

From: Wines, Brian@Waterboards
To: Claudia Garcia; Whalin, Lindsay@Waterboards; McCann, Lisa@Waterboards; Madigan, John@Waterboards
Cc: Pat Angell; Salisbury, Robert; Eastwood, Rob; Sandhir, Manira
Subject: RE: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project
Date: Monday, December 9, 2019 2:44:00 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Hi Claudia

Here are our comments.

Comment 1.

Comments on the proposed “Observational Method” (Design-Build) proposal in the Technical Memorandum, *Geologic and Geomorphic Assessment of Permanente Creek. Lehigh Hanson Permanente Quarry (Golder, October 31, 2019) and the Permanente Creek Restoration Plan, 90% Level Submittal, Design Basis Technical Memorandum (Waterways Consulting, Inc., October 31, 2019), Appendix C, Seismic Refraction Survey (Bedrock Analysis) (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 investigations into the depth of bedrock in the Material Removal Area and the Rock Pile Area prior to implementing the creek restoration project. Golder states that the existing data from borings and seismic studies are sufficient to develop design guidelines for field fitting the restoration design in response to the actual depth to bedrock in those two Areas. Conclusions about the sufficiency of existing data are based, in part, on boring logs from borings in the subject areas, which are provided in Appendix B to the Technical Memorandum, and a Seismic Refraction Survey conducted in 2014, which is included in Appendix C to the *Permanente Creek Restoration Plan, 90% Level Submittal, Design Basis Technical Memorandum*.

Based on the information we have reviewed to date, it appears that the *Permanente Creek Restoration Plan* includes restoring more natural grades to several reaches of Permanente Creek by excavating overburden/mining waste down to bedrock where possible, or native sediments when excavation to bedrock is not feasible.

Geotechnical assessments have included drilling about 10 soil borings and performing a seismic refraction analysis to identify bedrock depths. In addition, significant geotechnical information derived from other site projects, aerial photos, and historical topographic maps were combined to produce restoration designs. Because it is infeasible to completely map channel bedrock to develop 100% restoration designs, 90% designs have been developed with respect to the most probable bedrock depths, based on the currently available information. Golder recommends that the *Permanente Creek Restoration Plan* be implemented using the “Observational Method” (also called Design-Build); data gaps are to be filled by observations during project implementation, and the restoration design is to be modified in the field, during construction. In general, Water Board staff consider this to be a reasonable approach to implementing the *Permanente Creek Restoration*

Plan. However, we believe that the following conditions should be incorporated into the implementation of the Observational Method during creek restoration.

1. Design-Build field decisions must be made by an on-site licensed geologist or engineer (someone who is not just qualified, but can be held accountable);
2. Probable alternative design options should be proposed and approved prior to construction. We recommend that the design team develop a Design-Build protocol that demonstrates the alternatives that may be employed to address all project objectives and concerns. We encourage the design team to develop a flow chart of potential problems, factors to consider, and acceptable options to resolve problems encountered during construction.

As an example of situations in which a flow chart would be valuable, information provided on page 17 of the Technical Memorandum outlines the potential problem of not encountering bedrock where it was anticipated. Since overburden/mining waste must be excavated, the design team must develop protocols to identify if the sediment at grade and below it is native material or overburden/mining waste. The 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 between native material and 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 characterized, the chemical or 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 protocols (e.g., native materials may be left in place, while overburden/waste materials must be tested for CAM17 metals or excavated to bedrock and backfilled with a specific source of clean material).

Such decision flow paths with protocols and options should be created for every potential problem that could reasonably be encountered as a consequence of the existing data gaps. The protocols and options should address attaining all of the restoration project's objectives (e.g., removal of waste/overburden from the creek, ensuring bank stability, providing riparian habitat along restored channel reaches).

Comment 2.

Protocols are necessary to differentiate between native soils and overburden/mining wastes.

The Technical Memorandum does not outline how the project design team will differentiate between native soils and overburden/mining waste. Developing a protocol to make this distinction is critical to ensuring that overburden/mining wastes are removed from the creek, which is a key element to the restoration project and necessary for the protection of wildlife. Distinguishing between native materials and wastes by visual observation may be difficult, since the overburden materials derive from the same geologic units as the native materials and the size distribution of both materials are similar, according to descriptions of these materials in section 3.2, *Surficial Geologic Units*, of the Technical Memorandum.

Comment 3.

Please compare the geotechnical recommendations for rock and fill/soil slopes in the reclamation plans and the creek restoration plans.

