun	112.52	0.56	9-Aug	112.58	0.62
9-Feb	112.65	0.43	10-Apr	112.75	2.44	10-Jun	112.60	0.56	10-Aug	112.56	0.44
10-Feb	112.66	0.45	11-Apr	112.73	2.14	11-Jun	112.56	0.48	11-Aug	112.54	0.33
11-Feb	112.67	0.39	12-Apr	112.72	1.89	12-Jun	112.51	0.37	12-Aug	112.52	0.25
12-Feb	112.68	0.38	13-Apr	112.83	1.99	13-Jun	112.48	0.29	13-Aug	112.51	0.20
13-Feb	112.68	0.37	14-Apr	112.94	3.20	14-Jun	112.46	0.23	14-Aug	112.51	0.18
14-Feb	112.68	0.36	15-Apr	112.85	3.31	15-Jun	112.50	0.24	15-Aug	112.50	0.16
15-Feb	112.68	0.35	16-Apr	112.80	3.23	16-Jun	112.48	0.21	16-Aug	112.48	0.13
16-Feb	112.68	0.40	17-Apr	112.82	3.10	17-Jun	112.45	0.19	17-Aug	112.46	0.10
17-Feb	112.68	0.40	18-Apr	112.86	3.25	18-Jun	112.43	0.15	18-Aug	112.44	0.07
18-Feb	112.67	0.37	19-Apr	112.85	3.38	19-Jun	112.41	0.12	19-Aug	112.42	0.06
19-Feb	112.67	0.36	20-Apr	112.79	3.22	20-Jun	112.39	0.09	20-Aug	112.40	0.05
20-Feb	112.68	0.36	21-Apr	112.79	3.02	21-Jun	112.38	0.08	21-Aug	112.40	0.04
21-Feb	112.71	0.34	22-Apr	112.82	3.11	22-Jun	112.38	0.07	22-Aug	112.38	0.02
22-Feb	112.75	0.33	23-Apr	112.77	2.94	23-Jun	112.36	0.06	23-Aug	112.38	0.01
23-Feb	112.79	0.32	24-Apr	112.75	2.75	24-Jun	112.36	0.04	24-Aug	112.35	0.01
24-Feb	112.81	0.36	25-Apr	112.77	2.58	25-Jun	112.34	0.04	25-Aug	112.35	0.01
25-Feb	112.81	0.42	26-Apr	112.81	2.77	26-Jun	112.35	0.02	26-Aug	112.35	0.00
26-Feb	112.81	0.44	27-Apr	112.77	2.67	27-Jun	112.34	0.02	27-Aug	112.35	0.01
27-Feb	112.81	0.44	28-Apr	112.74	2.55	28-Jun	112.33	0.02	28-Aug	112.38	0.01
28-Feb	112.82	0.45	29-Apr	112.77	2.48	29-Jun	112.32	0.02	29-Aug	112.39	0.01
29-Feb	112.87	0.49	30-Apr	112.74	2.33	30-Jun	112.32	0.02	30-Aug	112.41	0.02
1-Mar	112.92	0.55	1-May	112.72	2.21	1-Jul	112.32	0.01	31-Aug	112.46	0.02

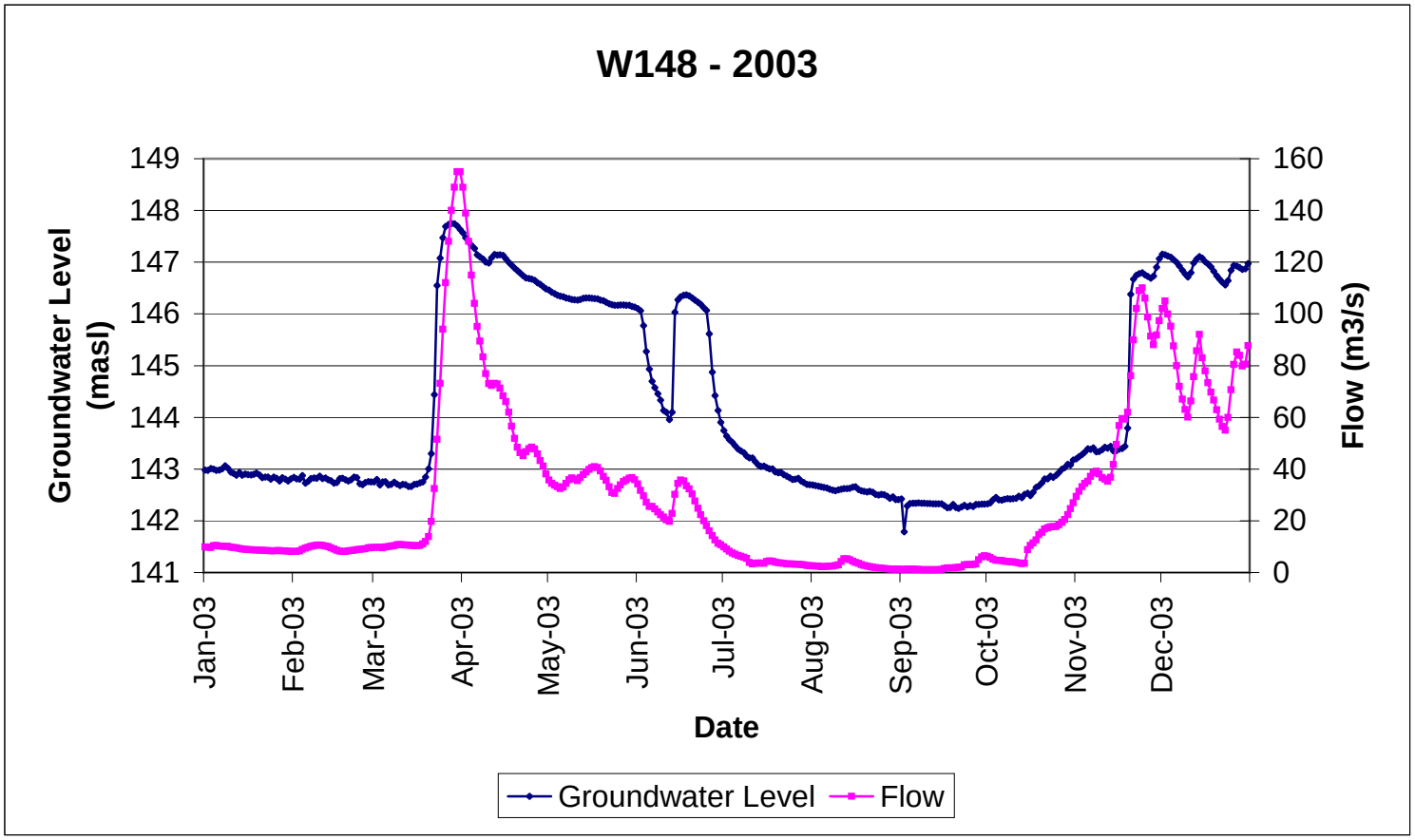
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	112.46	0.02	2-Oct	112.49	0.04	2-Nov	112.80	0.32	3-Dec	112.93	7.26
2-Sep	112.45	0.02	3-Oct	112.51	0.03	3-Nov	112.85	0.36	4-Dec	112.93	5.86
3-Sep	112.43	0.02	4-Oct	112.52	0.03	4-Nov	112.91	0.40	5-Dec	112.92	5.11
4-Sep	112.41	0.02	5-Oct	112.50	0.03	5-Nov	112.96	0.66	6-Dec	112.94	3.97
5-Sep	112.39	0.02	6-Oct	112.47	0.02	6-Nov	112.84	0.92	7-Dec	112.96	3.64
6-Sep	112.39	0.01	7-Oct	112.45	0.02	7-Nov	112.81	0.89	8-Dec	112.98	5.26
7-Sep	112.37	0.01	8-Oct	112.45	0.02	8-Nov	112.87	0.85	9-Dec	112.92	5.32
8-Sep	112.36	0.01	9-Oct	112.44	0.02	9-Nov	112.85	0.82	10-Dec	112.95	5.43
9-Sep	112.86	7.20	10-Oct	112.48	0.02	10-Nov	112.80	0.80	11-Dec	113.02	7.36
10-Sep	112.89	12.70	11-Oct	112.49	0.02	11-Nov	112.76	0.79	12-Dec	112.96	7.28
11-Sep	112.82	13.70	12-Oct	112.47	0.02	12-Nov	112.80	0.78	13-Dec	113.01	7.83
12-Sep	112.78	11.50	13-Oct	112.45	0.02	13-Nov	112.79	0.75	14-Dec	113.00	6.30
13-Sep	112.75	8.42	14-Oct	112.42	0.01	14-Nov	112.73	0.71	15-Dec	112.90	4.40
14-Sep	112.72	5.99	15-Oct	112.42	0.02	15-Nov	112.71	0.71	16-Dec	112.85	3.58
15-Sep	112.69	4.36	16-Oct	112.45	0.03	16-Nov	112.70	0.70	17-Dec	112.87	2.80
16-Sep	112.66	3.33	17-Oct	112.72	0.10	17-Nov	112.69	0.70	18-Dec	112.85	2.50
17-Sep	112.66	2.64	18-Oct	112.78	0.14	18-Nov	112.71	0.69	19-Dec	112.87	2.25
18-Sep	112.63	2.08	19-Oct	112.78	0.12	19-Nov	112.70	0.68	20-Dec	112.90	1.40
19-Sep	112.60	1.65	20-Oct	112.72	0.11	20-Nov	112.72	0.67	21-Dec	112.71	0.95
20-Sep	112.58	1.34	21-Oct	112.78	0.13	21-Nov	112.79	0.71	22-Dec	112.66	0.76
21-Sep	112.56	1.08	22-Oct	112.79	0.15	22-Nov	112.78	0.71	23-Dec	112.85	1.34
22-Sep	112.54	0.88	23-Oct	112.81	0.15	23-Nov	112.77	0.69	24-Dec	112.92	1.63
23-Sep	112.53	0.69	24-Oct	112.79	0.16	24-Nov	112.86	0.80	25-Dec	112.94	1.44
24-Sep	112.51	0.56	25-Oct	112.72	0.18	25-Nov	112.98	1.39	26-Dec	112.95	1.35
25-Sep	112.51	0.45	26-Oct	112.70	0.18	26-Nov	112.92	1.40	27-Dec	112.97	1.28
26-Sep	112.52	0.36	27-Oct	112.69	0.18	27-Nov	112.90	1.56	28-Dec	112.84	1.24
27-Sep	112.52	0.30	28-Oct	112.72	0.17	28-Nov	113.01	3.72	29-Dec	112.80	1.23
28-Sep	112.51	0.23	29-Oct	112.69	0.15	29-Nov	112.98	5.02	30-Dec	112.81	1.23
29-Sep	112.54	0.14	30-Oct	112.69	0.17	30-Nov	112.92	6.00	31-Dec	113.00	5.29
30-Sep	112.50	0.07	31-Oct	112.75	0.23	1-Dec	113.00	7.41			
1-Oct	112.49	0.044	1-Nov	112.75	0.277	2-Dec	112.96	7.88			



2003 Groundwater Level and Flow for W148

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	142.98	9.84	3-Mar	142.69	9.75	3-May	146.39	33.70	3-Jul	143.57	8.26
2-Jan	142.97	9.80	4-Mar	142.75	9.57	4-May	146.36	33.20	4-Jul	143.51	7.52
3-Jan	143.01	9.67	5-Mar	142.76	9.87	5-May	146.34	32.50	5-Jul	143.45	7.05
4-Jan	143.00	10.30	6-Mar	142.69	9.98	6-May	146.33	33.00	6-Jul	143.39	6.60
5-Jan	142.97	10.50	7-Mar	142.71	10.20	7-May	146.31	34.40	7-Jul	143.35	6.18
6-Jan	142.98	10.20	8-Mar	142.74	10.30	8-May	146.29	35.90	8-Jul	143.32	5.82
7-Jan	143.00	10.10	9-Mar	142.71	10.70	9-May	146.28	36.60	9-Jul	143.25	5.43
8-Jan	143.06	10.10	10-Mar	142.68	10.80	10-May	146.27	36.10	10-Jul	143.21	3.89
9-Jan	143.02	10.10	11-Mar	142.71	10.70	11-May	146.26	35.50	11-Jul	143.21	3.26
10-Jan	142.94	9.70	12-Mar	142.70	10.60	12-May	146.28	36.70	12-Jul	143.15	3.53
11-Jan	142.91	9.61	13-Mar	142.66	10.60	13-May	146.30	37.80	13-Jul	143.08	3.65
12-Jan	142.88	9.58	14-Mar	142.67	10.50	14-May	146.31	38.90	14-Jul	143.05	3.60
13-Jan	142.93	9.30	15-Mar	142.70	10.30	15-May	146.31	39.90	15-Jul	143.05	3.52
14-Jan	142.88	9.03	16-Mar	142.71	10.40	16-May	146.30	40.60	16-Jul	143.03	4.29
15-Jan	142.90	8.90	17-Mar	142.73	10.50	17-May	146.29	40.90	17-Jul	143.01	4.51
16-Jan	142.89	8.85	18-Mar	142.75	11.00	18-May	146.29	40.50	18-Jul	143.00	4.30
17-Jan	142.88	8.80	19-Mar	142.85	12.00	19-May	146.26	39.30	19-Jul	142.95	3.96
18-Jan	142.90	8.75	20-Mar	143.00	13.90	20-May	146.25	37.10	20-Jul	142.93	3.74
19-Jan	142.92	8.70	21-Mar	143.30	19.70	21-May	146.23	35.60	21-Jul	142.94	3.64
20-Jan	142.89	8.60	22-Mar	144.44	32.40	22-May	146.20	33.20	22-Jul	142.89	3.53
21-Jan	142.84	8.55	23-Mar	146.55	51.50	23-May	146.18	30.90	23-Jul	142.86	3.33
22-Jan	142.84	8.50	24-Mar	147.08	73.10	24-May	146.17	30.60	24-Jul	142.83	3.29
23-Jan	142.85	8.45	25-Mar	147.47	94.00	25-May	146.17	32.50	25-Jul	142.80	3.30
24-Jan	142.81	8.39	26-Mar	147.69	112.00	26-May	146.17	33.90	26-Jul	142.80	3.23
25-Jan	142.85	8.35	27-Mar	147.73	128.00	27-May	146.17	35.20	27-Jul	142.82	3.19
26-Jan	142.82	8.45	28-Mar	147.75	140.00	28-May	146.17	35.70	28-Jul	142.77	3.10
27-Jan	142.77	8.41	29-Mar	147.74	149.00	29-May	146.17	36.50	29-Jul	142.74	2.90
28-Jan	142.83	8.35	30-Mar	147.70	155.00	30-May	146.14	36.70	30-Jul	142.71	2.67
29-Jan	142.81	8.29	31-Mar	147.63	155.00	31-May	146.13	35.90	31-Jul	142.70	2.57
30-Jan	142.77	8.25	1-Apr	147.56	149.00	1-Jun	146.10	34.20	1-Aug	142.70	2.56
31-Jan	142.81	8.11	2-Apr	147.47	139.00	2-Jun	146.06	31.80	2-Aug	142.68	2.48
1-Feb	142.84	8.09	3-Apr	147.39	128.00	3-Jun	145.77	29.60	3-Aug	142.67	2.41
2-Feb	142.81	8.17	4-Apr	147.33	115.00	4-Jun	145.27	27.10	4-Aug	142.66	2.27
3-Feb	142.80	8.31	5-Apr	147.27	104.00	5-Jun	144.94	25.50	5-Aug	142.64	2.20
4-Feb	142.87	8.97	6-Apr	147.14	95.10	6-Jun	144.70	25.50	6-Aug	142.63	2.31
5-Feb	142.73	9.42	7-Apr	147.10	89.50	7-Jun	144.57	24.60	7-Aug	142.61	2.44
6-Feb	142.76	9.71	8-Apr	147.06	83.30	8-Jun	144.45	23.40	8-Aug	142.60	2.51
7-Feb	142.82	10.10	9-Apr	147.00	76.90	9-Jun	144.33	22.30	9-Aug	142.58	2.65
8-Feb	142.83	10.40	10-Apr	146.99	73.00	10-Jun	144.13	21.40	10-Aug	142.60	2.94
9-Feb	142.82	10.60	11-Apr	147.08	72.30	11-Jun	144.10	20.30	11-Aug	142.61	4.24
10-Feb	142.86	10.60	12-Apr	147.15	73.10	12-Jun	143.96	19.70	12-Aug	142.62	5.31
11-Feb	142.82	10.50	13-Apr	147.14	72.90	13-Jun	144.10	22.80	13-Aug	142.62	5.33
12-Feb	142.83	10.20	14-Apr	147.14	71.30	14-Jun	146.03	30.20	14-Aug	142.63	4.90
13-Feb	142.79	9.95	15-Apr	147.13	68.30	15-Jun	146.27	34.40	15-Aug	142.65	4.33
14-Feb	142.77	9.51	16-Apr	147.07	66.10	16-Jun	146.33	35.70	16-Aug	142.66	3.91
15-Feb	142.73	9.09	17-Apr	147.00	61.90	17-Jun	146.36	35.40	17-Aug	142.61	3.47
16-Feb	142.74	8.62	18-Apr	146.94	56.60	18-Jun	146.37	33.50	18-Aug	142.58	3.06
17-Feb	142.82	8.25	19-Apr	146.88	51.90	19-Jun	146.35	32.30	19-Aug	142.57	2.76
18-Feb	142.82	8.07	20-Apr	146.84	48.40	20-Jun	146.31	30.30	20-Aug	142.56	2.47
19-Feb	142.80	8.13	21-Apr	146.79	46.30	21-Jun	146.27	27.60	21-Aug	142.57	2.22
20-Feb	142.77	8.38	22-Apr	146.74	45.20	22-Jun	146.23	24.80	22-Aug	142.55	2.03
21-Feb	142.80	8.44	23-Apr	146.70	46.70	23-Jun	146.18	22.30	23-Aug	142.51	1.91
22-Feb	142.85	8.56	24-Apr	146.69	47.80	24-Jun	146.12	20.00	24-Aug	142.50	1.74
23-Feb	142.83	8.84	25-Apr	146.68	48.40	25-Jun	146.07	18.10	25-Aug	142.51	1.61
24-Feb	142.72	8.91	26-Apr	146.65	47.70	26-Jun	145.62	16.10	26-Aug	142.51	1.49
25-Feb	142.70	9.00	27-Apr	146.60	45.90	27-Jun	144.88	14.20	27-Aug	142.47	1.41
26-Feb	142.74	9.20	28-Apr	146.57	43.30	28-Jun	144.42	12.60	28-Aug	142.44	1.35
27-Feb	142.76	9.54	29-Apr	146.53	41.10	29-Jun	144.13	11.30	29-Aug	142.47	1.26
28-Feb	142.75	9.69	30-Apr	146.48	38.10	30-Jun	143.91	10.70	30-Aug	142.41	1.26
1-Mar	142.75	9.65	1-May	146.46	35.70	1-Jul	143.75	9.92	31-Aug	142.41	1.24
2-Mar	142.80	9.73	2-May	146.42	34.50	2-Jul	143.64	9.10	1-Sep	142.42	1.23

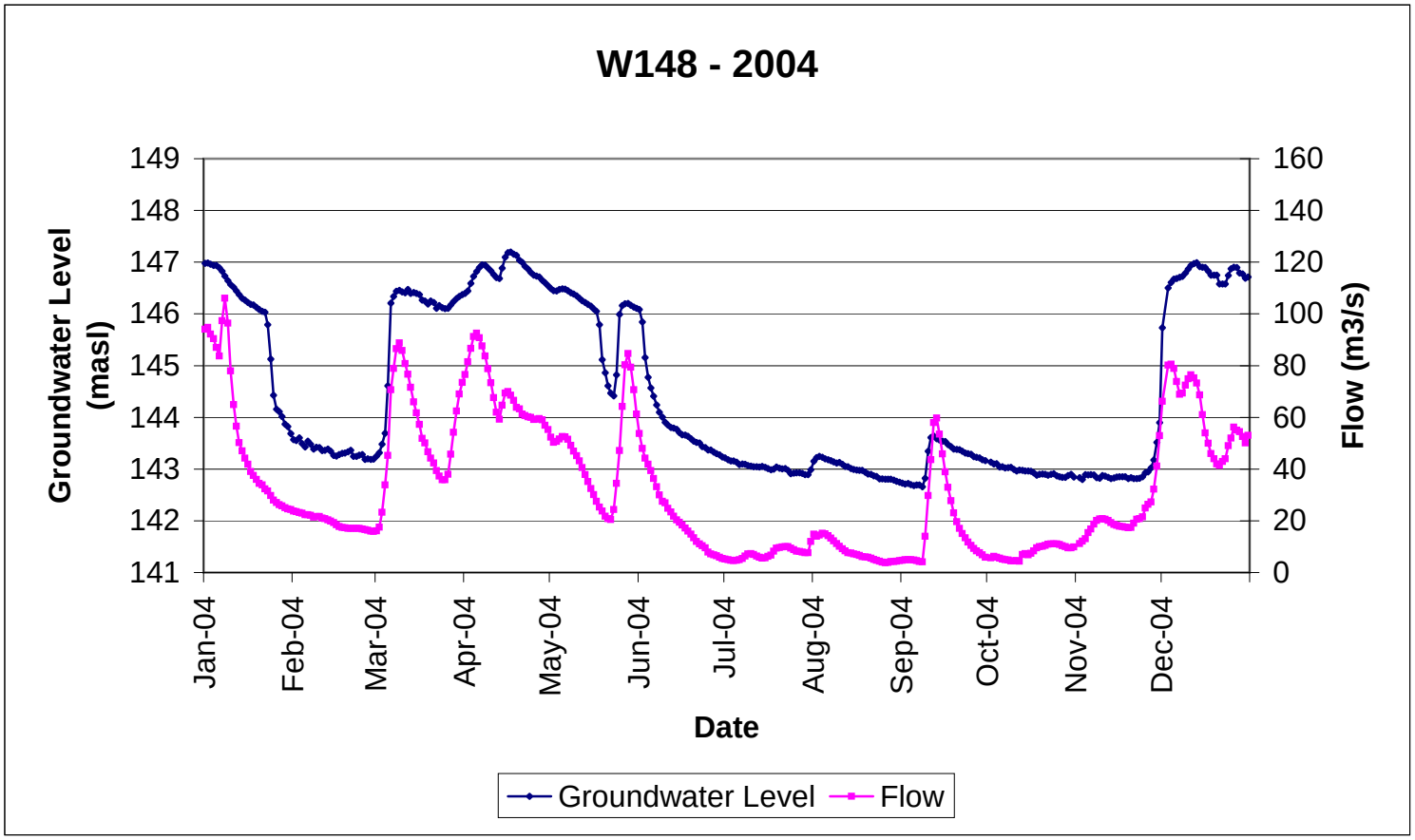
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	141.79	1.23	2-Oct	142.35	5.72	1-Nov	143.20	29.40	1-Dec	147.15	102.00
3-Sep	142.29	1.27	3-Oct	142.41	5.16	2-Nov	143.24	31.40	2-Dec	147.14	105.00
4-Sep	142.34	1.26	4-Oct	142.45	4.75	3-Nov	143.28	33.20	3-Dec	147.12	99.90
5-Sep	142.34	1.24	5-Oct	142.41	4.72	4-Nov	143.33	34.50	4-Dec	147.09	95.20
6-Sep	142.34	1.20	6-Oct	142.40	4.56	5-Nov	143.39	35.30	5-Dec	147.05	87.60
7-Sep	142.35	1.17	7-Oct	142.42	4.36	6-Nov	143.38	37.10	6-Dec	146.99	80.00
8-Sep	142.34	1.10	8-Oct	142.43	4.18	7-Nov	143.41	38.40	7-Dec	146.93	72.00
9-Sep	142.34	1.07	9-Oct	142.42	4.15	8-Nov	143.34	39.10	8-Dec	146.84	67.00
10-Sep	142.34	1.04	10-Oct	142.43	4.08	9-Nov	143.34	38.10	9-Dec	146.77	63.00
11-Sep	142.34	1.04	11-Oct	142.44	3.91	10-Nov	143.37	36.70	10-Dec	146.72	60.10
12-Sep	142.33	1.05	12-Oct	142.48	3.67	11-Nov	143.42	36.10	11-Dec	146.80	66.30
13-Sep	142.33	1.06	13-Oct	142.45	3.38	12-Nov	143.40	35.30	12-Dec	146.98	75.70
14-Sep	142.33	1.10	14-Oct	142.51	3.50	13-Nov	143.44	36.80	13-Dec	147.06	85.70
15-Sep	142.33	1.20	15-Oct	142.53	8.82	14-Nov	143.35	41.70	14-Dec	147.11	92.00
16-Sep	142.29	1.55	16-Oct	142.49	10.50	15-Nov	143.36	49.50	15-Dec	147.08	83.00
17-Sep	142.25	1.77	17-Oct	142.55	11.40	16-Nov	143.38	56.80	16-Dec	147.01	78.00
18-Sep	142.26	1.81	18-Oct	142.64	12.60	17-Nov	143.40	59.50	17-Dec	146.97	73.40
19-Sep	142.32	1.81	19-Oct	142.68	14.60	18-Nov	143.44	59.20	18-Dec	146.91	69.70
20-Sep	142.26	1.93	20-Oct	142.73	15.50	19-Nov	143.79	61.90	19-Dec	146.83	66.60
21-Sep	142.24	2.01	21-Oct	142.81	16.80	20-Nov	146.38	76.10	20-Dec	146.74	62.90
22-Sep	142.27	2.08	22-Oct	142.81	17.30	21-Nov	146.67	89.90	21-Dec	146.67	59.20
23-Sep	142.30	2.93	23-Oct	142.86	17.60	22-Nov	146.75	102.00	22-Dec	146.61	56.40
24-Sep	142.27	3.10	24-Oct	142.84	17.70	23-Nov	146.78	109.00	23-Dec	146.56	55.00
25-Sep	142.29	3.00	25-Oct	142.88	17.80	24-Nov	146.79	110.00	24-Dec	146.64	59.90
26-Sep	142.28	3.02	26-Oct	142.93	18.50	25-Nov	146.76	106.00	25-Dec	146.84	70.70
27-Sep	142.32	3.30	27-Oct	143.00	19.40	26-Nov	146.72	98.80	26-Dec	146.94	80.40
28-Sep	142.32	4.90	28-Oct	143.03	20.40	27-Nov	146.69	91.30	27-Dec	146.92	85.20
29-Sep	142.32	5.99	29-Oct	143.09	22.30	28-Nov	146.73	88.10	28-Dec	146.90	83.90
30-Sep	142.32	6.42	30-Oct	143.08	24.70	29-Nov	146.90	91.80	29-Dec	146.86	79.80
1-Oct	142.33	6.23	31-Oct	143.17	26.90	30-Nov	147.07	97.30	30-Dec	146.87	80.50
									31-Dec	146.97	87.70



