City of Carson
Report to Mayor and City Council

February 4, 2014
Unfinished Business

SUBJECT: CONSIDER STATUS REPORT ON THE REGIONAL WATER QUALITY CONTROL BOARD ENVIRONMENTAL INVESTIGATION AND CARSON DECLARATION OF THE EXISTENCE OF AN EMERGENCY WITHIN THE CAROUSEL TRACT

Submitted by Jacquelyn Acosta
Acting City Manager

Approved by Jacquelyn Acosta
Acting City Manager

I. SUMMARY

This item is on the agenda at the request of Mayor Pro Tem Santarina to provide updates at all regularly scheduled City Council meetings related to the environmental investigation of the Carousel Tract.

II. RECOMMENDATION

RECEIVE and FILE.

III. ALTERNATIVES

TAKE another action as the City Council deems appropriate consistent with the requirements of law.

IV. BACKGROUND

Cleanup and Abatement Order

On March 11, 2011, the Regional Board issued Cleanup and Abatement Order (CAO) No. R4-2011-0046 directing Shell to investigate the Carousel Tract and provide remedial action to cleanup and abate the waste in the soil, soil vapor and groundwater associated with contamination from the former tank farm. On October 31, 2013, the Regional Board issued a notice for the Proposed Draft Revised Cleanup and Abatement Order No. R4-2011-0046 (Draft Revised CAO) to include a description of the developer's role to decommission the reservoirs and conduct waste removal and grading activities. The Draft Revised CAO also explains the history of acquisitions and renaming of the original development company leading to the Dole Food Company, Inc. (Dole) being named as an additional responsible party. Dole received an extension from the initial December 6, 2013 response deadline to January 13, 2014. On January 6, 2014, another request for an extension was submitted to the Regional Board (Exhibit No. 1). On January 7, 2014, the Regional Board authorized an extention to January 21, 2014 (Exhibit No. 2).

On January 21, 2014, the law firm of Gibson Dunn & Crutcher, LLP responded on behalf of Dole and its wholly-owned subsidiaries Barclay Hollander Corporation (Barclay) and Oceanic Properties. Various documents and reports were submitted as part of the public record as a means of explaining Barclay's role in developing the Carousel tract. A review of the Los Angeles County Planning Commission and Board of Supervisor hearings noted strong community support for the development of the Carousel tract and a general lack of concern with environmental conditions. While Barclay is no longer an active business, Dole confirmed that liability insurance is maintained. The primary focus of the response requests that the Draft Order should not be executed in any form that holds Barclay responsible for the clean-up and abatement of contaminants discharged by Shell (Exhibit No. 1). The Regional Board staff is currently reviewing the letter from Dole and anticipates a response by early March 2014.

Revised Site-Specific Cleanup Goal Report

On October 21, 2013, Shell Oil Products US (Shell) submitted a Revised Site-Specific Cleanup Goal Report to the Regional Board to address certain deficiencies and comments addressed in the Regional Board letter dated August 21, 2013. On January 23, 2014, the Regional Board provided comments on the Revised Site-Specific Cleanup Goal Report and determined that the Revised Report may not fully support unrestricted residential land use, protect human health from exposure to contaminants of concern in the long term, and prevent further degradation of groundwater as required by the CAO (Exhibit No. 2).

Shell is required to submit a remedial action plan (RAP) by March 10, 2014 that addresses remedial alternatives, a relocation plan, soil remediation boundaries, potential removal of residual slabs and a soil management plan for on-going monitoring requirements. Concurrently with the RAP, Shell is required to submit a Human Health Risk Assessment (HHRA) Report and draft environmental documents that will be utilized to initiate review pursuant to the California Environmental Quality Act. Upon receipt of the various documents, the Regional Board will provide an opportunity for public review and comment.

Community Meeting with Congresswoman Hahn

Congresswoman Hahn held a community meeting with the residents of the Carousel Tract on January 23, 2014 at the Congresswoman Juanita Millender-McDonald Community Center. The purpose of the meeting was for the Congresswoman to better understand the residents concerns and issues with the ongoing environmental investigation and to strategize how best to obtain more definitive actions from the Regional Board.

Timeline of Activities

A general timeline that tracks past and current activities of the Carousel Tract environmental investigation is included as Exhibit No. 3.

V. FISCAL IMPACT

None.

VI. EXHIBITS

1. Letter from Gibson Dunn dated January 21, 2014. (pgs. 4-40)
2. Letter from Regional Board to Dole dated January 23, 2014. (pgs. 41-130)
3. Carousel Tract Environmental Investigation Timeline. (pgs. 131-134)

Prepared by: Sheri Repp-Loadsman, Planning Officer

TO:Rev06-19-2013

Reviewed by:

City Clerk	City Treasurer
Administrative Services	Public Works
Community Development	Community Services

Action taken by City Council

Date_____ Action_____

_____

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

January 23, 2014

Mr. Douglas Weimer
Shell Oil Products, United States
Environmental Services Company
20945 S. Wilmington Avenue
Carson, CA 90810

SUBJECT: **REVIEW OF REVISED SITE-SPECIFIC CLEANUP GOAL REPORT AND DIRECTIVE TO SUBMIT REMEDIAL ACTION PLAN, HUMAN HEALTH RISK ANALYSIS, AND ENVIRONMENTAL ANALYSIS FOR CLEANUP OF THE CAROUSEL TRACT PURSUANT TO CALIFORNIA WATER CODE SECTION 13304**

SITE: **FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330, CAO NO. R4-2011-0046)**

Dear Mr. Weimer:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the lead agency overseeing the environmental investigation and cleanup of the Former Kast property (Site) located in Carson, California. The Former Kast property was owned and operated by Shell Oil Company (Shell) as a crude oil storage facility from the 1920s to the 1960s when it was sold to developers and converted into a residential tract with 285 single family homes known as the Carousel Tract. Wastes associated with the tank farm activities, including crude oil in soils, were not fully removed from the site during its development and crude oil wastes remain in soil and groundwater underlying the Site.

The Site was brought to the attention of the Regional Board in 2008 by the California Department of Toxic Substances Control (DTSC). Soon thereafter, the Regional Board issued an investigative order in accordance with California Water Code section 13267 requiring Shell to delineate the nature and extent of wastes throughout the property, including wastes in soil vapor, indoor air within homes, and soil and groundwater beneath the Site. To date, Shell has collected extensive data to define the nature and extent of petroleum hydrocarbons and associated wastes on the Site.

On March 11, 2011, the Regional Board issued Cleanup and Abatement Order No. R4-2011-0046 (CAO), pursuant to California Water Code section 13304. The CAO directed Shell to continue to investigate the Site, continue to conduct groundwater monitoring and reporting, evaluate cleanup methodologies, propose site-specific cleanup goals (SSCGs) for Regional Board approval, submit a proposed remedial action plan (RAP), and upon approval of the RAP conduct remedial actions to cleanup and abate the waste in the soil, soil vapor, and groundwater at the Site. The site investigation under oversight by the Regional Board has been on-going since 2009 and has consisted of horizontal and vertical delineation of wastes beneath the Site, sub-slab and indoor air testing in most of the homes, and pilot remediation tests to determine the efficacy of different remedial technologies.

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EXHIBIT NO. 01

The CAO directed Shell to SSCGs for residential (i.e., unrestricted) land use for the Executive Officer's approval. The CAO required Shell to apply the following guidelines and policies in proposing SSCGs for wastes in soil and groundwater: (i) various state and federal policies and guidance regarding cleanup levels to address human health risks, including guidance specific to petroleum hydrocarbons; (ii) applicable water quality objectives in the Regional Board's Water Quality Control Plan for the Los Angeles Region (Basin Plan), including California's Maximum Contaminant Levels (MCLs) or Action Levels for drinking water as established by the California Department of Public Health, and the state's "anti-degradation policy" in State Water Resources Control Board (State Water Board) Resolution No. 68-16 ("Statement of Policy With Respect to Maintaining High Quality of Waters in California"); and (iii) State Water Board Resolution No. 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304") (Resolution 92-49). See CAO Paragraph 3.c.II.

On February 22, 2013, Shell submitted a Site-Specific Cleanup Goal Report (Report) to the Regional Board proposing SSCGs. On August 13, 2013, the Regional Board issued a response to the Report notifying Shell that the proposed SSCGs were not approved and directed Shell to revise the SSCGs in accordance with comments and directives contained in the letter. The Regional Board also provided Shell comments from the Expert Panel (convened to provide input to the Regional Board regarding site cleanup) and the State of California Office of Environmental Health Hazard Assessment (OEHHA) and requested that Shell address those comments. As detailed in the August 21, 2013 letter, the Regional Board concluded that the proposed SSCGs did not meet the CAO requirement that the SSCGs must support residential standards for unrestricted use and that the Report had not taken into account State Water Board Resolution 92-49. The Regional Board also commented that the depth intervals proposed by Shell of zero to two feet below grade surface (bgs) and two feet to ten feet were not appropriate for setting cleanup goals in a residential setting, and that the initially proposed SSCGs for total petroleum hydrocarbons (TPH) would result in leaving significant amounts of waste in the soils beneath some portions of the Site.

On October 21, 2013, Shell submitted a revised SSCG Report (Revised Report) that included a screening feasibility study (FS) for the proposed SSCGs and provided a technological and economic feasibility analysis of several remediation scenarios for the Site. The screening FS was included in the Revised Report to address Regional Board comments that the SSCGs must address requirements of State Water Board Resolution 92-49 as required by the CAO. State Water Board Resolution 92-49 requires that SSCGs must be, in part, based on technological and economic feasibility, and the screening FS provides some information to address this requirement.[1] The Revised Report also contained four appendices that provide detailed rationale for development of the revised SSCGs, and responses to Regional Board, OEHHA, and Expert Panel comments in the Regional Board August 21, 2013 letter.

The Revised Report addressed many of the comments in the Regional Board August 21, 2013 letter. In particular, the Revised Report included numeric SSCGs for constituents of concern (COCs) in soil vapor; revised the proposed remedial action objective (RAO) for methane such that methane will not exceed two percent of the lower explosive limit and will be removed to less than two percent of the lower explosive

[1] In the Revised Report, Shell commented on the interpretation of Resolution 92-49 in proposing SSCGs. Resolution 92-49 requires the Regional Board to assure that the cleanup promotes attainment of background water quality or the best water quality that is reasonable. In addition, the alternative cleanup level, other than background, must take into account the criteria set forth in Section 2550.4 of Title 23, California Code of Regulations, which includes criteria to protect human health; must address nuisance conditions, and must be consistent with the maximum benefit to the people of the state. In evaluating SSCGs and the remedies to be proposed in the RAP, the Regional Board will consider water quality, human health, and nuisance conditions.

limit and to the greatest extent technologically and economically feasible; revised the RAO for groundwater beneath the Site such that it attains the best quality that is technologically and economically feasible; and developed SSCGs for soil to address COCs leaching to groundwater.

The selected remedy must ensure compliance with the SSCGs for the long term and concludes that a cleanup based on the revised SSCGs proposed in the Revised Report may not fully support unrestricted residential land use, protect human health from exposure to COCs in the long term, and prevent further degradation of groundwater as required by the CAO. As discussed below under "Specific Comments", the Regional Board hereby approves SSCGs as revised to address groundwater and nuisance issues that were not fully addressed in the Revised Report.

SPECIFIC COMMENTS

For the Carousel Tract, SSCGs must result in:

- protecting residents from health risks due to potential exposure to COCs in soil vapors and direct contact with COCs in soil based on appropriate risk-based standards;
- abating nuisance conditions from COCs in soil and soil vapor; and
- restoring and protecting the beneficial uses of groundwater (i.e., attaining applicable water quality objectives in the groundwater).

The methodologies for deriving SSCGs are based on human health risk assessments, COC partitioning and migration analysis, quantification of COC leaching rates into groundwater, and the assessment of the potential for COC-caused nuisance. The Site investigation has provided site specific studies and extensive data[2] that are available for derivation of numeric SSCGs.

SSCGs for COCs in soil vapor must consider human health risks due to exposure through inhalation. SSCGs for COCs for soil must consider health risks and nuisance odor issues due to direct contact and odors and must consider leaching rates and water quality objectives to protect groundwater quality. The proposed SSCGs for COCs in soil are presented in Table 9-2 of the Revised Report. Proposed SSCGs for COCs in soil vapor are presented in Table 9-3 of the Revised Report. Proposed SSCGs for COCs in groundwater are presented in Table 9-4 of the Revised Report. Some of the proposed SSCGs set forth in Tables 9-2, 9-3, and 9-4 of the Revised Report do not meet all applicable criteria for selecting SSCGs, as described below. To address these comments, the Regional Board has developed Tables 1, 2, and 3 which are attached to this letter. Tables 1, 2, and 3 provide SSCGs for COCs in soil, soil vapor and groundwater and supersede Tables 9-2, 9-3, and 9-4 of the Revised Report. The SSCGs in Tables 1, 2, and 3 are protective of human health and groundwater quality, and will address potential nuisance from COCs at the Site. As set forth below under "Conclusions and Directives", Shell shall develop the RAP, the final Human Health Risk Assessment (HHRA) Report, and the environmental analysis using the SSCGs in Tables 1, 2 and 3.

Soil Depth Intervals

Shell provided SSCGs for COCs in soil to a depth of ten feet as required by the CAO. Based on the human health risk exposure scenarios for direct contact with COCs in soil in a residential setting, Shell

[2] See Attached Reference List.

divided the upper ten feet into two intervals of zero to two feet below grade surface (bgs), and from two feet to ten bgs. Shell based the proposed SSCGs on human health risk assessments from direct contact with soil in the upper two feet on an exposure scenario of 350 days per year over a period of 70 years. For the soil interval of two feet to ten feet Shell calculated risk to human health from direct contact with soil on an exposure scenario of four days per year. These exposure scenarios result in different SSCGs in the two soil intervals.

Regulatory guidance that incorporates a soil interval of zero to ten feet as appropriate for addressing risk in residential land use has been published by DTSC and the San Francisco Bay Regional Board. The *Supplemental Guidance For Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities* (CalEPA 1996), Human Health Risk Assessment Note 4 (DTSC, 2011) and the San Francisco Bay Regional Water Quality Control Board – *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim Final (December 2013) (ESL) use the exposure scenario of zero to ten feet for 350 days per year as the default. It is reasonable, for the purpose of protecting residents from direct contact with soil and nuisance associated with odors,[3] to assume that residents will have less frequent exposure to soils in a deeper soil interval than to soils in a shallower interval as suggested by Shell. The depth interval proposed by Shell may not, however, support unrestricted residential use as required by the CAO. Residents can readily dig in soil at depths lower than two feet for gardening or other home improvements, at which point they may be exposed to COCs at a greater exposure frequency than that used in developing the proposed SSCGs. Regional Board staff concludes that defining the uppermost soil interval from zero to five feet is supportive of unrestricted residential use because institutional controls are already in place throughout Los Angeles County, including the City of Carson and Carousel Tract for excavations that are deeper than five feet. These controls require a soils investigation as well as grading and shoring permits in order to excavate at depths below five feet. In the Carousel Tract, the Los Angeles County building code is administered by the City of Carson. Because the City must be notified and approve excavations below five feet (Los Angeles County Building Code Sections 3304.1.2, 3307.1, 1803.5.7, J103, J104) the City could readily inform residents and workers of other appropriate precautions necessary for excavations below five feet through existing administrative processes. Consequently, the Regional Board concludes that soil depth intervals of zero to five and five to ten feet bgs provide unrestricted use for gardening and other activities to a depth that coincides with existing institutional measures (i.e. obtaining excavation permits) that are already in place.[4]

It is noted that the Expert Panel has opined on the issue of separating the shallow soil interval of zero to ten feet bgs with different direct contact exposure frequencies. The Expert Panel agrees with the use of separate shallow and deeper soil intervals proposed by Shell. The Expert Panel agrees with Shell's use of a zero to two feet bgs as acceptable, but also agrees with the Regional Board's approach of setting forth a zero to five feet shallow sub-interval based on the precautionary principle. See attached "Soil depth intervals used to calculate the Site Specific Cleanup Goals" (January 14, 2014) from the Expert Panel.

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[3] In the course of conducting cleanup that involves excavation, Shell may encounter soils with detectable odors due to the presence of TPH. To assure protection of residents, the RAP will need to include a method to determine if TPH concentration in soil presents a detectable odor in accordance with the ESL and develop odor-based screening levels for indoor air based on 50 percent odor-recognition thresholds as published in the ATSDR Toxicological Profiles. For soil gas, follow the ESL for odor and other nuisance to calculate a ceiling level for residential land use.

[4] The Regional Board agrees with the proposed risk-based scenario to address exposure of construction or utility workers in non-residential areas of the Site for four days per year. As noted above, the City of Carson implements ordinances to address excavation.

Table 9-2, Site Specific Cleanup Goals, Soil

Shell provided SSCGs for COCs in soil in Table 9-2 of the Revised Report. In response to the Regional Board's August 21, 2013 letter, Shell considered both risk to human health and restoration and protection of groundwater. To derive the most appropriate SSCGs for COCs in soil, the more stringent of the human health-based and groundwater-based SSCGs needs to be selected for each COC in both soil depth intervals to meet both goals of protecting human health and groundwater. As described above, Shell provided SSCGs based on two soil intervals (zero to two feet and from two feet to ten bgs). However, Table 9-2 omits consideration of the groundwater leaching SSCGs in the deeper soil interval. The Revised Report does not provide explanation for omitting the leaching potential analysis from the deeper soil interval. The COCs can leach from any soil depth above the groundwater table and at some Site locations, the groundwater already exceeds applicable water quality objectives. Waste present at deeper intervals is most likely contributing to continuing degradation of groundwater. The SSCGs for COCs in soil must consider leaching to groundwater for both depth intervals. Table 1 includes SSCGs for COCs in soil that protect both human health and groundwater in the entire soil interval of zero to ten feet and identifies the more stringent of the health risk based and leaching potential based SSCGs.

The Regional Board also finds an error in the Revised Report's calculations of the SSCGs for COCs in soil based on leaching potential. Shell calculated the SSCGs to address COC leaching to groundwater based on the *May 1996 Regional Board Interim Site Assessment & Cleanup Guidebook.* The proposed SSCGs in the Revised Report based on COCs leaching to groundwater used a Dilution Attenuation Factor (DAF) of 6.24. This DAF is not appropriate for the Site because groundwater beneath the Site is already polluted by COCs. See attached Regional Board Staff Internal Memorandum dated December 10, 2013.

Table 9-2 does not include two COCs – xylenes and toluene – that have been detected at the Site. The Expert Panel commented in the attached memorandum that the Revised Report describes the COC list as preliminary. With respect to Table 9-2, the Regional Board considers the list of COCs complete with the addition of xylenes and toluene. Table 1 includes xylenes and toluene as COCs in soil.

Finally, the clarity of Table 9-2 is compromised by referring to the shallow soil horizon as "Excavated Area" and the deeper soil horizon as the "Non-Excavated Area." Table 1 defines the soil intervals to be used based on soil depth. The Regional Board stated in the August 21, 2013 letter that the Regional Board does not distinguish between excavated and non-excavated areas in setting SSCGs and directed Shell to develop protective SSCGs for all site soils.

To address these comments, Table 1, attached to this letter, sets forth SSCGs that take into account leaching potential for both soil intervals, and adds xylenes and toluene to the list of COCs with appropriate SSCGs. Table 1 also includes soil intervals for zero to five feet below grade as discussed above under "Soil Depth Intervals."

Table 9-3, Site Specific Cleanup Goals, Soil Vapor

The proposed SSCGs for COCs in soil vapor are presented in Table 9-3 of the Revised Report. The SSCGs for COCs are intended to protect human health from inhalation of COCs and are based on DTSC guidance for protective concentrations in indoor air. The Revised Report uses an attenuation factor of 0.001 that ties indoor air standards to soil gas COC concentrations in soil vapor. Recent guidance entitled *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance), California Environmental Protection Agency, Department of Toxic Substances Control,* (DTSC. 2011) and *U.S. EPA's Vapor Intrusion Database: Preliminary Evaluation of*

Attenuation Factors, Office of Solid Waste (U.S. EPA. 2008.) recommend use of an attenuation factor of 0.002 (see also Section B.3. of the Expert Panel Memorandum dated December 18, 2013). The Regional Board hereby approves the SSCGs for COC in soil vapor based on the attenuation factor of 0.002. The approved SSCGs for COC in soil vapor are provided in Table 2, attached to this letter.

Table 9-4, Site Specific Cleanup Goals, Groundwater

The proposed SSCGs for groundwater are presented in Table 9-4 of the Revised Report. The groundwater beneath the Site is designated in the Regional Board's Basin Plan as municipal supply[5], and, therefore, water quality objectives to protect that beneficial use are the appropriate standards. The water quality objectives set forth in the Basin Plan, include primary and secondary MCLs (i.e., drinking water standards) adopted by the California Department of Public Health and incorporated into the Basin Plan and the narrative water quality objective for Chemical Constituents. The proposed SSCGs for groundwater are based on the primary MCLs, the Notification Level, a health based environmental screening level, or zero to represent natural background. Generally, the proposed SSCGs are acceptable with the exception of the SSCGs for TPH. The proposed SSCGs for TPH as gasoline, diesel, and motor oil are based on the ESL. To comply with the Basin Plan water quality objectives, the SSCGs for TPH as gasoline, diesel, and motor oil should be based on the secondary taste and odor threshold of 100 micrograms per liter for TPH as diesel. See State Water Board's "A Compilation of Water Quality Goals", 16th Edition (April 2011).[6] The approved SSCGs for COCs in groundwater are provided in Table 3 attached to this letter.

Methane

In the Revised Report, the revised RAOs proposes prevention of fire/explosion risks in indoor air and/or enclosed spaces due to generation of methane by eliminating methane to the extent technologically and economically feasible. The proposed SSCG for methane is consistent with the DTSC guidance for addressing methane detected at school sites (CalEPA DTSC, 2005) and is applicable to concentrations measured in soil vapor, in vaults, or above ground. The SSCG for methane should be the more stringent of the lower explosive limit or the level that is technically and economically feasible. The "Response" on pages 16 and 78 of the Revised Report include response actions when the SSCG is exceeded. The Regional Board does not approve the response action at this time and will review the response actions that will be contained in the RAP.

The Screening Feasibility Study

The screening FS presented in the Revised Report sets forth several different cleanup alternatives that are based on excavation to different depths and implementation of soil vapor extraction. Shell developed a screening FS to address comments in the Regional Board's August 21, 2013 letter that information regarding the technological and economic feasibility of remedial alternatives was required in accordance with State Water Board Resolution 92-49 in order to approve SSCGs that are greater (i.e. less stringent) than necessary to attain background water quality.

[5] It is important to note that the groundwater at the Site is not currently used for municipal supply. The residents of the Carousel Tract obtain their drinking water from municipal supply provided by California Water Service Company.

[6] http://www.waterboards.ca.gov/water_issues/programs/water_quality_goals/

State Water Board Resolution 92-49 defines economic feasibility as follows:

> "Economic feasibility is an objective balancing of the incremental benefit of attaining further reductions in the concentrations of constituents of concern as compared with the incremental cost of achieving those reductions. The evaluation of economic feasibility will include consideration of current, planned, or future land use, social, and economic impacts to the surrounding community including property owners other than the discharger.
>
> Economic feasibility, in this Policy, does not refer to the discharger's ability to finance cleanup. Availability of financial resources should be considered in the establishment of reasonable compliance schedules."

The underlying basis for estimating remedial alternative costs is not provided in the Revised Report and cleanup metrics such as mass of wastes removed or risks abated is not provided. As discussed in further detail in the attached Regional Board staff memorandum titled *Comments on the Revised Site-Specific Cleanup Goal Report*, dated December 23, 2013, the range of accuracy is overly broad such that the economic differences between different alternatives may not be discernible. Additionally, the screening FS included statements that certain remedial scenarios might affect the tax basis of the City of Carson but did not provide a basis for this statement.

Resolution No. 92-49 defines technological feasibility as follows:

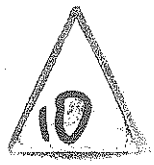
> "Technological feasibility is determined by assessing available technologies, which have shown to be effective under similar hydrogeologic conditions in reducing the concentration of the constituents of concern. Bench scale or pilot-scale studies may be necessary to make this feasibility assessment."[7]

Regional Board notes that Shell undertook bench-scale and pilot scale studies of a number of technologies, including in-situ bioremediation. These technologies have been documented in the pilot test (*Final Pilot Test Summary Report – Part 1*, [URS, May 30, 2013]). The pilot test indicated bioremediation is a potential technology to remediate residual petroleum hydrocarbons. However, the technology was not included in the remediation alternatives set forth in the Revised Report. In developing the RAP, Shell must consider all technologies that have demonstrated effectiveness in bench and pilot studies, including bioremediation as a potential remedial alternative.

Chlorinated Solvents

The Regional Board staff disagree with the Revised Report which suggested that the tetrachloroethylene (PCE) and trichloroethylene (TCE) detected in both on-site soils and soil vapor is from off-site sources exclusively. Although there may be off-site sources of PCE and TCE at the Site, those COCs are often associated with the petroleum industry and on-site sources should not be discounted. The USEPA Toxic Release Inventory for the Petroleum Industry includes the use of chlorinated solvents in large industrial process description. Therefore, the Regional Board cannot exclude PCE and TCE from the list of COCs for the Site. The Expert Panel also recommends that PCE and TCE should not be excluded from the list of COCs. See Expert Panel memorandum dated December 18, 2013.

[7] Note that Shell has conducted numerous pilot studies and those can be used to evaluate technical feasibility. The Regional Board is not suggesting that additional pilot studies are necessary.



CONCLUSIONS AND DIRECTIVES

Upon review of the Revised Report and other relevant documents, the Regional Board approves the following SSCGs as set forth in the attached Tables 1, 2, and 3 with the understanding that the SSCGs may be further revised as necessary to address cumulative risks identified in the forthcoming HHRA that exceed the RAOs.

1. SSCGs for COCs in Soil: The approved revised SSCGs for COCs in soil are provided in Table 1. As described above, to address direct contact with soils, Table 1 provides SSCGs that consider a 350-day per year exposure scenario to soil zero to five feet bgs to be appropriate for unrestricted residential land use and a four- day per year exposure scenario to soil five to ten feet bgs to be appropriate for limited direct contact. To address potential leaching to groundwater, Table 1 provides SSCGs for a soil interval of zero to ten feet bgs. The more stringent of the SSCGs for each soil interval are the approved SSCGs. In addition, SSCGs for toluene and xylenes shall be developed in accordance with the comments above and added to the list of COCs .

2. SSCGs for COCs in Soil Vapor: The approved revised SSCGs for protection of human health are provided in Table 2. As described above, they have been adjusted to take into account recent guidance. In addition, SSCGs shall be revised if necessary to take into account cumulative risks and the final HHRA Report.

3. SSCGs for COCs in Groundwater: The approved revised SSCGs for groundwater are provided in Table 3. As described above, the SSCGs for TPH have been adjusted to address applicable water quality objectives.

The CAO required Shell to submit the RAP to the Executive Officer no later than 60 days after the Executive Officer's approval of the Pilot Test Report. In a letter dated April 25, 2013, the Regional Board revised the due date for the RAP to 45 days following approval of the SSCGs. Therefore, in accordance with the revised due date, Shell is now directed to submit the RAP on March 10, 2014 to the Executive Officer for review and approval. The RAP shall take into account the requirements set forth in the CAO under Paragraph 3, including an evaluation of all available options for remediation, and is based on the comments in this letter and the revised approved SSCGs set forth in Tables 1, 2, and 3 attached to this letter.

To be consistent with the CAO, the RAP shall include, at a minimum:

A. Remedial Alternatives: The RAP shall consider all technologies that were pilot tested, including bioventing, as alternatives. The RAP shall be developed to address COCs in soils in the soil intervals consistent with these comments. The screening FS alternatives in the Revised Report that address this requirement include Alternatives 3B and 4B. Although other alternatives set forth in the screening FS may also be addressed in the RAP, the RAP and environmental analysis must address Alternatives 3B or 4B to take into account the revised SSCGs set forth in Tables 1, 2, and 3. Consistent with State Water Board Resolution 92-49, the RAP shall evaluate the alternatives with respect to effectiveness, feasibility, and cost and propose a remedy or remedies that have a substantial likelihood to achieve compliance, within a reasonable time frame, with the cleanup goals and objectives.

B. Relocation Plan: The RAP shall provide a preliminary relocation plan for residents of the Carousel Tract during remedial activities. The relocation plan shall be based on the

environmental analysis to be submitted in the RAP such that residents are not exposed to COCs or other environmental impacts during the cleanup. A final relocation plan shall be submitted following approval of the RAP.

C. Soil Remediation Boundaries: Shell developed site-wide shallow soil concentration contours for discrete depths of 2, 5, and 10 feet below ground surface in the Site Delineation Report. Shell shall consider the results in the Site Delineation Report, soil concentrations contours and the results of the property-by-property investigations in developing the RAP.

D. Residual Slabs: The RAP shall consider the removal of residual slabs as discussed in the Regional Board's response to the Assessment of Environmental Impact and Feasibility of Removal of Residual Concrete Reservoir Slabs in a letter dated, January 13, 2014 where necessary to protect human health and water quality and address nuisance concerns.

E. Soil Management Plan: The RAP shall include a proposed Soil Management Plan for all soils containing COCs. The RAP shall address on-going monitoring requirements and identification of other governmental agencies that may be responsible for implementing the Soil Management Plan.

The Regional Board concurs with the comments provided by OEHHA dated December 16, 2013 and the Expert Panel dated December 18, 2013. The RAP should address the comments by the Expert Panel that are not already addressed in this letter.

In addition, Shell is directed to concurrently submit with the RAP (1) the final HHRA Report and (2) draft environmental documents consistent with the California Environmental Quality Act (CEQA) analyzing the potential environmental impacts associated with remediation alternatives considered in the RAP.

The RAP shall address any areas that the HHRA Report identifies that will not meet the remedial action objectives (RAOs) of a cancer risk of 1×10^{-6} and non-cancer risk of 1. The RAP shall ensure that these areas shall be remediated to meet the RAOs.

In summary, the RAP, HHRA Report, and environmental documents are due to the Regional Board by 5:00 pm on March 10, 2014.

Following receipt of the required documents, the Regional Board will provide an opportunity for Expert Panel, OEHHA, other agencies, and public review and comment. Following its review of the documents and comments, the Regional Board will consider certification of the environmental documents and approval of RAP.

The due date for the above required documents constitutes an amendment to the requirements of Cleanup and Abatement Order No. R4-2011-0046 originally dated March 11, 2011. All other aspects of Order No. R4-2011-0046 originally dated March 11, 2011 and amendments thereto, remain in full force and effect. Pursuant to section 13350 of the California Water Code, failure to comply with the requirements of Order No. R4-2011-0046 by the specified due date, including the due date for the RAP, HHRA Report and CEQA documents set forth in this letter, may result in civil liability administratively imposed by the Regional Board in an amount up to five thousand dollars ($5000) for each day of failure to comply.

The State Water Board adopted regulations requiring the electronic submittals of information over the Internet using the State Water Board GeoTracker database. You are required not only to submit hard

copy reports required in this Order but also to comply by uploading all reports and correspondence prepared to date and additional required data formats to the GeoTracker system. Information about GeoTracker submittals, including links to text of the governing regulations, can be found on the Internet at the following link:

http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal

Please note that, the Regional Board requires you to include a perjury statement in all reports submitted under the CAO. The perjury statement shall be signed by a senior authorized Shell representative (and not by a consultant). The statement shall be in the following format:

" I, [NAME], do hereby declare, under penalty of perjury under the laws of State of California, that I am [JOB TITLE] for Shell Oil Company that I am authorized to attest to the veracity of the information contained in [NAME AND DATE OF REPORT] is true and correct, and that this declaration was executed at [PLACE], [STATE], on DATE]."

