



# San Mateo County Health System



March 18, 2014

Jeanine Townsend (commentletters@waterboards.ca.gov)  
Clerk of the Board  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814

**SUBJECT: Comment Letter – Petition of Zief Foundation, Proposed Order April 1 Board Meeting**

Dear Ms. Townsend:

Thank you for the opportunity to respond to the State Water Resources Control Board's (Board) proposed order directing reopening of underground storage tank (UST) case and further corrective action at 2009 South El Camino Real in San Mateo. San Mateo County Environmental Health Groundwater Protection Program (GPP) has comments concerning the Board's proposed order and requests clarification on several statements made, and potential removal of entire sections in the order, such that GPP could better understand specific criteria the Board will find acceptable for ultimate case closure if this case is reopened. Several statements in the order appear to be precedential and contradict direction given to Local Oversight Programs (LOPs), and possibly Regional Water Quality Control Boards (RWQCBs), from Board Department of Water Quality (DWQ) and UST Cleanup Fund (Fund) staff over at least the past ten years.

The first issue GPP would like the Board to clarify is whether or not there is an actual impact or threat to impact human health, safety, or the environment in this case. The second point of clarification is the level to which "odors" would need to be cleaned up in the subsurface parking garage to achieve closure. Finally, if the only reason this case is being reopened is the issue of continued access and activity on the adjacent property by the responsible party, then this should be the only issue mentioned in the order such that GPP can understand what conditions would be acceptable by the Board for this case to obtain ultimate case closure.

In addition to the technical issues introduced above, GPP also has administrative concerns with the proposed order and the Board's handling of the case in Geotracker since closure of the case by GPP in 2011. The order is not clear on whether the case should not have been closed based on all available information in January 2011, including the post-closure requirements placed on the responsible party, or if the case is being reopened for events that have and have not occurred and information gathered since the case was granted closure by GPP. The order mostly describes events that occurred after the closure was granted, including but not limited to the responsible party not complying with the post-closure requirement to manage the continued disposal of groundwater in the sump, that may contain contaminants emanating for the former Chevron

## Environmental Health

2000 Alameda de las Pulgas, Suite 100, San Mateo, CA 94403

Phone (650) 372-6200 • Fax (650) 627-8244 • CA Relay 711 • Website [www.smchealth.org](http://www.smchealth.org)

Health System Chief • Jean S. Fraser

Board of Supervisors • Dave Pine • Carole Groom • Don Horsley • Warren Slocum • Adrienne Tissier

property, under the City of San Mateo's sanitary sewer discharge permit or NPDES permit. Of note, the Sump Management Plan Addendum stated that the City of San Mateo agreed with the options presented in concept. Therefore, it appeared completely reasonable to allow the responsible party to perform long-term management of residual contamination under the City's oversight due to the lack of any actual human health, safety, and environmental impacts to receptors.

With the discussion provided in the proposed order, which focuses on post-closure activities, GPP interprets the proposed reopening of the case to be based solely on new data (City's March 2012 closure objection and September 3, 2013 stop discharges letters), rather than the data that was presented to GPP at the time of case closure. This issue needs to be clarified in the order to give GPP, as well as other LOP agencies and RWQCBs, better direction in managing this and other cases regarding post-closure requirements of residual contamination which occurs on a vast majority of cases in California, particularly now under the Low Threat Closure Policy (LTCP). With the proposed order, it appears long-term management of residual contamination (i.e. discharge permits on- or off-site and active or passive vapor mitigation systems) are not allowed. This would leave natural attenuation and legal non-actively managed institutional controls as the only options available for long term management of residual contamination at petroleum sites. This would seem to eliminate a viable option for potentially closing more sites particularly under the LTCP.

In addition, Board staff (Russell Hanson) appears to have simply uploaded approximately 168 various documents to the Geotracker record for this case, that are not organized (most simply named with a number from 1 to 168) or even dated in any manner, and all simply categorized under one generic title of Sump Data. Board staff should appropriately title, date, and categorize each of these documents prior to the proposed order being issued. It would be inappropriate, if not hypocritical of the Board, to simply dump the responsibility for these documents to the LOP when the Board was clearly handling this case during their upload.