2004 Groundwater Level and Flow for W148

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	146.98	94.10	2-Mar	143.32	17.50	2-May	146.45	50.30	2-Jul	143.18	4.99
2-Jan	146.98	94.70	3-Mar	143.48	23.30	3-May	146.44	50.70	3-Jul	143.16	4.70
3-Jan	146.96	92.20	4-Mar	143.69	33.80	4-May	146.47	51.60	4-Jul	143.16	4.53
4-Jan	146.94	90.40	5-Mar	144.61	45.30	5-May	146.49	52.50	5-Jul	143.13	4.76
5-Jan	146.94	87.00	6-Mar	146.21	70.60	6-May	146.48	52.40	6-Jul	143.09	4.89
6-Jan	146.89	83.70	7-Mar	146.34	78.90	7-May	146.45	51.50	7-Jul	143.10	5.38
7-Jan	146.82	97.30	8-Mar	146.43	86.50	8-May	146.41	49.10	8-Jul	143.10	6.37
8-Jan	146.73	106.00	9-Mar	146.45	88.80	9-May	146.38	46.90	9-Jul	143.07	7.15
9-Jan	146.64	96.40	10-Mar	146.43	85.80	10-May	146.35	45.20	10-Jul	143.06	7.24
10-Jan	146.57	77.90	11-Mar	146.41	80.80	11-May	146.30	43.20	11-Jul	143.05	6.89
11-Jan	146.51	64.90	12-Mar	146.47	76.60	12-May	146.26	40.60	12-Jul	143.05	6.32
12-Jan	146.44	56.60	13-Mar	146.40	71.60	13-May	146.22	37.90	13-Jul	143.04	5.83
13-Jan	146.37	50.20	14-Mar	146.41	66.00	14-May	146.18	35.10	14-Jul	143.05	5.53
14-Jan	146.30	47.00	15-Mar	146.40	61.70	15-May	146.15	32.50	15-Jul	143.03	5.70
15-Jan	146.26	44.20	16-Mar	146.37	57.30	16-May	146.10	30.10	16-Jul	143.01	6.25
16-Jan	146.22	41.80	17-Mar	146.27	51.90	17-May	146.05	27.50	17-Jul	142.99	6.71
17-Jan	146.19	39.00	18-Mar	146.25	50.10	18-May	145.79	25.30	18-Jul	143.00	8.20
18-Jan	146.17	37.50	19-Mar	146.19	46.70	19-May	145.12	23.80	19-Jul	143.04	9.39
19-Jan	146.13	36.00	20-Mar	146.25	44.20	20-May	144.86	21.70	20-Jul	143.02	9.67
20-Jan	146.08	34.50	21-Mar	146.22	42.30	21-May	144.61	20.80	21-Jul	143.01	9.85
21-Jan	146.05	33.90	22-Mar	146.11	39.40	22-May	144.47	20.50	22-Jul	143.01	9.96
22-Jan	146.03	32.30	23-Mar	146.16	37.30	23-May	144.41	24.30	23-Jul	142.98	9.95
23-Jan	145.79	31.50	24-Mar	146.12	35.90	24-May	144.82	34.40	24-Jul	142.91	9.40
24-Jan	145.12	29.70	25-Mar	146.10	35.80	25-May	145.99	47.10	25-Jul	142.92	8.77
25-Jan	144.43	28.00	26-Mar	146.11	38.00	26-May	146.16	64.20	26-Jul	142.93	8.20
26-Jan	144.15	27.00	27-Mar	146.17	45.70	27-May	146.19	80.30	27-Jul	142.93	8.09
27-Jan	144.11	26.20	28-Mar	146.24	54.20	28-May	146.20	84.60	28-Jul	142.92	7.93
28-Jan	144.01	25.70	29-Mar	146.29	62.40	29-May	146.16	79.40	29-Jul	142.89	7.63
29-Jan	143.87	25.00	30-Mar	146.34	69.00	30-May	146.13	70.60	30-Jul	142.89	7.66
30-Jan	143.82	24.60	31-Mar	146.37	73.50	31-May	146.11	61.30	31-Jul	142.99	12.00
31-Jan	143.68	24.30	1-Apr	146.39	76.50	1-Jun	146.09	53.70	1-Aug	143.15	14.80
1-Feb	143.57	23.80	2-Apr	146.45	81.50	2-Jun	145.84	48.00	2-Aug	143.22	14.00
2-Feb	143.55	23.50	3-Apr	146.59	86.70	3-Jun	145.15	44.20	3-Aug	143.24	14.50
3-Feb	143.61	23.20	4-Apr	146.73	91.20	4-Jun	144.77	41.90	4-Aug	143.23	15.20
4-Feb	143.49	22.90	5-Apr	146.82	92.50	5-Jun	144.57	39.40	5-Aug	143.20	14.90
5-Feb	143.43	22.30	6-Apr	146.90	90.70	6-Jun	144.41	36.30	6-Aug	143.18	14.20
6-Feb	143.54	22.30	7-Apr	146.95	87.60	7-Jun	144.24	33.10	7-Aug	143.16	13.30
7-Feb	143.48	22.10	8-Apr	146.94	83.70	8-Jun	144.10	30.00	8-Aug	143.14	12.20
8-Feb	143.39	21.40	9-Apr	146.89	78.80	9-Jun	144.01	27.50	9-Aug	143.12	11.20
9-Feb	143.42	21.60	10-Apr	146.83	73.30	10-Jun	143.90	26.90	10-Aug	143.13	10.10
10-Feb	143.42	21.60	11-Apr	146.76	67.60	11-Jun	143.85	24.80	11-Aug	143.09	9.13
11-Feb	143.36	21.10	12-Apr	146.70	61.90	12-Jun	143.81	23.40	12-Aug	143.05	8.32
12-Feb	143.36	20.80	13-Apr	146.69	59.30	13-Jun	143.79	21.80	13-Aug	143.04	7.70
13-Feb	143.39	20.30	14-Apr	146.88	64.60	14-Jun	143.77	20.30	14-Aug	143.01	7.47
14-Feb	143.34	19.90	15-Apr	147.10	69.40	15-Jun	143.70	19.40	15-Aug	142.99	7.16
15-Feb	143.26	19.30	16-Apr	147.18	70.00	16-Jun	143.66	18.30	16-Aug	142.98	6.93
16-Feb	143.25	18.50	17-Apr	147.20	68.50	17-Jun	143.66	17.20	17-Aug	142.98	6.60
17-Feb	143.28	17.80	18-Apr	147.15	66.50	18-Jun	143.63	16.00	18-Aug	142.98	6.16
18-Feb	143.31	17.40	19-Apr	147.13	63.80	19-Jun	143.58	14.80	19-Aug	142.94	6.03
19-Feb	143.31	17.30	20-Apr	147.04	63.30	20-Jun	143.54	13.40	20-Aug	142.91	5.86
20-Feb	143.33	17.10	21-Apr	146.99	61.20	21-Jun	143.52	12.00	21-Aug	142.90	5.47
21-Feb	143.36	17.00	22-Apr	146.92	60.70	22-Jun	143.50	11.10	22-Aug	142.87	5.09
22-Feb	143.24	17.10	23-Apr	146.86	60.20	23-Jun	143.44	10.30	23-Aug	142.86	4.68
23-Feb	143.25	17.00	24-Apr	146.80	59.90	24-Jun	143.41	9.47	24-Aug	142.81	4.38
24-Feb	143.27	17.10	25-Apr	146.75	59.10	25-Jun	143.37	7.85	25-Aug	142.81	4.01
25-Feb	143.28	16.80	26-Apr	146.73	59.30	26-Jun	143.37	7.15	26-Aug	142.80	3.76
26-Feb	143.19	16.60	27-Apr	146.71	59.50	27-Jun	143.33	6.81	27-Aug	142.80	3.88
27-Feb	143.20	16.30	28-Apr	146.65	59.00	28-Jun	143.30	6.48	28-Aug	142.80	4.22
28-Feb	143.19	16.00	29-Apr	146.60	56.90	29-Jun	143.27	5.88	29-Aug	142.79	4.18
29-Feb	143.19	15.90	30-Apr	146.54	55.20	30-Jun	143.23	5.45	30-Aug	142.76	4.32
1-Mar	143.25	16.10	1-May	146.49	52.30	1-Jul	143.22	5.19	31-Aug	142.75	4.61

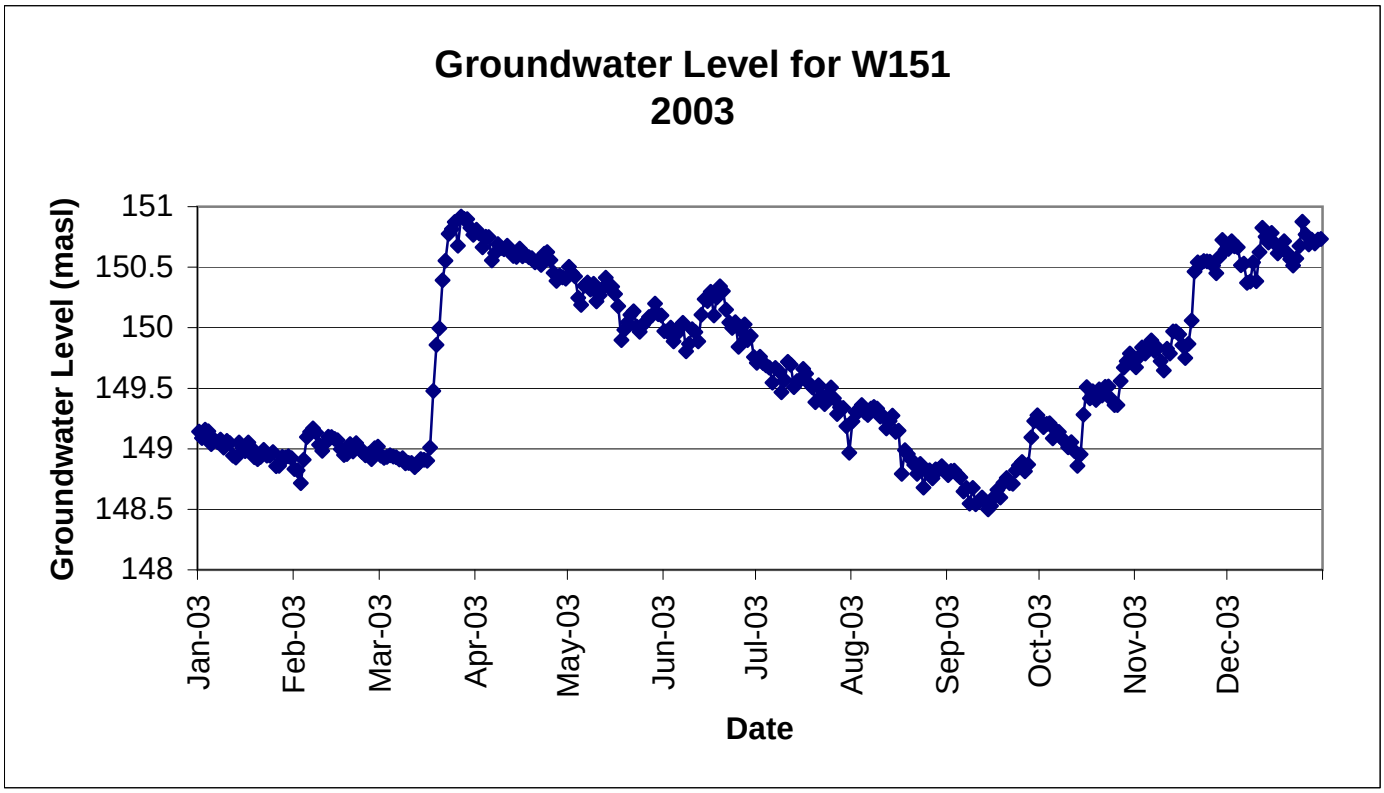
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	142.73	4.75	2-Oct	143.13	5.65	2-Nov	142.83	11.20	3-Dec	146.50	80.20
2-Sep	142.71	4.92	3-Oct	143.10	6.25	3-Nov	142.80	12.10	4-Dec	146.61	80.50
3-Sep	142.72	4.90	4-Oct	143.10	5.91	4-Nov	142.89	13.10	5-Dec	146.67	78.90
4-Sep	142.70	4.88	5-Oct	143.04	5.55	5-Nov	142.89	15.40	6-Dec	146.68	73.80
5-Sep	142.68	4.79	6-Oct	143.05	5.18	6-Nov	142.89	16.80	7-Dec	146.71	68.90
6-Sep	142.69	4.53	7-Oct	143.02	4.95	7-Nov	142.88	18.70	8-Dec	146.72	69.40
7-Sep	142.69	4.19	8-Oct	143.03	4.78	8-Nov	142.83	20.10	9-Dec	146.79	72.40
8-Sep	142.66	4.16	9-Oct	143.03	4.47	9-Nov	142.82	20.70	10-Dec	146.87	74.90
9-Sep	142.82	14.00	10-Oct	142.99	4.47	10-Nov	142.88	20.80	11-Dec	146.94	76.40
10-Sep	143.34	29.80	11-Oct	142.96	4.62	11-Nov	142.86	20.60	12-Dec	146.97	75.20
11-Sep	143.61	43.60	12-Oct	142.98	4.34	12-Nov	142.84	20.10	13-Dec	146.99	73.20
12-Sep	143.64	57.90	13-Oct	142.98	6.88	13-Nov	142.82	19.30	14-Dec	146.91	68.70
13-Sep	143.59	59.70	14-Oct	142.96	7.23	14-Nov	142.83	18.60	15-Dec	146.90	61.00
14-Sep	143.56	53.50	15-Oct	142.96	6.85	15-Nov	142.85	18.20	16-Dec	146.90	54.00
15-Sep	143.54	45.80	16-Oct	142.96	7.45	16-Nov	142.85	17.90	17-Dec	146.82	50.00
16-Sep	143.53	38.90	17-Oct	142.93	8.32	17-Nov	142.85	17.70	18-Dec	146.75	46.00
17-Sep	143.48	32.90	18-Oct	142.88	9.48	18-Nov	142.85	17.50	19-Dec	146.75	44.00
18-Sep	143.43	27.70	19-Oct	142.90	10.00	19-Nov	142.82	17.30	20-Dec	146.75	42.00
19-Sep	143.39	23.10	20-Oct	142.91	10.10	20-Nov	142.84	17.40	21-Dec	146.58	41.40
20-Sep	143.38	19.60	21-Oct	142.90	10.50	21-Nov	142.81	19.10	22-Dec	146.58	42.90
21-Sep	143.37	17.10	22-Oct	142.88	10.90	22-Nov	142.82	20.60	23-Dec	146.58	44.00
22-Sep	143.35	15.10	23-Oct	142.90	11.10	23-Nov	142.82	20.80	24-Dec	146.74	49.00
23-Sep	143.31	13.40	24-Oct	142.91	11.00	24-Nov	142.85	21.50	25-Dec	146.87	52.00
24-Sep	143.30	11.80	25-Oct	142.87	11.10	25-Nov	142.93	24.90	26-Dec	146.90	56.20
25-Sep	143.29	10.50	26-Oct	142.85	10.80	26-Nov	142.95	26.30	27-Dec	146.90	55.00
26-Sep	143.24	9.30	27-Oct	142.84	10.40	27-Nov	143.02	27.30	28-Dec	146.79	54.40
27-Sep	143.23	8.37	28-Oct	142.84	10.00	28-Nov	143.18	32.20	29-Dec	146.77	52.60
28-Sep	143.22	7.65	29-Oct	142.87	9.56	29-Nov	143.52	41.20	30-Dec	146.69	50.10
29-Sep	143.18	6.86	30-Oct	142.90	9.47	30-Nov	143.90	52.90	31-Dec	146.71	53.00
30-Sep	143.16	5.92	31-Oct	142.85	9.90	1-Dec	145.73	66.20			
1-Oct	143.13	5.49	1-Nov	142.79	10.4	2-Dec	146.30	75.6			



2003 Groundwater Level for W151

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2003	149.1413	3/3/2003	148.9323	5/3/2003	150.4242	7/3/2003	149.7062
1/2/2003	149.0893	3/4/2003	148.9465	5/4/2003	150.2472	7/4/2003	149.6896
1/3/2003	149.1587	3/5/2003	148.937	5/5/2003	150.1892	7/5/2003	149.6702
1/4/2003	149.1441	3/6/2003	148.9294	5/6/2003	150.3475	7/6/2003	149.545
1/5/2003	149.0388	3/7/2003	148.9111	5/7/2003	150.3728	7/7/2003	149.6667
1/6/2003	149.0733	3/8/2003	148.9231	5/8/2003	150.3152	7/8/2003	149.6428
1/7/2003	149.0545	3/9/2003	148.8803	5/9/2003	150.3637	7/9/2003	149.4682
1/8/2003	149.0768	3/10/2003	148.8839	5/10/2003	150.2187	7/10/2003	149.5666
1/9/2003	149.01	3/11/2003	148.8821	5/11/2003	150.2688	7/11/2003	149.7183
1/10/2003	149.0656	3/12/2003	148.8475	5/12/2003	150.3264	7/12/2003	149.6953
1/11/2003	149.0478	3/13/2003	148.875	5/13/2003	150.4122	7/13/2003	149.5086
1/12/2003	148.9437	3/14/2003	148.9144	5/14/2003	150.3336	7/14/2003	149.5599
1/13/2003	148.9279	3/15/2003	148.9105	5/15/2003	150.3393	7/15/2003	149.5683
1/14/2003	149.0515	3/16/2003	148.9009	5/16/2003	150.2797	7/16/2003	149.6598
1/15/2003	149.009	3/17/2003	149.0105	5/17/2003	150.1771	7/17/2003	149.6192
1/16/2003	148.9819	3/18/2003	149.4779	5/18/2003	149.8967	7/18/2003	149.5374
1/17/2003	149.0532	3/19/2003	149.8586	5/19/2003	149.9814	7/19/2003	149.5066
1/18/2003	149.006	3/20/2003	149.9947	5/20/2003	150.0441	7/20/2003	149.3851
1/19/2003	148.9304	3/21/2003	150.3915	5/21/2003	150.1056	7/21/2003	149.5238
1/20/2003	148.9135	3/22/2003	150.5536	5/22/2003	150.1369	7/22/2003	149.4412
1/21/2003	148.9328	3/23/2003	150.7764	5/23/2003	150.0088	7/23/2003	149.3688
1/22/2003	148.9902	3/24/2003	150.8138	5/24/2003	149.9671	7/24/2003	149.4483
1/23/2003	148.9425	3/25/2003	150.8736	5/25/2003	150.0228	7/25/2003	149.5053
1/24/2003	148.9446	3/26/2003	150.6775	5/26/2003	150.0528	7/26/2003	149.4162
1/25/2003	148.974	3/27/2003	150.9174	5/27/2003	150.0888	7/27/2003	149.2882
1/26/2003	148.8554	3/28/2003	150.8983	5/28/2003	150.1043	7/28/2003	149.3423
1/27/2003	148.8585	3/29/2003	150.8963	5/29/2003	150.1991	7/29/2003	149.3365
1/28/2003	148.9319	3/30/2003	150.8257	5/30/2003	150.1114	7/30/2003	149.1863
1/29/2003	148.9269	3/31/2003	150.7677	5/31/2003	150.1018	7/31/2003	148.9668
1/30/2003	148.938	4/1/2003	150.8086	6/1/2003	149.973	8/1/2003	149.2259
1/31/2003	148.9214	4/2/2003	150.7789	6/2/2003	149.9666	8/2/2003	149.3043
2/1/2003	148.8314	4/3/2003	150.6656	6/3/2003	149.9996	8/3/2003	149.3088
2/2/2003	148.823	4/4/2003	150.7524	6/4/2003	149.8865	8/4/2003	149.3602
2/3/2003	148.7173	4/5/2003	150.7486	6/5/2003	149.9498	8/5/2003	149.301
2/4/2003	148.9104	4/6/2003	150.5552	6/6/2003	150.0106	8/6/2003	149.2783
2/5/2003	149.096	4/7/2003	150.6161	6/7/2003	150.0408	8/7/2003	149.3328
2/6/2003	149.1404	4/8/2003	150.6898	6/8/2003	149.8046	8/8/2003	149.3458
2/7/2003	149.1675	4/9/2003	150.6585	6/9/2003	149.8667	8/9/2003	149.331
2/8/2003	149.1338	4/10/2003	150.6487	6/10/2003	149.988	8/10/2003	149.2658
2/9/2003	149.0341	4/11/2003	150.6784	6/11/2003	149.963	8/11/2003	149.2691
2/10/2003	148.9821	4/12/2003	150.6412	6/12/2003	149.8883	8/12/2003	149.1674
2/11/2003	149.0506	4/13/2003	150.5933	6/13/2003	150.1075	8/13/2003	149.2278
2/12/2003	149.1002	4/14/2003	150.5846	6/14/2003	150.2363	8/14/2003	149.2737
2/13/2003	149.0981	4/15/2003	150.6527	6/15/2003	150.2201	8/15/2003	149.1383
2/14/2003	149.0816	4/16/2003	150.5911	6/16/2003	150.2979	8/16/2003	149.149
2/15/2003	149.0712	4/17/2003	150.6002	6/17/2003	150.1001	8/17/2003	148.7934
2/16/2003	148.9957	4/18/2003	150.5832	6/18/2003	150.2483	8/18/2003	148.9889
2/17/2003	148.9489	4/19/2003	150.5751	6/19/2003	150.343	8/19/2003	148.9558
2/18/2003	148.9562	4/20/2003	150.5407	6/20/2003	150.3025	8/20/2003	148.9131
2/19/2003	149.0395	4/21/2003	150.554	6/21/2003	150.1477	8/21/2003	148.8673
2/20/2003	148.9776	4/22/2003	150.5188	6/22/2003	150.0442	8/22/2003	148.7927
2/21/2003	149.0455	4/23/2003	150.6122	6/23/2003	149.997	8/23/2003	148.8736
2/22/2003	149.0092	4/24/2003	150.6256	6/24/2003	150.045	8/24/2003	148.6784
2/23/2003	148.9715	4/25/2003	150.559	6/25/2003	149.8426	8/25/2003	148.8149
2/24/2003	148.9469	4/26/2003	150.4525	6/26/2003	149.9752	8/26/2003	148.8223
2/25/2003	148.958	4/27/2003	150.386	6/27/2003	150.0266	8/27/2003	148.7561
2/26/2003	148.9147	4/28/2003	150.4329	6/28/2003	149.8967	8/28/2003	148.8291
2/27/2003	149.0055	4/29/2003	150.4165	6/29/2003	149.9315	8/29/2003	148.8291
2/28/2003	149.0189	4/30/2003	150.4065	6/30/2003	149.7564	8/30/2003	148.856
3/1/2003	148.9441	5/1/2003	150.5031	7/1/2003	149.7103	8/31/2003	148.8245
3/2/2003	148.924	5/2/2003	150.4533	7/2/2003	149.761	9/1/2003	148.7823

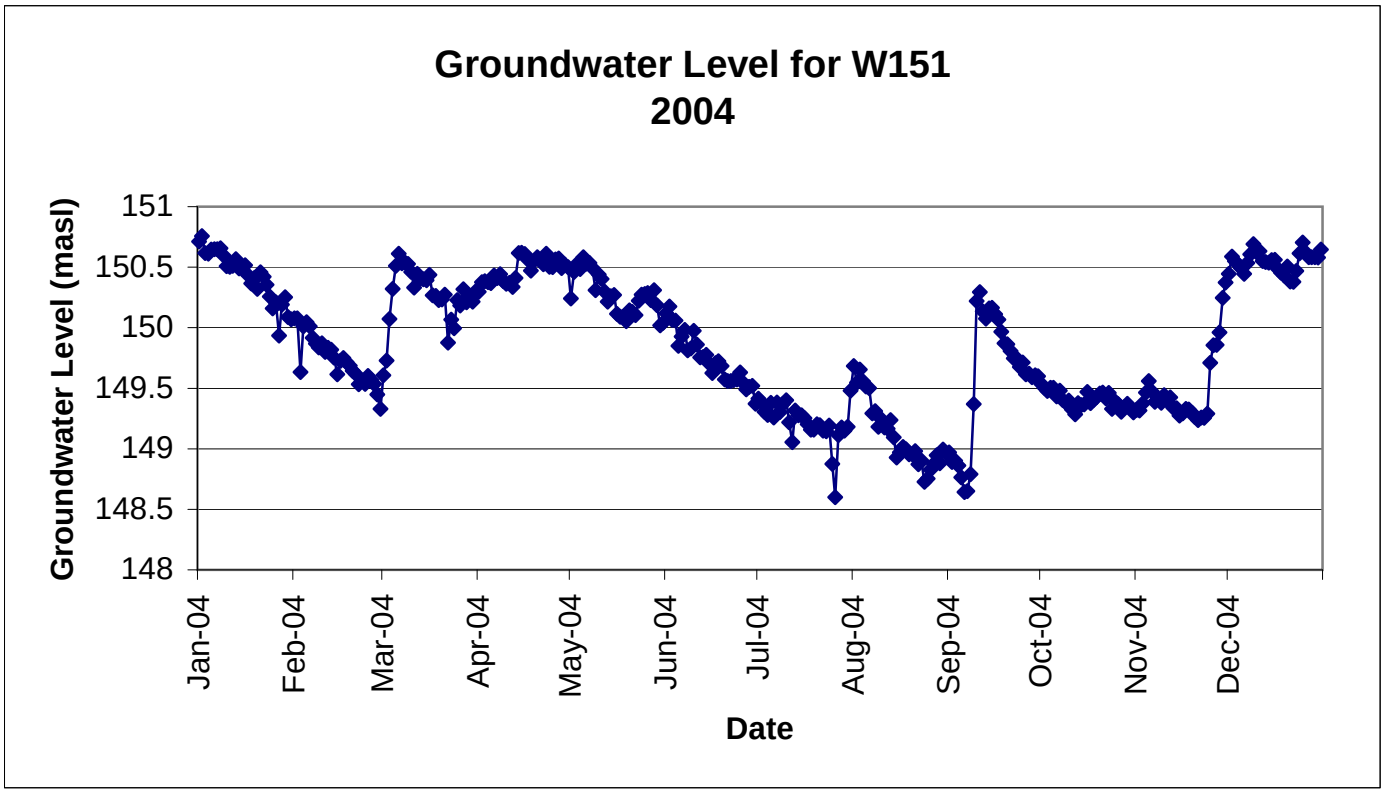
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/2/2003	148.8161	10/2/2003	149.1787	11/1/2003	149.6727	12/1/2003	150.6516
9/3/2003	148.8203	10/3/2003	149.2054	11/2/2003	149.7611	12/2/2003	150.7153
9/4/2003	148.7886	10/4/2003	149.2105	11/3/2003	149.8359	12/3/2003	150.6731
9/5/2003	148.7646	10/5/2003	149.0866	11/4/2003	149.788	12/4/2003	150.6636
9/6/2003	148.6481	10/6/2003	149.1487	11/5/2003	149.8526	12/5/2003	150.5161
9/7/2003	148.6755	10/7/2003	149.139	11/6/2003	149.895	12/6/2003	150.5293
9/8/2003	148.5463	10/8/2003	149.0842	11/7/2003	149.8072	12/7/2003	150.3712
9/9/2003	148.6756	10/9/2003	149.0562	11/8/2003	149.8318	12/8/2003	150.3817
9/10/2003	148.5413	10/10/2003	149.0115	11/9/2003	149.723	12/9/2003	150.5394
9/11/2003	148.5591	10/11/2003	149.0538	11/10/2003	149.6459	12/10/2003	150.3848
9/12/2003	148.5975	10/12/2003	148.9799	11/11/2003	149.8277	12/11/2003	150.6241
9/13/2003	148.5676	10/13/2003	148.8578	11/12/2003	149.7873	12/12/2003	150.8251
9/14/2003	148.4992	10/14/2003	148.9548	11/13/2003	149.97	12/13/2003	150.7507
9/15/2003	148.5279	10/15/2003	149.2818	11/14/2003	149.9696	12/14/2003	150.7047
9/16/2003	148.6031	10/16/2003	149.5095	11/15/2003	149.9442	12/15/2003	150.7828
9/17/2003	148.6609	10/17/2003	149.4161	11/16/2003	149.8561	12/16/2003	150.696
9/18/2003	148.5967	10/18/2003	149.4747	11/17/2003	149.7499	12/17/2003	150.6146
9/19/2003	148.7188	10/19/2003	149.4034	11/18/2003	149.8663	12/18/2003	150.6594
9/20/2003	148.7587	10/20/2003	149.4916	11/19/2003	150.0592	12/19/2003	150.7149
9/21/2003	148.7164	10/21/2003	149.4405	11/20/2003	150.4628	12/20/2003	150.6193
9/22/2003	148.7119	10/22/2003	149.5116	11/21/2003	150.5408	12/21/2003	150.5678
9/23/2003	148.822	10/23/2003	149.5158	11/22/2003	150.5325	12/22/2003	150.5142
9/24/2003	148.8628	10/24/2003	149.4096	11/23/2003	150.5516	12/23/2003	150.5707
9/25/2003	148.8919	10/25/2003	149.362	11/24/2003	150.5488	12/24/2003	150.6755
9/26/2003	148.8131	10/26/2003	149.3611	11/25/2003	150.5462	12/25/2003	150.8764
9/27/2003	148.8706	10/27/2003	149.5596	11/26/2003	150.513	12/26/2003	150.7703
9/28/2003	149.0948	10/28/2003	149.6693	11/27/2003	150.4495	12/27/2003	150.6881
9/29/2003	149.2296	10/29/2003	149.7222	11/28/2003	150.5823	12/28/2003	150.7289
9/30/2003	149.2766	10/30/2003	149.7876	11/29/2003	150.7251	12/29/2003	150.695
10/1/2003	149.2301	10/31/2003	149.7544	11/30/2003	150.642	12/30/2003	150.7282
						12/31/2003	150.7342