If you have any questions, please contact the project manager, Dr. Teklewold Ayalew at (213) 576-6739 (tayalew@waterboards.ca.gov) or Ms. Thizar Tintut-Williams, Site Cleanup Unit III Chief, at (213) 576-6723 (twilliams@waterboards.ca.gov).

Sincerely,

Samuel Unger

Samuel Unger, PE
Executive Officer

Attachments: Table 1: Site Specific Cleanup Goals, Soil (revised Table 9-2)
Table 2: Site Specific Cleanup Goals, Soil Vapor (revised Table 9-3)
Table 3: Site Specific Cleanup Goals, Groundwater (revised Table 9-4)
SSCGs Development Support Documents References
Comments from the Expert Panel dated January 14, 2014
Regional Board Staff Internal Memorandum 1 dated December 10, 2013
Comments from the Expert Panel dated December 18, 2013
Regional Board Staff Internal Memorandum 2 dated December 23, 2013
OEHHA Memorandum dated November 21, 2013

cc: List

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List

Janice Hahn, Honorable Congresswoman, US House of Representatives, California's 44th District
Isadore Hall, III, Assembly member, 64th Assembly District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Jim Dear, Mayor of Carson
Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board
James Carlisle, Office of Environmental Health Hazard Assessment
Robert Romero, Department of Toxic Substances Control
Alfonso Medina, Los Angeles County Department of Health
Angelo Bellomo, Los Angeles County Department of Health
Bill Jones, Los Angeles County Fire Department
Barry Nugent, Los Angeles County Fire Department
Shahin Nourishad, Los Angeles County Fire Department
Miguel Garcia, Los Angeles County Fire Department
Jackie Acosta, Carson Acting City Manager
Sheri Repp-Loadsman, City of Carson
Ky Truong, City of Carson
Karen A. Lyons, Shell Oil Products US
Alison Abbott Chassin, Shell Oil Products US
Roy Patterson, URS Corporation
Chris Osterberg, URS Corporation
Michelle Vega, Edelman
Robert Ettinger, Geosyntec
Mark Grivetti, Geosyntec
Thomas V. Girardi, Girardi and Keese Lawyers
Robert W. Bowcock, Integrated Resource Management, LLC
Deanne L. Miller, Morgan, Lewis & Bockius LLP
Patrick Dennis, Gibson Dunn

Table 1: Site Specific Cleanup Goals, Soil (revised Table 9-2)

Constituents of Concern	Soil Cleanup Goals (mg/kg)	
Inorganics	0-5 feet	5-10 feet
Antimony	0.272	0.272
Arsenic	12	12
Cadmium	70	6,100
Chromium VI	1.2	110
Cobalt	23	2,100
Coopper	3,100	270,000
Lead	80	800
Thallium	0.143	0.143
Vanadium	390	34,000
Zinc	23,000	2,100,000
PAHs		
Benz[a]anthracene	1.6	140
Benzo[a]pyrene	0.9	14
Benzo[b]fluoranthene	1.6	140
Benzo[k]fluoranthene	1.6	140
Chrysene	16	1,400
Dibenz[a,h]anthracene	0.11	9.7
Indeno[1,2,3-cd]pyrene	1.6	140
Methylnaphthalene, 1-	16	1,400
Methylnaphthalene, 2-	230	20,000
Naphthalene	4	14.1
Pyrene	1,700	150,000
TPH		
TPH-Gasoline	117	117
TPH-Diesel	625	625
TPH-Motor oil	3,300	8500
SVOCs		
2,4-Dinitrotoluene	1.6	140
Bis(2-Ethylhexyl) Phthalate	35	3,000
VOCs		
1,1,2,2-Tetrachloroethane	0.47	41
Cis-1,2-Dichloroethene	0.00385	0.00385
1,2-Dichloroethane	0.000321	0.000321
1,2,3-Trichloropropane	0.00000417	0.00000417
1,2,4-Trimethylbenzene	83	7,200
1,2-Dichloropropane	0.83	72
1,3,5-Trimethylbenzene	85	7400
1,4-Dichlorobenzene	0.0123	0.0123
Benzene	0.0208	0.208
Bromodichloromethane	0.49	42
Bromomethane	8.8	770
Ethylbenzene	4.8	420
Methylene chloride	5.3	470
tert-Butyl Alcohol	0.00785	0.00785
Tetrachloroethene	0.00577	0.00577
Trichloroethene	0.00321	0.00321
Vinyl Chloride	0.000321	0.000321
Toluene	To be provided by Shell	To be provided by Shell
Xylenes	To be provided by Shell	To be provided by Shell

Table 2: Site-Specific Cleanup Goals, Soil Vapor (revised Table 9-3)

Constituents of Concern	Soil Vapor Cleanup Goals ($\mu g/m^3$)
VOCs	
1,1,1-Trichloroethane	2.60E+06
1,1,2,2-Tetrachloroethane	2.10E+01
1,1,2-Trichloroethane	7.50E+01
1,1-Dichloroethane	7.50E+02
1,2,4-Trichlorobenzene	1.05E+03
1,2,4-Trimethylbenzene	3.65E+03
1,2-Dichloroethane	6.00E+01
1,2-Dichloropropane	1.20E+02
1,3,5-Trimethylbenzene	3.65E+03
1,3-Butadiene	7.00E+00
1,4-Dichlorobenzene	1.10E+02
1,4-Dioxane	1.60E+02
2,2,4-Trimethylpentane	5.00E+05
2-Hexanone	1.55E+04
4-Ethyltoluene	5.00E+04
Benzene	4.20E+01
Bromodichloromethane	3.30E+01
Bromomethane	2.60E+03
Carbon disulfide	3.65E+05
Carbon tetrachloride	2.90E+01
Chloroform	2.30E+02
Chloromethane	4.70E+04
Cyclohexane	3.15E+06
Dibromochloromethane	4.50E+01
Dichloroethene, cis-1,2-	3.65E+03
Dichloroethene, trans-1,2-	3.15E+04
Dichloropropene, trans-1,3-	7.50E+01

Constituents of Concern	Soil Vapor Cleanup Goals ($\mu g/m^3$)
VOCs	
Ethanol	2.10E+06
Ethylbenzene	4.85E+02
Heptane	3.65E+05
Hexachloro-1,3-butadiene	5.50E+01
Hexane	3.65E+05
Isopropanol	3.65E+06
Isopropylbenzene (cumene)	2.10E+05
Methyl ethyl ketone (2-butanone)	2.60E+06
Methylene chloride	1.20E+03
Methyl-tert-butyl-ether	4.70E+04
Naphthalene	3.60E+01
Propylbenzene	5.00E+05
tert-Butyl Alcohol (TBA)	5.50E+05
Tetrachloroethene	2.05E+02
Tetrahydrofuran	1.05E+06
Toluene	2.60E+06
Trichloroethene	2.95E+02
Vinyl chloride	1.55E+01
Xylene, m-	5.00E+04
Xylene, o-	5.00E+04
Xylene, p-	5.00E+04
TPH	
Aliphatic: C5-C8	3.65E+05
Aliphatic: C9-C18	1.55E+05
Aromatic: C9-C16	2.60E+04
TPH (Nuisance)	5.00E+01

Table 3: Site Specific Cleanup Goals, Groundwater (revised Table 9-4)

Constituents of Concern	Groundwater Cleanup Goals (µg/L)
Benzene	1
Naphthalene	17
tert-Butyl Alcohol (TBA)	12
TPH-Gasoline	100
TPH-Diesel	100
TPH-Motor Oil	100
1,1-Dichloroethane	5
1,1-Dichloroethene	6
1,2,3-Trichloropropane	0.005
1,2-Dichloroethane	0.5
cis-1,2-Dichloroethene	6
Tetrachloroethene	5
trans-1,2-Dichloroethene	10
Trichloroethene	5
Vinyl Chloride	0.5
1,4-Dichlorobenzene	5
Antimony	background
Thallium	background
Arsenic	background

SSCGs Development Support Documents References

1) Plume Delineation Report, Former Kast Property, Carson, California. (URS, September 25, 2010).
2) Human Health Screening Evaluation Work Plan, Former Kast Property, Carson, California. (Geosyntec, October 30, 2009).
3) Soil Vapor Extraction Pilot Test Report. Former Kast Property, Carson, California. (URS, September 30, 2010).
4) Soil Background Evaluation Report. Former Kast Property, Carson, California. (URS, September 14, 2010).
5) Community Outdoor Air Sampling and Analysis Report, Former Kast Property, Carson, California. (Geosyntec, November 5, 2010).
6) Pilot Test Work Plan for Remedial Excavation and In-situ Treatment Pilot Testing, Former Kast Property, Carson, California. (URS & Geosyntec, May 10, 2011).
7) Gage Aquifer Investigation, Former Kast Property, Carson, California. (URS, October 10, 2011).
8) Bioventing Pilot Test Summary Report. Former Kast Property, Carson, California. (Geosyntec, December 6, 2012).
9) Excavation Pilot Test, 24612 Neptune Avenue, Former Kast Property, Carson, California. (URS, January 4, 2013).
10) Phase II ISCO Bench-Scale Test Report. Former Kast Property, Carson, California. (Geosyntec, August 30, 2013).
11) A Human Health Screening Risk Evaluation (HHSRE) was conducted to evaluate the analytical results of the indoor air, soil, and sub-slab soil vapor samples collected at 268 total homes to date and over 600 Residential Sampling Reports prepared (2009 to present).

Ayalew, Teklewold@Waterboards

Subject: FW: Request for EP Opinion
Attachments: ExposureDepthsMemo_20140114.docx

From: Callahan, Colleen [mailto:ccallahan@luskin.ucla.edu]
Sent: Wednesday, January 15, 2014 12:08 PM
To: Unger, Samuel@Waterboards
Cc: DeShazo, JR
Subject: RE: Request for EP Opinion

Hi Sam,

Attached is the memo that Gary sent yesterday (sending today instead of yesterday because I gave the other members of the Panel time to review). More recently I forwarded your note to Gary and Arturo. Gary has not responded to the note but Arturo wrote back with the sentiment that it makes sense for the Regional Board staff to be more conservative (even beyond what the Panel is recommending). The precautionary principle might be called for in this situation in light of little data to support how deep typical residents dig down for regular activities.

All my best,
Colleen

From: Unger, Samuel@Waterboards [mailto:Samuel.Unger@waterboards.ca.gov]
Sent: Wednesday, January 15, 2014 8:15 AM
To: Callahan, Colleen
Cc: DeShazo, JR
Subject: RE: Request for EP Opinion

Thank you so much. We are contemplating the language below for inclusion in our response. As it's on the same subject, we would appreciate the EP review of the proposed response below if they feel so inclined (I've also included it as an attached word file):

Soil Depth Intervals

Shell provided SSCGs for the uppermost ten-feet of soil as required by the CAO. Based on the human health risk exposure scenarios for residents to come into contact with COCs in soil, Shell divided the upper 10 feet into two interval of zero (0) to two (2) feet below grade surface, and from two (2) feet to ten (10) below grade surface. Shell based the proposed SSCGs on calculated risk to human health from direct contact with soil in the upper two feet on a scenario of 350-days per year over a period of seventy years. For the soil interval of 2 feet to 10 feet Shell calculated risk to human health from direct contact with soil on an exposure scenario of 4 days per year.

Regional Board staff agrees that it may be reasonable to assume that residents will have less frequent exposure to soils in a deeper soil interval than to soils in a shallower interval. However, the Regional Board finds that the proposed depth interval may not support unrestricted residential use as required by the CAO. First, residents can readily dig in soil into soils at depths lower than two feet for gardening or other home improvement projects, at which point they may be exposed to COCs at the lower depth interval. Regional Board staff finds that defining the uppermost soil interval from zero (0) to five (5) feet is supportive of unrestricted residential use. Institutional controls are already in place throughout Los Angeles County which requires a soils investigation as well as grading and shoring permits for depths below 5 feet. In the Carousel tract, the Los Angeles County building code is administered by the City of Carson. Because the City must be notified and approve excavations below five feet (Los Angeles County Building Code Sections 3304.1.2, 3307.1, 1803.5.7, J103, J104) the City could readily inform residents and workers of other appropriate precautions

necessary for excavations below 5-feet through an existing administrative process. Consequently, a depth interval of zero to five feet provides unrestricted use for gardening and other activities to a depth that coincides with existing institutional measures (i.e. obtaining excavation permits) that are already in place.

Thank you

From: Callahan, Colleen [mailto:ccallahan@luskin.ucla.edu]
Sent: Tuesday, January 14, 2014 11:01 AM
To: Unger, Samuel@Waterboards
Cc: DeShazo, JR; McChesney, Frances@Waterboards
Subject: RE: Request for EP Opinion

Sam,

Thank you for email. You should receive comments on this matter from the Expert Panel last this week.

Colleen

From: Unger, Samuel@Waterboards [mailto:Samuel.Unger@waterboards.ca.gov]
Sent: Tuesday, January 14, 2014 10:37 AM
To: Callahan, Colleen; Callahan, Colleen
Cc: DeShazo, JR; McChesney, Frances@Waterboards
Subject: Request for EP Opinion

Dear Colleen:

The Regional Board greatly appreciates the UCLA Expert Panel comments (EP) submitted on Dec. 16, 2013. The Regional Board is seeking additional input from the EP on a specific issue regarding the Revised Site Specific Cleanup Goals Report (Revised Report) submitted by Shell to the Regional Board on Oct. 21, 2013. The issue on which we would appreciate the EP opinion concerns the soil depth intervals used to calculate the Site Specific Cleanup Goals. In the Revised Report, Shell divide the upper 10-foot soil horizon into two intervals: 0-2 feet, and 2-10 feet. Shell used different exposure frequency to constituents of concern in the soil intervals based on the rationale that residents have more frequent exposures to shallower soils than to deeper soils.

The Regional Board's request is that EP opine on the appropriateness of the rationale of using different exposure frequencies for different soil depths within a 10-foot soil horizon. Any additional comments on the numeric frequencies of exposure or the depths of the sub-intervals would also be appreciated, but are not necessary. We would also appreciate the EP's opinion in writing.

I'm available for a phone call if necessary and we would appreciate a written response as soon as possible. Thank you in advance. Please call or email if there are questions.

Sam

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F: 303.294.9220

www.NewFields.com

TO: Los Angeles Regional Water Quality Control Board

FROM: UCLA Expert Panel, Gary Krieger

PROJECT: Former Kast Property in Carson, California

SUBJECT: Soil depth intervals used to calculate the Site Specific Cleanup Goals

DATE: January 14, 2014

The Revised Site Specific Cleanup Goals Report (Revised Report) submitted by Shell to the Regional Board on Oct. 21, 2013 divides the upper 10-foot soil horizon into two intervals: 0-2 feet, and 2-10 feet. Shell used different exposure frequency to constituents of concern in the soil intervals based on the rationale that residents have more frequent exposures to shallower soils (0-2 feet) than to deeper soils (2-10 feet). On January 14, 2014, the Regional Board requested the UCLA Expert Panel comment on the appropriateness of this rationale of using different exposure frequencies for different soil depths within a 10-foot soil horizon.

The UCLA Expert Panel agrees that this methodology is appropriate to assess human health exposure. The USEPA (1993) has defined that the top 2 centimeters of soil is where direct contact for the residential receptor predominantly occurs. In the guidance for soil screening the USEPA states "the decision to sample soils below 2 centimeters depends on the likelihood of deeper soils being disturbed and brought to the surface (e.g., from gardening, landscaping or construction activities)" (USEPA 1996, page 12). In their supplemental guidance, the USEPA states that "residential activities (e.g., gardening) or commercial/industrial (e.g., outdoor maintenance or landscaping) or construction activities that may disturb soils to a **depth of up to two feet**, potentially exposing receptors to contaminants in subsurface soil via direct contact pathways such as ingestion and dermal absorption" (USEPA 2002, page 2-8). In USEPA's (2003) *Superfund Lead-Contaminated Residential Site Handbook*, the agency states that sampling "does not need to exceed 24 inches to define the vertical extent of contamination for clean-up purposes" as the remediation is being conducted to eliminate the potential for direct exposure in the residential setting. The Handbook (USEPA 2003) goes on to recommend for remediation that "Based on Agency experience, it is strongly recommended that a minimum of twelve (12) inches of clean soil be used to establish an adequate barrier from contaminated soil in a residential yard for the protection of human health. ... With the exception of gardening, the typical activities of children and adults in residential properties do not extend below a 12-inch depth." and "Twenty-four (24) inches of clean soil cover is generally considered to be adequate for gardening areas ..."

We agree that the 0-2 feet interval is appropriate for the typical residential exposure and expect, given the established nature of the neighborhood, the assumption that the resident is exposed 4 times per year to soils at depths greater than 2 feet to be highly conservative. It is our opinion that only if soil concentrations exist below 2 feet that may pose a unacceptable exposure to vapor intrusion should residential exposure be the driver for Site Specific Cleanup Goals for subsurface soil (2 to 10 feet) rather than the utility worker. This opinion is consistent with the Revised Site Specific Cleanup Goals Report submitted by Shell.

References Cited

USEPA 1993, *The Urban Soil Lead Abatement Demonstration Project.* Vol I: Integrated Report Review Draft. National Center for Environmental Publications and Information. EPA 600/AP93001/A. NTIS PB93-222-651. as cited in USEPA 1996.

USEPA 1996, *Soil Screening Guidance: User's Guide*, Second Edition, Office of Solid Waste and Emergency Response, Washington DC Publication 9355.4-23, July 1996.

USEPA 2002, *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*. Office of Solid Waste and Emergency Response, Washington DC OSWER 9355.4-24, December 2002.

USEPA 2003, *Superfund Lead-Contaminated Residential Sites Handbook*. Office of Emergency and Remedial Response, Washington DC OSWER 9285.7-50, August 2003.

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

TO: Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region

FROM: Yue Rong, Ph.D., YR
Section Chief, Underground Storage Tank Section
Weixing Tong, Ph.D., PG, CHG WXT
Unit Chief, Underground Storage Tank, Los Angeles Coastal Unit

DATE: December 10, 2013

SUBJECT: COMMENTS ON PROJECT PROPOSAL

We went through the attachment documents presented to us (Revised Site-Specific Cleanup Goal Report, by Geosyntec, dated October 21, 2013, APPENDIX A), particularly to review the calculations for benzene and TPH for groundwater protection (not including vapor intrusion or risk assessment part). The following are our comments as we discussed in the meeting.

1. Soil screening levels calculated in the document did not contain all components in our 1996 Guidebook method, which contains a modification factor due to soil type (a different coefficient for gravel, sand, silt, and clay, respectively). This modification factor was not used in the calculation.

2. In page A-28, it states that the Attenuation Factor method in 1996 Guidebook Step 3 is not conducted in order to "avoid double-counting" the soil type. We disagree with the approach to skip Step 3. The 1st Step using soil type parameter is to calculate VOC partitioning based on soil physical material and contaminant chemical properties. Steps 2 and 3 are to obtain "safety factors" for the attenuation factor, but are not used to count for VOC partitioning. Step 3 is a factor based on leachability. Therefore, Step 1 and Step 3 are different in nature.

3. Based on the 1996 Guidebook method referenced above, the soil cleanup level should be calculated for benzene as follows:

$C_{(cleanup)} = MCL \times AF(\mathrm{T})\ /\rho b = (1 \mu g/L \times 33/10) / 1.54\ kg/L = 2.1\ \mu g/kg$

(Please compare with results in page A-31)

4. In page A-31, the report used a dilution factor (DAF=6.24) in the calculation for soil cleanup goals. Note that the same DAF has been used for all other VOCs in table A-17. In Appendix A (Section 5.3.3), it used the Soil Attenuation Model (SAM) to quantify the dilution of dissolved constituents of concern (COCs) when soil leachate mixes with lateral groundwater flow. This method assumes when leachate vertically migrates to the water-bearing unit through infiltration, a contaminant will be diluted by the lateral groundwater flow in the mixing zone. We believe that the use of SAM is

not appropriate in this case because the groundwater underneath the subject site has been impacted by the various COCs (i.e., TPHg, benzene, etc.) and groundwater contamination plumes with concentrations above their respective MCLs or NLs already exist. Any contaminants brought into the water-bearing unit through infiltration will be considered as an addition to the existing plume. Furthermore, the proposed dilution concept is against the State Anti-degradation Policy. The discharge compliance point should be at the groundwater table where the infiltrated water enters the water-bearing unit.

5. Not clear how the TPH cleanup goal is calculated in terms of groundwater protection. TPH cleanup levels calculated in the report seem all based on human health risk factors. If we use Table 4-1 in the 1996 Guidebook, the cleanup levels should be: TPH(gasoline range C4-C12) = 500 mg/Kg, TPH(diesel range C13-C22) = 1000 mg/Kg, and TPH(motor oil range C23-C32) = 10000 mg/kg, respectively. By contrast, Table A-17 presented in the report proposed soil cleanup goals for TPH as gasoline of 730 mg/Kg, TPH as diesel of 3900 mg/Kg, and TPH as motor oil of 50000 mg/Kg.

6 Use of the Attenuation Factor method specified in our 1996 Guidebook can also be considered for determining the TPH cleanup levels. In that case, individual compounds representing each carbon range should be used for calculation. For example, hexane, naphthalene, trimethylbenzene, etc.

7. Specific comments on the document and Appendix A:
   a) Need to number all equations in the report for reference.
   b) The bottom two equations in page A-31 are incorrect. The DAF equation should use 11.3m as input instead of 21.4m, and $C(cleanup)$ equation should have result in unit of $\mu g/kg$, not mg/kg.
   c) Vertical dispersivity αv value seems too high. Need justifications for choosing this value (although it did not really impact the result in this case).

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Comments from the Expert Panel on the Revised Site-Specific Cleanup Goal Report

Submitted: December 18, 2013

A. Introduction

As requested by the Los Angeles Regional Water Quality Control Board (Regional Board), the Expert Panel has reviewed the Revised Site-specific Cleanup Goal Report (Revised SSCG Report) prepared for the former Kast Property in Carson, California by Geosyntec Consultants for Shell Oil Products US. This builds upon the Panel's review of the previously submitted Site-specific Cleanup Goal Report (SSCG Report), and precedes the release of the Remedial Action Plan.

The Panel's overall charge is to provide its recommendations for the Regional Board to consider in determining whether cleanup goals and remedial actions proposed by the responsible parties named in the Cleanup Order are consistent with applicable legal authorities.

In general, Geosyntec did not make many changes to the overall approach taken in the Revised SSGC Report compared to the original SSCG Report. Text and figures were added to help explain reasoning and inconsistencies while improving transparency. Yet we have concerns with the following issues.

B. Concerns and Recommendations

1. Cumulative risk and/or hazard taken into account in the SSCG calculations
2. Finalizing the COC list
3. Attenuation factor for sub-slab vapor concentrations
4. Chlorinated volatile organic compounds (CVOCs) potentially from onsite sources
5. Remediation options
6. Interpretation of State Board Resolution No. 92-49

B.1. Cumulative risk and/or hazards taken into account in the SSCG calculations

One of the Expert Panel's most significant concerns, still not addressed in the Revised SSCG Report, is with the calculation of the SSCGs. Each COC has a calculated SSCG that is based on a cancer risk of one in a million (10^{-6}) or a hazard index of 1. "The final SSCG values were not adjusted by number of chemicals included in the SSCG derivation process therefore there is no impact on the value calculated." (Response to Expert-3 comment regarding the number of COCs selected) We advise the Regional Board to explicitly task Geosyntec to clearly demonstrate how cumulative risk is assessed and calculated for all of the chemicals of concern (COCs).

In response to OEHHA commenting, "The implication of cumulative risks and/or hazards that exceed target levels needs to be considered." Geosyntec replied, "Agreed. This is consistent

with the approach described in the SSCG report." (Response to OEHHA-32) However, the Panel still does not see how this is consistent with the approach. In general, Geosyntec states,

> *"... we believe dividing the SSCGs by the number of COCs to calculate a lower value to address cumulative risk issues is overly conservative and assumes that the chemicals are equally distributed. For most sites there are a subset of chemicals that contribute the majority to risk and hazard. Rather than assume a certain distribution of risk and hazard among chemicals ahead of time, the site data will be evaluated in the HHRA to identify the final COCs. In addition as presented in the RAOs section, the forthcoming HHRA [Human Health Risk Assessment] will address cumulative risk."* (Responses [whole or in part] to Expert-4, Expert-5, RWQCB-15 and Expert-8)

This comment pushes things to the forthcoming full Human Health Risk Assessment (HHRA), which the Panel believes should logically have been done already. As stated in our Interim Report on the SSCG Report, "the utility of developing this document after the execution and release of the SSCG is potentially problematic for key decision makers at the Water Board. Typically, a human risk assessment should inform cleanup goals rather than be released after the cleanup goals are determined."

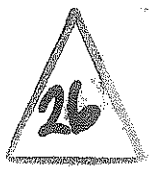
The only step where we see cumulative risk assessed is in the selection of the COCs where the risk-based screening level (RBSL) has been divided by 10. Geosyntec's primary argument for not taking cumulative risk into account in the SSCG report appears to be two-fold: 1) chemicals are not necessarily equally distributed and 2) the upcoming HHRA will do it.

> *"When the forthcoming HHRA is conducted cumulative risks and hazards will be calculated and corrective actions will be based on the SSCGs presented in this report and the cumulative HHRA results." (Response to Expert-3)*

While not discussed explicitly, we have to wonder if the way this will be conducted is similar to the HHSRE where the risk index is calculated using the SSCGs rather than the RBSLs and that a risk index greater than 1 would require remedial action rather than an exceedance of SSCG ("bright line" method). That is how the following text could be interpreted.

> *"The chemical-specific SSCGs will be used in the HHRA along with the exposure point concentration for each property and depth interval being evaluated to estimate chemical-specific risks and noncancer hazards. ... Cumulative estimates of cancer risk and noncancer hazard will be calculated by summing the chemical-specific estimates presented in the HHRA."* (Pages 44-45 of the SSCG Report)

If SSCGs will be used to calculate a "risk index" that will trigger action rather than using the SSCGs as "bright line" remediation cleanup values for determining whether an action is required, then our concern with cumulative risk/hazard has probably been addressed, and we



can see how the Site's RAOs for soil[1], in particular, can be met/addressed. However, if the SSCGs are actually used as "bright line" cleanup concentrations, we are concerned that once the board approves of this report, there is no modification possible. Geosyntec uses the "they have approved it so it is good" argument several times in their comment responses. Therefore, the Board should be very clear about how these SSCGs are going to be used for making decisions in the RAP.

We would advise the Water Board to clearly and explicitly hold Geosyntec to a work plan that explicitly addresses the key issues and lays out methodology; otherwise this will recycle. And again, we are concerned with how key decisions are continuously pushed forward onto the HHRA, when it is unclear that Geosyntec will perform the calculations in a total manner that is reflected in the cleanup that the Water Board will find acceptable.

B.2. Finalizing the COC list

Geosyntec indicates that the SSGCs are final, but they describe the COC list as preliminary. The Panel agrees with the OEHHA and recommends that the COC list should be presented as the final list; otherwise it will be difficult to argue that the SSCG list is final.

While we did previously point out that HERO HHRA Note 4 (Expert-15 comment) is inconsistent with the COC approach in the SSGC report, we will agree with Geosyntec that "[T]he screening approach used in the SSCG report to select COCs is considered appropriate for this site ..." (Response to Expert-15). However Geosyntec appears to indicate that this COC list is not considered "final" by stating, "The Revised SSCG Report presents the **preliminary** [emphasis added] list of COCs for evaluation in the RAP. The forthcoming HHRA will provide the **final** [emphasis added] analysis following the approached presented in Appendix A" (Response to OEHHA-23). It is unclear why then the COC list is preliminary if it follows the same approach. However, note the COC selection process is in the SSCG report and only summarized in Appendix A. Appendix A states, "Tables 4.5 and 4.6 of the main report present the COCs that have been identified for each media to be carried forward into the RAP" (page A-2).

We recommend that the COC list should be presented as the final list.

B.3. Attenuation factor for sub-slab vapor concentrations

The Revised SSCG Report proposes an attenuation factor (AF) of 0.001 when sub-slab vapor concentrations are greater than 100 ug/m^3 (a high concentration for this site). However, this AF is very low. We recommend using a home-specific attenuation factor rather than a generic AF, to ensure that each individual home is protected.

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[1] "The RAOs for soil are to prevent human exposures to concentrations of COCs in soil such that total (i.e., cumulative) lifetime incremental carcinogenic risks are within the NCP risk range of 1×10^{-6} to 1×10^{-4} and noncancer hazard indices are less than 1 or concentrations are below background, whichever is higher." (page 39)

In the analysis presented by Geosyntec (Appendix B), the argument is made that a generic attenuation factor of 0.01 for consideration the pathway from sub-slab to indoor air is in fact conservative. While this may be valid for a large number of the homes, Figures B-10 and B-11 suggest that this is NOT the case for a number of individual homes, when paired data for specific compounds is evaluated. The empirical data does not support using a "generic" attenuation factor for determining the risk, which is consistent with the notion that conditions may be different in each home, and that for a given home owner it is important to reduce her/his individual risk, not the generic risk. In fact, Figure B-10 suggests that the number of cases where the empirical attenuation factor is > 0.01 is large, although mostly at low sub-slab concentrations. Nevertheless, there are a significant number of cases where the empirical attenuation factor is > 0.01 and sub-slab concentrations are > 100 ug/m3.

The recommendation is to not use a generic attenuation factor, but rather a home-specific attenuation factor, to ensure that each individual home is protected.

In addition, it would have been useful for Geosyntec to have provided the spatial distribution of the CVOCs in the sub-slab vapor as it would have likely followed the CVOC groundwater distribution and not the CVOC soil distribution, providing more evidence of a trespassing CVOC plume. This would provide a link between the risk assessment and subsurface evaluation.

B.4. Chlorinated volatile organic compounds potentially from onsite sources

Geosyntec provided in Appendix E the distribution maps of PCE and TCE in both shallow soil and in groundwater. These maps make the best case for the conclusion that the CVOCs in both shallow soil and groundwater are from neighboring source, but the evidence could be presented more clearly and transparently. The "evidence" of "[T]he lack of detections of PCE and TCE in Site soils between 10 feet below ground surface and groundwater (>400 samples)" [Response to comment RSQCB-2] does not "rule out" that CVOCs in shallow soil are sourced from the Site rather only rules out that the Site probably did not source the groundwater plume under the site. We advise the Regional Board to focus attention on this area.

B.5. Remediation options

We recommend not eliminating remediation options at this point in the analysis. Section 9 of the Revised SSCG includes a preliminary evaluation of remedial alternatives, also called a Screening Feasibility Study, and then based on this preliminary evaluation excludes certain technologies and remedial alternatives while prioritizing only certain remaining ones for further evaluation. Geosyntec envisions that later a "detailed evaluation of the recommended remedial alternative will be conducted and presented in the forthcoming Remedial Action Plan." The Expert Panel is concerned that it may be premature to eliminate many remediation technologies and alternatives now and thus exclude these options from further evaluation in the forthcoming RAP.

For instance, Geosyntec indicates that bioventing "would not be technologically and economically feasible to implement and is therefore eliminated from consideration for inclusion

in remedial alternatives". This is based on the presumption that "based on the average rate of biodegradation (of petroleum hydrocarbons), the systems would have to be in place for several decades," as well as the significant number (15 to 20) of extraction points that would have to be installed on each property.

While the pilot scale studies did reflect low biodegradation rates, this technology should be kept in consideration, since it may be a cost-effective approach for significantly reducing the risk in those areas where there are elevated concentrations of hydrocarbons within the first 5-20 feet below ground surface. Naturally, the recommended approach would be to first apply soil vapor extraction (which will be considered further in the next phase) to remove the more volatile compounds. But as pointed out by Geosyntec, diesel components and other heavy hydrocarbons will not be removed significantly by soil vapor extraction. The bioventing pilot test results indicated that relatively low flow rates were necessary to deliver sufficient oxygen to the subsurface to meet the bioventing oxygen demand. Geosyntec calculated that "the time frame for bioventing system operations ranged from approximately 1 to 4 years, assuming the higher initial biodegradation rate, to several decades assuming the average biodegradation rate." Thus, for some locations it may be possible to remove a significant mass in a few years. The extraction wells used for soil vapor extraction (SVE) could be used for subsequent bioventing as needed. Key is to determine the conditions that result in the higher biodegradation rate at the site.