## **Technical Issues**

### ***Threat to Human Health, Safety, and the Environment***

In the last paragraph of Page 8, the order states "the corrective action performed does not ensure the protection of human health, safety and the environment." In the first paragraph on Page 9, the order further states "the threat to human health, safety, and the environment caused by the release of petroleum hydrocarbons from UST operations at the Chevron site has not been adequately and completely addressed through Chevron's site investigation, remedial actions, and subsequent monitoring activities." Both of these statements aver that human health, safety, and the environment are threatened by the contamination in the sump. However, GPP believes that this is not accurate, not justified within the proposed order, and that all references to this should be deleted from the order.

Of note, active management (mentioned again in the first paragraph of Page 9 in the context of a threat to human health, safety, and the environment) at this site is necessitated by an apparently

non-risk-based condition of a region-wide NPDES permit for discharge of extracted petroleum-impacted groundwater. Active management of slightly-impacted groundwater does not automatically equate to any known actual threat to human health, safety, or the environment as averred in the first paragraph of Page 9. Further, the proposed order fails to explain or justify how the concentrations of petroleum hydrocarbons in the sump and the "wet well" are an actual threat to human health, safety, and the environment.

The concentrations of contaminants in the samples collected in 2013, as reported in Conestoga-Rovers and Associates' January 30, 2014, report were:

Date	TPH as gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl tert butyl ether
3/25/2013	<20	<0.2	0.3	<0.2	<0.2	<0.5
6/3/2013	78	0.5	1.3	<0.2	<0.6	<0.5
8/26/2013	<400	<4	<4	6.5	15	<0.5
11/12/2013	<20	<0.2	<0.2	<0.2	<0.6	<0.5

TPH Total petroleum hydrocarbons  
All in micrograms per liter (µg/L)

The Environmental Screening Levels (ESL) issued by RWQCB San Francisco Bay (Region II) are conservatively derived screening levels based on various risk pathways of contaminants to receptors.

Chemical	Ceiling Value	Drinking Water	Vapor Intrusion	Estuary Aquatic Habitat Goal
TPH as gasoline	100	100	No value	500
Benzene	170	1	27	46
Toluene	40	150	95,000	130
Ehtylbenzene	30	300	310	43
Total Xylenes	20	1,800	37,000	100
Methyl tert butyl ether	5	5	9,900	8,000

TPH Total petroleum hydrocarbons  
All in micrograms per liter (µg/L)  
December 2013 ESLs

Therefore, the maximum concentrations of contaminants detected above laboratory detection limits in the four samples collected in 2013 from the sump are well below their respective ESLs. While the screening levels are not cleanup goals, they are indicators to gauge whether sites may require further investigation. Of note, the ESL ceiling value (i.e. taste and odor threshold) for TPH as gasoline is 100 µg/L which will be discussed later.

GPP believes the order should be modified to clarify if there actually is a threat to human health, safety, and the environment. Based on the above discussion, it appears that a threat to human

health (via drinking water and vapor intrusion pathway) and safety (via risk of explosion or acute toxicity through direct contact, accidental ingestion, or inhalation) does not exist at this site and was not validated by any statement in the proposed order or any of the petition responses by the responsible party, the adjacent property owner (petitioner), and the City of San Mateo. In fact, on Page 13 of the draft order in talking about reasonable time to reach water quality objectives under Resolution 92-49 it specifically cites site-specific factors rather than threat to public health and the environment as the reason to re-open the site.

The only potential threat to the environment that GPP can possibly see tangentially referenced in the proposed order is a discharge of sump water with petroleum hydrocarbons to either the storm water (which is eventually discharged to a surface water body) or sanitary sewer system of the City of San Mateo (where it is treated prior to discharge to a, likely the same, surface water body). As indicated in the tables above, none of the detected concentrations of contaminants in the sump are above the conservatively derived ESL for an estuary aquatic habitat goal exposure pathway. Therefore, if it were directly discharging to a surface water body, it would not require further investigation. It appears the Bay area counties' NPDES permit (R2-2012-0012) limits, in effect until March 15, 2017, have been slightly exceeded in only one of the previous year's four samples for two constituents.