The reclamation plans appear to require that overburden slopes have a slope no steeper than 3:1. However, the creek restoration plan appears to allow some areas to have slopes of 2:1 (e.g., pages 4 – 5 of the Technical Memorandum). Please confirm that acceptable slopes for overburden in the reclamation plans and in the creek restoration plan are consistent.

Comment 4.

Please clarify the nature of materials in the channel west of Reach 18.

The project documents state that the areas west of Reach 18 are depositional, and that the channel is a “jammed conveyance” adjacent to the Yeager Yard slope. However, the Yeager Yard slope is eroding and sliding. In addition, the overburden materials lack cohesion and are not compacted and, therefore, erosion of other WMSA slopes is highly likely. Due to the inputs to the creek channel from the Yeager Yard slope and WMSA slopes, we are not yet comfortable with the Technical Memorandum’s assertion that the area west of Reach 18 only receives native soils from the south. Please develop and implement a protocol for assessing the actual source(s) of materials in areas of the creek channel that are said to be depositional in the Technical Memorandum.

Comment 5.

Please develop guidelines for silt fencing in coordination with the U.S. Fish and Wildlife Service (USFWS).

Text in Section 2.4.5, of the *Permanente Creek Restoration Plan, 90% Level Submittal, Design Basis Technical Memorandum* (Waterways Consulting, Inc., October 31, 2019) states:

‘Silt fence will be installed around staging areas and along the creek-side edge of the proposed floodplain bench excavation areas at the Channel Widening Area. Silt fence will be in place to trap mobilized sediment in case there is a rain event during construction. The silt fence will also act as a barrier to any loose material during floodplain bench excavation. Where substrate is too rocky to install silt fence, fiber rolls may be used instead.’

Please coordinate with USFWS staff in developing designs for silt fence installation around the work zone. In recent years, USFWS staff have noted situations in which silt fencing used as exclusion fencing has inadvertently resulted in mortalities of California red-legged frogs. At a recent project downstream of the Lehigh Hanson quarry, CRLF were desiccated when silt fencing prevented them from reaching ponds. USFWS has also learned that CRLF will attempt to pass through silt fencing that they can see through, so mesh materials that are visually transparent to CRLF should not be used in silt fencing when CRLF may be present.

Comment 6.

Please develop protocols for characterizing selenium levels in sediments in ponds

Section 2.7.7 of the *Permanente Creek Restoration Plan* includes a discussion of removing sediment from Pond 13.

“Fine sediment impounded within the pond will be removed so the material is not transported downstream after the restoration project is implemented. The limits and thickness of accumulated sediment have not been surveyed. Accumulated fine sediment occurring below elevation 805.0 will be removed. Removal of fine sediment will occur until alluvial material (*i.e.*, gravel/cobble) or bedrock are encountered.”

Selenium levels up to 20 mg/kg have been measured in sediments in Pond 13. Based on toxicity data for amphibians and the bioavailability of selenium in sediment, concentrations greater than 4 mg/kg of selenium may be deleterious to CRLF and other wildlife. Prior to excavating sediments from Pond 13, a sampling and analysis plan for selenium in sediments in Pond 13 should be developed and submitted to the County and resource agencies for review. In addition, the project design team should develop a protocol for appropriate disposal of selenium-containing soils and sediments as a function of selenium concentrations and on the likely bioavailability of selenium under the various disposal options for the sediment.

Comment 7.

Please develop designs that allow for the continued operation of FTS Upper

Section 2.7.9 of the *Permanente Creek Restoration Plan* discusses restoration implementation at the Material Removal Area (Reaches 17 & 18, Sheets C23-C26). A footnote in this section states:

“An alternative concept design to that shown on Sheets C23 and C24 has been prepared should the regulatory agencies and Lehigh conclude that the Final Treatment System – Upper (“FTS-Upper”) should stay in place to treat water generated from the site. The alternative concept is presented on Figures 4 and 5, which are attached to the Updated Response to March 5, 2018 County of Santa Clara, Department of Planning and Development, Grading Application Incomplete Letter, dated November 15, 2018.”

In order to ensure sufficient dry season flows in the restored creek channel, the design team should assume that FTS-Upper should stay in place and implement the restoration design option that allows for the continued long-term operation of FTS-Upper, until creek flow capture by the quarry pit has been remediated.

Please let me know if you have any questions on these comments.

