

NORTHGLENN URBAN RENEWAL AUTHORITY

RESOLUTION NO.

 N/15-08
Series of 2015

A RESOLUTION APPROVING A THIRD AMENDMENT TO AN AGREEMENT WITH NINYO AND MOORE

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE NORTHGLENN URBAN RENEWAL AUTHORITY, THAT:

The Third Amendment to Professional Services Agreement attached hereto as **Exhibit A** is hereby approved, and the Chairperson of the Authority is authorized to execute the same on behalf of the Authority.

DATED this 11th day of February , 2015.

Rosie Garner
Chair

ATTEST:

APPROVED AS TO FORM

Debbie Tuttle
Executive Director

Jeff Parker
NURA Attorney

THIRD AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES

THIS THIRD AMENDEMENT TO AGREEMENT FOR PROFESSIONAL SERVICES is made and entered into this day _____ of _____, 2015, by and between the Northglenn Urban Renewal Authority, 11701 Community Center Drive, Northglenn, Colorado 80233-8061 (hereinafter referred to as "NURA") and Ninyo and Moore, 6001 S. Willow Drive, Suite 195, Greenwood Village, Colorado 80111 (hereinafter referred to as "Consultant").

1. The Scope of Services set forth in the Agreement for Professional Services between the parties dated May 24, 2012 is hereby amended by the addition of further services and additional costs as set forth in the attached **Attachment A**.

2. All other terms of the May 24, 2012 Agreement for Professional Services and the First and Second Amendments thereto shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto each herewith subscribe the same in duplicate.

NORTHGLENN URBAN RENEWAL AUTHORITY

By: _____
Rosie Garner, Chair

ATTEST:

Debbie Tuttle Date
NURA Executive Director

APPROVED AS TO FORM:

Jeff H. Parker Date
NURA Attorney

CONSULTANT:

By: _____

ATTEST:

Print Name

By: _____

Title Date

Print Name

Title Date

February 3, 2015
Proposal No. 11-00033

Ms. Debbie Tuttle
Executive Director
Northglenn Urban Renewal Authority
11701 Community Center Drive
Northglenn, Colorado 80233

Subject: Cost Estimate for Environmental Services
Groundwater Remediation – Second Round of Subsurface Injections
Former Garland Shopping Center
10755 Washington Street
Northglenn, Colorado

Dear Ms. Tuttle:

In accordance with your request for proposal, Ninyo & Moore has prepared a cost estimate for environmental services associated with additional subsurface chemical injection at the above-referenced site. The site is currently the subject of a Voluntary Cleanup Plan (VCUP) approved by the Colorado Department of Public Health and Environment (CDPHE).

SITE BACKGROUND

The site is an approximately 5.2-acre retail development located on the northwest corner of Washington Street and Garland Drive in Northglenn, Colorado (Figure 1). On behalf of Northglenn Urban Renewal Authority (NURA), Ninyo & Moore conducted a Phase I Environmental Site Assessment (ESA), Phase II ESAs, Indoor Air Quality Monitoring, and prepared a VCUP Application to address management of tetrachloroethylene (PCE) in groundwater. The PCE-affected groundwater extended from the southeast corner of the site offsite into Garland Drive. The remedial action proposed in the VCUP Application consists of two rounds of subsurface injection of in-situ chemical oxidation (ISCO), followed by groundwater monitoring for approximately 18 months. The first round of ISCO chemical injection was performed in May 2013.

CURRENT SUBSURFACE CONDITIONS

Subsequent to the chemical injection in May 2013, groundwater in three monitoring wells, MW-5/5R, MW-10 and MW-17, was sampled periodically over 18 months. PCE concentrations in MW-5R, the monitoring well located on the Wal-Mart property, have decreased from a maximum of 60.7 micrograms per liter (ug/L) on September 26, 2012, to below laboratory

(BDL) on December 3, 2014. In monitoring well MW-10, located on the south side of Garland Drive, PCE concentrations were reported below 10 ug/L in September 2012 and May 2013, BDL in November 2013, and increased to 57 ug/l and 45 ug/l on two occasions in December 2015. PCE concentrations in well MW-17 decreased from 183 ug/l in January 2013 to BDL on November 22, 2013, and increased to 210 ug/L in December 2014.

Subsurface injection of chemicals may be followed by an immediate increase in concentrations of PCE, followed by a gradual decrease, generally to target levels (the CDPHE Groundwater Quality Standard for PCE is 17 ug/L). At the Former Garland Shopping Center site, PCE concentrations remained stable or decreased shortly after injection (one week), followed by a decrease to BDL in the three wells being monitored six months later. One year after the second monitoring event, approximately 18 months after injection, PCE concentrations increased to pre-injection levels in the two wells located on the south side of Garland Drive (MW-10 and MW-17). Variations in PCE concentrations may be related to fluctuations observed in the groundwater table elevation during the monitoring period.