Although this technology will not be applicable for all hot spots, it seems premature to dismiss it, without a real economic feasibility analysis. It will certainly be technologically feasible if done correctly, as was done in some of the pilot scale studies. Bioventing would be additive to Alternative 7, and would be considered on a hot spot by hot spot basis. The marginal costs are small (given that SVE would be used first), and there could be considerable savings over the project life, as well as faster risk reduction, if a significant mass of hydrocarbons is removed.

B.6. Interpretation of Resolution No. 92-49

Geosyntec proposes a narrow interpretation of State Water Board Resolution No. 92-49. The Revised SSCG asserts that Resolution No. 92-49 applies only to groundwater quality and excludes soil and soil vapor. We are concerned that the Board's approval of the Revised SSCG would be taken as approval of this narrow interpretation of Resolution in a way that would affect actions for relevant non-water media. We recommend that the Board clarify their scope of authority and respond to the assertion that:

> *Waste in non-water media (such as soil) should be addressed through remediation to promote the attainment of background water quality (not, for example, background levels in soil) or the best water quality that is reasonable feasible given the considerations listed." (Revised SSCG Report, page 78)*

C. Relatively Minor, Miscellaneous Comments Relevant to Application of the Technical Review Principles

- The table of Potentially Complete Exposure Pathways in the report and in Appendix A does not match (e.g., Indoor Air is missing from the version in Appendix A, as well as just matching modifiers). This has to do basically with consistency.

- Table A-3a, second half appears to be missing naphthalene (the volatile PAH).

- Table A-3b appears to be missing $VF_{soil\text{-}OA}$ values for some of the selected COPCs in soil.

- Concentration units should be included on the on the soil figures in Appendix E.

- The use of light pink/pink to represent the >25th to 50th percentile in the indoor vapor figures is unfortunate as it tends to "blend" with the purple used to represent the >90th Percentile and thus upon first glance this reviewer had the "pink houses" with much higher indoor air concentrations than the legend indicates. This reviewer would recommend using a gradual color scheme so colors intensify to the higher concentrations or go from the cool colors to the warm (blue, green, yellow, orange, red). We make this recommendation in the belief that at some point these figures will be presented in a public forum and we have found that the use of this color scheme strategy allows the reader/viewer to make first glance conclusions that match the map interpretation.

California Water Boards

Los Angeles Regional Water Quality Control Board

TO: Samuel Unger, Executive Officer
California Regional Water Quality Control Board, Los Angeles Region

FROM: Cris Morris CRM
Water Resource Control Engineer
Site Cleanup Program, Unit III

DATE: December 23, 2013

SUBJECT: COMMENTS ON REVISED SITE-SPECIFIC CLEANUP GOAL REPORT

To address the comments in the Soil/Water/Air Protection Enterprise (SWAPE) letter dated November 27, 2013 pertaining to the KAST Screening Feasibility Study in the Revised Site-Specific Cleanup Goal Report (Report), it is necessary to identify the proper approach to a feasibility study of this complexity. If we use the Superfund Remedial Investigation/ Feasibility Study (RI/FS) process as a guideline, the development and screening of alternatives includes:

1. Develop remedial action objectives (RAOs), specifying the contaminants and media of interest, exposure pathways, and preliminary remediation goals.
2. Develop general response actions for each medium of interest (containment, treatment, excavation, pumping etc.) that may be taken either individually, or in combination, to satisfy the RAOs.
3. Identify volumes or areas of media to which general response actions might be applied.
4. Identify and screen the technologies applicable to each response action to eliminate those that cannot be implemented technically at the site. Further define each response action.
5. Identify and evaluate technology process options to select a representative process for each technology type.
6. Assemble the selected representative technologies into alternatives representing a range of treatment and containment options as appropriate.
7. The alternatives are evaluated with respect to effectiveness, implementability and cost. Only the most promising alternatives are included in the detailed alternative analysis.

The abbreviated versions of the RAOs presented in the Report for the Former Kast Property are

- Prevent human exposures to constituents of concern (COC) concentrations in soil, soil vapor, and indoor air such that the cumulative lifetime incremental carcinogenic risks is within $1x10^{-6}$ and 10^{-4} and the noncancer hazard index is less than 1 or concentrations are below background, whichever is higher. The receptors are onsite residents, and construction and utility maintenance workers. The point of departure for onsite residents is $1x10^{-5}$.

- Prevent fire/explosion risk in indoor air and enclosed spaces and eliminate methane in the subsurface to the extent technologically and economically feasible.
- Remove or treat LNAPL to the extent technologically and economically feasible AND where a significant reduction in current and future risk to groundwater will result.
- Reduce COCs in groundwater to the extent technologically and economically feasible to achieve the water quality objectives in the Basin Plan.

Rather than utilizing the formalized alternative screening process developed for Superfund RI/FS, this document just identifies technologies that fit into two categories. The categories and the technologies are:

- Interrupt the Human Health Exposure Pathway
  - Sub-slab vapor mitigation
  - Capping portions of the site
  - Institutional Controls
- Remove COC Mass and Interrupt the Human Health Exposure Pathway
  - Excavation
  - Soil vapor extraction
  - Bioventing
  - In-situ chemical oxidation
  - LNAPL/source removal
  - Other removal or remediation of groundwater
  - Monitored natural attenuation

To effectively manage the determination of Site Specific Cleanup Goals (SSCGs), the Report classifies the exposure medium by splitting the soil into a shallow surface soil and a shallow subsurface soil. The justification for this step is that the human exposure frequency varies between the surface soil (0 to 2 feet deep) and the subsurface soil (2 to 10 feet deep) (Refer to Appendix A). By imposing the assumption that the subsurface soil is encountered only infrequently and that any excavated subsurface soil is not distributed onto the surface, a Soil Management Plan and a deed restriction are required for each property. As a result, there are no alternatives without the imposition of Institutional Controls. In addition, the assumption is also made that the Soil Management Plan would be utilized to limit the risk of the construction /worker so there are no technologies necessary to protect the construction worker except for the Institutional Controls

Using the technically feasible technologies, seven alternatives, with some sub-alternatives, were prepared and presented. (Only Alternatives 1 through 6 focus on the soil medium). For an initial screening in a Superfund RI/FS, these alternatives would have only been evaluated with respect to effectiveness, implementability and cost and the cost estimate range would have been +100 / -50 %. The evaluation criteria included in the Report include: Cleanup Goal Achieved; Implementability; Environmental Considerations; Reduction of Toxicity, Mobility and Volume; Social Considerations, Other Issues and Cost. The cost estimate range presented in the Report is +50 / -30 %.

The alternatives for the soil medium included in the analysis and the ones that are not retained for the next phase are indicated below:

1) Removal of all site features and excavation of impacted soil.

   Not retained: not technologically and economically feasible and very high social, environmental and economic costs.

2) Removal of all site features and excavation down to 10 feet.

   Not retained: not technologically and economically feasible and very high social, environmental and economic costs.

3) Excavation to 2 feet bgs in open areas and beneath residential hardscape as required by SSCG.

   Retained

   3A) Excavation to 5 feet bgs in open areas and beneath residential hardscape as required by SSCG.

   Retained

   3B) Excavation to 10 feet bgs in open areas and beneath residential hardscape as required by SSCG.

   Not retained: not technologically and economically feasible and very high social, environmental and economic costs.

4) Excavation to2 feet bgs in open and landscaped areas as required by SSCG.

   Retained

   4A) Excavation to 5 feet bgs in open and landscaped areas as required by SSCG.

   Retained

   4B) Excavation to 10 feet bgs in open and landscaped areas as required by SSCG.

   Not retained: not technologically and economically feasible and very high social, environmental and economic costs.

5) Removal of all site features and cap site.

   Not retained: not technologically and economically feasible and very high social, environmental and economic costs.

6) Capping of exposed soils and landscaped areas.

   Retained

At the conclusion of this screening step, the retained alternatives include

- Alternative3: Excavation to 2 or 5 feet bgs in open areas and beneath residential hardscape
- Alternative 4: Excavation to 2 or 5 feet bgs in open and landscaped areas
- Alternative 6: Capping of exposed soils and landscaped areas

Although this screening included more criteria than the three criteria used for a RI/FS preliminary screening of alternatives (effectiveness, implementability and cost), the issues are whether alternatives have not been retained which should have been and whether valid justification is provided. The evaluation of whether or not each alternative meets the RAOs is the critical issue. If the RAOs are satisfied for each alternative and the screening process retains a representative alternative from each response action, then the screening process is valid. Since the decision making process focuses around the soil medium, the discussion below only addresses the soil.

The premise that a Soil Management Plan (and thus a deed restriction) is required for each residence to disrupt the pathway from the subsurface soil to human receptors is not a valid assumption and has invalidated the RAO review process. Once this restriction is removed, the alternatives need to be reevaluated with respect to whether they satisfy the RAOs. The response actions that need to be addressed by a retained alternative are:

- No Action,
- Institutional Controls (including the Soil Management Plan and deed restriction)
- Collection/Discharge (excavation and disposal)
- Containment (cap)

Once the alternative screening process has been repeated with retained alternatives representing each of the response actions listed above, the alternatives are further developed and the nine National Contingency Plan (NCP) criteria are evaluated. These criteria include: overall protection of human health and the environment, compliance with Applicable or Relevant and Appropriate Requirements (ARARs), long term effectiveness and permanence, reductions in toxicity, mobility and volume through treatment, short term effectiveness, implementability, cost, state acceptance and community acceptance.

The SWAPE comment letter dated November 27, 2013 raised a number of issues including the validity of the screening analysis and the lack of retaining alternatives that relocated the residents and redeveloped the site for non-residential options. The most notable comments are listed below:

1. Pg 1 Alternatives are rejected without any detailed explanation
2. Pg 1-2 Request "to conduct a detailed evaluation of remedial alternatives and present those evaluations in a 'proper' Feasibility Study"
3. Pg 2 Expectation that all feasible alternatives are evaluated in a manner that is "transparent, subject to public participation and that conforms with standard practices and policies"
4. Pg 2 Does not include any alternatives with the relocation of residents and redeveloping the site for non-residential options.
5. Pg 3 Detailed FS required before a proposed RAP can be prepared
6. Pg 3 Understated economic and social impact to residents
7. Pg 5 Difficulties associated with some alternatives are overstated

Depending upon the outcome of the RAO analysis after the Soil Management Plan/deed restriction constraint is removed, the option of relocating and redeveloping the site would need to be reevaluated. However, as long as the RAO can be satisfied with another alternative within a response action that is easier to implement and less expensive, then not retaining that option is valid.

The SWAPE expectation that the screening process and the detailed evaluation of alternatives be transparent is a valid concern but the comments presented in the text and Table 9-5 appear to provide the necessary information to screen the alternatives. This step only requires the evaluation of effectiveness, implementability and cost. During the detailed analysis of alternatives phase, however, the community acceptance criteria will need to be addressed for

each alternative individually and in comparison to the others. This analysis will be limited to only the alternatives that are retained from the screening step and will probably not include the option of redeveloping the site. The preparation and review process of the detailed analysis needs to be made prior to the Remedial Action Plan, but can be combined into one document.

In summary, the SSCG report needs to be revised to limit the Soil Management Plan/deed restriction requirement to the Institutional Controls alternative. Once the alternatives are reevaluated with respect to the RAOs and the SSCG report has been resubmitted for review, the detailed analysis of the alternatives should be submitted with the individual and comparative evaluation of each of the retained alternatives to the 9 NCP criteria. If this process is completed per the RI/FS guidance, then the comments presented by the SWAPE letter should be addressed.

Office of Environmental Health Hazard Assessment

George V. Alexeeff, Ph.D., D.A.B.T., Director
Headquarters • 1001 I Street • Sacramento, California 95814
Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010
Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Teklewold Ayalew, Ph.D., P.G.
Engineering Geologist
Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

FROM: James C. Carlisle, D.V.M., M.Sc. J.C.
Staff Toxicologist
Air, Community, and Environmental Research Branch

DATE: November 21, 2013

SUBJECT: REVISED SITE-SPECIFIC CLEANUP GOAL REPORT, FORMER KAST PROPERTY, CARSON, CALIFORNIA
SWRCB#R4-09-17 OEHHA #880212-01

Document reviewed

- Revised Site-Specific Cleanup Goal Report, Former Kast Property, Carson, California, dated October 21, 2010 by Geosyntec Consultants, Inc.

Scope of review

- OEHHA's review is limited to risk assessment issues and does not include evaluation of explosion hazards or leaching/groundwater protection.

Response to previous comments

- OEHHA's April 23, 2013 comments on the first draft SSCG report are summarized below followed by OEHHA's evaluation of Shell's responses to these comments:

1. Please consider whether major renovation projects such as pool installation or underground utility work are possible and whether residents could be exposed to deeper soils redistributed to the surface during and after such renovation.
   a. SHELL RESPONSE: subsurface soils (e.g. >2-10 feet bgs) are considered for infrequent contact; the likelihood of a resident contacting soils at deeper depths is extremely low given the developed nature of the Site and typical residential activities where exposure to soil could occur (e.g., recreational activities, lawn care, landscaping). In addition, it is unlikely that soils from a deeper excavation (such as during a major renovation or utility repair work) would be placed at the surface due to the lack of area to place excavated soils. It is assumed for the infrequent contact scenario that institutional controls (e.g., a notification trigger added to the existing excavation permitting process, a soil management plan) to prevent redistribution of deep soils at the surface would be required.

OEHHA's RESPONSE: Typically, residential exposure scenarios include soil down to 10 feet depth in the standard exposure scenario (i.e. 350 days per year). The rationale is that soils at this depth may be excavated and re-distributed to the surface. Shell's response calls for institutional controls that would prevent this re-distribution and presumably achieve the low exposure goals. The appropriateness of institutional controls is a risk management decision.

2. A Table showing final SSCGs and whether each is health-based or background-based would be very helpful.
    a. OEHHA's RESPONSE: Shell's Table 9-2 complies with this request (although it is unclear why "C" or "NC" were not included in the "Basis" column).
3. OEHHA questions the appropriateness of comparing background-based SSCGs to the 95 percent upper confidence limit (UCL_{95}) for each property.
    a. Shell's RESPONSE: For chemicals that are present at concentrations above the BTV, a one-sample proportion test will be used to compare the Site data with the BTVs.
    b. OEHHA's RESPONSE: Shell's methodology is adequate.
4. In order to fully evaluate background arsenic and PAHs, reviewers need to see site-wide arsenic & PAH data.
    a. OEHHA's RESPONSE: Sell indicates that hese data will be supplied as part of the HHRA.
5. Please consider evaluating the outdoor vapor inhalation pathway for residents or explain the exclusion of this pathway.
    a. OEHHA's RESPONSE: Appendix D includes the statement "soil vapor to outdoor air screening levels were developed for the soil vapor to outdoor air pathway for residential exposures. However, this does not seem to be the case. The soil to outdoor air pathway was evaluated for residential exposures and the community air study and the outdoor air monitoring address outdoor air.
6. OEHHA supports assessing exposure and risk over the area to which individuals are likely to be exposed. This is typically the UCL_{95} for each property, but if there are not enough samples from a given parcel to calculate a UCL, the exposure and risk calculations should be based on the maximum detected concentration in a particular medium on that parcel. OEHHA supports the summation of chemical-specific risks and hazards to estimate cumulative risks and hazards. The implication of cumulative risks and/or hazards that exceed target levels needs to be considered.
    a. OEHHA's RESPONSE: This approach (described on page 44-45) was included in the original SSCG report.

SSCGs

- OEHHA was able to verify selected soil and soil vapor SSCGs by using the SSCG as the exposure concentration in a forward calculation.
- The assumed exposure of 4 days per year for soils from 2 to 10 feet bgs has been commented on previously. This assumption results in very high SSCGs for some contaminants in soils from 2 to 10 feet bgs.

Regression analysis of indoor VOCs and their possible sources

- The use of detection limits as the explanatory variables for 1,2-DCA, benzene, carbon tetrachloride, ethylbenzene, m,p-xylene, and o-xylene may distort the relationship making it more difficult to discern any actual relationship (Table B-14 and Attachment A). Using benzene as an example:
    - In Figure 2 the indoor benzene concentrations corresponding to the non-detects in the sub-slab vary over about 3 orders of magnitude. Since there is no corresponding measured variation in sub-slab benzene it is difficult to tell how much of this variation in indoor benzene could be explained by variation in sub-slab benzene.
    - If sub-slab benzene is contributing to indoor benzene, one would expect the 13 or so data-points where benzene was detected in sub-slab vapors to have indoor values that are higher than those associated with non-detects. No such a difference is apparent in the graphic.
    - Unfortunately, there is no separate analysis of the 13 data points.
- The graphics in Attachment B clearly show that as apparent attenuation factor (AAF) values decline, the correlation between IA-OA and sub-slab VOCs increases.
- The table on page B-18 shows values for the correlation coefficient, usually designated as r. The graphs in Attachment B show similar values for r^2. Please clarify whether these are r or r^2 values. (Presumably these are r values since r^2 [in most cases] cannot have a negative value.) Also, the graphic depicts, a negative r with positive beta, which seems unusual at best.
- Plots of AAF versus sub-slab VOCs (Figures B-10 & B-11) are more instructive in this regard. For chlorinated compounds, the AAF appears to flatten out at around 0.001. For petroleum compounds, the AAF also appears to flatten out at around 0.001, but the trend is less clear. For non-chlorinated solvents, the AAF does not appear to have reached a point of flattening out.
    - The trend-line in B-11 is not labeled and it is unclear what it represents.

Community air

- Section 7.1 states that "all statistical tests (ANOVA, t-test, and Mann-Whitney) show that air concentrations within the Site boundary are not significantly different from concentrations from areas to the east (generally downwind) and west (generally upwind) of the Site." While not disputing the veracity of that statement, OEHHA cautions that failure to reject the null hypothesis does not

mean that the alternative hypothesis is proven, i.e. that the VOC concentrations in the different air masses are the same.

- However, alternative methods of data analysis, e.g. binomial distribution, as noted in our August 19, 2013 memorandum, raise the possibility that there are small increases in VOCs other than naphthalene that are below the detection thresholds of the statistical tests employed in the study report.
- OEHHA concurs with the conclusion that VOCs in the outdoor air at the Carousel Tract are within the reported range of VOCs in regional outdoor air, with the possible exception of naphthalene.

Editorial comments

- The factors labeled ECSS-SV-IA and ECSV-OA Section 5.1 of Appendix A would seem to be attenuation factors based on their units, but they are labeled as exposure concentrations.
- The last paragraph on ES-6 seems misplaced.
- The word "receptor" is not only unnecessary jargon but also, offensive to any resident of Carousel Tract who happens to read this document. In most, if not all, cases, "residential receptor" can be replaced with "resident" without loss of meaning.
- Appendix A section 3.1.2.2 presents equations for soil vapor to outdoor air then goes on to show how soil vapor concentrations are estimated from soil concentrations, which begs the question: "If soil vapor concentrations are estimated, why not use standard soil to outdoor air equations?" Based on a recent conference call, it is OEHHS's understanding that the more direct calculation will be used depending on the medium being analyzed.
- In some cases "VF" (meaning "volatilization factor") represents the ratio of VOC concentrations in outdoor air to soil vapor. This is dilution, not volatilization.
- Appendix A section 3.1.2.2, $VF_{soil\text{-}OA}$ is identified as the ratio of the outdoor air exposure point concentration ($EPC_{soil\text{-}OA}$) to the soil exposure point concentration (EPC_{soil}) in the text, but in the following equation, it is the inverse.
- Also in Table A-2 Soil vapor-to-outdoor air volatilization factor $VF_{SV\text{-}OA}$ ($\mu g/m^3$ per $\mu g/m^3$) is identified as the ratio of chemical concentration in outdoor air ($\mu g/m^3$) to chemical concentration in soil vapor ($\mu g/m^3$). In Table A-3b, the units for $VF_{SV\text{-}OA}$ are given as "$\mu g/m^3$ per $\mu g/m^3$" without specifying what media are represented by these units, but it is clear from the spreadsheets that $VF_{SV\text{-}OA}$ must be the ratio of chemical concentration in soil vapor to that in outdoor air.
- Similarly, in Table A-6 $EC_{SV\text{-}OA}$ (the exposure concentration for outdoor inhalation of chemicals from soil vapor is given as mg/m^3 per mg/m^3, and $VF_{SV\text{-}OA}$ (the volatilization factor is given as $\mu g/m^3$ per $\mu g/m^3$. One might think these are the same. But they are apparently inverted. Because the media represented by these units are not specified this inversion is not obvious.
- In Table A-3a (first 3 lines) "-"indicates division, contrary to common usage.

- In Table A-5, $EC_{SS\text{-}SV\text{-}IA}$ is defined as an exposure concentration. But the units are mg/m^3 per mg/kg. This is not a concentration, but a ratio, specifically the inverse of the VF, adjusted for exposure parameters.
- In Table A-7, $EC_{inh,soil}$ is defined as an exposure concentration. But the units are mg/m^3 per mg/m^3. Clearly it is not a concentration; since the units in the equation cancel out, it must be some kind of a ratio. I might guess that it was intended to have an attenuation factor on the right side of the equation, in which case $EC_{inh,soil}$ could be an attenuation factor, adjusted for exposure parameters.
- The concerns reflected in the above comments refer to communication issues only. Since OEHHA was supplied with spreadsheets, we were able to verify the actual calculations. Not all readers will have that ability.

Conclusions and next steps

- OEHHA has verified the residential and occupational SSCGs for soil and soil vapor, but questions the exposure assumptions for soils from 2 to 10 feet bgs.
- The graphics in Attachment B and Tables B-10 and B-11, support an upper bound on alpha around 0.001. However, please identify the trend-line in B-11 and explain the correlation coefficients in Appendix B, as noted above.
- A univariate regression of sub-slab versus indoor minus outdoor benzene using only detected benzene data would help to dispel controversy concerning this relationship.
- Notwithstanding the conclusion that VOCs in the outdoor air at the Carousel Tract are generally within the reported range of VOCs in regional outdoor air, OEHHA considers the equivalence of upwind, on-site, and downwind VOC concentrations to be an open question.
- Please consider the editorial comments.

Peer reviewed by

H.H.

Hristo Hristov, MD, PhD

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
3161 Michelson Drive
Irvine, CA 92612-4412
Tel 949.451.3800
www.gibsondunn.com

Robert W. Loewen
Direct: +1 949.451.3894
Fax: +1 949.475.4645
RLoewen@gibsondunn.com

Client: 22695-00100

January 21, 2014

BY HAND DELIVERY

Dr. Paula Rasmussen
Assistant Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Re: Comment Letter – Former Kast Property Tank Farm – Revised CAO

Dear Dr. Rasmussen:

We represent Dole Food Company, Inc. ("Dole") and its wholly-owned subsidiaries Barclay Hollander Corporation ("Barclay") and Oceanic Properties, Inc. ("Oceanic"). We submit this Letter and other materials on their behalf to provide comments on the Draft Order of the State of California Regional Water Quality Control Board Los Angeles Region ("Board") dated October 31, 2013, entitled Cleanup and Abatement Order No. R4-2011-0046 Requiring Shell Oil Company and Barclay Hollander Corporation to Cleanup and Abate Waste Discharged to Waters of the State Pursuant to California Water Code Section 13304 At the Former Kast Property Tank Farm, Carson, California October 31, 2013 (File No. 97-043) 55 ("Draft Order"). The property at issue, referred to in the Draft Order variously as the "Site" or the "Kast Property Tank Farm," is a residential real estate development that Barclay built in the late 1960s on property formerly owned by an affiliate of Shell Oil Company ("Shell") known then as the Kast Property in what is now Carson, California ("Site").

By letter dated October 31, 2013, the Board circulated a Notice of Opportunity to Submit Comments on Proposed Draft Order in the Matter of Cleanup and Abatement Order No. R4-2011-0046, Former Kast Property Tank Farm (SCP No. 1230, Site ID No. 2040330, File No. 11-043). This Letter, organized with an Introduction, Facts, Legal Argument, and Conclusion, is submitted in response to that invitation. In addition, we are submitting simultaneously herewith the declarations, reports and exhibits cited in the Letter and incorporated as part of Dole's, Barclay's, and Oceanic's comments in response to the Draft Order, which are also identified separately on the enclosed list. We respectfully request that this entire submission, and any supplemental submissions by us, be included in the public record in this matter and be given the full consideration of the Board and its staff.

EXHIBIT NO. 02

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We have corresponded with the Board concerning this Site on one prior occasion, a letter dated September 15, 2011 ("2011 Letter"). In the 2011 Letter we made the statement that since 1995, Barclay has been "dormant, with no assets, subsidiaries, revenues or operations." From the standpoint of a business, this is accurate. When the President of Barclay, Richard Barclay, died in 1992, the company ceased doing business shortly thereafter. Not long after that, the assets of the business were sold or transferred. But Dole maintains liability insurance for Barclay. So in that limited sense, Barclay does have assets.

Sincerely,

Robert W. Loewen
RWL/gr
Enclosure(s)

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I. INTRODUCTION

The Porter-Cologne Water Quality Control Act ("Porter-Cologne") limits the jurisdiction of both the State Water Resources Control Board ("State Board") and the nine Regional Water Quality Control Boards ("Regional Boards"), of which the Los Angeles Regional Water Quality Control Board ("Board") is one (State and Regional Boards collectively "Water Boards"). California Water Code Section 13304(a), which is part of Porter-Cologne, provides in part: "Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted . . . waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates . . . a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste . . ." Cal. Water Code § 13304(a). Barclay Hollander Corporation ("Barclay") is not liable under any of these criteria. By now it is beyond dispute that Shell Oil Company ("Shell"), not Barclay, discharged all of the hydrocarbon contaminants at the Site during its 30-plus years of operations, which ended in 1959. Barclay refuted Shell's 2011 allegation that it had brought contaminated fill soil onto the Kast Property in what is now Carson, California ("Site"), and no evidence of any discharge or deposit of waste by Barclay has been offered. Nor is Barclay in any way responsible for Shell's contamination.

A. The Draft Order Is Contrary To Precedent.

The Draft Order cites State Board decisions that, in rare circumstances inapplicable here, hold current owners and former owners who were in possession of property at the time of a discharge responsible for the clean-up and abatement of contaminants discharged by others. Draft Order at 11, n.8. Barclay is neither. Barclay is not a current owner nor did any discharges occur during its prior ownership of the property. The undisputed facts are that Shell

contaminated the property before selling it to Barclay. Accordingly, adoption of the Draft Order goes beyond the limits of a regional board's jurisdiction set by Section 13304(a) and as interpreted by State Board precedent. Part III.A., *infra.*

B. The Draft Order's Findings Are Not Supported By Evidence And Do Not Support Liability Under Porter-Cologne.

Akin to its lack of jurisdiction, the Draft Order lacks evidentiary support and an accurate factual basis. The Draft Order both misstates critical facts and fails to support its findings with evidence. The law requires more. Part II, *infra.*

1. The Draft Order Is Wrong On The Facts.

The Draft Order bases its determination that Barclay is a responsible party in part on its finding that Barclay had "explicit *knowledge* of . . . the presence of residual petroleum hydrocarbons and conducted various activities, including . . . grading the onsite materials, thereby *spreading the waste*." Draft Order at 11 (emphasis added). Yet there is no evidence that Barclay "spread[] the waste" when it "grad[ed] the onsite materials" in the former reservoirs; indeed, all of the available evidence shows that Barclay spread uncontaminated fill soil from the berms on the property when it graded the Site. In litigation pending in the Los Angeles County Superior Court of which the staff and Board are aware ("Litigation"), the last four surviving witnesses to Barclay's placement and compaction of the berm fill soil testified that they had a good vantage point from which to observe the soil as it was spread out broadly in shallow lifts, and they saw no oil in the soil; it was clean when put in place. There is no evidence to the contrary.

Moreover, Dr. Jeffrey Dagdigian, an expert on the movement of oil in the environment, has determined that the fill soil placed by Barclay in the areas located above the former reservoir bottoms became contaminated only after it was put there when contamination, previously

undetected beneath the former reservoir bottoms, moved upward into the clean fill soil through capillary action. Dr. Dagdigian has gathered and reviewed substantial evidence that lead to his conclusions, but the most compelling proof of Dr. Dagdigian's opinion arrived in the form of a 1997 report prepared for the Board by Shell as part of the approval process for the decommissioning of two oil reservoirs. The report described an upward movement of similar contaminants through soil in nearly identical circumstances. Specifically, Shell Reservoirs 1 and 2 were built at the same time, constructed in the same concrete-and-berm style, and operated as storage receptacles for thirty years longer than Shell Reservoirs 5, 6, and 7 at the Site. Shell's 1997 report confirms that Reservoirs 1 and 2 leaked in the same manner as those located at the Site—i.e., contaminants escaped through weak points in the bottoms of the reservoirs, leaving high concentrations of contamination in the deeper soil for many years until it was able to wick upward when the reservoir bottom was broken up and fill soil was compacted on top of it. The fact of this pattern of contamination at multiple Shell sites was shared with members of the staff informally by Dr. Dagdigian before the Draft Order was issued. Because the burden of proving Barclay's responsibility is on the Board, the Draft Order cannot be issued in contravention of this expert evidence without proof that the facts are to the contrary, but the Draft Order is silent on the subject. Part II.C., *infra.*

2. The Draft Order Is Wrong On The Law.

Even if the quoted finding had been supported by evidence, which is not the case, there is no State Board precedent for holding Barclay liable for supposedly "spreading the waste." There is also judicial authority holding that after contaminants have already been discharged, there is no liability under Section 13304(a) for inadvertently causing those contaminants to be moved to another location through an action intended to achieve an innocent purpose. *Redev. Agency of the City of Stockton v. BNSF Ry. Co.*, 643 F.3d 668, 677-78 (9th Cir. 2011). In *City of Stockton,*

a railroad had installed a french drain under a track for water drainage, but that had the unintended effect of serving as a conduit for the transport from one property to another of petroleum contaminants that had been discharged from a neighboring facility. *Id.* The court held that the railroad had no liability as a "discharger" under Section 13304(a) on those facts. The same rule should apply for Barclay, who, assuming the Board's incorrect facts were true, would have only moved contaminants that had already been discharged by Shell for the innocent purpose of refilling the reservoirs to bring them to grade in a manner that would promote adequate drainage.

C. Barclay Is Protected By The Safe Harbor Of Water Code Section 13304(j).

Even if Barclay could be properly identified as a discharger under Section 13304(a), which is not the case, Barclay nevertheless has no liability under Porter-Cologne because its conduct was lawful at the time. Water Code Section 13304(j) provides: "This section does not impose any new liability for acts occurring before January 1, 1981, if the acts were not in violation of existing laws or regulations at the time they occurred."

Multiple public agencies gave Barclay's actions to develop the Carousel project close oversight and confirmed that there were no "violation[s] of existing laws or regulations at the time" Carousel was graded and built in the late 1960s. Two of these agencies, the Los Angeles County Engineer, governed by the County Building Code, U.B.C. § 7014 (c) (1965), and the California State Real Estate Commissioner, governed by the Subdivided Lands Law ("SLL"), Business & Professions Code §§ 11000-11200, were required by statute to confirm whether the project complied with applicable laws, and they confirmed it. The Planning Commission and Board of Supervisors also held public hearings before giving subdivision map approval and granting Barclay's request for a zoning change. All of these agencies were well informed about the project and exercised their discretion to approve it. Indeed, every soils report was reviewed

by the County Engineer, including the memorandum in which the soils engineer observed "oil stains" as part of its investigation of soil permeability. Each agency signed off on the project. Because the Real Estate Commissioner and County Engineer were required to confirm compliance with the law, sign-off meant that Barclay was found to be in compliance with the laws then in existence. And because the Planning Commission and its staff were familiar with applicable law, it is inconceivable that they would have approved Barclay's subdivision map and a zoning change from heavy industrial (M-2) to residential (R-1) if they had believed Barclay had violated any laws. These facts alone establish that all of the elements for safe harbor protections under Section 13304(j) have been met, and the Draft Order identifies no evidence to contradict these facts or otherwise meet the Board's burden of proof.