Brian Wines
Water Resource Control Engineer
San Francisco Bay Regional Water Quality Control Board
510-622-5680

From: Claudia Garcia <Claudia.Garcia@ascentenvironmental.com>
Sent: Monday, December 9, 2019 10:44 AM
To: Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>; Whalin, Lindsay@Waterboards <Lindsay.Whalin@waterboards.ca.gov>; McCann, Lisa@Waterboards <Lisa.McCann@waterboards.ca.gov>; Madigan, John@Waterboards <John.Madigan@waterboards.ca.gov>
Cc: Pat Angell <pat.angell@ascentenvironmental.com>; Salisbury, Robert <Robert.Salisbury@PLN.SCCGOV.ORG>; Eastwood, Rob <Rob.Eastwood@PLN.SCCGOV.ORG>; Sandhir, Manira <Manira.Sandhir@pln.sccgov.org>
Subject: RE: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project

EXTERNAL:

Hi Brian,
Thank you! Feel free to email comments today, no need to include letterhead.

Best,
Claudia
Claudia Garcia
Environmental Planner
C 510.603.0298
E Claudia.Garcia@AscentEnvironmental.com



From: Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>
Sent: Monday, December 9, 2019 10:38 AM
To: Claudia Garcia <Claudia.Garcia@ascentenvironmental.com>; Whalin, Lindsay@Waterboards <Lindsay.Whalin@waterboards.ca.gov>; McCann, Lisa@Waterboards <Lisa.McCann@waterboards.ca.gov>; Madigan, John@Waterboards <John.Madigan@waterboards.ca.gov>

Cc: Pat Angell <pat.angell@ascentenvironmental.com>; Salisbury, Robert <Robert.Salisbury@PLN.SCCGOV.ORG>; Eastwood, Rob <Rob.Eastwood@PLN.SCCGOV.ORG>; Sandhir, Manira <Manira.Sandhir@pln.sccgov.org>
Subject: RE: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project

Hi Claudia

I am working on combining my comments with comments provided by other staff at the Water Board. Is it OK if I send them in an email today? Or do you need the comments on Letterhead?

Thanks
Brian

From: Claudia Garcia <Claudia.Garcia@ascentenvironmental.com>
Sent: Monday, December 9, 2019 10:37 AM
To: Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>; Whalin, Lindsay@Waterboards <Lindsay.Whalin@waterboards.ca.gov>; McCann, Lisa@Waterboards <Lisa.McCann@waterboards.ca.gov>; Madigan, John@Waterboards <John.Madigan@waterboards.ca.gov>
Cc: Pat Angell <pat.angell@ascentenvironmental.com>; Salisbury, Robert <Robert.Salisbury@PLN.SCCGOV.ORG>; Eastwood, Rob <Rob.Eastwood@PLN.SCCGOV.ORG>; Sandhir, Manira <Manira.Sandhir@pln.sccgov.org>
Subject: RE: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project

EXTERNAL:

Hi Brian,
Following-up on your review of the Lehigh Permanente Creek Restoration Project. The County is scheduled to discuss the resubmittal package this Wednesday, December 11th, and make a final determination on the application. Please send your comments, if any.

Best,
Claudia
Claudia Garcia
Environmental Planner
C 510.603.0298
E Claudia.Garcia@AscentEnvironmental.com


Ascent Environmental, Inc.
1111 Broadway, Suite 3-163
Oakland, CA 94607
O 916.444.7301



From: Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>
Sent: Thursday, November 21, 2019 4:23 PM
To: Claudia Garcia <Claudia.Garcia@ascentenvironmental.com>; Whalin, Lindsay@Waterboards <Lindsay.Whalin@waterboards.ca.gov>; McCann, Lisa@Waterboards <Lisa.McCann@waterboards.ca.gov>; Madigan, John@Waterboards <John.Madigan@waterboards.ca.gov>
Cc: Pat Angell <pat.angell@ascentenvironmental.com>; Salisbury, Robert <Robert.Salisbury@PLN.SCCGOV.ORG>; Eastwood, Rob <Rob.Eastwood@PLN.SCCGOV.ORG>; Sandhir, Manira <Manira.Sandhir@pln.sccgov.org>
Subject: RE: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project

Hi Claudia

Thanks for highlighting the file that you are looking for our feedback on.

I have downloaded the document. It's 320 pages long. And the two weeks from today includes the 2-day Thanksgiving Holiday.

I will do my best to get you comments by December 5, but may need a few more days.

