nationalgrid

Steven P Stucker
Senior Environmental Engineer
Environmental Department

October 18, 2005

Mr. Scott Deyette
Remedial Bureau C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7017

Dear Scott:

The following provides a summary of methods and findings associated with the field reconnaissance performed by National Grid on August 24, 2005 at our Malone (Amsden St.) former manufactured gas plant (MGP) site (Site). Specifically, in accordance with an addendum to the draft Remedial Investigation Work Plan (RIWP), dated July 21, 2005, a reconnaissance survey was performed along the section of the Salmon River that extends from the southern property boundary of the Site, approximately 2 miles down stream north to the Macomb Hydroelectric facility on Lamica Lake. The reconnaissance work was conducted jointly by National Grid, TRC, and NYSDEC personnel. This letter summarizes the nature of the field inspection and the findings of that effort.

Objectives

The purpose of the qualitative river reconnaissance was to better understand the physical transport mechanisms between the Site and the Salmon River and the potential impacts on river sediments.

Field Methods

Field reconnaissance was performed by representatives of TRC, National Grid and NYSDEC on August 24, 2005. The process involved physical inspection of accessible sections of the western riverbank, and making visual and olfactory observations regarding the nature of bank and river

morphology (presence of accumulated sediments, relative river flow, nearby features, etc.). In addition, metal rods were used to probe the riverbank for depth of accumulated sediments. During the inspection, TRC took photographs of pertinent physical features, recorded observations, and documented locations using a Garmin hand-held Global Positioning System (GPS) unit. All field activities were conducted in accordance with the updated project health and safety plan (HASP), and the NYSDEC approved RIWP, dated 7/28/05.

A detailed visual inspection of the western riverbank segment was first performed from the Site downstream to the cul-de-sac location at the end of Coffee Street (refer to Figure 1 and Figure 2). Further evaluation was then completed from Coffee Street to the cul-de-sac at the end of Factory Street, then an additional ¼-mile segment ending at a cleared portion of the riverbank, before safe access was no longer achievable. Visual inspection was then predominantly conducted from the roadway, except for a section that was publicly-accessible at the first quiescent section of Lamica Lake located approximately ½-mile from the Macomb facility. The Macomb facility and associated Lamica Lake impoundment were inspected from the shoreline. Additionally, subsequent discussions were held with BRASCAN regarding the current operations and condition of the facility, as well as future operation and maintenance plans.

Findings

A summary of physical observations of the inspected river segments is presented in Table 1. The table presents observations noted for each inspected segment, including interval (starting from the southern site boundary); approximate depth and morphology of the river bottom; presence of accumulated sediments; physical evidence of contamination (if any); and photo references. GPS locations are indicated on the attached figure. Selected representative photographs, referenced in Table 1, are also attached.

As noted in Table 1, the inspected segment of the river from the Site to the initial reaches of Lamica Lake is relatively high-energy, with little evidence of fine-grained sediment deposition on either the river bottom or along the banks. In general, the river appears to be fairly shallow (up to six feet deep), with a bottom comprised predominantly of cobbles and occasional boulders. At its lower reaches proximal to Lamica Lake, the river bottom appeared to consist of shallow exposed sandstone bedrock with varying thickness of coarse grained sediments (sand and gravel) along the more quiescent shallow sections. In general, these observed conditions indicate the relatively

high energy of the Salmon River in this area, and the relative absence of significant sediment deposits.

Inspection of the sediments/soils observed in proximity to the Site indicated some evidence of MGP-type impacts (staining and slight to moderate naphthalene-type odors) in the vicinity of the lower site access gate (see Location 2 to 4, and Photo 3). In addition, similar impacted material was noted in the vicinity of a surface swale which runs parallel to the river (see Location 5 to 7, and Photos 5 and 6).

No indication of impacts to river sediments in proximity to the former power house foundation, where weathered tar material on areas of exposed bedrock has been noted, was evident.

Overall, no evidence was detected to indicate a continuous significant source of site-related contamination (i.e., seeps or sheens). The prominent iron staining observed in the surface swale (see Photos 4 through 8) is believed to be attributable, at least in part, to naturally occurring iron concentrations in the ground water. Quantitative characterization of the sediments will be completed during the upcoming remedial investigation (RI).

