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February 3, 2016

Katie M. Hoelscher National Fuel Gas Environmental Analysis 5955 New Taylor Road Orchard Park, NY 14127

RE: Summary of Completed 2015 Maintenance Activities

Scajaguada Creek Site (#915141B), Buffalo, NY

Dear Ms. Hoelscher,

This letter presents a summary of cap maintenance activities recently completed at the National Fuel Gas Distribution Corporation's (National Fuel) Scajaquada Creek Site. This report will be presented as an attachment to the 2015 Periodic Review Report (PRR).

These activities were initially recommended in AECOM Technical Service, Inc.'s (AECOM) 2015 Annual Inspection Report and Maintenance Repair Work Plan letter dated July 20, 2015. That report addressed observations made during the April 2015 annual inspection, as well as those made during the prior (2014) year's site inspection.

At the time of the April 2015 inspection, the water level in Scajaquada Creek was at a normal level, but heavy rains later in the spring and summer raised the creek to a higher than normal level before the recommended maintenance activities were developed. As a result, AECOM recommended that those activities be performed later in the year when the bankside vegetation would have died back and the water level could be expected to be lower. National Fuel monitored the water level during monthly site visits, and was able to note when the water level was sufficiently low to access the work areas.

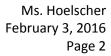
Brian Sadowski (New York State Department of Environmental Conservation) was contacted and agreed with the proposed delay. Once the work was scheduled, Mr. Sadowski met with you and myself on November 17, 2015 for a pre-construction walkover and was satisfied with the proposed work items.

The 2015 inspection report recommended maintenance activities to repair eight areas showing routine loss of soil or cap cover materials. Since, as noted below, Areas 4 and 9 were determined to be the same, the recommended maintenance activities were completed with work at seven locations. That work was performed as summarized below, and is shown in the attached photographs. On December 7, 2015, AECOM surveyed the upland boundaries of the maintenance areas. These boundaries are shown on the attached Figure 1.

## Summary of Maintenance Activities

The work was performed by S. St. George's Enterprises, Inc. of Fredonia, NY under contract to National Fuel, from November 18 through 20, 2015. The weather was clear and seasonable.

AECOM's work plan specified that sloughed cover materials in the repair areas be replaced with one of two standard New York State Department of Transportation gradations – fine stone filling or light stone





filling, depending on the location of the maintenance. The Contractor proposed an alternative gradation slightly finer than light stone filling for all locations, which AECOM approved.

The maintenance materials were brought to the property in a tandem-axle dump truck, and conveyed to the work areas by skid steer equipment. The Contractor used hand-labor and a rubber-tracked excavator (see Photo 1) positioned at the top of the creek bank to clear any remaining standing vegetation from the work areas. This allowed for a clear delineation of areas of sloughed or missing cover materials. AECOM verified in the field the limits of the areas found to require maintenance.

The Contractor placed new stone fill as described above over the verified areas of missing cover materials. AECOM and/or National Fuel were present to observe the placement of the new stone fill cover in each area.

The maintenance activities conformed to those specified in AECOM's July 20, 2015 Annual Inspection Report and Maintenance Repair Work Plan, using the stone gradation described above, and with the following minor variations:

- In portions of each maintenance area (extensively in Areas 1, 4, 5, and 6), the stone was not placed by bucket due to difficult access; alternatively, the stone was dumped at the top of slope and then placed in the work areas by hand.
- Area 5: The existing, torn geotextile was further slit to allow it to lie flat against the underlying soils. The resultant hole was overlain with an approximate 5 feet by 5 feet piece of woven polypropylene geotextile that was pinned to the underlying soils rather than being glued or stitched to the existing geotextile. The replacement stone fill was then placed over the pinned textile.
- Area 4, identified in the 2014 PRR, was determined to be the same as Area 9 identified during the 2015 annual site inspection. It is referred to as Area 4 throughout this report.

These variations are acceptable and consistent with the intent of the 2015 Annual Inspection Report and Maintenance Repair Work Plan. The proposed maintenance activities are considered to have been performed successfully.

