



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

STATE OF NEVADA
Department of Conservation & Natural Resources

Brian Sandoval, Governor
Leo M. Drozdoff, P.E., Director
David Emme, Administrator

April 27, 2016

Harry Van Den Berg, P.E.
AECOM
1220 Avenida Acaso
Camarillo, CA 93012

**Re: Tronox LLC (TRX) Facility
Nevada Environmental Response Trust (Trust) Property
NDEP Facility ID #H-000539**

Nevada Division of Environmental Protection (NDEP) Response to:
*Amendment No. 1 to Work Plan (#2015-130) for General Site-Wide Work Plan – Nevada
Environmental Response Trust Remedial Investigation, Downgradient Study Area,
Henderson, Nevada*

Dated: April 11, 2016

Dear Mr. Van Den Berg,

The NDEP has received and reviewed the above-referenced correspondence transmitted to NDEP on April 11, 2016 (enclosed). The NDEP has consulted with the US EPA as required by the Environmental Response Trust Settlement Agreement and the US EPA has no questions of the amendment. The NDEP has consulted with the NERT as required by the Environmental Response Trust Settlement Agreement and the NERT have no questions of the amendment.

NDEP hereby approves the above-referenced amendment and the Task Order budgets will be revised to reflect this approval. The new Task Order budget for #2015-130 will be increased by \$25,651 which means the Task Order budget increases from originally approved \$95,183 to newly approved \$120,834.

Please contact the undersigned with any questions at jcarltonparker@ndep.nv.gov or 702-486-2850 Ext 228.

Carlton Parker, P.G.
Bureau of Industrial Site Cleanup
NDEP-Las Vegas City Office

JCP:jcp

JCP:jcp

EC (with enclosure):

James Dotchin, NDEP BISC Las Vegas
Weiquan Dong, NDEP BISC Las Vegas
Adam Baas, Edgcomb Law Group
Allan Delorme, Ramboll Environ
Alison Fong, U.S. Environmental Protection Agency, Region 9
Andrew Barnes, Geosyntec
Andrew Steinberg, Nevada Environmental Response Trust
Anna Springsteen, Neptune & Company Inc.
Betty Kuo Brinton, MWDH2O
Brenda Pohlmann, City of Henderson
Brian Waggle, Hargis + Associates
Carol Nagai, MWDH2O
Charles K. Hauser, Esq., Southern Nevada Water Authority
Chris Ritchie, Ramboll Environ
Chuck Elmendorf, Stauffer Management Company, LLC
Dave Share, Olin
David Johnson, Central Arizona Water Conservation District
Dave Johnson, LVVWD
Derek Amidon, Tetrattech
Ebrahim Juma, Clean Water Team
Ed Modiano, de maximis, inc.
Eric Fordham, Geopentech
Frank Johns, Tetrattech
Gary Carter, Endeavour
George Crouse, Syngenta Crop Protection, Inc.
Jasmine Mehta, AG Office
Jay Steinberg, Nevada Environmental Response Trust
Jeff Gibson, Endeavour
Jill Teraoka, MWDH2O
Joanne Otani
Joe Kelly, Montrose Chemical Corporation of CA
Joe Leedy, Clean Water Team
John Pekala, Ramboll Environ
Katherine Baylor, U.S. Environmental Protection Agency, Region 9
Kelly McIntosh, GEI Consultants
Kevin Fisher, LV Valley Water District
Kirk Stowers, Broadbent & Associates
Kirsten Lockhart, Neptune & Company Inc.
Kim Kuwabara, Ramboll Environ
Kurt Fehling, The Fehling Group
Kyle Gadley, Geosyntec
Kyle Hansen, Tetrattech
Lee Farris, BRC
Marcia Scully, Metropolitan Water District of Southern California
Maria Lopez, Water District of Southern California
Mark Paris, Landwell
Michael J. Bogle, Womble Carlyle Sandridge & Rice, LLP
Michael Long, Hargis + Associates
Mickey Chaudhuri, Metropolitan Water District of Southern California
Nicholas Pogoncheff, PES Environmental, Inc.
Paul Black, Neptune and Company, Inc.
Paul Hackenberry, Hackenberry Associates, LLC