2004 Groundwater Level for W151

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2004	150.7106	3/2/2004	149.7293	5/2/2004	150.4595	7/2/2004	149.3811
1/2/2004	150.7569	3/3/2004	150.0729	5/3/2004	150.5263	7/3/2004	149.3069
1/3/2004	150.6174	3/4/2004	150.3199	5/4/2004	150.4834	7/4/2004	149.2781
1/4/2004	150.6103	3/5/2004	150.5123	5/5/2004	150.5812	7/5/2004	149.3798
1/5/2004	150.6469	3/6/2004	150.6127	5/6/2004	150.5291	7/6/2004	149.2583
1/6/2004	150.6475	3/7/2004	150.5309	5/7/2004	150.5359	7/7/2004	149.3817
1/7/2004	150.6486	3/8/2004	150.539	5/8/2004	150.496	7/8/2004	149.3042
1/8/2004	150.6569	3/9/2004	150.5265	5/9/2004	150.3106	7/9/2004	149.3713
1/9/2004	150.5956	3/10/2004	150.461	5/10/2004	150.4401	7/10/2004	149.4
1/10/2004	150.5087	3/11/2004	150.3314	5/11/2004	150.4026	7/11/2004	149.2185
1/11/2004	150.5032	3/12/2004	150.4458	5/12/2004	150.2963	7/12/2004	149.0558
1/12/2004	150.5115	3/13/2004	150.4055	5/13/2004	150.2152	7/13/2004	149.3166
1/13/2004	150.5658	3/14/2004	150.4001	5/14/2004	150.2602	7/14/2004	149.2762
1/14/2004	150.4893	3/15/2004	150.3908	5/15/2004	150.2698	7/15/2004	149.277
1/15/2004	150.4868	3/16/2004	150.4383	5/16/2004	150.1149	7/16/2004	149.2535
1/16/2004	150.5168	3/17/2004	150.2688	5/17/2004	150.0916	7/17/2004	149.2017
1/17/2004	150.433	3/18/2004	150.2619	5/18/2004	150.0914	7/18/2004	149.1589
1/18/2004	150.3668	3/19/2004	150.2277	5/19/2004	150.0535	7/19/2004	149.1578
1/19/2004	150.4098	3/20/2004	150.2343	5/20/2004	150.1433	7/20/2004	149.2036
1/20/2004	150.3212	3/21/2004	150.2738	5/21/2004	150.1293	7/21/2004	149.1938
1/21/2004	150.4582	3/22/2004	149.8769	5/22/2004	150.1049	7/22/2004	149.149
1/22/2004	150.4204	3/23/2004	150.0659	5/23/2004	150.2234	7/23/2004	149.1432
1/23/2004	150.3561	3/24/2004	149.9954	5/24/2004	150.2727	7/24/2004	149.192
1/24/2004	150.2571	3/25/2004	150.2287	5/25/2004	150.2778	7/25/2004	148.8746
1/25/2004	150.1582	3/26/2004	150.1844	5/26/2004	150.2867	7/26/2004	148.6012
1/26/2004	150.2092	3/27/2004	150.3188	5/27/2004	150.229	7/27/2004	149.1138
1/27/2004	149.9361	3/28/2004	150.2089	5/28/2004	150.309	7/28/2004	149.1773
1/28/2004	150.1916	3/29/2004	150.2442	5/29/2004	150.1869	7/29/2004	149.1508
1/29/2004	150.2512	3/30/2004	150.2157	5/30/2004	150.0188	7/30/2004	149.1825
1/30/2004	150.0876	3/31/2004	150.2983	5/31/2004	150.0411	7/31/2004	149.4793
1/31/2004	150.0701	4/1/2004	150.2974	6/1/2004	150.1201	8/1/2004	149.6849
2/1/2004	150.0774	4/2/2004	150.3768	6/2/2004	150.1764	8/2/2004	149.5467
2/2/2004	150.0771	4/3/2004	150.3845	6/3/2004	150.065	8/3/2004	149.6544
2/3/2004	149.6325	4/4/2004	150.3772	6/4/2004	150.0598	8/4/2004	149.5562
2/4/2004	150.0102	4/5/2004	150.3695	6/5/2004	149.8495	8/5/2004	149.5153
2/5/2004	150.0456	4/6/2004	150.4316	6/6/2004	149.9256	8/6/2004	149.5018
2/6/2004	150.0104	4/7/2004	150.4093	6/7/2004	149.9824	8/7/2004	149.2927
2/7/2004	149.9164	4/8/2004	150.4431	6/8/2004	149.8139	8/8/2004	149.3123
2/8/2004	149.8678	4/9/2004	150.3831	6/9/2004	149.8302	8/9/2004	149.1808
2/9/2004	149.8366	4/10/2004	150.3619	6/10/2004	149.9748	8/10/2004	149.2437
2/10/2004	149.8724	4/11/2004	150.3697	6/11/2004	149.8613	8/11/2004	149.1768
2/11/2004	149.8011	4/12/2004	150.3364	6/12/2004	149.7557	8/12/2004	149.1644
2/12/2004	149.8343	4/13/2004	150.4118	6/13/2004	149.7579	8/13/2004	149.2369
2/13/2004	149.8184	4/14/2004	150.616	6/14/2004	149.777	8/14/2004	149.0935
2/14/2004	149.7524	4/15/2004	150.6206	6/15/2004	149.7051	8/15/2004	148.9268
2/15/2004	149.6141	4/16/2004	150.6093	6/16/2004	149.625	8/16/2004	148.9701
2/16/2004	149.7255	4/17/2004	150.5612	6/17/2004	149.7075	8/17/2004	149.0153
2/17/2004	149.7497	4/18/2004	150.4724	6/18/2004	149.7233	8/18/2004	148.996
2/18/2004	149.716	4/19/2004	150.5542	6/19/2004	149.685	8/19/2004	148.9538
2/19/2004	149.6853	4/20/2004	150.5826	6/20/2004	149.5737	8/20/2004	148.9532
2/20/2004	149.6441	4/21/2004	150.5548	6/21/2004	149.5595	8/21/2004	148.9806
2/21/2004	149.6168	4/22/2004	150.5254	6/22/2004	149.5589	8/22/2004	148.8734
2/22/2004	149.5322	4/23/2004	150.6104	6/23/2004	149.5687	8/23/2004	148.9033
2/23/2004	149.5628	4/24/2004	150.5018	6/24/2004	149.5723	8/24/2004	148.7271
2/24/2004	149.5352	4/25/2004	150.5005	6/25/2004	149.6321	8/25/2004	148.753
2/25/2004	149.6029	4/26/2004	150.5642	6/26/2004	149.5453	8/26/2004	148.8285
2/26/2004	149.568	4/27/2004	150.5714	6/27/2004	149.4918	8/27/2004	148.8741
2/27/2004	149.5364	4/28/2004	150.4921	6/28/2004	149.5108	8/28/2004	148.9452
2/28/2004	149.4475	4/29/2004	150.5209	6/29/2004	149.5203	8/29/2004	148.88
2/29/2004	149.3293	4/30/2004	150.5001	6/30/2004	149.372	8/30/2004	148.9932
3/1/2004	149.6071	5/1/2004	150.2422	7/1/2004	149.4144	8/31/2004	148.9645

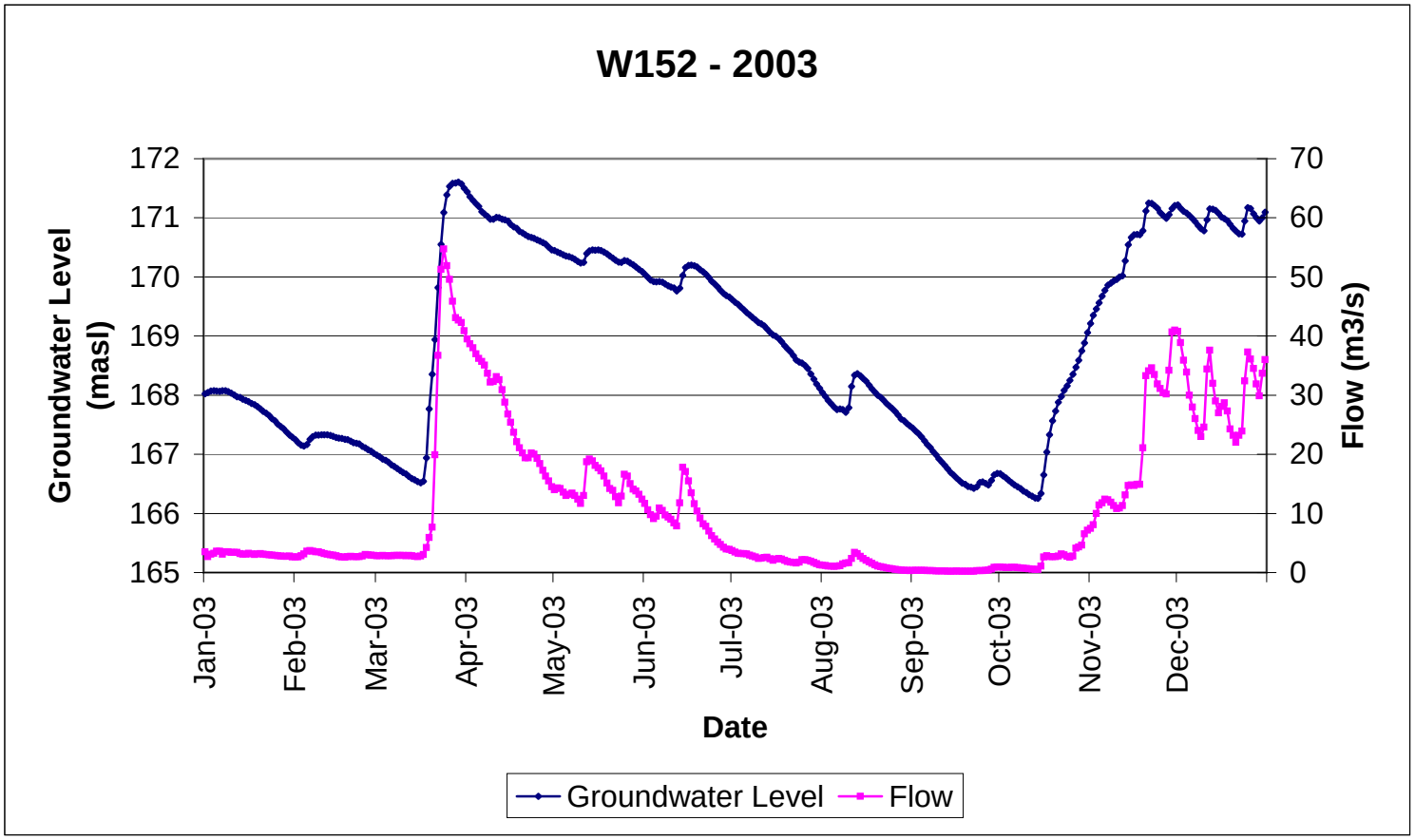
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/1/2004	148.9698	10/2/2004	149.5038	11/2/2004	149.3168	12/3/2004	150.5515
9/2/2004	148.8908	10/3/2004	149.4764	11/3/2004	149.3755	12/4/2004	150.521
9/3/2004	148.9013	10/4/2004	149.5049	11/4/2004	149.463	12/5/2004	150.4928
9/4/2004	148.8629	10/5/2004	149.5044	11/5/2004	149.5582	12/6/2004	150.445
9/5/2004	148.764	10/6/2004	149.432	11/6/2004	149.4721	12/7/2004	150.5359
9/6/2004	148.6418	10/7/2004	149.4813	11/7/2004	149.3888	12/8/2004	150.6056
9/7/2004	148.6506	10/8/2004	149.4025	11/8/2004	149.4103	12/9/2004	150.6913
9/8/2004	148.7908	10/9/2004	149.3794	11/9/2004	149.3797	12/10/2004	150.6258
9/9/2004	149.3689	10/10/2004	149.3971	11/10/2004	149.4426	12/11/2004	150.6313
9/10/2004	150.2204	10/11/2004	149.3235	11/11/2004	149.3935	12/12/2004	150.5503
9/11/2004	150.2952	10/12/2004	149.2838	11/12/2004	149.424	12/13/2004	150.542
9/12/2004	150.1349	10/13/2004	149.3776	11/13/2004	149.3364	12/14/2004	150.5386
9/13/2004	150.0749	10/14/2004	149.362	11/14/2004	149.336	12/15/2004	150.5576
9/14/2004	150.1585	10/15/2004	149.3666	11/15/2004	149.2751	12/16/2004	150.5607
9/15/2004	150.165	10/16/2004	149.4685	11/16/2004	149.2921	12/17/2004	150.485
9/16/2004	150.1126	10/17/2004	149.377	11/17/2004	149.3287	12/18/2004	150.4568
9/17/2004	150.0661	10/18/2004	149.4039	11/18/2004	149.325	12/19/2004	150.4307
9/18/2004	149.9658	10/19/2004	149.4277	11/19/2004	149.2989	12/20/2004	150.5069
9/19/2004	149.8709	10/20/2004	149.4565	11/20/2004	149.264	12/21/2004	150.3822
9/20/2004	149.8625	10/21/2004	149.463	11/21/2004	149.2378	12/22/2004	150.38
9/21/2004	149.8078	10/22/2004	149.4157	11/22/2004	149.2573	12/23/2004	150.468
9/22/2004	149.7473	10/23/2004	149.4624	11/23/2004	149.2561	12/24/2004	150.6153
9/23/2004	149.7473	10/24/2004	149.3306	11/24/2004	149.2899	12/25/2004	150.7034
9/24/2004	149.6753	10/25/2004	149.3916	11/25/2004	149.7113	12/26/2004	150.6208
9/25/2004	149.7121	10/26/2004	149.37	11/26/2004	149.8542	12/27/2004	150.5819
9/26/2004	149.614	10/27/2004	149.3068	11/27/2004	149.858	12/28/2004	150.5827
9/27/2004	149.6197	10/28/2004	149.3431	11/28/2004	149.9608	12/29/2004	150.5813
9/28/2004	149.5904	10/29/2004	149.3712	11/29/2004	150.2473	12/30/2004	150.5787
9/29/2004	149.6066	10/30/2004	149.3375	11/30/2004	150.3726	12/31/2004	150.6467
9/30/2004	149.5979	10/31/2004	149.3011	12/1/2004	150.4452		
10/1/2004	149.5355	11/1/2004	149.3225	12/2/2004	150.5884		



2003 Groundwater Level and Flow for W152

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	168.02	3.49	3-Mar	166.92	2.86	3-May	170.40	14.20	3-Jul	169.54	3.25
2-Jan	168.05	2.67	4-Mar	166.90	2.81	4-May	170.38	13.60	4-Jul	169.49	3.18
3-Jan	168.07	3.10	5-Mar	166.87	2.81	5-May	170.35	13.00	5-Jul	169.44	3.19
4-Jan	168.07	3.22	6-Mar	166.82	2.82	6-May	170.34	13.20	6-Jul	169.40	3.13
5-Jan	168.07	3.60	7-Mar	166.79	2.87	7-May	170.32	13.40	7-Jul	169.36	2.95
6-Jan	168.06	3.58	8-Mar	166.76	2.90	8-May	170.30	13.00	8-Jul	169.32	2.76
7-Jan	168.08	3.10	9-Mar	166.72	2.89	9-May	170.26	12.40	9-Jul	169.27	2.61
8-Jan	168.08	3.50	10-Mar	166.69	2.87	10-May	170.23	11.70	10-Jul	169.23	2.39
9-Jan	168.06	3.52	11-Mar	166.67	2.85	11-May	170.25	13.00	11-Jul	169.21	2.42
10-Jan	168.03	3.39	12-Mar	166.63	2.86	12-May	170.39	18.70	12-Jul	169.17	2.50
11-Jan	168.01	3.38	13-Mar	166.59	2.84	13-May	170.44	19.20	13-Jul	169.12	2.58
12-Jan	167.98	3.38	14-Mar	166.57	2.75	14-May	170.46	18.90	14-Jul	169.06	2.31
13-Jan	167.96	3.21	15-Mar	166.54	2.69	15-May	170.45	18.10	15-Jul	169.02	2.06
14-Jan	167.93	3.10	16-Mar	166.52	2.76	16-May	170.46	17.70	16-Jul	169.00	2.24
15-Jan	167.91	3.11	17-Mar	166.54	3.04	17-May	170.44	17.20	17-Jul	168.96	2.35
16-Jan	167.89	3.22	18-Mar	166.94	4.24	18-May	170.42	16.30	18-Jul	168.90	2.28
17-Jan	167.86	3.15	19-Mar	167.77	5.90	19-May	170.39	15.10	19-Jul	168.84	2.06
18-Jan	167.84	3.04	20-Mar	168.35	7.67	20-May	170.36	14.20	20-Jul	168.79	1.83
19-Jan	167.81	3.12	21-Mar	168.94	19.90	21-May	170.32	13.90	21-Jul	168.73	1.73
20-Jan	167.77	3.18	22-Mar	169.82	36.70	22-May	170.28	12.80	22-Jul	168.67	1.69
21-Jan	167.72	3.10	23-Mar	170.55	51.30	23-May	170.25	11.80	23-Jul	168.59	1.61
22-Jan	167.70	3.01	24-Mar	171.09	54.70	24-May	170.25	12.90	24-Jul	168.56	1.76
23-Jan	167.65	2.98	25-Mar	171.39	51.90	25-May	170.28	16.60	25-Jul	168.54	2.18
24-Jan	167.60	2.92	26-Mar	171.53	49.60	26-May	170.27	16.30	26-Jul	168.50	2.18
25-Jan	167.57	2.89	27-Mar	171.59	45.90	27-May	170.23	15.00	27-Jul	168.45	2.07
26-Jan	167.51	2.84	28-Mar	171.59	43.10	28-May	170.21	14.10	28-Jul	168.36	1.89
27-Jan	167.47	2.78	29-Mar	171.61	42.70	29-May	170.17	13.80	29-Jul	168.27	1.69
28-Jan	167.43	2.74	30-Mar	171.57	42.30	30-May	170.13	13.20	30-Jul	168.19	1.49
29-Jan	167.37	2.72	31-Mar	171.50	40.90	31-May	170.09	12.40	31-Jul	168.12	1.29
30-Jan	167.33	2.78	1-Apr	171.44	39.50	1-Jun	170.05	11.70	1-Aug	168.05	1.25
31-Jan	167.29	2.64	2-Apr	171.36	38.70	2-Jun	170.00	10.60	2-Aug	167.98	1.16
1-Feb	167.25	2.64	3-Apr	171.30	38.00	3-Jun	169.95	9.78	3-Aug	167.91	1.09
2-Feb	167.20	2.63	4-Apr	171.24	37.00	4-Jun	169.92	9.12	4-Aug	167.85	1.07
3-Feb	167.15	2.82	5-Apr	171.19	36.20	5-Jun	169.92	9.51	5-Aug	167.80	1.05
4-Feb	167.14	3.13	6-Apr	171.10	35.70	6-Jun	169.92	10.90	6-Aug	167.76	1.07
5-Feb	167.17	3.59	7-Apr	171.06	35.10	7-Jun	169.91	10.50	7-Aug	167.77	1.14
6-Feb	167.25	3.68	8-Apr	171.02	33.70	8-Jun	169.88	9.73	8-Aug	167.76	1.45
7-Feb	167.30	3.59	9-Apr	170.98	32.20	9-Jun	169.85	9.36	9-Aug	167.71	1.60
8-Feb	167.32	3.49	10-Apr	170.97	32.30	10-Jun	169.83	9.00	10-Aug	167.79	1.63
9-Feb	167.32	3.48	11-Apr	171.01	33.10	11-Jun	169.81	8.38	11-Aug	168.15	2.37
10-Feb	167.33	3.32	12-Apr	171.00	32.60	12-Jun	169.76	7.89	12-Aug	168.34	3.37
11-Feb	167.33	3.20	13-Apr	170.98	30.90	13-Jun	169.81	11.80	13-Aug	168.36	3.21
12-Feb	167.33	3.10	14-Apr	170.97	28.80	14-Jun	170.03	17.80	14-Aug	168.33	2.71
13-Feb	167.32	3.00	15-Apr	170.95	26.80	15-Jun	170.16	17.10	15-Aug	168.28	2.35
14-Feb	167.30	2.95	16-Apr	170.89	25.40	16-Jun	170.20	15.50	16-Aug	168.24	2.05
15-Feb	167.28	2.85	17-Apr	170.85	23.70	17-Jun	170.20	13.50	17-Aug	168.17	1.80
16-Feb	167.27	2.70	18-Apr	170.82	22.10	18-Jun	170.19	11.60	18-Aug	168.11	1.52
17-Feb	167.27	2.61	19-Apr	170.77	21.10	19-Jun	170.17	10.40	19-Aug	168.05	1.27
18-Feb	167.25	2.58	20-Apr	170.75	20.20	20-Jun	170.12	9.23	20-Aug	168.00	1.08
19-Feb	167.25	2.65	21-Apr	170.72	19.40	21-Jun	170.09	8.22	21-Aug	167.96	0.96
20-Feb	167.22	2.71	22-Apr	170.68	19.40	22-Jun	170.04	7.80	22-Aug	167.92	0.88
21-Feb	167.20	2.68	23-Apr	170.67	20.20	23-Jun	169.99	7.00	23-Aug	167.86	0.79
22-Feb	167.19	2.69	24-Apr	170.65	20.00	24-Jun	169.93	6.21	24-Aug	167.81	0.68
23-Feb	167.18	2.66	25-Apr	170.63	19.30	25-Jun	169.88	5.68	25-Aug	167.77	0.59
24-Feb	167.13	2.78	26-Apr	170.60	18.40	26-Jun	169.83	5.16	26-Aug	167.72	0.52
25-Feb	167.11	3.01	27-Apr	170.58	17.30	27-Jun	169.78	4.72	27-Aug	167.67	0.47
26-Feb	167.08	2.98	28-Apr	170.55	16.30	28-Jun	169.72	4.28	28-Aug	167.60	0.41
27-Feb	167.05	2.94	29-Apr	170.50	15.50	29-Jun	169.69	3.94	29-Aug	167.57	0.37
28-Feb	167.02	2.90	30-Apr	170.46	14.50	30-Jun	169.66	3.89	30-Aug	167.52	0.34
1-Mar	166.98	2.85	1-May	170.45	14.00	1-Jul	169.62	3.72	31-Aug	167.48	0.32
2-Mar	166.96	2.85	2-May	170.42	14.30	2-Jul	169.57	3.47	1-Sep	167.44	0.34

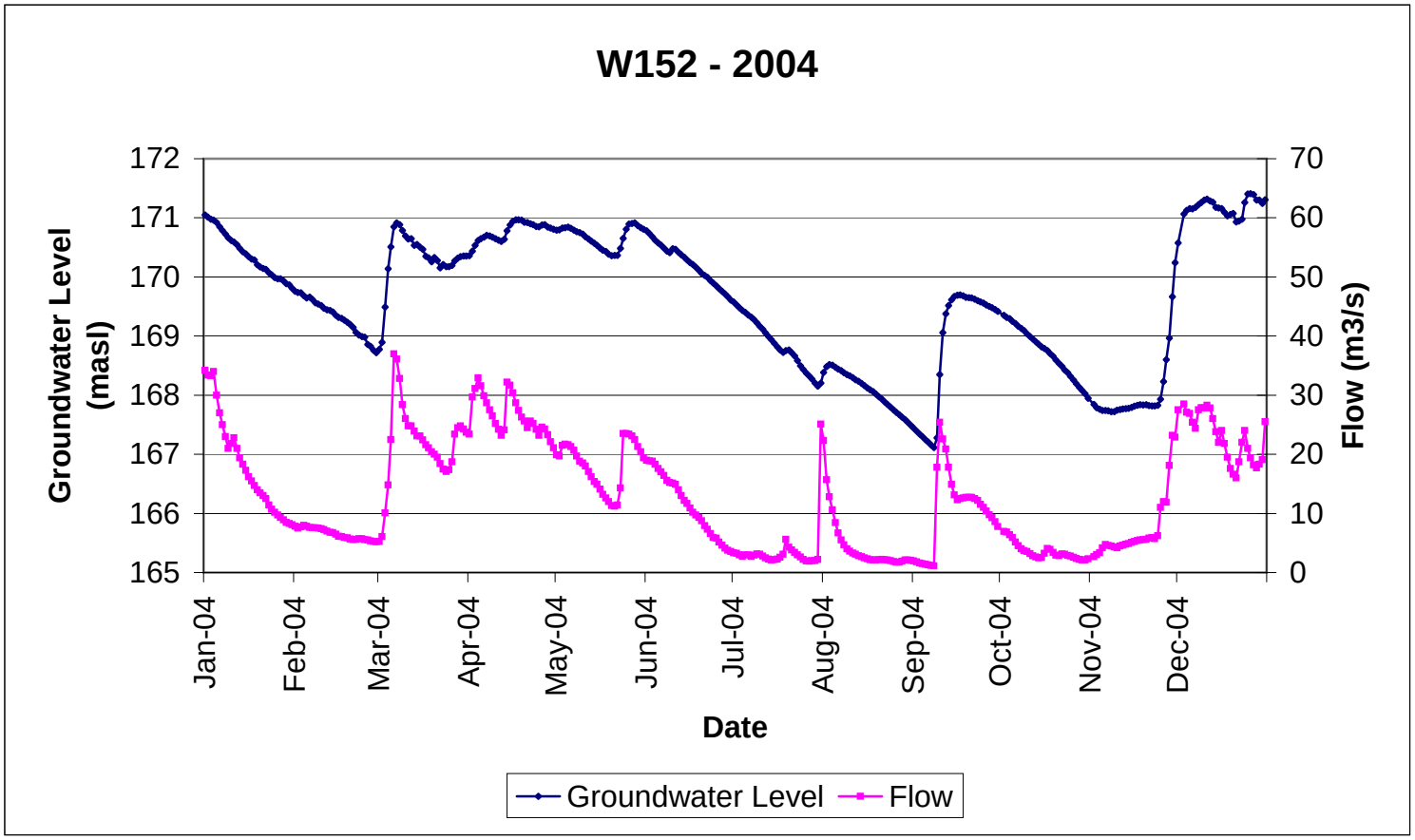
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	167.39	0.36	2-Oct	166.63	0.87	1-Nov	169.21	7.48	1-Dec	171.22	40.80
3-Sep	167.35	0.36	3-Oct	166.60	0.81	2-Nov	169.35	8.06	2-Dec	171.16	38.90
4-Sep	167.29	0.35	4-Oct	166.56	0.83	3-Nov	169.46	9.96	3-Dec	171.11	35.90
5-Sep	167.23	0.35	5-Oct	166.52	0.90	4-Nov	169.56	11.40	4-Dec	171.08	33.90
6-Sep	167.17	0.32	6-Oct	166.48	0.89	5-Nov	169.67	11.80	5-Dec	171.04	30.00
7-Sep	167.12	0.32	7-Oct	166.45	0.83	6-Nov	169.77	12.40	6-Dec	170.99	28.00
8-Sep	167.05	0.29	8-Oct	166.42	0.78	7-Nov	169.86	12.30	7-Dec	170.93	26.00
9-Sep	166.99	0.27	9-Oct	166.38	0.72	8-Nov	169.89	11.90	8-Dec	170.87	24.00
10-Sep	166.92	0.26	10-Oct	166.35	0.67	9-Nov	169.93	11.30	9-Dec	170.82	23.00
11-Sep	166.86	0.25	11-Oct	166.32	0.61	10-Nov	169.96	10.80	10-Dec	170.78	24.60
12-Sep	166.81	0.24	12-Oct	166.29	0.57	11-Nov	170.00	10.90	11-Dec	170.97	34.40
13-Sep	166.75	0.23	13-Oct	166.26	0.54	12-Nov	170.02	11.30	12-Dec	171.15	37.60
14-Sep	166.69	0.23	14-Oct	166.25	0.54	13-Nov	170.27	13.10	13-Dec	171.15	32.00
15-Sep	166.65	0.20	15-Oct	166.34	1.06	14-Nov	170.55	14.70	14-Dec	171.12	29.00
16-Sep	166.60	0.23	16-Oct	166.65	2.64	15-Nov	170.67	14.80	15-Dec	171.07	27.00
17-Sep	166.55	0.22	17-Oct	167.04	2.81	16-Nov	170.72	14.70	16-Dec	171.01	28.10
18-Sep	166.51	0.21	18-Oct	167.33	2.69	17-Nov	170.72	14.90	17-Dec	170.99	28.70
19-Sep	166.49	0.20	19-Oct	167.56	2.68	18-Nov	170.71	14.90	18-Dec	170.95	27.30
20-Sep	166.45	0.22	20-Oct	167.73	2.65	19-Nov	170.78	21.10	19-Dec	170.89	24.30
21-Sep	166.44	0.22	21-Oct	167.88	2.78	20-Nov	171.11	33.30	20-Dec	170.82	23.20
22-Sep	166.43	0.23	22-Oct	167.98	3.13	21-Nov	171.25	34.10	21-Dec	170.78	22.00
23-Sep	166.45	0.30	23-Oct	168.08	2.97	22-Nov	171.24	34.60	22-Dec	170.73	23.20
24-Sep	166.52	0.31	24-Oct	168.16	2.74	23-Nov	171.21	33.50	23-Dec	170.72	23.90
25-Sep	166.53	0.33	25-Oct	168.25	2.57	24-Nov	171.16	31.90	24-Dec	170.94	32.40
26-Sep	166.51	0.36	26-Oct	168.36	2.77	25-Nov	171.09	31.10	25-Dec	171.17	37.30
27-Sep	166.48	0.43	27-Oct	168.47	4.13	26-Nov	171.04	30.40	26-Dec	171.16	36.10
28-Sep	166.56	0.58	28-Oct	168.59	4.31	27-Nov	170.99	30.20	27-Dec	171.07	34.50
29-Sep	166.65	0.89	29-Oct	168.75	4.62	28-Nov	171.05	34.20	28-Dec	171.00	31.90
30-Sep	166.68	0.95	30-Oct	168.88	6.51	29-Nov	171.16	40.70	29-Dec	170.95	29.90
1-Oct	166.67	0.91	31-Oct	169.06	7.14	30-Nov	171.21	41.00	30-Dec	171.00	33.70
									31-Dec	171.10	36.00



