

**CORPORATION OF THE CITY OF CAMBRIDGE
HESPELER WEST SUBWATERSHEDS STUDY WORKING COMMITTEE
MEETING NO. 15
MINUTES**

Thursday, July 22, 2004
Allan Reuter Seniors' Centre, 507 King Street, Cambridge (Preston)

Committee Present: Councillor Rick Cowsill (City) (Chair), Erich Ritzmann (MGWA), John Vasiga (MGWA), Charlene Schiedel (MGWA), Nancy Davy (GRCA), Wendy Wright (City), April Souwand (City), Brian Cunningham (Small Property Owners), Ian Rawlings (Large Property Owners), Cathy Murphy (MGWA), Chris Gosselin (Region of Waterloo)

Others Present: Ron McKitrick (alternate (MGWA)), Mary Hammer (landowner), Gus Rungis (GRCA), Mitch Wilson (MNR), Diane Schwier (MNR), Wendy Leighton (MNR)

1. Call to Order

The meeting was called to order at 3: 35 p.m. by Rick Cowsill.

2. Declarations of Pecuniary Interest

None

3. Confirmation of Minutes

Moved by John Vasiga Seconded by Cathy Murphy

THAT the Minutes of the Hespeler West Subwatersheds Study Working Committee meeting held July 8, 2004 be amended as follows:

- On page 2, last paragraph, first sentence, change to: "Erich Ritzmann pointed out that the north/south secondary (not primary since it does not go to the Grand River as the study indicates) linkage...".
- On page 3, first paragraph, last sentence, change to: "Nancy Davy said, should it stay PSW..."
- On page 3, last paragraph, change "August 6th" to "August 5th".

And adopted as amended.

CARRIED

4. Discussion – Aggregate Licenses

- a) Overview of Extraction Licenses – Diane Schwier, Aggregate Technical Specialist, Ministry of Natural Resources outlined the pit licenses in the Middle Creek subwatershed (presentation attached to minutes). The older site plan (license #5537 – southerly pit) is quite vague, but typical of its vintage. There were questions about the rehabilitation of the pit and what would be left after extraction. There were questions about the depth of the water table and impacts of extraction “to” the water table. Diane Schwier indicated that a condition could be imposed on a license, which can be appealed to the OMB by the licensee, however, a lot of detailed information would be needed to back up such a requirement. Wendy Wright indicated that there is a 1986-approved draft plan of subdivision on this pit license area for residential development. Mitch Wilson, Area Supervisor, MNR, indicated that serious impacts to groundwater might be a case where conditions of a license could be changed. He gave an example of a pit in Puslinch Township where conditions of a pit license were being changed, based on significant amounts of monitoring data. He also indicated that the MNR has no compliance issues with the licenses being discussed today, so there is nothing compelling the Ministry to collect baseline data. Wendy Wright indicated that Arriscraft has indicated that they do not plan to pursue the draft plan as it is approved on individual septic systems and municipal water. The developer has not submitted a new draft plan, but has had some preliminary concept plans discussed with residents in the area. The City has indicated that these plans were premature until the subwatersheds study and community plan are done. The final grades of the pit extraction will affect servicing of the development. Diane Schwier indicated the license must be surrendered and rehabilitation completed per the site plan before houses could be built there.

The newer site (license #46162 – northerly pit) groundwater level is at approximately 306 metres. There are some conditions on this license, unlike the older one. The pit floor must remain 1.5 metres above the water table. There are well protection agreements with the residents that oblige Arriscraft to address any impacts to drinking water wells within 120 m of the site (as a precaution). There is no draft approved plan of subdivision on these lands. The overburden and topsoil is kept on-site and used for rehabilitation.

Ian Rawlings indicated that the extraction is not yet complete on either license. Extraction on the first pit was halted to allow for some long range planning to take place and the second pit was applied for in order to “buy time”. Erich Ritzmann asked about the quality of the sand in the northerly pit, which Ian explained was suitable for Arriscraft’s purposes. Mitch Wilson indicated that currently, pit license applications are not extending into PSWs, and most often have some amount of setback of extraction from the PSWs.

