

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action Environmental Indicator (EI) RCRAInfo code (CA750) Migration of Contaminated Groundwater Under Control

Facility Name: Qubica AMF
Facility Address: 7412 Utica Blvd., Lowville
Facility EPA ID #: NYD990762148

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of “Migration of Contaminated Groundwater Under Control” EI

A positive “Migration of Contaminated Groundwater Under Control” EI determination (“YE” status code) indicates that the migration of “contaminated” groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original “area of contaminated groundwater” (for all groundwater “contamination” subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The “Migration of Contaminated Groundwater Under Control” EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo status codes must be changed when the regulatory authorities become aware of contrary information).

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1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

If data is not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

The Qubica AMF site consisted of a single container storage area (CSA) located at 7412 Utica Boulevard, Lowville, NY. The CSA, a 45' x 36' garage, stored chemicals utilized in the manufacture of bowling pins, including: acetone, PM Acetate, xylene, and urethane. The CSA was in used from approximately 1977 to 1988. The CSA was certified closed by the Department, in a letter dated November 22, 1988, from James H. Shanley, PE.

The average time chemicals resided in the CSA was two weeks. All containers were new from the manufacturers. No releases are associated with the CSA.

2. Is **groundwater** known or reasonably suspected to be "**contaminated**"¹ above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not known or reasonably suspected to be "contaminated."

If unknown - skip to #8 and enter "IN" status code.

Rationale:

No releases. Certified Closed in 1988.

¹"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

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References:

Solid Waste Management Unit (SWMU) questionnaire attached.

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within “existing area of contaminated groundwater”² as defined by the monitoring locations designated at the time of this determination)?

_____ If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”².

_____ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.

_____ If unknown - skip to #8 and enter “IN” status code.

Rationale:

References:

4. Does “contaminated” groundwater **discharge** into **surface water** bodies?

_____ If yes - continue after identifying potentially affected surface water bodies.

_____ If no - skip to #7 (and enter a “YE” status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater “contamination” does not enter surface water bodies.

_____ If unknown - skip to #8 and enter “IN” status code.

²“existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

Rationale:

References:

5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater “level,” and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

_____ If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

_____ If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater “levels,” the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter “IN” status code in #8.

Rationale:

References:

³As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

6. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

- _____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR
- 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.
- _____ If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.
- _____ If unknown - skip to 8 and enter “IN” status code.

Rationale:

References:

⁴Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the “existing area of contaminated groundwater?”

_____ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the “existing area of groundwater contamination.”

_____ If no - enter “NO” status code in #8.

_____ If unknown - enter “IN” status code in #8.

Rationale:

8. Check the appropriate RCRAInfo status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

 X YE - Yes, “Migration of Contaminated Groundwater Under Control” has been verified. Based on a review of the information contained in this EI determination, it has been determined that the “Migration of Contaminated Groundwater” is “Under Control” at the Qubica AMF facility, EPA ID # NYD990762148, located at 7412 Utica Blvd., Lowville, New York . Specifically, this determination indicates that the migration of known or reasonably suspected to be “contaminated” groundwater is under control, and that monitoring will be conducted, as necessary, to confirm that contaminated groundwater remains within the “existing area of contaminated groundwater”. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

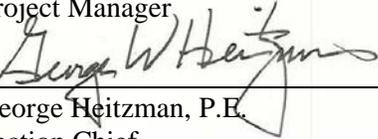
_____ NO - Unacceptable migration of contaminated groundwater is observed or expected.

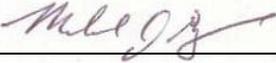
_____ IN - More information is needed to make a determination.

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Completed by:  Date: April 5, 2012
James Candiloro, P.E.
Project Manager

Supervisor:  Date: April 5, 2012
George Heitzman, P.E.
Section Chief

Director:  Date: April 6, 2012
Michael Ryan, P.E.
Director
Bureau C
Division of Environmental Remediation

Locations where References may be found:

New York State Department of Environmental Conservation, Central Office
Division of Environmental Remediation
625 Broadway 11th Floor
Albany, New York 12233-7014

Contact, telephone number and e-mail:

James Candiloro
(518) 402-9662
jxcandil@gw.dec.state.ny.us



July 25, 2011

JUL 26 2011

Mr. James Candiloro
NYSDEC-DER
Remedial Bureau E, Remedial Section A
625 Broadway
Albany, NY 12233-7014

Re: SWMU

Dear Mr. Candiloro,

Enclosed are QubicaAMF SWMU questionnaire and additional site information

If you have any questions, feel free to call 315-376-6541

Sincerely,

A handwritten signature in black ink that reads "Wayne White".

