

is not as fast. So I do not know what is past Dance Hall, and that's why we have a work plan in place to do some investigations.

Dan Merkle: I didn't see anything in the elements of the work plan that was addressing south of Dance Hall.

Natasha Molla: We have a work plan going out in August -- here, August 8th -- that talks about additional delineation near Dance Hall.

Dan Merkle: Okay. So is this part of the intermediate plan that you're now -- because I understood these steps to be the intermediate plan.

Natasha Molla: Well, there's not a separate thing. The interim remediate implies it's the middle of what's going to be the final, and so all these things we're doing apply to the final. So, yes, this helps towards a final. It's called an interim remedial, but it's still -- all this information helps us get to the final. It's not like there'll be a whole 'nother separate step.

Dan Merkle: So are we monitoring now the SJBA4 and those wells that are downstream from Dance Hall that are pumping?

Natasha Molla: The city is not sampling those currently.

Dan Merkle: Is Chevron?

Natasha Molla: No, we do not have access to sample those.

Dan Merkle: It would appear that might be a good idea.

- Eric Bauman: We can arrange access if you want to get samples taken at current.
- Dan Merkle: I mean, I'm not a geologist here, but if we're allowing that water to go past Dance Hall, which is what I understand from you as saying, and that's going downstream, which is to our next set of wells, why are we not heads up on that?
- Natasha Molla: Well, we've been waiting for the city to turn on the groundwater recovery plant, and then they would start sampling, so it's just a matter of -- it was something that's supposed to happen that's just for whatever delays have not happened. And so until the city turns on the plant and then we'll start a normal scheduling of those, we can look into sampling those until the city is ready to turn on the plant.
- Male Voice: Commissioner Merkle, we'll take a proactive measure and start monitoring those wells.
- Dan Merkle: Thank you. You had mentioned that the county accepted your IRAP and the schedule related to that. Is this the schedule that you're referencing to the IRAP? Is this the element that the county has accepted?
- Natasha Molla: I think it was more vague than this when we originally put it in our IRAP, but they have since received a schedule similar to this which was recently submitted, so I have not heard their feedback on that yet.

Dan Merkle: Okay. And your monthly testing that occurs around the 20-something each month, when are those results reported to the city?

Natasha Molla: They would at least get them quarterly. If they get them monthly, I'm not sure. It seems like we do give them out monthly, but I can't say for sure.

Dan Merkle: It mentions here, it's 724 as an example, monthly sampling of these wells. And so if you're sampling monthly, my question is, when are those results reported to the city?

Natasha Molla: I'm sorry, I do not know.

Dan Merkle: Okay. Could you find that out and let them know? That'd be helpful.

Natasha Molla: Mm-hmm.

Dan Merkle: And I'd request that the Commission be apprised of those results when they come in as soon as you guys get them. I appreciate you coming and giving us a little bit of an update here. It's as disconcerting as it has been for the last year and a half of what we hear. And I think that you're sensing from this commission, and I won't speak for my fellow commissioners, but this needs to move. And we're really tired of excuses. And so we'll be addressing this further, I'm sure. Are there any other questions? Are there any questions from staff that we want to ask Ms. Molla? Certainly.

Cindy Russell: I did want to let the Commission know that I met yesterday with the assistant planning director regarding the planning and engineering test that will need to occur, and so we're working with the city attorney to put this on the fastest track possible. So I wanted to let the Commission know that and Chevron know that so that we can make sure that we're well in advance of when they're ready to install things. And I think at this point we're waiting for Chevron to give us back some information on some sites they looked at yesterday, on how that's going to fit and everything, and then we can evaluate those and get those done. So I anticipate that to move right along with the process at this point.

Dan Merkle: Ms. Molla, thank you for your time today.

Natasha Molla: Thank you.

Dan Merkle: And we appreciate the handouts. They're helpful.

Natasha Molla: Okay.

Dan Merkle: I was in error in moving ahead on the agenda without allowing an announcement here. Cindy? I'm sorry, I had moved on in the agenda with missing an announcement here. Would you care to make an announcement? Sorry.

Cindy Russell: Thank you. Vice Chairman Merkle and members of the Commission, I'd like to introduce and formally introduce our new utility director, John O'Donnell. And for the Commission and for the audience, I'm

going to let John tell you a little bit about himself, give him a few minutes here to tell you about himself and his background. But I'd like to take the opportunity to let you know that the utility director, John will be the secretary to the Commission, going forward from today. And we'll make that transition. And I just wanted to tell the Commission it's been great being here with you over the last couple of years. I'm not going too far away; don't worry. And I'll be here for all the financial administrative stuff as well as I have been in the past, but now that we have a full-time utility director back, we'll hand those reins over to him. So, John?

Male Voice: Well, on behalf of us, Cindy, we appreciate your service and all of your assistance.

Cindy: My pleasure. Thank you very much.

Dan Merkle: It's been great to have you with us. John?

John O'Donnell: Thanks, Cindy. Really happy to be here. I'm real high on QA/QC and making sure that whatever we do, we do it the right way, with optimal efficiency and effectiveness. I have a lot of experience in groundwater management plans. I've worked on -- special project manager for the first municipal desalinization plant in the city of Oceanside, back in the early '90s, which had similar problems with iron and manganese. I worked on a 15 MGD plan in the city of Corona, which turned out very well and it's running very well. But a lot of water, wastewater treatment plants. I have a degree from the University of Wisconsin in civil and environmental engineering, a bachelors degree, MBA from

Cal State - San Marcos. I've obtained a grade IV water treatment license back in the early '90s, which I have let lapse, that I may have to get reinstated here, depending on what we do in the future.

We have a lot of programs ongoing. I have a lot of catching up to do with the city, and I look forward to working with everybody here to get everything into peak optimization and bringing the city forward into the next decade.

Dan Merkle: We're very happy to have you. We're happy to have you here in San Juan, and welcome. It's been a long time coming. We're glad to have the right guy here. Thank you very much.

John O'Donnell: Thank you.

Dan Merkle: Commissioners, any comments?

Male Voice: Just welcome aboard. We will test all of your skills.

Male Voice: I'm sure we will. Let's go ahead and move on to item number three, consideration of an ordinance establishing chapter 12 and title six, water conservation measures.

Michelle Perea: Francie Kennedy is here to report.

Francie Kennedy: Thank you. Good morning, Vice Chairman Merkle and members of the Commission. The city, as you know, has an existing ordinance providing conditions to prevent waste and unreasonable use describing

**MINUTES**  
**August 5, 2008**  
**SAN JUAN CAPISTRANO CITY COUNCIL**  
**REGULAR MEETING – CLOSED SESSION**  
**SPECIAL MEETING – BUSINESS SESSION**

Mayor Soto called the Regular Meeting of the City Council of the City of San Juan Capistrano to order at 5:30 p.m. in the City Council Chamber.

**ROLL CALL**

COUNCIL MEMBERS PRESENT: Sam Allevato, Tom Hribar, Dr. Londres Uso, Mayor pro tem Mark Nielsen (arrived at 5:35 p.m.) and Mayor Joe Soto

COUNCIL MEMBERS ABSENT: None

**PUBLIC COMMENT – CLOSED SESSION ITEMS:** None

**CLOSED SESSION:**

A Closed Session was held for the following purposes, as authorized by statute:

- a. Pursuant to Government Code Section 54956.9(a), the City Council conferred with its legal counsel regarding Scalzo Family Trust v. City of San Juan Capistrano. (Mayor Soto recused himself from the discussion)

**BUSINESS SESSION**

Mayor Soto called the Special Meeting of the City Council of the City of San Juan Capistrano to order at 6:06 pm in the City Council Chamber. Council Member Hribar led the Pledge of Allegiance and Mayor pro tem Nielsen gave the invocation.

**ROLL CALL**

COUNCIL MEMBERS PRESENT: Sam Allevato, Tom Hribar, Dr. Londres Uso, Mayor pro tem Mark Nielsen and Mayor Joe Soto

COUNCIL MEMBERS ABSENT: None

Agenda items are presented in the originally agendized format for the benefit of the minutes' reader, but were not necessarily heard in that order.

**ANNOUNCEMENTS OF CLOSED SESSION ACTIONS:** No reportable actions.

**TOUR OF CITY HALL LANDSCAPE IMPROVEMENTS:**

Ziad Mazboudi, Senior Civil Engineer, led a tour of the new City Hall environmentally friendly landscape and irrigation demonstration project.