Discussions with BRASCAN personnel, which own and operate the nearby Macomb hydroelectric facility, indicate that the present impoundment above the Macomb facility (Lamica Lake) has gradually become filled with sediment over the last 75 years, with approximately eight feet of standing water remaining near the spillway. This siltation has substantially reduced the capacity of the impoundment. Although BRASCAN has no plans to remove these sediments, there is local interest in improving flood controls further upstream due to recurrent ice damming and flooding events. Conversations with NYSDEC personnel indicate that quantitative characterization of these impoundment sediment was recently completed. We respectfully request a copy of the sampling report from the NYSDEC.

Please call me at 315.428.5652, or e-mail me at steven.stucker@us.ngrid.com if you have any questions or would like additional information.

Sincerely,

Steven P. Stucker

Cc:
T. Young- Niagara Mohawk, A National Grid Company (letter only)
W. Holzhauer-National Grid Service Company, Inc.
D. Martin-TRC
File

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TABLE 1: SUMMARY OF OBSERVATIONS
Salmon River, Malone, NY

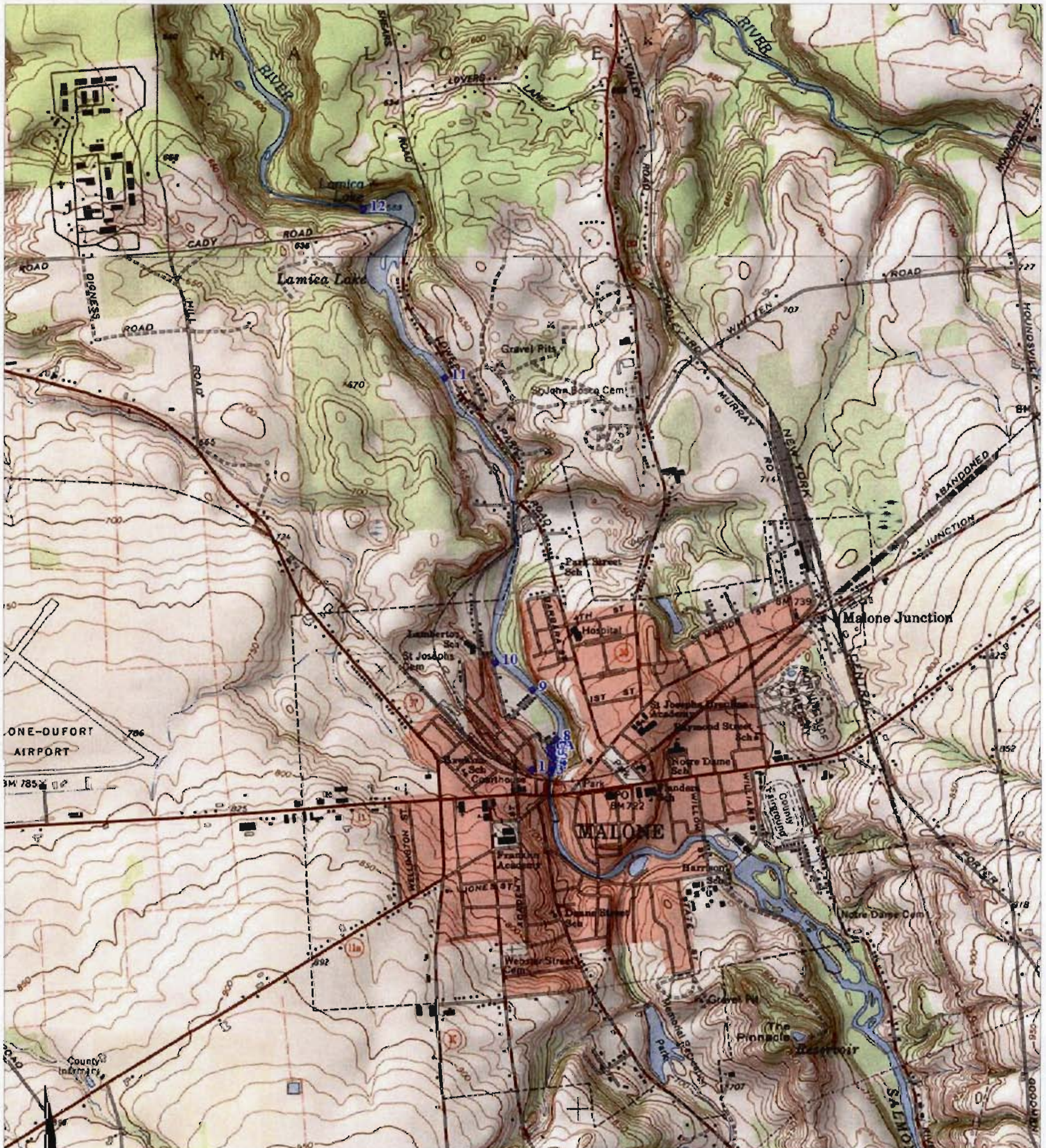
Location	Map Location	Distance from Site	Photos	Observations
Site (southern end)	Location 2 to Location 3	NA	Photo 1 Photo 2	Noted exposed bedrock along western portion of riverbank. Orange-colored iron staining noted along some exposed areas of rock. No odor noted. Only small amount of coarse sand noted around boulders and cobbles comprising the shallow river bottom (west bank). No significant deposition along embankment. Relatively high energy river flow in vicinity; maximum depth estimated at 4-feet. Weathered tar-like material noted on exposed bedrock below former area of coal bunkers. Brown silt and sand with black staining and tar-like odor observed between boulders on river bank further north; stained/odorous material exposed below upper clean sediment layer.
Site (between lower fence and storm sewer outfall)	Location 2 to Location 4	NA	Photo 3	Limited black-stained soil/sediments along the eastern edge of the floodplain; slight tar-like odor noted.
Vicinity of sewer outfall	Location 5	NA	Photo 4	Black-stained sediments with slight-to-moderate MGP odor detected in deeper sediments (2 to 3 feet of sediment) adjacent to the on-site storm sewer pipe outfall. Maximum river depth approximately 3 feet. Medium to coarse sand noted around downstream side of exposed cobbles/bounders.
Swale north of storm sewer	Location 5 to Location 6	NA	Photo 5	Inundated area along surface swale; wet, soft sediments with heavy sheens, odor and staining. Moderate odor noted in vicinity of swale. Heavy iron staining also noted on exposed surface of soils.