	TPH as gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl tert butyl ether
Discharge Limit	50	5	5	5	5	5

TPH Total petroleum hydrocarbons

All in micrograms per liter ( $\mu\text{g/L}$ )

From City of San Mateo's May 2, 2012 petition response letter

Of note, that sample was collected during the "dry" season (August 2013) when little if any storm water discharge would be occurring.

Therefore based on the concentrations of contaminants in the sump, it appears on one hand that the RWQCB Region II states there is not a risk to surface water bodies (via estuary aquatic habitat goal pathway) in their ESLs. However, it would be a violation of the NPDES permit, but not necessarily a risk, if the sump water was discharged to the storm water system. In essence, a site that naturally discharges to a surface water body would not be required to perform remedial action, much less further investigation, if TPH as gasoline was below 500  $\mu\text{g/L}$ , but the groundwater would have to be treated down to below 50  $\mu\text{g/L}$  if it was extracted from the very same site and discharged to the storm water system where it could eventually end up in the same surface water body. It is unknown and not clear in the order if water from the elevator "wet well" is actually discharged. This needs to be clarified prior to the issuance of the order.

After discussions with RWQCB staff, these limits are technology based rather than water-quality based. In fact, this points to a tremendous difference in regulations regarding surface water

versus groundwater. It appears the NPDES permit discharge limits relate back to the anti-degradation policy (Resolution 68-16) and the Basin Plan in requiring compliance with background concentrations (which would be non-detect but is listed as technologically feasible to reach the permit limits) but ignores Resolution 92-49 which also addresses background concentrations but not needing to reach them until it is reasonably going to be used for the maximum beneficial use as stated in the draft order. Resolution 92-49 was the main guidance regarding closing contaminated petroleum-impacted groundwater plumes until the LTCP in 2012. It appears the groundwater regulations factor in actual risk to human health, safety, and the environment (Resolution 92-49 and LTCP) while surface water regulations do not. As a reminder, this case is a contaminated groundwater case. It appears the appropriate cleanup concentrations for water are completely dependent on whether the water is groundwater or surface water, regardless of the existence or location of a receptor.

While GPP understands the City of San Mateo is under permit conditions (R2-2007-0075) regarding discharge from the sanitary sewer system and an order (R2-2009-0020) to reduce storm water discharge to the sanitary sewer system and wishes to cut off this site's discharge to the sanitary sewer system, it appears the sump discharge is very close to attaining concentrations that would allow for discharge to the storm water system. It seems as if the City of San Mateo has been appropriately handling this issue in terms of permit conditions and in fact this issue is almost, if not already, resolved. Therefore, GPP has to question the need for actually reopening this case as an impact or threatened impact to human health, safety, and the environment.

### ***Odors Being a Nuisance***

At the bottom of Page 9, the order states the property owner reported an odor issue in its garage. GPP believes odors would be encountered in most subsurface parking garages in the state. A vast majority of subsurface parking garages actually have placards advising the public that chemicals known to the State of California to cause cancer or birth defects or other reproductive harm under Prop 65 may be present. As indicated above, none of the concentrations of contaminants in the sump appear to pose a risk to human health or safety. This proposed order as it is written would set a precedent for all cases in California to be reopened or remain open as long as one person smells an odor that they attribute, correctly or not, to a release in the site vicinity. It seems like the Board should have more evidence of an actual odor nuisance, as well as established cleanup goals for such odors, prior to ordering the case reopened under this issue.

The standard being applied here appears to simply be one of perception rather than any actual scientific evidence. To GPP's knowledge, no vapor or air samples have actually been collected and analyzed to support any odor claims. The proposed order references the fact that waters in San Mateo County are designated for municipal beneficial use in the Basin Plan and that only a narrative taste and odor water quality objective is given. However, the narrative water quality objective is made in the context of a beneficial use of drinking water. GPP is not aware of any current or future proposed use of the shallow, first-encountered groundwater in this area, much less the area of the neighbor's sump, for drinking water. Further, this shallowest groundwater would be excluded from use by state requirements for depth of sanitary seals for municipal wells.