Section 13304(j) was adopted to protect compliant dischargers against the effects of the 1980 amendments to the Porter-Cologne Act. Those amendments allowed the Regional Boards to hold dischargers responsible for cleaning up and abating the consequences of past discharges, and without the safe harbor, previously-compliant dischargers would be liable under the amendments for the contaminating effects of their otherwise lawful discharges.

If Barclay was a discharger, and it was not, then it was a discharger in compliance with all then-applicable laws, and is therefore protected by the safe harbor under Section 13304(j). Part III.C., *infra*.

D. By Allowing The Regional Boards To Issue Orders Holding Owners Responsible For Contamination Discharged By Someone Else, The State Board Decisions Cited In The Draft Order Confer Jurisdiction On The Regional Boards That Exceeds The Legislative Purpose Of Section 13304(a).

The plain meaning of Section 13304(a) is that clean-up and abatement orders may only be issued against those who discharge waste. Over fifteen years ago, however, the State Board adopted an interpretation of this language that departed from the statute's plain meaning when it

held owners accountable for clean-up and abatement of contamination discharged by someone else.

Our research reveals that following enactment of Porter-Cologne, which became effective in 1970, until enactment of the 1980 amendments, which became effective January 1, 1981, not a single State Board decision held a non-discharging owner responsible for the discharges of others under Section 13304(a). So when the State Board chose to depart from the plain meaning of the statute following the 1980 amendments, and chose instead to hold non-discharging owners responsible, we looked to the amendments first for a reason for this departure. There is none. The amendments only changed the tense of the verbs—by adding the past tense "discharged," and by changing "cause" to "caused," and "permit" to "permitted"; they did not add any new words such as "owner," "lessee," or "operator" to expand upon the categories of persons over whom the Regional Boards would have jurisdiction.

Moreover, our review of the legislative history of the 1980 amendments to Porter-Cologne found no mention even of the idea of expanding the categories of persons that could be subject to a Regional Board order despite the fact that, at about the same time, the terms "owners, operators and arrangers" were specifically being adopted to define responsible persons in CERCLA and its California equivalent, the Hazardous Substances Account Act ("HSAA"), which were enacted, respectively, in 1980 and 1981. In other words, there was no change in the language of Section 13304(a) to justify the change in the State Board's interpretation; nor is there anything in the legislative history of the 1980 amendments to Section 13304 to support the State Board's view.

The State Board decisions cited in the Draft Order that expand the definition of what it means to "cause or permit . . . waste to be discharged" have never been tested in any reported

decisions of the California Courts of Appeal or the California Supreme Court, but we intend to test them in this case if necessary. There are so many reasons why it is wrong to hold Barclay responsible on the evidence before this Board that it hardly seems fitting to bring up a ground as fundamental as statutory interpretation, which, we acknowledge, this Board is not free to act upon. But we do so, in part, because it provides us with the opportunity to emphasize Part A above: to hold Barclay responsible as proposed in the Draft Order would require an unprecedented, unsupported, expansion of State Board precedent. The Board should not expand the rules laid down by State Board precedent because those precedents need to be narrowed, not expanded, insofar as they are based on the State Board's indefensible departure from the plain meaning of Section 13304(a).

II. FACTS

"To meet the requirement of fairness, the Regional Board, before acting on . . . proposed orders, must ensure that there is a factual and legal basis in the record for its decision and must indicate its reasoning and the factual basis for its decision to the affected parties." *In the Matter of Project Alpha,* State Board Order No. WQ 74-1, at *3; *see also Topanga Ass'n for a Scenic Cmty. v. City of L.A.*, 11 Cal. 3d 506, 514-15 (1974) (an agency "must render findings sufficient both to enable the parties to determine whether and on what basis they should seek review and, in the event of review, to apprise a reviewing court of the [legal] basis for the [agency's] action," and the findings must "bridge the analytic gap between the raw evidence and ultimate decision or order," disclosing "the analytic route the . . . agency traveled from evidence to action"); *City of Brentwood v. Centr. Valley Reg'l Water Quality Control Bd.*, 123 Cal. App. 4th 714, 720 (2004) (Regional Boards bear the burden of proving the elements of an offense under Porter-Cologne).

The Draft Order does not satisfy any of these requirements. It purports to recite the facts concerning Barclay's activities at the Site on pages 4 and 11, but these descriptions gloss over

the details in a way that mischaracterize the facts, utterly failing to "bridge the analytical gap between the raw evidence and ultimate decision or order." There is a significant disparity between what is thus described in the Draft Order and what the evidence shows. Because the Draft Order does not "indicate its reasoning and the factual basis for its decision," it is impossible to know whether this disparity between the facts and the evidence results from confusion about how to interpret the evidence or a misunderstanding of how the law requires that the evidence be applied.

This lack of clarity is exacerbated by the failure to cite evidence in anything but the most general terms. Although the Draft Order occasionally refers to "the record" in general terms, there is no reference to admitting evidence, identification of a record, or specification of what parts of any evidence or record are relied upon to support finding Barclay to be a responsible party under Section 13304(a).[1] "[M]ere conclusory findings without reference to the record are inadequate." *Envtl. Prot. Info. Ctr. v. Cal. Dep't of Forestry & Fire Prot.*, 44 Cal. 4th 459, 517 (2008) (citation omitted).

In light of these crippling shortcomings in the Draft Order, we have elected to summarize the evidence as an affirmative statement of facts rather than a point-by-point response to findings in the Draft Order that we might not fully understand. If anything in the statement of facts below is contrary to any of the findings in the Draft Order, it should be treated as an objection to the findings, for each of the below facts is supported by substantial evidence. The Draft Order does

[1] The Board's decision must be based "exclusively on evidence of record in the proceeding and on matters officially noticed in the proceeding." Cal. Gov. Code § 11425.50(c); *see also* Cal. Gov. Code § 11425.10(a)(6) ("The decision shall be in writing, *be based on the record*, and include a statement of the factual and legal basis of the decision as provided in Section 11425.50." (Emphasis added)). It is axiomatic that evidence must be admitted, and therefore be admissible, to form part of the record. *See* Cal. Gov. Code § 11513 (providing rules governing admissibility of evidence in administrative adjudications).

not refer to any evidence in the record that contradicts these facts, and Barclay is not aware of any.[2]

A. Historical Facts: A Chronology Of Work Performed At The Site.

The following chronology summarizes the evidence pertaining to the work performed at the Site.

1. Between 1923 And 1928 Shell Purchased The Site And Constructed Three Large Reservoirs On It.

- In 1923 Shell purchased the Site from Mary Kast, and thereafter referred to this oil storage facility as the Kast Tank Farm or the Kast Property. (Tab 16 [SOC 1-3].)
- Between approximately 1924 and 1928 Shell excavated three large reservoirs on the Site using the soil from the excavation to form the reservoir berms. (Tab 137 [1923 Ground level photo]; Tab 138 [1928 Aerial Photograph].)
  - The inside of each reservoir was lined with concrete about four inches thick, which was "reinforced" with thin wiring, and covered with a roof. (Tab 7 [Bach Dep.] at 34:7-35:11; 40:22-41:15; Tab 8 [Vollmer Dep.] at 104:10-105:16.)
  - The three reservoirs had a combined reported capacity of 3.5 million barrels. (Tab 60 [COLA 1].)
  - Additional soil taken from the Site was used to form so-called "safety berms" between each tank and another berm around the perimeter of the entire property. The purpose of the safety berms was to contain the contents of the reservoirs in the event of a breach of one of the primary berms. (Tab 7 [Bach Dep.] at 48:12-49:20; 42:3-17.)
  - In 1966 the reservoirs were described as follows:
    - "The earthen walls of the reservoir are generally about fifteen feet in height and have a slope ratio of 1-1/2:1."

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[2] The law places the burden of proof on the Board to establish that Barclay meets the definition of a "discharger" in California Water Code Section 13304(a) before it may issue a clean-up and abatement order naming Barclay. *City of Brentwood v. Center Valley Reg'l Water Quality Control Bd.*, 123 Cal. App. 714, 720 (2004). Accordingly, even were the Board to disregard the evidence cited in support of the facts presented below, which it should not do because the evidence is both overwhelming and credible, disregarding competent evidence alone would not be enough to sustain liability, for the Board must also have affirmative evidence to sustain its findings, and there is none. *See, e.g., Schutte & Koerting, Inc. v. Reg'l Water Quality Control Bd.*, 158 Cal. App. 4th 1373, 1383-84 (2007) (citing Cal. Civ. Proc. Code § 1094.5(c) and stating abuse of discretion is established if the administrative order "is not supported by the findings, or the findings are not supported by the evidence").

- "The bottom and sides of the reservoir are lined with a four inch blanket of reinforced concrete."

- "The reservoirs are nearly 30 feet deep and covered by wood roofs." (Tab 66 [CARSON 348-354].)

2. Shell Actively Operated The Site As An Oil Storage Facility From 1928 Until 1959.

- The Site was an integral part of Shell's refinery facilities, some of which were located less than a mile away along Lomita Boulevard at a refinery that was sometimes called the "Shell Wilmington Refinery." (Tab 4 [Schultz Dep.] at 68:13-69:3; 69:17-70:23.)

- Shell numbered the reservoirs on the Site beginning from the south at Lomita Boulevard, and moving toward the north, as Reservoir 6, Reservoir 5, and Reservoir 7, respectively. (Tab 60 [COLA 1]; Tab 8 [Vollmer Dep.] at 34:25-35:12; 36:4-9; 36:19-37:3.)

  - Reservoirs 1 through 4 were located at the Shell Wilmington Refinery and were constructed by Shell at around the same period in the 1920s as Reservoirs 5, 6, and 7. (Dagdigian Report at 3.)

- Although available information indicates that the reservoirs were primarily used to store crude oil, there is evidence that other materials, including heavy 160 degree flash point oil, heavy oils, and bunker fuels were also stored in the reservoirs. (Tab 25 [SOC 120577]; Tab 26 [SOC 120575]; Tab 28 [SOC 120556]; Tab 330 [8/31/2010 Shell Chemical Storage and Use Questionnaire].)

- The reservoirs leaked during Shell's operations.

  - The pattern of contamination now known to exist in columns of high-concentration petroleum hydrocarbons beneath the bottoms of the reservoirs shows that most of the contamination leaked from joints where the concrete walls and floors in the reservoirs were joined. (Dagdigian Report at 31.)

  - Shell has produced two documents in the Litigation that confirm these leaks were known by Shell as early as 1943. (Tab 23 [SOC 120589-590] at 120589 ("Reservoir No. 6 . . . 1943 Repair leak in concrete lining"); Tab 22 [SOC 120591-594] at 120593 ("Reservoir No. 6 . . . 1943 Repair leak in concrete lining").)

  - In fact, Reservoir 6, which Shell reported to be leaking in 1943, was also reported by Shell to be leaking 16 years later in 1959. (Tab 24 [SOC 120584-585] at 120584.)

- Shell ceased its active operation of the Site in 1959. (Tab 26 [SOC 120575] ("The reservoirs are essentially empty at this time, and are held on the basis of stand-by storage.").)

  - While documents indicate that Shell kept the property available even after that time for potential use as a standby storage facility, there is no evidence as to whether it actually used the Site again or, if it did, for what purpose.

- Throughout the late 1950s and early 1960s, Shell received various offers to purchase or otherwise use the Site. Shell organized inspections of the Site for potential purchasers and obtained appraisals of the likely value of the Site during this time. (Tab 48 [SOC 120536]; Tab 29 [SOC 120544-120545].)

- In 1959, someone at Shell, in an internal memo, pointed out that the Site was no longer being used for crude oil storage purposes and Reservoir 7 "constitute[s] an ***attractive nuisance*** which is a matter of some concern to Wilmington Refinery officials because of the possibility of children entering and being injured or killed." (Tab 24 [SOC 120584-120585] at 120585 (emphasis added).)

3. Activity Increased At The Site After A Tragic Death Occurred In March 1965.

- In March 1965 there was an unfortunate accident at the Site resulting in the death of a young child. (Tab 1 [Harkavy Dep.] at 286:12-23; Ex. 38.)

  - Changes were made between January 1965 and September 1965 that served to eliminate sumps and other low points on the property. Shell owned the Site at the time and presumably did this work. (Dagdigian Report at 92, 95-97); (Tab 7 [Bach Dep.] at 35:24-40:5; Tab 8 [Vollmer Dep.] at 34:25-39:5; 87:2-88:13 ("the berm that runs right through there…had been removed already").)

4. Barclay Signed An Agreement To Purchase The Site From Shell On October 20, 1965.

- Richard Barclay signed a formal offer to purchase the Site from Shell on October 20, 1965.[3] (Tab 33 [SOC 22-23].) Terms of the agreement included, among other things:

  - All underground pipes on the property to be removed.

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[3] As described in our 2011 Letter, at this time, Richard Barclay was representing a development business, which acted through Lomita Development as the purchaser of the Site. (Tab 2 [Curci Dep.] at 31:14-32:6; 46:9-47:8; 296:6-297:25; Tab 1 [Harkavy Dep.] at 69:16-22.) Lomita Development was a joint venture formed between entities controlled by Richard Barclay, his brothers Donald and Robert, Mike Hollander, and Shurl Curci. (Tab 134 [BHC 50-82]; Tab 43 [SOC 71-72].) All of these entities were rolled up into a corporation that was later incorporated as the entity now named Barclay Hollander Corporation, which was acquired by Castle & Cooke, Inc. in 1969, and Castle & Cooke, Inc. later changed its name to Dole Food Company, Inc. (Tab133 [BHC 3-6]; Tab135 [BHC 106-107]; Tab136 [BHC 133-134]; Tab 355 [Amended Statement and Designation by Foreign Corporation dated 8/12/1991].) The Draft Order properly does not name Dole as a responsible party since Dole had nothing to do with the Carousel development; it is only Barclay's present-day corporate parent. (Tab 333 [9/15/2011 Letter] at 12-13.) Accordingly, it would be improper to name Dole in the Draft Order no matter what the outcome with respect to Barclay. (Tab 333 [9/15/2011 Letter] at 23-25.) The Draft Order is incorrect, however, when it states that Barclay "has no assets." Draft Order at 4. Although Barclay has no business assets as it ceased doing business shortly after Richard Barclay died in 1992, insurance liability policies are maintained that apply to Barclay, and it that sense it has assets.

- Close of escrow contingent on zone changing from heavy industrial (M-2) to residential (R-1).

- Barclay to obtain engineering report on the Site.

- Barclay was not told at the time of purchase (nor at any other time) about leaks in the reservoirs. (Tab 2 [Curci Dep.] at 52:8-23; Tab 7 [Bach Dep.] at 64:16-65:16; Tab 8 [Vollmer Dep.] at 67:1-11.)

5. Between December 15, 1965 And January 1966, After Shell Gives Barclay Permission, Barclay's Soils Engineer Entered The Site, And Barclay's Supervisor And Grading Contractor Followed Later In January 1966.

- In a letter dated December 15, 1965, Shell gave Barclay permission to enter the Site to begin decommissioning the former reservoirs so that the land could be used for residential housing. (Tab 42 [SOC 58-61].)

- Barclay's soils engineer, Pacific Soils Engineering, Inc. ("Pacific Soils") entered the property sometime before January 7, 1966 to perform its preliminary soils investigation. (Tab 66 [CARSON 348-354].)

  - In the Preliminary Soils Report, dated January 7, 1966, Pacific Soils indicates the "results of [its] field investigation." (*Id.* at 348.) That investigation took place between December 15, 1965, the date of the letter in which Shell gave Barclay permission to have its contractors enter the Site, and January 7, 1966, the date of the report.

  - The Preliminary Soils Report states that "[w]ork is underway at the present time to waste from the site the water and sludge present in the reservoirs." (*Id.*)

  - A second soils report was issued on January 27, 1966, modifying the first in certain respects. (Tab 44 [CAR 293-294].)

- Barclay's grading contractor, Lee Vollmer, and Barclay's job supervisor at that time, George Bach, both recall in their sworn testimony that they arrived to begin demolition and grading operations in late January 1966. (Tab 7 [Bach Dep.] at 37:19-24; 50:7-12; 318:12-21; 320:14-18; Tab 8 [Vollmer Dep.] at 36:10-14; 37:16-19; 92:20-23; 146:25-147:3; 275:18-23.)

- Both Mr. Bach and Mr. Vollmer also recall that Reservoirs 5 and 6 were completely clean when they arrived; Reservoir 6 (next to Lomita Boulevard) and Reservoir 5 (the middle reservoir) had no residual materials remaining in them. (Tab 8 [Vollmer Dep.] at 34:25-35:12; 37:7-15; 141:17-142:4; Tab 7 [Bach Dep.] at 40:12-24, 50:18-51:1.) "[B]oth of them were very clean, really . . . [j]ust plain concrete . . . [and] looked like they had never been used for anything. They were that clean" and required no further work to rid them of oil or other materials. (Tab 8 [Vollmer Dep.] at 34:25-35:12; 37:7-15; 141:17-142:4.)

- In a letter to Barclay dated October 25, 1965, however, Shell indicated that certain quantities of liquids remained in all three of the reservoirs at the Site. (Tab 36 [SOC 45-46] at 45.)

It is not known who removed the residual materials that had been reported in the October 25, 1965 letter to be present in Reservoirs 5 and 6, but which was no longer present when Mr. Vollmer and Mr. Bach arrived in January. Nor does the soils report dated January 7, 1966 identify who was performing the "work" during the time of its own preliminary soils investigation (12/15/65 to 1/7/66), which it reported was "underway at the present time to waste from the site the water and sludge present in the reservoirs."

6. The Pacific Soils January 7, 1966 Preliminary Soils Report Set The Stage For Demolition And Burial Of The Concrete In Place, Followed By Spreading And Compaction Of Berm Soil In Former Reservoirs, None Of Which Demonstrates "Explicit Knowledge" By Barclay Of Contamination.

- Pacific Soils issued its "Preliminary Soils Report" on January 7, 1966. (Tab 66 [CARSON 348-354].)

- The "preliminary soils investigation" described in the Preliminary Soils Report included the following:

  - "Due to the low permeability of the surface soils, water tends to pond in the topographically low areas of the tract." (*Id.* at 349.)

  - "An old sump, reported to be only three feet in depth" was identified immediately to the east of Reservoir 5. (*Id.*)

  - Eight 24-inch borings were taken, ranging in depth from 21 to 35 feet. (*Id.*) Logs of the borings were attached. (*Id.* at 352-54.) There was no mention of oil in the logs.

  - "In addition, several cuts were made in the earth berms thereby allowing the material to be classified." (*Id.* at 349.) There was no mention of oil in this berm soil anywhere in the construction files.

- The Preliminary Soils Report also "includes . . . recommendations for developing the parcel of property." (*Id.* at 348.) These included the following:

  - "In order to develop the property it will be necessary to fill in the reservoirs and flatten the existing berms." (*Id.* at 349.)

  - Pacific Soils provided two options for disposing of the concrete lining: "The concrete lining of the reservoirs may either be [1] wasted from the site or [2] buried in the fill." (*Id.*)

  - Although the decision to bury the concrete as the means of disposal had not yet been made, it is Pacific Soils' discussion of what would be required if this second alternative

were adopted that formed the basis on which the requirements for handling the concrete were eventually built by Pacific Soils and the County Engineer. In this introduction to the subject of burying the concrete as a means of disposal, Pacific Soils recommended that if a decision was made to bury the concrete in place, the following safeguards would be needed:

- The concrete must be broken up "so as not to impede percolation of subsurface water." (*Id.* at 350.)
- The concrete must be "buried deep enough in the fill so as not to interfere with future construction" and "[n]o concrete shall be placed within 4 feet from the final finished grade." (*Id.*)

- Because the developers eventually chose to bury the concrete in place, various aspects of this protocol, with a few modifications, were carried forward and repeated in soils reports dated January 27, 1966, January 31, 1966, and March 11, 1966. (Tab 44 [CAR 293-294]; Tab 68 [CARSON 259]; Tab 74 [CARSON 251-258].)

- This protocol does not differ significantly from the ones used for decommissioning reservoirs at the time in other nearby locations and is consistent with the protocol used for decommissioning Reservoirs 1 and 2 at the Shell Refinery even as recently as the mid-1990s, which was approved by this Board. (Shepardson Report at 25-28; Dagdigian Report at 20, 101.)

7. The County Engineer Took Firm Control Of The Oversight Of Demolition And Grading Of The Former Reservoirs Between January 28 And February 4, 1966.

- On January 28, 1966, Eugene Zeller, the head of the County Engineer's Grading Office, issued a hand-written Grading Correction Sheet commenting on Pacific Soils' reports dated January 7 and 27, 1966. (Tab 67 [CARSON 293].)

  - Mr. Zeller approved the plan to leave the ripped concrete in place. He imposed as conditions that Barclay "crack the slab for purposes of drainage and compaction," as Pacific Soils had recommended, and he added a new condition of approval that "[a] called inspection is required for concrete placement." (*Id.*)

  - Mr. Zeller also required Barclay to bury the concrete even farther below ground than Pacific Soils recommended, requiring a minimum of seven feet of soil above the ripped concrete tank bottoms instead of the four feet recommended by Pacific Soils. (Tab 67 [CARSON 293] ("No concrete shall be placed in the fill within 7' of finish grade.").) Zeller testified that the County was "impos[ing] a more strict requirement than what the soils engineer recommended." (Tab 9 [Zeller Dep.] at 34:1-9; 37:23-38:7.)

- The requirement for a "called inspection" establishes that the County Engineer exercised considerable oversight over this project. In his deposition, Mr. Zeller explained that the County Engineer's office "wanted to be out there to see how they were doing it before . . .

[the reservoir] was all filled up" with fill soil. (Tab 9 [Zeller Dep.] at 38:17-25; 39:20-40:22.)

- Each time Barclay or its subcontractors undertook to place the broken concrete at the bottom of a reservoir before covering it with fill soil, it was necessary to notify the County Engineer's office so that an inspector could be present to observe. (Tab 9 [Zeller Dep.] at 40:14-22.) In other words, the County Engineer's office supervised this process closely. (Tab 8 [Vollmer Dep.] at 109:6-11.)

- On January 31, 1966, Pacific Soils issued another soils report memorandum making the changes Mr. Zeller required and complying with the requirements. (Tab 68 [CARSON 259].)

- The County Engineer inspector in the field with whom Mr. Zeller communicated was Bill Berg. (Tab 9 [Zeller Dep.] at 40:23-41:6; 41:24-44:3.)

- In a hand written memorandum from Mr. Zeller to Bill Berg dated February 2, 1966, only five days after the date of the Grading Correction Sheet, Mr. Zeller gave the following direction to Mr. Berg: "The site of this grading will eventually be a subdivision. Extensive concrete will be placed in the fill (see Notes 27-30 and reports). Please contact me when concrete is to be placed in fill." (Tab 69 [CARSON 274].)

  - Mr. Zeller testified that the purpose of this note was to make sure that Mr. Berg, who was the inspector in the field, was aware of Mr. Zeller's directive that an inspector from the County Engineer be present during concrete placement "to see how it complied or how they were dealing with it in reference to the submitted soils engineer's plans." (Tab 9 [Zeller Dep.] at 44:8-13.)

  - Mr. Berg was the County Engineer's "most accomplished grading inspector." (Tab 9 [Zeller Dep.] at 42:19-43:2.)

  - Mr. Berg would not have approved any procedures if he thought they would cause conditions to become unsafe for future homeowners at the Site. (Tab 9 [Zeller Dep.] at 45:10-24.)

- Thereafter, the County Engineer had an inspector in the field each time there was concrete placement, and Barclay's grading contractor testified that they "did come [to the site] on a several-times-a-week basis." (Tab 12 [Anderson Dep.] at 38:14-39:20; Tab 8 [Vollmer Dep.] at 71:13-72:1; 112:6-12.)

8. Despite Intermittent Delays, A Shell Inspector Confirmed In A Memorandum Dated August 15, 1966 That The Last Of The Residual Materials Left Behind By Shell In Reservoir 7 Had Been Removed Completely.

- When Barclay arrived at the Site to begin grading, the only reservoir where residual materials still remained was Reservoir 7. (Tab 66 [CARSON 348-354] at 350; Tab 2 [Curci Dep.] at

86:22-87:17; Tab 7 [Bach Dep.] at 96:20-97:1; 117:13-119:3; Tab 8 [Vollmer Dep.] at 37:7-24).

- Shell sent inspectors to the property to check on progress until Barclay's work on the reservoirs was completed. A Shell memorandum confirmed in April 1966 that Reservoirs 5 and 6 were "empty" and "clean." (Tab 47 [SOC 120420-120421] at 120420.)

- Reporting on the status of the reservoir work, a Shell inspector confirmed that Reservoirs 5 and 6 were empty in May 1966. (Tab 49 [SOC 120418-120419].)

- Removal of the materials from Reservoir 7 was achieved as follows:

  - Readily-flowing liquid in the reservoir was siphoned out with vacuum trucks provided by Barclay's subcontractor, Chancellor & Ogden. [Tab 8 [Vollmer Dep.] at 153:11-21, 159:24-160:3; Tab 7 [Bach Dep.] at 135:12-25.) Using hoses to connect the liquid to their vacuum trucks, Chancellor & Ogden siphoned out as much liquid as they were able, but mostly only water was removed, leaving a "tarry substance," an oil-based "gunk" reportedly similar to what could be seen at the "La Brea Tar Pits" in the bottom of Reservoir 7, and which was too thick for the vacuum trucks to siphon up without assistance. (Tab 7 [Bach Dep.] at 117:3-118:3; Tab 8 [Vollmer Dep.] at 162:4-9; 163:1-9; 249:12-17.)

    - That assistance was provided by the grading operator, Vollmer Engineering, which used earthmoving equipment to create a small dam or berm out of sand and soil and used that to "crowd" the thick "gunk" toward the Chancellor & Ogden vacuum trucks until it formed a critical mass. (Tab 8 [Vollmer Dep.] at 165:2-166:18.) Then a heating coil was used to lower the viscosity of the mass so that it could be siphoned up into the trucks and taken offsite for disposal. (Tab 7 [Bach Dep.] at 117:13-118:3.) All of the remaining liquid and waste materials from inside Reservoir 7 were taken off site in this manner. (Tab 7 [Bach Dep.] at 119:15-22; Tab 8 [Vollmer Dep.] at 151:21-152:3; 153:11-21; 159:14-160:3.)

    - The make-shift soil berm used to "crowd" the liquid was pushed across the top of the concrete tank bottom and "any of the dirt that had been contaminated with the gunk was hauled off-site." (Tab 7 [Bach Dep.] at 117:13-119:3; Tab 8 [Vollmer Dep.] at 166:5-18; 167:13-18.)

  - By July 1, 1966, a Shell inspector reported only "a shallow layer of oil" in Reservoir 7. (Tab 50 [SOC 120415].) By August 15, 1966, the remainder of the material had been cleaned up entirely, and Shell reported internally in a memorandum that "[a]ll of the oil has been removed from the reservoirs." (Tab 52 [SOC 120410].)

9. The Concrete Floors Were Ripped Only After They Were Clean, And The Fact That They Were Ripped Has Been Confirmed By Multiple Sources.

- Arriving in late January 1966, Barclay personnel found a relatively clean Site.

- Witnesses testified that areas that had previously been designated as oil sumps on maps were no longer active sumps. (Tab 7 [Bach Dep.] at 136:17-137:16; 139:24-140:16; 319:14-321:3; Tab 8 [Vollmer Dep.] at 134:2-17; 144:18-145:16; 278:22-280:22.)

- They saw no ponding of oil and no oil sumps. (Tab 8 [Vollmer Dep.] at 96:7-11 ("What I remember is that there [was] no open ponding anywhere"); 95:11-96:2 ("I don't recall seeing any ponds anywhere"); 276:4-10 ("I never saw any oil."); Tab 7 [Bach Dep.] at 35:24-36:10; 38:7-17 ("there was no liquid in there"); 113:15-114:1 ("I never saw ponding.").)

- While Barclay was removing the materials from Reservoir 7, it also began the grading work on Reservoirs 5 and 6, which were already clean. (Tab 8 [Vollmer Dep.] at 34:25-35:12; 37:7-15; 141:17-142:4; Tab 7 [Bach Dep.] at 40:12-24, 50:18-51:1; 128:22-130:12; Tab 47 [SOC 120420-120421]; Tab 344 [CARSON 463-464; CARSON 467-469; CARSON 477]; Tab 348 [County of Los Angeles supervised grading certifications for 28086 dated 3/1/1967, 4/3/1967, and 4/17/1967].)

  - Only after the materials in Reservoir 7 had been removed was the concrete ripped in the manner described for Reservoirs 5 and 6. (Tab 8 [Vollmer Dep.] at 86:2-87:1; 136:6-138:19; Tab 7 [Bach Dep.] at 161:22-165:12].)

  - A witness provided this description of the process: "break up or crack the existing [bottom] slab, . . .and then to bring down the concrete that was lining the sides broken up and mix that with soil and make a . . . layer of material . . . [t]he soil and the broken-up concrete from the side walls, that was approximately 1 foot thick. And that was all compacted and watered and compacted in place, and then additional fill placed over the top of it." (Tab 7 [Bach Dep.] at 163:5-17.)

  - Once the side walls were brought down, the "weight of the . . . [f]ifty-ton Caterpillar D9 bulldozer crushed it up pretty good" and then they used "a vibrating sheep's foot . . . to effectively concentrate the dirt . . . between any cracks in the distribution of the concrete that was on the top of the original floor." (Tab 8 [Vollmer Dep.] at 136:15-137:6.)

  - The fundamental reason for breaking the concrete was so that "when you're finished [it] would allow moisture, water, rainwater to ultimately seep through the concrete floor and not create any problems in terms of it being overly wet underneath houses that would be built there." (Tab 8 [Vollmer Dep.] at 100:25-102:7.)

- Not only do all of the witnesses confirm that the concrete was broken up, but there is significant documentary evidence corroborating their recollections. (Tab 62 [CARSON 411]; Tab 118 [CARSON 419]; Tab 69 [CARSON 274]; Tab 66 [CARSON 348-354] at 349-350; Tab 44 [CAR 293-294]; Tab 74 [CARSON 251-258] ; Tab 87 [CARSON 378-380]; Tab 100 [CARSON 445-450]; Tab 99 [CARSON 430-433]; Tab 102 [CARSON 397-403]; Tab 108 [CARSON 387-391]; Tab 110 [CARSON 340-344]; Tab 105 [CARSON 552-557].)

- In addition:
  - Mr. Berg approved the broken concrete following his personal inspection. (Tab 62 [CARSON 411]; Tab 118 [CARSON 419].)
  - Pacific Soils confirms in its reports that the trenching was performed. (Tab 74 [CARSON 251-258] at 252 ("Nearly 6000 lineal feet of trench were punched through the concrete floor using a truck mounted rig."); Tab 87 [CARSON 378-380] at 379 ("Two of the punched trenches mentioned in the referenced report ran through the test area.").)
  - All of the supervised compaction reports located in the City of Carson's files confirm that "[p]rior to placement of compacted fill in the reservoir . . . trenches were punched through the concrete floor . . . Broken concrete, from the reservoir wall, was placed in the reservoir bottom. The concrete was thoroughly mixed with soil, watered and compacted in-place with a vibratory roller." (Tab 108 [CARSON 387-391] at 387-388; Tab 110 [CARSON 340-344] at 341; Tab 99 [CARSON 430-433] at 430; Tab 102 [CARSON 397-403] at 397-398; Tab 105 [CARSON 552-557] at 552-553; Tab 100 [CARSON 445-450] at 445-446.)
- The purpose of cracking the concrete was to avoid drainage problems, and the fact that there never were drainage problems at Carousel is strong evidence that the concrete protocol was followed. (Tab 10 [Banfield Dep.] at 55:6-56:7.)
- Pacific Soils also provided specific measurements to confirm that concrete was buried below at least seven feet of fill, some of which confirmed that in some locations there was over seven feet of soil above each tank bottom. (Tab 105 [CARSON 552-557] at 553.)
- Pacific Soils documented compliance with its protocols in the Final Report it prepared for each tract, where it confirmed in each instance that the method of concrete burial was performed according to the protocol. (Tab 110 [CARSON 340-344]; Tab 105 [CARSON 552-557].)
- In one instance in Reservoir 5, Barclay contractors completely removed the concrete tank floors where a 7 foot fill cover was not possible. (Tab 110 [CARSON 340-344] at 341.)