Patti Meeks, Neptune & Company Inc.
Peggy Roefer, CRC
Ranajit Sahu, BRC
Richard Pfarrer, TIMET
Rick Kellogg, BRC
Scott Bryan, Central Arizona Project
Steve Clough, Nevada Environmental Response Trust
Tanya O'Neill, Foley & Lardner L
Todd Tietjen, SNWA

April 11, 2016

Mr. James D. Dotchin
Chief, Bureau of Industrial Site Cleanup
Nevada Division of Environmental Protection
2030 East Flamingo Road, Suite 230
Las Vegas, Nevada 89119

Subject: Amendment No. 1 to Work Plan (#2015-130) for General Site-Wide Work Plan– Nevada Environmental Response Trust Remedial Investigation, Downgradient Study Area, Henderson, Nevada

Dear Mr. Dotchin:

AECOM is pleased to provide this amendment to the Work Plan for preparing General Site-Wide Work Plan in support of the Downgradient Study Area component of the Nevada Environmental Response Trust (NERT) Remedial Investigation in Henderson, Nevada. The original Work Plan, dated December 30, 2015, was approved by Nevada Division of Environmental Protection (NDEP) on January 8, 2016. This amendment includes revised labor hours for AECOM to account for additional level of effort associated with the execution of the scope of work as discussed below.

SCOPE OF WORK AMENDMENT

The scope of work described in the December 30, 2015, Work Plan remains unchanged with the following exceptions:

1. **Health and Safety Plan:** Preparation of the Health and Safety Plan (HASP) was more labor intensive than planned due to the need to incorporate boats and associated watercraft safety for the collection of surface water samples in Las Vegas Wash. It was assumed that surface water samples would be collected from the stream banks or by using waders for mid-stream samples. Due to the current stream flows and the weir configuration, it was determined that a boat would be needed for portions of the surface water sampling. This was a significant change to the level of effort required to complete the HASP.
2. **Quality Assurance Project Plan:** Preparation of the Quality Assurance Project Plan (QAPP) was more labor intensive than planned due to the addition of hexavalent chromium into the sampling suite and the addition of filtering for metals samples. In addition several conference calls and QAPP revisions were needed to address data nomenclature, electronic data deliverables (EDDs) and other details that were not included in the original estimate. Incorporating the NERT sampling nomenclature had to be justified to the stakeholders, specifically regarding blanks and duplicates. AECOM original budget was based on the assumption that the EDD format was already established with TestAmerica.
3. **Field Sampling and Analysis Plan and Standard Operating Procedures:** Preparation of the Standard Operating Procedures (SOPs) is more labor intensive than planned due to the use of boats to collect surface water samples and the planned geophysical activities. Our original budget assumed that the NERT FSAP and SOPs would cover most field activities; however, we have introduced new field activities. In addition, research, interpretation and reduction of historical data has been more labor intensive than planned.

4. **Access Negotiations:** Obtaining site access was more labor intensive and required more senior staff involvement than planned due to legal reviews. Several discussions were required with the various property/well owners to arrive at mutually agreeable access terms. In addition, time was required to fill out permit applications and to obtain insurance certificates. Since access had already been obtained for previous sampling efforts, our original budget assumed that the process would be relatively straightforward.
5. **Baseline Schedule:** The baseline schedule for completion of the overall project required revisions to incorporate an additional review cycle for the stakeholders.

AECOM Labor

- AECOM labor was revised to account for additional efforts as described above.

PRELIMINARY SCHEDULE AND ESTIMATED COST

The following summarizes the revised preliminary implementation schedule, the cost estimate from the December 2015 Work Plan, Amendment No. 1 cost estimate and the total revised cost estimate.

