CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Response to Comments on the Tentative Order, Site Cleanup Requirements for Mainwood Plaza, LLC and Hoytt Enterprises, Inc for the property located at 187 Marinwood Avenue, San Rafael, Marin County

This document provides Water Board staff's responses to significant comments received on the Tentative Order (TO).

On August 14, 2020, we received comments on the TO from:

- Geologica Inc., representing Marinwood Plaza, LLC.
- Michael Van Zandt of Hason Bridgett, attorney for Catholic Charities CYO
- Fred Clark of APEX, consultant for Silveira San Rafael Ranch, LLC
- David Trotter, attorney for Silveira San Rafael Ranch, LLC

This document summarizes and paraphrases significant comments and provides Regional Water Board staff's response. Italicized text is quoted language from the comment letters. To view the comment letters in their entirety and other case documents referred to herein, please see the GeoTracker website.

A. Geologica

A-1 Comment: *The Tentative Order identifies a due date of December 31, 2020 for Task 1 - Offsite Groundwater Remediation Implementation Report. Various factors have delayed implementation of this task and while we understand the concern of the Water Board regarding the schedule, it is entirely unrealistic to initiate, implement, and document completion of this task in 2020. Significant lead time and effort is required to obtain the treatment product. In addition, the field execution time is expected to be 4-6 weeks minimum. Driller availability for this must be booked months in advance to secure the rig and crew for the length of time required. Starting now would put us into the rainy season. Drilling in the off-site acreage is extremely difficult in wet conditions. Realistically, field work would not be initiated until Spring 2021. In order to ensure that this task is completed on schedule, we have proposed a due date of Dec 31, 2021.*

A-1 Response: Thank you for pointing out the tightness of the December 2020 due date. After consideration, we have revised the due date for the groundwater remediation implementation report to June 30, 2021. This allows 10 months for work implementation, and implementation report submittal. We believe this is sufficient time considering the factors identified in the comment, which include driller availability, field work schedule, and potential delays due to wet weather. We remind you that when this same work was initially proposed in May 2019, the schedule called for implementation in the summer 2019 (about 4 months).

Adding an additional 2 months for report preparation and possible unforeseen delays brings the report submittal schedule to about 6 months. Given that the remediation plan is already written, submitted, and approved by the Executive Officer in February 2017, and that pilot testing was successfully conducted, we expect implementation and reporting can be completed in this time frame. Nonetheless, we acknowledge that wet weather could cause a seasonal delay. Therefore, we believe a June 30, 2021 due date sufficiently accounts for this.

A-2 Comment: Eliminate from the Self-Monitoring Plan (SMP) sampling from the pilot test wells PT-1 through PT-6; sampling of adjacent well MW-10 is sufficient for routine monitoring in this area.

A-2 Response: Staff agree to remove sampling of wells PT-1 and PT- 4 because they are background wells for the pilot test and are no longer needed, and the TO has been revised accordingly. However, wells PT-2, PT-3, and PT-5 are still used to observe treatment in the pilot test area for the time being. As mentioned in our February 26, 2019, letter, sampling of PT-6 shall continue as a plume fringe monitoring well.

A-3 Comment: Discontinue the operation and maintenance of the wellhead treatment at the rarely used Ranch supply well because it is mostly non-detect prior to treatment. Concentration of the contaminants of concern were always below drinking water standards.

A-3 Response: We acknowledge that wellhead treatment was installed out of caution and that PCE concentrations in only 5 or 15 samples over the last five years have been detected, but at concentrations well below the drinking water standard. The highest concentration was 0.62 µg/L (prior to well head treatment), which is an order of magnitude below the drinking water standard of 5 µg/L. There has been no PCE detections in any sample after well head treatment. PCE related breakdown products were not detected in any sample pre or post treatment. We do not object to discontinuing wellhead treatment with continued well monitoring; however the system should not be dismantled until cleanup is complete.

A-4 Comment: Only sample the Ranch supply well annually if it is in use.

A-4 Response: To be protective, but reasonable, the TO has been modified to require sampling the supply well semi-annually if the well is in use based on the flow meter. If the well has not been in used based on the flow meter over the prior 6-months sampling is required annually.