10. Between February and August 1966, During Grading Of The Site, Barclay Implemented A Protocol For Removing Oil-Saturated Soil From The Site.

- Barclay and its contractors instituted a protocol for segregating and removing from the Site any oil saturated soil that was found. (Tab 7 [Bach Dep.] at 326:4-327:1; Tab 8 [Vollmer Dep.] at 167:13-18.)
  - The concern at that time was that oil-saturated soil would not provide an adequate foundation for building because it would not compact sufficiently to support a structure. (Tab 7 [Bach Dep.] at 105:8-110:11; Tab 8 [Vollmer Dep.] at 238:20-239:12.)

- There were no concerns regarding the potential human health hazards caused by oil-saturated soil. (Tab 7 [Bach Dep.] at 73:6-75:14; Tab 8 [Vollmer Dep.] at 239:13-24; Williams Report at 12-21.)

- If any soil "was questionable, [Barclay] would put it into the stockpile and get rid of it" off site. (Tab 7 [Bach Dep.] at 106:19-107:16.) No oil-saturated soil was kept on site. (Tab 7 [Bach Dep.] at 110:13-111:7.)

- There is only one instance of firsthand testimony regarding a specific incident where oil-saturated soil was encountered on site. That soil was, however, removed from the site in accordance with that procedure. (Tab 7 [Bach Dep.] at 114:2-115:6; 55:16-56:8.)

11. The Only Report Of Oil In Any Pacific Soils Report Is Found In A Memorandum Dated March 11, 1966 Describing The Results of A "Drainage Study" Where "Oil Stains" And "Oily" Soil Were Encountered In Borings To Test Soil Permeability.

- As another safeguard against drainage problems arising from disposal of the concrete in place, Pacific Soils performed a drainage study, which it reported on in a March 11, 1966 memorandum. (Tab 74 [CARSON 251-258].) As part of the drainage study, Pacific Soils tested the permeability of the soil beneath the reservoir floor. Six borings were dug beneath the recently ripped concrete floor, and the logs of those borings, attached to the memorandum, reveal references to "oil stain[s]," "oily" soil, and smells of oil and petroleum. (*Id.* at 255-56.) Based on these six logs, Pacific Soils reported that "the first three feet found directly beneath the slab tend to be silty and clayey sands which are highly oil stained." (*Id.* at 252.)

  - "The purpose of this investigation," the memorandum explains, "was to determine the extent and type of subdrainage system necessary because of the existing bottom slab." (*Id.* at 251.) Because of the results of the study, it was determined that no subdrainage system was necessary. (*Id.* at 253.)

  - Soil extracted from four of those borings was taken to the lab and tested for permeability. (*Id.* at 251.)

  - "The laboratory results show[ed] that even though the soils [we]re oil stained they [we]re still permeable." (*Id.* at 252.)

  - Based on these lab results and certain identified assumptions, which it "considered conservative," Pacific Soils concluded that "the available drainage area is sufficient to handle all expected percolating water." (*Id.* at 253.)

  - A test in the field later confirmed these laboratory results. (Tab 7 [Bach Dep.] at 183:12-184:3.)

  - The memorandum says nothing further about the oil stains—nothing about further investigation, no concern about toxicity or human health, and no mention of the possibility that the "oil stains," which show less oil as one goes deeper, are evidence of a

larger contamination. (Tab 74 [CARSON 251-258].) Eventually, the oil stains were left where they were found, buried no less than seven feet below the surface. (Tab 87 [CARSON 378-380].)

- The County Engineer was fully aware of the oil stains and participated in consideration of their possible effect on permeability. The memorandum dated March 11, 1966 was copied in triplicate to the County Engineer, naming Eugene Zeller's boss. (Tab 74 [CARSON 251-258] at 253.) Mr. Zeller testified that any document sent to his boss would have come also to him and he therefore would have seen it. (Tab 9 [Zeller Dep.] at 71:16-72:19.) Mr. Bach, a licensed engineer employed by Barclay, recalls discussing the oil stains with Bill Berg, the inspector for the County Engineer at the Site during the field test performed to confirm the results of the laboratory test. (Tab 7 [Bach Dep.] at 182:15-185-20.)

- Barclay did not view the "oil stains" as significant either in amount or effect. (Tab 7 [Bach Dep.] at 347:1-22; 350:15-351:5.)

    - Specifically, Mr. Bach, who at the time had reviewed the March 11, 1966 memorandum and discussed it with the soils engineer who made the physical observations reported in the documents, concluded that "none of it was really significant at that time" and "[o]ther than [verifying we had percolation], there wasn't anything that we were really concerned about." (Tab 7 [Bach Dep.] at 347:8-22.)

12. In Reservoir 6, After The Concrete Floor Had Been Ripped, The Walls Broken On Top Of The Floor, And A Vibrating Sheep's Foot Used To Settle Berm Soil Into The Cracks, Barclay Began Spreading More *Clean* Fill Soil In 8-Inch Lifts On Top Of The Broken Concrete In A Portion Of The Former Reservoir.

- The soil used to fill the former reservoirs came from the reservoir berms, and was spread in 8 to 12-inch lifts and compacted until the ground surface was brought to level grade. (Tab 7 [Bach Dep.] at 142:11-19; 143:8-11; Tab 8 [Vollmer Dep.] 86:2-87:1; 117:13-118:10; 137:14-138:19; Tab 102 [CARSON 397-403] at 397-398; Tab 87 [CARSON 378-380] at 378-379; Tab 100 [CARSON 445-450] at 445-446; Tab 105 [CARSON 552-557] at 552-553; Tab 110 [CARSON 340-344] at 340-341; Tab 99 [CARSON 430-433] at 430-431; Tab 108 [CARSON 387-391] at 387-388.)

- The fill soil used to place compacted fill in the former reservoirs was taken first from the primary berms forming each reservoir, which was used until the reservoirs reached "what elevation it was needed to bring . . . the tank to [daylight grade]" and soils from other areas of the property were only used to achieve "finish grade." (Draft Order at 4; Tab 12 [Anderson Dep.] at 20:9-21:1; 27:1-31:5.)

- All of the witnesses who were physically present during grading in the former reservoirs testified that the fill soil taken from the berms was clean when they put it in place. Only four individuals are still living, who still have the capacity to testify, and who were present during this grading and compaction process. All four have given deposition testimony in the Litigation, under oath and subject to cross-examination by lawyers for both Shell and

plaintiffs. All four of them testified that they had a clear view of the soil each time one of the shallow lifts was spread, and they saw no oil in the fill soil. (Tab 7 [Bach Dep.] at 105:8-107:16; 143:23-144:4; Tab 8 [Lee Vollmer Dep.] at 86:2-87:1; Tab 12 [Anderson Dep.] at 35:9-36:8; Tab 13 [Al Vollmer Dep.] at 44:3-15.)

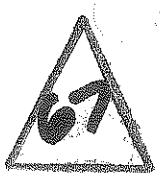
13. Title Passed On October 1, 1966; Rough Grading Was Completed By the End of 1968; And Grading Bonds Were Released By January 23, 1970.

- Barclay's designee took title to the Site on October 1, 1966. (Tab 340 [SOC 120814].)

- Based on the date of the last compaction tests reported in Pacific Soils' soils reports, the three reservoirs were completely filled in to level grade by May 1968. (Tab 108 [CARSON 387-391]; Tab 102 [CARSON 397-403]; Tab 99 [CARSON 430-433]; Tab 100 [CARSON 445-450]; Tab 105 [CARSON 552-557]; Tab 110 [CARSON 340-344]; Tab 112 [CARSON 345-347]; Tab 123 [1/30/1967 report for Tract 28086]; Tab 125 [3/10/1967 report for Tract 28086].) Certain compaction tests post-date May 1968 and were completed by November of 1968, but these tests relate to installation of utilities as opposed to filling in the reservoir profiles. (Tab 112 [CARSON 345-347].) Rough grading to fill in the reservoirs and bring the property up to the rough grade level was completed approximately in November 1968, based on the date available documents show the County approved all rough grading at the site. (Tab 341 [CARSON 275]; Tab 344 [CARSON 463-464, 467-469, 477]; Tab 348 [County of Los Angeles supervised grading certifications for Tract 28086 dated 3/1/1967, 4/3/1967, and 4/17/1967].) The last date showing final grading approval on the documents retained in files of the County is in August 1969. (Tab 342 [CARSON 278-282, 285]; Tab 343 [CARSON 283]; Tab 344 [CARSON 463-464, 467-469, 477]; Tab 345 [CARSON 421, 465-466, 470-472, 478-483]; Tab 346 [CARSON 473-476]; Tab 347 [CARSON 562, 565, 567-570]; Tab 348 [County of Los Angeles supervised grading certifications for Tract 28086]; Tab 349 [County of Los Angeles final grading certification for Tract 28086].)

- The County Engineer released all remaining grading bonds by January 23, 1970,[4] which signified "[c]ompletion of the job and final approval by the inspector" and that the "project was not being left in a hazardous condition." (Tab 6 [Nehrenberg Dep.] at 90:18-91:9.) By that date, Barclay, Pacific Soils, and the County Engineer had determined that conditions in the soil were safe to proceed with construction of the residential subdivision. (Tab 55 [CAR 112]; Tab 117 [CARSON 320]; Tab 116 [CARSON 422]; Tab 114 [CARSON 455]; Tab 6 [Nehrenberg Dep.] at 90:18-91:9; Williams Report at 35-36, 57; Shepardson Report at 9.)

[4] Files produced by Shell and the City of Carson include Bond Releases for three of the four tracts. (Tab 55 [CAR 112]; Tab 117 [CARSON 320]; Tab 116 [CARSON 422]; Tab 114 [CARSON 455].) While we do not have a Bond Release for Tract 28086, we have the associated white papers, which provide assurance that grading was properly completed and any required bonds released.



B. The 2008 Investigation And 2011 Clean-up And Abatement Order: The Residual Petroleum Hydrocarbons That Are The Subject Of The Board's Clean-up And Abatement Order Were First Discovered At The Site When This Board Ordered An Investigation By Shell In 2008, And In 2011, Barclay And Dole Refuted Shell's Accusations That They Were Responsible For Discharging Some Of Those Contaminants By Bringing Contaminated Fill Soil Onto The Site.

As a result of an environmental investigation at the Turco Products Facility, directly adjacent and just west of the Site, on May 8, 2008 the Board issued a Water Code Section 13267 Order to Shell requiring an investigation of the Site. (Tab 328 [5/8/2008 13267 Order].) In response to that 2008 Order, Shell has, with the assistance of its consultants URS and Geosyntec, conducted a series of investigations to evaluate impacts associated with the former oil storage operations at the Site. *See* URS 9/29/2010 Plume Delineation Report, Former Kast Property, Carson CA (available on Geotracker). These investigations, begun in 2008 and continuing through the present day (collectively "Shell Investigation"), have compiled considerable data, which has been provided to the Board in a series of reports made available to the public. That data has revealed the presence of residual petroleum hydrocarbons both in the deep soil beneath the former reservoir bottoms ("Deep Contamination") and in the shallow zone above the former reservoir bottoms ("Shallow Contamination"). (*Id.* at 6-1.) As shown in the chronology above, these recently-discovered residual petroleum hydrocarbons, both shallow and deep, were not known to Barclay during the limited time it worked on and owned the Site. (Dagdigian Report at 68, 162-163.)

In the midst of these investigations, Shell sent a July 28, 2010 letter to the Board urging it to name Dole and Barclay as dischargers in the Clean-up and Abatement Order ("CAO") issued against Shell. (Tab 132 [7/28/10 ltr.] at 1.) The Shell Investigation revealed that most of the contamination was located beneath the former reservoir bottoms, where oil had apparently

leaked from the reservoirs during Shell's operations.[5] Shell noted, however, that contaminants were also found in the fill soil, which had been placed by Barclay above the former reservoir bottoms and within the perimeters of the former reservoirs. While Shell did not deny its own discharger status for the Deep Contamination, it asked the Board to name Barclay as a discharger as well because, according to Shell, Barclay brought contaminated fill soil to the Site and therefore had discharged contaminants. (*Id.* at 10-11.) This accusation was flatly untrue, and Barclay later disproved it. (Tab 333 [9/15/11 ltr.] at 8-9.)

On March 11, 2011, the Board issued a CAO naming only Shell as a responsible party. On April 22, 2011, however, the Board issued a Water Code Section 13267 letter to Dole, requesting further information regarding Shell's allegations and Dole's and Barclay's involvement with the Site. (Tab 332 [4/22/11 ltr.] at 1.) By letter dated September 15, 2011 ("2011 Letter"), this firm, representing Dole, refuted Shell's allegations and demonstrated that no new fill soil had been brought onto the site by the developer, Barclay. (Tab 333 [9/15/11 ltr.] at 8-9.) This fact—that no fill soil was ever brought onto the Site by the developer—has since been confirmed by all other witnesses who have a recollection of these events, and is uncontradicted. (Tab 7 [Bach Dep.] at 143:8-22; Tab 8 [Vollmer Dep.] at 167:13-168:5; 136:6-138:19.) It thus became clear that all contaminants at the Site had been discharged by Shell during its 30-plus years of operations, and not by Barclay's development of the Site. (Tab 333 [9/15/11 ltr.] at 6-9.)

[5] Draft Order at 5 ("The CPT/ROST logs also showed that the highest apparent soil impacts occurred at depths of 12 feet bgs, 36 feet bgs, and 40 feet bgs.").

C. The Draft 2013 Clean-up And Abatement Order: While Barclay Is No Longer Accused Of Discharging Contaminants, In 2013 The Board Raised New Questions About Its Possible Liability As A Former Owner, All Of Which Were Satisfactorily Answered During Informal Meetings With The Board's Staff.

After Shell's charges against Barclay were refuted in 2011, neither Dole nor Barclay was named to the CAO and received no further communication from the Board for nearly two years. In the meantime, Shell did not appeal the CAO and has been complying with it. Given that there was no need to stretch the boundaries of regional board jurisdiction because the true discharger was already remediating the contamination, we believed that the matter had been put to rest. In July 2013, however, we were advised informally by the Board's counsel of the possibility that an amended order would be circulated for comment.

1. Dr. Jeffrey Dagdigian, An Expert In The Fate And Transport Of Petroleum Hydrocarbons And Industrial Processes, Explains In His Report How The Fill Soil Placed By Barclay In The Former Reservoirs First Became Contaminated Only After Compaction Was Complete Through Upward Movement of Contaminants That Had Been Located Beneath The Reservoir Floor Bottoms Without Barclay's Knowledge.

After receiving July 2013 correspondence from the Board, we responded informally to the staff with some of the same evidence offered with this Letter. Staff members showed particular interest in the source of contaminants in the fill soil above the former reservoir bottoms—the fill soil that was put in place by Barclay from 1966 to 1968 to fill in the three former oil reservoirs. That focus carried over to the Draft Order, which contains a finding that Barclay had "explicit knowledge . . . of residual petroleum hydrocarbons and conducted various activities, including . . . grading onsite materials, thereby spreading the waste." Draft Order at 11.

In response to this focus on the source of contamination in the fill soil placed by Barclay in the reservoirs, we introduced the staff to Dr. Jeffrey Dagdigian of Waterstone Environmental,

an expert in the movement of petroleum hydrocarbons in the soil. Dr. Dagdigian explained why the evidence showed that Barclay did not knowingly "spread the waste around" when it moved soil from the reservoir berms into the former reservoirs.

At the first meeting we only mentioned briefly the uncontroverted evidence shown in the chronology above, that all of the eyewitnesses to those grading operations reported that they saw no oil in the soil; but later, the deposition testimony was shown in a separate session with counsel and a member of the staff. At the time of the informal meetings with the Board's staff, only two individuals, Lee Vollmer and George Bach, had testified on the subject; both testified that the fill soil was clean. (Tab 7 [Bach Dep.] at 105:8-107:16; 143:23-144:4; Tab 8 [Vollmer Dep.] at 86:2-87:1.) Since that time, depositions of two more individuals, Lowell Anderson and Al Vollmer, have been taken in the Litigation, and both have given similar testimony under oath. (Tab 12 [Anderson Dep.] at 35:9-36:8; Tab 13 [Al Vollmer Dep.] at 43:25-44:15.) All four men testified that they had good vantages from which to observe the soil taken from the berms after it had been spread, and they were in a position to see oil contamination if there had been any. (Tab 12 [Anderson Dep.] at 35:24-36:8; Tab 13 [Al Vollmer Dep.] at 44:7-19.). The testimony of all four witnesses was given in deposition subject to cross-examination by lawyers for Shell and plaintiffs. Each one of the four witnesses testified that the fill soil was clean; there were no contaminants. These are the only four living witnesses who actively participated in the grading and decommissioning of the tanks at the Site, and their testimony is unanimous on the subject.

Moreover, as shown in the chronology above, there were soil samples taken from the berm soil as part of the preliminary soils investigation, and while it was not the purpose of that sampling to look for oil, the cuts taken from the berms provided yet another opportunity for a trained eye to see oil contamination in the berm soil if it was there. Part II.A.6., *supra*. Yet no

mention is made of oil in any of the soils reports other than the "oil stains" mentioned on page 4 of the Draft Order, which were found beneath the reservoir floors, not in the berm soil. Although there were many soils reports prepared after those samples were taken, and hundreds of pages of documents placed in the construction file after that, not one page of those documents says anything about oil in the berm soil. This corroborates the testimony of the four eye witnesses. (Tab 66 [CARSON 348-54]; Shepardson Report at 26.)

With this uncontradicted evidence from the Litigation as background, Dr. Dagdigian spent nearly four hours with various members of the Board's staff demonstrating how it is possible, indeed likely, for both to be true at the same time: (1) the eye witnesses testified that they saw no oil in the fill soil when they put it in place and compacted it, yet (2) it is contaminated today. The answer, according to Dr. Dagdigian, is that the Deep Contamination is the source of the Shallow Contamination. In fact, Dr. Dagdigian explained why that is the only explanation that makes sense out of all of the facts that are known.

According to Dr. Dagdigian, after Barclay placed and compacted clean fill on top of the broken reservoir bottoms, contamination that had remained immediately beneath the reservoir bottoms at high concentrations was able to move upward through openings that had been ripped in the former reservoir concrete bottoms and around the bottoms in the places where the walls had been removed. (Dagdigian Report at 116.) At high concentrations, these contaminants moved into the clean fill via capillary action, perhaps aided by buoyancy whenever water from irrigation or rain was introduced. (*Id.* at 142.) That this occurred is demonstrated by the pattern of contamination shown by the data, which confirms that higher concentrations are found just above the former reservoir bottoms with smaller amounts as one ascends in the fill soil, in a

reverse of the pattern that occurs when the source of contamination comes from the top and migrates down. (*Id.* at 116.)

All of this is explained in more detail in Dr. Dagdigian's report. (*Id.* at 124-128.) There, he cites scientific literature confirming that the upward movement of oil and other liquids has been shown to have occurred at other sites, proven in the laboratory and accepted by regulatory agencies, including both EPA and California's Regional Boards. (*Id.* at 142-159.) Dr. Dagdigian further explains how he ruled out the theory that contaminated berm soil could have been a significant source of the Shallow Contamination because the regular patterns of contamination observed in the fill soil are inconsistent with the random distribution of contamination that would have occurred if the berm soil had already been contaminated when it was spread in lifts. (*Id.* at 80-82, 117-121, 173.)

No other narrative explains all the evidence as elegantly as does Dr. Dagdigian's opinion. It is established that the berm soil was not contaminated when Barclay moved it from the reservoir berm to the floor of the reservoir because: (1) those who spread it saw no oil; (2) those who tested it reported no oil; (3) the patterns of contamination observed by Dr. Dagdigian are not consistent with the theory that contaminated berm soil was the source of the Shallow Contamination; and (4) the patterns of contamination demonstrate that it is much more likely that the source of the current contamination in the shallow fill above the reservoir bottoms came from the bottom up. (*Id.* at 166-167, 173.)

By contrast, the Draft Order cites no evidence to support its finding that Barclay had "explicit knowledge" of "residual petroleum hydrocarbons" but engaged in grading activities that "spread the waste" despite that knowledge; indeed, the finding is contradicted by the same facts that provide such an elegant fit with Dr. Dagdigian's conclusions.

2. In 1997 Shell Sent To This Board "A Report To Complete A Repair Of The Backfill Of Reservoirs No. 1 And No. 2," Which The Board Approved, Describing Upward Movement Of Oil In Circumstances Nearly Identical To Those Presented At The Site.

In support of his analysis, Dr. Dagdigian provided an August 1997 report produced by a Shell consultant, Brown and Caldwell, to this Board, which demonstrates that the very same type of reservoir can leak during its years of operation, leaving a build-up of high-concentration hydrocarbon contamination beneath the reservoir floor where it will remain available to upward movement into newly placed fill soil if the reservoir floor is broken up and the fill soil is spread and compacted on top of the broken concrete in the manner that Barclay did at Reservoirs 5, 6 and 7.[6] (Tab 163 [1997 Report].) As a separate point, Dr. Dagdigian noted that a 1994 report leading up to the backfill of Reservoirs 1 and 2 described a Shell experiment that questioned the ability of even trained observers to identify hydrocarbon contaminants in soil even at high concentrations. (Dagdigian Report at 77-80.)

The 1997 report is focused on Shell Reservoirs 1 and 2, located at Shell's former Wilmington Oil Refinery, about one mile east of the Site on Lomita Boulevard. Reservoirs 1 and 2 were constructed at about the same time as Reservoirs 5, 6, and 7; they are nearly identical to the three reservoirs at the Site except that they were operated for almost twice the time period—68 years—as the reservoirs at the Site (some 36 years), and were decommissioned beginning in 1991. (Tab 163 [1997 Report] at Appendix A, Order No. 94-112, page 1 dated October 3, 1995.) As part of the 1991 decommissioning, it was discovered that Reservoirs 1 and 2 had leaked, just as Reservoirs 5, 6, and 7 leaked, contaminating the soil below their floors with hydrocarbons which, over time, built up high concentrations beneath the reservoirs. At Reservoirs 1 and 2,

[6] The report refers to another report from 1996, which likely has additional details. Dr. Dagdigian asked the Board staff if he could have a copy, but they reported that they were unable to locate it.

after the concrete was broken up and placed on the reservoir bottoms, the berm soil was used as fill and compacted on top of the former reservoir bottoms. A semi-permeable clay cap was placed near the top of the fill before about two more feet of dirt was placed on it. (*Id.* at Appendix B, Amendment No. 1 page 1-2; Chapter 3, Low Permeability Cap Construction.) Within a year after the clay cap was put in place, however, petroleum hydrocarbons had seeped up to the cap then migrated around it to the surface. (*Id.* at Appendix B, Amendment No. 1, page 2.)

This answered a number of questions posed by Board staff who had appeared skeptical about Dr. Dagdigian's conclusions. First, it proves that oil does indeed travel upward in soil. Second, it can travel a substantial distance. Third, oil moving upward will also move sideways along the path of least resistance (or the path with greater capillary forces). Some staff members questioned how patterns of contamination showing columns that are not always shaped in a straight line from an opening in the concrete bottom could occur, and sideways movement along a path of least resistance seemed the logical explanation. Theory met fact in Reservoirs 1 and 2 when the upward movement of oil was stopped at the clay cap but then the oil moved sideways to the edge of the cap, around the edge and upward again until it seeped out of the surface.

Once again, by finding that Barclay engaged in "spreading around" contaminants in fill soil, the Draft Order is based upon facts that are the exact opposite of what the foregoing evidence shows. Shell's 1997 report is further, overwhelming proof that Dr. Dagdigian is right. Because the Draft Order offers no evidence of its own to support what appears to be an essential basis for its conclusions—that Barclay knowingly moved contaminants around at the Site—it does not provide a lawful basis for holding Barclay responsible for clean-up and abatement of Shell's discharge.

D. The Draft Order Mischaracterizes Barclay's Activities At The Site.

On page 4 of the Draft Order an attempt is made to summarize a part of the history of the Site as follows:

> In 1965, prior to the purchase of the property from Shell, Richard Barclay and/or Barclay Hollander Curci requested permission from Shell to remove the liquid waste and petroleum residue from the property and to begin to grade the property for development. Shell agreed to allow the activities with some conditions, including that "all work done by or for [Barclay Hollander Curci] be done in a good, lawful and workmanlike manner." After purchasing the property in 1966, Lomita, as the owner of the property, actively participated in the decommissioning and grading activities. Lomita conducted the waste removal and grading activities and obtained the required permits from the County. Available information indicates that by August 15, 1966 all three reservoirs had been fully cleaned out. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968 [FN omitted] documented that: (1) Lomita emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; (2) part of the concrete floor of the central reservoir was removed by Lomita from the Site; and (3) where the reservoir bottoms were left in place, Lomita made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of water and sludge present in the reservoirs into the subsurface. Various documents from the soil engineer describe the process of removing water and sludge in the reservoirs, burying concrete and compacting the concrete and soil, and drilling holes in the concrete fill must be at least seven feet below grade. Boring logs beneath the concrete slab in Reservoir 7 were "highly oil stained" and that soils in the borings had a "petroleum odor, however the amount of actual oil contained in the soil is unknown." [FN omitted] One of the soil engineering reports also indicated that soil used to fill in the reservoirs and return the Property to its natural grade came from the berms surrounding each reservoir and surrounding the perimeter of the Property. [FN omitted]

Draft Order at 4.

When this factual summary is compared to the chronology presented in Part II.A above, there can be no question that the Draft Order does not accurately portray what occurred at the Site because it omits important details and it is ambiguous about sequencing. Most egregious is the assertion that the concrete floors of the reservoirs were broken "to allow the percolation of water ***and sludge*** present in the reservoirs ***into the subsurface***." *Id.* (emphasis added). While "percolation of water" was an objective of the trenching, it was clear from the first moment it

was raised in the Preliminary Soils Report dated January 7, 1966, that the objective of such percolation was precipitation after the grading had occurred; it was never a part of the process to clean out residual materials "present in the reservoirs." Part II.A.6. & 7., *supra*. Also, there is no evidence that any sludge was "present in the reservoirs" by the time the trenching took place or that Barclay or anyone else ever intended to "allow the percolation of . . . *sludge* . . . into the subsurface" through the concrete. The only evidence on this subject shows that when Barclay arrived in late January 1966, Reservoirs 5 and 6 were already clean; that Barclay's subcontractor, Chancellor & Ogden, cleaned out residual materials from Reservoir 7 with the assistance of the grading contractor, Vollmer Engineering; and that no ripping took place in any of the reservoir bottoms until they were cleaned out. Part II.A.8. & 9., *supra*.

There is no evidence that any sludge ever contaminated the sub-floor area, or any other area of the Site during the time Barclay was on Site. *Id.* Accordingly, the following statement is simply false and there is no evidence to support it: "Lomita made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to . . . allow the percolation of . . . sludge present in the reservoirs into the subsurface." Draft Order at 4. Since these and other findings were considered important enough to include in the Draft Order and are demonstrably false, Barclay respectfully requests that the Draft Order be reconsidered top to bottom and that Barclay be excluded as a responsible party from any further order.

E. Barclay's Conduct Was Lawful And Complied With The Environmental Standards Of The Time In Which It Owned Or Was Active At The Site.

The Draft Order makes no reference to historical circumstances of Barclay's activities. This is another ambiguity about context that renders the findings in the Draft Order insufficient to hold Barclay responsible. For example, the Draft Order finds that Barclay "purchased the Site with explicit knowledge of the presence of the petroleum reservoirs," but it never makes clear

whether that knowledge is considered in the context of the period in which Barclay performed its development work on the Carousel subdivision, which began in 1966. Draft Order at 11. As shown below, the manner in which a developer would have used that information in the late 1960s would have been much different from how such information would be used today. Rather than speculate on the meaning of the Draft Order in this respect, we present the evidence summarized below to show that Barclay's conduct was at all times in accordance with the laws and regulations existing at the time and conformed to the standards of practice of others working in similar circumstances given the state of public knowledge at the time of its grading work.

1. The Standard Of Practice For Residential Builders In The 1960s Did Not Require Investigation For Pollution At Sites That Were Previously Used For Oil Operations.

In order to learn the context in which Barclay was operating in the late 1960s, we found people who worked in similar circumstances in or around those years. One such person is Don Shepardson, who has been a soils engineer in Southern California since the mid-1960s. Mr. Shepardson describes in his report the several ways in which laws and practices pertaining to environmental diligence during the development of residential real estate projects were much different during the late 1960s from what they are today. (Shepardson Report at 26, 29-30.)

To supplement his own knowledge and memory, Mr. Shepardson conducted empirical research. Using old maps, he identified no fewer than eleven sites in the South Bay area of Los Angeles County where residential subdivisions had been built on property where oil operations were previously conducted. The homes were built about the same time as the Carousel subdivision, and searching records retained by local governments, Mr. Shepardson obtained soils engineering reports and other documents from those eleven projects.

Mr. Shepardson found that Barclay acted well within the standard of practice and standard of care for soils engineers engaged in similar activities in the area at the time. First, it

was common at the eleven sites he reviewed for developers to leave oil in the ground at residential subdivisions; in some cases, contaminated soil was blended with clean soil to facilitate compaction. (Shepardson Report at 25.) When oil was taken off site, as Barclay did during grading at the Carousel project, it reflected a judgment by the soils engineer that the soils could not be used for competent compaction; no decisions concerning the handling of oil in the eleven examples reflected concern about the toxicity of oil pollution. (*Id.* at 25-26.) Based on that empirical research and his own experience, Mr. Shepardson concluded that it was well within the standard of practice and standard of care at the time for Pacific Soils to allow, with County Engineer's approval, that the "oil stains" be buried in place even without an express recommendation. Indeed, much larger quantities of oil were allowed to remain at residential sites reviewed by Mr. Shepardson. (*Id.*) Nor did the observation of oil stains beneath the floor in Reservoir 6 trigger the need for further investigation. (Shepardson Report at 5.) According to Mr. Shepardson, the only purpose of any investigation that he observed in the eleven examples was to assure competence of the soil for residential construction purposes, and Barclay did not need to do more than it did to achieve that. (*Id.* at 25-28.)

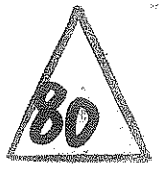
We also asked another expert, Marcia Williams, to bring her knowledge of historical changes in environmental law, regulation and public knowledge to bear on the questions presented by the Draft Order. Ms. Williams began working at the U.S. EPA in 1970 and stayed there until 1988. Since then she has worked for private industry and in private consulting, but always focused on environmental law and public knowledge of environmental subjects. A career divided between government service and private consulting has provided Ms. Williams with a deep appreciation for the disparity between what was known and focused upon by environmental regulators in one era compared to another. In the opinion of Ms. Williams, Barclay's activities

developing the Site during the late 1960s "were compliant with existing laws and regulations including the Dickey Act" and therefore Barclay "would not qualify as a discharger under the current Water Code." (Williams Report at 65; Part III.C., *infra.*) In addition, based on her thorough evaluation of historical evidence, Ms. Williams concludes that Barclay had "no reason to be aware of the presence of soil or groundwater conditions constituting a nuisance or pollution that required abatement at the time it purchased or developed the Kast property." (*Id* at 12.)