- b) Potential Pit Impacts on Middle Creek – Gus Rungis, Senior Water Resources Engineer, Grand River Conservation Authority gave a generalized presentation of the potential impact of aggregate extraction on the hydrological system (attached to the minutes). Erich Ritzmann indicated that impacts are likely more complex than the generic diagram can show. Gus Rungis agreed and indicated that the pit license application process today is much more involved and complicated than in the past. He also indicated that very extensive monitoring is occurring in the Mill Creek Subwatershed. Erich Ritzmann indicated that there is approximately 90 ha of licensed pit in 900 ha of the subwatersheds (10% of the subwatersheds). Cathy Murphy indicated that impacts on Middle Creek should not be minimized. Wendy Wright indicated that the subwatersheds study has to be completed as background information to assist in the decision making process for what is going to happen.

Erich Ritzmann wondered if there could be a map that shows the tertiary sand and gravel mentioned on page B-81 of the Subwatersheds Study. He also wants the source of the information about the primary and tertiary significant sand and gravel deposits in the summary report. He wants the whole topic of aggregate expanded in the study. He pointed out that on Page 3 of the “Assessment of Aggregate Resources and Groundwater Protection Background Report No. 2 – Final” included in today’s agenda package it says that there is no technical rationale for the standard 1.5 metres separation distance from the water table. Mitch Wilson explained that in the face of limited funding, terms of reference of subwatersheds studies must prioritize what studies are done. There was discussion about the PPS and how priorities are set in the face of competing resources. It was suggested that the summary report identify potential aggregate impacts from the Blair, Bechtel, Bauman study. Charlene Schiedel requested a technical analysis with a number when Ken takes out the wetland areas covered by the Arriscraft pit from the Maple Grove PSW. Ian Rawlings requested the wetland evaluation data and score sheets for the Maple Grove Wetland Complex so his consultant can conduct the same analysis. Mitch Wilson indicated that this would be shared with the group.

- c) Potential Pit Impacts on PSW - Wendy Wright indicated that the City of Cambridge staff report on the northerly pit might have some information that will be useful for potential impacts of extraction on areas immediately adjacent. Charlene Schiedel indicated that the letters in the agenda today are old and she is very concerned that the working committee had not seen them before today’s agenda. Wendy Wright indicated that she thought they were part of the staff reports in the past and information has not been hidden from the committee.

5. Other Business

- a) MGWA News. – Erich Ritzmann indicated that the group would like to send out the Association's next newsletter. Wendy Wright indicated some suggestions for the newsletter (Draft #3). There was discussion about the wording around buffers to be put in the newsletter. Erich Ritzmann will continue to edit and get the newsletter to Wendy for a final look and then it will be sent out.

Brian Cunningham left the meeting.

Nancy Davy left the meeting.

- b) Follow-up List – no change.
- c) List of Topics for Upcoming Meetings – The Wanner Mennonite Church has been booked for the public meeting in September. Rick Cowsill asked what ideas there were for meeting format. John Vasiga indicated that there should be presentations, not just a static display. Wendy Wright suggested that a similar format to the recent open house by the province could be used. It was decided to book the church for 6 p.m. for the static display, with a presentation scheduled for 7 p.m. and questions afterward.

A Special Council Meeting is scheduled for September 14, 2004.

- d) Countryside Line – Kevin Eby from the Regional Municipality of Waterloo will be in attendance at the next meeting to discuss. Wendy Wright suggested that the committee plan to meet until 6:00 p.m. at this meeting.

Rick Cowsill motioned to adjourn.

Meeting adjourned at 6:00 p.m.

Next meeting – Allan Reuter Centre – 3:30 pm to 6:00 pm – Thursday, August 5, 2004

Working Committee - Hespeler West Subwatershed Study

Aggregate Licence information

Licence # 5537 – Pit Above Water

- Emilyharper Corporation – originally licensed to Arriscraft Corporation (Angelstone Limited) in 1972 under the Pits and Quarries Control Act
- The tonnage limit at the property is 160,000 tonnes per annum
- No other licence conditions exist except for tonnage
- In 1996 a portion of the licence (Phase III) was surrendered and removed from the licence boundary.
- The current licenced area is 48.43 hectares and the extraction area is 43.73 ha
- According to the Compliance Reports (1997 – 2003) the pit has been inactive (no active extraction).
- There is no groundwater monitoring program for the site and no Permit to Take Water

Site Plan Notes of Interest

- There are two operating phases and before extraction occurs in Phase II, Phase I must be rehabilitated.
- Existing streams and ponds are not to be disturbed
- Maximum depth of extraction in Phase I is expected to be 17metres with lesser depths occurring in Phase II.
- Extraction can not occur below the water table and dewatering is not permitted.