B. <u>Hason Bridgett</u>

B-1 Comment: *The deadline to implement a groundwater remedial action plan must follow a submission of proof that doing so will be feasible*. And *that the*

Dischargers first prove how full-scale implementation will achieve cleanup goals.– Follow up comments include – a)The *PRBs are not breaking down the plume as intended, In fact, the Dischargers' recent sampling in July 2020 found that TCE, cis-DCE, and VC continue to increase since 2017*. b) *The Pilot Test has proven the opposite: implementing the dischargers' full-scale remedial action plan will not achieve groundwater cleanup levels by 2027, or any time afterward*.

B-1 Response: We understand your concerns with the proposed achievability of meeting the offsite groundwater remediation cleanup goals by 2027. Therefore, it is critical that periodic effectiveness evaluations are conducted (the Revised TO requires them every 3 years). State Water Board Resolution No. 92-49 states that we review and accept plans that have a "substantial likelihood" to achieve cleanup standards within a "reasonable timeframe." A temporary increase in concentration of some PCE breakdown products is anticipated from biological degradation such as the addition of dehalococcoides. We find that the remedial action plan, supported by the pilot test results, does meet our thresholds for substantial likelihood of success in the required timeframe. However effectiveness evaluations are required to demonstrate progress and additional actions will be required if those evaluations indicate that the implemented remedy is ineffective.

B-2 Comment: *The Plume is not adequately delineated*. upport this Catholic Charities states …*the Dischargers installed new monitoring wells in locations that they suggested were the outer edges of the plume. Rather than finding contaminants at or below cleanup levels, sampling from wells like MW-17 and MW-18 found PCE in concentrations between 18 and 28 ppb. --- Thus, the plume has migrated farther north and east than the Discharges' delineation had assumed*. Additional investigation on the northern and eastern areas of the plume should be conducted.

B-2 Response: We disagree. An extensive offsite investigation was conducted. Low to non-detectable concentrations were detected both to the north and east of the offsite agricultural lands. The two wells cited as not defining the plume, MW-17 and MW-18 that were most recently at 18 to 23 µg/L, were specifically installed to monitor areas of the plume with PCE concentrations between 5 and 30 µg/L, above the MCL, based on the well installation workplan and our approval letter. These wells were not installed to define the drinking water extent of the plume. Two maps indicating the completed delineation of the offsite groundwater plume are included in reports dated January 21, 2019 (Figure 1) and May 31, 2019 (Figure 16).

B-3 Comment: *Monitored Natural Attenuation will not effectively treat the plume*. --- *The downgradient extent of the plume is not naturally attenuating*.

B-3 Response: Active remediation is planned for most of the plume. Monitored natural attenuation is only proposed at the plume edges, where concentrations

are less than 30 µg/L and remediation effectiveness is likely limited due to back diffusion and/or lack of nutrients to support the remedial biological agents to be injected. Data from wells MW-6, MW-9, MW-11, MW-13, MW-14, MW-17, MW-18, MW-19 and the supply well indicate stable or non-detectable concentrations. This data does not indicate any significant change in concentration or movement at the edges of the plume and may be evidence of natural attenuation at the plume edges. Pilot test wells PT-2, PT-3, and PT-6 indicate an increase in break down products as is expected due to remediation. Plume monitoring and the effectiveness reports (Task 7) will determine the effectiveness of the remedial approach.

B-4 Comment: *Revise the well sampling schedule to better reflect the wells' history and location.… [B]etter tie sampling frequency with the history of the wells, extent of contamination, anticipated treatment methods, and risks posed to offsite properties*. Sampling wells MW-17, MW-18, and MW-19 should be sampled on a semi-annual basis.

B-4 Response: The revised Self-Monitoring Plan (SMP) takes into account the well concentrations, risk, and locations. Our February 26, 2019, Workplan approval letter recommends semi-annual sampling of wells MW-17, MW-18, and MW-19 ...*following the treatment of the plume*. The plume is very steady and more rapid changes are expected only after treatment starts in areas near the treatment injections. The SMP also allows that the sampling frequency may be modified when remediation is implemented or following data review.

B-5 Comment: The Regional Water Board should consider enforcement measures in the form of fines or other penalties.

B-5 Response: Comment noted.

C. APEX

C-1 Comment: The Tentative Order should provide cleanup goals for offsite soil vapor concentrations for future commercial and/or residential use of the Silveira ranch and other downgradient properties.