TABLE 1: SUMMARY OF OBSERVATIONS
Salmon River, Malone, NY

Location	Map Location	Distance from Site	Photos	Observations
Confluence of surface swale and river	Location 6 to Location 7	NA	Photo 6	River in vicinity of swale drainage outfall to river is shallow (1 to 2 feet). River bottom and bank is predominantly covered with cobbles, with occasional boulders; little to no indications of accumulated sediments. No notable impacts observed along riverbank in vicinity of confluence of storm sewer outfall and river.
Swale drainage to Coffee Street cul-de-sac	Location 7 to Location 8	300 feet	Photo 7	First indications of notable sediment deposition since swale drainage outfall. Soft, fine to coarse sand; no odors or sheens noted.
Coffee Street to Factory Street cul-de-sac	Location 8 to Location 9	300 feet to 0.25 mile	Photo 8	Quiescent section of river immediately downstream of cul-de-sac, with up to 1.5 feet of soft sediments along river bank. No sheens or odors observed. Remainder of segment yielded limited evidence of accumulated sediments. No indications of contamination noted.
Factory Street to river bend/ Amsden St.	Location 9 to Location 10	0.4 miles	Photo 9	River segment is 2 to 4 feet deep. Some sand deposition observed along west river bank. No physical indications of contamination noted. River becomes wider and shallower (approximately 1-foot deep), with limited accumulation of sand and gravel noted between boulders and small quantities of sand sediment along west river bank. No indications of contamination noted.

TABLE 1: SUMMARY OF OBSERVATIONS
Salmon River, Malone, NY

Location	Map Location	Distance from Site	Photos	Observations
Amsden St./river bend to Lamica Lake	Location 10 to Location 11	1.4 miles	Photo 10	Inaccessible for detailed inspection. River appears to be consistent with previous inspected section; generally shallow with relatively high velocity and little potential for sediment deposition. At location 011, river widens and slows after passing through a section of exposed bedrock. Areas of deposited fine to coarse sand sediments were noted resting on the bedrock river bottom, with additional sand deposition noted along the river bank. Water depth ranges from approximately two to five feet (estimated) at initial pool area. No indications of contamination noted.
Lamica Lake section	Location 11 to Location 12	2 miles	Photo 11 Photo 12	Quiescent section of river, from location 011 to the hydroelectric dam. Depth of lake is unknown but the impoundment adjacent to the dam is approximately 7 to 8 feet deep due to siltation, according to BRASCAN.