Rehabilitation

A large part of Phase I and II are to be planted with a grass legume mixture and subdivided into building lots subject to municipal approval and the remainder is to be rehabilitated to Green Belt.

Licence # 46162 – Pit Above Water

- Licenced in 2000 under the Aggregate Resources Act
- Has a list of Prescribed Conditions as per the Provincial Standards that apply today.
- The tonnage limit is 100, 000 tonnes annually and for 2004 they are permitted to remove 130,000 tonnes (recently granted a temporary increase)
- The Licenced area is 31.92 hectares and the extraction area is 16.71ha
- There is no groundwater monitoring program for the site and no Permit to Take Water

Site Plan Notes of Interest

- Must maintain a 1.5metre separation between the watertable and excavation
- They can only operate Monday to Friday (7:00 to 6:00) during October 1st thru March 31st.
- No extraction to occur in woodland areas

Rehabilitation

Grass seed mixture suitable for pasture land

5.1.1 Potential Environmental Impacts of Aggregate Extraction

BBB SWR
CH2MHILL, 1997

The nature and extent of aggregate extraction impacts on environmental processes is not well documented. Potential impacts may be classified as relating to water quantity, water quality or terrestrial features. Impacts may be described as positive or negative depending on local conditions. Each are described below.

Potential impacts from aggregate extraction related to water quantity issues are:

- Changes to groundwater levels from:
 - drawdown related to pumping activities
 - seepage at perched water tables
 - increased local recharge in exposed areas
- Changes in surface water volumes from:
 - pumped discharges to watercourses
 - reduction of runoff and baseflow to watercourses
 - increased capture of precipitation and local runoff in flooded/ponded areas
 - increased evaporation rates from the water surface of flooded/ponded areas
- Changes in groundwater and surface water flow patterns from:
 - modification of local groundwater hydraulic gradients
 - modification of local groundwater flow rates
 - modification of material permeabilities
 - diversion and rechannelization of water courses

Potential impacts from aggregate extraction related to water quality are:

- Increased temperatures from:
 - increased water surface area and shallow water depth
 - decreased water velocities and impoundments
 - decreased vegetation cover
 - decreased attenuation of seasonal fluctuations through groundwater flow
- Increased sedimentation from:
 - dragline extraction methods
 - increased erosion from stripped and excavated areas
 - water pumping to adjacent watercourses
 - material washing and processing activities
- Introduction of contaminants from:
 - fuel and other material spills during operations
 - waste disposal
 - dust suppressants
 - secondary processing sites
 - waterfowl fecal coliform inputs

Potential impacts from aggregate extraction on terrestrial features, and especially wetlands, are:

- decreased vegetative cover either through direct removal or indirectly through edge loss
- warmed groundwater (from ponded areas) discharging to wetlands areas
- decreased surface runoff to wetlands due to local increases in recharge
- flattening of hydraulic gradients/flow patterns between extraction areas and adjacent wetland/terrestrial features