C-1 Response: The soil vapor cleanup goals are to protect against potential indoor air vapor intrusion. Since there are no current or proposed structures overlying the off Source Property groundwater plume there is no current or anticipated risk for indoor vapor intrusion. If buildings are proposed in the future, then as set forth in the TO, Task 12, Soil Vapor Evaluation, may be required. For consistency, the Revised TO (section B.4 and section B.5 for indoor air) were revised to clarify that the soil vapor and indoor air cleanup levels in the Revised TO apply everywhere a vapor intrusion threat exists to occupants of buildings, consistent with Task 12.

C-2 Comment: Apex recommends annual statistical model analysis (such as MAROS) to monitor remediation and development of a remediation time-to-completion estimate. This analysis is critical to determine if the plume is increasing, decreasing or is stable and conduct linear regression analysis.

C-2 Response: We agree that trend analysis is needed to determine offsite groundwater efficiency. Concentration versus time graphs are typically included with the sampling reports. We included trend analysis in the *Three-year Performance Evaluation Report* (Task 7) requirement. Our July 30, 2009 *Assessment Tool for Closure of Low-Threat Chlorinated Solvent Sites* has a section discussing use of trend analysis to determine plume stability, decrease, and statistical significance. A reference to this document was added to Task 7 of the Revised TO.

C-3 Comment: The length and number of groundwater treatment lines are not sufficient to meet the cleanup goal.

C-3 Response: The Revised TO requires cleanup by February 2027. It also requires effectiveness evaluations every 3 years to assess if cleanup is proceeding on track to achieve the goals by 2027. These effectiveness evaluation reports will be used to determine if additional treatment is required to reach the cleanup goals.

C-4 Comment: Require semi-annual monitoring of all offsite groundwater to provide enough data to analyze the progress of the plume remediation. Provide seasonal variation in data, to more quickly determine if remediation is meeting expected progress.

C-4 Response: We acknowledge the need to use data to evaluate the effectiveness of the remediation determine the effects of seasonal variability. The offsite wells were sampled from 2 to 14 times over several years. There is no obvious seasonal variation in concentrations (see the June 10, 2019 monitoring report trend graphs for example). Except areas near the groundwater pilot treatment, concentrations of the contaminants of concern are stable. Since concentrations are not expected to change quickly, there is no need to sample most wells more frequently. After treatment onset there may be changes made to the sampling frequency for select wells as allowed in the SMP.

C-5 Comment: Sample Miller Creek Semi-annually during wet and dry seasons.

C-5 Response: Annual sampling presented in the SMP is appropriate based on the available data. The table below includes the highest concentrations detected in both surface water and groundwater for PCE and its breakdown products. These concentrations are well below their respective freshwater ecotoxicity criteria. A total of seven water samples were collected from the creek at five locations during both spring and fall. Contaminants of concern were not detected

in any creek water sample. Therefore, at this time it is not expected that the concentration in the creek will ever exceed the freshwater ecotoxicity environmental screening levels and annual sampling is sufficient to be protective .

	PCE	TCE	cis 1,2-DCE	Trans 1,2-DCE	VC
Highest level in creek sample (µg/L)	<0.5	<0.5	<0.5	<0.5	<0.5
Current highest in off-site groundwater (µg/L)	52	12	67	2.7	5.0
Freshwater Eco-toxicity ESL (µg/L)	120	360	590	590	780

D. <u>David Trotter</u>

D-1 Comment: We support naming Hoytt Enterprises, Inc. as a named discharger.

D-1 Response: Comment noted.

D-2 Comment: We support setting a due date for the commencement of offsite groundwater cleanup activities.

D-2 Response: Comment noted.

D-3 Comment: *The length and number of offsite groundwater treatment lines are not sufficient to meet the clean-up standard … of February 15, 2027*.

D-3 Response: See response to Comment C-3 above.

Staff-Initiated Changes:

In addition to revising the Tentative Order in response to comments, staff has made some minor formatting and editorial changes for consistent use of terms (e.g., “Source Property” instead of “Onsite”) and corrections to Assessors Parcel Numbers. Under B2, Groundwater Cleanup Levels, a clarification was made that the cleanup levels apply to all impacted groundwater, not just to the wells, to align with the intent of cleanup.