2004 Groundwater Level and Flow for W152

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	171.05	34.20	2-Mar	168.89	6.06	2-May	170.80	19.70	2-Jul	169.53	3.25
2-Jan	171.01	33.40	3-Mar	169.49	10.10	3-May	170.83	21.50	3-Jul	169.48	3.00
3-Jan	170.98	33.30	4-Mar	170.14	14.80	4-May	170.83	21.70	4-Jul	169.44	2.75
4-Jan	170.96	34.00	5-Mar	170.51	22.50	5-May	170.84	21.60	5-Jul	169.40	2.99
5-Jan	170.92	30.00	6-Mar	170.85	37.00	6-May	170.82	21.30	6-Jul	169.35	2.99
6-Jan	170.85	27.00	7-Mar	170.92	36.10	7-May	170.79	20.70	7-Jul	169.32	2.74
7-Jan	170.79	25.00	8-Mar	170.88	32.80	8-May	170.77	19.70	8-Jul	169.28	2.91
8-Jan	170.73	23.00	9-Mar	170.79	28.40	9-May	170.75	18.80	9-Jul	169.22	3.13
9-Jan	170.66	21.00	10-Mar	170.69	26.00	10-May	170.72	18.50	10-Jul	169.17	3.07
10-Jan	170.62	21.80	11-Mar	170.64	24.80	11-May	170.68	18.00	11-Jul	169.11	2.76
11-Jan	170.59	22.80	12-Mar	170.65	24.80	12-May	170.64	17.10	12-Jul	169.05	2.46
12-Jan	170.54	21.00	13-Mar	170.54	23.90	13-May	170.60	16.20	13-Jul	168.99	2.24
13-Jan	170.48	19.40	14-Mar	170.55	23.10	14-May	170.57	15.40	14-Jul	168.94	2.11
14-Jan	170.42	18.30	15-Mar	170.50	23.10	15-May	170.54	14.90	15-Jul	168.88	2.16
15-Jan	170.39	17.30	16-Mar	170.47	22.40	16-May	170.49	14.10	16-Jul	168.81	2.28
16-Jan	170.34	16.20	17-Mar	170.35	21.60	17-May	170.45	13.20	17-Jul	168.77	2.57
17-Jan	170.30	15.50	18-Mar	170.32	21.10	18-May	170.43	12.60	18-Jul	168.72	3.10
18-Jan	170.29	14.70	19-Mar	170.26	20.40	19-May	170.39	12.00	19-Jul	168.75	5.62
19-Jan	170.20	14.00	20-Mar	170.33	20.00	20-May	170.36	11.30	20-Jul	168.77	4.29
20-Jan	170.17	13.50	21-Mar	170.28	19.50	21-May	170.37	11.20	21-Jul	168.72	3.80
21-Jan	170.14	13.00	22-Mar	170.15	18.40	22-May	170.36	11.40	22-Jul	168.66	3.37
22-Jan	170.13	12.50	23-Mar	170.21	17.50	23-May	170.48	14.30	23-Jul	168.59	2.99
23-Jan	170.07	11.40	24-Mar	170.17	17.10	24-May	170.65	23.50	24-Jul	168.50	2.61
24-Jan	170.03	10.70	25-Mar	170.17	17.40	25-May	170.81	23.50	25-Jul	168.44	2.23
25-Jan	169.99	10.20	26-Mar	170.20	18.70	26-May	170.89	23.40	26-Jul	168.38	1.94
26-Jan	169.97	9.70	27-Mar	170.27	23.40	27-May	170.90	23.10	27-Jul	168.32	1.90
27-Jan	169.97	9.30	28-Mar	170.32	24.50	28-May	170.92	22.50	28-Jul	168.27	2.01
28-Jan	169.93	8.90	29-Mar	170.34	24.80	29-May	170.87	21.30	29-Jul	168.20	1.99
29-Jan	169.89	8.50	30-Mar	170.35	24.30	30-May	170.83	20.40	30-Jul	168.15	2.21
30-Jan	169.87	8.30	31-Mar	170.36	23.70	31-May	170.81	19.40	31-Jul	168.20	25.10
31-Jan	169.81	8.10	1-Apr	170.36	23.40	1-Jun	170.78	19.00	1-Aug	168.38	22.30
1-Feb	169.76	7.80	2-Apr	170.43	29.70	2-Jun	170.74	18.90	2-Aug	168.48	15.70
2-Feb	169.74	7.50	3-Apr	170.53	31.10	3-Jun	170.68	18.80	3-Aug	168.52	12.80
3-Feb	169.73	7.70	4-Apr	170.62	32.90	4-Jun	170.62	18.30	4-Aug	168.51	10.60
4-Feb	169.68	7.96	5-Apr	170.65	31.60	5-Jun	170.58	17.60	5-Aug	168.47	8.45
5-Feb	169.64	7.80	6-Apr	170.68	29.90	6-Jun	170.54	17.00	6-Aug	168.44	6.70
6-Feb	169.66	7.60	7-Apr	170.70	28.70	7-Jun	170.49	16.40	7-Aug	168.41	5.49
7-Feb	169.62	7.56	8-Apr	170.70	27.50	8-Jun	170.43	15.60	8-Aug	168.38	4.66
8-Feb	169.56	7.56	9-Apr	170.67	26.50	9-Jun	170.41	15.20	9-Aug	168.35	4.00
9-Feb	169.54	7.50	10-Apr	170.65	25.20	10-Jun	170.48	15.10	10-Aug	168.33	3.59
10-Feb	169.52	7.39	11-Apr	170.62	24.20	11-Jun	170.47	14.90	11-Aug	168.30	3.30
11-Feb	169.47	7.24	12-Apr	170.60	23.20	12-Jun	170.41	14.00	12-Aug	168.26	3.07
12-Feb	169.45	7.02	13-Apr	170.63	24.10	13-Jun	170.38	13.00	13-Aug	168.24	2.85
13-Feb	169.44	6.81	14-Apr	170.78	32.20	14-Jun	170.33	12.20	14-Aug	168.20	2.69
14-Feb	169.41	6.76	15-Apr	170.88	31.70	15-Jun	170.29	11.70	15-Aug	168.16	2.49
15-Feb	169.35	6.50	16-Apr	170.94	30.40	16-Jun	170.24	10.90	16-Aug	168.12	2.31
16-Feb	169.32	6.14	17-Apr	170.97	28.70	17-Jun	170.21	10.20	17-Aug	168.09	2.17
17-Feb	169.30	6.05	18-Apr	170.96	27.40	18-Jun	170.16	9.70	18-Aug	168.06	2.10
18-Feb	169.27	5.92	19-Apr	170.96	26.30	19-Jun	170.11	9.31	19-Aug	168.02	2.12
19-Feb	169.23	5.85	20-Apr	170.93	25.60	20-Jun	170.06	8.76	20-Aug	167.98	2.18
20-Feb	169.20	5.67	21-Apr	170.92	24.50	21-Jun	170.02	7.90	21-Aug	167.94	2.20
21-Feb	169.15	5.58	22-Apr	170.90	25.60	22-Jun	169.99	7.31	22-Aug	167.89	2.17
22-Feb	169.06	5.59	23-Apr	170.88	25.20	23-Jun	169.94	6.59	23-Aug	167.85	2.10
23-Feb	169.02	5.71	24-Apr	170.85	24.20	24-Jun	169.90	5.94	24-Aug	167.80	2.02
24-Feb	168.99	5.72	25-Apr	170.85	23.20	25-Jun	169.85	5.80	25-Aug	167.75	1.86
25-Feb	168.98	5.58	26-Apr	170.88	24.60	26-Jun	169.80	5.13	26-Aug	167.71	1.74
26-Feb	168.86	5.48	27-Apr	170.88	24.30	27-Jun	169.76	4.63	27-Aug	167.67	1.75
27-Feb	168.83	5.35	28-Apr	170.84	23.30	28-Jun	169.71	4.14	28-Aug	167.63	1.92
28-Feb	168.76	5.23	29-Apr	170.83	22.10	29-Jun	169.66	3.77	29-Aug	167.59	2.12
29-Feb	168.72	5.19	30-Apr	170.81	21.10	30-Jun	169.61	3.55	30-Aug	167.54	2.13
1-Mar	168.77	5.26	1-May	170.79	19.90	1-Jul	169.58	3.33	31-Aug	167.49	2.05

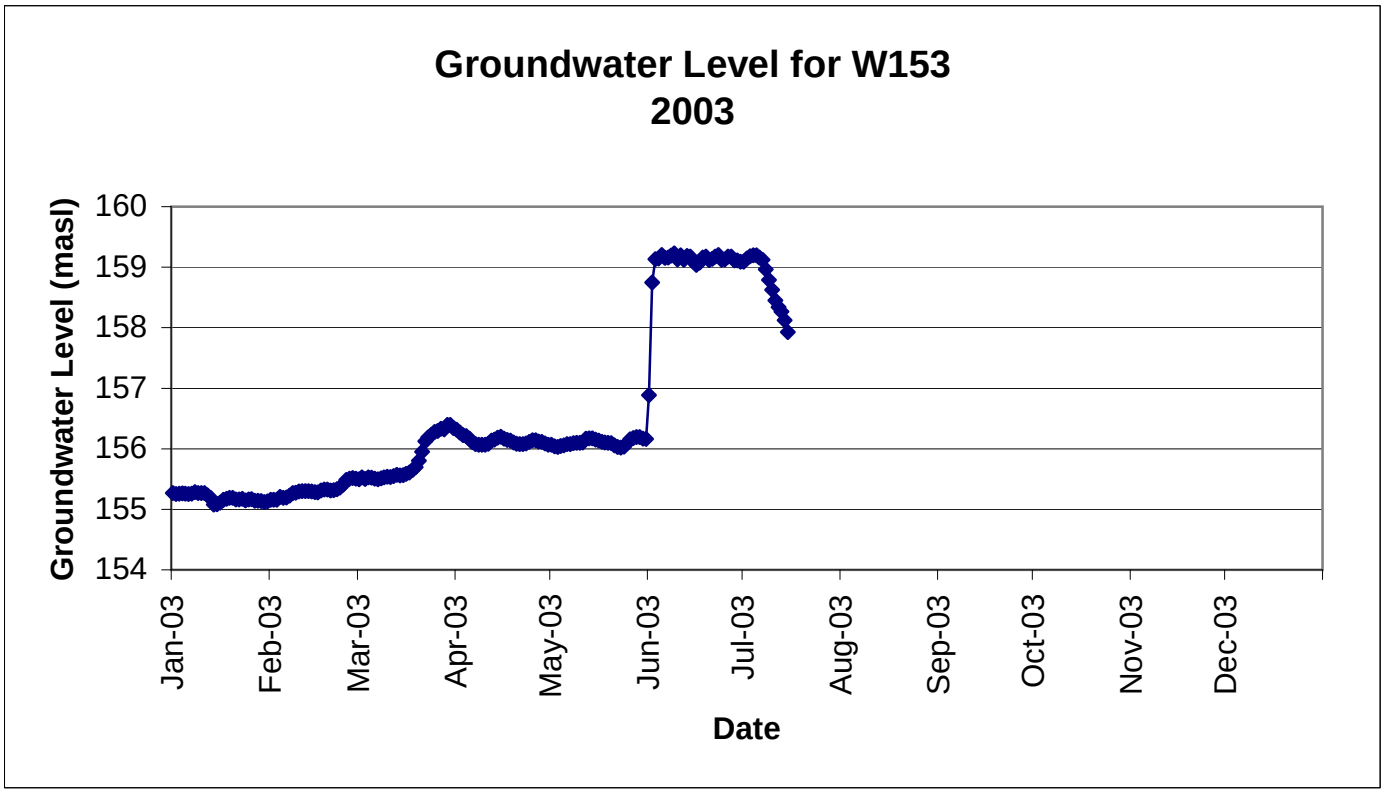
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	167.44	1.93	2-Oct	169.35	6.92	2-Nov	167.85	2.68	3-Dec	171.06	28.50
2-Sep	167.39	1.80	3-Oct	169.32	6.84	3-Nov	167.79	3.05	4-Dec	171.13	27.10
3-Sep	167.34	1.62	4-Oct	169.30	6.37	4-Nov	167.76	3.32	5-Dec	171.16	26.90
4-Sep	167.30	1.50	5-Oct	169.25	5.90	5-Nov	167.74	4.19	6-Dec	171.15	25.40
5-Sep	167.25	1.41	6-Oct	169.21	5.13	6-Nov	167.74	4.71	7-Dec	171.18	24.40
6-Sep	167.21	1.27	7-Oct	169.17	4.54	7-Nov	167.73	4.57	8-Dec	171.22	27.50
7-Sep	167.15	1.17	8-Oct	169.13	4.03	8-Nov	167.72	4.49	9-Dec	171.26	27.90
8-Sep	167.11	1.13	9-Oct	169.09	3.70	9-Nov	167.72	4.33	10-Dec	171.30	27.80
9-Sep	167.28	17.80	10-Oct	169.04	3.57	10-Nov	167.75	4.16	11-Dec	171.32	28.30
10-Sep	168.35	25.40	11-Oct	168.99	3.17	11-Nov	167.76	4.46	12-Dec	171.28	27.80
11-Sep	169.06	22.60	12-Oct	168.95	2.81	12-Nov	167.77	4.63	13-Dec	171.26	26.00
12-Sep	169.38	20.90	13-Oct	168.90	2.61	13-Nov	167.77	4.76	14-Dec	171.18	23.80
13-Sep	169.52	17.80	14-Oct	168.86	2.48	14-Nov	167.78	4.87	15-Dec	171.17	22.00
14-Sep	169.61	14.90	15-Oct	168.82	2.54	15-Nov	167.79	5.09	16-Dec	171.16	24.00
15-Sep	169.67	13.10	16-Oct	168.79	3.22	16-Nov	167.81	5.25	17-Dec	171.10	21.80
16-Sep	169.69	12.30	17-Oct	168.75	4.06	17-Nov	167.83	5.38	18-Dec	171.03	19.50
17-Sep	169.70	12.50	18-Oct	168.70	3.93	18-Nov	167.84	5.51	19-Dec	171.06	17.60
18-Sep	169.68	12.60	19-Oct	168.66	3.38	19-Nov	167.83	5.56	20-Dec	171.07	16.60
19-Sep	169.66	12.70	20-Oct	168.60	2.91	20-Nov	167.84	5.61	21-Dec	170.93	16.00
20-Sep	169.65	12.70	21-Oct	168.54	2.85	21-Nov	167.83	5.80	22-Dec	170.94	18.70
21-Sep	169.64	12.70	22-Oct	168.49	3.13	22-Nov	167.82	5.93	23-Dec	170.98	22.00
22-Sep	169.62	12.50	23-Oct	168.43	3.09	23-Nov	167.82	5.70	24-Dec	171.26	24.00
23-Sep	169.60	12.20	24-Oct	168.38	2.88	24-Nov	167.83	6.21	25-Dec	171.41	21.00
24-Sep	169.58	11.50	25-Oct	168.32	2.77	25-Nov	167.93	11.00	26-Dec	171.41	19.40
25-Sep	169.56	11.00	26-Oct	168.25	2.58	26-Nov	168.23	12.00	27-Dec	171.39	18.20
26-Sep	169.53	10.40	27-Oct	168.19	2.38	27-Nov	168.60	11.90	28-Dec	171.30	17.70
27-Sep	169.50	9.79	28-Oct	168.13	2.23	28-Nov	168.97	18.10	29-Dec	171.30	18.30
28-Sep	169.48	9.27	29-Oct	168.08	2.11	29-Nov	169.66	23.20	30-Dec	171.24	19.10
29-Sep	169.45	8.61	30-Oct	168.02	2.09	30-Nov	170.24	22.90	31-Dec	171.30	25.50
30-Sep	169.42	7.78	31-Oct	167.95	2.32	1-Dec	170.57	27.50			
1-Oct	169.38	7.28	1-Nov	167.88	2.54	2-Dec	170.85	30.1			



2003 Groundwater Level for W153

Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
1/1/2003	155.271	3/3/2003	155.5007	5/3/2003	156.0318	7/3/2003	159.1805
1/2/2003	155.2516	3/4/2003	155.5257	5/4/2003	156.0441	7/4/2003	159.1971
1/3/2003	155.2567	3/5/2003	155.5206	5/5/2003	156.0574	7/5/2003	159.1956
1/4/2003	155.2639	3/6/2003	155.5044	5/6/2003	156.0762	7/6/2003	159.158
1/5/2003	155.2603	3/7/2003	155.4978	5/7/2003	156.0757	7/7/2003	159.1228
1/6/2003	155.2509	3/8/2003	155.5095	5/8/2003	156.0936	7/8/2003	158.9639
1/7/2003	155.2571	3/9/2003	155.527	5/9/2003	156.097	7/9/2003	158.7913
1/8/2003	155.2846	3/10/2003	155.5398	5/10/2003	156.1001	7/10/2003	158.6248
1/9/2003	155.2703	3/11/2003	155.5343	5/11/2003	156.1053	7/11/2003	158.4497
1/10/2003	155.2688	3/12/2003	155.5504	5/12/2003	156.1682	7/12/2003	158.3407
1/11/2003	155.2682	3/13/2003	155.5708	5/13/2003	156.1733	7/13/2003	158.2664
1/12/2003	155.23	3/14/2003	155.559	5/14/2003	156.1715	7/14/2003	158.1228
1/13/2003	155.1918	3/15/2003	155.5627	5/15/2003	156.1496	7/15/2003	157.9263
1/14/2003	155.0774	3/16/2003	155.5833	5/16/2003	156.1362	7/16/2003	
1/15/2003	155.085	3/17/2003	155.6085	5/17/2003	156.1161	7/17/2003	
1/16/2003	155.1123	3/18/2003	155.6475	5/18/2003	156.1017	7/18/2003	
1/17/2003	155.156	3/19/2003	155.6982	5/19/2003	156.0974	7/19/2003	
1/18/2003	155.1755	3/20/2003	155.8019	5/20/2003	156.0954	7/20/2003	
1/19/2003	155.1868	3/21/2003	155.9485	5/21/2003	156.0565	7/21/2003	
1/20/2003	155.1901	3/22/2003	156.1243	5/22/2003	156.03	7/22/2003	
1/21/2003	155.1626	3/23/2003	156.1876	5/23/2003	156.0214	7/23/2003	
1/22/2003	155.1632	3/24/2003	156.2305	5/24/2003	156.0332	7/24/2003	
1/23/2003	155.175	3/25/2003	156.2769	5/25/2003	156.0878	7/25/2003	
1/24/2003	155.1465	3/26/2003	156.2929	5/26/2003	156.1559	7/26/2003	
1/25/2003	155.1612	3/27/2003	156.3287	5/27/2003	156.1759	7/27/2003	
1/26/2003	155.1688	3/28/2003	156.3205	5/28/2003	156.1954	7/28/2003	
1/27/2003	155.143	3/29/2003	156.3967	5/29/2003	156.195	7/29/2003	
1/28/2003	155.1439	3/30/2003	156.3943	5/30/2003	156.1686	7/30/2003	
1/29/2003	155.1363	3/31/2003	156.3442	5/31/2003	156.1599	7/31/2003	
1/30/2003	155.1233	4/1/2003	156.3157	6/1/2003	156.8886	8/1/2003	
1/31/2003	155.1313	4/2/2003	156.2668	6/2/2003	158.7451	8/2/2003	
2/1/2003	155.1579	4/3/2003	156.2268	6/3/2003	159.1355	8/3/2003	
2/2/2003	155.1577	4/4/2003	156.2082	6/4/2003	159.1441	8/4/2003	
2/3/2003	155.1571	4/5/2003	156.1673	6/5/2003	159.2021	8/5/2003	
2/4/2003	155.2034	4/6/2003	156.1112	6/6/2003	159.1551	8/6/2003	
2/5/2003	155.1883	4/7/2003	156.0751	6/7/2003	159.1569	8/7/2003	
2/6/2003	155.1945	4/8/2003	156.0683	6/8/2003	159.1916	8/8/2003	
2/7/2003	155.2264	4/9/2003	156.0653	6/9/2003	159.2293	8/9/2003	
2/8/2003	155.2666	4/10/2003	156.0686	6/10/2003	159.1291	8/10/2003	
2/9/2003	155.2757	4/11/2003	156.0844	6/11/2003	159.1972	8/11/2003	
2/10/2003	155.2954	4/12/2003	156.1342	6/12/2003	159.1248	8/12/2003	
2/11/2003	155.2985	4/13/2003	156.1503	6/13/2003	159.1837	8/13/2003	
2/12/2003	155.2979	4/14/2003	156.1845	6/14/2003	159.1736	8/14/2003	
2/13/2003	155.3011	4/15/2003	156.1967	6/15/2003	159.0973	8/15/2003	
2/14/2003	155.2968	4/16/2003	156.1664	6/16/2003	159.0382	8/16/2003	
2/15/2003	155.2846	4/17/2003	156.1448	6/17/2003	159.0766	8/17/2003	
2/16/2003	155.2797	4/18/2003	156.1371	6/18/2003	159.1573	8/18/2003	
2/17/2003	155.3091	4/19/2003	156.1036	6/19/2003	159.1742	8/19/2003	
2/18/2003	155.3283	4/20/2003	156.0826	6/20/2003	159.1181	8/20/2003	
2/19/2003	155.3275	4/21/2003	156.0783	6/21/2003	159.1391	8/21/2003	
2/20/2003	155.3089	4/22/2003	156.0796	6/22/2003	159.1768	8/22/2003	
2/21/2003	155.3154	4/23/2003	156.0869	6/23/2003	159.2021	8/23/2003	
2/22/2003	155.3327	4/24/2003	156.1164	6/24/2003	159.1205	8/24/2003	
2/23/2003	155.3566	4/25/2003	156.1406	6/25/2003	159.1275	8/25/2003	
2/24/2003	155.4068	4/26/2003	156.1399	6/26/2003	159.1761	8/26/2003	
2/25/2003	155.4859	4/27/2003	156.1204	6/27/2003	159.1777	8/27/2003	
2/26/2003	155.5052	4/28/2003	156.1129	6/28/2003	159.1136	8/28/2003	
2/27/2003	155.5158	4/29/2003	156.0886	6/29/2003	159.1128	8/29/2003	
2/28/2003	155.5056	4/30/2003	156.067	6/30/2003	159.0929	8/30/2003	
3/1/2003	155.4986	5/1/2003	156.0656	7/1/2003	159.0922	8/31/2003	
3/2/2003	155.5295	5/2/2003	156.0409	7/2/2003	159.144	9/1/2003	

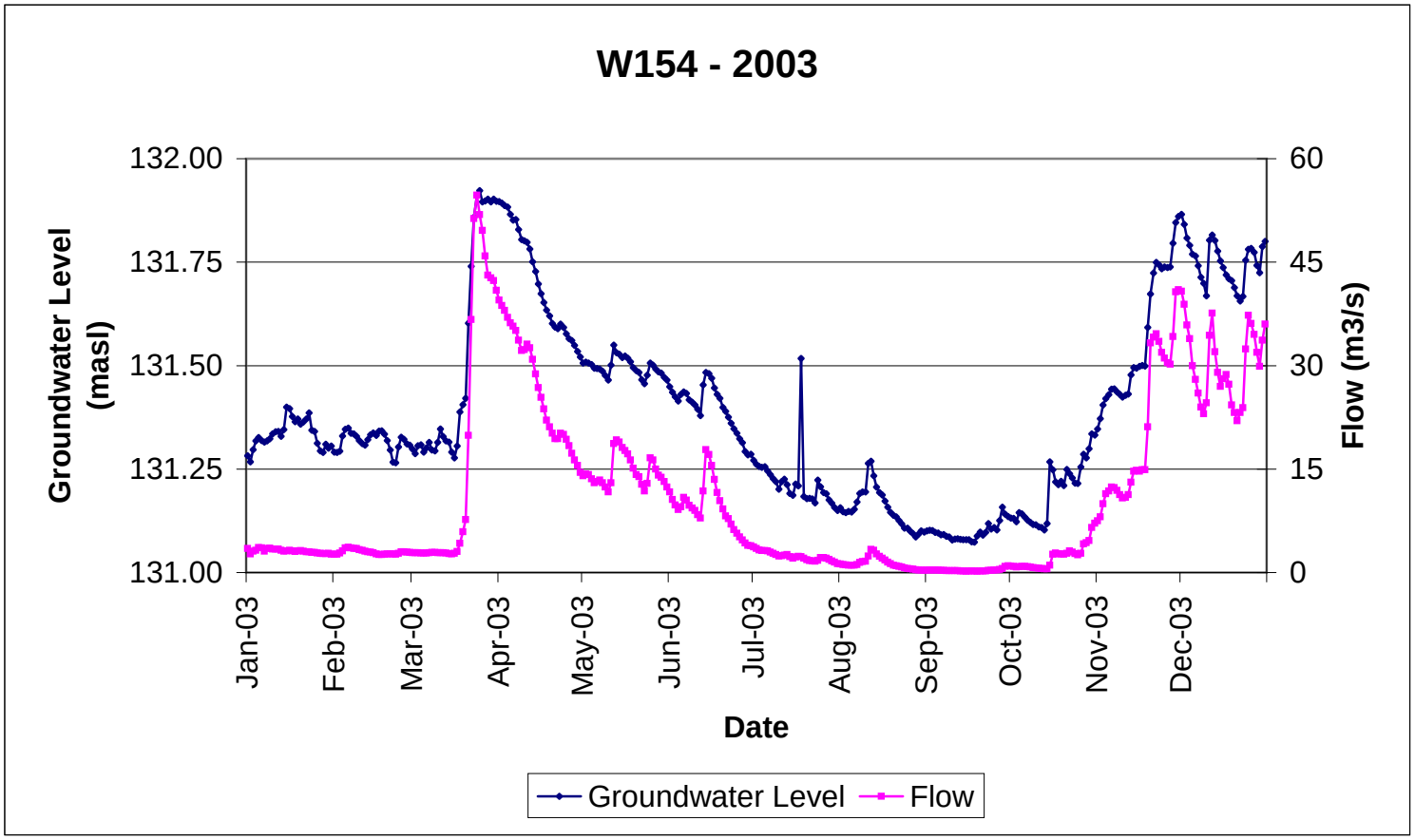
Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)	Date	Groundwater Level (masl)
9/2/2003		10/2/2003		11/1/2003		12/1/2003	
9/3/2003		10/3/2003		11/2/2003		12/2/2003	
9/4/2003		10/4/2003		11/3/2003		12/3/2003	
9/5/2003		10/5/2003		11/4/2003		12/4/2003	
9/6/2003		10/6/2003		11/5/2003		12/5/2003	
9/7/2003		10/7/2003		11/6/2003		12/6/2003	
9/8/2003		10/8/2003		11/7/2003		12/7/2003	
9/9/2003		10/9/2003		11/8/2003		12/8/2003	
9/10/2003		10/10/2003		11/9/2003		12/9/2003	
9/11/2003		10/11/2003		11/10/2003		12/10/2003	
9/12/2003		10/12/2003		11/11/2003		12/11/2003	
9/13/2003		10/13/2003		11/12/2003		12/12/2003	
9/14/2003		10/14/2003		11/13/2003		12/13/2003	
9/15/2003		10/15/2003		11/14/2003		12/14/2003	
9/16/2003		10/16/2003		11/15/2003		12/15/2003	
9/17/2003		10/17/2003		11/16/2003		12/16/2003	
9/18/2003		10/18/2003		11/17/2003		12/17/2003	
9/19/2003		10/19/2003		11/18/2003		12/18/2003	
9/20/2003		10/20/2003		11/19/2003		12/19/2003	
9/21/2003		10/21/2003		11/20/2003		12/20/2003	
9/22/2003		10/22/2003		11/21/2003		12/21/2003	
9/23/2003		10/23/2003		11/22/2003		12/22/2003	
9/24/2003		10/24/2003		11/23/2003		12/23/2003	
9/25/2003		10/25/2003		11/24/2003		12/24/2003	
9/26/2003		10/26/2003		11/25/2003		12/25/2003	
9/27/2003		10/27/2003		11/26/2003		12/26/2003	
9/28/2003		10/28/2003		11/27/2003		12/27/2003	
9/29/2003		10/29/2003		11/28/2003		12/28/2003	
9/30/2003		10/30/2003		11/29/2003		12/29/2003	
10/1/2003		10/31/2003		11/30/2003		12/30/2003	
						12/31/2003	