DWQ and Fund staff have advised LOPs, and likely RWQCBs that an adequate timeframe for natural attenuation to water quality objectives analyses of an unknown and unlikely actual future use for drinking water to be hundreds of years (referencing Resolution 92-49), significantly more than the 27 years to reach water quality objectives determined by the consultant for this site. As stated in the proposed order, the determination of what constitutes a reasonable timeframe must be based on the extent and gravity of any threat to public health and the environment during the period required to meet basin plan objectives and the probability that the affected water will be used during the period of impairment. Both of these issues have been proven to be satisfied at this site as previously discussed (i.e. not an actual threat to human health, safety, and the environment and not likely used for drinking water in the foreseeable future).

As indicated previously, the taste and odor threshold for TPH has not actually been reached or exceeded in any of the four samples over the preceding year. If the Board is ordering this case reopened based on the detection of an odor by the neighboring property owner in the subsurface garage by leaving this reference in the order, then GPP will have to regulate the case such that no odor is present in the garage and will be forced to apply this justification to all of its other cases that propose closure with reported odors. Otherwise, this section of the proposed order needs to be reworded or deleted.

As previously stated, it is not known if the contaminants in the "wet well" are actually discharged. If not, then it appears the wet well might just pose a potential vapor issue based on a one-time sample with concentrations above the ceiling value ESL. Further discussion of human and environmental interactions with the "wet well" is needed to justify reopening this case under the issue of odors.

A footnote in the order states that the Board would still order the case reopened, even when compared to the recently enacted LTCP. Based on the concentrations of contaminants detected in the sump, the only apparent issue that the Board seems to think the case fails the LTCP under is the nuisance criteria. GPP request that to be specifically stated such that we would know what exactly we are regulating if this case is reopened. Additionally, it should be clarified if it is just the nuisance of the adjacent property owner allowing access which would be terminated when the discharge is allowed to go to the storm water system or if all odors need to be "removed" from the subsurface parking garage, and what the threshold for detection of odors would be.

#### ***Providing Access Being a Nuisance***

The first paragraph on Page 10 of the proposed order states the petitioner objects to the ongoing maintenance and permitting related to the petroleum in its sump. To our knowledge, the petitioner has not had to do any of the permitting associated with the discharge from the sump. This point needs to be corrected in the proposed order. It also appears significant work has occurred on the sump by the responsible party to prevent further infiltration of groundwater into the parking garage. It appears the Board is implying through its order that all of the petroleum currently and indefinitely in the future will be from groundwater and no contribution from automobiles in the parking garage is acknowledged. This point must be clarified in the proposed

order to allow GPP to know how to manage this case in the future. If it is not changed, GPP will have to require the responsible party to remediate the petroleum hydrocarbons in the sump, and possibly the "wet well", regardless of source.

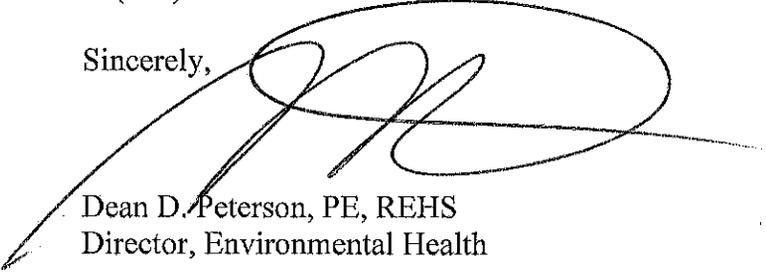
Of note, the proposed order also seems to question Chevron's statement that once the recent work to the sump separating groundwater from storm water is completed and confirmed working that all future discharges from the site will be the responsibility of the property owner. As noted previously, questions remain regarding the "wet well" and the weep holes. Therefore, GPP would request Chevron to investigate both of these likely in terms of pathways and source concentration.

**SUMMARY**

We sincerely hope to obtain significant clarification in any revision, if not a complete reversal or withdrawal, of the proposed order based on these comments.

Should you have any questions, please contact Charles Ice at (650) 372-6295 or Gregory Smith at (650) 372-6279.

Sincerely,



Dean D. Peterson, PE, REHS  
Director, Environmental Health