- Nuvis Landscape design (special recognition of Planning Commissioner Robert Cardoza)
- Tree of Life Nursery (Special recognition of Planning Commissioner Gene Ratcliffe)
- HRP Studio
- Ed Stewart and Associates
- West Coast Arborists
- Bota Company
- Hydroscape Products
- Sepulveda Building Materials
- The Soto Company
- Armstrong Growers
- Plan Depot
- Ito Nursery
- DM Color Express
- Your Turf
- Insley Construction, Inc.
- David Contreras, Senior Planner
- David Hubler, Public Works Supervisor
- Francie Kennedy, Water Conservation Coordinator
- Craig Harris, Assistant Engineer
- Irene Marcote, Engineering Technician
- Tom Johnson, Water Distribution Supervisor
- Jack Galaviz, Public Works Manager

3. SAN JUAN CAPISTRANO EQUESTRIAN COALITION RECOGNIZED FOR THE DONATION OF \$30,000 FOR THE DEVELOPMENT OF A GEOGRAPHIC INFORMATION SYSTEM (GIS) TRAIL APPLICATION (610.40)

4. STATUS REPORT – METHYL TERTIARY BUTYL ETHER (MTBE) TESTING AND REMEDIATION CONDUCTED BY CHEVRON (530.25)

Michael Donovan, PSOMAS, City's geologist consultant, provided a status report dated July 1, 2008, which included a PowerPoint presentation. The status report pertained to the current status and known boundaries of MBTE plumes from the two subject gasoline stations and related to the City's groundwater; potable water supply; and groundwater recovery plant production.

Jack Fraim, Hydrologist, Cedar Creek Consulting, representing Chevron, provided a PowerPoint presentation, including a remediation schedule and responded to questions. He requested City support in obtaining any needed permits as the remediation system is installed.

5. COMMISSIONERS PRESENT AT MEETING INTRODUCED. (110.10)

Mayor pro tem Nielsen introduced the following individuals in attendance: Ron Denman, Parks, Recreation and Equestrian Commission; Bob Cardoza and

**COUNCILMANIC ITEMS**

1. COUNCIL MEMBER USO SELECTED AS THE VOTING DELEGATE, COUNCIL MEMBER HRIBAR SELECTED AS ALTERNATE VOTING DELEGATE FOR THE LEAGUE OF CALIFORNIA CITIES 2008 ANNUAL CONFERENCE (140.20)

Council Action: Moved by Council Member Hribar, seconded by Mayor pro tem Nielsen, and carried 4-1, with Council Member Uso opposed to select Council Member Uso as the voting delegate for the League of California Cities 2008 Annual Conference.

ROLL CALL:

AYES: Council Members: Allevato, Hribar, Nielsen, and Mayor Soto  
NOES: Council Members: Uso  
ABSTAIN: Council Members: None

Council Action: Moved by Council Member Uso, seconded by Council Member Allevato, and carried unanimously to select Council Member Hribar and the alternate voting delegate for the League of California Cities 2008 Annual Conference.

**ADJOURNMENT**

There being no further business, Mayor Soto adjourned the meeting at 11:43 p.m. to Tuesday, August 19, 2008 at 5:30 p.m. for Closed Session, and 6:30 p.m. for the public Business Session in the City Council Chamber.

Respectfully submitted,



MARGARET R. MONAHAN, CITY CLERK

Approved: August 19, 2008

ATTEST:

  
\_\_\_\_\_  
JOE SOTO, MAYOR



8.5.08 - CC - CRA



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Mayor Soto: Thank you, Director Cocker. Now we'll move on to Item B4, the status report.

Michael Donovan: Good evening. Good evening Mayor, Councilmen. This is a status update from July 1, 2008. My name is Michael Donovan. I'm a senior hydrogeologist with [Somas]. The update is regarding the MtBE associated with two Chevron stations, one at Camino Capistrano and the other one at Ortega Highway and Del Obispo, which I'll discuss in a moment.

As you are aware, the Chevron service station at Camino Capistrano and Del Obispo has been doing investigations with regards to the release that occurred back in 1989 and the contaminant plume, precisely the MtBE associated with the release that has migrated down to the Dance Hall well. The Dance Hall well was impacted -- detections of MtBE back in January of this year. Chevron has done some additional investigations in March through June. The results I have on the screen right now are from the presentation that Chevron gave to the Water Advisory Commission on the 22nd of July. These results are part of the ongoing investigation they were doing with groundwater.

As you can see, they were going out in various directions from where the plume original investigation was conducted in the center on down. Monitoring wells and so forth were placed, but there was some plume definition that wasn't done to the sides. They were doing additional investigations to the borders of the plume trying to find out. The ND that was indicated refers to non-detect. As you can see, most of them

had non-detects down to a depth of about 68 feet. If you recall, the production well Dance Hall is screened from about 90 feet to about 115 feet. It produces water at depth. Basically, what has happened is that the plume has migrated and dived down as it progressed towards the Dance Hall well.

As they did these investigations, they found that to the borders of this it appears that the plume is confined within this specific area. They are still small detections that are found at the lower levels. Obviously it's at the Dance Hall well and probably still migrating down. They have a work plan for investigating further on down the plume path that is supposed to be delivered in the near future.

With respect to the site investigation activities that Chevron has been doing, they have continued to do what is called a rapid small-scale column test. This is part of their design of their GAC system for well head treatment at the Dance Hall well. Also, because of the [querpsys] to the groundwater recovery plant being down and the production wells inactive, they took the opportunity to also install transducers in selected wells on all the production wells as well as some of their existing wells to see as when the querp system comes up, starts production, that they will get a better understanding of the influence of the production wells have on the whole aquifer system. They've installed transducers to measure water levels.

They also, on the 14th, met with the city engineer to discuss permits needed for the GA system layout. They also, on the 17th of July, submitted a work plan for the vertical and the horizontal extent of soil

in the service station. This was a requirement of the IRAP -- the Interim Remedial Action Plan -- that they submitted to the county, and the county responded that they must submit a work plan. However, in the preliminary review of this report, it only indicated that they were looking at soil. They weren't looking at groundwater. In discussions with the county, they have not responded to that work plan and are hoping to do so in the very near future.

On July 21 a meeting was held with Chevron on the proposed location of the GAC units. This is with Chevron, with the City, with Southwest Operator of the Groundwater Recovery Plant and SOMUS along with Chevron's engineering consultant, Malcolm [Perney], who is designing the system. They were looking at possible locations in and around the existing [querp] plant to decide where would be an optimal location and also trying to figure out a place that would be unobtrusive and non-disruptive to existing operations and so forth. The result of that meeting came out with three potential options that Chevron is going back and looking at with respect to those potential options.

On July 22 an update was given to the Water Advisory Commission on the status of MtBE. On July 24 Chevron sampled groundwater from the well clusters that are closest to the Dance Hall well, MW15 and MW16. We have not seen results. They're required to sample these on a monthly basis.

On July 31 Chevron submitted a comprehensive sensitive receptor survey and well conduit study as well as a CPT investigation report. These documents have just been received and have not been reviewed

at this time. These were required as part of the receptor survey and well conduit study. It was required as part of the Orange County IRAP review as well as the CPT investigation report. [These were] the results of the extended investigation on the borders of the plume.

With respect to proposed site activities, Chevron will submit a work plan for the vertical and horizontal extent of MtBE down-gradient of the Dance Hall well. Also, with respect to the scheduled Dance Hall wellhead treatment system, they conveyed to us in the meeting that Malcolm Perney had started design in July of this year. They envision that design will be completed in October of 2008. Construction will be between October and February with startup in February of 2009. That's their projected schedule as of July 21.

With respect to the Ortega site -- this is located, as I indicated, on Ortega Highway and the Del Obispo -- most of the investigation has been hampered by access in and around to adjacent properties. Of the activities they were able to do -- some limited activities -- again, this diagram is from Chevron that they prepared and presented at the WAC Commission meeting on the 22nd. As indicated, there is a detection of MtBE down-gradient, down as far as Denault's Hardware. With the new investigation done at the Orange County Fire Authority, there was non-detects. They still need to do on the other side of the street as well as down-gradient over towards the Ralphs. My understanding is that they've got permission to access this area. They're actually getting ready to go into the field in late July. As far as Ralphs, they're still negotiating.

As I indicated [about] the activities they've done, they've installed these transducers in a selected well in anticipation of a restart of the querp system and included wells at the Ortega site. They've also submitted a groundwater sampling report, July 11. They also are continuing negotiations with a tenant for access on the property at 31874 Del Obispo, which is the Ralphs. As I indicated, hopefully investigations are going to commence at the end of August.

With respect to the Kinoshita well, the UST report was finalized and being submitted to Orange County Health Care Agency. We are formulating a work plan. We're not going to wait for Orange County to request it. We're trying to look ahead and trying to be proactive and will be preparing a work plan for the continued investigation of contaminants. Also, an important aspect that we have to have an understanding is whether this is a very, very small plume or very, very large plume from the instances that if we want to put a treatment system on the Kinoshita well, we want to make sure that it is necessary, or is it something that an alternative method that is very short term can accommodate the problem. That's the other reason.

In concert with that, we're looking at three different types of treatment systems: granulated activated carbon, HYPOX, and photocatalyzation. We're trying to do a bench scale study by one of these alternatives in August.

With that, do you have any questions I might be able to answer?

Mayor Soto: I do have a question, Mr. Donovan. You projected up there a proposed timeline from Chevron. In your mind, is that a realistic timeline?

Michael Donovan: In my opinion, it's pretty optimistic. I think that there are still some issues that will rise. I just don't see that happening in February of 2009 to start up, but I could be surprised.