SOURCE:
USGS MAP FROM WILDFLOWER'S TOPO CD, 1:24000 SCALE.

N W E S NORTH

0 1/2 Mile 1 Mile
GRAPHIC SCALE

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FIG-1.dwg Layout:FIG-1 October 11, 2005-8:52AM KHOLLENBECK

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Customer-Focused Solutions

5 Waterside Crossing
Windsor, CT 06095
(860) 298-9692

FORMER MGP SITE
MALONE, NEW YORK

FIGURE 1
RIVER BANK INSPECTION LOCATIONS

Date: 10/05	**Project No.** 40478-1000-00019

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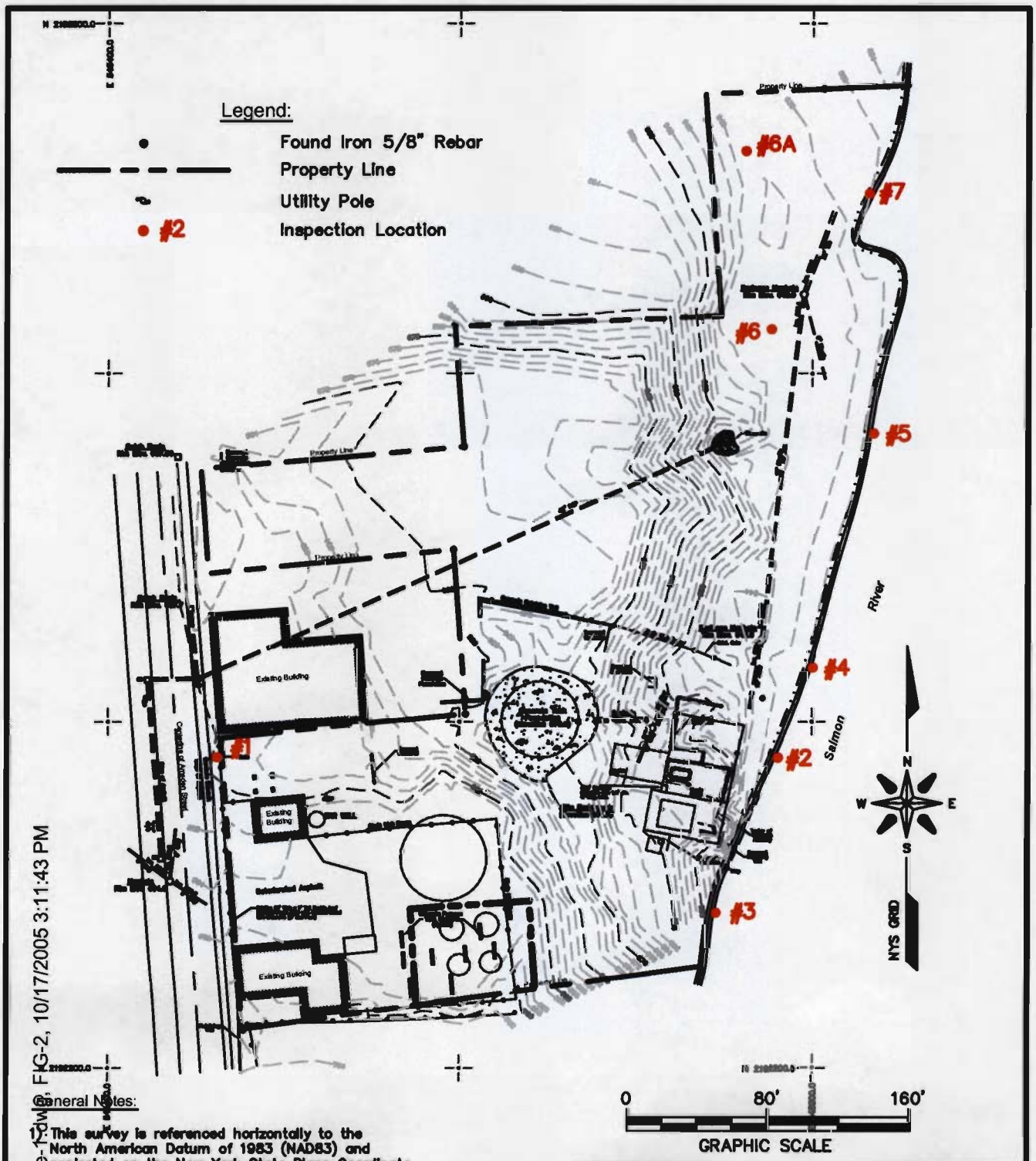

