Janna Scott

From: Guerra, Erika (San Ramon) USA <Erika.Guerra@LehighHanson.com>
Sent: Friday, July 23, 2021 6:59 PM
To: Janna Scott
Cc: Robert Salisbury (Robert.Salisbury@pln.sccgov.org); Sandhir, Manira; Pianca, Elizabeth; Claudia Garcia; pat.angell; ngranquist@downeybrand.com; Dave Brown; Matthew Fagundes
Subject: PCRP: Response to Data requests: #2, 2a & 3

Jana,

As promised, Lehigh submits on a timely manner, the complete responses to Data Requests #2, #2a & #3 made by ESA for the SEIR of PCRP. All the documentation can be found by using this link https://www.dropbox.com/sh/u6163tai3f1lv57/AAB-9kFaDwExX3M74Ef0Ifuea?dl=0. Please confirm that you are able to access it.

This submittal contains all the information requested and no additional time will be necessary to complete the requests as previously mentioned. Please review and let us know if there are any questions.

Best regards,

Erika

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Environmental and Land Resources Director

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RFI # 3 Request	Commenting Agency	Comment
1&2	CDFW	The Department of Planning and Development's March 5, 2018 incomplete letter included Comment No. 24 from CDFW re geotechnical inputs to better understand bed, bank, and adjacent slopes. Lehigh's November 15, 2018 response letter incl prepared by Golder Associates that relied on field engineering. As stated in the County's February 14, 2019 incomplete let to solicit additional geologic and geotechnical data to reduce the uncertainties in the channel gradient design envelope anc geological and geotechnical conditions throughout the project. The County's February 14, 2019 incomplete letter reiteratec thorough engineering geologic and geotechnical report based on detailed engineering-geologic mapping, subsurface inves Lehigh's August 7, 2019 response letter stated that Lehigh would provide a technical memorandum prepared by Golder As However, the October 31, 2019 Technical Memorandum prepared by Golder Associates focuses on identifying project area geotechnical exploration and does not provide thorough engineering geologic and geotechnical analysis as requested by C The following comments were provided by CDFW, referencing the comments previously provided to Lehigh on February 1· 1. Comment No. 24 – Among other items, the response to this comment addresses construction of a channel in the Rock F removing a considerable amount of mining waste to reestablish the channel along its historic path. Golder's (October 31, 2 shows that the historical channel of Permanente Creek once extended well beneath mining waste comprising the Rock Pil Golder's Figure 9). Golder's cross section in their Figure 11 further illustrates this, and shows that the restored channel will higher bedrock compared to the historical path of the stream. The cross section appears to show the restored channel will However, this is inconsistent with the approach being proposed, which is to field engineer the channel no deeper than cont not to excavate into bedrock. The proposed constructed channel will be shorter than the premining- disturbance channel, a uncertain bedrock conditions. Both of these have the likely effect of imposing the steep longitudinal gradient that threatens channel through this reach. Reasons given to not locate the channel along its historical path include: (1) a large amount of waste will be needed to access the historical pathway; and (2) there may be possible effects on mining infrastructure (i.e., slope) because the slope will have to be flattened. Golder's recommended approach appears inconsistent with the amend states "Remove mining-related fill and sediments in the bed, banks and adjacent slopes." Also, Golder does not provide an analysis of the slope to demonstrate that there would be any effect on the mining infrastr does not appear to extend beneath the road. The Amended Consent Decree, page 12, states "Defendants shall also remo pile and associated rock pile infrastructure, all culverts, riprap, and the road on top of the creek (concrete ramp), and set b room for a natural streambed and banks." Removal of the entire rock pile should be further analyzed. 2. Comment No. 24 – One of the points made in the original comment is that site-specific geotechnical and engineering ge completed to support final design concepts, and it cautions against an overreliance on a field engineering approach. As Go response indicates, field engineering is an important part of a construction project. However, the response further indicates project and that field engineering is all that is warranted. CDFW disagrees. This field engineering approach may threaten t the restoration effort, such as the creek reach within the rock pile and material removal area. For example, the current plar portion of the rock pile, specifically removal of a portion of the toe slope. CDFW strongly advises that a thorough stability a rock pile area given that it was dumped at the angle of repose and that the current restoration plan calls for partial removal does not recommend excavation into and removal of the toe of such a large, dumped slopewithout completing a study with thorough slope stability study should be conducted in critical areas, such as the rock pile.