Mayor Soto: Okay. Thank you. Mayor Pro Tem?

Mayor Pro Tem Nielsen: Just in follow up to that, I see the plan for the Dance Hall wellhead treatment. Beyond that I believe there was site 10 and the most recent drawings that showed a finding of about 310 parts as opposed to the non-detects in many other areas. I think it was the other site.

Michael Donovan: Ortega?

Mayor Pro Tem Nielsen: Ortega.

Michael Donovan: 110 and 310, as far as I know, Chevron has not advocated any remedial activities. My understanding is that they want to complete the investigation before they commit to any kind of activity, if at all.

Mayor Pro Tem Nielsen: Based on those findings, there is some pretty hefty MtBE being found at the 32 foot level, 31 foot level? Is it anticipated that this plume also is diving as it moves forward, or is this then closer to the surface? Can we tell yet?

Michael Donovan: We can't tell yet. I haven't reviewed the reports. I know that at the Chevron station they encountered the Capistrano, which is the base at some shallow depths. As you move out into this area, I don't know whether they encountered the Capistrano formation or the base of it. As far as I know, 46 feet is 110. I didn't see on a quick look at the things they provided that they had hit the base or the Capistrano formation.

Mayor Pro Tem Nielsen: The last question was near the Dance Hall well, the drawings where you said the plume seemed to be diving. Are there any drillings in those various borings that are down at the depth where the Dance Hall well was pulling the water at the 90 or 100 foot?

Michael Donovan: Some of them went down to fairly close, like 91. You can see 91. There is 91, 90. They're getting down close to it. My understanding, if I recall on looking at some of the geologic logs, the very fine grain sediments are up near the surface. You get a lot of interfingering up at the surface. As you go down at depth it starts to become a little bit more homogeneous -- one type of material sands and gravels. That's why the well is completed at depth. It's because it's in some of these old paleochannels, which tend to be higher permeabilities. That's why it's a little bit more homogeneous.

Mayor Pro Tem Nielsen: At CPT17 we've got no detects above 46 foot. Then you get down to 65 and there's 2.5. At 90 that's one of the closest drillings to the Dance Hall well. If it's diving, would there be potentially more below the 68 foot?

Michael Donovan: Could be, yes.

Mayor Pro Tem Nielsen: There is no plan currently to drill below that  
from Chevron?

Michael Donovan: Well, my understanding is that they're planning to do a vertical extent  
down gradient and hopefully that the extent in that particular area will  
be taken care of. Also, I believe that was asked on the last meeting  
about what potential impacts to Trabuco Creek. I don't know that that  
was ever answered.

Mayor Pro Tem Nielsen: Thank you.

Mayor Soto: Gentlemen, any other questions? No? Thank you very much there, Mr.  
Donovan. Mayor Pro Tem?

Mayor Pro Tem Nielsen: Thank you, Mr. Mayor. This is the time we  
recognize the --

City Clerk: Excuse me, Mr. Mayor. Chevron has a presentation as well.

Mayor Soto: I'm sorry.

Jack Fraim: Mr. Mayor, Council Members, I'm Jack Fraim, Cedar Creek  
Consulting, representing Chevron. I will not bore you with a repeat of  
what Mr. Donovan said. He's given, I think, an accurate description of  
the work that Chevron has done. Instead of going through some of the  
issues that he has talked about, I'll just hit some of the highlights.

The issue is, for Chevron, to get the treatment plant up and running as quickly as possible. These are the three means that we had in July that are progressing in that direction. The latest one was last Friday. We met with members of the city staff, the Orange County group, and also the Department of Public Health. We discussed the issues associated with the permitting of the activated carbon treatment system. I think I can safely say as a result of that, the Department of Public Health sees no impediments for obtaining a permit for the treatment for MtBE. It's an accepted and fully understood treatment method for MtBE. They see no difficulty in obtaining the necessary permits.

These are the number of things that Chevron has done since the last City Council meeting. As I said, I believe Mr. Donovan covered those adequately, so I see no need to go over those again. This is what I think would be of more interest to you, what we're planning on doing and the timeframe that we're doing it in. We think we are on track, contrary to what Mr. Donovan said, as far as being able to have the system installed in February. We're moving to that end. We have retained the services of Malcolm Perney, who is a recognized expert in water treatment and certainly in MtBE remediation as well.

We are currently at the preliminary design phase. We are also attempting to procure a green sand filter, which is necessary to remove the iron and manganese that would impact adversely the GAC system. It would be an impact exactly the same as you're currently using in your groundwater recovery plant. That acquisition is probably the most critical item, and we're working on that now.



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May 1, 2009

Natasha Molla  
Chevron Environmental Management Company  
145 S. State College Blvd.  
Brea, CA 92822-2292

**Subject: Corrective Action Plan dated February 17, 2009 prepared by Holguin, Fahan & Associates, Inc.**

**Re: Chevron Station #9-3417  
32001 Camino Capistrano  
San Juan Capistrano, CA  
OCHCA Case #89UT027**

Dear Ms. Molla:

The Orange County Health Care Agency, Environmental Health, Local Oversight Program (OCLOP) has reviewed the Corrective Action Plan (CAP) prepared by Holguin, Fahan & Associates, Inc. for the referenced site. The CAP includes findings from the most recent phase of site investigation conducted on-site, provisions for active remediation at or near the source area, the results of a feasibility study, and applicable cleanup levels for groundwater that is affected by the unauthorized release of petroleum hydrocarbon contamination at the Chevron site. The CAP identifies the contaminant plume as having two parts that require different remedial approaches for the purposes of mass removal. The source area includes the on-site vadose zone impacts beneath the underground storage tanks (USTs) and the southern dispenser island, and the smear zone in these areas and immediately downgradient of the site. The dissolved-phase plume includes groundwater contamination at lower concentrations than in the source area, extending downgradient from the source area to the Dance Hall well and vertically from the base of the smear zone downward. Based on the above assumptions, the CAP evaluates various remedial technologies to achieve cost-effective mass removal from the source area and off-site dissolved plume.

A 30-day public notification was posted by the OCLOP on February 26, 2009 in accordance to California UST Regulations, Title 23, Chapter 16, Section 2728. As of April 7, 2009, responses were received from nine (9) public agencies advocating the rejection of the proposed CAP. All response letters received were reviewed by the OCLOP staff.

The CAP proposes the use of air sparging (AS) and soil vapor extraction (SVE) to remediate soil and groundwater as source area remediation, and groundwater pump & treat (GWPT) using the Dance Hall well to achieve mass removal of the downgradient MTBE plume. Based on the review, the proposed CAP is incomplete and therefore not acceptable to the OCLOP. Chevron is directed to submit a revised CAP that addresses the following comments:

**Source Area Remediation:**

1. The OCLOP concurs with the proposed AS/SVE system to remediate the source area extending from the USTs and southern dispenser island to at least approximately 200 feet south of the site. The OCLOP is acceptable to the proposal to assess the source area further and conduct a SVE pilot test in order to determine the feasibility and design parameters for installing a remediation system in the source area.
2. The AS/SVE remediation system must operate continuously until it can be demonstrated that asymptotic reduction in hydrocarbon vapors recovery has been achieved by the AS/SVE system prior to requesting approval to pulse or shut down the system. Furthermore, prior to shut down, the system should be operated intermittently for 2 or 3 events to demonstrate that vapor concentrations do not rebound. The SVE system must operate to its maximum efficiency prior to operating it intermittently to show that the inlet vapor concentrations do not rebound. The OCLOP must approve any intermittent operation or shutdown of the system.
3. The SVE system must be capable of measuring soil vapor concentration at the system inlet and for individual wells. Field readings of the system influent and individual wellhead vapor samples may be measured on a weekly basis in conjunction with regular operation and maintenance events for the proposed remediation system. However, please note that the system influent vapor samples must be analyzed by a certified laboratory on a monthly basis and the individual wellhead samples must be analyzed on a quarterly basis (at a minimum), for confirmation.
4. Quarterly remedial progress reports should include for the SVE system, individual wellhead influent vapor concentrations and manifold (total) influent vapor concentration, vacuum pressure, flow rate from individual wells and from the system inlet, and hydrocarbon mass removed, as proposed in the CAP. For AS system, the progress reports should identify the wells used for sparging and the total duration of operation during the reporting quarter.
5. Hydrocarbon mass removal calculations must be provided in a table format and included in the remedial progress report. Reports must contain tabular summary of recovered contaminant mass and include the calculation used to determine the contaminant mass removed with sources of all data used, formulas, and assumptions made in the calculations.
6. Verification borings will be required after completion of proposed source area remediation. A workplan must be submitted to the OCLOP for review and approval at that time prior to shutdown of the remediation system.

