



March 20, 2016

North Carolina Department of Environmental Quality  
Division of Waste Management, Pre-Regulatory Landfill Unit  
1646 Mail Service Center  
Raleigh, North Carolina 27699

Attn: Mr. Zi-Qiang Chen  
Project Manager

Re: **Cost Proposal – Potable Well Sampling  
Bunn Dump  
Howard Tant Road  
Bunn, Franklin County, NC  
ID # NONCD0000312  
Task Order 312WS-2**

Dear Mr. Chen:

URS Corporation – North Carolina (URS) is providing the attached cost proposal for potable well sampling as part of Task Order 312WS-2 for the Bunn Dump (site) located in Bunn, North Carolina. This proposal was developed in accordance with the scope of work requested by the North Carolina Department of Environmental Quality (NCDEQ) Pre-Regulatory Landfill Unit (the Unit) on March 11, 2016.

### **Objective of Work Proposed Herein**

The objectives of the activities proposed herein include sampling of up to 27 potable wells in Bunn, NC. A more detailed description of the proposed activities is provided below.

#### ***Subtask A: Work Plan and Cost Estimate***

This proposal was developed in accordance with the scope of work requested by the Unit via correspondence, dated March 11, 2016. Services will be performed under the terms and conditions of the Pre-Regulatory Landfill State Contract N10001S.

This proposal describes investigation activities associated with known potable wells at/near the site. Investigation activities will be performed in accordance with the URS *Standard Operating Procedures/Quality Assurance Manual* (SOP/QAM), dated June 21, 2010. Cost estimates for the individual tasks covered by this Work Plan are attached. A cost estimate for the solicited analytical services is provided as **Table 1**. Field days are estimated to be 12 hour days

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(including travel time). Office hours include populating sampling data tables, report section detail, figure preparation, and analytical completeness review.

In addition to performing the scope of work described under each subtask heading, the following items will be addressed as part of the Field Services scope of work:

- Well Inventory and Documentation

Well locations will be photographed prior to and/or upon the completion of sampling activities. Only photographs where property was damaged and/or not restored to its' original condition will be provided in the report. Unnamed sampling points will be given unique identifiers (e.g. Well 1, etc.) and well construction information, where provided, will be documented.

- Decontamination

Full decontamination of equipment will be performed prior to use at sampling location or following the exposure of any equipment to groundwater or other media. Sampling equipment will be decontaminated in accordance with the URS SOP/QAM.

- Investigation Derived Waste (IDW)

IDW will not be generated as part of this task order.

- Sample Management and Laboratory Analysis

Water samples will be collected into laboratory-supplied containers and submitted to a NC-certified laboratory for the following analyses:

- a. Volatile organic compounds (VOCs) by Method SW-846 8260B;
- b. 1,4-Dioxane by Method SW-846 8260SIM;
- c. Semi-volatile organic compounds (SVOCs) by Method SW-846 8270;
- d. Metals (antimony, arsenic, beryllium, cadmium, chromium, copper, iron, lead, manganese, nickel, selenium, silver, thallium, and zinc) by Method 200.8;
- e. Mercury by Method 245.1;
- f. Ammonia by Method 350.1; and
- g. Nitrate/sulfate by Method 300.

The analytical methods utilized will have the lowest detection limits possible that are equivalent to or less than the groundwater standards described in 15A NCAC 2L (2L Standards) and applicable federal maximum contaminant limits (MCLs). A copy of Appendix B from the *Guidelines for Addressing Old Landfills & Dumps* (the Guidelines) has been provided to the laboratories during bid solicitation as a reference for required analytical parameters. The laboratory will retain all samples until the Unit approves the final report and URS authorizes disposal of the samples, or until holding time is exceeded.

Additionally,

- (a) one set of VOC trip blanks will be included per sample shipment; and
- (b) one duplicate sample will be collected per day and analyzed for all analytes.