SCOPE OF SERVICES

Ninyo & Moore will implement the second round of chemical injections at the site. The targeted area for the second round of injections will be in line with and to the south of the targeted area during the first injection round. The locations of injection points for the first and second rounds are presented on Figure 2. The following scope of services will be conducted:

- Ninyo & Moore will notify the appropriate underground service locator services to mark the locations of underground utilities, and procure the services of a private utility locator to clear each proposed injection location;
- Ninyo & Moore will prepare and submit the required applications and documents to the City of Northglenn Public Works Department, for the drilling of injection points in the right-of-way (ROW) of Garland Drive;
- A Traffic Plan will be prepared and submitted to the City of Northglenn. The Traffic Plan will be followed during the drilling of the injection points;
- The top-of-casing (TOC) of monitoring well MW-5R will be surveyed by Ninyo & Moore relative to an arbitrary point so that potentiometric surface maps can be prepared for the site, and groundwater flow direction can be evaluated.
- Ninyo & Moore and its subcontract drilling and injection firm, ISOTEC, will mobilize to the site to conduct the injections.

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- Following injection, groundwater monitoring will be conducted semi-annually at 6, 12 and 18 months post-injection. Three monitoring wells will be purged and sampled, and the samples will be laboratory analyzed for volatile organic compounds by EPA Method 8260 B.
 - Summary Monitoring Reports will be prepared for submittal to NURA and the CDPHE.
 - When PCE concentrations have been reduced to 17 ug/L or less, a Remedial Action Completion Report and No Action Determination (NAD) request will be submitted to the CDPHE.

ASSUMPTIONS

The following assumptions have been made in the preparation of our scope of services:

- Unrestricted access to sampling areas at the site will be provided by the client during regular weekday business hours.
- Ninyo & Moore will coordinate activities with NURA. A Health and Safety Plan (HASP) will be prepared prior to commencement of field activities. The HASP will contain a project-specific job hazards analysis that will include drilling, and injection activities. The HASP will be reviewed by field personnel, prior to beginning daily activities.
- Work will not be conducted during inclement weather.
- The Traffic Plan will be implemented for field work.
- Drilling and injection activities can be completed in three field days.
- Ninyo & Moore will not be responsible for damage to utilities not shown on plans nor marked out by UNCC members or the City of Northglenn, nor identified by the private locator.
- No relocation of utilities or other structures is needed.
- The proposed injection points will be drilled to the proposed depths or to refusal, whichever is encountered first.

COST BREAK DOWN

1. Second Round of Injection (Subcontractor) - \$44,000
2. Traffic Control, Coordination and Remediation Action Oversight - \$8,000
3. Three Groundwater Monitoring Events and Reporting - \$9,000
4. Remedial Action Plan Completion Reporting and NAD Request - \$5,000
5. Client and Agency Correspondence, Facilitation Meetings, etc. - \$3,000

The estimated cost for the above-described scope of work is **\$69,000 (Sixty Nine Thousand Dollars)**. The work will be completed on a not-to-exceed, time-and-materials basis.

In the CDPHE-approved VCUP, the proposed groundwater remediation included two rounds of chemical injection and the costs for the second round were included in Ninyo & Moore's proposal dated February 22, 2013, Exhibit B in NURA Resolution N-13-16, Series of 2013. Items No. 1, No. 2 and No. 4 above were included in Ninyo & Moore's original proposal dated February 22, 2013. Therefore, the additional costs necessary for a Third Amendment are **\$12,000 (Twelve Thousand Dollars)**. The work will be conducted according to the terms and conditions of the Second Amendment to Agreement for Professional Services.

Any additional services, not included in the aforementioned scope, will be charged on a time-and-materials basis in accordance with the approved schedule of fees.

SCHEDULE

At this time, the drilling and injections activities are tentatively scheduled for February 19 through 21, 2015, barring any inclement weather. The schedule is dependent upon subcontractor availability, material availability, City of Northglenn Traffic Plan approval, and weather conditions. Based on February 2015 implementation, groundwater monitoring events would be proposed for August 2015, February 2016 and August 2016. If you are in agreement with the tasks, please provide written authorization to proceed.

We appreciate this opportunity to submit this proposal. Should you have any questions regarding our proposed scope of services, please contact the undersigned.