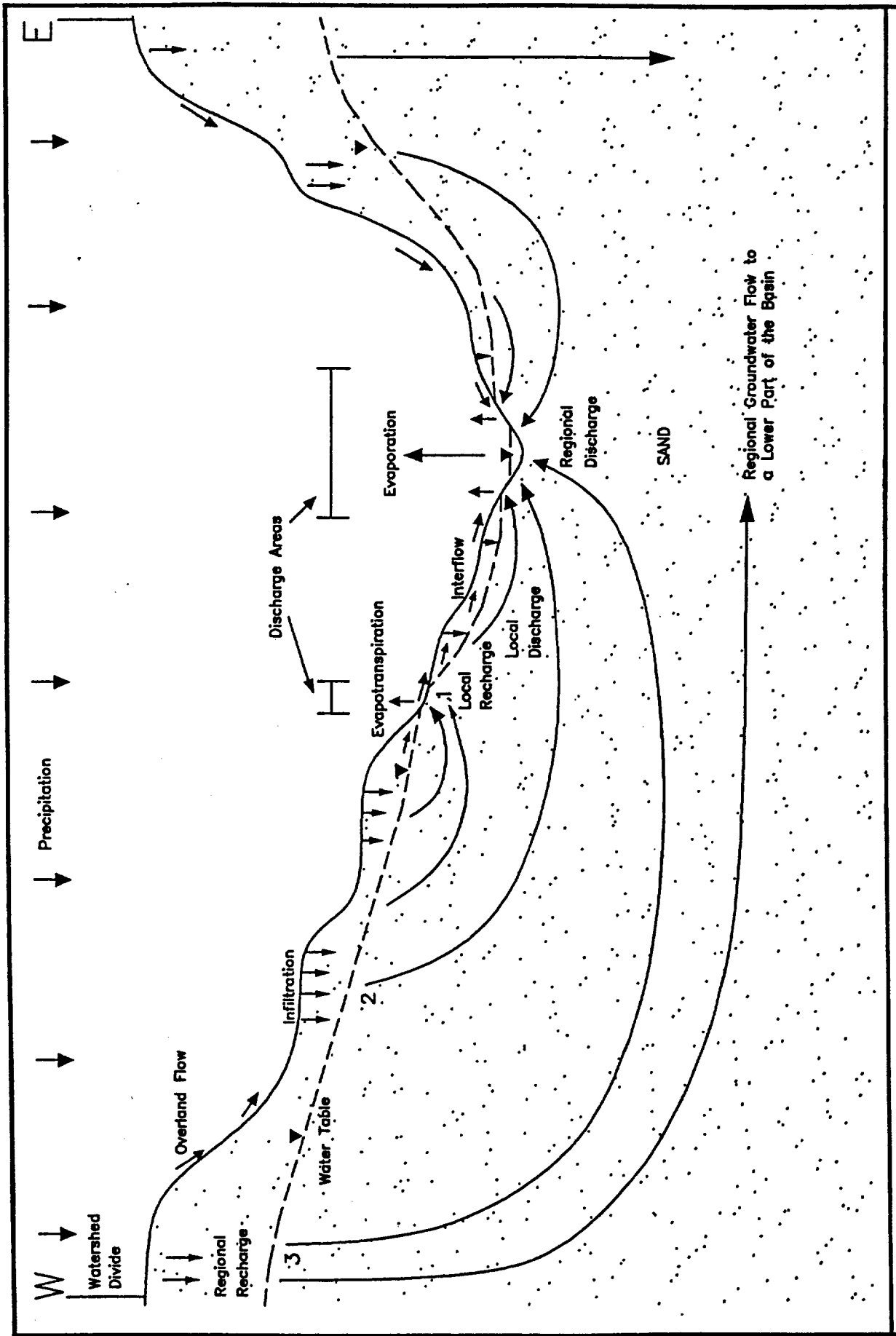