7. The approval of source area remediation is contingent upon receiving a certification from Chevron, in writing, that the required notifications to all current record owners of fee title to the site including current operator of the site have been made of the proposed CAP. Sections 25297.1 and 25297.15 of the Health and Safety Code require that the local agency accommodate responsible landowner's participation in the cleanup and consider their input and recommendations. The certification shall include the following:
  - State the proposed corrective action(s) and the date the plan was submitted to the OCLOP.
  - State that pursuant to Sections 25297.1 and 25297.15, all current record owners of fee title to the site have been informed of the proposed cleanup plan.
  - State that all current record owners of fee title were provided with the name, address, and phone number of the Hazardous Waste Specialist in charge of this case and that all current record owners of fee title are aware that may contact this Agency, in writing or by calling.

The additional source area assessment and SVE pilot test must be completed within 90 days of receipt of this letter. The AS/SVE remediation system should be installed and in operation within 90 days after the pilot test and assessment are complete. Please submit a schedule and timeline for completion of the proposed remediation design, permit approval from various agencies, and construction of the system by June 1, 2009. It is Chevron's responsibility to obtain the necessary permits from various agencies in a timely manner for installation of the remediation system. You must notify the OCLOP if you experience any difficulties in obtaining the necessary permit(s) that could result in your failure to meet the stated deadline.

**Dissolved Plume Remediation:**

1. The feasibility analysis documented in the CAP concludes that GWPT using the Dance Hall well, as proposed in the Interim Remedial Action Plan (IRAP), was the only technology evaluated that has the potential to achieve cost-effective mass removal of the dissolved-phase plume, especially the downgradient MTBE plume. However, the use of the Dance Hall well for dissolved plume remediation requires the City's agreement which has not been obtained to date. Based on this Agency's discussions with the City and Chevron, the OCLOP is concerned with the lack of progress finalizing a Memorandum of Understanding between the City and Chevron to implement the Dance Hall pumping and wellhead treatment as described in the IRAP dated March 26, 2008.
2. The OCLOP requires a remedial alternative, besides using the Dance Hall well, to treat the larger and lower concentration part of the downgradient dissolved-phase MTBE plume. Chevron must consider other remedial alternatives to address and intercept the off-site dissolved-phase plume between the source area and the Dance Hall well that must be submitted as a revised CAP.
3. The CAP proposes cost-effective corrective actions to remediate constituents of concern in groundwater with two separate types of objectives that would result in case closure. The CAP identifies the following: 1) Active remediation objectives that are technology-specific; and 2) Case closure objectives that are based on achieving regulatory standards for

constituents of concern. It should be noted that cleanup levels for the groundwater pollution from the referenced site has not been set as of this date, as stated by San Diego Regional Water Quality Control Board (RWQCB) by letter dated April 6, 2009. For cases where dischargers have demonstrated that cleanup goals based on background concentrations cannot be attained due to technological and economic limitations, State Water Resources Control Board Resolutions No. 68-16 and No. 92-49 set forth policies for cleanup and abatement based on the protection of beneficial uses. Active remediation and groundwater monitoring at this site will continue until the OCLOP and the San Diego RWQCB concur that the numerical water quality objectives designated in the Regional Board's water quality control plan have been reached and are stable or until it has been demonstrated that the levels will be reached by natural attenuation (biodegradation, advection-dispersion-diffusion, and dilution) in a reasonable time frame.

It should be noted that OCLOP approval of the IRAP, which proposed Dance Hall well head treatment design using granular activated carbon with greensand filtration, was intended to provide an expedited response to the MTBE contamination that caused the City to stop producing drinking water from the Dance Hall Well, with the interim goal of bringing this well back into production for the City water supply. Chevron's consultant presented the results of a groundwater flow and contaminant transport model to evaluate the effectiveness of the Dance Hall well for capturing the MTBE plume. Results from the modeling suggested that the Dance Hall well will capture and control the known extent of the dissolved phase MTBE plume with certain assumptions. However, the City has questioned the validity of the assumptions made by Chevron and its consultant regarding the aquifer analysis in the model. To address these concerns, the City requested modifications to the groundwater modeling parameters to evaluate the potential impact that pumping at the Dance Hall well may have on the operation of other City production wells under more realistic field conditions. It is OCLOP's understanding that the modeling issues have not been resolved between Chevron and the City to date.

The OCLOP is requiring the submittal of a revised CAP because Chevron has stated in the CAP that it considers groundwater extraction from the Dance Hall well using granular activated carbon to be the only cost-effective remedial treatment for mass removal of dissolved plume remediation and has provided no alternative remedial methods. As the City must approve the proposed wellhead treatment remedy and that approval has not been forthcoming, another method of remediation will be necessary to control the off-site lower concentration part of the dissolved MTBE plume. Therefore, Chevron is hereby directed to submit a revised CAP for this site by June 15, 2009.

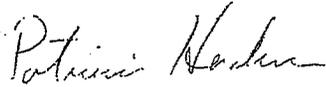
The revised CAP must address all requirements of California UST Regulations, Title 23, Chapter 16, Section 2725. In particular, Section 2725(f)(2) requires the CAP to include at least two remedial alternatives for restoring the beneficial uses of groundwater in this area. As directed by OCLOP by letter dated November 17, 2008, the revised CAP should address one remedial alternative that includes installation and operation of an up-gradient remediation system if pumping the Dance Hall well is stopped. The other remedial alternative should address the potential that the Dance Hall well does not achieve specified performance standards or cleanup objectives within a given time-frame which would then require installation of a supplemental up-gradient remediation system for dissolved plume remediation.

Natasha Molla  
May 1, 2009  
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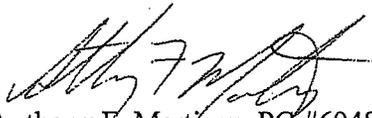
A complete and comprehensive revised CAP that addresses both source area remediation and dissolved plume remediation must be submitted to the OCLOP. Chevron is expected to conduct active remediation closer to the source area and address the off-site dissolved plume to regulatory cleanup standards that are acceptable to OCLOP and the San Diego RWQCB. Long-term monitored natural attenuation may provide the final cleanup of the dissolved plume to the regulatory standards, after mass removal of the source area and dissolved plume is completed and risks to potential receptors have been mitigated.

If you have any questions, please contact Anthony Martinez at (714) 433-6260, or Shyamala K. Sundaram, Hazardous Waste Specialist in charge of this case at (714) 433-6262.

Sincerely,



Patricia Henshaw, REHS, MPA  
Program Manager  
Hazardous Materials Mitigation Section  
Environmental Health



Anthony F. Martinez, PG #6948, CHG #688, CEG #2255  
Supervising Hazardous Waste Specialist  
Local Oversight Program  
Environmental Health

cc: Richard Sanchez, Director, Orange County Environmental Health  
Mark Nielsen, Mayor, City of San Juan Capistrano  
Dave Adams, City Manager, City of San Juan Capistrano  
John O'Donnell, Utilities Director, City of San Juan Capistrano  
Steven H. Edelman, Holguin, Fahan & Associates, Inc., Pleasanton, CA  
Jack Fraim, Cedar Creek Consulting  
Julie Chan, San Diego Regional Water Quality Control Board  
Gerald Buck, Property Owner



**COUNTY OF ORANGE  
HEALTH CARE AGENCY**

**PUBLIC HEALTH SERVICES  
ENVIRONMENTAL HEALTH**

**DAVID L. RILEY**  
INTERIM DIRECTOR

**DAVID M. SOULELES, MPH**  
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*Excellence  
Integrity  
Service*

May 28, 2009

Natasha Molla  
Chevron Environmental Management Company  
145 South State College Blvd.  
Brea, CA 92822-2292

Subject: Transfer of Regulatory Oversight

Re: Chevron Station #9-3417  
32001 Camino Capistrano  
San Juan Capistrano, California  
OCHCA Case #89UT027

Dear Ms. Molla:

Per an agreement with the State Water Resources Control Board (SWRCB), the Orange County Health Care Agency (OCHCA) manages a Local Oversight Program (LOP) under contract to oversee the assessment and remediation of petroleum releases from underground storage tank systems. Our contract with the SWRCB requires that we seek and follow technical and enforcement guidance from the appropriate Regional Water Quality Control Board for each of our cleanup sites. Furthermore the contract allows us, upon mutual agreement, to transfer lead status of a site to the Regional Water Quality Control Board.

Following a recent meeting with the San Diego Regional Water Quality Control Board (SDRWQCB), there was mutual agreement to transfer oversight responsibilities to the RWQCB for the above referenced case. This transfer is intended to provide a single source of regulatory direction for this project, which is considered a high-priority case due to its impact to at least one large system public drinking water supply well. The OCHCA appreciates the efforts that Chevron has made during the last two years to investigate and address the contamination from the underground storage tanks at the subject site. The extent of the contamination, the number of adjacent property owners involved in the investigation, and coordination with the City of San Juan Capistrano, have posed significant challenges to Chevron and its consultants.

Effective June 4, 2009, the OCHCA will no longer oversee the assessment and cleanup of contaminated soil and groundwater at this site. The SDRWQCB will receive copies of the case

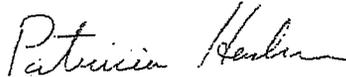
Natasha Molla  
May 28, 2009  
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records for this site and will assume lead regulatory responsibility for this case. All future workplans and reports should be sent to the SDRWQCB. Please direct all correspondence to:

Craig Carlisle, Senior Engineering Geologist  
San Diego Regional Water Quality Control Board  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123-4340  
(858) 637-7119

If you have any questions, please contact me at (714) 433-6011.