Respectfully submitted,
NINYO & MOORE



Beth McDonald, P.E., P.G.
Senior Environmental Engineer

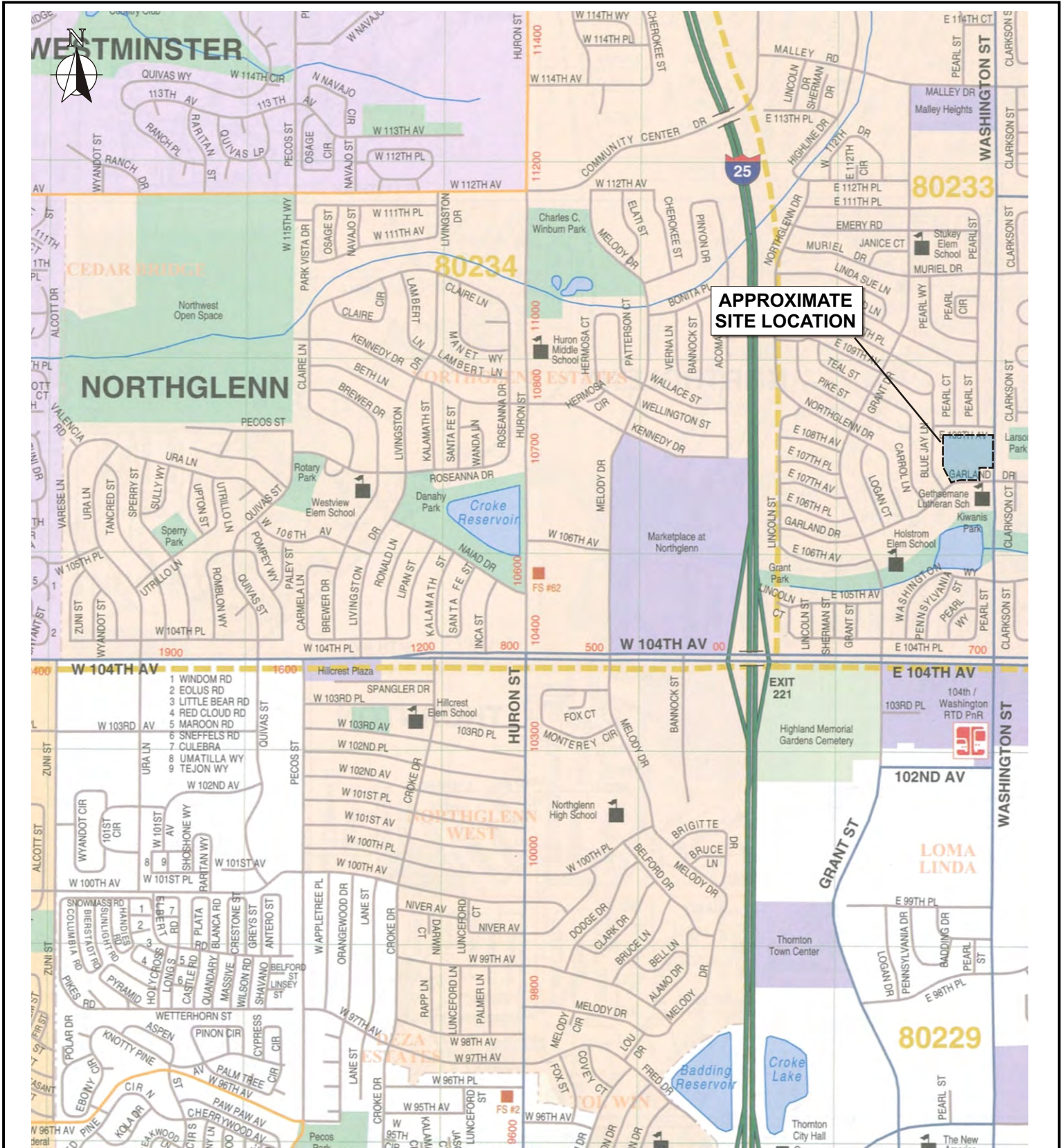


Lise Marie Bisson, P.G.
Principal Geologist
Environmental Operations Manager

BM/LMB/ceb

Attachments: Figures

Distribution: (1) Addressee (via e-mail)