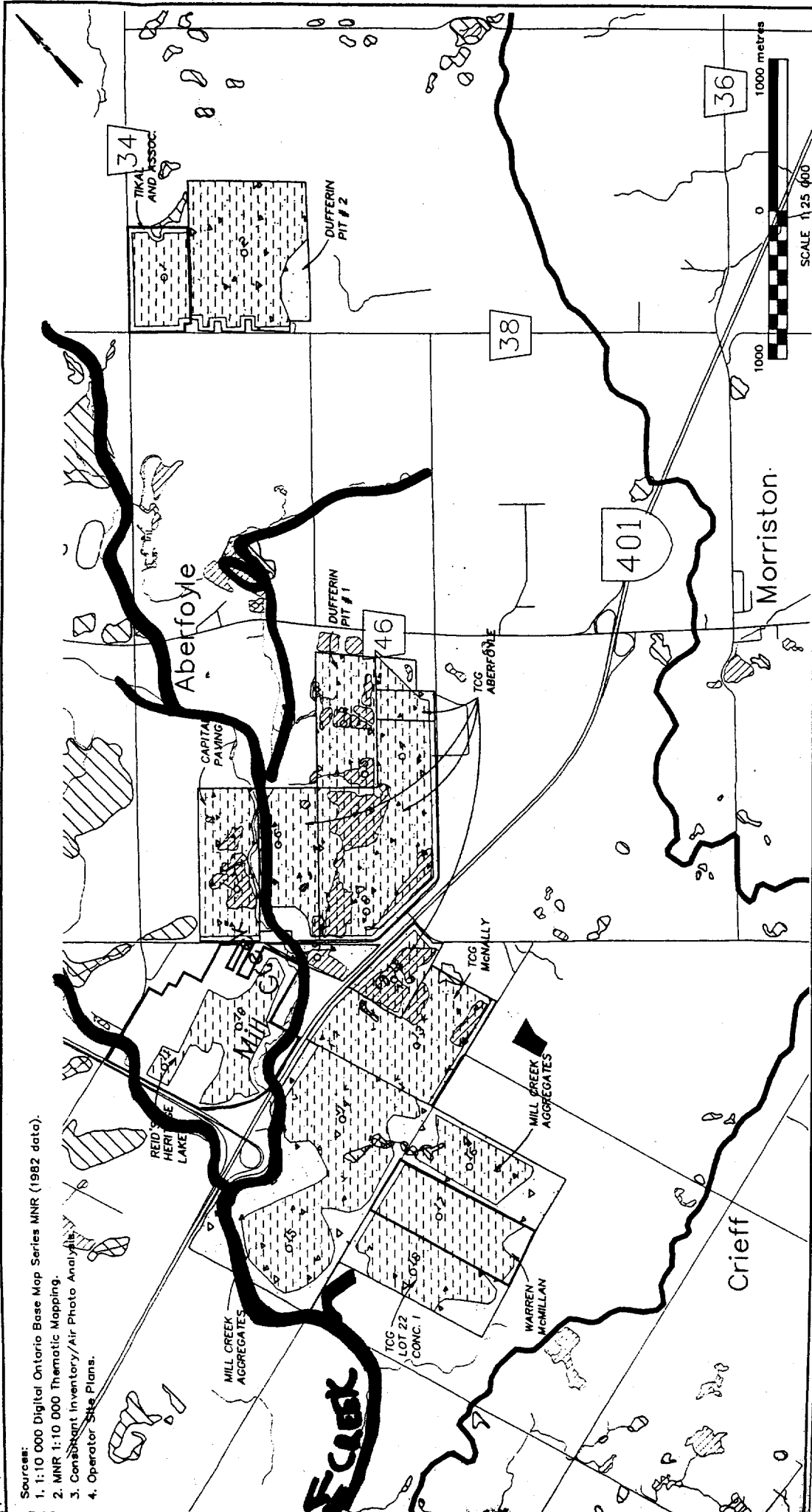