Wayne White
General Manager/VP



SECTION 1 CONTENTS

JUL 28 2011

- **CHECKLIST**
- **CERTIFICATION OF ANSWERS**
- **PART 2. FACILITY CHARACTERIZATION**
- **PART 3-1, CSAs AND TRANSFER STATIONS (CSA1)**
- **ATTACHMENTS**
 - **FACILITY SITE PLAN WITH SWMU CODE (TRINITY AVENUE SITE)**
 - **NOV. 22, 1988 NYS DEC CLOSURE CERTIFICATION LETTER**
 - **BLACK RIVER WATERSHED AQUIFER MAP**

Qubica AMF

This report pertains to the former Container Storage Area (CSA1) located at the former Trinity Avenue Site in Lowville, NY. This

CHECKLIST

unit was certified closed November 22, 1988 by the NYS DEC, as per attached letter from James H. Shanley, P.E., Senior Sanitary Engineer.

The following is a checklist that identifies a completed questionnaire response package. Each box indicates a required portion of the submittal. Note that Part 2, the facility characterization form, the facility site plan (with SWMU code), and questionnaire certification form are required. The Number of Part 3 sections submitted will be facility-specific. The lines corresponding to 3-1 through 3-9 should indicate that the number of units at your facility within each SWMU category and should correspond to the number of questionnaire packets submitted for these sections. Please return a copy of this checklist with your responses.

PART 2. FACILITY CHARACTERIZATION

FACILITY SITE PLAN WITH SWMU CODE

PART 3. SWMU IDENTIFICATION/ RELEASE/ REMEDIATION

		Active	Inactive
3-1	CSAs AND TRANSFER STATIONS	0	1
3-2	LAND DISPOSAL (excluding land application and injection wells)	0	0
3-3	WASTEWATER TREATMENT/ RECYCLING UNITS	0	0
3-4	STORAGE/TREATMENT TANKS (excluding 3-3 units)	0	0
3-5	LAND APPLICATION AREAS	0	0
3-6	INJECTION WELLS	0	0

		Active	Inactive
3-7	INCINERATOR AND THERMAL UNITS	0	0
3-8	OTHER (CAMU, TU)	0	0
3-8	OTHER (AREAS OF CONCERN)	0	0

QUESTIONNAIRE CERTIFICATION

RESPONSE CHECKLIST

CERTIFICATION OF ANSWERS TO
REQUEST FOR INFORMATION REGARDING
SOLID WASTE MANAGEMENT UNITS
AND/OR AREAS OF CONCERN

FACILITY NAME: Qubica AMF

FACILITY EPA ID: NYD990762148

STATE OF: New York

COUNTY OF: Lewis

I certify that the enclosed answers to the New York Department of Environmental Conservation request for information are true, complete and accurate to the best of my knowledge and belief and that any documents submitted herewith are complete and authentic to the best of knowledge and belief.

This report pertains to the former Container Storage Area (CSA1) located at the former Trinity Avenue Site in located in Lowville, NY. This unit was certified closed November 22, 1988 by the NYS DEC, as per attached letter from James H. Shanley, P.E., Senior Sanitary Engineer.


Signature of Facility Representative

7/22/11
Date

Wayne White
Printed Name of the Signee

General Manager
Title of Signee

PART 2. FACILITY CHARACTERIZATION FORM

2-1. FACILITY IDENTIFICATION AND LOCATION

1. Facility Name: Qubica AMF
2. EPA ID No.: NYD990762148
3. SIC Code: 2499
4. Location: 7412 Utica Blvd.
City Lowville State NY County Lewis
5. Telephone No.: 315-376-6541
6. Check: Owner Operator

