



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch

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Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

June 30, 2017

VIA E-MAIL AND REGULAR MAIL

Georgia Department of Transportation
c/o T. Dale Brantley, State Maintenance Engineer
One Georgia Center
600 West Peachtree Street, NW10th Floor
Atlanta, Georgia 30308

Re: January 2017 Voluntary Remediation Program Application
December 2015 Surface Water & Annual Groundwater Sampling Report, February 2016
December 2016 Surface Water & Annual Groundwater Sampling Report and Full-Scale
Groundwater ISCO Injection and Performance Monitoring Report, February 2017
Former GDOT District 4 Main HQ, HSI# 10025
213 Walker Street, Douglas, Coffee County, Georgia
Tax Parcel D011 220

Dear Mr. Brantley:

The Georgia Environmental Protection Division (EPD) has reviewed the Voluntary Investigation and Remediation Plan (VIRP) dated January 16, 2017 submitted by AECOM for the subject tax parcel (the "Property") pursuant to the Georgia Voluntary Remediation Program Act (the Act) O.C.G.A. 12-8-100 *et. seq.* As part of the VIRP review, EPD also reviewed the above referenced Annual Surface Water and Groundwater Sampling Reports (Annual Reports) and offers the following comments, which should be addressed in accordance with the Act:

VRP Application

1. Item#2 of the Application Form and Checklist (AFC) requires the submittal a warranty deed for the qualifying Property. The chain of title and legal description included on the GeoSurvey, Ltd. Property Survey that is provided in Appendix A of the VIRP is not the equivalent of a warranty deed. Therefore, please submit a warranty deed that has been recorded in the Coffee County deed records for the qualifying Property in the first VRP semiannual progress report.
2. The Property survey provided in Appendix A of the VIRP depicts the boundary of the qualifying Property but fails to include all abutting property boundaries and tax parcel identification numbers as required by Item# 3 of the AFC. Please submit a tax plat or other figure that includes the qualifying Property boundary, abutting properties, and tax parcel identification numbers in the first VRP semiannual progress report. Figure 2 of the VIRP may be modified to satisfy this condition.

3. The approved Type 1 RRS in Tables 1 and 2 of the VIRP and Table 6 of the 2016 Annual Report are acceptable for use as the Type 1 delineation standards for the Property. EPD concurs with the discussions regarding the completion of the lateral and vertical extents of contamination presented in Section 5.6 of the VIRP and Section 6.4 of the 2016 Annual Report.
4. The milestone schedule provided in Appendix B of the VIRP should be revised to include the four generic milestone events required by Item #s 5.a. through 5.b. of the AFC, which requires the submittal semiannual progress reports and the final CSR. The revised milestone schedule should be updated as corrective action progresses at the qualifying Property (ies) and should be included in all future periodic reports.
5. Section 3.3 of the VIRP states that the Sharma Hospitality Property will remain in the HSRA Program. According to the 2016 Annual Report, chemicals of concern (COC) are present above the cleanup criteria in the groundwater at monitoring locations GW-11I and GW-18S, which are located on the Sharma Hospitality Property. Please note that while GDOT's initial plans for corrective action do not currently incorporate the Sharma Hospitality Property, the final remediation plan that is due within 30-months of enrollment may require corrective actions necessary to bring the Sharma Hospitality Property into compliance with one or more applicable risk reduction standards (RRS) pursuant to Section 391-3-19-.07 of the Rules for Hazardous Site Response (Rules).
6. Section 7.1 of the VIRP proposes the investigation of the surface water pathway in the eastern drainage ditch to determine if surface water has been impacted by the discharge of chemicals of concern from the Property above the Georgia In-Stream Water Quality Standards (GISWQS). EPD does not agree with GDOT's assessment of incomplete pathways with respect to surface water and sediment, as surface water impacts have been documented in excess of GISWQS in the eastern drainage ditch, and historic and/or recent sediments samples were not submitted or referenced in support of the statement that sediment in the eastern drainage ditch has not been impacted. As such, EPD considers the groundwater to surface water exposure pathway to be potentially complete and will reevaluate the exposure pathway based on the results of additional surface water/ sediment investigations. Please ensure that exposure pathway assessments are updated in the periodic progress reports, and that they address the following comments/recommendations:
 - a. GDOT proposed a surface water investigation in Section 7.1 of the VIRP. Please provide additional design details for the surface water investigation in a *Surface Water Investigation Plan* in the first VRP semiannual progress report, including: gauging locations, methods used for determining average annual ditch flow conditions from groundwater discharging to the ditch, proposed clean-up standards and supporting justification for every site specific criterion, etc.
 - b. Due to the detection of PAHs, benz(a)anthracene (0.12 ug/L) and chrysene (0.22 ug/L), above their respective GISWQSs at surface water sample SW- 4 and multiple PAHs at downgradient surface water location SW-5, EPD recommends that GDOT include a surface water sample down gradient of SW-5 as part of the additional surface water investigation/assessment proposed in the VIRP Application.