FIGURE 1 GROUNDWATER FLOW IN A SIMPLE GEOLOGICAL SETTING

FROM: FISHER'S "BASINS" APPLIED TO THE MANAGEMENT OF
 FLOW: FISHBONE'S "BASINS" APPLIED TO THE MANAGEMENT OF FISH HABITAT

- Sources:
- 1: 1:10 000 Digital Ontario Base Map Series MNR (1982 data).
 - 2: MNR 1:10 000 Thematic Mapping.
 - 3: Consultant Inventory/Air Photo Analysis.
 - 4: Operator Site Plans.



Legend

- Subwatershed Boundary
- Roadway Corridor
- Municipal Boundary
- Boundary of Property Licensed Under Aggregate Resources Act
- Boundary of Property Proposed Under Aggregate Resources Act (Subject to Approval)
- Intermittent Streams
- Permanent Streams
- Leaves
- Marshes

Approximate Location of Licensed Pits and Quarries Area Under "Wayide" Permit

Area Subject to Extraction Permit (Subject to Approval) which boundaries of Licence or Proposed Licence *

* Note: Areas not subject to extraction (in outline) of extraction EXCLUDE 15 metre setbacks along property boundaries due to site limitations.

Grand River Conservation Authority
 CH2M HILL Engineering Ltd.
 Crutcher Lee Ltd.
 Riparian Planning Consultants Ltd.
 Seltzer Rivers & Associates Ltd.
 Schreiner & Associates Ltd.
 A. Wayne Coston Consulting Services Ltd.

MILL CREEK SUBWATERSHED STUDY

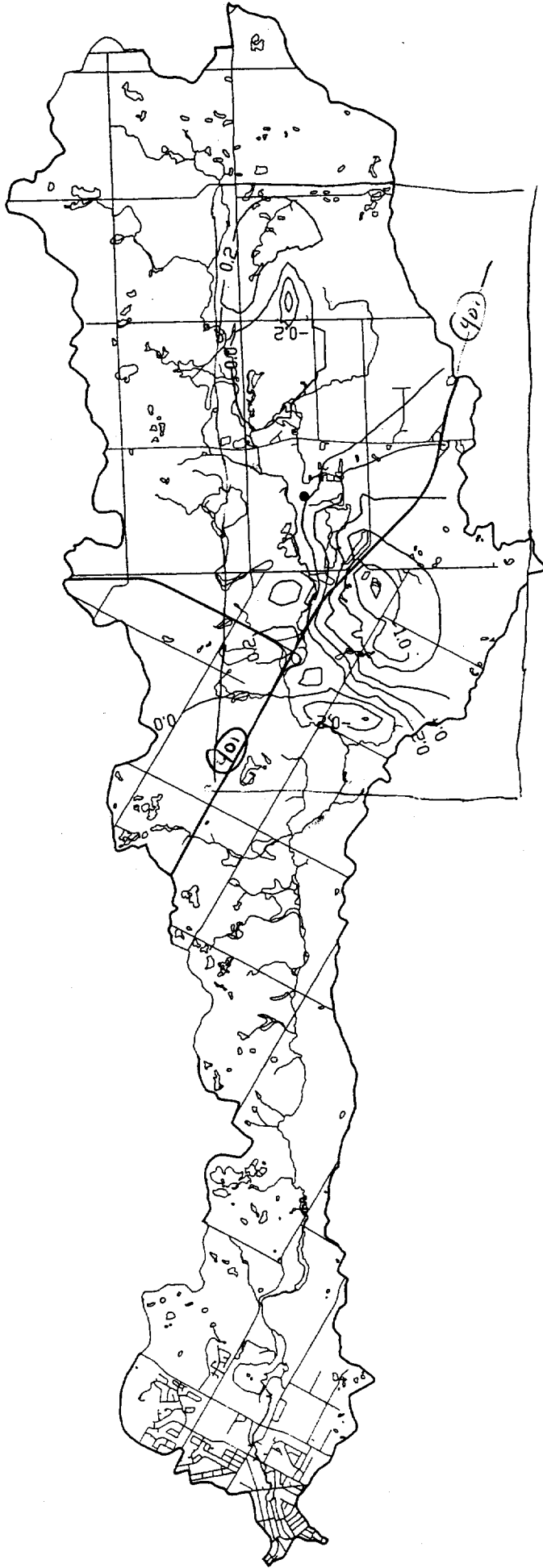
Figure 6-1

PROPOSED AND LICENSED AGGREGATE RESOURCES EXTRACTION AREAS

SCALE 1:25 000

1000 0 1000 metres

- Sources:
1. 1:10 000 Digital Ontario Base Map Series MNR (1982 data).
 2. MNR 1:10 000 Thematic Mapping.
 3. Consultant Inventory/Air Photo Analysis.



LEGEND

— Drawdown Contours (0.2 m Interval)



Grand River Conservation Authority

CH2M HILL Engineering Ltd.
Gartner Lee Ltd.
RBA Planning Consultants Ltd.
Saiter Research Services Ltd.
Schnoeter & Associates Ltd.
A. Wayne Coston Consulting Services Ltd.