2003 Groundwater Level and Flow for W154

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	131.28	3.49	3-Mar	131.31	2.86	3-May	131.51	14.20	3-Jul	131.26	3.25
2-Jan	131.27	2.67	4-Mar	131.31	2.81	4-May	131.50	13.60	4-Jul	131.25	3.18
3-Jan	131.30	3.10	5-Mar	131.29	2.81	5-May	131.49	13.00	5-Jul	131.26	3.19
4-Jan	131.32	3.22	6-Mar	131.30	2.82	6-May	131.49	13.20	6-Jul	131.25	3.13
5-Jan	131.33	3.60	7-Mar	131.31	2.87	7-May	131.49	13.40	7-Jul	131.24	2.95
6-Jan	131.32	3.58	8-Mar	131.30	2.90	8-May	131.49	13.00	8-Jul	131.23	2.76
7-Jan	131.31	3.10	9-Mar	131.29	2.89	9-May	131.48	12.40	9-Jul	131.22	2.61
8-Jan	131.32	3.50	10-Mar	131.31	2.87	10-May	131.47	11.70	10-Jul	131.20	2.39
9-Jan	131.32	3.52	11-Mar	131.35	2.85	11-May	131.50	13.00	11-Jul	131.22	2.42
10-Jan	131.34	3.39	12-Mar	131.33	2.86	12-May	131.55	18.70	12-Jul	131.23	2.50
11-Jan	131.34	3.38	13-Mar	131.32	2.84	13-May	131.53	19.20	13-Jul	131.21	2.58
12-Jan	131.34	3.38	14-Mar	131.32	2.75	14-May	131.53	18.90	14-Jul	131.19	2.31
13-Jan	131.33	3.21	15-Mar	131.29	2.69	15-May	131.52	18.10	15-Jul	131.19	2.06
14-Jan	131.35	3.10	16-Mar	131.28	2.76	16-May	131.52	17.70	16-Jul	131.21	2.24
15-Jan	131.40	3.11	17-Mar	131.31	3.04	17-May	131.52	17.20	17-Jul	131.21	2.35
16-Jan	131.40	3.22	18-Mar	131.39	4.24	18-May	131.51	16.30	18-Jul	131.52	2.28
17-Jan	131.38	3.15	19-Mar	131.41	5.90	19-May	131.49	15.10	19-Jul	131.18	2.06
18-Jan	131.36	3.04	20-Mar	131.42	7.67	20-May	131.49	14.20	20-Jul	131.18	1.83
19-Jan	131.37	3.12	21-Mar	131.60	19.90	21-May	131.48	13.90	21-Jul	131.18	1.73
20-Jan	131.36	3.18	22-Mar	131.74	36.70	22-May	131.47	12.80	22-Jul	131.18	1.69
21-Jan	131.36	3.10	23-Mar	131.86	51.30	23-May	131.46	11.80	23-Jul	131.17	1.61
22-Jan	131.37	3.01	24-Mar	131.91	54.70	24-May	131.48	12.90	24-Jul	131.22	1.76
23-Jan	131.39	2.98	25-Mar	131.92	51.90	25-May	131.51	16.60	25-Jul	131.21	2.18
24-Jan	131.34	2.92	26-Mar	131.90	49.60	26-May	131.50	16.30	26-Jul	131.19	2.18
25-Jan	131.34	2.89	27-Mar	131.90	45.90	27-May	131.49	15.00	27-Jul	131.19	2.07
26-Jan	131.31	2.84	28-Mar	131.90	43.10	28-May	131.48	14.10	28-Jul	131.18	1.89
27-Jan	131.29	2.78	29-Mar	131.90	42.70	29-May	131.48	13.80	29-Jul	131.17	1.69
28-Jan	131.29	2.74	30-Mar	131.90	42.30	30-May	131.47	13.20	30-Jul	131.16	1.49
29-Jan	131.31	2.72	31-Mar	131.90	40.90	31-May	131.47	12.40	31-Jul	131.15	1.29
30-Jan	131.30	2.78	1-Apr	131.90	39.50	1-Jun	131.45	11.70	1-Aug	131.16	1.25
31-Jan	131.31	2.64	2-Apr	131.89	38.70	2-Jun	131.44	10.60	2-Aug	131.15	1.16
1-Feb	131.29	2.64	3-Apr	131.89	38.00	3-Jun	131.42	9.78	3-Aug	131.14	1.09
2-Feb	131.29	2.63	4-Apr	131.88	37.00	4-Jun	131.41	9.12	4-Aug	131.15	1.07
3-Feb	131.29	2.82	5-Apr	131.87	36.20	5-Jun	131.43	9.51	5-Aug	131.15	1.05
4-Feb	131.33	3.13	6-Apr	131.85	35.70	6-Jun	131.44	10.90	6-Aug	131.15	1.07
5-Feb	131.35	3.59	7-Apr	131.85	35.10	7-Jun	131.43	10.50	7-Aug	131.17	1.14
6-Feb	131.35	3.68	8-Apr	131.83	33.70	8-Jun	131.42	9.73	8-Aug	131.19	1.45
7-Feb	131.34	3.59	9-Apr	131.80	32.20	9-Jun	131.41	9.36	9-Aug	131.19	1.60
8-Feb	131.34	3.49	10-Apr	131.80	32.30	10-Jun	131.41	9.00	10-Aug	131.19	1.63
9-Feb	131.33	3.48	11-Apr	131.80	33.10	11-Jun	131.39	8.38	11-Aug	131.26	2.37
10-Feb	131.32	3.32	12-Apr	131.78	32.60	12-Jun	131.38	7.89	12-Aug	131.27	3.37
11-Feb	131.31	3.20	13-Apr	131.75	30.90	13-Jun	131.45	11.80	13-Aug	131.23	3.21
12-Feb	131.31	3.10	14-Apr	131.73	28.80	14-Jun	131.48	17.80	14-Aug	131.21	2.71
13-Feb	131.32	3.00	15-Apr	131.70	26.80	15-Jun	131.48	17.10	15-Aug	131.19	2.35
14-Feb	131.33	2.95	16-Apr	131.67	25.40	16-Jun	131.47	15.50	16-Aug	131.19	2.05
15-Feb	131.34	2.85	17-Apr	131.65	23.70	17-Jun	131.45	13.50	17-Aug	131.17	1.80
16-Feb	131.33	2.70	18-Apr	131.63	22.10	18-Jun	131.43	11.60	18-Aug	131.16	1.52
17-Feb	131.34	2.61	19-Apr	131.62	21.10	19-Jun	131.42	10.40	19-Aug	131.15	1.27
18-Feb	131.34	2.58	20-Apr	131.60	20.20	20-Jun	131.40	9.23	20-Aug	131.14	1.08
19-Feb	131.33	2.65	21-Apr	131.59	19.40	21-Jun	131.39	8.22	21-Aug	131.13	0.96
20-Feb	131.32	2.71	22-Apr	131.59	19.40	22-Jun	131.38	7.80	22-Aug	131.13	0.88
21-Feb	131.30	2.68	23-Apr	131.60	20.20	23-Jun	131.36	7.00	23-Aug	131.12	0.79
22-Feb	131.27	2.69	24-Apr	131.59	20.00	24-Jun	131.35	6.21	24-Aug	131.11	0.68
23-Feb	131.27	2.66	25-Apr	131.58	19.30	25-Jun	131.34	5.68	25-Aug	131.11	0.59
24-Feb	131.30	2.78	26-Apr	131.57	18.40	26-Jun	131.32	5.16	26-Aug	131.10	0.52
25-Feb	131.33	3.01	27-Apr	131.56	17.30	27-Jun	131.31	4.72	27-Aug	131.09	0.47
26-Feb	131.32	2.98	28-Apr	131.55	16.30	28-Jun	131.29	4.28	28-Aug	131.09	0.41
27-Feb	131.31	2.94	29-Apr	131.53	15.50	29-Jun	131.28	3.94	29-Aug	131.09	0.37
28-Feb	131.31	2.90	30-Apr	131.52	14.50	30-Jun	131.29	3.89	30-Aug	131.10	0.34
1-Mar	131.30	2.85	1-May	131.51	14.00	1-Jul	131.27	3.72	31-Aug	131.10	0.32
2-Mar	131.29	2.85	2-May	131.51	14.30	2-Jul	131.26	3.47	1-Sep	131.10	0.34

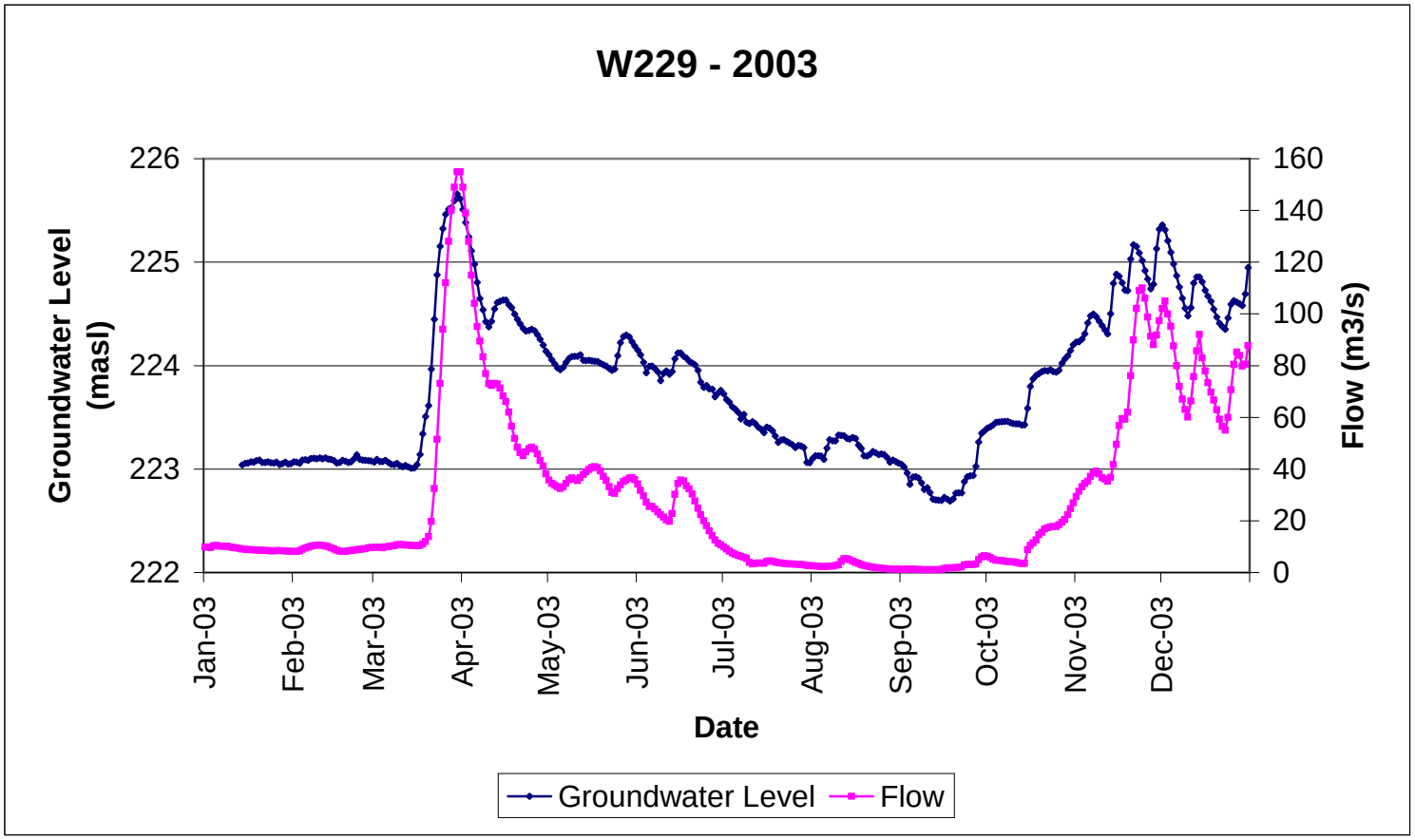
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	131.10	0.36	2-Oct	131.13	0.87	1-Nov	131.35	7.48	1-Dec	131.87	40.80
3-Sep	131.10	0.36	3-Oct	131.12	0.81	2-Nov	131.37	8.06	2-Dec	131.84	38.90
4-Sep	131.10	0.35	4-Oct	131.14	0.83	3-Nov	131.41	9.96	3-Dec	131.81	35.90
5-Sep	131.10	0.35	5-Oct	131.14	0.90	4-Nov	131.42	11.40	4-Dec	131.79	33.90
6-Sep	131.09	0.32	6-Oct	131.13	0.89	5-Nov	131.43	11.80	5-Dec	131.77	30.00
7-Sep	131.09	0.32	7-Oct	131.13	0.83	6-Nov	131.44	12.40	6-Dec	131.77	28.00
8-Sep	131.09	0.29	8-Oct	131.12	0.78	7-Nov	131.44	12.30	7-Dec	131.74	26.00
9-Sep	131.09	0.27	9-Oct	131.12	0.72	8-Nov	131.44	11.90	8-Dec	131.71	24.00
10-Sep	131.08	0.26	10-Oct	131.12	0.67	9-Nov	131.43	11.30	9-Dec	131.70	23.00
11-Sep	131.08	0.25	11-Oct	131.11	0.61	10-Nov	131.42	10.80	10-Dec	131.67	24.60
12-Sep	131.08	0.24	12-Oct	131.11	0.57	11-Nov	131.43	10.90	11-Dec	131.80	34.40
13-Sep	131.08	0.23	13-Oct	131.10	0.54	12-Nov	131.43	11.30	12-Dec	131.82	37.60
14-Sep	131.08	0.23	14-Oct	131.12	0.54	13-Nov	131.48	13.10	13-Dec	131.80	32.00
15-Sep	131.08	0.20	15-Oct	131.27	1.06	14-Nov	131.50	14.70	14-Dec	131.78	29.00
16-Sep	131.08	0.23	16-Oct	131.25	2.64	15-Nov	131.49	14.80	15-Dec	131.75	27.00
17-Sep	131.07	0.22	17-Oct	131.22	2.81	16-Nov	131.50	14.70	16-Dec	131.74	28.10
18-Sep	131.07	0.21	18-Oct	131.21	2.69	17-Nov	131.50	14.90	17-Dec	131.72	28.70
19-Sep	131.09	0.20	19-Oct	131.22	2.68	18-Nov	131.50	14.90	18-Dec	131.71	27.30
20-Sep	131.10	0.22	20-Oct	131.21	2.65	19-Nov	131.59	21.10	19-Dec	131.71	24.30
21-Sep	131.09	0.22	21-Oct	131.25	2.78	20-Nov	131.67	33.30	20-Dec	131.69	23.20
22-Sep	131.10	0.23	22-Oct	131.24	3.13	21-Nov	131.72	34.10	21-Dec	131.67	22.00
23-Sep	131.12	0.30	23-Oct	131.23	2.97	22-Nov	131.75	34.60	22-Dec	131.66	23.20
24-Sep	131.10	0.31	24-Oct	131.22	2.74	23-Nov	131.74	33.50	23-Dec	131.67	23.90
25-Sep	131.11	0.33	25-Oct	131.22	2.57	24-Nov	131.73	31.90	24-Dec	131.75	32.40
26-Sep	131.10	0.36	26-Oct	131.26	2.77	25-Nov	131.74	31.10	25-Dec	131.78	37.30
27-Sep	131.13	0.43	27-Oct	131.29	4.13	26-Nov	131.74	30.40	26-Dec	131.78	36.10
28-Sep	131.16	0.58	28-Oct	131.28	4.31	27-Nov	131.74	30.20	27-Dec	131.77	34.50
29-Sep	131.14	0.89	29-Oct	131.30	4.62	28-Nov	131.80	34.20	28-Dec	131.74	31.90
30-Sep	131.13	0.95	30-Oct	131.34	6.51	29-Nov	131.85	40.70	29-Dec	131.72	29.90
1-Oct	131.13	0.91	31-Oct	131.33	7.14	30-Nov	131.86	41.00	30-Dec	131.79	33.70
									31-Dec	131.80	36.00



2003 Groundwater Level and Flow for W229

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan		9.84	3-Mar	223.07	9.75	3-May	224.02	33.70	3-Jul	223.65	8.26
2-Jan		9.80	4-Mar	223.07	9.57	4-May	223.98	33.20	4-Jul	223.60	7.52
3-Jan		9.67	5-Mar	223.08	9.87	5-May	223.96	32.50	5-Jul	223.58	7.05
4-Jan		10.30	6-Mar	223.06	9.98	6-May	223.98	33.00	6-Jul	223.55	6.60
5-Jan		10.50	7-Mar	223.05	10.20	7-May	224.03	34.40	7-Jul	223.48	6.18
6-Jan		10.20	8-Mar	223.04	10.30	8-May	224.07	35.90	8-Jul	223.53	5.82
7-Jan		10.10	9-Mar	223.05	10.70	9-May	224.09	36.60	9-Jul	223.45	5.43
8-Jan		10.10	10-Mar	223.03	10.80	10-May	224.09	36.10	10-Jul	223.44	3.89
9-Jan		10.10	11-Mar	223.02	10.70	11-May	224.09	35.50	11-Jul	223.46	3.26
10-Jan		9.70	12-Mar	223.03	10.60	12-May	224.11	36.70	12-Jul	223.44	3.53
11-Jan		9.61	13-Mar	223.02	10.60	13-May	224.05	37.80	13-Jul	223.40	3.65
12-Jan		9.58	14-Mar	223.01	10.50	14-May	224.05	38.90	14-Jul	223.39	3.60
13-Jan		9.30	15-Mar	223.01	10.30	15-May	224.05	39.90	15-Jul	223.35	3.52
14-Jan	223.04	9.03	16-Mar	223.04	10.40	16-May	224.05	40.60	16-Jul	223.40	4.29
15-Jan	223.05	8.90	17-Mar	223.14	10.50	17-May	224.04	40.90	17-Jul	223.39	4.51
16-Jan	223.06	8.85	18-Mar	223.34	11.00	18-May	224.04	40.50	18-Jul	223.37	4.30
17-Jan	223.07	8.80	19-Mar	223.51	12.00	19-May	224.02	39.30	19-Jul	223.32	3.96
18-Jan	223.07	8.75	20-Mar	223.61	13.90	20-May	224.01	37.10	20-Jul	223.26	3.74
19-Jan	223.08	8.70	21-Mar	223.97	19.70	21-May	224.00	35.60	21-Jul	223.28	3.64
20-Jan	223.09	8.60	22-Mar	224.45	32.40	22-May	223.97	33.20	22-Jul	223.28	3.53
21-Jan	223.06	8.55	23-Mar	224.88	51.50	23-May	223.95	30.90	23-Jul	223.27	3.33
22-Jan	223.06	8.50	24-Mar	225.15	73.10	24-May	223.97	30.60	24-Jul	223.25	3.29
23-Jan	223.07	8.45	25-Mar	225.32	94.00	25-May	224.10	32.50	25-Jul	223.23	3.30
24-Jan	223.06	8.39	26-Mar	225.46	112.00	26-May	224.22	33.90	26-Jul	223.21	3.23
25-Jan	223.06	8.35	27-Mar	225.51	128.00	27-May	224.28	35.20	27-Jul	223.23	3.19
26-Jan	223.07	8.45	28-Mar	225.53	140.00	28-May	224.30	35.70	28-Jul	223.22	3.10
27-Jan	223.04	8.41	29-Mar	225.60	149.00	29-May	224.28	36.50	29-Jul	223.21	2.90
28-Jan	223.05	8.35	30-Mar	225.66	155.00	30-May	224.23	36.70	30-Jul	223.06	2.67
29-Jan	223.07	8.29	31-Mar	225.61	155.00	31-May	224.19	35.90	31-Jul	223.06	2.57
30-Jan	223.05	8.25	1-Apr	225.51	149.00	1-Jun	224.15	34.20	1-Aug	223.10	2.56
31-Jan	223.05	8.11	2-Apr	225.38	139.00	2-Jun	224.11	31.80	2-Aug	223.13	2.48
1-Feb	223.07	8.09	3-Apr	225.24	128.00	3-Jun	224.03	29.60	3-Aug	223.13	2.41
2-Feb	223.07	8.17	4-Apr	225.11	115.00	4-Jun	223.93	27.10	4-Aug	223.12	2.27
3-Feb	223.06	8.31	5-Apr	224.98	104.00	5-Jun	223.99	25.50	5-Aug	223.09	2.20
4-Feb	223.09	8.97	6-Apr	224.80	95.10	6-Jun	224.00	25.50	6-Aug	223.20	2.31
5-Feb	223.09	9.42	7-Apr	224.65	89.50	7-Jun	223.97	24.60	7-Aug	223.28	2.44
6-Feb	223.09	9.71	8-Apr	224.54	83.30	8-Jun	223.94	23.40	8-Aug	223.27	2.51
7-Feb	223.10	10.10	9-Apr	224.43	76.90	9-Jun	223.85	22.30	9-Aug	223.27	2.65
8-Feb	223.11	10.40	10-Apr	224.38	73.00	10-Jun	223.93	21.40	10-Aug	223.33	2.94
9-Feb	223.10	10.60	11-Apr	224.43	72.30	11-Jun	223.95	20.30	11-Aug	223.32	4.24
10-Feb	223.11	10.60	12-Apr	224.55	73.10	12-Jun	223.92	19.70	12-Aug	223.32	5.31
11-Feb	223.10	10.50	13-Apr	224.61	72.90	13-Jun	223.94	22.80	13-Aug	223.30	5.33
12-Feb	223.11	10.20	14-Apr	224.62	71.30	14-Jun	224.07	30.20	14-Aug	223.29	4.90
13-Feb	223.10	9.95	15-Apr	224.63	68.30	15-Jun	224.12	34.40	15-Aug	223.31	4.33
14-Feb	223.09	9.51	16-Apr	224.63	66.10	16-Jun	224.12	35.70	16-Aug	223.30	3.91
15-Feb	223.08	9.09	17-Apr	224.59	61.90	17-Jun	224.09	35.40	17-Aug	223.23	3.47
16-Feb	223.06	8.62	18-Apr	224.56	56.60	18-Jun	224.07	33.50	18-Aug	223.20	3.06
17-Feb	223.07	8.25	19-Apr	224.50	51.90	19-Jun	224.04	32.30	19-Aug	223.13	2.76
18-Feb	223.09	8.07	20-Apr	224.45	48.40	20-Jun	224.02	30.30	20-Aug	223.13	2.47
19-Feb	223.08	8.13	21-Apr	224.40	46.30	21-Jun	224.01	27.60	21-Aug	223.14	2.22
20-Feb	223.06	8.38	22-Apr	224.36	45.20	22-Jun	223.96	24.80	22-Aug	223.17	2.03
21-Feb	223.07	8.44	23-Apr	224.33	46.70	23-Jun	223.84	22.30	23-Aug	223.16	1.91
22-Feb	223.10	8.56	24-Apr	224.34	47.80	24-Jun	223.79	20.00	24-Aug	223.14	1.74
23-Feb	223.14	8.84	25-Apr	224.35	48.40	25-Jun	223.81	18.10	25-Aug	223.15	1.61
24-Feb	223.09	8.91	26-Apr	224.34	47.70	26-Jun	223.77	16.10	26-Aug	223.14	1.49
25-Feb	223.09	9.00	27-Apr	224.30	45.90	27-Jun	223.77	14.20	27-Aug	223.11	1.41
26-Feb	223.08	9.20	28-Apr	224.25	43.30	28-Jun	223.70	12.60	28-Aug	223.07	1.35
27-Feb	223.08	9.54	29-Apr	224.20	41.10	29-Jun	223.73	11.30	29-Aug	223.09	1.26
28-Feb	223.08	9.69	30-Apr	224.14	38.10	30-Jun	223.76	10.70	30-Aug	223.07	1.26
1-Mar	223.07	9.65	1-May	224.11	35.70	1-Jul	223.72	9.92	31-Aug	223.06	1.24
2-Mar	223.09	9.73	2-May	224.06	34.50	2-Jul	223.67	9.10	1-Sep	223.05	1.23

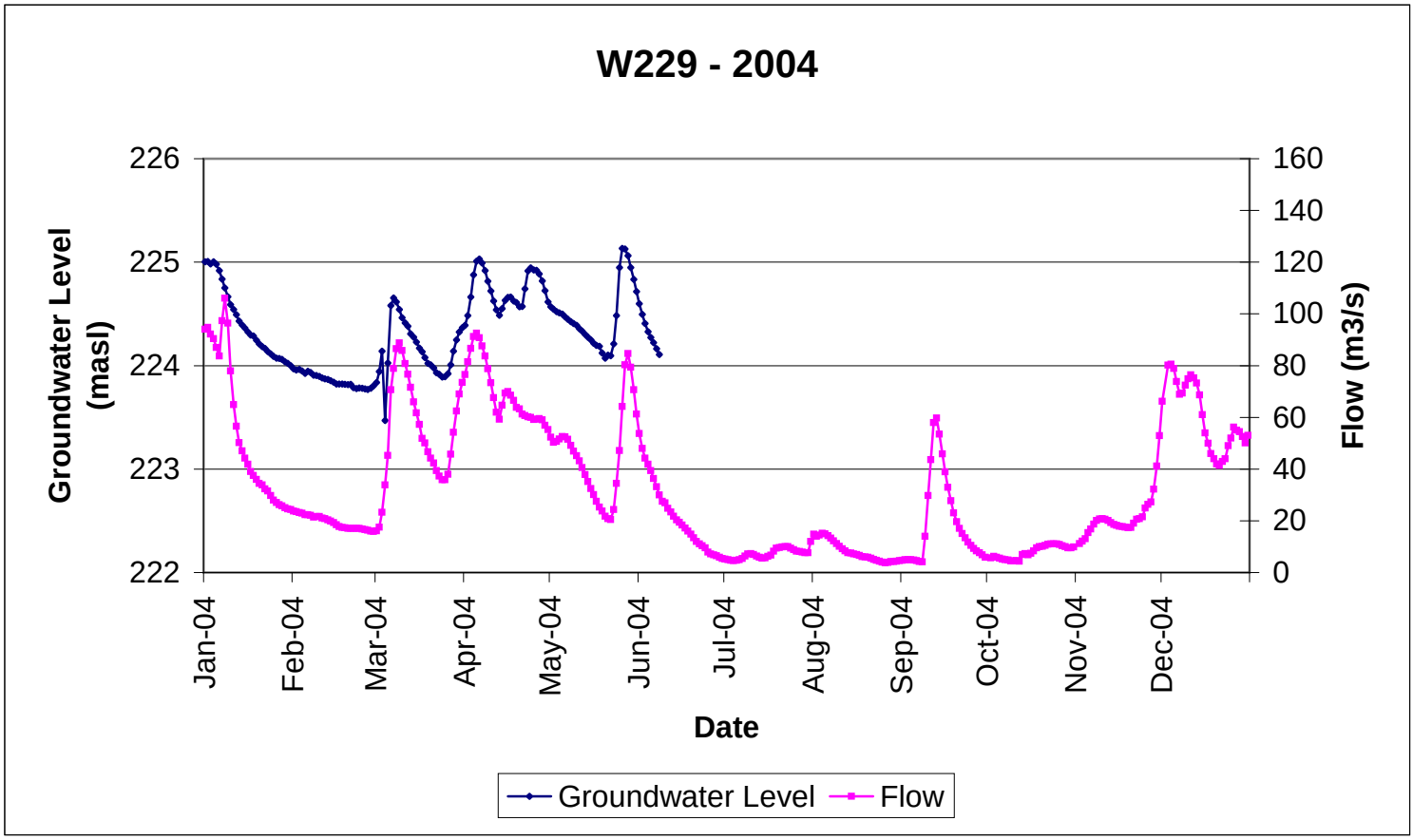
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	223.02	1.23	2-Oct	223.41	5.72	1-Nov	224.23	29.40	1-Dec	225.36	102.00
3-Sep	222.96	1.27	3-Oct	223.42	5.16	2-Nov	224.23	31.40	2-Dec	225.31	105.00
4-Sep	222.85	1.26	4-Oct	223.45	4.75	3-Nov	224.26	33.20	3-Dec	225.21	99.90
5-Sep	222.92	1.24	5-Oct	223.45	4.72	4-Nov	224.31	34.50	4-Dec	225.10	95.20
6-Sep	222.93	1.20	6-Oct	223.46	4.56	5-Nov	224.41	35.30	5-Dec	224.98	87.60
7-Sep	222.91	1.17	7-Oct	223.46	4.36	6-Nov	224.48	37.10	6-Dec	224.87	80.00
8-Sep	222.87	1.10	8-Oct	223.46	4.18	7-Nov	224.50	38.40	7-Dec	224.76	72.00
9-Sep	222.80	1.07	9-Oct	223.45	4.15	8-Nov	224.47	39.10	8-Dec	224.65	67.00
10-Sep	222.82	1.04	10-Oct	223.44	4.08	9-Nov	224.43	38.10	9-Dec	224.55	63.00
11-Sep	222.77	1.04	11-Oct	223.44	3.91	10-Nov	224.39	36.70	10-Dec	224.48	60.10
12-Sep	222.71	1.05	12-Oct	223.44	3.67	11-Nov	224.35	36.10	11-Dec	224.56	66.30
13-Sep	222.70	1.06	13-Oct	223.43	3.38	12-Nov	224.31	35.30	12-Dec	224.80	75.70
14-Sep	222.70	1.10	14-Oct	223.43	3.50	13-Nov	224.50	36.80	13-Dec	224.86	85.70
15-Sep	222.70	1.20	15-Oct	223.59	8.82	14-Nov	224.80	41.70	14-Dec	224.86	92.00
16-Sep	222.73	1.55	16-Oct	223.80	10.50	15-Nov	224.88	49.50	15-Dec	224.81	83.00
17-Sep	222.71	1.77	17-Oct	223.87	11.40	16-Nov	224.86	56.80	16-Dec	224.73	78.00
18-Sep	222.69	1.81	18-Oct	223.90	12.60	17-Nov	224.80	59.50	17-Dec	224.67	73.40
19-Sep	222.71	1.81	19-Oct	223.92	14.60	18-Nov	224.73	59.20	18-Dec	224.62	69.70
20-Sep	222.77	1.93	20-Oct	223.94	15.50	19-Nov	224.72	61.90	19-Dec	224.54	66.60
21-Sep	222.77	2.01	21-Oct	223.95	16.80	20-Nov	225.03	76.10	20-Dec	224.47	62.90
22-Sep	222.77	2.08	22-Oct	223.95	17.30	21-Nov	225.17	89.90	21-Dec	224.41	59.20
23-Sep	222.88	2.93	23-Oct	223.96	17.60	22-Nov	225.15	102.00	22-Dec	224.38	56.40
24-Sep	222.93	3.10	24-Oct	223.94	17.70	23-Nov	225.09	109.00	23-Dec	224.35	55.00
25-Sep	222.93	3.00	25-Oct	223.94	17.80	24-Nov	225.01	110.00	24-Dec	224.46	59.90
26-Sep	222.94	3.02	26-Oct	223.95	18.50	25-Nov	224.92	106.00	25-Dec	224.59	70.70
27-Sep	223.03	3.30	27-Oct	224.02	19.40	26-Nov	224.84	98.80	26-Dec	224.63	80.40
28-Sep	223.26	4.90	28-Oct	224.06	20.40	27-Nov	224.74	91.30	27-Dec	224.61	85.20
29-Sep	223.34	5.99	29-Oct	224.10	22.30	28-Nov	224.79	88.10	28-Dec	224.60	83.90
30-Sep	223.37	6.42	30-Oct	224.15	24.70	29-Nov	225.13	91.80	29-Dec	224.58	79.80
1-Oct	223.40	6.23	31-Oct	224.20	26.90	30-Nov	225.32	97.30	30-Dec	224.69	80.50
									31-Dec	224.95	87.70



