



AECOM  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

805.388.3775 tel  
805.388.3577 fax

December 31, 2015

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: Work Plan (#2015-151) for the Preparation of the Surface Water Investigation Sampling Plan – NERT Remedial Investigation, Downgradient Study Area, Henderson, Nevada**

Dear Mr. Dotchin:

As requested by the Nevada Division of Environmental Protection (NDEP), AECOM is pleased to provide this work plan for preparing the surface water investigation sampling plan (Sampling Plan) in support of the Downgradient Study Area component of the Nevada Environmental Response Trust (NERT) Remedial Investigation in Henderson, Nevada. The objective of the Sampling Plan is to describe the procedures for the collection of surface water level gauging and samples to provide a detailed understanding of perchlorate concentration distribution in the Las Vegas Wash (LVW), to identify loci of perchlorate inputs, and provide data that will help refine the understanding of data gaps. The data gaps identified include average concentrations of perchlorate and surface water flow rates measured synoptically across several cross-sections in the LVW, distribution of perchlorate within the various reaches of the LVW, and an improved understanding of the locations of perchlorate flux to the LVW. Addressing these data gaps will help identify the areas where groundwater discharging to the LVW is contributing perchlorate mass. This will focus future groundwater investigations in the Downgradient Study Area, including where to conduct full-scale geophysical investigations and install groundwater monitoring wells, which will eventually lead to measures to be undertaken to control the flux of perchlorate entering the LVW via groundwater seepage. Data quality objectives will be presented in the sampling plan. This work plan includes a brief summary of the scope of work, a budget estimate, and a schedule to prepare the Sampling Plan.

#### **SCOPE OF WORK**

AECOM will prepare a Sampling Plan to conduct surface water investigation activities in support of the NERT Remedial Investigation. The scope of work to be addressed in the Sampling Plan includes installation of temporary water level meters at up to 14 locations, collection of surface water samples from transects associated with the water level meter locations, and synoptic collection of surface water grab samples from up to 28 locations. The surface water grab samples would provide a snap shot of perchlorate concentrations and create a better measure of average concentrations throughout the reaches of the LVW within the Downgradient Study Area. AECOM anticipates one surface water investigation event to take place in the second quarter of 2016. Dependent upon the results of this event, the Sampling Plan may be revised. One additional sampling event is currently anticipated for the third or fourth quarter of 2016. Following the latter sampling event the scope and frequency for future surface water sampling events, if any are deemed necessary, will be evaluated. All work will be conducted under the supervision of a Nevada Certified Environmental Manager.

It is anticipated that the sampling and analytical activities will be conducted in conformance with the Quality Assurance Project Plan (QAPP) and Field Sampling and Analysis Plan (FSAP) as described

in AECOM Work Plan #2015-130. The QAPP, FSAP, and Health and Safety Plan (HASP) will be updated to specifically address this scope of work.

Under this work plan, Standard Operating Procedures will be developed to specifically address the installation and periodic monitoring of data from the transducers used for water level measurements. The Standard Operating Procedures developed in AECOM Work Plan #2015-150 (Initial Surface Water Sampling Plan – Historic Locations) will be referenced in the Surface Water Investigation Sampling Plan and may be updated pending any site specific concerns that may arise during the Initial Surface Water Sampling.

### Reporting

A Sampling Plan will be prepared that include descriptions of field methods, proposed sampling locations, analytical program, and other procedures to implement the initial surface water investigation. A draft Sampling Plan will be prepared for review by NDEP. Upon receipt of NDEP comments, the Sampling Plan will be submitted to NERT and USEPA for comment. Upon the finalization of the document, the Sampling Plan will be submitted to NDEP, USEPA and the NERT Stakeholders.

Deliverable(s): Surface Water Investigation Sampling Plan (Draft and Final) and SOPs.

### PRELIMINARY SCHEDULE AND ESTIMATED COSTS

The following summarizes the preliminary work plan implementation schedule and estimated cost:


Task Order and Title	Approximate Schedule	Estimated Cost
2015-151-01 – Development of the Surface Water Investigation Sampling Plan (AECOM)	December 2015 – January 2016	\$40,893
<b>Work Plan Total</b>		<b>\$40,893</b>

Scope of work and cost details for this work plan have been uploaded in the NDEP BMI financial database. If this work plan meets with your approval, please send AECOM your authorization at your earliest convenience.

If you have any questions regarding this work plan, 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 – Surface Water Investigation Sampling Plan Cost Estimate