Brian Wines
Water Resource Control Engineer
San Francisco Bay Regional Water Quality Control Board
510-622-5680

From: Claudia Garcia <Claudia.Garcia@ascentenvironmental.com>
Sent: Thursday, November 21, 2019 3:46 PM
To: Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>; Whalin, Lindsay@Waterboards <Lindsay.Whalin@waterboards.ca.gov>; McCann, Lisa@Waterboards <Lisa.McCann@waterboards.ca.gov>; Madigan, John@Waterboards <John.Madigan@waterboards.ca.gov>
Cc: Pat Angell <pat.angell@ascentenvironmental.com>; Salisbury, Robert <Robert.Salisbury@PLN.SCCGOV.ORG>; Eastwood, Rob <Rob.Eastwood@PLN.SCCGOV.ORG>; Sandhir, Manira <Manira.Sandhir@pln.sccgov.org>
Subject: RE: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project

Hi Brian,

The only file that you need to download is located in the folder titled, "PLN17-2250_Lehigh Permanente Creek." The only document you need to download is:

- 6_PLN17-2250_Lehigh Response October 31, 2019.pdf

I moved the other files to a "Do not Download" folder. Hopes this makes things easier.

The County has 30 days to make a determination, the December 5th deadline for the Water Board to provide comment is exactly 2 weeks from today. Please let me know if this is an adequate amount of time for you to review the materials and make a determination.

Best,

Claudia

Claudia Garcia

Environmental Planner

C 510.603.0298

E Claudia.Garcia@AscentEnvironmental.com



Ascent Environmental, Inc.
1111 Broadway, Suite 3-163
Oakland, CA 94607
O 916.444.7301



From: Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>

Sent: Thursday, November 21, 2019 3:36 PM

To: Claudia Garcia <Claudia.Garcia@ascentenvironmental.com>; Whalin, Lindsay@Waterboards <Lindsay.Whalin@waterboards.ca.gov>; McCann, Lisa@Waterboards <Lisa.McCann@waterboards.ca.gov>; Madigan, John@Waterboards <John.Madigan@waterboards.ca.gov>

Cc: Pat Angell <pat.angell@ascentenvironmental.com>; Salisbury, Robert <Robert.Salisbury@PLN.SCCGOV.ORG>; Eastwood, Rob <Rob.Eastwood@PLN.SCCGOV.ORG>; Sandhir, Manira <Manira.Sandhir@pln.sccgov.org>

Subject: RE: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project

Hi Claudia

The share file link is proving very cumbersome to use and it would take me hours to download all of these files.

Please mail me a disc or flash drive with the digital files, along with hard copies of the documents.

I will need at least two weeks after receiving the files to review them and provide any comments.

Thanks

Brian Wines
Water Resource Control Engineer
San Francisco Bay Regional Water Quality Control Board
510-622-5680

From: Claudia Garcia <Claudia.Garcia@ascentenvironmental.com>
Sent: Thursday, November 21, 2019 3:28 PM
To: Whalin, Lindsay@Waterboards <Lindsay.Whalin@waterboards.ca.gov>; Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>; McCann, Lisa@Waterboards <Lisa.McCann@waterboards.ca.gov>; Madigan, John@Waterboards <John.Madigan@waterboards.ca.gov>
Cc: Pat Angell <pat.angell@ascentenvironmental.com>; Salisbury, Robert <Robert.Salisbury@PLN.SCCGOV.ORG>; Eastwood, Rob <Rob.Eastwood@PLN.SCCGOV.ORG>; Sandhir, Manira <Manira.Sandhir@pln.sccgov.org>
Subject: Please provide comment - Lehigh Revised Materials for Permanente Creek Restoration Project

Hi Lindsay,
Lehigh formally submitted the updated 90% Drawings and Design Memorandum for the Permanente Creek Restoration Project to the County today. The submittal includes additional information as a follow-up to the Lehigh August 7, 2019 Response Letter.

Please review the revised materials and determine if the information addresses the Water Boards comments by **December 5, 2019**.

The revised 90% Drawings and Design Memorandum materials can be accessed via the following link:
<https://ascentenv.sharefile.com/f/focd188b-ce59-4a09-b1ea-148d2f64a38e>

Let me know if you have trouble accessing the files or would like to discuss.

Best,

Claudia Garcia
Environmental Planner
C 510.603.0298
E Claudia.Garcia@AscentEnvironmental.com



Ascent Environmental, Inc.
1111 Broadway, Suite 3-163
Oakland, CA 94607
916.444.7301