Ms. Williams cites historical evidence demonstrating that in 1966 environmental diligence was virtually an unknown practice in the circumstances presented here; there were no Phase 1 or Phase 2 environmental site investigations, and the technology and expertise to conduct such investigations was rudimentary. "At the time the Kast property transaction occurred, there was no guidance on how to go about conducting an environmental assessment on the Kast property and the concept of such an assessment had not yet been developed." (*Id.* at 48.) Moreover, the technical disciplines for obtaining and evaluating the information had not yet been developed, and even the framework for developing a useful risk assessment did not exist. (*Id.* at 40, 47.) Consequently, Barclay did not even have the tools to evaluate what was known in a way that would have caused Barclay to conclude that further steps had to be taken by an owner in these circumstances. (*Id.* at 40-48.)

2. Barclay Obtained All Necessary Approvals For The Carousel Development From Public Agencies, None Of Which Required Any Environmental Investigation, And None Of Which Showed Concern That Circumstances At Carousel May Be Unsafe For Residents.

When Barclay obtained its zoning and subdivision map approvals from the Planning Commission, it was not a secret to anyone that Barclay was converting the former oil storage facility on the Site into a residential subdivision. (Tab 75 [CARSON 818-820] at 819.) During the land use approval process, no one from the surrounding community, the public at large, nor

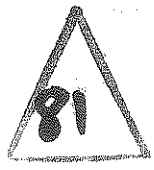


any of the public planning agencies expressed any concern about the risk that contamination from the prior use of the Site would make conditions unsafe for Carousel residents. These actions of the public planning agencies demonstrate louder than words that an assumption that some might try to make today—that toxic pollution is a natural and obvious consequence of over 30 years of oil storage operations—was not on anyone's mind when Carousel was being built during the late 1960s. Nor did Barclay or anyone else at the time believe that oil was something that made conditions unsafe for residents at Carousel.

a. The Planning Commission And Board Of Supervisors Approved Barclay's Zoning Change Applications Following Public Hearings.

The zoning change required approvals from both the Planning Commission and the Board of Supervisors. (Tab 72 [CARSON 370-374]; Tab 91 [CARSON 790].) Throughout the rezoning process, multiple hearings were held, allowing the public access to information about the project and an opportunity to comment on the proposed zoning change. (Tab 75 [CARSON 818-820]; Tab 91 [CARSON 791]; Tab 355 [CARSON 786-787]; Tab 90 [CARSON 721-722]; Tab 53 [SOC 120811].) It was no secret that the Carousel development was being built on the site of a former oil tank farm. A public hearing request on a related zoning issue specified that residential development was being built on property with "existing hazardous oil storage tanks." (Tab 63 [CARSON 870-873].) The Planning Commission was fully aware that "[t]he subject property is developed" from "an oil company tank farm" into a residential subdivision. (Tab 64 [CARSON 863-865]; Tab 70 [CARSON 859]; Tab 71 [CARSON 845-846].)

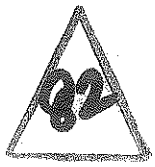
Barclay ultimately received approval for R-1 zoning on October 20, 1966, shortly after it took title to the property. (Tab 86 [CARSON 789]; Tab 91 [CARSON 790].) When giving their approvals, neither the Supervisors nor the Planning Commission imposed any special limitations or requirements because of the prior use. (Tab 86 [CARSON 789]; Tab 91 [CARSON 790].)



Neither Barclay nor Shell was required to conduct any form of environmental investigation as a condition of approval. And nothing was said by either board to suggest that the prior use of the Site as an oil storage operation had made it unsafe for future residents. (Tab 86 [CARSON 789]; Tab 91 [CARSON 790].)

b. Over 900 Residents From The Local Community Signed Either Letters Or Petitions Supporting Barclay's Zoning Change Application; None Expressed Any Concerns About Potential Health Effects From Pollution.

The community was actively involved in the decision to change the zoning at the Site from M-2 to R-1, and therefore to develop residences on the former tank farm. (Tab 65 [CARSON 743-783]; Tab 76 [CARSON 726-739]; Tab 85 [CARSON 741]; Tab 83 [CARSON 796]; Tab 80 [CARSON 718-720]; Tab 84 [CARSON 801]; Tab 78 [CARSON 802]; Tab 79 [CARSON 803-805]; Tab 81 [CARSON 812-814].) Before it ruled on Barclay's application for rezoning, the Planning Commission considered at least 23 letters (14 in favor of the rezoning, 9 opposed) and 925 signatures on petitions (all in favor of Barclay's zoning request) submitted by people and businesses that lived or were located in the area. (Tab 65 [CARSON 743-783]; Tab 76 [CARSON 726-739]; Tab 85 [CARSON 741]; Tab 83 [CARSON 796]; Tab 80 [CARSON 718-720]; Tab 84 [CARSON 801]; Tab 78 [CARSON 802]; Tab 79 [CARSON 803-805]; Tab 81 [CARSON 812-814].) No one who commented on rezoning, for or against, even mentioned the possibility that pollution from the prior use might make conditions unsafe for residents. (Tab 65 [CARSON 743-783]; Tab 76 [CARSON 726-739]; Tab 85 [CARSON 741]; Tab 83 [CARSON 796]; Tab 80 [CARSON 718-720]; Tab 84 [CARSON 801]; Tab 78 [CARSON 802]; Tab 79 [CARSON 803-805]; Tab 81 [CARSON 812-814].)



One resident made this plea:

> I've lived in the area since birth. I went to Wilmington Jr. High School the first year it was open in the first ninth grade class. At that time the land now under question by your commission was ***old oil tanks***. Now I'm a mother of two children and am ***very happy to see this land being leveled for new homes***. I understand there is a question "Homes against Industry" –Please not Industry – We need homes, "attractive homes" to enhance Wilmington. We love our little city and want to continue to rear our children here. Please let us have some lovely homes. I cannot be with you on the day of the hearing for we will be north on our vacation. But we do want and pray for a more attractive and happier Wilmington.

(Tab 76 [CARSON 726-739] at 735-36 (emphasis added).) Another resident said, "We purchased our home in this [neighboring] tract as it is the only area with new homes of this value and with the belief that the oil tanks were to be removed and new homes built immediately." (Tab 76 [CARSON 726-739] at 729.)

Opponents of Barclay's rezoning application likewise did not raise even the possibility that pollution from the prior use might affect resident safety. (Tab 80 [CARSON 718-720]; Tab 82 [CARSON 794]; Tab [CARSON 795]; Tab 84 [CARSON 801]; Tab 78 [CARSON 802]; Tab 79 [CARSON 803-805]; Tab 81 [CARSON 812-814].) This is significant because opponents, motivated by their desire to prevent the project, made the best arguments they could to try to persuade public agencies to disallow Barclay from proceeding with its project. A good example is a letter from Purex Corporation, which opposed the Carousel project because its subsidiary, Turco, owned "approximately 30 acres of land which directly abuts on the west side" of the proposed Carousel development. (Tab 79 [CARSON 803-805] at 803.) Purex foresaw the advantages of an oil storage facility, which would not protest the noise and odors that would accompany Turco's anticipated expansion, over the human inhabitants of the residential use proposed by Barclay. (Tab 79 [CARSON 803-805].) Purex argued that rezoning should be denied, among other reasons, because of *safety* and *health* risks to residents of the proposed

residential development. Yet Purex did not contend that those safety and health risks included possible pollution or other impacts from operations at the former oil storage facility; indeed, Purex did not mention oil at all. Instead, Purex argued that the "human health" concerns were attributable exclusively to "[t]he noise, truck traffic, and lights upon Purex's land required for its [own] manufacturing operations," which Purex feared "would . . . [cause] loss of sleep and the impairment of the health of the residents" at Carousel. (*Id.* at 804.)

Purex threatened the Planning Commission (and Barclay) that "[f]amilies purchasing [Carousel] residences would not realize this unsuitability for residential use until such purchase had actually taken place," and therefore Carousel homebuyers "will be defrauded." (*Id.*) Having thus speculated improperly and without evidence that Barclay and the Planning Commission would conceal facts from purchasers, the facts Purex expected them to conceal were *not* the *prior use* of the property as an oil storage facility, which it did not mention at all, but rather, according to Purex, the *planned expansion of its Turco factory.* (Tab 79 [CARSON 803-805].) It was inconsequential to Purex in 1966 that the Carousel homes were being built on a former oil tank farm. No one, not even the highly motivated opponents of the residential development, thought that toxic pollution was an inherent risk of building homes on this property.

c. The Planning Commission Did Not Require Any Environmental Diligence When It Approved Barclay's Subdivision Map.

The Planning Commission conditionally approved Barclay's Tentative Tract Map on February 23, 1966. (Tab 73 [CARSON 363-367] at 363.) A subsequent approval was obtained on November 1, 1966. (Tab 72 [CARSON 370-374] at 370.) Both approvals referred to the fact that the concrete lining in the former oil storage reservoirs (called "sumps" in the approval orders) would be broken up and buried in place beneath compacted fill. (Tab 73 [CARSON 363-367] at 366; Tab 72 [CARSON 370-374] at 372.) In granting both approvals, the Planning

Commission imposed a number of conditions on Barclay. (Tab 73 [CARSON 363-367]; Tab 72 [CARSON 370-374]; *see also* Cal. Gov. Code § 66415; Los Angeles County, Cal., Ord. No. 4478 art. 2 § 12 (1945).) None of those conditions were directed toward mitigating potential adverse effects from the prior use of the property on future residents. (Tab 73 [CARSON 363-367]; Tab 72 [CARSON 370-374].) Neither approval order required Barclay to investigate whether the Site had become contaminated when it was an oil storage operation. (Tab 73 [CARSON 363-367]; Tab 72 [CARSON 370-374].) And the lack of any requirement for an environmental investigation was consistent with the development standards of the day. (Williams Report at 21-22, 35, 40, 70; Shepardson Report at 26, 29-30.) There was no legal or industry standard that would have required such investigations in 1966. (Williams Report at 21-22, 35, 40, 70; Shepardson Report at 26, 29-30.) In fact, had the City of Carson or the County of Los Angeles suggested that such an investigation needed to occur, it would have been requiring well-beyond what was being done at that time in the development community. (*See* Williams Report at 21-22, 35, 40, 70; *see also* Shepardson Report at 26, 29-30.)

d. The Department Of Real Estate Issued Final Reports Allowing Barclay To Sell Carousel Homes, Knowing The Former Use Of The Property And Everything Else Its Diligence Revealed.

At all times relevant to this case, the Carousel development was governed by the Subdivided Lands Law ("SLL"), California Business & Professions Code §§ 11000-11200 [enacted 1943]. The State Real Estate Commissioner ("Commissioner") "administers the Subdivided Lands Law to protect purchasers from fraud, misrepresentation, or deceit in the initial sale of subdivided property." *See* Cal. Bus. & Prof. Code § 11018.2. (Tab 339 [Department of Real Estate Reference Book] at 445.)

Under the SLL, no home at Carousel could be offered for sale by Barclay until the Commissioner had issued a final public report, sometimes referred to as the "White Report."

Bus. & Prof. Code § 11018.2; Department of Real Estate Subdivision Public Report Application Guide, 35 (2011) (listing "appropriate color" for public reports). The staff of the Department of Real Estate ("DRE") prepares the final public report for the Commissioner. *See* Cal. Bus. & Prof. Code § 11018.2. (Tab 339 [Department of Real Estate Reference Book] at 445.) The "public report includes important information and disclosures concerning the subdivision offering." (Tab 339 [Department of Real Estate Reference Book] at 445.) "The Commissioner does not issue the final public report until the subdivider has met all statutory requirements, including . . . a showing that the lots . . . can be used for the purpose for which they are being offered." (*Id.*) Copies of the White Report for all tracts included in the Carousel subdivision are submitted herewith. (Tab 335 [White Reports for Tracts 28441 (8/1/1967), 28564 (2/21/1968), 24836 (1/22/1969), and 28086 (5/22/1967)].) These demonstrate that the Commissioner, with full information about the project, which included access to all of the associated files and records, determined Carousel to be fully compliant with all applicable laws and regulations as required by the SLL.

3. The Area Surrounding The Site Was "Oil Country," Where Close Proximity Of Humans And Oil Was Common And Not Viewed As Unsafe During The Late 1960s.

At the time Barclay was developing the Site, it was common to have oil storage facilities and oil refineries located near, indeed immediately adjacent to, residences, schools, and sports fields. In fact, just before Barclay purchased the Site, large numbers of homes had been built and sold right up to the property line of the eastern border of the Site, completing a residential build-out that had begun working toward the three reservoirs from the east since at least 1958. (Tab 336 [Tract maps for Tracts 21144, 29377 and 24605].) It is telling that the proximity of the visible reservoirs, the berms of which reportedly extended fifteen feet above the surface, was not

preventing sales of residences on the open market. There had also been an expansion of residential housing to the north of the Site. (Tab 75 [CARSON 818-820].)

To the south, across Lomita Boulevard, homes were being built on individual lots, many of which had oil wells on them. (Tab 4 [Schultz Dep.] at 17:10-17:15; 47:8-50:25.) That neighborhood was zoned "R-1-O," which allowed single family residences to be built on the same lot as an oil well. (Tab 4 [Schultz Dep.] at 17:15-18:2; 30:5-31:24; 32:4-14.) Indeed, oil wells are an important part of the history of Carson. Next door to the southwest of the Site, next to Lomita Boulevard, the former Schultz property had multiple uses in 1966; a family residence existed on the same lot as an oil well, and both of those shared the lot with the family business. (Tab 4 [Schultz Dep.] at 20:23-21:10; 23:16-25:7; 27:22-28:13; Tab 353 [Schultz Ex. 3]; Tab 354 [Schultz Ex. 4].) That well had a sump next to it, which was a shallow hole used by maintenance crews when working on the well; they would place waste oil in the hole and allow it to seep into the ground. (Tab 4 [Schultz Dep.] at 29:8-21; 74:4-75:23.) Two other oil wells were found on the industrial properties to the west of the former Schultz property. (Tab 4 [Schultz Dep.] at 30:5-31:24.) Across the street was (and still is) the Wilmington Intermediate School, and next to the playground were three more oil wells. (Tab 4 [Schultz Dep.] at 17:10-18:2; 30:5-31; 32:4-14; Tab 352 [Schultz Ex. 1].)

It is not surprising that oil wells were plentiful in what would soon become the City of Carson since that area was built in significant part on the oil industry. Carson was located in an area that some referred to as "oil country" because of its obvious ties with oil production. (Tab 5 [Smith Dep.] at 32:13-33:24; 40:20-40:25; 41:1-9.) In 1966 there was still ample evidence of that history. At the corner of Lomita and Main Street, just one block from the Carousel site, was the fully operational Fletcher Oil Refinery, built in 1939. (Tab 359 [My Carson Your Carson] at

65; Tab 4 [Schultz Dep.] at 63:25-65:20; 113:20-115:6; Tab 355 [CARSON 786-787]; Tab 5 [Smith Dep.] at 97:14-98:16.) There was a significant explosion at that refinery on March 27, 1969, while the homes at Carousel were still being sold. (Tab 350 [Los Angeles Times Article, March 28, 1969]; Tab 351 [Daily Breeze Article, March 28, 1969]; Tab 358 [Los Angeles Times Article, March 29, 1969].) Located between the refinery and the Carousel subdivision was a business called Oil Transport Company ("OTC"), which provided trucking services for hauling petroleum hydrocarbons for the energy industry. (Tab 4 [Schultz Dep.] at 30:5-31:24.)

This community environment is consistent with the undisputed evidence that no one at Barclay believed that oil was toxic to humans: "[T]he state of the knowledge at that time was that . . . oil certainly was not a hazardous material to health." (Tab 2 [Curci Dep.] at 215:1-15.) "[N]o, at the time it was not considered harmful and I didn't consider it harmful." (Tab 7 [Bach Dep.] at 75:6-14.) "In the late 1960s, early 1970s, oil wasn't the bad word it may be today, and it wouldn't have been a concern—the same concern . . . at that point in time as it might be today." (Tab 1 [Harkavy Dep.] at 111:11-112:10.) This attitude that oil was not toxic was corroborated by Mrs. Schultz, when she recalled her childhood in nearby Torrance where boys built rafts to float atop huge sumps of waste oil and she and her friends chewed tar, which was nothing but dried oil, as though it were bubble gum. (Tab 4 [Schultz Dep.] at 152:2-17.)

This co-existence of residential living and open oil operations may seem unusual by today's standards, but there was no sense at the time that such co-existence was problematic in any way. As explained by Ms. Williams in her report, at the time when the property was being developed and houses were being sold, no one in the environmental, public health or legal community was even considering the possible health effects of exposure to petroleum-related contaminants such as benzene. (Williams Report at 12-21.) Concerns about most environmental

issues, particularly those related to petroleum releases, were just not as important as other concerns, such as pesticides, back in 1967. (*Id.* at 21-39.) Nearly two years after the last house in the Carousel tract was sold, the United States Environmental Protection Agency ("EPA") studied oil dumped in backyards from automobile motor oil change outs and concluded that data simply did not exist to allow a quantitative assessment of human health risks resulting from exposure to oil contamination in the soil. (*Id.* at 17.) Further, around the time of Barclay's work on the Site, it was common for virgin and waste oil to be used to coat roadways to prevent dust and that practice was not viewed as one giving rise to any health concerns. (*Id.* at 12-15.) And this lack of concern regarding human contact with oil contamination lasted a long time even after that, as regulators were far more concerned about other contaminants and other exposure pathways. (*Id.* at 21-31.) The EPA and other regulators still do not regulate petroleum in the same way as they do other chemicals. *See, e.g.* CERCLA, 42 U.S.C. § 9601(14) ("The term [hazardous substance] does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance..."); HSAA, Health & Safety Code § 25317 ("'Hazardous substance' does not include...Petroleum, including crude oil or any fraction thereof . . ."). It is within this context that Barclay entered the Site to begin decommissioning the tanks.

III. LEGAL ARGUMENT

There is no longer any dispute that Shell is the only discharger of the contaminants being remediated under the current order. The Draft Order therefore makes no finding that Barclay "discharged" waste, in the usual sense that it "'relieve[d] . . . a charge, load or burden'," *Lake Madrone Water Dist. v. State Water Res. Control Bd.*, 209 Cal. App. 3d 163, 174 (1989) (quoting WEBSTER'S NEW INT'L DICT. 644 (3d ed. 1961)), and does not find that Barclay "deposited" waste, as most people understand that term—"'the act of depositing . . . something laid, placed,

or thrown down'." *People ex rel. Younger v. Super. Ct.*, 16 Cal. 3d 30, 43 (1976) (quoting WEBSTER'S THIRD INT'L DICT., UNABRIDGED (1963)). The Draft Order thus is based on something other than literal compliance with the language in the statute that defines the Board's jurisdiction. Cal. Water Code § 13304(a) (authorizes the Regional Boards to issue clean-up and abatement orders against "[a]ny person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who *caused or permitted* . . . any waste to be *discharged* or *deposited* where it is, or probably will be, *discharged* into the waters of the state.")

Instead, the Draft Order cites four State Board orders that affirm orders holding owners responsible for clean-up and abatement of contamination discharged by someone else. Draft Order at 11, n.8. As demonstrated below, however, Barclay should not be named as a discharger as proposed in the Draft Order for four separate and independent reasons:

(1) The four State Board decisions cited in the Draft Order in fact do not support finding Barclay responsible for the clean-up and abatement of contamination that was actually discharged by Shell during its operations. The State Board test, as articulated in the four cited decisions, for holding former owners responsible requires that the discharge occur during the owner's period of ownership and that the owner have, or had the legal ability to prevent the discharge. There is no evidence that either of those requirements is met with respect to Barclay. No State Board decision has ever held an interim owner responsible for clean-up and abatement of contamination solely discharged by an earlier owner before the interim owner's purchase, and State Board precedent should not be expanded to hold Barclay liable for Shell's discharge where, as here, Barclay never had an opportunity to prevent the discharge during its brief period of ownership. Part III.A., *infra.*

(2) Inadvertently spreading contaminants already discharged by someone else while engaged in activity intended for another, innocent purpose (assuming that is what happened here, although it did not) does not give rise to liability under Water Code Section 13304(a). No decision of the State Board has ever found a party responsible as a discharger for such conduct, and judicial precedent likewise prohibits an interpretation of Section 13304(a) that would be required to hold Barclay responsible for such conduct. *Redev. Agency of City of Stockton v. BNSF Ry. Co.*, 643 F.3d 668, 677-78 (9th Cir. 2011). Part III.B., *infra.*

(3) Barclay is exempt from liability under Section 13304(a) because it is protected by the safe harbor provided under Water Code Section 13304(j) because the acts for which the Draft Order would hold Barclay responsible took place in the late 1960s and did not violate the laws and regulations that existed at the time. Part III.C., *infra.*

(4) The State Board decisions on which the Board relies are themselves premised upon a misinterpretation of Section 13304(a). The plain meaning of the statute limits the jurisdiction of the Regional Boards to issue clean-up and abatement orders only to dischargers. It therefore prohibits orders such as the Draft Order, which require someone who has discharged nothing to be responsible for the discharges of someone else. Part III.D., *infra.*

A. The Draft Order Is Inconsistent With State Board Precedent, Which Has Never Held Responsible A Non-Polluting, Former Owner Like Barclay.

The Draft Order asserts that "[i]ncluding [Barclay] as a responsible party in this Order is consistent with orders of the State Water Resources Control Board." The assertion then refers to footnote 8, which cites four orders (collectively "Decisions") of the State Board. But the facts in these four Decisions, cited here in short form as *Wenwest,*[7] *Spitzer*,[8] *Sinnes*,[9] and *Zoecon*,[10] are

[7] *In the Matter of Wenwest, Inc., et al.,* State Board Order No. WQ 92-13 ("*Wenwest*").

not "consistent" with the facts of Barclay's case, and they cannot be looked upon as legal precedent for the Draft Order. In fact, as shown below, Barclay's circumstances are so different from those of all persons previously found to be dischargers under clean-up and abatement orders that it can only be concluded that, far from being "consistent" with the four Decisions, the Draft Order holding Barclay responsible must be rejected based on these Decisions.

In the four cited Decisions, the State Board found a total of 13 parties responsible for clean-up and abatement under Section 13304(a). Of that number, 10 were found responsible as "owners." Since Barclay was an "owner," we looked to these first for "consistency."[11]

Six of these ten owners were *current* owners, held responsible for reasons not applicable to Barclay, who is a *former* owner. *See, e.g.*, *Wenwest*, Order No. WQ 92-13, at *7 (concluding that "the current landowner, however blameless for the existence of the problem, should be included as a responsible party in a cleanup order," and naming as secondarily liable Wenwest, Inc.); *Zoecon*, Order No. WQ 86-2, *10 (determining that current landowner was "in the position of being well suited to carrying out the needed onsite cleanup"); *Spitzer*, Order No. WQ 89-8, at

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[8] *In the Matter of Arthur Spitzer, et al.*, State Board Order No. WQ 89-8 ("*Spitzer*").

[9] *In the Matter of Stinnes-Western Chemical Corp.*, State Board Order No. WQ 86-16 ("*Stinnes*").

[10] *In the Matter of Zoecon Corp.*, State Board Order No. WQ 86-2 ("*Zoecon*"). *Zoecon* did not involve a challenge to a clean-up and abatement order arising under section 13304(a), but rather addressed who could be named as a discharger in a Waste Discharge Requirement ("WDR"). Despite its limited applicability to this case, *Zoecon* is treated here like a 13304(a) decision to demonstrate its distinguishing features.

[11] The other three parties found responsible in the four decisions were operators who had no ownership interest in the contaminated property, but who were identified as dischargers under Section 13304(a) because their business operations actually discharged waste that contaminated groundwater. *Wenwest*, Order No. 92-13, at *9 (service station operators, Redding Petroleum, Inc., whose gasoline leaked from underground storage tanks held responsible for clean-up and abatement of petroleum contamination); *Spitzer*, Order No. WQ 89-8, at *25-27 (holding two dry cleaning businesses responsible for solvent contamination, Spic & Span and New Fashion, that discharged waste into a leaking subsurface seepage pit). These parties are not like Barclay since it is not a discharger in the usual sense (or any sense).

*25-27 (naming current owners and developer lessee as secondarily liable); *Stinnes-Western*, Order No. WQ 86-16, at *15 (naming current owner chemical company).

Of the four *prior* owners who were held responsible in the four Decisions, none was like Barclay. Two of the prior owners had actively participated in the discharge and might well have been found responsible under a direct, facial application of the language of the statute even if the State Board had never made owner responsibility an issue. *See Stinnes-Western*, Order No. WQ 86-16, at *5 (prior owner was a chemical company, and during its ownership period, it stored chemicals in large underground storage tanks, and leaks from those very tanks were determined to be a source of the contaminant plume in the groundwater at issue); *Zoecon*, Order No. 86-2, at *2 (former owner had deposited waste in a shallow sludge pond, which resulted in contaminant runoff that was the subject of the order).

The other two prior owners who were held responsible in the four State Board Decisions cited in footnote 8 of the Draft Order are distinguishable from Barclay because *the discharge occurred while they were owners*. The State Board recognized this as an important distinction: "No order issued by [the State] Board has held responsible for a cleanup a former landowner who had no part in the activity which resulted in the discharge of waste and whose ownership interest did not cover the time during which the activity was taking place." *Wenwest*, Order No. WQ 92-13, at *5. That statement of precedent is true today, twenty-two years after the State Board clarified in *Wenwest* its interpretation of Section 13304(a): the State Board has ***never*** held a prior owner responsible for contamination ***discharged by someone else*** when ***the discharge did not occur during its ownership***. The State Board's articulation in *Wenwest* of the limits of this Board's jurisdiction is the law of this venue. *See* Cal. Gov. Code § 11425.60 (agency decisions precedential if so designated); State Water Resources Control Board, Resolutions Orders &

Decisions, http://www.swrcb.ca.gov/board_decisions/adopted_orders (last visited Jan. 8, 2014) ("All decisions and orders adopted by the State Water Board itself are precedential. . . . A Regional Water Board cannot reverse a State Water Board precedent."). Under *Wenwest*, the Board is therefore without jurisdiction to name Barclay to the Draft Order because all of the discharges of contaminants to the Site occurred during Shell's operations, which were discontinued in 1959, not during Barclay's limited period of ownership.

In *Wenwest*, one of the four prior owners that the State Board found responsible was Phillips Petroleum. *Wenwest*, Order No. WQ 92-13, at *9. Phillips and its predecessor had owned land from 1960 to 1980 where a service station was located and operated at the same time. *Id.* at *2. A tenant operating a service station on the site had an underground storage tank that leaked, but the contamination was not discovered until 1983. *Id.* at *4. The State Board held Phillips responsible for the leak as a prior owner. *Id.* at *9. To determine whether Phillips was properly named in a clean-up and abatement order, the State Board declared, "we apply a three-part test to former owners: (1) did they have a significant ownership interest in the property ***at the time of the discharge***? (2) did they have knowledge of the activities which resulted in the discharge?; and (3) did they have the legal ability to prevent the discharge?" *Id.* at *4 (emphasis added). Because there was no direct proof of a discharge while Phillips owned the property, much of the State Board's analysis focused on that issue. The State Board accepted the unrebutted analysis of a consultant for other parties, who worked back in time from data obtained from a neighbor's well, where the first discovery of contamination had been made in 1983. That calculation led to the conclusion that "discharges took place at least 12 years before it was detected by the neighbor. That places the time of discharge well within the ownership of the property by [Phillips]." *Id.*

Because the timing of the discharge was the single fact analyzed by the State Board when it turned down Phillips' appeal, it is inexplicable that the Draft Order in this case omits that single, critical requirement when it otherwise tracks the essential elements of *Wenwest's* "three-part test [for] owners" with these words from the Draft Order: "Including [Barclay] as a responsible party in this Order is consistent with orders of the State Water Resources control Board construing Water Code Section 13304 naming former ***owners who had knowledge of the activities that resulted in the discharge and the legal ability to control the continuing discharge.***" Draft Order at 11, n.8 (emphasis added). Barclay's circumstances materially differ from Phillips' circumstances primarily because the discharge in *Wenwest* occurred while Phillips owned the property, but here the discharge occurred during Shell's operations, which were discontinued before Barclay took possession of the Property.

In addition, according to *Wenwest*, prong three of the test for former owners is, "Did they have the legal ability to prevent the discharge?" *Wenwest*, Order No. WQ 92-13, at *4. Barclay, of course, does not meet this third part of the test since the discharge had occurred by the time it came onto the property. Applying the three-part test described in *Wenwest* to the facts of this proceeding, as it must, the Board may not enter the Draft Order naming Barclay as a responsible party because Barclay is neither a discharger nor a former owner who satisfies even two of the three prongs of the test. The Draft Order badly misstates the standard and will misapply that standard if it is entered.

The fourth and final "former owner" (and 13th responsible party addressed in the four Decisions) is T & F, Inc. ("T & F"), which was held responsible in *Spitzer* based on T & F's 75-year ground lease. *In the Matter of Spitzer, et al.*, State Board Order No. 89-8, at *2-3. T & F did not challenge the clean-up and abatement order so the State Board did not apply its three-part

test. *Id.* at *2. But that test, if applied, could have been easily satisfied by T & F, which subleased its property to two dry cleaning businesses that, during the time of the sublease, discharged waste from their operations into an underground seepage pit on the property, from which chemicals "seeped" into the ground and contaminated the groundwater. *Id.* at *1-2. The only question was whether T & F should be considered an "owner," and the State Board said it should be, given T & F's exclusive possession and control of the property. *Id.* at *11. But even had it not been considered an owner, a good argument could be made that T & F had "caused or permitted" the "discharge" because it built the seepage pit and made it available to tenants as their primary means of disposal.[12] *Id.* at *8, 16-17.

Therefore, none of the four Decisions is precedent for holding Barclay responsible as an interim owner where the discharge did not occur during the time of its ownership. Not only are Barclay's circumstances unlike all of the 13 persons held responsible in the four Decisions cited in the Draft Order, but when the Board applies to Barclay the same three-part test that was applied to Phillips in *Wenwest*, it must conclude that Barclay is *not* responsible under Section 13304(a). *See Wenwest*, Order No. WQ 92-13, at *4.

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[12] Our search revealed only two decisions of the State Board in which prior owners were held responsible when their ownership period did not overlap with the original discharge, but those circumstances are nothing like Barclay's because in both instances their liability was predicated on the fact that they were also an active waste discharger of a regulated discharge stream. *See In the Matter of Aluminum Co. of Am., et al.*, State Board Order No. WQ 93-9, at * 9 (former mine owner responsible for contaminated runoff from mining tails that were discharged by prior owner because runoff was a waste regulated by the Regional Board under the Dickey Act at the time it owned the mine and therefore it was found responsible in its capacity as statutory discharger); *In the Matter of Cnty of San Diego, et al.*, State Board Order No. WQ 96-2, at *12-13 (when in 1984 a community development commission ("CDC") purchased former land fill, which had been closed since 1963, it assumed certain responsibilities that made it a discharger, and its agreement to submit to a waste discharge requirement when it sold the property to a developer imposed further obligations on CDC as a discharger, not as an owner; so liability was based on CDC's unique status, not as an interim owner).

B. Barclay Is Not Liable For "Spreading The Waste."

The Draft Order seeks to justify holding Barclay responsible for clean-up and abatement of contamination that it did not discharge or even know about on the basis of its finding that Barclay "conducted various activities, including partially dismantling the concrete in the reservoirs and grading the onsite materials, thereby ***spreading the waste***." Draft Order at 11 (emphasis added). As already shown, *supra* Part II.C.1., there is no evidence to support this finding, and even if the fill soil used for compaction was already contaminated before Barclay moved it from the berm (which is not the case and for which proposition there is no evidence), there is no evidence to contradict the overwhelming evidence that Barclay had no knowledge of its presence.