MILL CREEK
SUBWATERSHED STUDY

Figure 6-6

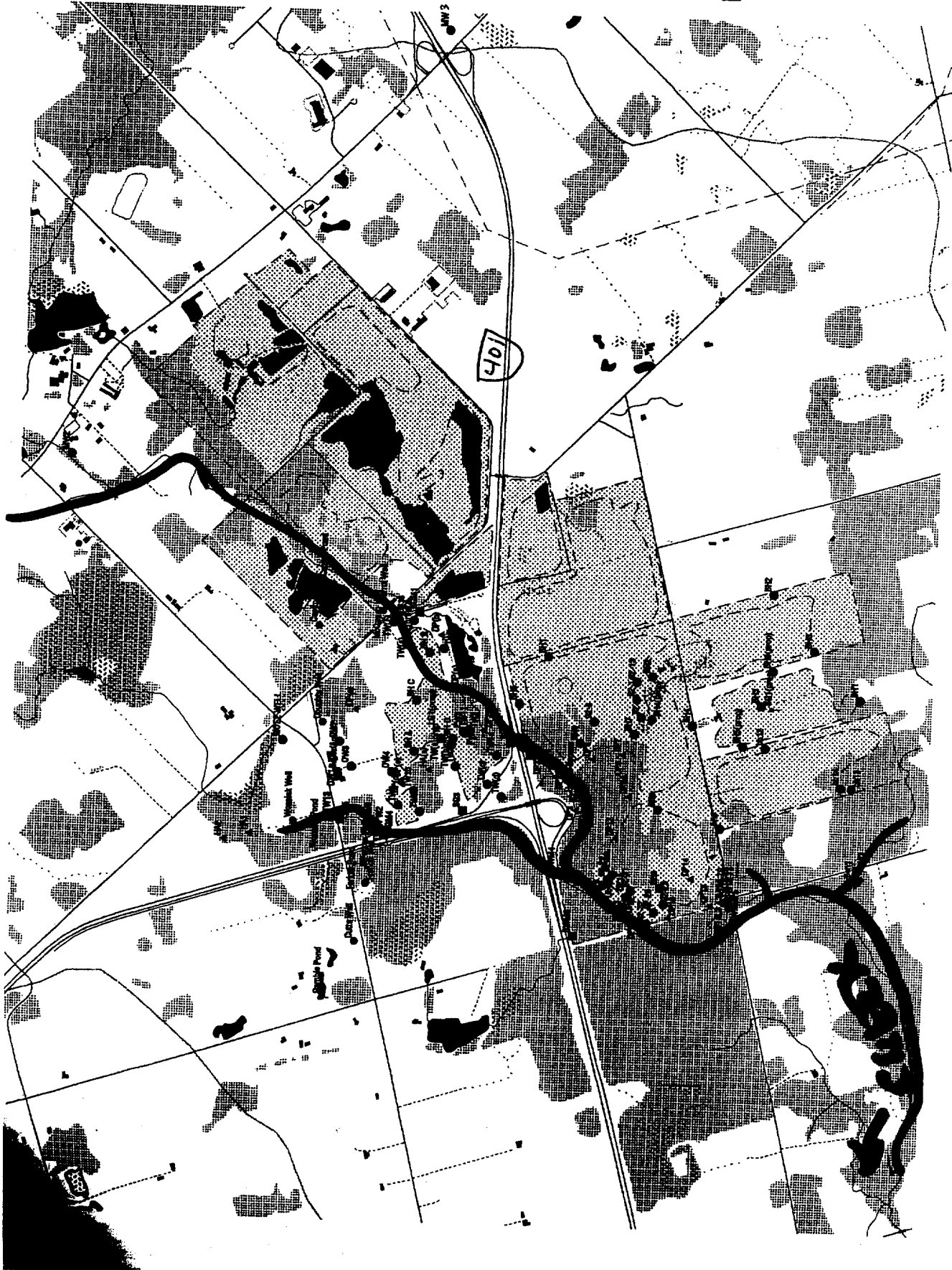
SIMULATED GROUNDWATER DRAWDOWN
(AGGREGATE SCENARIO 4)



Mill Creek Monitorin
- south central area

- Inlet
- Fish
- ★ Flow
- Creek
- ▲ Mill Pond
- Dam
- OW
- PV
- TV
- Well
- Approach
- Appr

1-20000



MONITORING