Task Order and Title	Approximate Schedule	Initial Est. Cost (Dec 2015)	Amendment No. 1 (R1)	Total Revised Est. Cost (March 2016)
2015-130-01 – Site Wide Work Plan & Schedule (AECOM)	December 2015 – June 2017	\$95,183	\$25,651	\$120,834
Work Plan Total		\$95,183	\$25,651	\$120,834

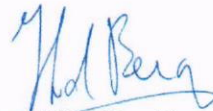
The total request for Addendum No. 1 is **\$25,651**. A detailed breakdown of the Addendum No. 1 budget is included in **Table 1**. Total cost for this Task Order, including budget requested in this amendment, is provided on **Table 2**. If this amendment meets with your approval, please send AECOM your authorization at your earliest convenience.

If you have any questions regarding this amendment, or if AECOM may be of further assistance, please contact Carmen Caceres-Schnell at (805) 764-4031 or either of the undersigned.

Sincerely,



Sally Bilodeau, CEM
Project Manager



Harry Van Den Berg, PE
Principal-in-Charge

Attachments: Table 1 Addendum 1 to General Site-Wide Work Plan Cost Breakdown
Table 2 General Site-Wide Work Plan Total Revised Cost Estimate

Table 1. Addendum 1 to General Site-Wide Work Plan Cost Breakdown
Task Order 2015-130-01-R1
NERT Remedial Investigation - Downgradient Study Area

LABOR			Task Order Management		General Site-Wide Work Plan & Schedule		HASP		QAPP		FSAP & SOPs		Access & EAs		GRAND TOTAL			
Staff	Position Job Title	Units	Bill Rate	Task 2015-130A-01		Task 2015-130B-01		Task 2015-130B-01		Task 2015-130C-01		Task 2015-130D-01		Task 2015-130E-01		Hours	Total	
Harry Van Den Berg	Program Director/Principal	h	\$ 203.75	0	\$ -	0	\$ -	0	\$ -	6	\$ 1,222.50	10	\$ 2,037.50	10	\$ 2,037.50	26	\$ 5,297.50	
Mike Flack	Program Director/Principal	h	\$ 203.75	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
TBD Legal	Program Director/Principal	h	\$ 203.75	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
Shinsuke Kaneko	Senior Project Manager	h	\$ 174.51	0	\$ -	10	\$ 1,745.10	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 1,745.10	
Sally Blodeau	Project Manager	h	\$ 157.13	0	\$ -	0	\$ -	5	\$ 785.65	5	\$ 785.65	10	\$ 1,571.30	0	\$ -	20	\$ 3,142.60	
Joe Harrigan	Senior Scientist	h	\$ 156.66	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
Kristen Durocher	Senior Scientist	h	\$ 156.66	0	\$ -	0	\$ -	20	\$ 3,133.20	0	\$ -	0	\$ -	0	\$ -	20	\$ 3,133.20	
Chad Roper	Senior Scientist	h	\$ 156.66	0	\$ -	0	\$ -	0	\$ -	30	\$ 4,699.75	0	\$ -	0	\$ -	30	\$ 4,699.75	
Carmen Caceres-Schnell	Deputy Project Manager	h	\$ 125.41	0	\$ -	0	\$ -	0	\$ -	0	\$ -	20	\$ 2,508.20	10	\$ 1,254.10	30	\$ 3,762.30	
Richard Rosenbaum	Project/Staff Scientist	h	\$ 124.73	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
Ryan McCarthy	Project/Staff Scientist	h	\$ 124.73	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
Brian Ho	Project/Staff Scientist	h	\$ 124.73	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
Sara Arav-Piper	Project/Staff Scientist	h	\$ 124.73	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
Joe Betzler	Project/Staff Scientist	h	\$ 124.73	0	\$ -	0	\$ -	0	\$ -	0	\$ -	12	\$ 1,496.76	12	\$ 1,496.76	12	\$ 1,496.76	
Karsten Kelm	Project Drafting	h	\$ 95.24	0	\$ -	0	\$ -	0	\$ -	0	\$ -	15	\$ 1,870.95	15	\$ 1,870.95	15	\$ 1,870.95	
Budin/Pena/Olsen	Administrative/Clerical	h	\$ 72.83	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
TOTAL				0	\$ -	10	\$ 1,745.10	25	\$ 3,918.85	41	\$ 6,707.90	40	\$ 6,117.00	47	\$ 6,659.31	163	\$ 25,148.16	
																2% Mark-up on Labor		\$ 502.96
TOTAL LABOR																163	\$ 25,651.12	