3	RWQCB	Comments on the proposed "Observational Method" (Design-Build) proposal in the Technical Memorandum, Geologic and Permanente Creek. Lehigh Hanson Permanente Quarry (Golder, October 31, 2019) and the Permanente Creek Restoratio Design Basis Technical Memorandum (Waterways Consulting, Inc., October 31, 2019), Appendix C, Seismic Refraction Su (Norcal Geophysical Consultants, May 22, 2014). In Sections 6.2.1 and 6.3.1 of the Technical Memorandum, Golder provides a rationale for not conducting additional field in bedrock in the Material Removal Area and the Rock Pile Area prior to implementing the creek restoration project. Golder s from borings and seismic studies are sufficient to develop design guidelines for field fitting the restoration design in respon bedrock in those two Areas. Conclusions about the sufficiency of existing data are based, in part, on boring logs from borir are provided in Appendix B to the Technical Memorandum, and a Seismic Refraction Survey conducted in 2014, which is i Permanente Creek Restoration Plan, 90% Level Submittal, Design Basis Technical Memorandum. It appears that the Permanente Creek Restoration Plan includes restoring more natural grades to several reaches of Perm overburden/mining waste down to bedrock where possible, or native sediments when excavation to bedrock is not feasible have included drilling about 10 soil borings and performing a seismic refraction analysis to identify bedrock depths. In addi information derived from other site projects, aerial photos, and historical topographic maps were combined to produce rest infeasible to completely map channel bedrock to develop 100% restoration designs, 90% designs have been developed w probable bedrock depths, based on the currently available information. Golder recommends that the Permanente Creek R implemented using the "Observational Method" (also called Design-Build); data gaps are to be filled by observations during the restoration design is to be modified in the field, during construction. In general, Water Board staff consider this to be a implementing the Permanente Creek Restoration Plan. However, staff requests that the following conditions be incorporate the Observational Method during creek restoration: i. Design-Build field decisions must be made by an on-site licensed geologist or engineer (someone who is not just qualifie accountable); ii. Probable alternative design options should be proposed and approved prior to construction. Please have the design tea protocol that demonstrates the alternatives that may be employed to address all project objectives and concerns. iii. Please also have the design team develop a flow chart of potential problems, factors to consider, and acceptable option encountered during construction. As an example of situations in which a flow chart would be valuable, information provided on page 17 of the Technical Mer potential problem of not encountering bedrock where it was anticipated. Since overburden/mining waste must be excavate develop protocols to identify if the sediment at grade and below it is native material or overburden/mining waste. Per the W flow chart for this scenario and single objective might look something like this: i. State the potential problem encountered (soil at grade instead of bedrock); ii. List the factors that must be considered to meet project objectives and concerns (i.e., the necessity of distinguishing bet waste to determine when materials must be excavated and removed); iii. List the protocol for making that determination (e.g., soil borings, the minimum number of borings per area to be charact physical characterizations necessary to distinguish native material from waste materials); and then iv. List the appropriate options for achieving restoration project objectives, based on results of the characterization protoco be left in place, while overburden/waste materials must be tested for CAM17 metals or excavated to bedrock and backfille clean material). The creation of such decision flow paths with protocols and options has been requested for all potential problems that coul as a consequence of the existing data gaps. The protocols and options should address attaining all of the restoration proje waste/overburden from the creek, ensuring bank stability, providing riparian habitat along restored channel reaches).
4	RWQCB	Protocols are necessary to differentiate between native soils and overburden/mining wastes. The Technical Memorandum project design team will differentiate between native soils and overburden/mining waste. Developing a protocol to make thi ensuring that overburden/mining wastes are removed from the creek, which is a key element to the restoration project and wildlife. Distinguishing between native materials and wastes by visual observation may be difficult, since the overburden m geologic units as the native materials and the size distribution of both materials are similar, according to descriptions of the Surficial Geologic Units, of the Technical Memorandum.
		Please compare the geotechnical recommendations for rock and fill/soil slopes in the reclamation plans and the creek rest plans appear to require that overburden slopes have a slope no steeper than 3:1. However, the creek restoration plan app have slopes of 2:1 (e.g., pages 4 – 5 of the Technical Memorandum). Please confirm that acceptable slopes for overburde in the creek restoration plan are consistent.