7. Section 7.2 of the VIRP proposes 2 years of groundwater monitoring to confirm the performance of the recent full-scale ISCO groundwater treatment and obtain the necessary data to properly model the fate and transport of residual impacts, but does not specify a sampling frequency. While groundwater and surface water sampling have been conducted on an annual basis for a number of years, EPD recommends that GDOT sample groundwater on a quarterly basis for at least one year following enrollment and semiannually thereafter to measure the effectiveness of the ISCO treatments.
8. The first VRP semiannual progress report should clarify the VRP remediation goals for groundwater at the qualifying Property pursuant to Section 12-8-108 of the Act and address the following:
 - a. Section 7.4 of the VIRP indicated that the Bioscreen Fate and Transport model would be used to develop revised RRS. Please note that for certification to site specific RRS, a point of exposure (POE) and associated point of demonstration (POD) should be established for site-specific cleanup standards for groundwater pursuant to Sections 12-8-108(3) and 12-8-108(4) of the Act. The POD should demonstrate that groundwater concentrations are protective of the down gradient POE.
 - b. 1-methylnaphthalene and 2-methylnaphthalene are not regulated substances and should be removed from text, tables, and figures of future reports. Please also note that the Type 1 RRS for phenanthrene is the method detection limit.
9. Section 7.5 of the VIRP states that revised RRS will be developed and presented in the final VRP CSR. EPD requests that GDOT finalize the approval of all RRS prior to the submittal of the final remediation plan.
10. In accordance with the Property's June 15, 2017 VRP approval letter, GDOT has until December 29, 2017 to include all known impacted properties as qualifying properties under the Act or notify EPD that the known impacted property will not be included in the VRP. Section 3.3 of the VIRP states that a separate VRP application is being prepared for the Lott Property (Tax Parcel D010 013). The Lott Property is located down gradient of the qualifying Property at 1201 North Peterson Avenue, Douglas, Georgia, 31533. Please note that a separate VRP application *may not be required* for the Lott Property should GDOT choose to update the current application to add the Lott Property as a qualifying property in the VRP.
11. Figure 14 of the VIRP shows the layout of the Property prior to the 2003-2004 excavation activities. Please include the former dug creosote well on the Property in future source area figures.

Annual Reports

12. Section 6.3 of the 2016 Annual Report provides a discussion of RCRA metals and hexavalent chromium performance monitoring results in April, May, and October 2016 following the ISCO injections. Metals analysis was performed to monitor for potential mobilization associated with the ISCO injections. Based on a review of Table 6 of the 2016 Annual Report, EPD noted that lead was detected above the Type I RRS (15 ug/l) at GW-24I (47.8 ug/L), GW-28I (51.8 ug/L), GW-29S (397 ug/L), and GW-31I (16.2ug/L). Metals analysis

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was not included in the December 2016 annual groundwater sampling event. GDOT should continue sampling for RCRA metals at these monitoring wells until the concentrations comply with the designated RRS or VRP standards.

13. Table 1 of the Annual Reports indicate that the monitoring wells installed in 2015 have not been surveyed, and approximate field survey TOC elevations were presented in the 2016 Report. The 2015 series monitoring wells should be surveyed prior to the next scheduled sampling event and the potentiometric map should be revised accordingly. A cross section that intersects the newly installed wells should be submitted, as the existing cross sections do not intersect many of the ISCO treatment area and performance monitoring wells.
14. Tables 1 through Table 6 of the ISOTEC ISCO Progress Report (Appendix A of the 2016 Annual Report) denote continuous surfacing of the oxidant throughout the injection events. According to the ISOTEC Report, the injection process stopped and no further injections were attempted at that particular injection screen. However, there was no discussion of the surfacing events with respect to the overall effectiveness of the ISCO treatment program. Please provide a discussion in the next progress report and include a figure that denotes the surfacing locations of the oxidant.

GDOT must address these comments to EPD's satisfaction in order to demonstrate compliance with the provisions, purposes, standards and policies of the Act. EPD may, at its sole discretion, review and comment on documents submitted by GDOT. However, failure of EPD to respond to a submittal within any timeframe does not relieve GDOT from complying with the provisions, purposes, standards and policies of the Act.

Please address the comments listed above in the first VRP semiannual progress report, or as otherwise appropriate, which should be submitted to EPD by December 29, 2017. If you have any questions regarding this matter, please contact Ms. Antonia Beavers of the Response and Remediation Program at 404/657-0487.

Sincerely,



Jason Metzger
Program Manager
Response and Remediation Program

c: GDOT, William Wright (Via email)
AECOM, Felix Nchako (Via email)

File: HSI Site 10025, ID No. 146 0016

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