Santa Clara Valley Water District

MEMORANDUM

FC 14 (01-02-07)

TO: Youhan Lee

FROM: Uday V. Mandlekar

SUBJECT: Phase II Hazardous Substance Liability Assessment (HSLA) Soil and Groundwater Report, Lower Calera Flood Protection Project, Milpitas, California (Project No. 40174005)

DATE: April 6, 2018

The Phase II Hazardous Substance Liability Assessment (HSLA) performed by Northgate Environmental Management, Inc. (Northgate) for the Santa Clara Valley Water District (the District) at the Lower Calera Creek Flood Protection Project in Milpitas, California (the Site), is completed and enclosed for your files.

Detailed findings, and conclusions from the subject Limited Phase II HSLA are included in the enclosed report.

PURPOSE AND SCOPE OF THE PHASE II HSLA

The purpose of the Phase II HSLA was to evaluate shallow soil and groundwater quality in the proposed excavation areas to develop recommendations for beneficial reuse and/or landfill disposal of excavated soil, management of groundwater that may be produced during construction dewatering, and worker health and safety. The scope of work for this investigation included the following services:

1. Preparing a Site-Specific Health and Safety Plan (HASP);
2. Collecting 20 representative soil samples from the top 15 feet of soil encountered in five borings advanced within the proposed construction area;
3. Analyzing each of the soil samples for total petroleum hydrocarbons as gasoline (TPH-g), diesel (TPH-d), and oil (TPH-o); volatile organic compounds (VOCs); organochlorine pesticides, polychlorinated biphenyls; and 17 metals;
4. Selectively analyzing 10 of the soil samples for semi-volatile organic compounds (SVOCs) and asbestos;
5. Analyzing three of the soil samples for soluble (leachable) metals;
6. Collecting groundwater samples from two of the borings and analyzing the samples for TPH-g, TPH-d, TPH-o, VOCs, and total and dissolved metals;
7. Collecting one sample of the drummed soil cuttings for disposal characterization; and
8. Preparing this report.

PROJECT BACKGROUND

The project consists of excavating soil to depths of 3 to 10 feet below the top of the existing creek levees to widen the channel and install a flood wall that will be supported on spread footings. Near bridge crossings, the bottom of the footing will extend to a depth of about 4-5 feet below the invert

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elevation. The Site location is shown on Figure 1 of the enclosed Phase II HSLA Report; the Figure was provided by Cal Engineering and Geology (CE&G), the District's geotechnical engineer for the project.

CONCLUSIONS

Soil Management

Testing performed during this investigation indicates the following:

1. All the soil anticipated to be excavated from the areas of the Lower Calera Creek flood protection project meets the Regional Water Quality Control Board (Water Board) Environmental Screening Levels (ESLs) for reuse in commercial (non-residential) land use settings.
2. Except for soil represented by the 5-foot bgs sample at boring CEG2 (detected PCBs above the Tier 1 residential ESLs) and the 1-foot samples at borings CEG3, CEG4, and CEG5 (detected nickel above the Tier 1 ESL for construction worker exposure), all soil at the Site meets Water Board ESLs for unrestricted on-Site or off-Site reuse as fill material. Reuse of the material should be in accordance with comparison to Water Board ESLs.
3. All soil anticipated to be excavated during the Lower Calera Creek flood protection project is suitable for off-Site disposal as a non-hazardous waste at most Class II or Class III (non-hazardous waste) landfills.

Groundwater Management

Groundwater likely to be produced during construction dewatering at the Site meets regulatory criteria for general discharge under the Water Board Construction General Permit.

Health and Safety

None of the soil samples analyzed during the investigation contain chemical constituents above Water Board ESLs for construction worker exposure except for arsenic and nickel. However, the reported concentrations of arsenic are within the range of naturally occurring background levels in soil throughout the San Francisco Bay Area. As such, exposure to arsenic and nickel in soil does not represent a higher health risk than excavating soil at other areas with similar rock materials.

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RECOMMENDATIONS

Soil Management

Northgate recommends that all excess soil generated during construction requiring removal from the Site be reused at off-Site commercial/industrial (non-residential or sensitive habitat) sites or disposed of as non-hazardous waste at a properly licensed Class II or Class III landfill.

Groundwater Management

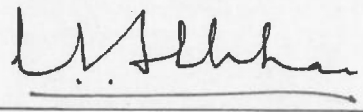
Northgate recommends that groundwater produced during construction dewatering be discharged as a non-storm water discharge in accordance with the RWQCB Construction General Permit.

Health and Safety

Northgate recommends that the chemical test results from soil and groundwater samples analyzed during this investigation be provided to contractors to assist them in developing an appropriate health and safety plan for their work.

Northgate recommends that good dust control practices be implemented during construction activities at the Site.

Should you have any questions regarding the HSLA, please call me at extension 2732.



Uday V. Mandlekar, P.E.
Senior Engineer, Construction Services Unit

Enclosure: Phase II Hazardous Substance Liability Assessment (HSLA) Report at the Lower Calera Creek Flood Protection Project in Milpitas, California, prepared by Northgate Environmental Management, Inc., dated March 22, 2018.

cc: T. Bramer, K. Neuman, B. Magleby, R. Springer, S. Turner, J. Aranda, N. Nguyen, K. Oven.
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