Sincerely,



Patricia Henshaw, REHS, MPA  
Program Manager  
Hazardous Materials Mitigation Section  
Environmental Health

Cc: Craig Carlisle, San Diego Regional Water Quality Control Board  
George Lockwood, State Water Resources Control Board  
Steven H. Edelman, Holguin Fahan and Associates  
Richard Sanchez, Orange County Environmental Health

**From:** Barry Pulver  
**To:** Edelman, Steve  
**CC:** Carlisle, Craig; Fraim, Jack; Kosiarek, Karen; Molla, Natasha; Sande...  
**Date:** 6/30/2009 3:35 PM  
**Subject:** Conditional Concurrence for Work Plan for Aquifer Test

Steve,

I have reviewed the "Work Plan For Pumping Test for Chevron Products Company Service Station #9-3417". I concur with the work proposed provided that the following comments are incorporated into the work. If you have any questions regarding the comments we can discuss them tomorrow during our on-site meeting.

1. Please be advised that based on the results of the aquifer test additional treatment barriers may be needed.
2. The wells should be properly developed prior to conducting the aquifer test.
3. In order to obtain additional information of the potential effectiveness of the barrier well system, prior to conducting the aquifer test, one well per well set should be sampled and the collected samples analyzed for the chemicals of concern. At the conclusion of the first constant rate aquifer test per well set a groundwater sample should be collected from the pumping well and analyzed for the chemicals of concern.
4. The Work Plan states that the wells installed for the aquifer test may be used as extraction wells. An analysis should be made to determine whether the proposed well construction (0.02 inch slots) will be adequate for use as an extraction well.
5. The work plan is silent on the need to obtain well installation permits for the six proposed wells. Please ensure that all appropriate well installation permits are obtained prior to installation of the wells.
6. Because the proposed observation wells will be very close to the extraction well (as close as 13 feet and as far as only 23 feet away) consider monitoring additional wells for groundwater drawdown during the aquifer test. If access is available consider using well clusters MW-13 and MW-14. Also, when conducting the aquifer test on the western well set consider using the eastern well set as observation wells and visa versa.
7. The Work Plan states that "the duration of the test will be least 4 hours and **may** be continued to obtain sufficient drawdown in the observation wells for meaningful data analysis." Please be advised that the test **must** continue until sufficient drawdown is measured in the observation wells to conduct a meaningful analysis.
8. The Work Plan states that at the end of the pumping test the pump will be withdrawal and a recovery test conducted. Will the removal of the pump act as a slug withdrawal and the recovery data be a combination of recovery due to the caseation of pumping and recovery due to the slug withdrawal?
7. If additional observations wells, as suggested in comment 6, are used consider doing distance-drawdown analysis in addition to the time-drawdown analysis as stated in the work plan.
8. Consider performing a groundwater model using the aquifer characteristic obtained from the aquifer tests to assist in the design of the extraction barrier system.
9. The data obtained from the aquifer test may allow the development of a proposed extraction system

rather than the conceptual design proposed in the work plan.

Regards,

Barry Pulver

Barry S. Pulver, PG 4236, CEG 1364, CHG 696  
Engineering Geologist  
Ground Water Basins Branch  
California Regional Water Quality Control Board  
San Diego Region  
858.467.2733  
[bpulver@waterboards.ca.gov](mailto:bpulver@waterboards.ca.gov)

>>> Steve Edelman <[steve\\_edelman@hfa.com](mailto:steve_edelman@hfa.com)> 6/30/2009 10:32 AM >>>

Hi Barry,

As we discussed, please find attached the work plan for conducting pumping tests at site 93417. The objective of this pilot testing is to obtain design parameters for a downgradient pump-and-treat system. Paper copy to follow and it is also on GeoTracker. This testing is on the critical path to the CAP, so your timely response would be appreciated.

Thank you,

Steven Edelman, Vice President of Technical Services  
Holguin, Fahan & Associates, Inc.  
1000 New York Street, Suite 101  
Redlands, California 92374  
Office: 909.793.4571 ext. 201  
Fax: 909.798.7146  
Cell 805.294.3633  
[Steve\\_Edelman@hfa.com](mailto:Steve_Edelman@hfa.com)  
[www.hfa.com](http://www.hfa.com)

1994 WL 1892115 (Cal.St.Wat.Res.Bd.)

State Water Resources Control Board  
State of California  
Division of Water Rights

\*1 POLICIES AND PROCEDURES FOR INVESTIGATION AND CLEANUP AND ABATEMENT OF DIS-  
CHARGES UNDER WATER CODE SECTION 13304

Resolution No. 92-49

April 21, 1994

October 2, 1996

WHEREAS:

1. California Water Code (WC) Section 13001 provides that it is the intent of the Legislature that the State Water Resources Control Board (State Water Board) and each Regional Water Quality Control Board (Regional Water Board) shall be the principal state agencies with primary responsibility for the coordination and control of water quality. The State and Regional Water Boards shall conform to and implement the policies of the Porter-Cologne Water Quality Control Act (Division 7, commencing with WC Section 13000) and shall coordinate their respective activities so as to achieve a unified and effective water quality control program in the state;
2. WC Section 13140 provides that the State Water Board shall formulate and adopt State Policy for Water Quality Control;
3. WC Section 13240 provides that Water Quality Control Plans shall conform to any State Policy for Water Quality Control;
4. WC Section 13304 requires that any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the State Water Board, or who has caused or permitted, causes or permits, or threatens to cause or permit any 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 may be required to clean up the discharge and abate the effects thereof. This section authorizes Regional Water Boards to require complete cleanup of all waste discharged and restoration of affected water to background conditions (i.e., the water quality that existed before the discharge). The term waste discharge requirements includes those which implement the National Pollutant Discharge Elimination System;
5. WC Section 13307 provides that the State Water Board shall establish policies and procedures that its representatives and the representatives of the Regional Water Boards shall follow for the oversight of investigations and cleanup and abatement activities resulting from discharges of hazardous substances, including:
  - a. The procedures the State Water Board and the Regional Water Boards will follow in making decisions as to when a person may be required to undertake an investigation to determine if an unauthorized hazardous substance discharge has occurred;

**EXHIBIT 32**

b. Policies for carrying out a phased, step-by-step investigation to determine the nature and extent of possible soil and ground water contamination or pollution at a site;

c. Procedures for identifying and utilizing the most cost-effective methods for detecting contamination or pollution and cleaning up or abating the effects of contamination or pollution;

d. Policies for determining reasonable schedules for investigation and cleanup, abatement, or other remedial action at a site. The policies shall recognize the danger to public health and the waters of the state posed by an unauthorized discharge and the need to mitigate those dangers while at the same time taking into account, to the extent possible, the resources, both financial and technical, available to the person responsible for the discharge;

\*2 6. "Waters of the state" include both ground water and surface water;

7. Regardless of the type of discharge, procedures and policies applicable to investigations, and cleanup and abatement activities are similar. It is in the best interest of the people of the state for the State Water Board to provide consistent guidance for Regional Water Boards to apply to investigation, and cleanup and abatement;

8. WC Section 13260 requires any person discharging or proposing to discharge waste that could affect waters of the state, or proposing to change the character, location, or volume of a discharge to file a report with and receive requirements from the Regional Water Board;

9. WC Section 13267 provides that the Regional Water Board may require dischargers, past dischargers, or suspected dischargers to furnish those technical or monitoring reports as the Regional Water Board may specify, provided that the burden, including costs, of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports;

10. WC Section 13300 states that the Regional Water Board may require a discharger to submit a time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements prescribed by the Regional Water Board or the State Water Board;

11. California Health and Safety Code (HSC) Section 25356.1 requires the Department of Toxic Substances Control (DTSC) or, if appropriate, the Regional Water Board to prepare or approve remedial action plans for sites where hazardous substances were released to the environment if the sites have been listed pursuant to HSC Section 25356 (state "Superfund" priority list for cleanup of sites);

12. Coordination with the U.S. Environmental Protection Agency (USEPA), state agencies within the California Environmental Protection Agency (Cal/EPA) (e.g., DTSC, Air Resources Control Board), air pollution control districts, local environmental health agencies, and other responsible federal, state, and local agencies: (1) promotes effective protection of water quality, human health, and the environment and (2) is in the best interest of the people of the state. The principles of coordination are embodied in many statutes, regulations, and interagency memoranda of understanding (MOU) or agreement which affect the State and Regional Water Boards and these agencies;

13. In order to clean up and abate the effects of a discharge or threat of a discharge, a discharger may be required to perform an investigation to define the nature and extent of the discharge or threatened discharge and to develop appropriate cleanup and abatement measures;