2004 Groundwater Level and Flow for W229

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	225.00	94.10	2-Mar	223.94	17.50	2-May	224.55	50.30	2-Jul		4.99
2-Jan	225.01	94.70	3-Mar	224.14	23.30	3-May	224.52	50.70	3-Jul		4.70
3-Jan	224.98	92.20	4-Mar	223.47	33.80	4-May	224.51	51.60	4-Jul		4.53
4-Jan	225.00	90.40	5-Mar	224.02	45.30	5-May	224.50	52.50	5-Jul		4.76
5-Jan	224.98	87.00	6-Mar	224.58	70.60	6-May	224.47	52.40	6-Jul		4.89
6-Jan	224.92	83.70	7-Mar	224.65	78.90	7-May	224.45	51.50	7-Jul		5.38
7-Jan	224.84	97.30	8-Mar	224.61	86.50	8-May	224.42	49.10	8-Jul		6.37
8-Jan	224.75	106.00	9-Mar	224.54	88.80	9-May	224.41	46.90	9-Jul		7.15
9-Jan	224.67	96.40	10-Mar	224.46	85.80	10-May	224.39	45.20	10-Jul		7.24
10-Jan	224.59	77.90	11-Mar	224.41	80.80	11-May	224.36	43.20	11-Jul		6.89
11-Jan	224.54	64.90	12-Mar	224.38	76.60	12-May	224.33	40.60	12-Jul		6.32
12-Jan	224.49	56.60	13-Mar	224.31	71.60	13-May	224.30	37.90	13-Jul		5.83
13-Jan	224.43	50.20	14-Mar	224.27	66.00	14-May	224.28	35.10	14-Jul		5.53
14-Jan	224.39	47.00	15-Mar	224.23	61.70	15-May	224.25	32.50	15-Jul		5.70
15-Jan	224.36	44.20	16-Mar	224.17	57.30	16-May	224.22	30.10	16-Jul		6.25
16-Jan	224.33	41.80	17-Mar	224.13	51.90	17-May	224.20	27.50	17-Jul		6.71
17-Jan	224.30	39.00	18-Mar	224.08	50.10	18-May	224.19	25.30	18-Jul		8.20
18-Jan	224.29	37.50	19-Mar	224.02	46.70	19-May	224.12	23.80	19-Jul		9.39
19-Jan	224.25	36.00	20-Mar	224.01	44.20	20-May	224.07	21.70	20-Jul		9.67
20-Jan	224.21	34.50	21-Mar	223.98	42.30	21-May	224.10	20.80	21-Jul		9.85
21-Jan	224.18	33.90	22-Mar	223.93	39.40	22-May	224.10	20.50	22-Jul		9.96
22-Jan	224.17	32.30	23-Mar	223.92	37.30	23-May	224.21	24.30	23-Jul		9.95
23-Jan	224.14	31.50	24-Mar	223.89	35.90	24-May	224.48	34.40	24-Jul		9.40
24-Jan	224.11	29.70	25-Mar	223.89	35.80	25-May	224.95	47.10	25-Jul		8.77
25-Jan	224.09	28.00	26-Mar	223.92	38.00	26-May	225.13	64.20	26-Jul		8.20
26-Jan	224.07	27.00	27-Mar	224.01	45.70	27-May	225.13	80.30	27-Jul		8.09
27-Jan	224.07	26.20	28-Mar	224.14	54.20	28-May	225.06	84.60	28-Jul		7.93
28-Jan	224.06	25.70	29-Mar	224.25	62.40	29-May	224.95	79.40	29-Jul		7.63
29-Jan	224.04	25.00	30-Mar	224.32	69.00	30-May	224.83	70.60	30-Jul		7.66
30-Jan	224.02	24.60	31-Mar	224.37	73.50	31-May	224.71	61.30	31-Jul		12.00
31-Jan	224.00	24.30	1-Apr	224.39	76.50	1-Jun	224.60	53.70	1-Aug		14.80
1-Feb	223.97	23.80	2-Apr	224.48	81.50	2-Jun	224.49	48.00	2-Aug		14.00
2-Feb	223.96	23.50	3-Apr	224.66	86.70	3-Jun	224.41	44.20	3-Aug		14.50
3-Feb	223.96	23.20	4-Apr	224.88	91.20	4-Jun	224.33	41.90	4-Aug		15.20
4-Feb	223.95	22.90	5-Apr	225.01	92.50	5-Jun	224.27	39.40	5-Aug		14.90
5-Feb	223.93	22.30	6-Apr	225.03	90.70	6-Jun	224.22	36.30	6-Aug		14.20
6-Feb	223.94	22.30	7-Apr	224.99	87.60	7-Jun	224.16	33.10	7-Aug		13.30
7-Feb	223.94	22.10	8-Apr	224.92	83.70	8-Jun	224.11	30.00	8-Aug		12.20
8-Feb	223.91	21.40	9-Apr	224.82	78.80	9-Jun		27.50	9-Aug		11.20
9-Feb	223.90	21.60	10-Apr	224.72	73.30	10-Jun		26.90	10-Aug		10.10
10-Feb	223.89	21.60	11-Apr	224.62	67.60	11-Jun		24.80	11-Aug		9.13
11-Feb	223.88	21.10	12-Apr	224.54	61.90	12-Jun		23.40	12-Aug		8.32
12-Feb	223.87	20.80	13-Apr	224.49	59.30	13-Jun		21.80	13-Aug		7.70
13-Feb	223.87	20.30	14-Apr	224.55	64.60	14-Jun		20.30	14-Aug		7.47
14-Feb	223.85	19.90	15-Apr	224.63	69.40	15-Jun		19.40	15-Aug		7.16
15-Feb	223.84	19.30	16-Apr	224.66	70.00	16-Jun		18.30	16-Aug		6.93
16-Feb	223.82	18.50	17-Apr	224.66	68.50	17-Jun		17.20	17-Aug		6.60
17-Feb	223.82	17.80	18-Apr	224.63	66.50	18-Jun		16.00	18-Aug		6.16
18-Feb	223.82	17.40	19-Apr	224.61	63.80	19-Jun		14.80	19-Aug		6.03
19-Feb	223.82	17.30	20-Apr	224.57	63.30	20-Jun		13.40	20-Aug		5.86
20-Feb	223.82	17.10	21-Apr	224.57	61.20	21-Jun		12.00	21-Aug		5.47
21-Feb	223.82	17.00	22-Apr	224.74	60.70	22-Jun		11.10	22-Aug		5.09
22-Feb	223.79	17.10	23-Apr	224.91	60.20	23-Jun		10.30	23-Aug		4.68
23-Feb	223.78	17.00	24-Apr	224.95	59.90	24-Jun		9.47	24-Aug		4.38
24-Feb	223.78	17.10	25-Apr	224.93	59.10	25-Jun		7.85	25-Aug		4.01
25-Feb	223.78	16.80	26-Apr	224.92	59.30	26-Jun		7.15	26-Aug		3.76
26-Feb	223.77	16.60	27-Apr	224.89	59.50	27-Jun		6.81	27-Aug		3.88
27-Feb	223.77	16.30	28-Apr	224.82	59.00	28-Jun		6.48	28-Aug		4.22
28-Feb	223.78	16.00	29-Apr	224.73	56.90	29-Jun		5.88	29-Aug		4.18
29-Feb	223.80	15.90	30-Apr	224.61	55.20	30-Jun		5.45	30-Aug		4.32
1-Mar	223.84	16.10	1-May	224.57	52.30	1-Jul		5.19	31-Aug		4.61

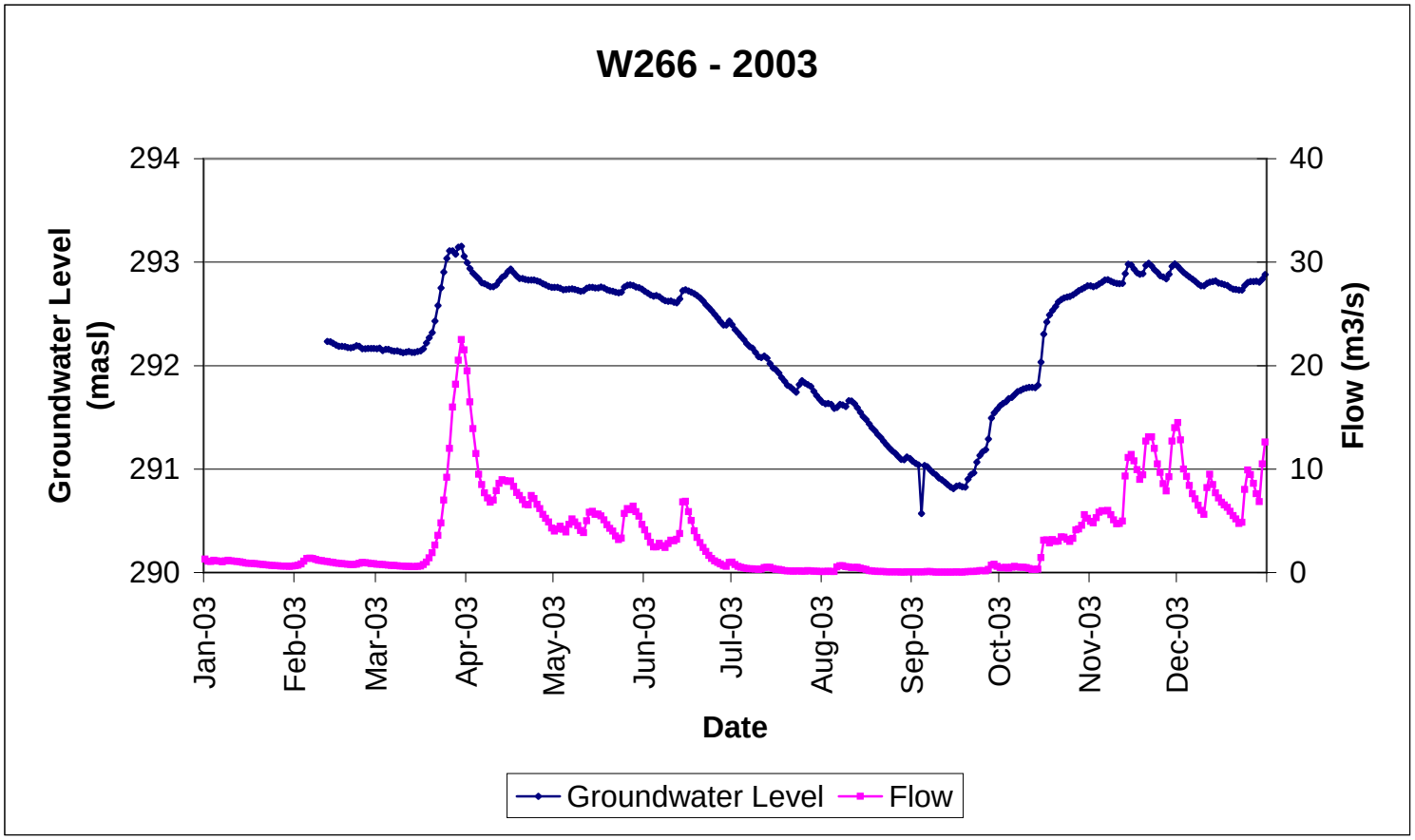
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep		4.75	2-Oct		5.65	2-Nov		11.20	3-Dec		80.20
2-Sep		4.92	3-Oct		6.25	3-Nov		12.10	4-Dec		80.50
3-Sep		4.90	4-Oct		5.91	4-Nov		13.10	5-Dec		78.90
4-Sep		4.88	5-Oct		5.55	5-Nov		15.40	6-Dec		73.80
5-Sep		4.79	6-Oct		5.18	6-Nov		16.80	7-Dec		68.90
6-Sep		4.53	7-Oct		4.95	7-Nov		18.70	8-Dec		69.40
7-Sep		4.19	8-Oct		4.78	8-Nov		20.10	9-Dec		72.40
8-Sep		4.16	9-Oct		4.47	9-Nov		20.70	10-Dec		74.90
9-Sep		14.00	10-Oct		4.47	10-Nov		20.80	11-Dec		76.40
10-Sep		29.80	11-Oct		4.62	11-Nov		20.60	12-Dec		75.20
11-Sep		43.60	12-Oct		4.34	12-Nov		20.10	13-Dec		73.20
12-Sep		57.90	13-Oct		6.88	13-Nov		19.30	14-Dec		68.70
13-Sep		59.70	14-Oct		7.23	14-Nov		18.60	15-Dec		61.00
14-Sep		53.50	15-Oct		6.85	15-Nov		18.20	16-Dec		54.00
15-Sep		45.80	16-Oct		7.45	16-Nov		17.90	17-Dec		50.00
16-Sep		38.90	17-Oct		8.32	17-Nov		17.70	18-Dec		46.00
17-Sep		32.90	18-Oct		9.48	18-Nov		17.50	19-Dec		44.00
18-Sep		27.70	19-Oct		10.00	19-Nov		17.30	20-Dec		42.00
19-Sep		23.10	20-Oct		10.10	20-Nov		17.40	21-Dec		41.40
20-Sep		19.60	21-Oct		10.50	21-Nov		19.10	22-Dec		42.90
21-Sep		17.10	22-Oct		10.90	22-Nov		20.60	23-Dec		44.00
22-Sep		15.10	23-Oct		11.10	23-Nov		20.80	24-Dec		49.00
23-Sep		13.40	24-Oct		11.00	24-Nov		21.50	25-Dec		52.00
24-Sep		11.80	25-Oct		11.10	25-Nov		24.90	26-Dec		56.20
25-Sep		10.50	26-Oct		10.80	26-Nov		26.30	27-Dec		55.00
26-Sep		9.30	27-Oct		10.40	27-Nov		27.30	28-Dec		54.40
27-Sep		8.37	28-Oct		10.00	28-Nov		32.20	29-Dec		52.60
28-Sep		7.65	29-Oct		9.56	29-Nov		41.20	30-Dec		50.10
29-Sep		6.86	30-Oct		9.47	30-Nov		52.90	31-Dec		53.00
30-Sep		5.92	31-Oct		9.90	1-Dec		66.20			
1-Oct		5.49	1-Nov		10.4	2-Dec		75.6			



2003 Groundwater Level and Flow for W266

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan		1.28	3-Mar	292.15	0.76	3-May	292.75	4.48	3-Jul	292.32	0.60
2-Jan		1.10	4-Mar	292.16	0.73	4-May	292.73	4.18	4-Jul	292.28	0.50
3-Jan		1.05	5-Mar	292.16	0.71	5-May	292.74	3.90	5-Jul	292.25	0.45
4-Jan		1.18	6-Mar	292.14	0.69	6-May	292.74	4.65	6-Jul	292.21	0.39
5-Jan		1.13	7-Mar	292.14	0.67	7-May	292.74	5.17	7-Jul	292.18	0.35
6-Jan		1.08	8-Mar	292.14	0.65	8-May	292.74	4.89	8-Jul	292.17	0.34
7-Jan		1.03	9-Mar	292.13	0.63	9-May	292.73	4.54	9-Jul	292.13	0.33
8-Jan		1.12	10-Mar	292.12	0.61	10-May	292.72	4.06	10-Jul	292.09	0.28
9-Jan		1.19	11-Mar	292.13	0.60	11-May	292.73	3.85	11-Jul	292.08	0.33
10-Jan		1.12	12-Mar	292.14	0.58	12-May	292.75	5.00	12-Jul	292.09	0.48
11-Jan		1.10	13-Mar	292.13	0.57	13-May	292.76	5.83	13-Jul	292.07	0.50
12-Jan		1.06	14-Mar	292.13	0.56	14-May	292.76	5.90	14-Jul	292.02	0.50
13-Jan		1.02	15-Mar	292.14	0.58	15-May	292.75	5.61	15-Jul	291.98	0.37
14-Jan		0.97	16-Mar	292.14	0.62	16-May	292.75	5.64	16-Jul	291.96	0.31
15-Jan		0.92	17-Mar	292.16	0.75	17-May	292.76	5.48	17-Jul	291.93	0.28
16-Jan		0.89	18-Mar	292.22	1.00	18-May	292.75	5.08	18-Jul	291.89	0.23
17-Jan		0.87	19-Mar	292.27	1.40	19-May	292.73	4.61	19-Jul	291.85	0.18
18-Jan		0.84	20-Mar	292.32	1.90	20-May	292.73	4.27	20-Jul	291.81	0.15
19-Jan		0.81	21-Mar	292.43	2.65	21-May	292.72	4.01	21-Jul	291.79	0.14
20-Jan		0.78	22-Mar	292.58	3.60	22-May	292.71	3.54	22-Jul	291.77	0.13
21-Jan		0.76	23-Mar	292.75	4.80	23-May	292.70	3.16	23-Jul	291.74	0.14
22-Jan		0.74	24-Mar	292.91	7.00	24-May	292.71	3.31	24-Jul	291.82	0.14
23-Jan		0.71	25-Mar	293.04	9.20	25-May	292.76	5.71	25-Jul	291.86	0.13
24-Jan		0.69	26-Mar	293.11	12.00	26-May	292.78	6.16	26-Jul	291.83	0.13
25-Jan		0.66	27-Mar	293.11	16.00	27-May	292.78	6.05	27-Jul	291.82	0.17
26-Jan		0.64	28-Mar	293.08	18.20	28-May	292.77	6.42	28-Jul	291.80	0.16
27-Jan		0.63	29-Mar	293.15	20.50	29-May	292.76	5.89	29-Jul	291.75	0.13
28-Jan		0.62	30-Mar	293.15	22.50	30-May	292.75	5.45	30-Jul	291.71	0.11
29-Jan		0.61	31-Mar	293.06	21.50	31-May	292.74	4.65	31-Jul	291.68	0.10
30-Jan		0.60	1-Apr	292.99	19.50	1-Jun	292.72	4.12	1-Aug	291.65	0.08
31-Jan		0.62	2-Apr	292.94	16.50	2-Jun	292.70	3.51	2-Aug	291.63	0.09
1-Feb		0.64	3-Apr	292.89	13.90	3-Jun	292.68	2.92	3-Aug	291.63	0.12
2-Feb		0.70	4-Apr	292.87	11.50	4-Jun	292.67	2.48	4-Aug	291.62	0.09
3-Feb		0.82	5-Apr	292.84	9.50	5-Jun	292.68	2.48	5-Aug	291.59	0.10
4-Feb		1.10	6-Apr	292.80	8.50	6-Jun	292.67	2.81	6-Aug	291.60	0.53
5-Feb		1.36	7-Apr	292.79	7.70	7-Jun	292.64	2.58	7-Aug	291.63	0.66
6-Feb		1.39	8-Apr	292.78	7.20	8-Jun	292.63	2.42	8-Aug	291.62	0.65
7-Feb		1.34	9-Apr	292.76	6.80	9-Jun	292.62	2.80	9-Aug	291.60	0.56
8-Feb		1.25	10-Apr	292.76	7.00	10-Jun	292.62	3.12	10-Aug	291.66	0.52
9-Feb		1.19	11-Apr	292.78	7.90	11-Jun	292.61	3.07	11-Aug	291.66	0.46
10-Feb		1.15	12-Apr	292.82	8.61	12-Jun	292.61	3.20	12-Aug	291.63	0.46
11-Feb		1.10	13-Apr	292.85	8.96	13-Jun	292.65	3.77	13-Aug	291.59	0.51
12-Feb	292.23	1.05	14-Apr	292.87	8.88	14-Jun	292.72	6.81	14-Aug	291.55	0.42
13-Feb	292.23	1.00	15-Apr	292.91	8.78	15-Jun	292.73	6.87	15-Aug	291.51	0.36
14-Feb	292.22	0.96	16-Apr	292.93	8.86	16-Jun	292.72	5.87	16-Aug	291.48	0.29
15-Feb	292.20	0.92	17-Apr	292.90	8.32	17-Jun	292.71	5.03	17-Aug	291.44	0.18
16-Feb	292.19	0.88	18-Apr	292.86	7.74	18-Jun	292.69	4.04	18-Aug	291.40	0.14
17-Feb	292.19	0.84	19-Apr	292.84	7.45	19-Jun	292.68	3.38	19-Aug	291.37	0.11
18-Feb	292.18	0.81	20-Apr	292.84	7.01	20-Jun	292.65	2.87	20-Aug	291.33	0.09
19-Feb	292.17	0.79	21-Apr	292.83	6.59	21-Jun	292.62	2.42	21-Aug	291.31	0.08
20-Feb	292.17	0.77	22-Apr	292.83	6.53	22-Jun	292.59	2.03	22-Aug	291.27	0.08
21-Feb	292.18	0.76	23-Apr	292.83	7.45	23-Jun	292.56	1.65	23-Aug	291.24	0.06
22-Feb	292.19	0.79	24-Apr	292.83	7.15	24-Jun	292.53	1.35	24-Aug	291.20	0.05
23-Feb	292.19	0.88	25-Apr	292.82	6.59	25-Jun	292.50	1.12	25-Aug	291.18	0.05
24-Feb	292.16	0.98	26-Apr	292.81	6.18	26-Jun	292.46	0.96	26-Aug	291.15	0.05
25-Feb	292.16	0.94	27-Apr	292.79	5.60	27-Jun	292.42	0.81	27-Aug	291.12	0.05
26-Feb	292.17	0.90	28-Apr	292.78	5.23	28-Jun	292.39	0.68	28-Aug	291.09	0.04
27-Feb	292.17	0.86	29-Apr	292.77	4.88	29-Jun	292.39	0.60	29-Aug	291.09	0.04
28-Feb	292.17	0.84	30-Apr	292.76	4.29	30-Jun	292.43	0.97	30-Aug	291.12	0.06
1-Mar	292.16	0.80	1-May	292.76	4.01	1-Jul	292.40	1.01	31-Aug	291.10	0.05
2-Mar	292.17	0.78	2-May	292.76	4.21	2-Jul	292.35	0.77	1-Sep	291.08	0.05

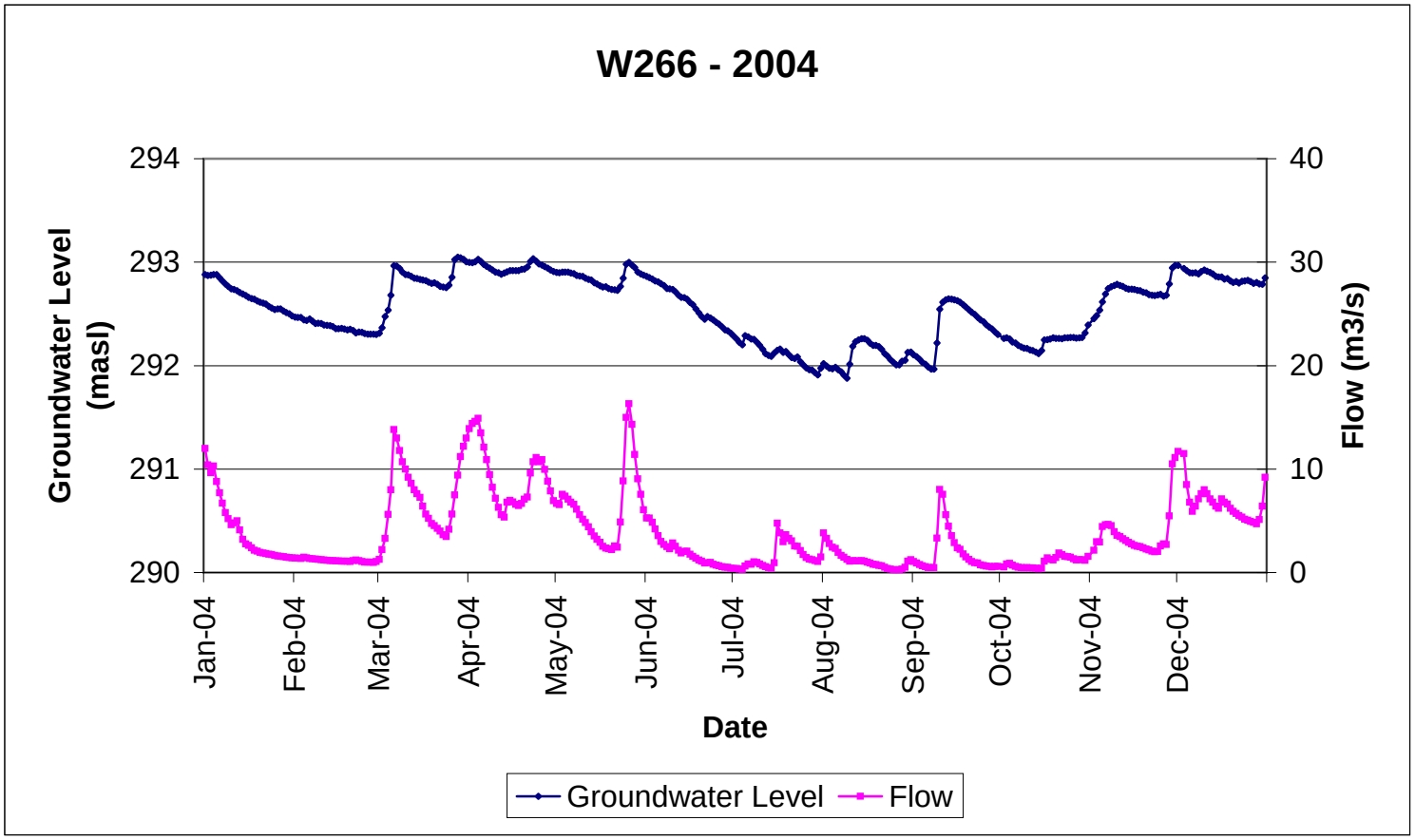
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	291.05	0.06	2-Oct	291.63	0.46	1-Nov	292.77	4.94	1-Dec	292.96	14.50
3-Sep	291.04	0.07	3-Oct	291.65	0.51	2-Nov	292.76	4.80	2-Dec	292.93	12.80
4-Sep	290.57	0.07	4-Oct	291.68	0.42	3-Nov	292.77	5.28	3-Dec	292.90	10.00
5-Sep	291.03	0.07	5-Oct	291.69	0.50	4-Nov	292.79	5.82	4-Dec	292.88	9.30
6-Sep	291.02	0.08	6-Oct	291.72	0.60	5-Nov	292.81	5.97	5-Dec	292.86	8.40
7-Sep	290.99	0.09	7-Oct	291.75	0.54	6-Nov	292.83	5.95	6-Dec	292.84	7.60
8-Sep	290.96	0.06	8-Oct	291.76	0.51	7-Nov	292.83	6.00	7-Dec	292.81	7.10
9-Sep	290.94	0.04	9-Oct	291.78	0.51	8-Nov	292.81	5.57	8-Dec	292.79	6.50
10-Sep	290.91	0.03	10-Oct	291.78	0.47	9-Nov	292.81	5.07	9-Dec	292.77	6.00
11-Sep	290.90	0.03	11-Oct	291.79	0.39	10-Nov	292.80	4.71	10-Dec	292.77	5.60
12-Sep	290.87	0.02	12-Oct	291.79	0.31	11-Nov	292.79	4.72	11-Dec	292.80	8.19
13-Sep	290.85	0.02	13-Oct	291.79	0.31	12-Nov	292.80	4.97	12-Dec	292.81	9.50
14-Sep	290.83	0.03	14-Oct	291.81	0.34	13-Nov	292.89	9.31	13-Dec	292.81	8.50
15-Sep	290.81	0.04	15-Oct	292.03	1.45	14-Nov	292.98	11.10	14-Dec	292.82	7.70
16-Sep	290.83	0.06	16-Oct	292.30	3.13	15-Nov	292.97	11.40	15-Dec	292.80	7.20
17-Sep	290.84	0.04	17-Oct	292.42	3.15	16-Nov	292.93	10.80	16-Dec	292.79	6.80
18-Sep	290.83	0.04	18-Oct	292.49	2.85	17-Nov	292.90	9.92	17-Dec	292.78	6.52
19-Sep	290.83	0.06	19-Oct	292.53	3.16	18-Nov	292.88	8.99	18-Dec	292.77	6.28
20-Sep	290.90	0.09	20-Oct	292.57	3.01	19-Nov	292.89	9.42	19-Dec	292.76	5.92
21-Sep	290.95	0.10	21-Oct	292.62	3.04	20-Nov	292.97	12.70	20-Dec	292.74	5.49
22-Sep	290.96	0.10	22-Oct	292.64	3.44	21-Nov	292.99	13.10	21-Dec	292.74	5.16
23-Sep	291.07	0.13	23-Oct	292.65	3.41	22-Nov	292.96	13.10	22-Dec	292.73	4.73
24-Sep	291.13	0.17	24-Oct	292.66	3.19	23-Nov	292.93	12.00	23-Dec	292.73	4.84
25-Sep	291.17	0.18	25-Oct	292.67	3.00	24-Nov	292.90	10.50	24-Dec	292.77	8.03
26-Sep	291.19	0.15	26-Oct	292.68	3.30	25-Nov	292.87	9.66	25-Dec	292.81	9.90
27-Sep	291.29	0.30	27-Oct	292.70	4.12	26-Nov	292.86	8.57	26-Dec	292.81	9.45
28-Sep	291.49	0.70	28-Oct	292.72	4.21	27-Nov	292.84	7.87	27-Dec	292.81	8.60
29-Sep	291.54	0.79	29-Oct	292.74	4.55	28-Nov	292.88	9.27	28-Dec	292.81	7.60
30-Sep	291.58	0.57	30-Oct	292.75	5.59	29-Nov	292.96	12.70	29-Dec	292.81	6.86
1-Oct	291.61	0.46	31-Oct	292.77	5.23	30-Nov	292.98	14.00	30-Dec	292.84	10.50
									31-Dec	292.88	12.60