Samples collected in the field will be transported to the laboratory as expeditiously as possible with an accompanying chain-of-custody record. Samples will be requested to be analyzed on a standard (10-day) turnaround time. Analytical packages will be submitted to NCDEQ upon URS' review of laboratory report completeness (e.g., holding times were met, identification of blank contamination, and other quality issues identified in the case narrative of the laboratory report). **Table 1** summarizes the estimated quantity of samples and sample methodology for performing the proposed scope of work.

#### ***Subtask B: Potable Well Sampling***

As part of this subtask, up to 27 potable wells located in Bunn, NC will be sampled, as shown on **Attachment 1**. The Unit will provide the access permission forms to URS ahead of time and notify the property owners of the field sampling schedule. The approximate locations of the potable wells are shown on the attached **Figure 1**. The potable wells, when possible, will be gauged for depth to water with an electronic water level meter. Parameters such as pH, temperature, conductivity, and turbidity, will be recorded once parameters have stabilized at the sampling location. One sample will be collected from each potable well and analyzed for VOCs, 1,4-dioxane, SVOCs, metals, and general chemistry parameters, as previously discussed. Samples will be collected from as close to the well head as possible.

#### ***Subtask C: Project Management***

Correspondence, technical support during field activities, invoicing, subcontracting, accounting activities, and the development of site-specific field sampling forms will be performed as part of the Project Management subtask.

### ***Subtask D: Report Compilation***

Upon receipt of analytical data from the laboratory, a completeness check of the data will be performed. One chain of custody will be used per day to consolidate and condense quality assurance and quality control data. The laboratory data and completeness check will then be submitted to the Unit.

A “Potable Water Sampling and Analysis” report documenting the sampling event will be prepared by URS. The report will include a summary of the sampling methodology and procedures, well construction information (where provided), field data, analytical data summary tables, and a copy of the laboratory report. A Site map showing the sample/well locations and any exceedances to applicable standards will also be provided.

### **ASSUMPTIONS**

It is assumed that the Unit has obtained permission to sample any/all of the proposed well locations, except where noted, included in Subtask B. Prior to mobilization to the site, it is assumed that the Unit will provide URS with a copy of the permission forms. Once on-site, the sampling team will identify themselves to the property owners and commence sampling activities. If the property owner is not onsite, then URS will document the absence of the property owner and proceed with the sampling activities.

### **SCHEDULE**

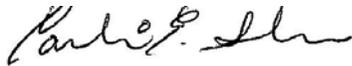
URS anticipates mobilizing the staff to the field within three weeks of authorization to proceed. **Table 2** is a proposed schedule for field activities. It is anticipated that laboratory reports will be available within three to four weeks following the completion of field activities. Laboratory results will be submitted to the Unit Project Manager following the completeness check by the URS chemist. Following Unit Project Manager approval, a draft report summarizing field activities and results will be submitted to NCDEQ. The schedule is dependent on the mobilization date, specific weather conditions, receipt of the laboratory data, and the data reduction effort.

### **TERMS AND CONDITIONS**

Our services will be provided under the terms and conditions of the Pre-Regulatory Landfill Contract N10001S in accordance with the scope and estimates provided in the attached worksheet form.

If this proposal meets your needs, please acknowledge with a written notice to proceed. If you have any questions or require additional information, please do not hesitate to contact Carlin Slusher at 919-461-1341 or Margaret Ness at 919-461-1423.