14. Investigations that were not properly planned have resulted in increases in overall costs and, in some cases, environmental damage. Overall costs have increased when original corrective actions were later found to have had no

positive effect or to have exacerbated the pollution. Environmental damage may increase when a poorly conceived investigation or cleanup and abatement program allows pollutants to spread to previously unaffected waters of the state;

\*3-15. A phased approach to site investigation should facilitate adequate delineation of the nature and extent of the pollution, and may reduce overall costs and environmental damage, because: (1) investigations inherently build on information previously gained; (2) often data are dependent on seasonal and other temporal variations; and (3) adverse consequences of greater cost or increased environmental damage can result from improperly planned investigations and the lack of consultation and coordination with the Regional Water Board. However, there are circumstances under which a phased, iterative approach may not be necessary to protect water quality, and there are other circumstances under which phases may need to be compressed or combined to expedite cleanup and abatement;

16. Preparation of written workplans prior to initiation of significant elements or phases of investigation, and cleanup and abatement generally saves Regional Water Board and discharger resources. Results are superior, and the overall cost-effectiveness is enhanced;

17. Discharger reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of registered professionals;

18. WC Section 13360 prohibits the Regional Water Boards from specifying, but not from suggesting, methods that a discharger may use to achieve compliance with requirements or orders. It is the responsibility of the discharger to propose methods for Regional Water Board review and concurrence to achieve compliance with requirements or orders;

19. The USEPA, California state agencies, the American Society for Testing and Materials, and similar organizations have developed or identified methods successful in particular applications. Reliance on established, appropriate methods can reduce costs of investigation, and cleanup and abatement;

20. The basis for Regional Water Board decisions regarding investigation, and cleanup and abatement includes: (1) site-specific characteristics; (2) applicable state and federal statutes and regulations; (3) applicable water quality control plans adopted by the State Water Board and Regional Water Boards, including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board and Regional Water Board policies, including State Water Board Resolutions No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and No. 88-63 (Sources of Drinking Water); and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies;

21. Discharges subject to WC Section 13304 may include discharges of waste to land; such discharges may cause, or threaten to cause, conditions of soil or water pollution or nuisance that are analogous to conditions associated with migration of waste or fluid from a waste management unit;

\*4 22. The State Water Board has adopted regulations governing discharges of waste to land (California Code of Regulations (CCR), Title 23, Division 3, Chapter 15);

23. State Water Board regulations governing site investigation and corrective action at underground storage tank unauthorized release sites are found in 23 CCR Division 3, Chapter 16, in particular Article 11 commencing with Section 2720;

24. It is the responsibility of the Regional Water Board to make decisions regarding cleanup and abatement goals and objectives for the protection of water quality and the beneficial uses of waters of the state within each Region;
25. Cleanup and abatement alternatives that entail discharge of residual wastes to waters of the state, discharges to regulated waste management units, or leaving wastes in place, create additional regulatory constraints and long-term liability, which must be considered in any evaluation of cost-effectiveness;
26. It is not the intent of the State or Regional Water Boards to allow dischargers, whose actions have caused, permitted, or threaten to cause or permit conditions of pollution, to avoid responsibilities for cleanup. However, in some cases, attainment of applicable water quality objectives for ground water cannot reasonably be achieved. In these cases, the State Water Board determines that establishment of a containment zone is appropriate and consistent with the maximum benefit to the people of the State if applicable requirements contained in the Policy are satisfied. The establishment of a containment zone does not limit or supersede obligations or liabilities that may arise under other laws;
27. The Porter-Cologne Water Quality Control Act allows Regional Water Boards to impose more stringent requirements on discharges of waste than any statewide requirements promulgated by the State Water Board (e.g., in this Policy) or than water quality objectives established in statewide or regional water quality control plans as needed to protect water quality and to reflect regional and site-specific conditions; and
28. Pursuant to Section 13320 of the Water Code, aggrieved persons may petition the State Water Board to review any decisions made under this policy.

THEREFORE BE IT RESOLVED:

These policies and procedures apply to all investigations, and cleanup and abatement activities, for all types of discharges subject to Section 13304 of the WC.

I. The Regional Water Board shall apply the following procedures in determining whether a person shall be required to investigate a discharge under WC Section 13267, or to clean up waste and abate the effects of a discharge or a threat of a discharge under WC Section 13304. The Regional Water Board shall:

A. Use any relevant evidence, whether direct or circumstantial, including, but not limited to, evidence in the following categories:

1. Documentation of historical or current activities, waste characteristics, chemical use, storage or disposal information, as documented by public records, responses to questionnaires, or other sources of information;
- \*5 2. Site characteristics and location in relation to other potential sources of a discharge;
3. Hydrologic and hydrogeologic information, such as differences in upgradient and downgradient water quality;
4. Industry-wide operational practices that historically have led to discharges, such as leakage of pollutants from wastewater collection and conveyance systems, sumps, storage tanks, landfills, and clarifiers;
5. Evidence of poor management of materials or wastes, such as improper storage practices or inability to reconcile inventories;
6. Lack of documentation of responsible management of materials or wastes, such as lack of manifests or lack of

documentation of proper disposal;

7. Physical evidence, such as analytical data, soil or pavement staining, distressed vegetation, or unusual odor or appearance;

8. Reports and complaints;

9. Other agencies' records of possible or known discharge; and

10. Refusal or failure to respond to Regional Water Board inquiries;

B. Make a reasonable effort to identify the dischargers associated with the discharge. It is not necessary to identify all dischargers for the Regional Water Board to proceed with requirements for a discharger to investigate and clean up;

C. Require one or more persons identified as a discharger associated with a discharge or threatened discharge subject to WC Section 13304 to undertake an investigation, based on findings of I.A and I.B above;

D. Notify appropriate federal, state, and local agencies regarding discharges subject to WC Section 13304 and coordinate with these agencies on investigation, and cleanup and abatement activities.

II. The Regional Water Board shall apply the following policies in overseeing: (a) investigations to determine the nature and horizontal and vertical extent of a discharge and (b) appropriate cleanup and abatement measures.

A. The Regional Water Board shall:

1. Require the discharger to conduct investigation, and cleanup and abatement, in a progressive sequence ordinarily consisting of the following phases, provided that the sequence shall be adjusted to accommodate site-specific circumstances, if necessary:

a. Preliminary site assessment (to confirm the discharge and the identity of the dischargers; to identify affected or threatened waters of the state and their beneficial uses; and to develop preliminary information on the nature, and vertical and horizontal extent, of the discharge);

b. Soil and water investigation (to determine the source, nature and extent of the discharge with sufficient detail to provide the basis for decisions regarding subsequent cleanup and abatement actions, if any are determined by the Regional Water Board to be necessary);

c. Proposal and selection of cleanup and abatement action (to evaluate feasible and effective cleanup and abatement actions, and to develop preferred cleanup and abatement alternatives);

d. Implementation of cleanup and abatement action (to implement the selected alternative, and to monitor in order to verify progress);

\*6 e. Monitoring (to confirm short-and long-term effectiveness of cleanup and abatement);

2. Consider, where necessary to protect water quality, approval of plans for investigation, or cleanup and abatement, that proceed concurrently rather than sequentially, provided that overall cleanup and abatement goals and objectives are not compromised, under the following conditions:

- a. Emergency situations involving acute pollution or contamination affecting present uses of waters of the state;
  - b. Imminent threat of pollution;
  - c. Protracted investigations resulting in unreasonable delay of cleanup and abatement; or
  - d. Discharges of limited extent which can be effectively investigated and cleaned up within a short time;
3. Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge;
  4. Where necessary to protect water quality, name other persons as dischargers, to the extent permitted by law;
  5. Require the discharger to submit written workplans for elements and phases of the investigation, and cleanup and abatement, whenever practicable;
  6. Review and concur with adequate workplans prior to initiation of investigations, to the extent practicable. The Regional Water Board may give verbal concurrence for investigations to proceed, with written follow-up. An adequate workplan should include or reference, at least, a comprehensive description of proposed investigative, cleanup, and abatement activities, a sampling and analysis plan, a quality assurance project plan, a health and safety plan, and a commitment to implement the workplan;
  7. Require the discharger to submit reports on results of all phases of investigations, and cleanup and abatement actions, regardless of degree of oversight by the Regional Water Board;
  8. Require the discharger to provide documentation that plans and reports are prepared by professionals qualified to prepare such reports, and that each component of investigative and cleanup and abatement actions is conducted under the direction of appropriately qualified professionals. A statement of qualifications of the responsible lead professionals shall be included in all plans and reports submitted by the discharger;
  9. Prescribe cleanup levels which are consistent with appropriate levels set by the Regional Water Board for analogous discharges that involve similar wastes, site characteristics, and water quality considerations;
- B. The Regional Water Board may identify investigative and cleanup and abatement activities that the discharger could undertake without Regional Water Board oversight, provided that these investigations and cleanup and abatement activities shall be consistent with the policies and procedures established herein.
- III. The Regional Water Board shall implement the following procedures to ensure that dischargers shall have the opportunity to select cost-effective methods for detecting discharges or threatened discharges and methods for cleaning up or abating the effects thereof. The Regional Water Board shall:
- \*7 A. Concur with any investigative and cleanup and abatement proposal which the discharger demonstrates and the Regional Water Board finds to have a substantial likelihood to achieve compliance, within a reasonable time frame, with cleanup goals and objectives that implement the applicable Water Quality Control Plans and Policies adopted by the State Water Board and Regional Water Boards, and which implement permanent cleanup and abatement solutions which do not require ongoing maintenance, wherever feasible;
- B. Consider whether the burden, including costs, of reports required of the discharger during the investigation and

cleanup and abatement of a discharge bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports;

C. Require the discharger to consider the effectiveness, feasibility, and relative costs of applicable alternative methods for investigation, and cleanup and abatement. Such comparison may rely on previous analysis of analogous sites, and shall include supporting rationale for the selected methods;

D. Ensure that the discharger is aware of and considers techniques which provide a cost-effective basis for initial assessment of a discharge.