Moreover, "spreading waste" that has already been discharged by another does not make one a discharger under Section 13304(a), and not a single decision of the State Board has ever so found. That is also what the courts have held—i.e., merely redistributing someone else's discharged contamination is not, itself, a "discharge." *Redev. Agency of the City of Stockton v. BNSF Railway Co.*, 643 F.3d 668, 677-78 (9th Cir. 2011).

In *City of Stockton*, the defendant was a group of railroads ("Railroads"), which had constructed and maintained a french drain beneath its tracks to enhance soil stability by improving water drainage. *Id.* at 671. Unknown to the Railroads, petroleum contamination caused by several spills at a neighboring property, the L&M bulk petroleum facility, was channeled to yet another property through the french drain constructed by the Railroads, which acted as a conduit. That contamination was later discovered during development. *Id.* at 672. Plaintiff Redevelopment Agency, which had once owned the contaminated site and indemnified the developer against pollution loss, sued the Railroads for liability under causes of action for common law nuisance and violations of the Polanco Redevelopment Act, California Health &

Safety Code Section 33459 *et seq.* ("Polanco Act"). *Id.* The United States District Court ruled on cross-motions for summary judgment that the Railroads were liable for the pollution both under common law nuisance and the Water Code provisions cross-referenced in the Polanco Act. *Id.* The Polanco Act incorporates California Water Code Section 13304(a) by reference, providing that the Railroads were liable based on proof that they had "caused or permitted . . . any waste to be discharged" where it is, or probably will be discharged into the waters of the state. *See* Cal. Health & Safety Code § 33459(h); Cal. Water Code § 13304.

The Court of Appeals reversed, first rejecting the common law nuisance claim and then holding that there had been no violation of the Water Code provisions incorporated by reference into the Polanco Act. It rejected the finding of the District Court that the Railroads had met the requirements of a discharger under Section 13304(a) on two grounds. First, the Railroads were not a "discharger" within the meaning of Section 13304(a) because the contaminants had already been discharged by L&H. *City of Stockton*, 643 F.3d at 677. Second, the Court of Appeals held that "even if the emission of contamination from the french drain is the appropriate 'discharge' to consider, the Railroads are not liable" under Water Code Section 13304(a). *Id.* While the trial court had correctly attempted to construe "section 13304 . . . harmoniously with the law of nuisance," the Court of Appeals found that it had "construed nuisance liability too broadly." *Id.* "Just as but-for causation is insufficient to impose liability for [creating] a nuisance, it is insufficient to impose liability for a discharge under section 13304."[13] *Id.* In rejecting the

[13] The analogy to nuisance law was limited to the court's holding that the Railroads did not "create . . . the nuisance." *City of Stockton*, 643 F.3d at 673. In rejecting liability based on the common law nuisance claim, the Court of Appeals observed that on the facts before it, there were two possible ways for plaintiffs to prove nuisance liability: (1) by proving that the Railroads "created the nuisance" and (2) by proof that they "unreasonably as possessors of the Property...fail[ed] to discover and abate the nuisance." *Id.* Because the Railroads had owned the contaminated property at one time, they had potential nuisance liability under both prongs (1) and (2), which the court rejected for different reasons. *Id.* at 674-77. But when it "harmonized" nuisance law with Section 13304(a), the Court of Appeal relied only on its analysis of the Railroads' potential

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District Court's findings on common law nuisance, the Court of Appeals had already, as a matter of nuisance law, "decline[d] to hold that an otherwise innocent party who builds or installs a conduit or structure for an unrelated purpose which *happens to affect the distribution of contamination released by someone else* is nonetheless liable for 'creating or assisting in the creation' of a nuisance. Such a result defies semantics, the law, and common sense." *Id.* at 675 (emphasis added); *compare Lake Madrone Water Dist.*, 209 Cal. App. 3d at 169, 174 (finding a "discharge" where a dam accumulated and released sediment, and noting that the dam was "not a mere conduit through which a [hazardous substance] passes"). The court then applied those same principles to hold that the Railroads had not become a "discharger" under Section 13304(a) just because their conduit had facilitated the movement of contaminants discharged by someone else from one property onto another:

> The Railroads' involvement with the petroleum *spill* [at the L&M site] was not only remote, it was nonexistent; and their involvement with the emission of contamination from the french drain was entirely passive and unknowing. As explained in our nuisance analysis, the Railroads engaged in no active, affirmative or knowing conduct with regard to the passage of contamination through the french drain and into the soil. Therefore, the Railroads did not "cause or permit" the discharge under section 13304, and they are not liable under the Water Code provision of the Polanco Act.

City of Stockton, 643 F.3d at 678 (emphasis in original).

Here, as with the Railroads, it "is undisputed that [Barclay] did not in any way cause or permit the initial discharge of petroleum at the . . . Site." *Id.* at 677. Barclay's activities, too, were for the purposes of drainage and soil stability—"conduct . . . wholly unrelated to the contamination." *Id.* at 674. Like the Railroads, Barclay's "involvement with the petroleum *spill*

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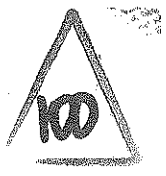
nuisance liability under prong (1), not prong (2), making it clear that prong (2) has nothing to do with Section 13304(a). *Id.* at 677-78. Therefore, the possessor of land's "failure to abate" basis of nuisance liability is not applicable, even by analogy, to the determination of whether one is a "discharger" under Water Code Section 13304(a).

was not only remote, it was nonexistent . . . . Therefore, [Barclay] did not 'cause or permit' the discharge under 13304." *Id.* at 678 (emphasis in original). The *City of Stockton* court declined to hold the Railroads liable under Water Code Section 13304(a), even though their activities actually brought the petroleum contamination to the plaintiff's property. Here, Barclay's activities have not even done that much. By placing and grading fill soil that was already on the property, Barclay, at most, created pathways for existing contamination to move around the same property on which the pollution originated. And Barclay did so to promote better soil compaction and water drainage. The Ninth Circuit decision confirms that the passive act of unknowingly moving contaminants discharged by someone else from one place to another is not itself a discharge and cannot form the basis for liability under Section 13304(a).

C. Barclay Is Exempt From Liability Under Porter-Cologne Because All Of The Acts For Which The Draft Order Would Hold It Responsible Occurred Before 1981 And Are Therefore Protected By The Safe Harbor Of Section 13304(j).

Section 13304(j) of the California Water Code precludes the 1980 amendments to Section 13304(a) from creating "any new liability for acts occurring before January 1, 1981, if the acts were not in violation of existing laws or regulations at the time they occurred." Cal. Water Code § 13304(j). As shown in more detail below, the 1980 amendments to the Porter Cologne Act only changed some of the verbs in Section 13304(a) from being limited to the present tense to include the past tense so that the Regional Boards gained authority to order dischargers to undertake clean-up and abatement of past discharges in certain circumstances. The amendments thus added the word "discharged" at the beginning and added "caused or permitted." This left formerly compliant dischargers open to possible liability if the amended Section 13304(a) were enforced to clean up contamination that had been lawfully discharged at the time. Therefore, Section 13304(j) was added at the same time to provide an exemption from enforcement against



past dischargers where the discharges occurred before 1981 and did not at that time constitute a violation of then-existing law.

Because it is beyond controversy that all of Barclay's activities at issue here occurred well before 1981, the burden of proof is on the Board to establish Barclay's liability in light of Section 13304(j), and the Draft Order fails to meet that burden. The Draft Order does not even mention Section 13304(j) and makes no findings identifying any laws or regulations in effect at the time that were violated by Barclay's acts. Nor does the Draft Order point to any evidence to support any such findings. This alone is enough to deprive the Board of jurisdiction to issue the Draft Order naming Barclay as a discharger.

Besides the failure of the Draft Order to satisfy the burden of proving that Barclay is not entitled to the safe harbor provided by Section 13304(j), the uncontradicted evidence accompanying this Letter also establishes affirmatively that Barclay is exempt from liability under Section 13304(a) because all of the acts for which the Draft Order would hold it responsible occurred before January 1, 1981, and those "acts were not in violation of existing laws or regulations at the time they occurred." Part III.C.1., *infra*. Moreover, Barclay should prevail even under misguided State Board precedent interpreting Section 13304(j) to disallow safe harbor protections whenever pre-1981 acts could constitute a "public nuisance" or violate the broad prohibitions of Health & Safety Code Section 5411. Part III.C.2., *infra*.

1. Barclay Was "Not In Violation of Existing Laws Or Regulations At The Time" Of Its Acts.

Although it is not Barclay's burden to prove that it is entitled to a safe harbor under Section 13304(j), the evidence provides two ways for it to do so. First, government agencies that knew both the law and the facts during the late 1960s have already found Barclay to be compliant with then-existing laws and regulations for the same acts that the Draft Order would

now hold it responsible. In addition, when the facts presented in Part II above are applied to the law as applied under the Dickey Act, which was the predecessor to Porter-Cologne in effect at the time of the acts for which the Draft Order seeks to hold Barclay responsible, it will be clear that Barclay was in compliance with the then-applicable laws. Under either analysis, Barclay's acts did not violate the law as it existed at the time.

a. Public Agencies In A Position To Know Both The Law And The Material Facts At The Time Prove Barclay's Compliance With Then-Existing Law.

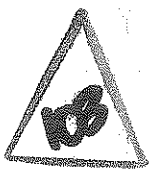
From the outset of the Carousel project, everything Barclay did was closely supervised by government agencies, some of which were specifically tasked with responsibility for confirming Barclay's compliance with the law, and each was well informed about the same facts that were known to Barclay.

Los Angeles County Engineer: The County Engineer is the most obvious example because its detailed, knowledgeable supervision of Barclay's conduct is well documented. At the time of the Carousel project, the County Engineer was responsible for assuring compliance with all laws. U.B.C. § 7014(c) (1965). Although there were no provisions for environmental review in the County's building code at the time, this merely describes the state of the law at the time and does not alter the importance of the County Engineer's determination that Barclay complied with the laws then in effect. (Tab 7 [Bach Dep.] at 286:14-287:10; Tab 2 [Curci Dep.] at 22:15-23:1; Tab 6 [Nehrenberg Dep.] at 42:8-43:12.)

The County Engineer's review for legal compliance was not conducted in the dark; as described in Part II.A.7., *supra*, the County Engineer was thoroughly involved in every phase of the process with a frequent presence at the Site. There is ample evidence that the County Engineer was aware of all relevant facts, and there is no evidence of any material facts of which it was not aware. Indeed, because the soils reports provided the directions for the grading

contractor and others in the field to grade and fill the reservoirs and the County Engineer, in turn, reviewed and directed changes in the soils reports, there are no significant facts known to Barclay that were not also known to both the County Engineer and the soils engineer. See Part II.A.7., *supra*. For example, the County Engineer is shown on the memorandum dated March 11, 1966 as being one of two recipients specified to receive three copies, the other being Barclay. (Tab 74 [CARSON 251-258].) The March 11, 1966 memorandum, of course, is where Pacific Soils reported to Barclay and the County Engineer that it had observed "oil stains" in six borings taken in Reservoir 6 to ascertain the permeability of the soil beneath the former tank bottom. (*Id.*) The County Engineer signed off on compliance with every legal requirement of the project, including the decision to leave the "oil stains" undisturbed beneath the concrete floor of Reservoir 6. The evidence concerning the County Engineer thus stands as unrebutted proof that Barclay is entitled to exemption from liability under Porter-Cologne pursuant to Section 13304(j).

California State Real Estate Commissioner: During the 1960s, the California State Real Estate Commissioner was tasked under the Subdivided Lands Law with reviewing every subdivision of a certain size, and the Commissioner was provided staff from the Department of Real Estate to carry out its diligence. Cal. Bus. & Prof. Code §§ 11000-11200. Under the Subdivided Lands Law, one of the Commissioner's (and DRE's) responsibilities was to assure compliance with the law. (Tab 339 [Department of Real Estate Reference Book].) As already shown, the White Report evidencing compliance was issued for every Tract in the Carousel subdivision. Part II.E.2.d., *supra*. This alone proves that the requirements of Section 13304(j) are satisfied.



Los Angeles County Planning Commission: Finally, both the County Regional Planning Commission and the Board of Supervisors approved a number of major land use planning choices required both by California law and County Ordinance, including subdivision map approval and a zoning change from heavy industrial (M-2) to residential (R-1). Both involved public hearings and both were addressed twice. Part II.E.2.a., *supra.* The County of Los Angeles was then (and still is) the largest in California by population, and the land use planning agencies and their staffs were at that time among the most sophisticated in the nation. lacounty.gov, Residents,http://www.lacounty.gov/wps/portal/lac/residents (last visited Jan. 19, 2014). When making these land use approvals, it is clear that both the Planning Commission and the Supervisors were fully aware that Barclay was converting a former oil tank farm into a residential neighborhood, and the details of how that was going to be accomplished were spelled out in the documents. (Tab 73 [CARSON 363-367]; Tab 72 [CARSON 370-374]; Tab 355 [CARSON 786-787]; Tab 91 [CARSON 790].) If those agencies had believed there was something unlawful being done in any aspect of the project before them, they would not have given the approvals that they did.

To determine whether there was a violation of a law or regulation fifty years ago, we need only look at the unbiased judgments of agencies from those times that were accustomed to making such determinations, had been given the responsibility to enforce the applicable laws, knew the laws well, and also knew this project well. It is impossible to imagine a better source for information on this issue than the California Department of Real Estate and the Los Angeles County Engineer Department, and when both agencies agree that there was legal compliance by Barclay, they must be correct. The County Engineer's affirmation of legal compliance, for example, is more reliable than a retroactive assessment ever could be since it represented the

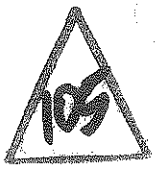
collective decision of individuals who were experienced in making such decisions in that specific era. These individuals were then familiar with the laws deemed by regulatory officials to be most important for public safety and how those laws were being interpreted at that time in the context of building and safety practices with which they were personally familiar, and they applied the specific facts from the Carousel Site to those laws and determined there were no violations.

The decisions of the Planning Commission and Board of Supervisors corroborate the County Engineer and State Real Estate Commissioner. Those agencies too knew the applicable laws and had knowledgeable, competent staffs to review this project. If they had believed there were violations of law at Carousel, they would not have given the approvals they did. The uncontested evidence is therefore clear that Barclay's acts "were not in violation of existing laws or regulations at the time they occurred."

b. Barclay Complied With The Dickey Act, Which Was The Law Applicable At The Time The Carousel Project Was Being Developed.

Section 13304(j) was adopted as part of the 1980 amendments to Porter-Cologne in reaction to businesses who were concerned that amendments to a few of the words in Section 13304(a)—making present tense verbs into past tense—might give the Regional Boards new powers to go back after dischargers who may have been compliant under the prior law. Certain businesses feared that they would now risk having "new liability" imposed on them for the pre-1981 discharges, which were compliant with existing law when the discharge occurred but left contaminants behind for which the dischargers could be liable retroactively under the amendments. Section 13304(j) was adopted to make the consequences of those previously legal discharges exempt.

The following statements are from the legislative history of the 1980 amendments:



> Robert T. Monagan, President, California Manufacturers Association letter to Leo T. McCarthy (June 4, 1980) (emphasis added):
>
> We are also opposed to the words 'has discharged' and 'has caused or permitted'. We simply don't understand the need for those words since the power to abate conditions of pollution or nuisance already exists. What these words do is impose *retroactive liability on dischargers* covering *events in past years which presumably have already been dealt with.*
>
> William R. Attwater, Chief Counsel, SWRCB letter to Robert J. Monogan, California Manufacturers Association (June 11, 1980) (emphasis added):
>
> This is in response to your letter of June 4, 1980, notifying Assemblyman McCarthy of CMA opposition of Section 3 of AB 2700 which would amend the Water Code. . . . With regard to the need for clarifying Regional Board cleanup and abatement authority of *past discharges*, as discussed above, Section 13304 is written in the present tense. Since it is impossible for our Boards to know of every discharge as it is taking place, we want to make it crystal clear that a person who has discharged, either in violation of waste discharge requirements or so as to create a condition of pollution or nuisance, can be held responsible . . . *Liability for past discharges has been limited* by Amendment 6 which provides that section 13304 *does not impose any new liability* for acts occurring before the effective date of the Porter-Cologne Water Quality Control Act.

Business interests thus were concerned about "*events in past years which presumably have already been dealt with.*" A discharger who believed he had "dealt with" a Regional Board in the past, either by confirming that a WDR was not required or by complying with one, had an understandable concern that liability would arise from what he had believed was a compliant act at the time. Although business interests were unable to eliminate the amendments they objected to, they were given a guarantee that the amendments would "not impose any new liability for acts occurring before the effective date." At a minimum, therefore, the law must protect compliant past dischargers or it would have no meaning at all.

At the time Barclay was performing its development work on the reservoirs at the Site, the determination whether it was engaging in a discharge and whether that discharge was compliant with applicable law was determined under the Dickey Act of 1949. As shown below, Barclay was fully compliant with the Dickey Act as it was applied at the time.

The Dickey Act was enacted in 1949. (Stats. 1949, ch. 1549, § 1, p. 2782). It continued to govern the jurisdiction of the State and Regional Water Boards until it was replaced by the Porter-Cologne Act, which first became effective on January 1, 1970 (after all of the acts by Barclay that are referenced in the Draft Order had taken place at the Site). (Stats. 1969, ch. 482, § 18, p. 1051; Cal. Water Code §§ 13000 *et seq.*). It is, therefore, the applicable Water Code provision governing all of the acts upon which the Draft Order is based.[14]

Barclay "was in compliance with the Dickey Act" given the nature of its activities and the "environmental understanding of oil and oil pollution at that time." (Williams Report at 57.) As explained by Marcia Williams, an expert in the evolution of environmental laws and regulations, and in public knowledge about environmental subjects, for the Regional Board of that era to have authority over Barclay's conduct under the Dickey Act, three requirements had to be met: (1) Barclay's activities must have constituted a "discharge" within the meaning of the Dickey Act; (2) "the discharge must have been of a sewage or industrial waste"; and (3) the discharge must have caused or threatened a condition of pollution or nuisance. (*Id.* at 58.) According to Ms. Williams, none of these three prongs are satisfied under the definitions applied at the time. (*Id.* at 58.) Barclay did not engage in a "discharge" as the term was used at the time. (*Id.* at 59-61.) Nor was oil-impacted soil regarded as "sewage and industrial waste" under the Dickey Act if the soil was used for construction purposes. (*Id.* at 61.)

Citing a contemporaneous opinion of the California Attorney General's Office, Ms. Williams points out that under the Dickey Act, "discharge" "was understood as the plain meaning of the word," which did not include grading, compaction and other construction work.

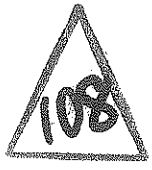
[14] Barclay completed the last filling and compacting operations in the former reservoir in 1968. (Tab 108 [CARSON 387-391]; Tab 102 [CARSON 397-403]; Tab 99 [CARSON 430-433]; Tab 100 [CARSON 445-450]; Tab 105 [CARSON 552-557]; Tab 110 [CARSON 340-344]; Tab 112 [CARSON 345-347]; Tab 123 [1/30/1967 report for Tract 28086]; Tab 125 [3/10/1967 report for Tract 28086].); Part II.A.13., *supra*.

(*Id.* at 60.) The attorney general's opinion also used the terms "flowing or issuing out" to describe "discharge," and Ms. Williams demonstrated through her analysis of contemporaneous evidence that "given the nature of the understanding and concern regarding oil in the pre-1970 period, the mere presence of oil stains in soils during [Barclay's] redevelopment project would not have been considered a 'flowing or issuing out' at the time. (*Id.*)

Also, even a discharger did not violate the Dickey Act unless it was also proven that its conduct would have been regarded as causing pollution or nuisance to the waters of the state. (*Id.* at 61-62.) This too is not a standard that can be based on modern notions of what constitutes a nuisance: "the application of nuisance under the Dickey Act was 'restricted to nuisances arising from the discharge of waste materials into water.'" (*Id.* at 62.) And when it came to releases of oil, water at that time only meant surface water. (*Id.* at 64.) "[T]he authors of the Dickey Act believed that oil wastes were rarely a concern at that time unless there was evidence of discharge into surface waters." (*Id.*) Ms. Williams concluded that Barclay's conduct would not have qualified as a violation of the Dickey Act on that ground either. (*Id.*)

If the State or Regional Boards had regarded conduct like Barclay's as a discharge, developers in Barclay's circumstances would have been required by the Dickey Act to obtain waste discharge requirements, or WDRs, from the applicable regional board in order to engage in redevelopment activities. (Williams Report at 64.) To test her conclusion that Barclay's activities were not considered a discharge, Ms. Williams reviewed complete files of WDRs issued by the Los Angeles and Santa Ana regional boards for the following years: Los Angeles, 1970 and 1971; Santa Ana, 1968 and 1969.[15] (*Id.* at 64-65.) This review revealed that no WDRs

[15] These files were copied by Ms. Williams several years ago when performing another assignment. The complete records are no longer available from the Regional Boards, but Ms. Williams has agreed to make her copies available upon request.



were issued to anyone performing work like Barclay's, thus confirming Ms. Williams' conclusion that Barclay's conduct was not viewed as a discharge during the applicable timeframe. (*Id.* at 65.)

Marcia Williams thus confirms, "[Barclay] would not have been understood to be causing pollution or nuisance to the waters of the state," Barclay's activities did not constitute a "discharge" as the term was understood at the time, and Barclay would not have been required to notify the Regional Board of a discharge nor was Barclay subject to WDRs; therefore, Barclay's actions could not have caused a violation of the Dickey Act. (Williams Report at 58 (noting also at 60 that "movement of soil from one location of a construction site to another [is not a discharge] when that soil continues to be used and is not placed into water.").) At the time Shell used the Site to store crude oil, "there was no requirement [under the Dickey Act] to report inadvertent, and potentially unknown, releases of oil from the tanks to the subsurface." (*Id.* at 29.) Moreover, crude oil and its organic constituents were not among the constituents of concern with respect to groundwater degradation in California at the time. (*Id.*) Accordingly, Barclay could not be in violation of the Dickey Act for merely acquiring the Site that was contaminated by oil and then re-grading and compacting it in preparation for residential development.

The Draft Order therefore would misapply Section 13304(j) if it names Barclay as a responsible party. The Draft Order does not mention Section 13304(j) or the Dickey Act, nor does it provide any evidence or analysis to contradict the compelling analysis of Ms. Williams. So the Draft Order provides no basis from which to conclude that Barclay's "acts" in the late 1960s "were" "in violation of existing laws or regulations at the time they occurred." Cal. Water Code § 13304(j).

2. Even Applying State Board Precedent, Which Applies The Safe Harbor Statute Too Narrowly, Barclay Did Not Violate Any Laws Or Regulations In Effect At The Time That Its Acts Occurred.

Three State Board decisions we are aware of that address claims in which parties have asserted the safe harbor protections of Section 13304(j) are: *In the Matter of Lindsay Olive Growers*, Order No. WQ 93-17, *9-12 ("*Lindsay*"); *In the Matter of County of San Diego, et al.*, Order No. WQ 96-2, at *8-10 ("*County of San Diego*"); *In the Matter of Aluminum Company of America, et al.*, Order No. WQ 93-9, at *4 ("*Alcoa*"). In each of those three decisions the State Board declined to exempt the parties from liability, relying primarily on a finding that pollution was a "public nuisance" at the time of the acts on which liability was based, though they also followed with a conclusory finding that there had been a violation of Health and Safety Code Section 5411, as well. As shown below, these decisions construe the safe harbor provisions of Porter-Cologne too narrowly, ignoring the legislative intent to protect compliant dischargers against the effects of the 1980 amendments, which is undermined by defining "public nuisance" as a "law" that can be "violated." But even under the too-narrow construction of these precedents, Barclay satisfies Section 13304(j) on the facts of this case.

(i) Barclay's Acts Did Not "Violate" The "Law" Of Public Nuisance.

In *County of San Diego,* the State Board held that a party responsible for the release of wastes from a landfill into groundwater was properly held liable under Section 13304(a) even though the releases occurred before the 1980 amendments to Porter-Cologne based only on the following reasoning:

> Since 1872 California law has prohibited the creation or continuation of a public nuisance. See Civ. Code § 3490. Water pollution can constitute a public nuisance. *People v. Truckee Lumber Co.* 116 Cal. 397, 374 (1897). A successor property owner who fails to abate a continuing nuisance created by a prior owner is liable in the same manner as the prior owner. *See City of Turlock v. Bristow*, 103 Cal. App. 750 (1930).

Order No. WQ 96-2, at *10; *see also Alcoa* Order No. WQ 93-9, at 9-10; *Lindsay,* Order No. WQ 93-17, at *11-12.

There is no discussion in any of these decisions about the fact that before any party needs the safe harbor protection of Section 13304(j), the Regional Board issuing an order against it under Section 13304(a) must have already found that it has caused a "pollution or nuisance." Section 13304(a) allows any Regional Board to hold liable "[a]ny person . . . who has caused or permitted . . . waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates . . . *a condition of pollution or nuisance*, shall upon order of the regional board, clean up the waste or abate the effects of the waste . . ." Cal. Water Code § 13304(a). The discharger may then claim exemption under Section 13304(j) if the acts on which the order is based occurred before January 1, 1981. But except in the rare circumstances (present here) where no nuisance was recognized at the time for such conduct, the safe harbor would never apply because the acts would "violate" the public nuisance law under the cited State Board decisions.

The manner in which the State Board treats "public nuisance" proceedings as one of the "laws" that are eligible to defeat the availability of the safe harbor under Section 13304(j) violates two fundamental principles of statutory construction. First, "[w]ell-established canons of statutory construction preclude a construction which renders a part of a statute meaningless or inoperative. . . . Pursuant to this mandate we must give significance to every part of a statute to achieve the legislative purpose." *Mfrs. Life Ins. Co. v. Superior Court*, 10 Cal. 4th 257, 274 (1995); *see also Hassan v. Mercury American River Hospital*, 31 Cal. 4th 709, 715-16 (2003) (same). Second, by defeating the effect of Section 13304(j), the interpretation currently being applied is unfaithful to the "time-honored presumption against retroactive application of a

statute." *Myers v. Philip Morris Cos., Inc.*, 28 Cal. 4th 828, 843 (2002); *see also Landgraf v. USI Film Prods.*, 511 U.S. 244, 268 (1994) ("[S]tatutory retroactivity has long been disfavored . . .").[16]

Despite the unfortunate turn the precedents have taken, Barclay is nevertheless exempt under Section 13304(j). First, it is not necessary to treat "public nuisance" proceedings as a "law" that can be "violated" in every circumstances; the precedents are sufficiently different on their facts to justify turning toward a more rational application of the law. In any event, Barclay did not create or continue a nuisance. Because these cases also look to the Health and Safety Code, it will be shown that Barclay did not violate that law in existence at the time of the acts on which the Draft Order is based.

(ii) "Public Nuisance" Is Not A "Law" To Be Considered In Determining The Availability Of The Safe Harbor Under Water Code Section 13304(j).

Civil Code Section 3490 provides, "No lapse of time can legalize a public nuisance, amounting to an actual obstruction of a public right." This statute has long been relied upon as authority for the right of public entities to bring civil actions for public nuisance. *See, e.g., People ex rel. Robarts v. Beaudry*, 91 Cal. 213 (1891) (even though defendants had maintained a nuisance for 17 years, under Section 3490 attorney-general had authority to bring public nuisance suit); *Chevron U.S.A. Inc. v. Superior Court*, 44 Cal. App. 4th 1009, 1019 (1994) ("[P]ublic interest in cleaning up the environment is protected to some extent by Civil Code section 3490, which allows a public entity to sue at any time to abate a public nuisance.").

[16] "In many instances there are constitutional prohibitions and in all instances there is a constructional policy against the retroactive application of legislation." *Beck Dev. Co., Inc. v. S. Pac. Transp. Co.*, 44 Cal. App. 4th 1160, 1207 (1996) (not proper to rely on Water Code to support a finding of nuisance per se where conduct ceased prior to Water Code passage).

The "law" of "public nuisance" is fundamentally different than the Dickey Act and other laws that spell out a wrong and a punishment. It is a civil cause of action from which Water Boards are excluded; the law does not include the Water Boards among the government entities authorized to bring actions for public nuisance under Civil Code Section 3490.[17] For a law expressly enacted to avoid "new liability" for compliant dischargers under the Porter-Cologne Act, it would be odd for the Legislature to have included in its structure a "law" that vitiates its effect, especially when the Water Boards exercise no control over it. There is no need to interpret Section 13304(j) in that manner, however, because "public nuisance" is not intuitively a "law" that can be "violated" as those terms are commonly used. Indeed, it makes no more sense to consider whether the "public nuisance law" has been "violated" to determine whether the safe harbor is available under Section 13304(j) than it does to consider whether there has been a "violation" of the law of "defamation," "intentional interference with contract," or the law of "negligence."

The three State Board decisions cited above treated the issue more broadly because in each of those cases the party found responsible had, in fact, discharged contaminants into the environment, and the "public nuisance" cases cited there established that the act of pollution constituted creation of a nuisance. By contrast, our research shows that prior to the 1980 amendments to Porter Cologne, the Water Boards did not issue orders against non-dischargers to clean-up and abate contaminants discharged by others. So to hold Barclay responsible as a

[17] The ability to enforce section 3490 is limited by statute: A civil action may be brought to abate a public nuisance "by the district attorney or county counsel of any county in which the nuisance exists, or by the city attorney of any town or city in which the nuisance exists." Cal. Civ. Proc. Code § 731; *see also* Cal. Civ. Code § 3494 ("A public nuisance may be abated by any public body or officer authorized thereto by law."); *Castaic Lake Water Agency v. Whittaker Corp.*, 272 F. Supp. 2d 1053, 1071 (C.D. Cal. 2003) (§ 731 "specifically gives county district attorneys and city attorneys the authority to abate a public nuisance"); *People ex rel. Gallo v. Acuna*, 14 Cal. 4th 1090, 1099-1100 (1997) (city attorney instituted actions under § 731 and Civ. Code § 3480, "the operative core of California's civil 'public nuisance' statutes"). So either the County of Los Angeles or the City of Carson had the right to bring an action for public nuisance against Barclay, but this Board did not.

discharger would clearly impose "new liability"—using the plain meaning of not previously liable for such conduct—for acts that occurred before 1981, and this would provide a way to distinguish Barclay from the parties held responsible in the precedents. Having thus distinguished those decisions, there is no reason to follow them. Certainly, there is no compelling reason to treat what is, in effect, the equivalent of a common law tort action as though it were a "law" that can be "violated"; to do so would undermine the statutory purpose of Section 13304(j).

(iii) Barclay Did Not Create Or Continue A Public Nuisance.

Even if the State Board decisions that (improperly, we believe) apply public nuisance law to Section 13304(j), which should not be the case, "public nuisance" was not "violated" by Barclay. We consider the common law of public nuisance here solely as it would apply under these cases to Section 13304(j) to show that Barclay is exempt from liability; the common law of nuisance does not define liability under Section 13304(a).

Applying the public law of nuisance, based on the circumstances as they were at the time of Barclay's development activities, the Board bears the burden of proving that Barclay either "created or assisted in the creation of the nuisance on the Property." *City of Stockton,* 643 F.3d 668, 673. This would give rise to liability without the need to prove that Barclay's actions were "conducted in a reasonable manner or not." *Id.* Since it is established, however, that Barclay did not discharge any contaminants, there is no proof that Barclay "created or assisted in the creation of the nuisance." Therefore, Barclay "can only be held liable if [it] acted unreasonably as possessors of the Property in failing to discover and abate the nuisance." *Id.* It is clear from the facts presented in Part II above that Barclay was not aware of conditions that constituted a nuisance condition requiring abatement. Once again, the best possible proof is available because

the only two entities that reasonably could have brought an action for public nuisance were fully aware of the same facts that Barclay had and there is no evidence that either of them even considered bringing a public nuisance claim.