Sincerely yours,

Randolph West. PE Project Engineer

Encl: Figure 1

Photo Log

cc: T. Raby – AECOM

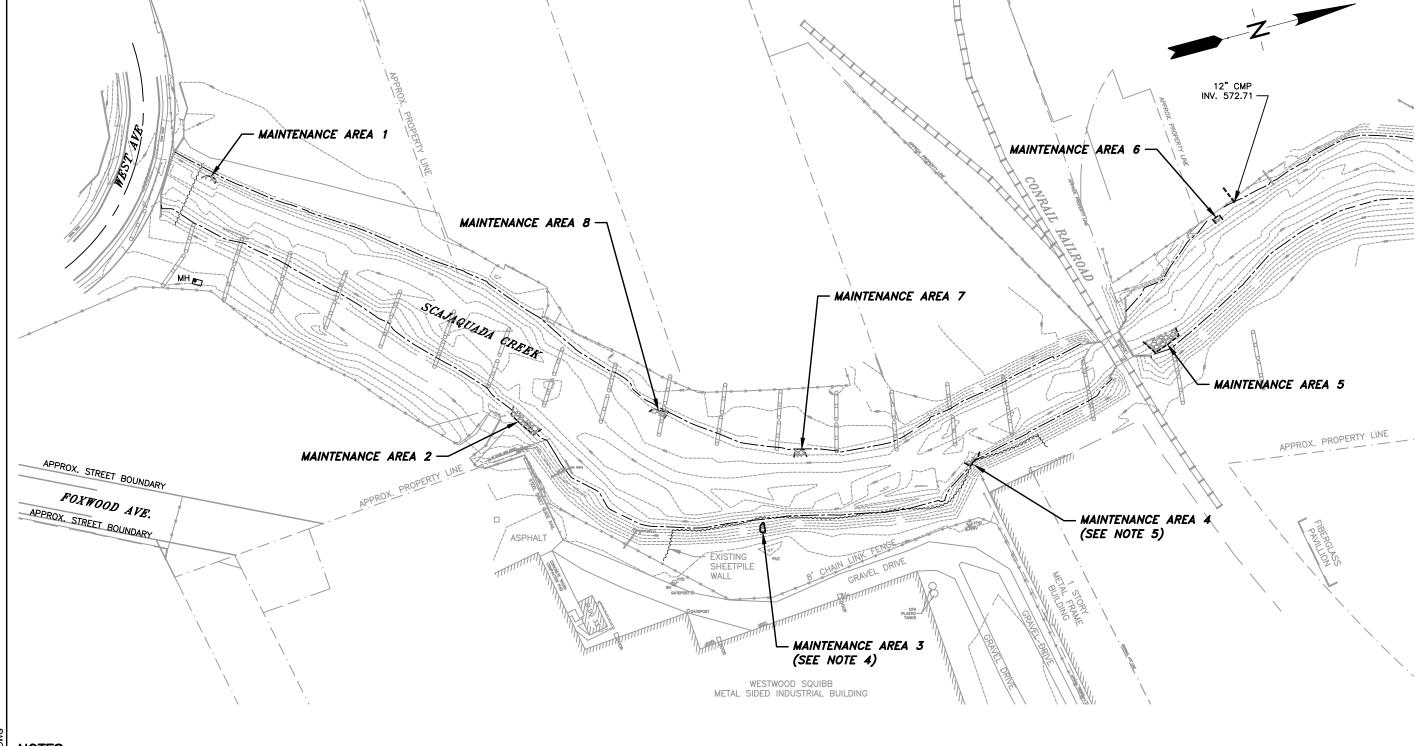
T. Clark – AECOM

Randy Wish

Project File

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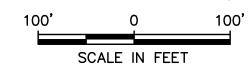
## **NOTES:**

- BASE MAPPING PREPARED BY CLOUGH, HARBOUR & ASSOCIATES FROM A SEPTEMBER 1995 FIELD SURVEY.
- PROPERTY LINES SHOWN HEREON ARE FOR INFORMATION PURPOSES ONLY, AND SHOULD NOT BE USED FOR THE TRANSFER OF PROPERTY. THE PROPERTY LINES SHOWN ARE DEPICTED FROM A PARTIAL FIELD BOUNDARY SURVEY, RECORD DEEDS AND MAP INFORMATION.
- MAINTENANCE AREAS SURVEYED BY AECOM ON DECEMBER 7, 2015.
- NO WORK WAS PERFORMED THIS YEAR AT AREA 3, WHICH IS AN AREA OF BARE SOIL LOCATED OUTSIDE OF THE LIMIT OF REMEDIATION. IT HAS BEEN SURVEYED TO FACILITATE MONITORING IN FUTURE YEARS. IT WAS INITIALLY IDENTIFIED IN THE 2014 PERIODIC REVIEW REPORT (PRR).
- AREA 4, IDENTIFIED IN THE 2014 PRR, HAS BEEN DETERMINED TO BE THE SAME AS "AREA 9" IDENTIFIED IN THE 2015 SITE INSPECTION.

## **LEGEND**

APPROXIMATE AREA OF MAINTENANCE ACTIVITIES PERFORMED NOV. 18-20, 2015. (UPLAND BOUNDARY SURVEYED)

> APPROXIMATE LIMITS OF DREDGE CAP. (APPROXIMATED FROM "SEDIMENT REMEDIATION" DRAWINGS, RETEC ENGINEERING, P.C., JUNE 1998)







Rubber-tracked equipment used by the Contractor to clear vegetation and place and/or position stone.





Performing maintenance activity of Area 1.





Maintenance stone placed near water's edge at Area 1.





Partially completed maintenance activity at Area 2.





Partially completed maintenance activity at Area 2.





Completed maintenance activity at Area 2.





Looking downslope at the portion of the slope above Area 4 that was disturbed by maintenance activities.





Completed maintenance activity at Area 4 (located in front of sheet pile wall). Apparent bare soils will be monitored for erosion in future site inspections.





Damaged textile at Area 5. The textile had torn, and was further slit to eliminate bridging over missing stone/soil below, and to allow it to lie flat beneath replaced armor.





Geotextile patch placed to cover the torn/slit existing textile at Area 5. The replacement textile was affixed to the underlying soil with pins.





Completed maintenance activity at Area 5.





Completed maintenance activity at Area 6.





Completed maintenance activity at Area 7.





Completed maintenance activity at Area 7.





Placement of stone at Area 8.





Completed maintenance activity at Area 8.





Completed maintenance activity at Area 8.