1. The following techniques may be applicable:

a. Use of available current and historical photographs and site records to focus investigative activities on locations and wastes or materials handled at the site;

b. Soil gas surveys;

c. Shallow geophysical surveys;

d. Remote sensing techniques;

2. The above techniques are in addition to the standard site assessment techniques, which include:

a. Inventory and sampling and analysis of materials or wastes;

b. Sampling and analysis of surface water;

c. Sampling and analysis of sediment and aquatic biota;

d. Sampling and analysis of ground water;

e. Sampling and analysis of soil and soil pore moisture;

f. Hydrogeologic investigation;

E. Ensure that the discharger is aware of and considers the following cleanup and abatement methods or combinations thereof, to the extent that they may be applicable to the discharge or threat thereof:

1. Source removal and/or isolation;

2. In-place treatment of soil or water:

a. Bioremediation;

b. Aeration;

c. Fixation;

3. Excavation or extraction of soil, water, or gas for on-site or off-site treatment by the following techniques:

a. Bioremediation;

b. Thermal destruction;

c. Aeration;

d. Sorption;

e. Precipitation, flocculation, and sedimentation;

f. Filtration;

g. Fixation;

h. Evaporation;

4. Excavation or extraction of soil, water, or gas for appropriate recycling, re-use, or disposal;

F. Require actions for cleanup and abatement to:

1. Conform to the provisions of Resolution No. 68-16 of the State Water Board, and the Water Quality Control Plans of the State and Regional Water Boards, provided that under no circumstances shall these provisions be interpreted to require cleanup and abatement which achieves water quality conditions that are better than background conditions;

\*8 2. Implement the provisions of Chapter 15 that are applicable to cleanup and abatement, as follows:

a. If cleanup and abatement involves corrective action at a waste management unit regulated by waste discharge requirements issued under Chapter 15, the Regional Water Board shall implement the provisions of that chapter;

b. If cleanup and abatement involves removal of waste from the immediate place of release and discharge of the waste to land for treatment, storage, or disposal, the Regional Water Board shall regulate the discharge of the waste through waste discharge requirements issued under Chapter 15, provided that the Regional Water Board may waive waste discharge requirements under WC Section 13269 if the waiver is not against the public interest (e.g., if the discharge is for short-term treatment or storage, and if the temporary waste management unit is equipped with features that will ensure full and complete containment of the waste for the treatment or storage period); and

c. If cleanup and abatement involves actions other than removal of the waste, such as containment of waste in soil or ground water by physical or hydrological barriers to migration (natural or engineered), or in-situ treatment (e.g., chemical or thermal fixation, or bioremediation), the Regional Water Board shall apply the applicable provisions of Chapter 15, to the extent that it is technologically and economically feasible to do so; and

3. Implement the applicable provisions of Chapter 16 for investigations and cleanup and abatement of discharges of hazardous substances from underground storage tanks;

G. Ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes

attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible; in approving any alternative cleanup levels less stringent than background, apply Section 2550.4 of Chapter 15, or, for cleanup and abatement associated with underground storage tanks, apply Section 2725 of Chapter 16, provided that the Regional Water Board considers the conditions set forth in Section 2550.4 of Chapter 15 in setting alternative cleanup levels pursuant to Section 2725 of Chapter 16; any such alternative cleanup level shall:

1. Be consistent with maximum benefit to the people of the state;
2. Not unreasonably affect present and anticipated beneficial use of such water; and
3. Not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Water Boards; and

H. Consider the designation of containment zones notwithstanding any other provision of this or other policies or regulations which require cleanup to water quality objectives. A containment zone is defined as a specific portion of a water bearing unit where the Regional Water Board finds, pursuant to Section III.H. of this policy, it is unreasonable to remediate to the level that achieves water quality objectives. The discharger is required to take all actions necessary to prevent the migration of pollutants beyond the boundaries of the containment zone in concentrations which exceed water quality objectives. The discharger must verify containment with an approved monitoring program and must provide reasonable mitigation measures to compensate for any significant adverse environmental impacts attributable to the discharge. Examples of sites which may qualify for containment zone designation include, but are not limited to, sites where either strong sorption of pollutants on soils, pollutant entrapment (e.g. dense non-aqueous phase liquids [DNAPLS]), or complex geology due to heterogeneity or fractures indicate that cleanup to applicable water quality objectives cannot reasonably be achieved. In establishing a containment zone, the following procedures, conditions, and restrictions must be met:

\*9 1. The Regional Water Board shall determine whether water quality objectives can reasonably be achieved within a reasonable period by considering what is technologically and economically feasible and shall take into account environmental characteristics of the hydrogeologic unit under consideration and the degree of impact of any remaining pollutants pursuant to Section III.H.3. The Regional Water Board shall evaluate information provided by the discharger and any other information available to it:

a. Technological feasibility is determined by assessing available technologies, which have been 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;

b. 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;

c. The Regional Water Board may make determinations of technological or economic infeasibility after a discharger either implements a cleanup program pursuant to III.G. which cannot reasonably attain cleanup objectives, or demonstrates that it is unreasonable to cleanup to water quality objectives, and may make determinations on the basis of projection, modeling, or other analysis of site-specific data without necessarily requiring that remedial measures be first constructed or installed and operated and their performance reviewed over time unless such projection, model-

ing, or other analysis is insufficient or inadequate to make such determinations;

2. The following conditions shall be met for all containment zone designations:

a. The discharger or a group of dischargers is responsible for submitting an application for designation of a containment zone. Where the application does not have sufficient information for the Regional Water Board to make the requisite findings, the Regional Water Board shall request the discharger(s) to develop and submit the necessary information. Information requirements are listed in the Appendix to this section;

b. Containment and storage vessels that have caused, are causing, or are likely to cause ground water degradation must be removed or repaired, or closed in accordance with applicable regulations. Floating free product must be removed to the extent practicable. If necessary, as determined by the Regional Water Board, to prevent further water degradation, other sources (e.g., soils, nonfloating free product) must be either removed, isolated, or managed. The significance and approach to be taken regarding these sources must be addressed in the management plan developed under H.2.d.;

\*10 c. Where reasonable, removal of pollutant mass from ground water within the containment zone may be required, if it will significantly reduce the concentration of pollutants within the containment zone, the volume of the containment zone, or the level of maintenance required for containment. The degree of removal which may be required will be determined by the Regional Water Board in the process of evaluating the proposal for designation of a containment zone. The determination of the extent of mass removal required will include consideration of the incremental cost of mass removal, the incremental benefit of mass removal, and the availability of funds to implement the provisions in the management plan for as long as water quality objectives are exceeded within the containment zone;

d. The discharger or a group of dischargers must propose and agree to implement a management plan to assess, cleanup, abate, manage, monitor, and mitigate the remaining significant human health, water quality, and environmental impacts to the satisfaction of the Regional Water Board. Impacts will be evaluated in accordance with Section III.H.3. The management plan may include management measures, such as land use controls,<sup>[FN1]</sup> engineering controls,<sup>[FN2]</sup> and agreements with other landowners or agreements with the landlord or lessor where the discharger is a tenant or lessee.<sup>[FN3]</sup> The contents of the management plan shall be dependent upon the specific characteristics of the proposed containment zone and must include a requirement that the Regional Water Board be notified of any transfer of affected property to a new owner(s);

e. The proposed management plan must provide reasonable mitigation measures to substantially lessen or avoid any significant adverse environmental impacts attributable to the discharge. At a minimum, the plan must provide for control of pollutants within the containment zone such that water quality objectives are not exceeded outside the containment zone as a result of the discharge. The plan must also provide, if appropriate, for equivalent alternative water supplies, reimbursement for increased water treatment costs to affected users, and increased costs associated with well modifications. Additional mitigation measures may be proposed by the discharger based on the specific characteristics of the proposed containment zone. Such measures must assist in water quality improvement efforts within the ground water basin and may include participating in regional ground water monitoring, contributing to ground water basin cleanup or management programs, or contributing to research projects which are publicly accessible (i.e., not protected by patents and licenses) and aimed at developing remedial technologies that would be used in the ground water basin. Proposals for off-site cleanup projects may be considered by the Regional Water Board as a mitigation measure under the following criteria:

1. Off-site cleanup projects must be located in the same ground water basin as the proposed containment zone, and

\*11 2. Implementation of an off-site project must result in an improvement in the basin's water quality or protect the

basin's water quality from pollution, and

3. Off-site projects must include source removal or other elements for which water quality benefits or water quality protection can be easily demonstrated, and

4. Off-site projects may be proposed independently by the discharger or taken from projects identified as acceptable by the Regional Water Board through a clearinghouse process, or

5. In lieu of choosing to finance a specific off-site project, the discharger may contribute moneys to the SWRCB's Cleanup and Abatement Account (Account) or other funding source. Use of such contributions to the Account or other source will be limited to cleanup projects or water quality protection projects for the basin in which the containment zone is designated.