2004 Groundwater Level and Flow for W266

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	292.88	12.00	2-Mar	292.37	2.20	2-May	292.90	6.56	2-Jul	292.26	0.39
2-Jan	292.87	10.40	3-Mar	292.48	3.30	3-May	292.90	7.54	3-Jul	292.22	0.33
3-Jan	292.87	9.65	4-Mar	292.54	5.60	4-May	292.90	7.39	4-Jul	292.20	0.30
4-Jan	292.88	10.30	5-Mar	292.68	8.00	5-May	292.90	7.09	5-Jul	292.29	0.62
5-Jan	292.88	8.80	6-Mar	292.96	13.80	6-May	292.89	6.78	6-Jul	292.28	0.82
6-Jan	292.85	7.70	7-Mar	292.96	13.00	7-May	292.89	6.59	7-Jul	292.26	0.80
7-Jan	292.82	6.70	8-Mar	292.94	11.80	8-May	292.87	6.10	8-Jul	292.25	1.04
8-Jan	292.79	5.80	9-Mar	292.90	10.70	9-May	292.86	5.58	9-Jul	292.22	0.97
9-Jan	292.77	5.20	10-Mar	292.88	10.00	10-May	292.86	5.15	10-Jul	292.20	0.83
10-Jan	292.74	4.60	11-Mar	292.88	9.20	11-May	292.85	4.81	11-Jul	292.16	0.69
11-Jan	292.74	4.80	12-Mar	292.86	8.60	12-May	292.83	4.41	12-Jul	292.11	0.56
12-Jan	292.72	5.00	13-Mar	292.84	8.00	13-May	292.83	3.95	13-Jul	292.10	0.47
13-Jan	292.71	4.10	14-Mar	292.84	7.60	14-May	292.80	3.53	14-Jul	292.09	0.43
14-Jan	292.69	3.20	15-Mar	292.83	7.26	15-May	292.79	3.19	15-Jul	292.12	0.94
15-Jan	292.68	2.75	16-Mar	292.83	6.41	16-May	292.77	2.91	16-Jul	292.15	4.76
16-Jan	292.66	2.62	17-Mar	292.82	5.65	17-May	292.76	2.53	17-Jul	292.16	3.83
17-Jan	292.65	2.37	18-Mar	292.81	5.23	18-May	292.76	2.35	18-Jul	292.13	2.96
18-Jan	292.64	2.15	19-Mar	292.79	4.74	19-May	292.75	2.29	19-Jul	292.14	3.63
19-Jan	292.62	2.05	20-Mar	292.80	4.52	20-May	292.74	2.20	20-Jul	292.11	3.28
20-Jan	292.61	1.94	21-Mar	292.79	4.25	21-May	292.73	2.57	21-Jul	292.08	3.05
21-Jan	292.60	1.88	22-Mar	292.77	3.99	22-May	292.73	2.44	22-Jul	292.07	2.57
22-Jan	292.60	1.82	23-Mar	292.76	3.64	23-May	292.77	4.89	23-Jul	292.08	2.52
23-Jan	292.57	1.77	24-Mar	292.75	3.46	24-May	292.85	8.84	24-Jul	292.04	2.12
24-Jan	292.56	1.72	25-Mar	292.78	4.17	25-May	292.98	15.00	25-Jul	292.01	1.72
25-Jan	292.54	1.65	26-Mar	292.85	5.63	26-May	293.00	16.30	26-Jul	291.98	1.43
26-Jan	292.55	1.60	27-Mar	293.03	7.50	27-May	292.97	14.30	27-Jul	291.96	1.29
27-Jan	292.55	1.56	28-Mar	293.05	9.40	28-May	292.95	11.40	28-Jul	291.96	1.23
28-Jan	292.53	1.52	29-Mar	293.04	11.20	29-May	292.90	9.05	29-Jul	291.93	1.15
29-Jan	292.51	1.48	30-Mar	293.03	12.20	30-May	292.88	7.56	30-Jul	291.91	1.06
30-Jan	292.50	1.45	31-Mar	293.00	13.00	31-May	292.87	6.06	31-Jul	291.98	1.49
31-Jan	292.48	1.42	1-Apr	293.00	13.90	1-Jun	292.86	5.26	1-Aug	292.02	3.81
1-Feb	292.47	1.39	2-Apr	292.99	14.40	2-Jun	292.85	5.25	2-Aug	291.99	3.28
2-Feb	292.47	1.37	3-Apr	293.00	14.60	3-Jun	292.84	4.86	3-Aug	291.97	2.79
3-Feb	292.47	1.35	4-Apr	293.03	14.90	4-Jun	292.82	4.21	4-Aug	291.97	2.45
4-Feb	292.44	1.46	5-Apr	293.01	13.50	5-Jun	292.81	3.55	5-Aug	291.98	2.31
5-Feb	292.44	1.40	6-Apr	292.98	12.10	6-Jun	292.79	3.01	6-Aug	291.96	1.93
6-Feb	292.45	1.36	7-Apr	292.96	10.90	7-Jun	292.77	2.71	7-Aug	291.94	1.64
7-Feb	292.43	1.33	8-Apr	292.94	9.46	8-Jun	292.75	2.49	8-Aug	291.91	1.46
8-Feb	292.41	1.30	9-Apr	292.92	8.23	9-Jun	292.74	2.29	9-Aug	291.88	1.25
9-Feb	292.41	1.27	10-Apr	292.90	7.17	10-Jun	292.74	2.86	10-Aug	292.01	1.09
10-Feb	292.41	1.24	11-Apr	292.90	6.29	11-Jun	292.71	2.52	11-Aug	292.19	1.14
11-Feb	292.39	1.21	12-Apr	292.88	5.59	12-Jun	292.68	2.14	12-Aug	292.23	1.12
12-Feb	292.39	1.18	13-Apr	292.89	5.35	13-Jun	292.66	1.89	13-Aug	292.25	1.11
13-Feb	292.39	1.16	14-Apr	292.91	6.79	14-Jun	292.66	2.04	14-Aug	292.26	1.14
14-Feb	292.38	1.14	15-Apr	292.92	6.97	15-Jun	292.64	2.06	15-Aug	292.26	1.08
15-Feb	292.36	1.12	16-Apr	292.92	6.82	16-Jun	292.61	1.77	16-Aug	292.24	1.00
16-Feb	292.36	1.11	17-Apr	292.92	6.58	17-Jun	292.59	1.57	17-Aug	292.22	0.90
17-Feb	292.36	1.10	18-Apr	292.92	6.47	18-Jun	292.55	1.38	18-Aug	292.20	0.79
18-Feb	292.35	1.09	19-Apr	292.93	6.67	19-Jun	292.51	1.21	19-Aug	292.20	0.75
19-Feb	292.35	1.08	20-Apr	292.93	7.07	20-Jun	292.47	1.10	20-Aug	292.18	0.69
20-Feb	292.35	1.07	21-Apr	292.95	7.30	21-Jun	292.45	0.92	21-Aug	292.16	0.65
21-Feb	292.34	1.15	22-Apr	293.01	9.61	22-Jun	292.47	0.93	22-Aug	292.12	0.50
22-Feb	292.32	1.20	23-Apr	293.03	10.70	23-Jun	292.46	0.98	23-Aug	292.09	0.39
23-Feb	292.32	1.16	24-Apr	293.01	11.10	24-Jun	292.44	0.80	24-Aug	292.06	0.31
24-Feb	292.32	1.07	25-Apr	292.98	10.70	25-Jun	292.42	0.70	25-Aug	292.03	0.28
25-Feb	292.31	1.01	26-Apr	292.97	10.90	26-Jun	292.40	0.65	26-Aug	292.01	0.27
26-Feb	292.30	1.00	27-Apr	292.96	9.96	27-Jun	292.37	0.56	27-Aug	292.01	0.28
27-Feb	292.30	0.99	28-Apr	292.94	8.82	28-Jun	292.34	0.51	28-Aug	292.04	0.32
28-Feb	292.30	0.98	29-Apr	292.92	7.87	29-Jun	292.34	0.49	29-Aug	292.05	0.51
29-Feb	292.30	1.05	30-Apr	292.91	6.95	30-Jun	292.31	0.42	30-Aug	292.13	1.08
1-Mar	292.31	1.25	1-May	292.90	6.67	1-Jul	292.29	0.39	31-Aug	292.13	1.24

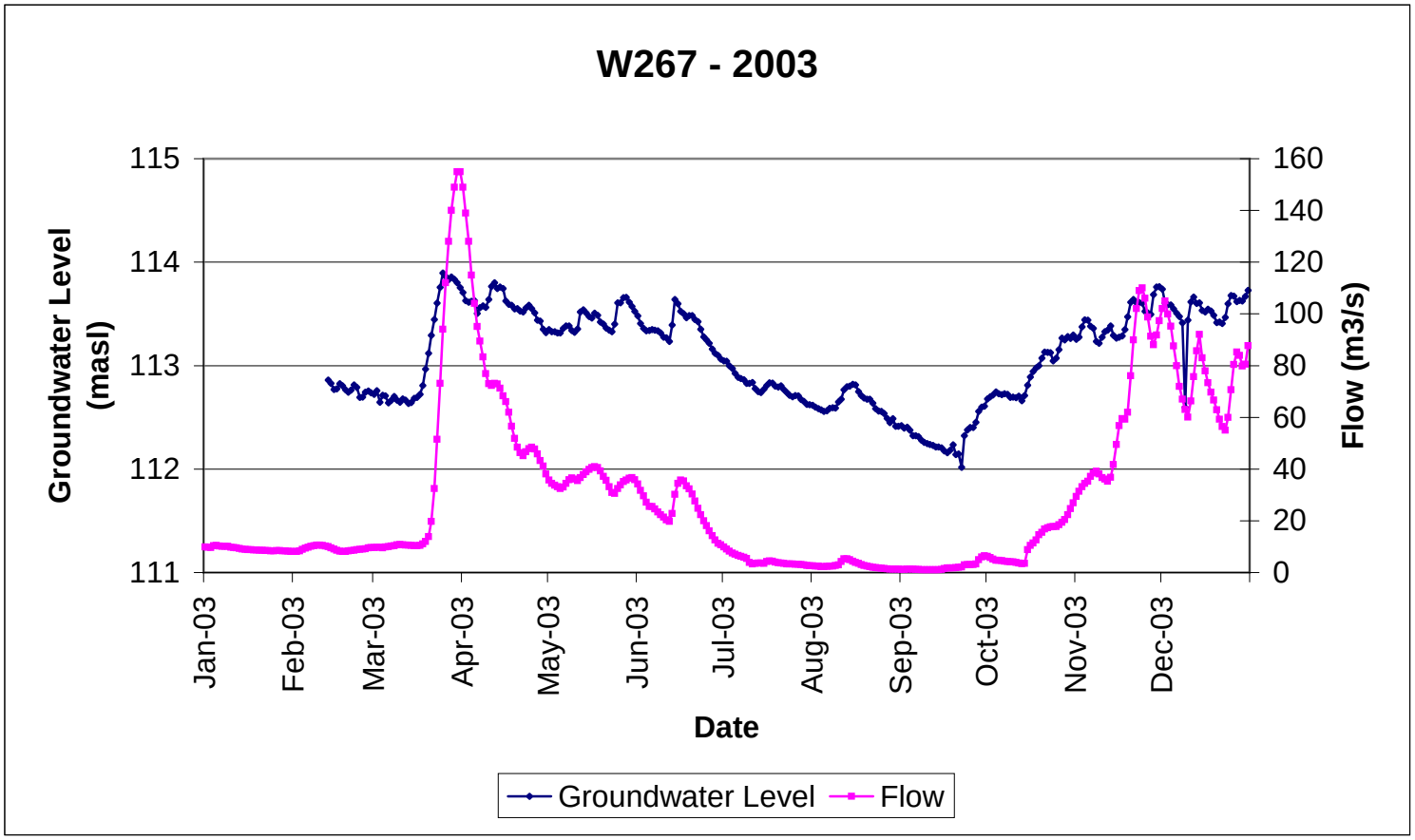
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	292.10	1.07	2-Oct	292.26	0.54	2-Nov	292.46	2.15	3-Dec	292.94	11.50
2-Sep	292.09	0.90	3-Oct	292.27	0.81	3-Nov	292.48	2.98	4-Dec	292.92	8.50
3-Sep	292.06	0.76	4-Oct	292.26	0.88	4-Nov	292.54	2.93	5-Dec	292.90	6.80
4-Sep	292.03	0.65	5-Oct	292.23	0.70	5-Nov	292.62	4.45	6-Dec	292.90	5.90
5-Sep	292.01	0.55	6-Oct	292.22	0.58	6-Nov	292.69	4.62	7-Dec	292.90	6.40
6-Sep	291.99	0.47	7-Oct	292.20	0.51	7-Nov	292.74	4.65	8-Dec	292.89	7.10
7-Sep	291.97	0.48	8-Oct	292.18	0.46	8-Nov	292.76	4.53	9-Dec	292.91	7.60
8-Sep	291.97	0.46	9-Oct	292.17	0.45	9-Nov	292.77	3.95	10-Dec	292.93	8.00
9-Sep	292.22	3.31	10-Oct	292.17	0.47	10-Nov	292.79	3.58	11-Dec	292.91	7.60
10-Sep	292.55	8.02	11-Oct	292.15	0.43	11-Nov	292.77	3.48	12-Dec	292.90	7.10
11-Sep	292.61	7.55	12-Oct	292.15	0.44	12-Nov	292.77	3.26	13-Dec	292.89	6.80
12-Sep	292.64	5.58	13-Oct	292.13	0.40	13-Nov	292.75	3.10	14-Dec	292.86	6.40
13-Sep	292.64	4.47	14-Oct	292.12	0.36	14-Nov	292.74	2.91	15-Dec	292.86	6.20
14-Sep	292.64	3.56	15-Oct	292.15	0.41	15-Nov	292.74	2.75	16-Dec	292.86	7.10
15-Sep	292.64	2.87	16-Oct	292.25	1.08	16-Nov	292.74	2.62	17-Dec	292.84	6.80
16-Sep	292.63	2.39	17-Oct	292.25	1.40	17-Nov	292.73	2.53	18-Dec	292.84	6.60
17-Sep	292.61	2.24	18-Oct	292.26	1.27	18-Nov	292.72	2.51	19-Dec	292.82	6.20
18-Sep	292.59	1.80	19-Oct	292.27	1.21	19-Nov	292.71	2.39	20-Dec	292.80	5.90
19-Sep	292.57	1.49	20-Oct	292.26	1.44	20-Nov	292.71	2.27	21-Dec	292.81	5.70
20-Sep	292.54	1.26	21-Oct	292.26	1.87	21-Nov	292.69	2.17	22-Dec	292.80	5.50
21-Sep	292.52	1.06	22-Oct	292.26	1.72	22-Nov	292.68	2.07	23-Dec	292.82	5.35
22-Sep	292.49	0.96	23-Oct	292.27	1.56	23-Nov	292.68	2.00	24-Dec	292.82	5.15
23-Sep	292.47	0.90	24-Oct	292.27	1.52	24-Nov	292.68	2.02	25-Dec	292.82	5.05
24-Sep	292.44	0.73	25-Oct	292.27	1.46	25-Nov	292.69	2.57	26-Dec	292.81	4.95
25-Sep	292.43	0.67	26-Oct	292.27	1.32	26-Nov	292.67	2.77	27-Dec	292.79	4.85
26-Sep	292.39	0.61	27-Oct	292.27	1.20	27-Nov	292.68	2.70	28-Dec	292.80	4.70
27-Sep	292.37	0.60	28-Oct	292.27	1.22	28-Nov	292.79	5.48	29-Dec	292.79	5.10
28-Sep	292.35	0.52	29-Oct	292.27	1.22	29-Nov	292.94	10.50	30-Dec	292.79	6.40
29-Sep	292.32	0.57	30-Oct	292.32	1.18	30-Nov	292.97	11.10	31-Dec	292.85	9.19
30-Sep	292.30	0.59	31-Oct	292.39	1.56	1-Dec	292.97	11.70			
1-Oct	292.28	0.582	1-Nov	292.41	1.67	2-Dec	292.95	12.8			



2003 Groundwater Level and Flow for W267

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan		9.84	3-Mar	112.65	9.75	3-May	113.33	33.70	3-Jul	113.00	8.26
2-Jan		9.80	4-Mar	112.71	9.57	4-May	113.32	33.20	4-Jul	112.97	7.52
3-Jan		9.67	5-Mar	112.71	9.87	5-May	113.32	32.50	5-Jul	112.93	7.05
4-Jan		10.30	6-Mar	112.64	9.98	6-May	113.36	33.00	6-Jul	112.89	6.60
5-Jan		10.50	7-Mar	112.66	10.20	7-May	113.38	34.40	7-Jul	112.88	6.18
6-Jan		10.20	8-Mar	112.70	10.30	8-May	113.38	35.90	8-Jul	112.86	5.82
7-Jan		10.10	9-Mar	112.67	10.70	9-May	113.34	36.60	9-Jul	112.83	5.43
8-Jan		10.10	10-Mar	112.65	10.80	10-May	113.32	36.10	10-Jul	112.83	3.89
9-Jan		10.10	11-Mar	112.68	10.70	11-May	113.35	35.50	11-Jul	112.84	3.26
10-Jan		9.70	12-Mar	112.67	10.60	12-May	113.52	36.70	12-Jul	112.78	3.53
11-Jan		9.61	13-Mar	112.63	10.60	13-May	113.54	37.80	13-Jul	112.75	3.65
12-Jan		9.58	14-Mar	112.64	10.50	14-May	113.51	38.90	14-Jul	112.74	3.60
13-Jan		9.30	15-Mar	112.68	10.30	15-May	113.47	39.90	15-Jul	112.77	3.52
14-Jan		9.03	16-Mar	112.69	10.40	16-May	113.46	40.60	16-Jul	112.81	4.29
15-Jan		8.90	17-Mar	112.72	10.50	17-May	113.51	40.90	17-Jul	112.83	4.51
16-Jan		8.85	18-Mar	112.81	11.00	18-May	113.49	40.50	18-Jul	112.83	4.30
17-Jan		8.80	19-Mar	112.97	12.00	19-May	113.42	39.30	19-Jul	112.80	3.96
18-Jan		8.75	20-Mar	113.12	13.90	20-May	113.40	37.10	20-Jul	112.79	3.74
19-Jan		8.70	21-Mar	113.29	19.70	21-May	113.36	35.60	21-Jul	112.81	3.64
20-Jan		8.60	22-Mar	113.45	32.40	22-May	113.34	33.20	22-Jul	112.77	3.53
21-Jan		8.55	23-Mar	113.60	51.50	23-May	113.33	30.90	23-Jul	112.74	3.33
22-Jan		8.50	24-Mar	113.76	73.10	24-May	113.40	30.60	24-Jul	112.71	3.29
23-Jan		8.45	25-Mar	113.89	94.00	25-May	113.61	32.50	25-Jul	112.70	3.30
24-Jan		8.39	26-Mar	113.86	112.00	26-May	113.61	33.90	26-Jul	112.71	3.23
25-Jan		8.35	27-Mar	113.83	128.00	27-May	113.66	35.20	27-Jul	112.71	3.19
26-Jan		8.45	28-Mar	113.86	140.00	28-May	113.66	35.70	28-Jul	112.67	3.10
27-Jan		8.41	29-Mar	113.83	149.00	29-May	113.61	36.50	29-Jul	112.66	2.90
28-Jan		8.35	30-Mar	113.80	155.00	30-May	113.57	36.70	30-Jul	112.63	2.67
29-Jan		8.29	31-Mar	113.75	155.00	31-May	113.52	35.90	31-Jul	112.62	2.57
30-Jan		8.25	1-Apr	113.71	149.00	1-Jun	113.48	34.20	1-Aug	112.62	2.56
31-Jan		8.11	2-Apr	113.63	139.00	2-Jun	113.41	31.80	2-Aug	112.60	2.48
1-Feb		8.09	3-Apr	113.61	128.00	3-Jun	113.36	29.60	3-Aug	112.58	2.41
2-Feb		8.17	4-Apr	113.62	115.00	4-Jun	113.34	27.10	4-Aug	112.57	2.27
3-Feb		8.31	5-Apr	113.63	104.00	5-Jun	113.34	25.50	5-Aug	112.56	2.20
4-Feb		8.97	6-Apr	113.50	95.10	6-Jun	113.35	25.50	6-Aug	112.56	2.31
5-Feb		9.42	7-Apr	113.56	89.50	7-Jun	113.34	24.60	7-Aug	112.59	2.44
6-Feb		9.71	8-Apr	113.58	83.30	8-Jun	113.34	23.40	8-Aug	112.59	2.51
7-Feb		10.10	9-Apr	113.56	76.90	9-Jun	113.32	22.30	9-Aug	112.59	2.65
8-Feb		10.40	10-Apr	113.64	73.00	10-Jun	113.27	21.40	10-Aug	112.65	2.94
9-Feb		10.60	11-Apr	113.77	72.30	11-Jun	113.27	20.30	11-Aug	112.68	4.24
10-Feb		10.60	12-Apr	113.80	73.10	12-Jun	113.23	19.70	12-Aug	112.77	5.31
11-Feb		10.50	13-Apr	113.75	72.90	13-Jun	113.39	22.80	13-Aug	112.80	5.33
12-Feb		10.20	14-Apr	113.76	71.30	14-Jun	113.64	30.20	14-Aug	112.80	4.90
13-Feb	112.86	9.95	15-Apr	113.75	68.30	15-Jun	113.60	34.40	15-Aug	112.82	4.33
14-Feb	112.83	9.51	16-Apr	113.63	66.10	16-Jun	113.53	35.70	16-Aug	112.81	3.91
15-Feb	112.77	9.09	17-Apr	113.59	61.90	17-Jun	113.50	35.40	17-Aug	112.75	3.47
16-Feb	112.77	8.62	18-Apr	113.58	56.60	18-Jun	113.46	33.50	18-Aug	112.71	3.06
17-Feb	112.83	8.25	19-Apr	113.55	51.90	19-Jun	113.48	32.30	19-Aug	112.69	2.76
18-Feb	112.80	8.07	20-Apr	113.55	48.40	20-Jun	113.48	30.30	20-Aug	112.68	2.47
19-Feb	112.77	8.13	21-Apr	113.53	46.30	21-Jun	113.44	27.60	21-Aug	112.67	2.22
20-Feb	112.74	8.38	22-Apr	113.52	45.20	22-Jun	113.42	24.80	22-Aug	112.64	2.03
21-Feb	112.76	8.44	23-Apr	113.56	46.70	23-Jun	113.35	22.30	23-Aug	112.58	1.91
22-Feb	112.81	8.56	24-Apr	113.58	47.80	24-Jun	113.28	20.00	24-Aug	112.56	1.74
23-Feb	112.79	8.84	25-Apr	113.55	48.40	25-Jun	113.25	18.10	25-Aug	112.56	1.61
24-Feb	112.69	8.91	26-Apr	113.51	47.70	26-Jun	113.22	16.10	26-Aug	112.54	1.49
25-Feb	112.70	9.00	27-Apr	113.44	45.90	27-Jun	113.16	14.20	27-Aug	112.49	1.41
26-Feb	112.74	9.20	28-Apr	113.43	43.30	28-Jun	113.12	12.60	28-Aug	112.45	1.35
27-Feb	112.75	9.54	29-Apr	113.35	41.10	29-Jun	113.10	11.30	29-Aug	112.49	1.26
28-Feb	112.74	9.69	30-Apr	113.32	38.10	30-Jun	113.06	10.70	30-Aug	112.42	1.26
1-Mar	112.72	9.65	1-May	113.35	35.70	1-Jul	113.05	9.92	31-Aug	112.41	1.24
2-Mar	112.76	9.73	2-May	113.33	34.50	2-Jul	113.04	9.10	1-Sep	112.42	1.23

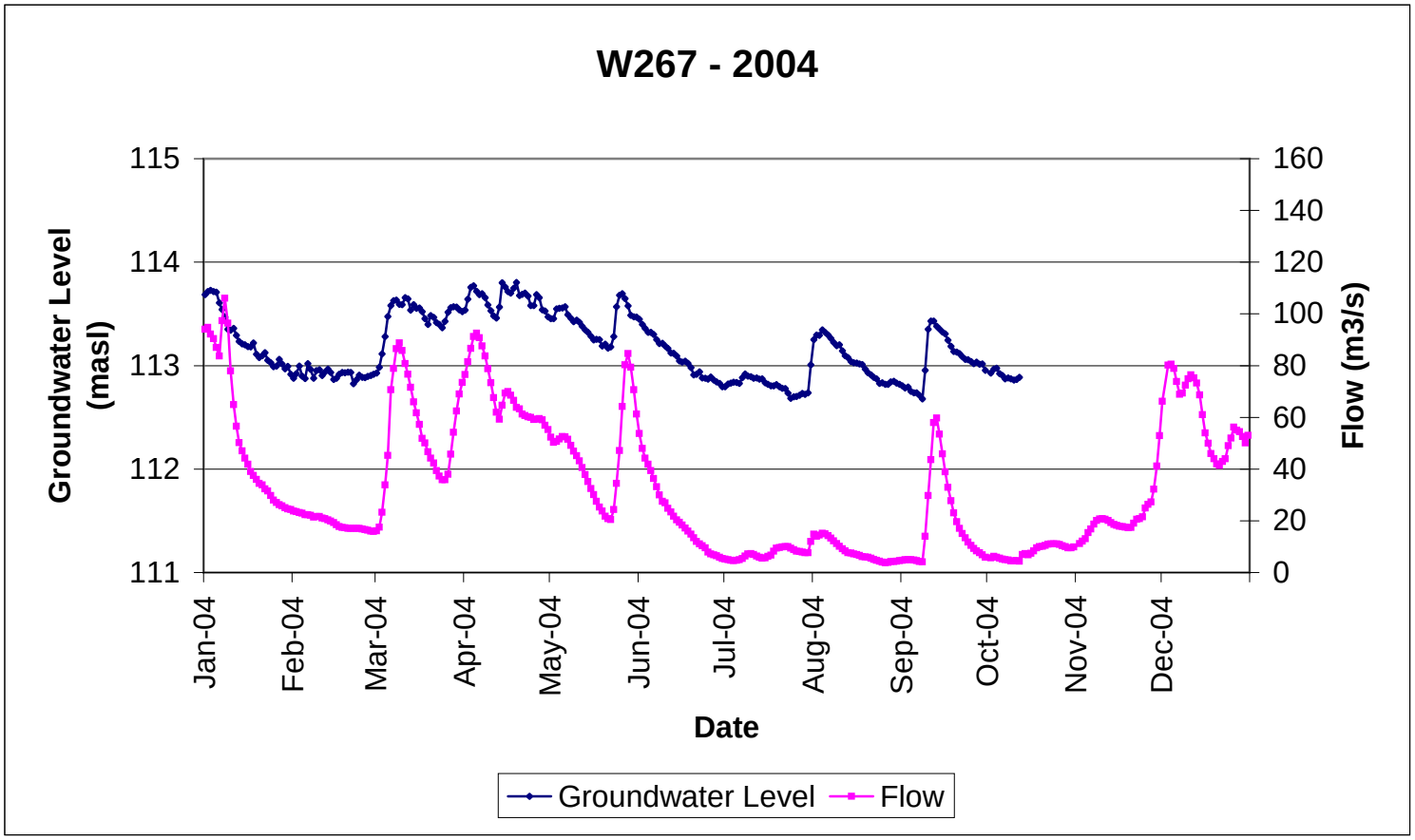
Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
2-Sep	112.40	1.23	2-Oct	112.70	5.72	1-Nov	113.25	29.40	1-Dec	113.74	102.00
3-Sep	112.40	1.27	3-Oct	112.72	5.16	2-Nov	113.27	31.40	2-Dec	113.60	105.00
4-Sep	112.38	1.26	4-Oct	112.75	4.75	3-Nov	113.38	33.20	3-Dec	113.59	99.90
5-Sep	112.32	1.24	5-Oct	112.73	4.72	4-Nov	113.44	34.50	4-Dec	113.59	95.20
6-Sep	112.32	1.20	6-Oct	112.72	4.56	5-Nov	113.44	35.30	5-Dec	113.55	87.60
7-Sep	112.31	1.17	7-Oct	112.73	4.36	6-Nov	113.38	37.10	6-Dec	113.51	80.00
8-Sep	112.28	1.10	8-Oct	112.72	4.18	7-Nov	113.36	38.40	7-Dec	113.48	72.00
9-Sep	112.26	1.07	9-Oct	112.69	4.15	8-Nov	113.23	39.10	8-Dec	113.41	67.00
10-Sep	112.25	1.04	10-Oct	112.69	4.08	9-Nov	113.22	38.10	9-Dec	112.60	63.00
11-Sep	112.24	1.04	11-Oct	112.69	3.91	10-Nov	113.28	36.70	10-Dec	113.44	60.10
12-Sep	112.23	1.05	12-Oct	112.71	3.67	11-Nov	113.33	36.10	11-Dec	113.62	66.30
13-Sep	112.21	1.06	13-Oct	112.66	3.38	12-Nov	113.34	35.30	12-Dec	113.66	75.70
14-Sep	112.21	1.10	14-Oct	112.71	3.50	13-Nov	113.38	36.80	13-Dec	113.60	85.70
15-Sep	112.20	1.20	15-Oct	112.81	8.82	14-Nov	113.29	41.70	14-Dec	113.61	92.00
16-Sep	112.18	1.55	16-Oct	112.89	10.50	15-Nov	113.27	49.50	15-Dec	113.53	83.00
17-Sep	112.16	1.77	17-Oct	112.94	11.40	16-Nov	113.27	56.80	16-Dec	113.52	78.00
18-Sep	112.18	1.81	18-Oct	112.98	12.60	17-Nov	113.29	59.50	17-Dec	113.55	73.40
19-Sep	112.24	1.81	19-Oct	113.00	14.60	18-Nov	113.35	59.20	18-Dec	113.53	69.70
20-Sep	112.14	1.93	20-Oct	113.07	15.50	19-Nov	113.47	61.90	19-Dec	113.49	66.60
21-Sep	112.15	2.01	21-Oct	113.13	16.80	20-Nov	113.61	76.10	20-Dec	113.42	62.90
22-Sep	112.02	2.08	22-Oct	113.13	17.30	21-Nov	113.64	89.90	21-Dec	113.42	59.20
23-Sep	112.32	2.93	23-Oct	113.12	17.60	22-Nov	113.61	102.00	22-Dec	113.41	56.40
24-Sep	112.38	3.10	24-Oct	113.04	17.70	23-Nov	113.61	109.00	23-Dec	113.47	55.00
25-Sep	112.40	3.00	25-Oct	113.07	17.80	24-Nov	113.60	110.00	24-Dec	113.60	59.90
26-Sep	112.40	3.02	26-Oct	113.16	18.50	25-Nov	113.53	106.00	25-Dec	113.68	70.70
27-Sep	112.45	3.30	27-Oct	113.26	19.40	26-Nov	113.51	98.80	26-Dec	113.67	80.40
28-Sep	112.56	4.90	28-Oct	113.25	20.40	27-Nov	113.50	91.30	27-Dec	113.62	85.20
29-Sep	112.60	5.99	29-Oct	113.28	22.30	28-Nov	113.69	88.10	28-Dec	113.63	83.90
30-Sep	112.61	6.42	30-Oct	113.26	24.70	29-Nov	113.76	91.80	29-Dec	113.63	79.80
1-Oct	112.68	6.23	31-Oct	113.29	26.90	30-Nov	113.76	97.30	30-Dec	113.67	80.50
									31-Dec	113.73	87.70