2-2. FACILITY PROCESS DESCRIPTION

- Hardmaple lumber, topcoat chemicals, and
decorating inks.
1. Raw Materials Used: _____
 2. Products: Bowling Pins
 3. Byproducts: Sawdust
- Recycled? Yes Specify: Burned in Plant Boiler
- Treated? No Specify: _____

2-3. FACILITY ENVIRONS

Please provide the following information if available:

1. Distance to nearest drinking water source (well and/or aquifer): 10 miles to the Village of Lowville surface water wells located off the No. 4 Rd, Town of Watson.
2. Depth to uppermost aquifer: Site is not located on an aquifer, per attached Black River Watershed Aquifer Map.
3. Distance to nearest surface water body: 0.5 mile to Mill Creek.
4. Surface water use: Mill Creek is the receiving waters for the Village of Lowville POTW.
5. Distance to nearest offsite building: 350 feet

6. Distance to nearest sensitive environment (e.g., wet-preserved area, or critical habitat):
1.7 miles to State Wetland L-13 (due East)
7. Percent of facility lying within 100 year floodplain: 0% (0 Acres of 8.76
Total acres = 0 %)
8. Land use/zoning:
 - ~~Complete-remote-~~
 - ~~Agricultural-~~
 - * Commercial or Industrial *
 - ~~Residential-~~
9. Net annual precipitation (estimate): 41.3 inches
10. Soil permeability (e.g., clay, sand; particle size): Rhinebeck silt loam, 1 to 6% slope.
Drainage Class: Somewhat poorly drained
11. Population within 5 miles:
 - 5,100 persons within a 5 mile radius (estimate)
 - 3,500 persons Village of Lowville population
 - 27,087 persons Lewis County population

3-1 TRANSFER STATION & CONTAINER STORAGE AREAS (CSAs)

NOTE: COMPLETE 3-1.1 THROUGH 3-1.3 FOR EACH INDIVIDUAL TRANSFER STATION & CONTAINER STORAGE AREA (CSA)
SWMU WHICH IS CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE

3-1.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/were stored in each transfer station/CSA on your site. Identify the unit according to your map identifier code and provide the appropriate EPA process code². Indicate the operational status of unit, identify the first year of operation for active unit or the inclusive dates of operation (from - to) for units presently inactive. Include the hazardous waste code from the 40 CFR, subpart D for each of listed hazardous waste handled at that unit². If you handle/handled hazardous wastes which are not cited in 40 CFR, subpart D, enter the code(s) from 40CFR, subpart C that describe(s) the characteristic and/or the toxic constituents of those hazardous wastes. For any wastes which do not have a corresponding EPA hazardous waste number, please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under RCRA and provide waste description². For each Waste, indicate the quantity that was/ is handled on an ANNUAL. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in the last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit described.

SWMU TYPE/ UNIT IDENTIFIER ²	DIMENSIONS STORAGE AREA	OPERATIONAL STATUS	EPA PROCESS ² CODE	EPA HAZARDOUS WASTE NO. OR HAZARDOUS WASTE DESCRIPTION	ESTIMATED ANNUAL QUANTITY (SPECIFY UNITS)	ASSOCIATED RELEASES?
CSA1	45' X 36' Garage	ACTIVE No	S06	Acetone, U002	2,800 lb/yr	No
(Container Storage Area 1 was located at the former Trinity Avenue Site, certified closed Nov 22, 1988, by NYS DEC.)	VOLUME DRUM	YEAR START		PM Acetate (1-Methoxy 2-Propyl Acetate) CAS# 108-65-6	18,321 lb/yr	No
	2,200 gal					
	NUMBER DRUMS	INACTIVE YES		Xylene, U239	1,554 gal/yr	No
	40 drums max	FROM: 1977		Urethane (Contains 9.0% Ethyl Benzene CAS# 100-41-4, & 49.3% Xylene U239)	60,000 lb/yr	No
		TO: 11/22/88				
		certified closed				

3-1 TRANSFER STATION & CONTAINER STORAGE AREAS (CSAs)

3-1.2 WASTE MANAGEMENT PRACTICES

Please answer the following question concerning waste management practices associated with the transfer station/CSA identified on the preceding page

1. If containers or drums are/were used, please specify their condition. Describe materials of construction if know

Excellent	Good	Fair	No Known	Comment
				Drums were new drums from the suppliers.