As already shown (footnote 17, *supra*) at the time Barclay performed its development work at the Site, the County of Los Angeles and the City of Carson were both eligible to bring public nuisance claims. The City and the County knew all of the facts referred to in the Draft Order by imputation through the knowledge of the County Engineer. All of the soils reports now in this Board's possession were in the possession of the County Engineer. When the Carousel project began, the Site was within the jurisdiction of the County of Los Angeles, but in 1968, the City of Carson was incorporated upon a vote of the people. *See* CARSON CALIFORNIA, ABOUT CARSON, http://ci.carson.ca.us/content/department/about_carson/aboutcarson.asp (last visited Jan. 30, 2014) (noting that Carson was incorporated as a general law city on February 20, 1968). The County Engineer provided oversight services for the Carousel project for both the County and, by contract, with the City. As already shown, the County Engineer knew everything that Barclay knew concerning the project; it had all of the soils engineering reports, including the one that reported oil stains in six borings beneath the floor in Reservoir 6, and it had inspected Barclay's work frequently. The County Engineer signed off on the soils engineer's reports and therefore made the very same decisions at the Site that Barclay did, including the decision to leave the oil stains undisturbed. Because the County Engineer was the agent for the County and the City, the County Engineer's knowledge was imputed to both of these entities. *See* Cal. Civ. Code § 2332 ("[B]oth principal and agent are deemed to have notice of whatever either has notice of . . .") Yet the County and the City, which are the two entities authorized to bring an action for public nuisance against Barclay, did not bring an action for public nuisance. If either

had believed that Barclay had committed a public nuisance, or that it had reason to suspect one existed, either of them could have brought an action, but neither did. Barclay therefore did not "violate" the law of public nuisance as nuisance was viewed at the time.

Looking at the question more broadly, we researched California appellate decisions decided prior to 1972 to cover the entire period of Barclay's ownership. We found no published decisions by any California court in which it was even alleged, much less found, that a nuisance arose from facts like those presented here. Indeed, there were no public nuisance cases at all involving real estate developers converting properties previously used for industrial purposes. The only pre-1972 public nuisance cases involving oil were focused on the effects of oil wells, not real estate development or oil storage, and not pollution. *See, e.g.*, *Bernstein v. Bush*, 29 Cal. 2d 773, 776 (1947) (statute defining when oil well spacing would constitute a nuisance was designed to "protect persons and property against danger from fire and explosion in petroleum or gas wells" and to conserve natural resources); *Marshall v. Standard Oil Co. of Cal.*, 17 Cal. App. 2d 19, 29 (1936) (erection of oil derricks and sinking of wells on a public street may constitute a nuisance due to "obstruction," "very strong odor," and "the noise of a well in operation"). Thus, we found no cases in which a developer was accused, much less found responsible, for a public nuisance based on oil contamination in a residential neighborhood.

A nuisance is broadly defined:

> Anything which is injurious to health, including, but not limited to, the illegal sale of controlled substances, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin, or any public park, square, street, or highway, is a nuisance.

Cal. Civ. Code § 3479 enacted 1872.[18] "It is recognized that a business which, when established was entirely unobjectionable, may, under changed circumstances, become a nuisance." *O'Hagen v. Bd. of Zoning Adjustment of Santa Rosa*, 19 Cal. App. 3d 151, 163 n.7 (1971). As just shown, Barclay's conduct was considered "unobjectionable" by both the County and the City at the time, and therefore public nuisance law cannot stand in the way of Barclay's clear qualification for the safe harbor.

In addition, applying the foregoing definition to the facts presented in Part II, *supra*, nothing Barclay did would have been regarded as a nuisance at the time it worked on the Carousel project, and Barclay would not have reasonably understood the Site, at the time of purchase, to be posing as an actual or threatened nuisance requiring abatement. (Williams Report at 55.) During the period when Barclay was conducting its development work on the reservoirs, nothing that it did was regarded as a nuisance—not by anyone, including the County Engineer, the Real Estate Commissioner, the Planning Commission, the Board of Supervisors, its neighbors (Purex), or the community.

Barclay knew nothing to suggest the presence of anything that was viewed at the time to be "a present danger to the public." *See Knapp v. City of Newport Beach*, 186 Cal. App. 2d 669, 681 (1960) (The present condition of danger to the public is the real criterion" for determining whether a public nuisance exists.). As described in the report of Marcia Williams, the view of regulators and the public about what is or is not dangerous to the public changes over time. Thus, as Ms. Williams points out, during the late 1960s, "oil was not considered hazardous and both virgin oil and used oils were widely utilized in a broad array of land-based applications.

[18] This definition applies to both public and private nuisances, but a public nuisance "is one which affects at the same time an entire community or neighborhood, or any considerable number of persons." Cal. Civ. Code § 3480; *see, e.g., Gallo*, 14 Cal. 4th at 1120 (finding that street gang's activities met the statutory definition of public nuisance under § 3480 because drug dealing and violence affected the entire community).

Petroleum and its fractions were also widely present in consumer products." (Williams Report at 12.) Of course, one of the natural constituents of petroleum, benzene, is now a known human carcinogen, but "Benzene was not identified as a federal hazardous air pollutant until 1977 and it was not until many years later that individual types of facilities emitting benzene were regulated." (*Id.* at 20.) Because "there was not a perceived significant public health threat from petroleum or benzene in the emissions due to spillage or releases of oil to the ground," there is no evidence from which to conclude that Barclay's conduct resulted in "a present danger to the public," and therefore, no one would view anything Barclay did at the Site to constitute a nuisance during that time frame. (*Id.* at 21.) This is especially true given how little Barclay knew about the contamination beneath the tank bottoms. In fact, because Barclay (a) did not *create* a nuisance, and (b) did not know about a condition beneath the reservoir bottoms needing abatement, Barclay would not be liable for nuisance in *any* era—let alone the 1960s.

Accordingly, there can be no "violation" of Civil Code Section 3490 because the provision only authorizes a municipality to bring a civil action for a tort cause of action, which is not a "law" that is "violated." Even if it were such a law, Barclay's acts were not considered a nuisance at the time, nor were the conditions on the Property that were known to Barclay a nuisance at that time. Barclay is therefore exempt from liability by the safe harbor afforded by Section 13304(j) because the acts upon which the Draft Order is based were not "in violation of existing laws or regulations at the time they occurred."

a. Barclay's Acts Did Not Violate Health & Safety Code Section 5411.

Health and Safety Code Section 5411 provides: "No person shall discharge sewage or other waste, or the effluent of treated sewage or other waste, in any manner which will result in contamination, pollution or a nuisance." During the 1960s, this statute was applied against people who engaged in discharges, in the usual sense of that term, not against non-discharging

owners like Barclay. Moreover, Section 5411 was enforced for disposal of sewage and similar contaminants, not oil. *See Thompson v. Kraft Cheese Co. of Cal.*, 210 Cal. 171, 173 (1930) (enforcing Section 5411 against cheese factory for discharge of dirty water that comes from floor cleaning); *People v. City of L.A.*, 83 Cal. App. 2d 627, 638 (1948) (injunction restraining the plaintiff cities from discharging sewage that is injurious to the public health into the salt waters of the state). Our research has revealed no published decisions in which Section 5411 was enforced against non-dischargers. And while oil was not expressly exempted from Section 5411, there are no pre-1972 cases in which the discharge of oil was found to be a violation of that provision. In short, there is no evidence or other basis from which to conclude that anything Barclay did during its work at Carousel violated Health and Safety Code Section 5411 as the provision was interpreted and enforced at the time. (*See also* Williams Report at 58-59, n.150.).

D. State Board Decisions Allowing Regional Boards To Exercise Jurisdiction Over Non-Dischargers Fundamentally Misinterpret Section 13304(a).

California Water Code Section 13304(a) only allows the Board to issue a clean-up and abatement order against dischargers. When specifying the persons against whom the Water Boards may issue orders, the Legislature chose clear, forceful words: "Any person who has ***discharged or discharges wastes*** into the waters of this state" are the opening words of Section 13304(a) (emphasis added). Clarity is not diminished when the next clause of the statute resumes its definition of the persons covered: "or who has ***caused or permitted*** . . . waste to be ***discharged or deposited*** where it is, or probably will be, ***discharged*** into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance." Cal. Water Code § 13304(a) (emphasis added). Under the plain meaning of this statute, Barclay is not liable under Section 13304(a) because it did not "discharge" anything, nor did it permit anyone else to discharge at the Site.

1. The State Board Misconstrues The Plain Meaning Of Section 13304(a).

The plain meaning of Section 13304(a) was recognized in *City of Stockton,* where the Ninth Circuit Court of Appeals reversed entry of summary judgment in favor of plaintiffs on a violation of the Water Code provisions of Polanco Act. 643 F.3d 668. The defendants had built a french drain to allow water to drain under a railroad track, but this had the unforeseen and unwanted consequence of allowing petroleum contaminants to move through the conduit onto another property. *Id.* at 671-72. The Ninth Circuit held that the defendants were not responsible under Water Code Section 13304(a) on alternative grounds. *Id.* at 677-78. Although the second ground is discussed in detail in Part III.B., *supra*, it is the first ground that is significant here: defendants had not discharged anything because someone else had already discharged the contaminants. Although the Court of Appeals was prepared to consider the unique circumstances in which the conduit might provide a second point of discharge, the Court made clear it had no doubt at all that Section 13304(a) limits the jurisdiction of the Regional Boards to dischargers and no other categories. *Id.* at 677.

This is dramatically different from the interpretation of Section 13304(a) developed by the State Board during the 1980s and early 1990s, when it expanded the definition of dischargers to include owners who do not discharge but are nevertheless responsible for clean-up and abatement of contaminants discharged by someone else. For example, as discussed in Part III.A., *supra*, in the four Decisions relied upon in footnote 8 of the Draft Order, more than half of the parties held responsible did not actively participate in the discharge of contaminants.

The reasons given for such expansive redefining of the jurisdictional scope of the Regional Boards were not linked to the intent of the State Legislature. In *Zoecon*, for example, current owners, who had nothing to do with the discharge of contaminants, were nevertheless

held responsible for cleanup and abatement because of the practical consideration that they were "in the position of being well suited to carrying out the needed onsite cleanup"—a convenience rationale not found anywhere in the words of the statute. Order No. WQ 86-2, at *10. Similarly, in *Wenwest*, Phillips was found liable for a leaking underground storage tank because it was a former owner that met the three-part test discussed in Part III.A., *supra*, even though it had no knowledge of the condition and did not operate the service station or the leaking tank that discharged the petroleum at issue. *Wenwest*, Order No. WQ 92-13, at *2, 4. In another decision, not referenced in the Draft Order, "policy reasons" unrelated to a party's status as a discharger were cited as a basis for identifying responsible parties. *In the Matter of Exxon Co., U.S.A., et al.*, State Board Order No. WQ 85-7, *11 (recognizing policy in favor of naming multiple parties because "[f]ewer people named in the order may well mean no one is able to clean up a demonstrated water quality problem"); *see also County of San Diego*, Order No. WQ 96-2, at *13 (considering the number of responsible parties as a factor when determining whether a particular party should be included on a clean-up and abatement order). These and other decisions like them wander beyond the common sense meaning of the statute to expand the jurisdiction of the state and regional boards well beyond intended limits.[19]

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[19] "[T]he rulemaking authority of an agency is circumscribed by the substantive provisions of the law governing the agency. . . . [R]egulations that alter or amend the statute or enlarge or impair its scope are void."

Carmel Valley Fire Prot. Dist. v. State, 25 Cal. 4th 287, 300 (2001) (quoting *Physicians & Surgeons Labs., Inc. v. Dep't of Health Servs.*, 6 Cal. App. 4th 968, 982 (1992)); *see also Whitcomb Hotel, Inc. v. Cal. Emp't Comm'n*, 24 Cal. 2d 753, 757 (1944) ("An administrative officer may not make a rule or regulation that alters or enlarges the terms of a legislative enactment."). Defining "discharger" so broadly that it includes persons who do not discharge anything amounts to an overreach that will not garner deference from the courts. *Yamaha Corp. of America v. State Bd. of Equalization*, 19 Cal. 4th 1, 11 (1998) (A "statute's legal meaning and effect [are] questions lying within the constitutional domain of the courts"; thus "agency interpretations [have a] diminished power to bind . . . [and] command[] a commensurably lesser degree of judicial deference.") And even policy considerations do not permit the State Board to expand the authority given it by the Legislature. *Cal. Teachers Ass'n. v. Hayes*, 5 Cal. App. 4th 1513, 1529 (1992) ("Under our form of government, policymaking authority is vested in the Legislature . . .").

Although this Board is without authority to question State Board precedent, it has been shown above that the Draft Order actually goes *beyond* existing State Board precedent, and defies Ninth Circuit case law as well. Part III.A. & B., *supra.* In this section we highlight that by adding Barclay as a responsible party, the Draft Order would be expanding upon precedent that must be narrowed, not expanded, because it has already surpassed the power conferred upon State and Regional Boards by the Legislature.

"Well-established rules of statutory construction require [the court] to ascertain the intent of the enacting legislative body so that [it] may adopt the construction that best effectuates the purpose of the law. We first examine the words themselves because the statutory language is generally the most reliable indicator of legislative intent. The words of the statute should be given their ordinary and usual meaning and should be construed in their statutory context." *Modesto Redev. Agency v. Super. Ct.*, 119 Cal. App. 4th 28, 36-37 (2004) (determining the meaning of "causes or permits" within Section 13304 and citing *Hassan v. Mercy American River Hosp.*, 31 Cal. 4th 709, 715-16 (2003)); *see also People ex rel. Younger v. Super. Ct.*, 16 Cal. 3d 30, 43 (1976) (When interpreting a statute, "we must first *look to the words* themselves and must interpret them 'according to the usual, ordinary import of the language employed in framing them.'" (internal citations omitted) (emphasis added)). "Thus, as used in Section 13304, 'discharge' means: 'to relieve of a charge, load or burden; . . . to give outlet to: pour forth: EMIT.'" *Lake Madrone Water Dist.*, 209 Cal. App. 3d at 174 (quoting WEBSTER'S NEW INT'L DICT. 644 (3d ed. 1961)) (emphasis and omissions in original). Within the context of Porter-Cologne, "deposit" means "the act of depositing . . . something laid, placed, or thrown

down." *Younger*, 16 Cal. 3d at 43 (quoting WEBSTER'S 3D INT'L DICT., UNABRIDGED (1963)).[20] It makes sense, then, that Porter-Cologne would adopt the plain meaning definition of "discharge" when its predecessor, the Dickey Act, was understood in the same way. (Williams Report at 59-60. (citing Attorney General Opinions that define "discharge" as a verb meaning, "to emit; to give outlet to; to pour forth" and as a noun meaning "[a] flowing or issuing out").)

Statutory rules of construction further obligate the State Board to avoid interpretations that are discordant with other provisions of Porter-Cologne. The court in *Modesto Redevelopment Agency* looked to the legislative history of "causes or permits" language in Water Code Section 13350 to discern the meaning of the same language within Section 13340, and determined that there is "no indication the Legislature intended the words 'causes or permits' within the Porter-Cologne Act to encompass those whose involvement with a spill was remote and passive." 119 Cal. App. 4th at 36, 44 ("[W]ords should be given the same meaning throughout a code unless the Legislature has indicated otherwise." (citing *Hassan v. Mercy American River Hosp.*, 31 Cal. 4th 709, 715-16 (2003))). The court found that "causes or permits" in Section 13350—and, therefore, Section 13304—"was intended to encourage hazardous waste handlers to be careful in their operations and to avoid spills. Persons who had *no active involvement in activities leading to a discharge do not appear to fall in this category.*" *Id.* at 43 (emphasis added).

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[20] In *Zoecon*, the State Board distinguishes the definition of "discharge" in Water Code Section 13263(a), a provision which concerns the issuing of WDRs for prospective discharges, from *Younger*'s definition of "deposit" within Section 13350(a), a provision which imposes penalties for discharges. Order No. WQ 86-2, at *5-6. The State Board explained that the reasoning in *Younger* did not apply because "[a]n enforcement action is not being taken" in the case of issuing WDRs. *Id.* at *6. To the contrary, Section 13304(a) is an enforcement provision, and the court's definition of "deposit" within Section 13350(a) should be applied harmoniously with Section 13304(a).

When these principles are applied in this case, Barclay cannot be held liable as a responsible party because it did not "cause or permit" any waste to be "discharge[d]" or "deposit[ed]" at the Site, and the Board is therefore without jurisdiction to order it to participate in clean-up and abatement of contaminants discharged by its predecessor owner pursuant to Section 13304(a). Under these principles, the Draft Order reaches the wrong result, and Barclay should not be considered a responsible party.

2. The Legislative History Of The 1980 Amendments To Porter-Cologne Support The Plain Meaning Interpretation Of Section 13304(a).

If the plain meaning of the statute requires an explanation, it can be found in the legislative history of the 1980 amendments to Porter-Cologne, partially discussed above in connection with the adoption of Section 13304(j), which became effective on January 1, 1981. When Porter-Cologne became effective in 1970, it authorized the State and Regional Boards to initiate enforcement actions against a person who "causes or permits" a discharge. The language of Section 13304(a) was therefore identical to what it is now except that the verbs in the pre-1981 version were in the present tense only. *Compare* Porter-Cologne Water Quality Control Act, Cal. Stats. 1969, Ch. 482, § 13304(a), *with* Cal. Water Code § 13304(a).

Under the present-tense language in effect before the 1980 amendments, the Regional Boards regulated ongoing discharges. Our review of State Board decisions from the decade in which Porter-Cologne operated in this manner reveals that the exclusive focus was on true and active dischargers. A typical State Board decision under pre-1981 Porter-Cologne is found in *In the Matter of United States Steel Corporation*, State Board Order No. WQ 71-9. There U.S. Steel discharged industrial waste from the manufacturing of fabricated iron and steel products, which entered a slough at its shore from three outfalls. *Id.* at *2. The Regional Board established waste discharge requirements in 1964 and 1970. *Id.* Subsequently, the Regional

Board found U.S. Steel to be in violation of these WDRs. *Id.* at *2-3. The State Board found the continued violation and threatened violation of these WDRs to support the issuance of a cease and desist order ("CDO"), and concluded that the Regional Board's decision to issue a CDO was appropriate and proper. *Id.* at *4. Other examples are *In the Matter of Crestline Sanitation District*, State Board Order No. 78-12 (sustaining CDO concerning discharges of untreated sewage in violation of WDRs), and *Order Requiring the City of Antioch to Cease & Desist*, State Board Order No. 77-14 (CDO issued to the City of Antioch for threatening to violate WDRs and for failing to submit a time schedule for implementing secondary treatment for discharges to the sewage system). All State Board decisions interpreting Section 13304(a) prior to January 1, 1981 were like these three examples in that they all involved enforcement against dischargers. Our research did not uncover any State Board decisions requiring owners to clean-up and abate contamination discharged by someone else; that interpretation was brand new after the 1980 amendments.

In 1980 Section 13304(a) was amended, adding the past tense "has discharged" and "has caused or permitted," to allow the Regional Boards to hold dischargers responsible for clean-up and abatement of contaminants caused by past discharges when they did not violate a prior order.

The State Board, which advocated for the amendments, explained that the "enforcement provisions of the [currently worded] Porter-Cologne Act address only present or threatened future *discharges* . . . they do not apply to those *discharges* which are transitory or have a broken *flow path* between the *point of discharge* and the pollution point. Consequently, *illicit discharges* which have ceased prior to discovery as well as *transitory discharges* are *not subject to* [*enforcement*]." State Water Resources Control Board, Request for Approval of Proposed Legislation (Nov. 6, 1979).

Importantly, the language that had placed the focus on dischargers was *not changed* at all; only the tense of the verbs was changed, expanding the number of ways in which a *discharger* may be held accountable but not varying the category of persons who may be held accountable. Section 13304(a) still referred to "discharges" just as it did before; words such as "owner" or "operator" were not added. In fact, no changes at all were made to expand the category of persons who could be included as the subject of a clean-up and abatement order, and nothing in the legislative history suggests that it was even considered.

The State Board pushed for amendments to Section 13304(a) to clarify that a cleanup and abatement order could issue for such discharges, and expected that the provision would most affect "those industries which have ***improperly spilled or disposed*** of hazardous wastes in the past but which have ceased prior to discovery . . . [and also] local agencies that have allowed ***improper disposal*** to occur in the past at waste disposal facilities." *Id.* (emphasis added). Speaker of the Assembly and author of the bill, Leo McCarthy, too, explained the intent of the 1980 Porter-Cologne amendment in terms of the "polluter," which in his example refers to someone who has "unlawfully discharged waste": "For example, assume a ***polluter*** in the past has ***unlawfully discharged*** waste to an unlined pond overlying a groundwater basin. Even though the ***discharge*** to the pond has ceased, the harmful materials may continue to seep into the underlying groundwater. In such a situation it is not clear that the Regional Board can require ***the polluter*** to clean up." Authors Statement for AB2700 (emphasis added). The repeated use of the words "dischargers" and "discharging" in this correspondence from the legislative history demonstrates that no one was even considering a change from past practices, where the focus was exclusively on dischargers; it was taken for granted that the exclusive jurisdiction would

remain limited to dischargers while the focus of each conversation was on the subjects of the legislative amendments.

So the legislative history shows that the sights of the State Legislature were set squarely on the discharger when it adopted the 1980 amendments to Porter-Cologne. Prior to the 1980 amendments, the language of Section 13304(a) was the same as it was after the amendments except that it only used the present and future tense. The jurisdiction of the regional boards was limited to dischargers because *dischargers* were the subject of WDRs, and violators of those WDRs were noncompliant *dischargers.* The Legislature certainly had the power to expand the Regional Boards' authority to include categories of persons in addition to dischargers, but that would have required a change in language. The word "owner," for example, could have been used if the Legislature had wished to allow the regional boards to order owners to clean-up and abate contaminants discharged by someone else. But the Legislature did not change the language in that manner even though it certainly had an example available in the CERCLA law first enacted in 1980 by the United States Congress, 42 U.S.C. §§ 9601 *et seq.*, and the California equivalent adopted in 1981, the Hazardous Substances Account Act ("HSAA"), Cal. Health & Safety Code § 25300 *et seq.*, both of which designate "owners, operators and arrangers" the responsible parties for clean-up and remediation of designated sites. Those terms have been comprehensively defined by statute and case law. The omission of any of them could not have been an accident or oversight. It is beyond the power of the State Board to refashion the scope of its own authority to conform to the HSAA or other law when the Legislature has not done so. *See, e.g.*, Cal. Health & Safety Code § 25187(b)(5) (providing for enforcement against "present and prior owners" of hazardous waste facilities); Cal. Health & Safety Code § 25360.3(c)(2) (providing for recovery actions against property owners for the release of a hazardous substance,

including for a "release [that] occurred before the date that the owner acquired the property"); Authors Statement for AB2700 (1980 amendments to Health & Safety Code permit DTSC to issue an order to "owners...and any prior owners of the site"); *City of Stockton*, 643 F.3d at 677-78 (applying different standards when determining if the defendant had liability under Polanco Act, which would allow recovery if defendant had been liable under either (1) the Water Code § 13304(a), which requires that defendant "actively or knowingly caused or permitted the contamination," or (2) CERCLA, which only requires proof of passive ownership).

Since the State Board decisions cited in footnote 8 of the Draft Order should not have gone beyond dischargers in their interpretation of Section 13304(a), this Board should not expand upon that error by making the unprecedented leap of requiring a former owner, Barclay, become responsible for cleaning up and abating contaminants that were discharged entirely by its predecessor, Shell, unbeknownst to Barclay before Barclay purchased the property.

IV. CONCLUSION

The Porter-Cologne Act does not provide a statutory definition for the word "discharge," but the meaning of the word is well understood. Accordingly, for this Board to exercise lawful power over Barclay, it must comply with California Water Code § 13304(a), which limits the Board's jurisdiction to persons who "discharge" or "cause or permit" a "discharge" of wastes. Barclay did not discharge any chemicals into the environment: it did not "cause" a discharge, "permit" a discharge, or otherwise make a discharge occur.

The only asserted basis for holding Barclay responsible for the clean-up or abatement of contaminants discharged by Shell is that Barclay was once an owner at the Site previously contaminated by Shell, and during the time it owned the Site, it unknowingly and innocently moved contaminants around. Not only would liability for such conduct be contrary to legal precedent, but it is also contrary to the overwhelming evidence just presented. There are only

four eye witnesses to the demolition and grading of the reservoirs who are still living. Each has testified under oath and subject to cross examination that the fill soil placed by Barclay was not contaminated when they spread and compacted it. There is no contrary evidence. But there is science that explains that the fill soil became contaminated after the soil was put in place when residual petroleum hydrocarbons, which were already available beneath the reservoir bottoms, moved upward by capillary action after the reservoir bottoms had been broken up. That this was the source is the only way to explain the patterns of contamination seen in the fill soil—especially when they are compared to the patterns appearing elsewhere at the Site. This scientific explanation also makes sense in light of what was seen in the decommissioning by Shell of Reservoirs 1 and 2, where upward movement in similar circumstances occurred.

This overwhelming evidence and legal discussion should persuade the Board not to name Barclay as a responsible party. Even if the Board is not persuaded as it should be, however, the law still prohibits it from entering the Draft Order without evidence of its own sufficient to support findings upholding a legal basis for Barclay's liability, and so far, the Draft Order has utterly failed to meet these legal requirements. The Draft Order is unlawful because it does not "render findings sufficient both to enable the parties to determine whether and on what basis they should seek review and, in the event of review, to apprise a reviewing court of the [legal] basis for the [agency's] action"; nor does it "bridge the analytic gap between the raw evidence and ultimate decision or order," disclosing "the analytic route the . . . agency traveled from evidence to action." *Topanga Ass'n for a Scenic Cmty. v. City of L.A.*, 11 Cal. 3d 506, 514-15 (1974).

For all of the foregoing reasons, and for the reasons described in the accompanying expert reports, the Draft Order should not be executed in any form that holds Barclay responsible for clean-up and abatement of contaminants discharged by Shell. Barclay is not properly named as a discharger, and it should be dismissed from further consideration as a possible subject for a clean-up and abatement order.

Dated: January 21, 2014

GIBSON, DUNN & CRUTCHER LLP
ROBERT W. LOEWEN
PATRICK W. DENNIS
ANDREA E. NEUMAN
THOMAS A. MANAKIDES

By _____
Robert W. Loewen
Attorney for Barclay Hollander Corporation, Oceanic Properties, Inc. and Dole Food Company, Inc.

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Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
March 11, 2008	DTSC informed LARWQCB about former Shell Oil Company Tank Farm	
May 2008	LAWRQCB initiated an environmental investigation	
December 2008	LAWRQCB approved proposed work plan submitted by Shell to investigate contaminates of concern	
December 31, 2008	LARWQCB issued California Water Code § 13267 Investigative Order	
October 15, 2009	Shell submitted Final Phase I Site Characterization Report	
March 2011	LARWQCB issued Cleanup and Abatement Order No. R4-201100046	
February 22, 2013	Shell submitted *Site-Specific Cleanup Goal Report*	
May 2013	LAWRQCB issued a fact sheet providing information and advising of comment period for *Site-Specific Cleanup Goal Report*	30-day comment period ending June 24, 2013
June 24, 2013	City submitted comments to *Site-Specific Cleanup Goal Report*	Forwarded reports by Everett & Associates and Soil/Water/Air Protection Enterprise
July 18, 2013	City Council conducted workshop to allow presentation by Mr. Sam Unger, Executive Director of LARWQCB	Presentation by Dr. Lorene Everett and James T. Wells PhD raising concerns related to environmental conditions
July 29, 2013	City Council adopted Resolution No. 13-081 declaring the existence of an emergency in the Carousel Tract	
July 30, 2013	Letters sent to the Governor, Attorney General, Los Angeles County Board of Supervisors and Mr. Unger	Requested immediate assistance due to emergency conditions in Carousel Tract
July 31, 2013	City staff, Mr. Bob Bowcock, Dr. Everett and Mr. Wells met with representatives of Los Angeles County Fire Department and Los Angeles County Department of Public Health	City Council declaration of emergency conditions discussed and copies of Everett & Associates reports transmitted for review
August 21, 2013	LARWQCB sent detailed letter to Shell denying proposed site-	LARWQCB incorporated OEHHA Memorandum dated July 22,

EXHIBIT NO. 03

Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
	specific cleanup goals and requiring revisions to be submitted by October 21, 2013	2013 and UCLA Expert Panel Interim Report dated July 24, 2013
September 11, 2013	City letter to Mr. Sam Unger	Expressing appreciation from City Council and community for response to *Site-Specific Cleanup Goal Report*.
September 24, 2013	LARWQCB community open house CEQA scoping meeting	Request for input from community and public agencies related to evaluation of environmental impacts. Comment period ends on October 8, 2013
September 30 – October 10, 2013	LARWQCB Public Participation Specialist to conduct office hours at city hall	Opportunity for LARWQCB to meet with residents and community stakeholders
October 8, 2013	CEQA scoping comments due to LARWQCB from September 9 through October 8, 2013	Comment letters sent by City of Carson and Bob Bowcock/Barbara Post
October 10, 2013	City staff arranging for a meeting with LARWQCB, LACoFD, Los Angeles County Department of Public Health, OEHHA, Mr. Bowcock, Dr. Everett and Mr. Wells PhD.	Review of technical reports and discussion of public agencies responses and actions
October 21, 2013	Shell submitted a *Revised Site-Specific Cleanup Goal Report* to LARWQCB	Shell proposed to evaluate options that provide excavation in specific areas and does not include any further evaluation associated with the removal of homes.
October 24, 2013	Los Angeles County Department of Public Health Letter to City of Carson	Letter states there is not an immediate health threat from site conditions.
October 30, 2013	LARWQCB letter to Shell for review of *Community Outdoor Air Sampling and Analysis Report*	Based on statistical tests, LARWQCB concludes that outdoor air concentrations do not differ between the site and surrounding area. Shell is required to address OEHHA comments and to develop a work plan for an additional soil-vapor survey by November 29, 2013. LARWQCB determined on January 13, 2014 that no

Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
		further evaluation required.
October 31, 2013	LARWQCB notice on *Proposed Draft Revised Cleanup and Abatement Order No. R4-2011-0046*	The proposed draft order names Dole Food Company, Inc. as an additional responsible party. Comments and evidence must be submitted by 12:00 p.m. on December 6, 2013. Dole Food Company has requested an extension to January 2014 to provide comments. Regional Board approved extension to January 13, 2014. On January 7, 2014, Regional Board approved extension to January 21, 2014.
November 12, 2013	Letter to Carousel Tract Owners and Occupants advising of November 19, 2013 City Council Workshop	
November 19, 2013	City Council conducted workshop with Los Angeles County Department of Public Health and Los Angeles County Fire Department	
January 8, 2014	LARWQCB response to *Assessment of Environmental Impact and Feasibility of Removal of Residual Concrete Reservoir Slabs*	Directs Shell to either remove the residential concrete slabs as appropriate or isolate the residual concrete slabs beneath the foundation of the homes and paved areas using engineering techniques to the extent necessary to address long term health risks or nuisance concerns.
January 13, 2014	LARWQCB response to *Revised Community Outdoor Air Sampling and Analysis Report*	LARWQCB concludes that outdoor air concentrations do not differ between the site and surrounding area. No further evaluation required.
January 21, 2014	Dole response to *Proposed Draft Revised Cleanup and Abatement Order No. R4-2011-0046*	Dole requested to not be included in the Draft Order since their subsidiary, Barclay Hollander Corporation, did not discharge any of the contaminants of concern.

Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
January 23, 2014	Community meeting organized by Congresswoman Hahn.	Meeting to hear from residents and discuss options for obtaining improved levels of response from the Regional Board.
January 23, 2014	LARWQCB response to *Revised Site-Specific Cleanup Goal Report*	Regional Board identified deficiencies in the Shell Revised Report and directed a remedial action plan, Human Health Risk Assessment and other environmental documents be submitted by March 10, 2014.