2004 Groundwater Level and Flow for W267

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Jan	113.69	94.10	2-Mar	112.98	17.50	2-May	113.45	50.30	2-Jul	112.82	4.99
2-Jan	113.72	94.70	3-Mar	113.11	23.30	3-May	113.55	50.70	3-Jul	112.83	4.70
3-Jan	113.73	92.20	4-Mar	113.28	33.80	4-May	113.55	51.60	4-Jul	112.84	4.53
4-Jan	113.72	90.40	5-Mar	113.47	45.30	5-May	113.56	52.50	5-Jul	112.84	4.76
5-Jan	113.71	87.00	6-Mar	113.58	70.60	6-May	113.57	52.40	6-Jul	112.83	4.89
6-Jan	113.61	83.70	7-Mar	113.63	78.90	7-May	113.49	51.50	7-Jul	112.88	5.38
7-Jan	113.54	97.30	8-Mar	113.63	86.50	8-May	113.46	49.10	8-Jul	112.92	6.37
8-Jan	113.47	106.00	9-Mar	113.59	88.80	9-May	113.42	46.90	9-Jul	112.90	7.15
9-Jan	113.35	96.40	10-Mar	113.59	85.80	10-May	113.44	45.20	10-Jul	112.89	7.24
10-Jan	113.34	77.90	11-Mar	113.66	80.80	11-May	113.42	43.20	11-Jul	112.88	6.89
11-Jan	113.36	64.90	12-Mar	113.64	76.60	12-May	113.38	40.60	12-Jul	112.88	6.32
12-Jan	113.29	56.60	13-Mar	113.54	71.60	13-May	113.34	37.90	13-Jul	112.87	5.83
13-Jan	113.23	50.20	14-Mar	113.59	66.00	14-May	113.32	35.10	14-Jul	112.87	5.53
14-Jan	113.21	47.00	15-Mar	113.56	61.70	15-May	113.28	32.50	15-Jul	112.84	5.70
15-Jan	113.20	44.20	16-Mar	113.56	57.30	16-May	113.25	30.10	16-Jul	112.82	6.25
16-Jan	113.18	41.80	17-Mar	113.52	51.90	17-May	113.25	27.50	17-Jul	112.81	6.71
17-Jan	113.18	39.00	18-Mar	113.46	50.10	18-May	113.25	25.30	18-Jul	112.81	8.20
18-Jan	113.22	37.50	19-Mar	113.40	46.70	19-May	113.19	23.80	19-Jul	112.82	9.39
19-Jan	113.11	36.00	20-Mar	113.48	44.20	20-May	113.21	21.70	20-Jul	112.80	9.67
20-Jan	113.08	34.50	21-Mar	113.47	42.30	21-May	113.17	20.80	21-Jul	112.78	9.85
21-Jan	113.10	33.90	22-Mar	113.41	39.40	22-May	113.18	20.50	22-Jul	112.78	9.96
22-Jan	113.13	32.30	23-Mar	113.40	37.30	23-May	113.28	24.30	23-Jul	112.73	9.95
23-Jan	113.05	31.50	24-Mar	113.36	35.90	24-May	113.57	34.40	24-Jul	112.69	9.40
24-Jan	113.03	29.70	25-Mar	113.43	35.80	25-May	113.68	47.10	25-Jul	112.70	8.77
25-Jan	112.99	28.00	26-Mar	113.52	38.00	26-May	113.69	64.20	26-Jul	112.70	8.20
26-Jan	112.99	27.00	27-Mar	113.56	45.70	27-May	113.65	80.30	27-Jul	112.71	8.09
27-Jan	113.06	26.20	28-Mar	113.57	54.20	28-May	113.58	84.60	28-Jul	112.73	7.93
28-Jan	113.02	25.70	29-Mar	113.57	62.40	29-May	113.49	79.40	29-Jul	112.72	7.63
29-Jan	112.97	25.00	30-Mar	113.54	69.00	30-May	113.47	70.60	30-Jul	112.74	7.66
30-Jan	112.99	24.60	31-Mar	113.52	73.50	31-May	113.47	61.30	31-Jul	113.01	12.00
31-Jan	112.91	24.30	1-Apr	113.54	76.50	1-Jun	113.45	53.70	1-Aug	113.25	14.80
1-Feb	112.88	23.80	2-Apr	113.64	81.50	2-Jun	113.40	48.00	2-Aug	113.29	14.00
2-Feb	112.92	23.50	3-Apr	113.76	86.70	3-Jun	113.36	44.20	3-Aug	113.29	14.50
3-Feb	113.00	23.20	4-Apr	113.77	91.20	4-Jun	113.32	41.90	4-Aug	113.35	15.20
4-Feb	112.90	22.90	5-Apr	113.72	92.50	5-Jun	113.32	39.40	5-Aug	113.32	14.90
5-Feb	112.88	22.30	6-Apr	113.69	90.70	6-Jun	113.30	36.30	6-Aug	113.30	14.20
6-Feb	113.02	22.30	7-Apr	113.70	87.60	7-Jun	113.25	33.10	7-Aug	113.26	13.30
7-Feb	112.96	22.10	8-Apr	113.66	83.70	8-Jun	113.21	30.00	8-Aug	113.23	12.20
8-Feb	112.88	21.40	9-Apr	113.59	78.80	9-Jun	113.22	27.50	9-Aug	113.19	11.20
9-Feb	112.95	21.60	10-Apr	113.53	73.30	10-Jun	113.19	26.90	10-Aug	113.20	10.10
10-Feb	112.96	21.60	11-Apr	113.48	67.60	11-Jun	113.16	24.80	11-Aug	113.14	9.13
11-Feb	112.91	21.10	12-Apr	113.46	61.90	12-Jun	113.12	23.40	12-Aug	113.09	8.32
12-Feb	112.94	20.80	13-Apr	113.57	59.30	13-Jun	113.12	21.80	13-Aug	113.08	7.70
13-Feb	112.97	20.30	14-Apr	113.80	64.60	14-Jun	113.09	20.30	14-Aug	113.04	7.47
14-Feb	112.94	19.90	15-Apr	113.76	69.40	15-Jun	113.04	19.40	15-Aug	113.03	7.16
15-Feb	112.87	19.30	16-Apr	113.72	70.00	16-Jun	113.03	18.30	16-Aug	113.03	6.93
16-Feb	112.88	18.50	17-Apr	113.70	68.50	17-Jun	113.04	17.20	17-Aug	113.02	6.60
17-Feb	112.92	17.80	18-Apr	113.75	66.50	18-Jun	113.02	16.00	18-Aug	113.01	6.16
18-Feb	112.93	17.40	19-Apr	113.80	63.80	19-Jun	112.98	14.80	19-Aug	112.97	6.03
19-Feb	112.93	17.30	20-Apr	113.68	63.30	20-Jun	112.91	13.40	20-Aug	112.93	5.86
20-Feb	112.94	17.10	21-Apr	113.69	61.20	21-Jun	112.92	12.00	21-Aug	112.91	5.47
21-Feb	112.93	17.00	22-Apr	113.70	60.70	22-Jun	112.94	11.10	22-Aug	112.89	5.09
22-Feb	112.83	17.10	23-Apr	113.67	60.20	23-Jun	112.88	10.30	23-Aug	112.87	4.68
23-Feb	112.86	17.00	24-Apr	113.58	59.90	24-Jun	112.88	9.47	24-Aug	112.83	4.38
24-Feb	112.91	17.10	25-Apr	113.58	59.10	25-Jun	112.87	7.85	25-Aug	112.83	4.01
25-Feb	112.89	16.80	26-Apr	113.69	59.30	26-Jun	112.89	7.15	26-Aug	112.82	3.76
26-Feb	112.88	16.60	27-Apr	113.66	59.50	27-Jun	112.86	6.81	27-Aug	112.82	3.88
27-Feb	112.90	16.30	28-Apr	113.54	59.00	28-Jun	112.84	6.48	28-Aug	112.84	4.22
28-Feb	112.90	16.00	29-Apr	113.53	56.90	29-Jun	112.83	5.88	29-Aug	112.85	4.18
29-Feb	112.92	15.90	30-Apr	113.47	55.20	30-Jun	112.79	5.45	30-Aug	112.83	4.32
1-Mar	112.93	16.10	1-May	113.45	52.30	1-Jul	112.80	5.19	31-Aug	112.82	4.61

Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)	Date	Groundwater Level (masl)	Flow (m3/s)
1-Sep	112.80	4.75	2-Oct	112.93	5.65	2-Nov		11.20	3-Dec		80.20
2-Sep	112.78	4.92	3-Oct	112.97	6.25	3-Nov		12.10	4-Dec		80.50
3-Sep	112.79	4.90	4-Oct	112.98	5.91	4-Nov		13.10	5-Dec		78.90
4-Sep	112.75	4.88	5-Oct	112.92	5.55	5-Nov		15.40	6-Dec		73.80
5-Sep	112.74	4.79	6-Oct	112.90	5.18	6-Nov		16.80	7-Dec		68.90
6-Sep	112.74	4.53	7-Oct	112.87	4.95	7-Nov		18.70	8-Dec		69.40
7-Sep	112.71	4.19	8-Oct	112.88	4.78	8-Nov		20.10	9-Dec		72.40
8-Sep	112.68	4.16	9-Oct	112.87	4.47	9-Nov		20.70	10-Dec		74.90
9-Sep	112.96	14.00	10-Oct	112.86	4.47	10-Nov		20.80	11-Dec		76.40
10-Sep	113.35	29.80	11-Oct	112.87	4.62	11-Nov		20.60	12-Dec		75.20
11-Sep	113.43	43.60	12-Oct	112.89	4.34	12-Nov		20.10	13-Dec		73.20
12-Sep	113.43	57.90	13-Oct		6.88	13-Nov		19.30	14-Dec		68.70
13-Sep	113.38	59.70	14-Oct		7.23	14-Nov		18.60	15-Dec		61.00
14-Sep	113.36	53.50	15-Oct		6.85	15-Nov		18.20	16-Dec		54.00
15-Sep	113.33	45.80	16-Oct		7.45	16-Nov		17.90	17-Dec		50.00
16-Sep	113.31	38.90	17-Oct		8.32	17-Nov		17.70	18-Dec		46.00
17-Sep	113.25	32.90	18-Oct		9.48	18-Nov		17.50	19-Dec		44.00
18-Sep	113.19	27.70	19-Oct		10.00	19-Nov		17.30	20-Dec		42.00
19-Sep	113.14	23.10	20-Oct		10.10	20-Nov		17.40	21-Dec		41.40
20-Sep	113.13	19.60	21-Oct		10.50	21-Nov		19.10	22-Dec		42.90
21-Sep	113.12	17.10	22-Oct		10.90	22-Nov		20.60	23-Dec		44.00
22-Sep	113.09	15.10	23-Oct		11.10	23-Nov		20.80	24-Dec		49.00
23-Sep	113.06	13.40	24-Oct		11.00	24-Nov		21.50	25-Dec		52.00
24-Sep	113.06	11.80	25-Oct		11.10	25-Nov		24.90	26-Dec		56.20
25-Sep	113.04	10.50	26-Oct		10.80	26-Nov		26.30	27-Dec		55.00
26-Sep	113.02	9.30	27-Oct		10.40	27-Nov		27.30	28-Dec		54.40
27-Sep	113.03	8.37	28-Oct		10.00	28-Nov		32.20	29-Dec		52.60
28-Sep	113.01	7.65	29-Oct		9.56	29-Nov		41.20	30-Dec		50.10
29-Sep	113.02	6.86	30-Oct		9.47	30-Nov		52.90	31-Dec		53.00
30-Sep	112.95	5.92	31-Oct		9.90	1-Dec		66.20			
1-Oct	112.92	5.49	1-Nov		10.4	2-Dec		75.6			



Appendix 5:

Ungauged Subwatershed Data

Summary of Ten Percentile Flows (cms) for Period of Record 1971-2000

Station	WSC Stn Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Salmon River at Shannonville	02HM003	5.52	4.15	14.53	23.28	7.07	1.99	0.40	0.16	0.09	0.18	1.12	4.76	8.56
Moira River at Foxboro	02HL001	15.17	13.99	29.50	64.02	18.79	5.16	1.67	1.27	1.24	2.58	6.68	14.02	24.45
Moira River at Deloro	02HL005	1.11	1.02	3.11	8.11	1.44	0.53	0.05	0.02	0.02	0.08	0.56	1.89	2.93
Black River at Actinolite	02HL003	2.07	1.86	5.24	9.25	2.68	1.02	0.56	0.53	0.39	0.32	0.74	2.46	4.05
Skootamatta River at Actinolite	02HL004	4.01	3.29	8.59	16.90	3.68	1.17	0.52	0.41	0.41	0.52	2.30	4.22	6.63
Depot Creek at Bellrock	02HM002	0.80	0.94	1.97	2.32	0.84	0.70	0.73	0.66	0.58	0.69	0.55	0.65	1.65
Napanee River at Camden East	02HM007	3.95	4.29	11.28	17.52	4.17	1.64	1.09	0.79	0.86	1.22	1.84	3.26	6.63
Consecon Creek at Allisonville	02HE002	0.31	0.29	2.40	1.86	0.41	0.03	0.00	0.00	0.00	0.00	0.05	0.21	1.12

Summary of Ten Percentile Flows (cms) for Entire Period of Record

Station	WSC Stn Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Salmon River at Shannonville	02HM003	4.14	3.44	11.96	22.92	6.50	1.87	0.50	0.17	0.12	0.22	0.79	3.07	7.75
Salmon River at Tamworth	02HM010	5.10	2.82	4.47	15.56	7.59	3.89	1.40	0.33	0.10	0.25	1.45	4.85	6.82
Moira River at Foxboro	02HL001	6.01	5.28	21.93	65.51	25.88	7.54	2.27	1.52	1.22	1.80	3.04	6.45	19.99
Moira River at Tweed	02HL007	12.45	9.94	15.09	45.20	19.44	5.82	1.65	1.37	1.05	1.24	4.11	6.99	19.72
Moira River at Deloro	02HL005	1.02	1.02	2.79	7.86	1.51	0.54	0.07	0.02	0.02	0.08	0.68	1.93	2.81
Black River at Actinolite	02HL003	1.53	1.60	3.59	8.96	2.82	1.04	0.56	0.55	0.40	0.28	0.76	2.01	3.64
Skootamatta River at Actinolite	02HL004	2.50	2.63	6.04	16.90	4.84	1.19	0.46	0.23	0.34	0.47	0.86	2.76	6.53
Depot Creek at Bellrock	02HM002	0.64	0.61	1.76	2.56	0.84	0.58	0.58	0.56	0.47	0.41	0.39	0.61	1.44
Napanee River at Camden East	02HM007	3.57	4.08	11.13	18.10	4.30	1.60	1.03	0.75	0.69	1.07	1.72	3.17	6.55
Napanee River at Napanee	02HM001	1.54	2.00	8.45	20.07	6.14	1.58	0.98	0.59	0.52	0.49	1.07	2.09	6.19
Consecon Creek at Allisonville	02HE002	0.31	0.34	2.27	2.09	0.38	0.03	0.00	0.00	0.00	0.00	0.05	0.21	1.13
Clare River at Stoco	02HL102	1.12	1.20	2.14	7.30	1.64	0.42	0.15	0.05	0.06	0.11	0.41	1.58	2.07
Demorestville Creek	02HE003	0.07	0.10	0.62	0.68	0.15	0.01	0.00	0.00	0.00	0.00	0.02	0.07	0.36
Bloomfield Creek	02HE001	0.07	0.07	0.30	0.26	0.07	0.03	0.02	0.01	0.01	0.01	0.02	0.06	0.14
Parks Creek	02HL103	1.67	2.08	3.18	7.31	2.96	0.82	0.25	0.12	0.10	0.20	0.71	1.87	2.74
Parks Creek	02HL006	1.55	1.22	2.86	6.39	2.31	0.63	0.21	0.06	0.08	0.20	0.69	1.19	2.08

Surface Water Stress - Including Wetlands

Catchment	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Moira River												
Deloro	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Black	**23%**	**31%**	13%	9%	18%	**45%**	**100%**	**118%**	**81%**	**68%**	**24%**	20%
Skootamatta	2%	4%	2%	1%	2%	6%	17%	**27%**	**37%**	**50%**	18%	7%
Tweed	0%	0%	0%	0%	9%	**26%**	**62%**	**116%**	**93%**	2%	1%	0%
Clare	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parks	0%	0%	1%	1%	11%	13%	**36%**	**129%**	**126%**	8%	6%	0%
Foxboro	0%	0%	0%	0%	0%	1%	2%	6%	6%	2%	1%	0%
Lower Moira	0%	0%	0%	0%	0%	0%	1%	2%	1%	1%	0%	0%
Salmon River												
Tamworth	0%	0%	0%	0%	0%	0%	0%	5%	1%	0%	0%	0%
Shannonville	0%	0%	0%	0%	10%	**25%**	**89%**	**298%**	**397%**	4%	0%	0%
Lower Salmon	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Napanee River												
Depot	0%	0%	**45%**	**27%**	**51%**	**110%**	**153%**	**151%**	**138%**	**107%**	**78%**	0%
Camden	4%	5%	**38%**	**25%**	**51%**	**120%**	**497%**	**478%**	**284%**	**144%**	**73%**	3%
Upper Napanee	1%	1%	0%	0%	1%	1%	5%	5%	5%	4%	1%	1%
Lower Napanee	2%	2%	1%	1%	1%	3%	10%	12%	11%	9%	3%	2%
Prince Edward County												
Ameliasburgh	**35%**	**49%**	11%	**21%**	**43%**	**146%**	**1267%**	**7224%**	**8114%**	**1519%**	**34%**	**29%**
Sophiasburgh	**25%**	**35%**	8%	15%	**27%**	**90%**	**787%**	**4484%**	**5036%**	**1088%**	**24%**	**20%**
Consecon	**32%**	**45%**	10%	19%	**35%**	**118%**	**1028%**	**5860%**	**6582%**	**1408%**	**31%**	**26%**
Hiller	**23%**	**33%**	8%	14%	**25%**	**96%**	**835%**	**4857%**	**5349%**	**1025%**	**23%**	19%
West Lake	1%	2%	0%	1%	2%	10%	**91%**	**623%**	**537%**	**73%**	1%	1%
Picton	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
East Lake	0%	1%	0%	0%	0%	2%	14%	**341%**	**92%**	20%	0%	0%
Black Creek	20%	**28%**	6%	12%	**21%**	**72%**	**627%**	**3576%**	**4017%**	**868%**	19%	16%
North Marysburgh	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
South Marysburgh	**133%**	**187%**	**43%**	**79%**	**144%**	**485%**	**4220%**	**24017%**	**26975%**	**5829%**	**129%**	**110%**

Surface Water Stress - Wetlands Not Included

Catchment	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Moira River												
Deloro	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Black	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Skootamatta	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tweed	0%	0%	0%	0%	0%	1%	2%	3%	2%	2%	1%	0%
Clare	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parks	0%	0%	0%	0%	0%	1%	5%	**22%**	7%	0%	0%	0%
Foxboro	0%	0%	0%	0%	0%	0%	1%	3%	2%	0%	0%	0%
Lower Moira	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	0%
Salmon River												
Tamworth	0%	0%	0%	0%	0%	0%	0%	5%	1%	0%	0%	0%
Shannonville	0%	0%	0%	0%	0%	1%	2%	6%	8%	2%	0%	0%
Lower Salmon	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Napanee River												
Depot	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Camden	2%	2%	2%	1%	2%	4%	16%	16%	11%	7%	3%	1%
Upper Napanee	1%	1%	0%	0%	1%	1%	5%	5%	5%	4%	1%	1%
Lower Napanee	1%	1%	0%	0%	1%	2%	7%	9%	8%	6%	2%	1%
Prince Edward County												
Ameliasburgh	0%	0%	0%	0%	0%	1%	5%	**28%**	**31%**	7%	0%	0%
Sophiasburgh	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Consecon	0%	0%	0%	0%	0%	1%	10%	**58%**	**65%**	0%	0%	0%
Hiller	0%	0%	0%	0%	0%	11%	**95%**	**636%**	**608%**	0%	0%	0%
West Lake	1%	1%	0%	0%	1%	7%	**67%**	**487%**	**384%**	**40%**	1%	1%
Picton	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
East Lake	0%	0%	0%	0%	0%	0%	0%	**259%**	0%	0%	0%	0%
Black Creek	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
North Marysburgh	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
South Marysburgh	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%	0%	0%

Surface Water Stress - Future

Catchment	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Moira River												
Deloro	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Black	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Skootamatta	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tweed	0%	0%	0%	0%	0%	1%	2%	3%	2%	2%	1%	0%
Clare	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parks	0%	0%	0%	0%	0%	1%	5%	**22%**	7%	0%	0%	0%
Foxboro	0%	0%	0%	0%	0%	0%	1%	3%	2%	0%	0%	0%
Lower Moira	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	0%
Salmon River												
Tamworth	0%	0%	0%	0%	0%	0%	0%	5%	1%	0%	0%	0%
Shannonville	0%	0%	0%	0%	0%	1%	2%	6%	8%	2%	0%	0%
Lower Salmon	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Napanee River												
Depot	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Camden	2%	2%	2%	1%	2%	4%	16%	16%	11%	7%	3%	1%
Upper Napanee	1%	1%	0%	0%	1%	1%	5%	5%	5%	4%	1%	1%
Lower Napanee	1%	2%	1%	0%	1%	2%	8%	10%	9%	7%	3%	1%
Prince Edward County												
Ameliasburgh	0%	0%	0%	0%	0%	1%	6%	**32%**	**36%**	8%	0%	0%
Sophiasburgh	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Consecon	0%	0%	0%	0%	0%	1%	10%	**58%**	**65%**	0%	0%	0%
Hiller	0%	0%	0%	0%	0%	11%	**95%**	**636%**	**608%**	0%	0%	0%
West Lake	1%	1%	0%	0%	1%	7%	**67%**	**487%**	**384%**	**40%**	1%	1%
Picton	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
East Lake	0%	0%	0%	0%	0%	0%	0%	**259%**	0%	0%	0%	0%
Black Creek	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
North Marysburgh	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
South Marysburgh	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%	0%	0%

Summary of Median Flows (cms) for Period of Record 1971-2000

Station	WSC Stn Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Salmon River at Shannonville	02HM003	10.50	10.90	20.85	35.15	15.75	5.60	1.33	0.44	0.40	1.32	5.99	11.75	11.50
Moira River at Foxboro	02HL001	28.35	27.85	64.05	107.50	42.70	14.25	4.91	2.38	2.74	5.16	16.70	34.20	32.45
Moira River at Deloro	02HL005	2.75	2.36	6.94	14.00	4.83	1.55	0.33	0.13	0.12	0.57	2.65	3.47	3.76
Black River at Actinolite	02HL003	4.54	4.27	10.65	18.60	5.98	2.33	1.03	0.95	1.10	1.21	3.77	6.10	5.62
Skootamatta River at Actinolite	02HL004	8.32	7.02	17.05	29.00	10.40	3.06	1.19	0.79	0.84	1.83	5.66	9.57	8.94
Depot Creek at Bellrock	02HM002	2.57	2.04	3.37	4.59	2.02	1.31	1.15	1.19	1.06	1.05	1.13	1.75	2.09
Napanee River at Camden East	02HM007	9.45	8.82	17.40	28.30	10.20	4.20	1.56	1.40	1.73	2.36	4.67	9.32	8.90
Consecon Creek at Allisonville	02HE002	1.21	1.05	5.07	3.80	1.20	0.28	0.03	0.00	0.01	0.03	0.85	1.13	1.45

Summary of Median Flows (cms) for Entire Period of Record

Station	WSC Stn Number	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Salmon River at Shannonville	02HM003	9.39	10.00	19.80	32.90	14.60	5.51	1.47	0.46	0.34	0.93	6.50	12.65	10.90
Salmon River at Tamworth	02HM010	14.30	4.00	6.63	18.20	8.74	5.07	2.19	0.70	0.16	0.93	4.45	13.25	6.85
Moira River at Foxboro	02HL001	23.80	19.95	54.40	106.00	44.75	16.50	6.16	2.90	2.72	4.07	12.70	23.50	31.00
Moira River at Tweed	02HL007	28.60	15.40	45.90	79.10	32.15	10.30	3.48	2.35	2.31	2.89	6.74	20.40	22.50
Moira River at Deloro	02HL005	2.75	2.36	6.94	14.00	4.83	1.55	0.33	0.13	0.12	0.57	2.65	3.47	3.76
Black River at Actinolite	02HL003	4.14	3.72	8.28	16.10	6.13	2.38	1.15	1.05	1.15	1.15	3.29	5.02	5.04
Skootamatta River at Actinolite	02HL004	7.78	6.45	13.60	27.70	11.00	3.45	1.19	0.70	0.72	1.61	4.60	8.39	8.45
Depot Creek at Bellrock	02HM002	1.95	1.97	3.01	4.67	1.93	1.10	0.94	0.93	0.89	0.93	1.13	1.98	1.96
Napanee River at Camden East	02HM007	9.10	8.48	16.45	26.30	10.20	4.22	1.64	1.39	1.59	2.46	4.57	9.49	8.92
Napanee River at Napanee	02HM001	5.53	5.59	18.55	34.35	11.40	3.78	1.58	1.09	1.09	1.21	2.97	5.63	8.89
Consecon Creek at Allisonville	02HE002	1.21	1.05	5.07	3.66	1.22	0.28	0.03	0.01	0.01	0.03	1.01	1.31	1.46
Clare River at Stoco	02HL102	2.06	1.89	5.75	10.41	3.63	0.63	0.28	0.15	0.14	0.22	0.95	1.84	2.85
Demorestville Creek	02HE003	0.23	0.36	1.56	1.06	0.29	0.04	0.01	0.00	0.00	0.00	0.05	0.23	0.39
Bloomfield Creek	02HE001	0.16	0.17	0.46	0.37	0.14	0.06	0.03	0.02	0.02	0.04	0.10	0.14	0.17
Parks Creek	02HL103	3.15	3.09	7.51	9.42	3.97	1.76	0.59	0.22	0.19	0.39	0.97	2.43	3.23
Parks Creek	02HL006	2.46	2.45	6.22	8.05	3.53	1.46	0.37	0.21	0.19	0.51	1.12	2.43	2.69

Summary of Monthly Mean Flows
Entire Period of Record

Station	Drainage Area	Average Flow												
	EC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean Annual
Moira														
Foxboro	2620	27.7	23.9	57.4	111.0	49.4	21.1	8.1	4.4	4.5	8.5	20.4	28.3	30.4
Tweed	1770	20.0	9.2	33.4	46.6	28.1	14.7	7.3	3.2	5.4	5.6	23.4	34.2	21.4
Deloro	308	3.4	3.2	7.5	13.7	5.3	2.0	0.7	0.3	0.6	1.2	3.5	4.3	3.8
Black	401	4.7	4.4	9.3	17.1	7.1	2.9	1.4	1.2	1.5	2.0	4.5	5.9	5.2
Skootamatta	712	8.1	7.5	15.2	28.9	12.2	4.2	1.7	1.1	1.6	3.0	7.2	9.7	8.4
Parks		3.4	3.8	7.4	10.0	4.3	1.7	0.7	0.4	0.2	0.6	1.5	2.8	3.1
Napanee														
Shannonville	891	11.0	10.8	22.0	34.6	15.5	6.2	2.4	1.0	1.6	2.4	7.9	12.9	10.7
Tamworth		11.1	4.2	7.1	18.6	8.8	5.5	3.3	0.7	1.5	1.1	5.7	12.6	7.1
Camden East	697	9.7	9.2	18.4	26.1	10.6	4.7	2.0	1.6	2.7	3.2	6.3	9.9	8.7
Napanee		6.8	7.3	19.1	36.9	13.1	6.2	2.5	1.3	1.3	2.3	5.4	7.7	9.1
Depot	189	2.3	2.1	3.1	5.0	2.2	1.3	1.0	1.0	1.1	1.1	1.5	2.3	2.0
Prince Edward														
Consecon	114	1.6	1.7	4.9	4.2	1.4	0.4	0.2	0.1	0.2	0.3	1.1	1.7	1.5

Summary of Monthly Mean Flows
For Period 1971 - 2000

Station	Drainage Area	Average Flow												
	EC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean Annual
Moira														
Foxboro	2620	34.8	32.3	65.6	109.8	44.1	16.0	6.8	4.1	6.7	9.8	24.3	34.2	32.3
Tweed	1770													
Deloro	308	3.6	3.3	7.9	14.5	5.2	1.9	0.6	0.3	0.7	1.2	3.4	3.9	3.9
Black	401	5.7	5.3	11.1	18.3	7.0	2.8	1.3	1.2	1.7	2.1	4.8	6.2	5.6
Skootamatta	712	9.8	8.8	17.9	29.9	11.6	3.8	1.6	1.3	1.9	3.1	7.6	10.1	8.9
Parks														
Napanee														
Shannonville	891	12.9	12.4	24.7	35.9	15.5	5.5	2.3	1.1	1.8	2.8	8.2	13.1	11.3
Tamworth														
Camden East	697	9.9	9.7	19.0	26.6	10.4	4.0	1.9	1.6	2.8	3.4	6.5	9.5	8.8
Napanee														
Depot	189	2.6	2.5	3.4	4.4	2.2	1.3	1.2	1.2	1.3	1.3	1.5	2.2	2.1
Prince Edward														
Consecon	114	1.6	1.7	4.8	4.4	1.3	0.4	0.2	0.1	0.2	0.3	1.1	1.6	1.5