2. What was/is the average time of chemicals in the transfer station/CSA?

NK	Chemical	Residence Time (Units)/ Comment
	Acetone	2 week average residence time.
	PM Acetate	2 week average residence time.
	Xylene	2 week average residence time.
	Urethane	2 week average residence time.

3. Were/are reactive, ignitable, or incompatible wastes placed in this Unit

Yes	No	NK	Description/Comments
X			All 4 chemicals were ignitable.

3-1 TRANSFER STATION & CONTAINER STORAGE AREAS (CSAs)			
If so, are/were the wastes stored, treated, rendered or mixed so that it not longer poses/posed a hazard?			
Yes	No	NK	If yes, mitigative treatment?
	X		
			Comment
			Container storage area was certified closed in 1988.
4. Was/is the unit surrounded by a containment system? What was/is the capacity of the containment system?			
Yes	No	NK	Capacity (units)/Comments
	X		
Indicate whether the unit is/was located indoors or outdoors. If located outdoors, indicate if the area is/was protected from the weather (e.g., rain, snow)			
INDOOR	OUTDOOR	NK	<u>COMMENTS</u>
X			The unit was located inside a weather proof garage, constructed of concrete blocks. The garage was torn down in the late 1980's.
PROTECTED	UNPROTECTED	NK	<u>COMMENTS</u>
Please describe any precautionary measures that are/were taken			
<u>PRECAUTIONARY MEASSURES</u>			
A locked perimeter fence surrounded the garage.			

Qubica AMF

CSA1

Unit ID:
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3-1 TRANSFER STATION & CONTAINER STORAGE AREAS (CSAs)

1 Unit ID as coded on your facility site map CSA1

2 EPA process Codes, EPA Hazardous Waste Codes from Subparts C and D and Criteria constituting waste regulated under RCRA are defined in Part 1 DEFINITIONS of this Questionnaire

For the unit described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should attached. Include any information/data (including groundwater monitoring data) submitted to EPA and/or NYSDEC under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for this unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
N/A	N/A	N/A	N/A

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented N/A

Yes	No	NK	Inclusive Dates	Description/ COMMENT

Currently Implemented N/A

Yes	No	NK	Inclusive Dates	Description/ COMMENT

Qubica AMF
CSA1

Unit ID:
Page: 6 of 6

3-1 TRANSFER STATION & CONTAINER STORAGE AREAS (CSAs)				
1 Unit ID as coded on your facility site map CSA1				
Planned to be Implemented N/A				
Yes	No	NK	Inclusive Dates	Description/ COMMENT
1 Unit ID as coded on your facility site map				

ATTACHMENTS

2.
1

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233



Thomas C. Jorling
Commissioner

November 22, 1988

Mr. Donald Schneider
AMF, Incorporated
Utica Boulevard
Lowville, NY 13367

RE: Closure of AMF, Lowville
EPA Identification Number: NYD990762148

Dear Mr. Schneider:

This confirms receipt of the independent registered professional engineer's certification (dated September 23, 1988) of RCRA closure for the above referenced facility. This also will confirm the owner/operation prior closure certification and our own (DEC) inspection of June 23, 1988 which also confirmed that the hazardous waste storage unit had been closed following the required public notice in December, 1985.

We now consider the subject facility officially closed. Certification of closure releases AMF from all financial assurance responsibilities for the closed storage facility.

If you have any questions concerning this matter, feel free to call me at (518) 457-3274.

Sincerely,

James H. Shanley, P.E.
Senior Sanitary Engineer
RCRA Program Support Section
Bureau of Hazardous Waste Program Development
Division of Hazardous Substances Regulation