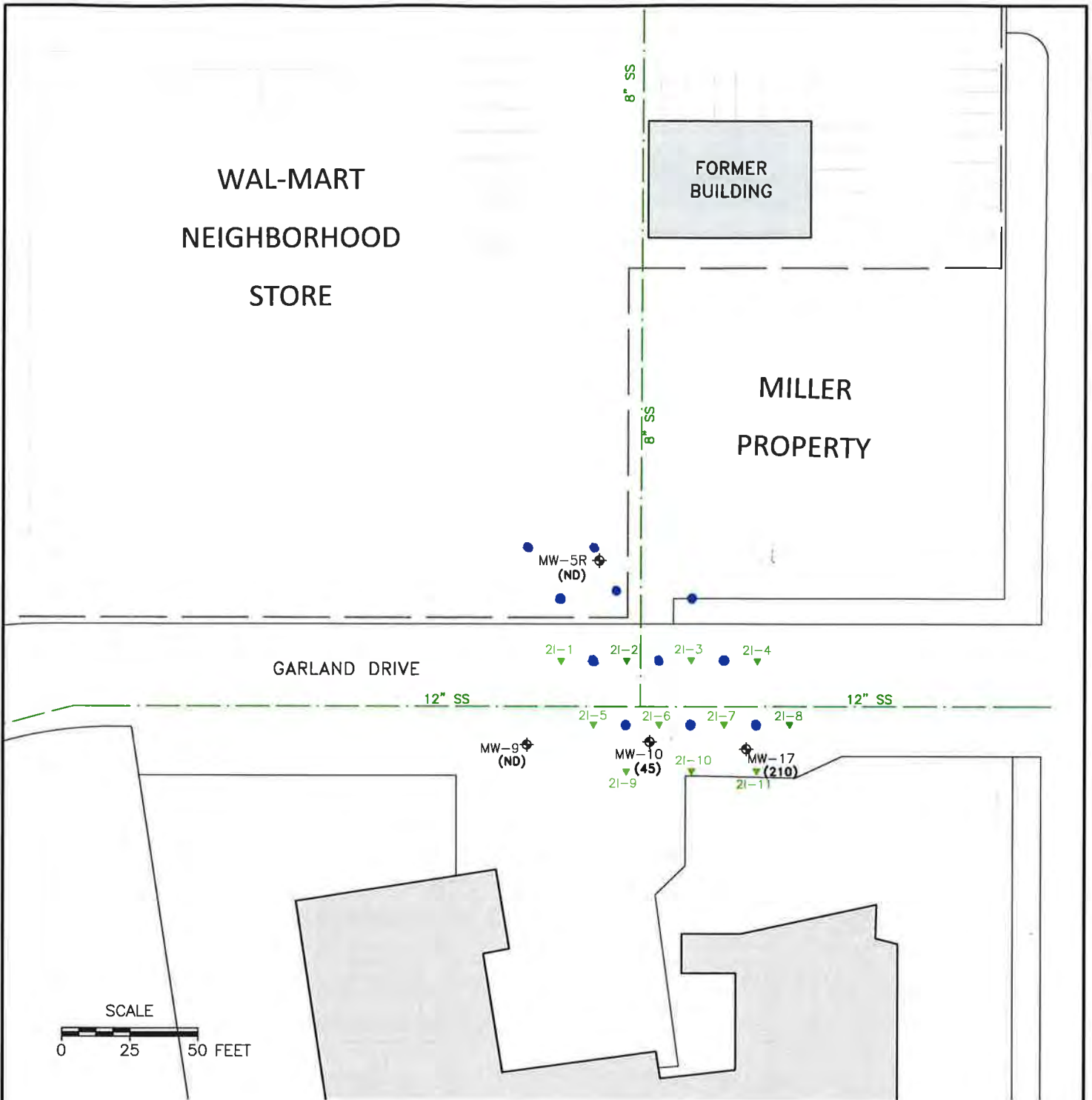
Source: Macvan Map Company, Denver Metro Edition, Colorado, 2010.

0 1900

Approximate Scale:
1 inch = 1900 feet

Note: Dimensions, directions, and locations are approximate.

		SITE LOCATION		FIGURE
		FORMER GARLAND SHOPPING CENTER 10755 WASHINGTON STREET NORTHGLEN, COLORADO		1
PROJECT NO: 500557004	DATE: 1/15			



LEGEND

- ◆ Groundwater Monitoring Well
- 57 PCE Concentration in micrograms per liter (Wells Sampled on 12-23-2014)
- First Event Injection Locations
- ▼ Proposed Second Event Injection Locations

Note: Base Map provide by Ninyo & Moore

<small>In-Situ Oxidative Technologies, Inc.</small> ISOTEC <small>EST. 1988</small>		6452 Fig Street, Suite C Arvada, Colorado 80004 www.insituoxidation.com (303) 843-9079
PROPOSED SECOND EVENT INJECTION LOCATION MAP ISCO REMEDIATION PROGRAM Garland Shopping Center 10733 Washington Street Northglenn, Colorado		
DRAWN BY: MU	DATE: 1/12/2015	FIGURE 2
CHECKED BY: SH	PROJECT NO: 901154	