Sincerely,  
**URS CORPORATION - NORTH CAROLINA**

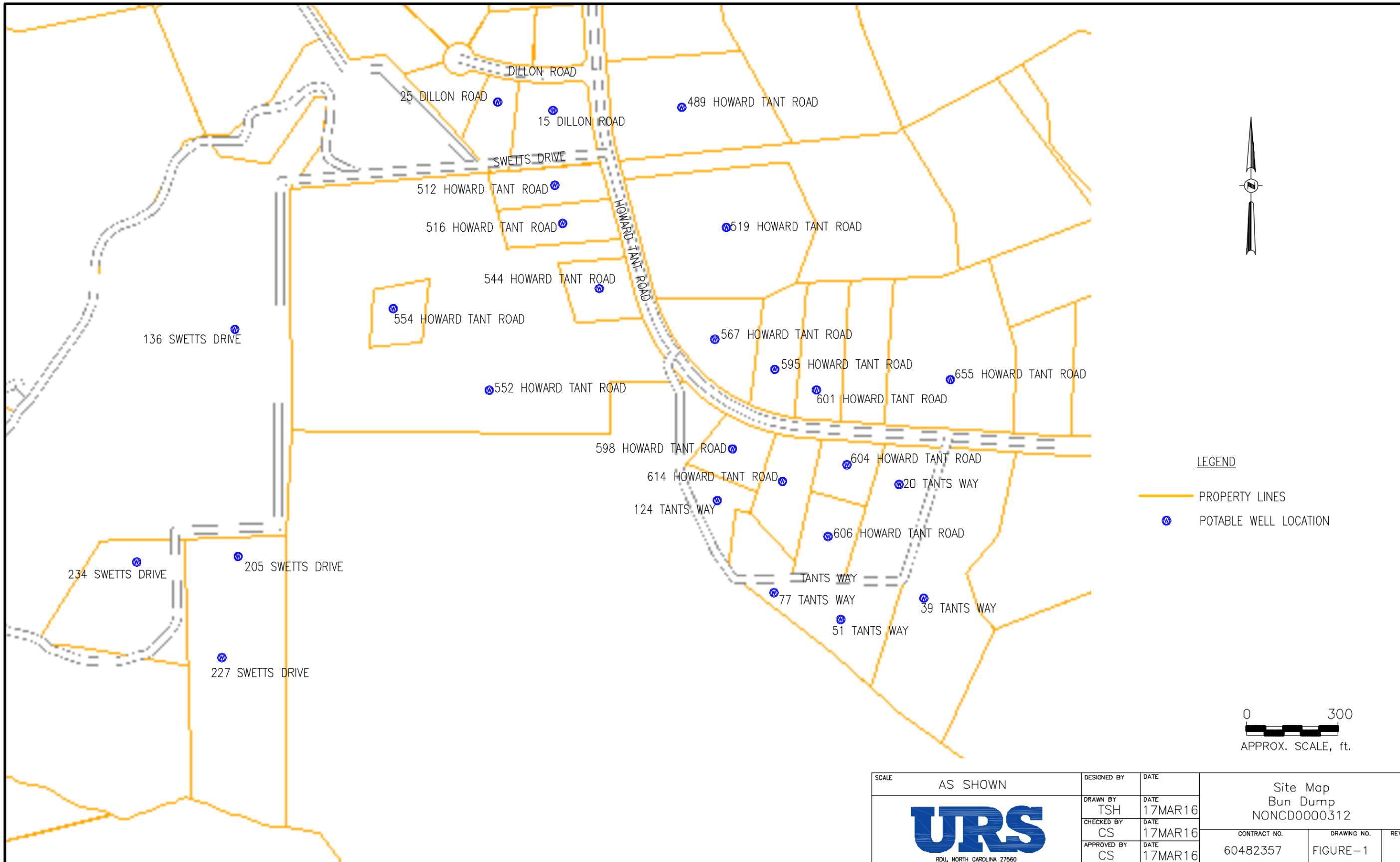


Carlin Slusher  
Project Manager



Brett Berra, PE  
Vice President

Attachments:    URS Breakdown of Cost  
                      Figure 1 – Site Map  
                      Table 1 – Analytical Cost Summary and Assumptions  
                      Table 2 – Field Activities Schedule and Proposed Equipment List  
                      Attachment 1 – Bunn Dump Potable Well Location Address



**LEGEND**  
 — PROPERTY LINES  
 (W) POTABLE WELL LOCATION

0 300  
 APPROX. SCALE, ft.

SCALE	AS SHOWN	DESIGNED BY	DATE	Site Map Bun Dump NONCD0000312			
 <small>RDU, NORTH CAROLINA 27560</small>	DRAWN BY	TSH	DATE				17MAR16
	CHECKED BY	CS	DATE				17MAR16
	APPROVED BY	CS	DATE				17MAR16
		CONTRACT NO.	DRAWING NO.	REV.			
		60482357	FIGURE-1				