City of Santa Fe, New Mexico

200 Lincoln Avenue, P.O. Box 909, Santa Fe, N.M. 87504-0909
www.santafenm.gov

Javier M. Gonzales, Mayor

Councilors:
Peter N. Ives, Mayor Pro Tem, Dist. 2
Patti J. Bushee, Dist. 1
Signe I. Lindell, Dist. 1
Joseph M. Maestas, Dist. 2
Carmichael A. Dominguez, Dist. 3
Christopher M. Rivera, Dist. 3
Ronald S. Trujillo, Dist. 4
Bill Dimas, Dist. 4

October 3, 2014

Jerry Shoeppner, Chief
Ground Water Quality Bureau
New Mexico Environment Department
1190 Saint Francis Drive, P.O Box 5469
Santa Fe, New Mexico 87502-5469

RE: City of Santa Fe's Proposal for Amendment of the Stage 1 Abatement Plan Proposal for Ortiz Landfill

I am in receipt of your letter regarding a Notice of Deficiency (NOD), Stage 1 Abatement Plan, Former Ortiz Park Landfill, dated November 15, 2013, requesting an amended Stage 1 Abatement Plan (S1AP) for the Ortiz Park Landfill Site. We appreciate the efforts of you and your staff in working with the City to address further investigation of this site. It is my understanding that our respective departments had a very productive meeting on October 3, 2013, and on several subsequent dates, to discuss the appropriate path forward on further investigation of this site pursuant to the ground water protection regulations at 20.6.2.4000 through 20.6.2.4115 NMAC.

The City of Santa Fe is proposing to implement an approach utilizing multiple lines of evidence in order to address NMED concerns that the nature and extent of the landfill waste are not adequately defined, as stated in the November 15th NOD. This phased approach is proposed to enable the City's environmental and water resources staff to develop an updated conceptual site model (CSM) that better defines the landfill extent and thickness (Phase 1) and improved characterization of waste materials and contaminant migration pathways (Phase 2). The first phase will consist of non-intrusive methods comprised of historical areal photographic analysis, field reconnaissance, and surface geophysics. The appropriate ensemble of geophysical methods will be determined after the technical team reviews existing information in the current CSM. The data review will establish an estimation of the investigation area, waste material depths and types, lithology, soil water content, and cultural features/sources of interference in the area. It is expected that an electromagnetic conductivity (EM) survey will be implemented first to determine the general extents and type of buried waste. EM is effective because landfill materials are typically more electrically conductive and heterogeneous than surrounding soils which produces measurable variances.

Upon finalization of the EM results, higher resolution geophysical methods such as resistivity, magnetics, seismic, and radar will likely be deployed in some combination to better refine the outer-boundary and range of thicknesses of the landfill, and potentially shed insights on locations of metallic anomalies, which could indicate drums or other large metal wastes of concern. These methods may also provide evidence of where zones of leachate may exist beneath the landfill and possible estimates of the soil cover thickness. The geophysical examination is expected to be completed by January 1, 2015. These results will be provided to NMED as they become available.

Once completed, the City of Santa Fe will evaluate the results of the geophysical examination and additional investigations performed by the City with regard to delineation of the boundaries, thickness and composition of the waste material at the former landfill. This evaluation will be used to initiate a second phase of landfill characterization projected to be implemented as part of a modified S1APduring Calendar Year 2015.This characterization will address identified data gaps and/or define contaminant pathways and may consist of soil borings, trenching, soil gas monitoring, and monitoring well installation, as needed to complete a detailed CSM to evaluate potential threats of contamination to down-gradient receptors such as City of Santa Fe production wells. Prior to implementing the field investigation, the City of Santa Fe will inform NMED on the proposed geophysical methods to be utilized in this phase and following the field data collection and analysis, the results will be integrated into an updated CSM and reported in an Addendum to the Abatement Plan Report (dated 08/05/2010).

As the City's implements and completes its ongoing geophysical and site investigations, it shall submit a modification to the Amended S1AP dated March 1, 2010. This modified S1AP will include all the elements identified in the aforementioned Notice of Deficiency dated November 15, 2013. These elements include the following:

1. The report did not provide a plan for maintenance of a two foot cover.
2. The report did not adequately define the nature and extent of landfill waste.
3. The report did not adequately define contaminant concentrations in the vadose zone below the waste.
4. The report did not adequately define potential contaminant impacts to ground water.
5. The report did not provide a long term monitoring program for the collection and analysis of soil vapor and ground water samples.
6. The report did not include a Quality Assurance Plan, a Health and Safety Plan or a schedule for implementation.

To the extent that many of these issues have been partially addressed in previous Abatement Plan proposals and reports, the modified abatement plan will address full completion and detailing of these elements, as appropriate to address NMED's concerns. The City proposes to submit this modified Stage 1 Abatement Plan by May 1, 2015.

I hope that this proposal for the implementation and completion of an initial geophysical evaluation by January 1, 2015, and submittal of modified S1AP by May 1, 2015, meet with your approval. If you have any questions regarding the City's proposed actions and completion dates, please feel free to contact Alex Puglisi at 955-4232. Thank you.

Sincerely,

Nick Schiavo
Public Utilities Department and Water Resources Division Director

Cc: Justin Ball, New Mexico Environment Department, Ground Water Quality Bureau
Alex Puglisi, Source of Supply Manager/Environmental Specialist, City of Santa Fe
Lawrence Garcia, Interim Director, Environmental Services Division, City of Santa Fe
William Schneider, Water Resources Coordinator, City of Santa Fe