5	RWQCB	
6	RWQCB	Please clarify the nature of materials in the channel west of Reach 18. The project documents state that the areas west of and that the channel is a “jammed conveyance” adjacent to the Yeager Yard slope. However, the Yeager Yard slope is ero the overburden materials lack cohesion and are not compacted and, therefore, erosion of other West Materials Storage Ar likely. Due to the inputs to the creek channel from the Yeager Yard slope and WMSA slopes, Water Board staff is not yet c Memorandum’s assertion that the area west of Reach 18 only receives native soils from the south. Please develop and im assessing the actual source(s) of materials in areas of the creek channel that are said to be depositional in the Technical M
7	RWQCB	Please develop guidelines for silt fencing in coordination with the U.S. Fish and Wildlife Service (USFWS). Text in Section Creek Restoration Plan, 90% Level Submittal, Design Basis Technical Memorandum (Waterways Consulting, Inc., Octobe “Silt fence will be installed around staging areas and along the creek-side edge of the proposed floodplain bench excavatic Widening Area. Silt fence will be in place to trap mobilized sediment in case there is a rain event during construction. The barrier to any loose material during floodplain bench excavation. Where substrate is too rocky to install silt fence, fiber role Please coordinate with USFWS staff in developing designs for silt fence installation around the work zone. In recent years, situations in which silt fencing used as exclusion fencing has inadvertently resulted in mortalities of California red-legged fr project downstream of the Lehigh Hanson quarry, CRLF were desiccated when silt fencing prevented them from reaching learned that CRLF will attempt to pass through silt fencing that they can see through, so mesh materials that are visually tr be used in silt fencing when CRLF may be present.
8	RWQCB	Please develop protocols for characterizing selenium levels in sediments in ponds. Section 2.7.7 of the Permanente Creek discussion of removing sediment from Pond 13. “Fine sediment impounded within the pond will be removed so the materia downstream after the restoration project is implemented. The limits and thickness of accumulated sediment have not been sediment occurring below elevation 805.0 will be removed. Removal of fine sediment will occur until alluvial material (i.e., g encountered.” Selenium levels up to 20 mg/kg have been measured in sediments in Pond 13. Based on toxicity data for ar bioavailability of selenium in sediment, concentrations greater than 4 mg/kg of selenium may be deleterious to CRLF and c excavating sediments from Pond 13, a sampling and analysis plan for selenium in sediments in Pond 13 should be develo County and resource agencies for review. In addition, the project design team should develop a protocol for appropriate dis soils and sediments as a function of selenium concentrations and on the likely bioavailability of selenium under the various sediment.
9	RWQCB	Please develop designs that allow for the continued operation of Final Treatment System (FTS)-Upper. Section 2.7.9 of the Restoration Plan discusses restoration implementation at the Material Removal Area (Reaches 17 & 18, Sheets C23-C26) states: “An alternative concept design to that shown on Sheets C23 and C24 has been prepared should the regulatory age that the FTS-Upper should stay in place to treat water generated from the