General Notes:

1) This survey is referenced horizontally to the North American Datum of 1983 (NAD83) and projected on the New York State Plane Coordinate System (East Zone) and vertically to the North American Vertical Datum of 1988 (NAVD88).

2) North arrow as shown indicates Grid North referenced to NAD83 and projected on the New York State Plane Coordinate System (East Zone).

3) Base information taken from drawing by Thew Associates, PLLC title: " Map Showing Existing Topography Former MGP Facility Niagara Mohawk Power Corporation Malone, New York" project number CK2727A-03-03

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FORMER MGP SITE
MALONE, NEW YORK

FIGURE 2
RIVER BANK INSPECTION MAP LOCATIONS

Date 10/05 | Project No. 40478-1000-00019

PHOTO 1
Western river bank adjacent to site (looking south).

PHOTO 2
Bedrock outcrop adjacent to site.

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PHOTO 3
Stained soil on bank adjacent to site.

PHOTO 4
Western river bank near storm sewer outfall.

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PHOTO 5
Surface swale located near storm sewer pipe (looking north).

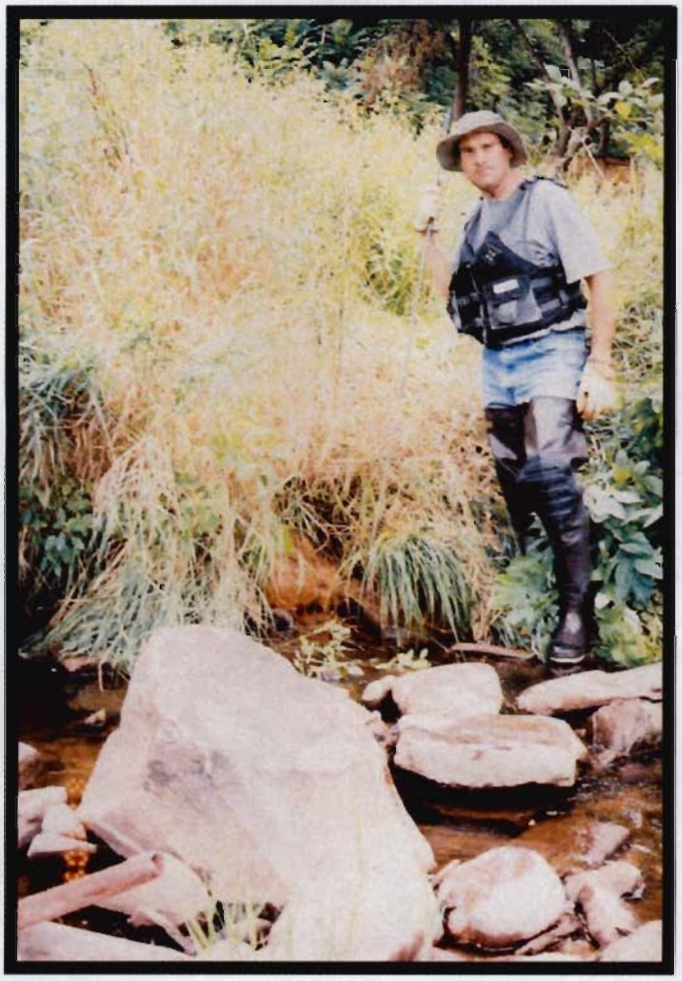

PHOTO 6
Location of surface swale discharge to river.

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PHOTO 7
Western river bank near Coffee Street cul-de-sac.

PHOTO 8
Western river bank near Factory Street cul-de-sac.

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PHOTO 9
Cleared section of river bank off Amsden Street (looking southeast).

PHOTO 10
Head of Lamica Lake (looking north).

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TRC

PHOTO 11
Lamica Lake, near hydroelectric facility (looking east).

PHOTO 12
Brascan Hydroelectric Facility dam.

pers/jw/haz/48278 niagra.fh10

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