cc: H. Mulholland, USEPA, Region II
J. Kenna, Region 6
T. Morgan, Region 6 ✓

Black River Watershed

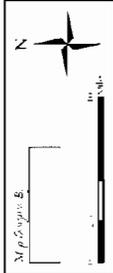
GRC GROUNDWATER ASSESSMENT

Legend

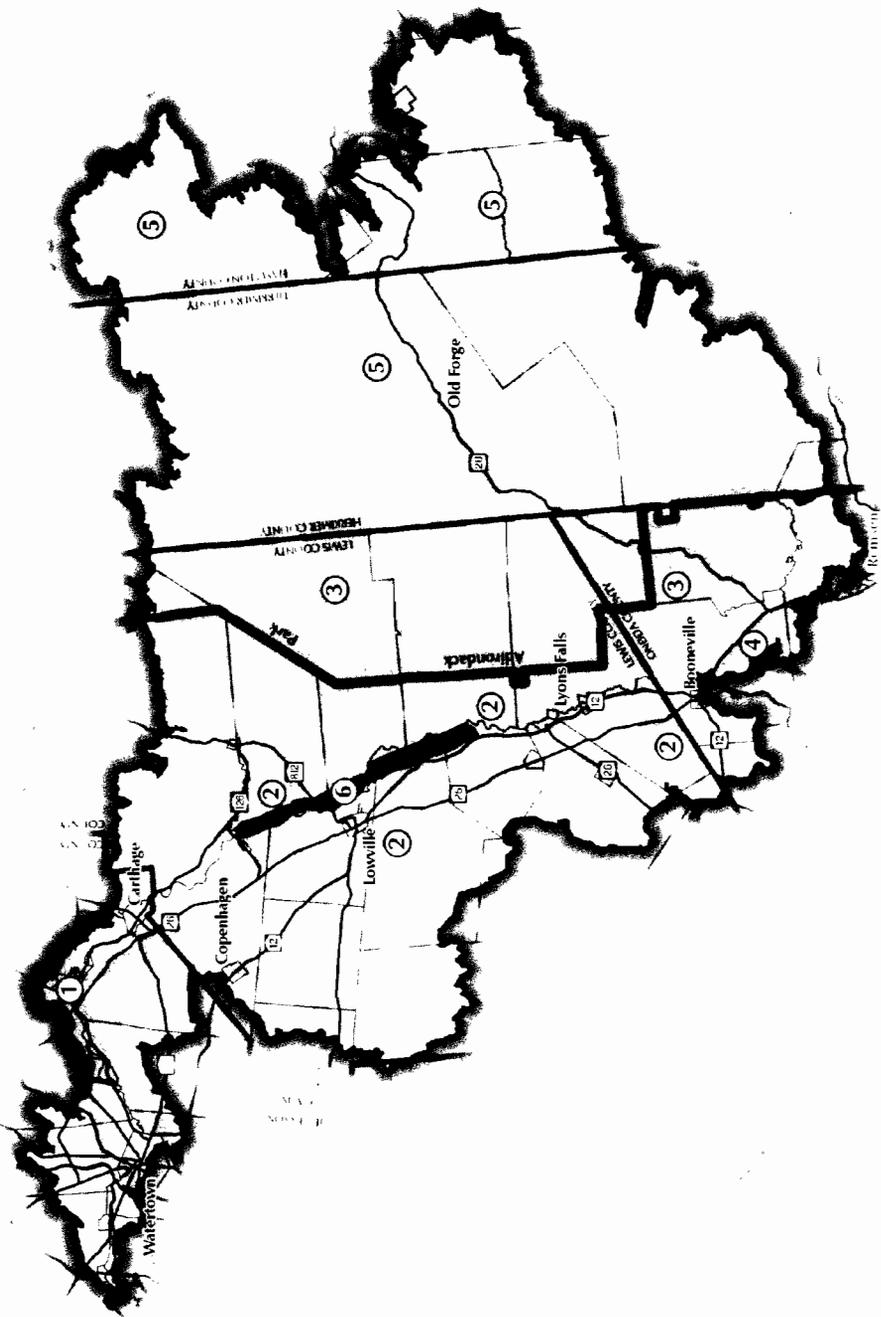
-  Confined Aquifer
-  Unconfined Aquifer

Key Aquifers

- ① Waterloo Area Limestone Bedrock
- ② Black River Basin Alluvium
- ③ Loose sand and gravel outwash
- ④ Beaverville Area tight sandstone
- ⑤ Limestone outwash sand and gravel deposits
- ⑥ Bedford Aquifer - Devonian Limestone



AQUIFERS



DATE: 05/08
 BY: J. SMITH
 TITLE: GWA ASSESSMENT

Frame

Figure 7 – Aquifers Map