NON-LABOR TASKS

TRAVEL - DAILY			Task Order Management		General Site-Wide Work Plan & Schedule		HASP		QAPP		FSAP & SOPs		Access & EAs		Total	
Description	Rate (per diem = GSA rates)		Task 2015-130A-01		Task 2015-130B-01		Task 2015-130B-01		Task 2015-130C-01		Task 2015-130D-01		Task 2015-130E-01		Units	Total
Airfare	\$ -		0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
SUBTOTAL			0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Per Diem - Hotel	\$ 120.96	daily rate	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Per Diem - Meals	\$ 64.00	daily rate	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Car Rental (Stand'd SUV)	\$ 53.96	daily rate	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Gas (for rental vehicle)	\$ 3.25	per gallon	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Parking (airport)	\$ -	daily rate	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Miscellaneous	\$ 300.00		0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
SUBTOTAL			0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
TOTAL			0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -

TRAVEL - MILEAGE			Task Order Management		General Site-Wide Work Plan & Schedule		HASP		QAPP		FSAP & SOPs		Access & EAs		Total	
Description	Rate (Effective January 1)	miles/RT	Task 2015-130A-01		Task 2015-130B-01		Task 2015-130B-01		Task 2015-130C-01		Task 2015-130D-01		Task 2015-130E-01		Units	Total Cost
	\$ -	0	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
TOTAL			0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -

EQUIPMENT - CONTRACT RATE			Task Order Management		General Site-Wide Work Plan & Schedule		HASP		QAPP		FSAP & SOPs		Access & EAs		TOTAL	
Description	Rate	Hrs/Unit	Task 2015-130A-01		Task 2015-130B-01		Task 2015-130B-01		Task 2015-130C-01		Task 2015-130D-01		Task 2015-130E-01		Units	Total
	0	0	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
TOTAL			0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -

EQUIPMENT - OTHER			Task Order Management		General Site-Wide Work Plan & Schedule		HASP		QAPP		FSAP & SOPs		Access & EAs		TOTAL	
Description	Rate	Unit	Task 2015-130A-01		Task 2015-130B-01		Task 2015-130B-01		Task 2015-130C-01		Task 2015-130D-01		Task 2015-130E-01		Units	Total
	0	0	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
TOTAL			0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
AECOM SUB-TASK TOTAL			0	\$ -	0	\$ 1,780.00	0	\$ 3,997.23	0	\$ 6,842.06	0	\$ 6,792.50	0	\$ 6,792.50	0	\$ 25,651.12

SUBCONTRACTORS			Task Order Management		General Site-Wide Work Plan & Schedule		HASP		QAPP		FSAP & SOPs		Access & EAs		TOTAL		
Description	Task Order	Rate	Hrs/Unit	Task 2015-130A-01		Task 2015-130B-01		Task 2015-130B-01		Task 2015-130C-01		Task 2015-130D-01		Task 2015-130E-01		Units	Total
	0	0	0	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
TOTAL			0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	
SUB-TASK TOTAL			0	\$ -	0	\$ 1,780.00	0	\$ 3,997.23	0	\$ 6,842.06	0	\$ 6,239.34	0	\$ 6,792.50	0	\$ 25,651.12	