Contributions are not to exceed ten percent of the savings in continued active remediation that discharger will accrue over a ten-year period due to designation of a containment zone (less any additional costs of containment zone designation during this period, e.g., additional monitoring requirements, Regional Water Board application costs, etc.). Contributions of less than ten percent must be accompanied by a detailed justification as to why a lesser contribution would provide adequate mitigation.

Except where prohibited by Federal law, Federal agencies may be required, based on specific site conditions, to implement mitigation measures;

f. The proposed management plan must include a detailed description of the proposed monitoring program, including the location and construction of monitoring points, a list of proposed monitoring parameters, a detailed description of sampling protocols, the monitoring frequency, and the reporting requirements and frequency. The monitoring points must be at or as close as reasonable to the boundary of the containment zone so as to clearly demonstrate containment such that water quality objectives outside the containment zone are not violated as the result of the discharge. Specific monitoring points must be defined on a case-by-case basis by determining what is necessary to demonstrate containment, horizontally and vertically. All technical or monitoring program requirements and requirements for access shall be designated pursuant to WC Section 13267. The monitoring program may be modified with the approval of the Regional Water Board's Executive Officer based on an evaluation of monitoring data;

g. The management plan must include a detailed description of the method to be used by the discharger to evaluate monitoring data and a specific protocol for actions to be taken in response to evidence that water quality objectives have been exceeded outside the containment zone as a result of the migration of pollutants from within the containment zone;

3. In order for a containment zone to be designated, it shall be limited in vertical and lateral extent; as protective as reasonably possible of human health and safety and the environment; and should not result in violation of water quality objectives outside the containment zone. The following factors must be considered by the Regional Water Board in making such findings:

\*12 a. The size of a containment zone shall be no larger than necessary based on the facts of the individual designation. In no event shall the size of a containment zone or the cumulative effect of containment zones cause a substantial decline in the overall yield, storage, or transport capacity of a ground water basin;

b. Evaluation of potentially significant impacts to water quality, human health, and the environment, shall take into consideration the following, as applicable to the specific factual situation:

1. The physical and chemical characteristics of the discharge, including its potential for migration;

2. The hydrogeological characteristics of the site and surrounding land;
  3. The quantity of ground water and surface water and the direction of ground water flow;
  4. The proximity and withdrawal rates of ground water users;
  5. The patterns of rainfall in the region and the proximity of the site to surface waters;
  6. The present and probable future uses of ground water and surface water in the area;
  7. The existing quality of ground water and surface water, including other sources of pollution and their cumulative impact on water quality;
  8. The potential for health impacts caused by human exposure to waste constituents;
  9. The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;
  10. The persistence and permanence of any potential adverse effects;
  11. Exposure to human or other biological receptors from the aggregate of hazardous constituents in the environment;
  12. The potential for the pollutants to attenuate or degrade and the nature of the breakdown products; and
  13. Potential adverse effects on approved local development plans, including plans approved by redevelopment agencies or the California Coastal Commission.
- c. No provision of this Policy shall be interpreted to allow exposure levels of constituents of concern that could have a significant adverse effect on human health or the environment;
- d. A containment zone shall not be designated in a critical recharge area. A critical recharge area is an artificial recharge area or an area determined by the Regional Water Board to be a critical recharge area after the consultation process required by Section III.H.9. Further, a containment zone shall not be designated if it would be inconsistent with a local ground water management plan developed pursuant to Part 2.75 of Division 6 of the WC (commencing at Section 10750) or other provisions of law or court order, judgment or decree;
4. After designation, no further action to reduce pollutant levels, beyond that which is specified in the management plan, will be required within a containment zone unless the Regional Water Board finds that the discharger(s) has failed to fully implement the required management plan or that violation of water quality objectives has occurred beyond the containment zone, as a result of migration of chemicals from inside the containment zone. If the required tasks contained in the approved management plan are not implemented, or appropriate access is not granted by the discharger to the Regional Water Board for purposes of compliance inspection, or violation of water quality objectives occurs outside the containment zone and that violation is attributable to the discharge in the containment zone, the Regional Water Board, after 45 days public notice, shall promptly revoke the zone's containment status and shall take appropriate enforcement action against the discharger;

\*13 5. The designation of a containment zone shall be accomplished through the adoption of a cleanup and abate-

ment order as authorized by WC Section 13304. The Regional Water Board shall make a finding of fact with regard to each of the conditions which serve as a prerequisite for containment zone designation in the cleanup and abatement order. All applicable criteria of Section III.H. must be met as a prerequisite to designation. The Regional Water Board may reject an application for designation of a containment zone for failure to meet any applicable criteria without having to make findings with regard to each prerequisite. Such orders shall be adopted by the Regional Water Boards themselves and not issued by the Executive Officers of the Regional Water Boards. These orders shall ensure compliance with all procedures, conditions, and restrictions set forth in Section III.H. As authorized by WC Section 13308, time schedules issued as part of the establishment of a containment zone may prescribe a civil penalty which shall become due if compliance is not achieved in accordance with that time schedule;

6. A containment zone shall be implemented only with the written agreement of all fee interest owners of the parcel(s) of property containing the containment zone. Exceptions may be allowed by the Regional Water Board where opposition is found to be unreasonable. In such cases, the Regional Water Board may use the authority of WC Section 13267 to assure access to property overlying the containment zone;

7. Local agencies which are supervising cleanup under contract with the State Water Board or by agreement with the Regional Water Board pursuant to provisions of the Underground Storage Tank Program may propose containment zones for consideration by the Regional Water Board. The local agency will forward its files and proposal to the Regional Water Board for consideration. Regional Water Boards shall use the same procedures, processes, public notice, and criteria that are noted elsewhere in this policy. Approval of Technical Impracticability Waivers by the Department of Toxic Substances Control or the United States Environmental Protection Agency under the requirements of the Federal Resource Conservation and Recovery Act or the Comprehensive Environmental Response, Compensation, and Liability Act are deemed to be equivalent to the actions outlined in Section H. of this Policy if :

a. the substantive provisions of Sections III.H.2.b., e., f., and g. are met;

b. interested parties described in III.H.8.a. are included in the public participation process; and

c. site information is forwarded from the approving agency to the Regional Water Board so that sites for which Technical Impracticability Waivers have been approved can be included in the master listings described in Section III.H.10.;

8. The Regional Water Board shall comply with the following public participation requirements, in addition to any other legal requirements for notice and public participation, prior to the designation of a containment zone:

\*14 a. Public notice of an intention to designate a containment zone shall be provided to all known interested persons, including the owner of the affected property(s), owners and residents of properties adjacent to the containment zone, and agencies identified in Section III.H.9, at least 45 days prior to the proposed designation of a containment zone;

b. Interested persons shall be given the opportunity to review the application, including the proposed management plan, and any other available materials and to comment on any proposed designation of a containment zone. These materials, which contain information upon which the proposed designation of a containment zone is based, must be available for review at least 45 days prior to the proposed designation of a containment zone;

c. The proposed designation of a containment zone shall be placed on the agenda for consideration at a Regional Water Board meeting;

9. At least 45 days prior to the proposed designation of a containment zone, the Regional Water Board shall invite a technical advisory committee to review any proposed designation and shall meet as a committee at the request of

any committee member. The committee or any committee member shall provide advice to the Regional Water Board as to the appropriateness of the requested designation and such designation will become part of the public record. No person or agency shall be made a member of the committee who is employed by or has a financial interest with the discharger seeking the designation. The following agencies shall be invited to participate in the advisory committee:

- a. The California Department of Toxic Substances Control;
- b. The California Department of Health Services, Drinking Water Branch;
- c. The California Department of Fish and Game;
- d. The local health authority;
- e. The local water purveyor, in the event ground water is used or planned to be used as a source of water supply;
- f. Any local ground water management agency including an appointed water master;
- g. The United States Environmental Protection Agency; and
- h. The California Coastal Commission if the site is located within the coastal zone of California.

10. The Regional Water Boards shall keep a master listing of all designated containment zones. The master listing shall describe the location and physical boundaries of the containment zone, the pollutants which exceed applicable water quality objectives, and any land use controls associated with the containment zone designation. The Regional Water Board shall forward the information on the master list to the State Water Board and to the local well permitting agency whenever a new containment zone is designated. The State Water Board will compile the lists from the Regional Water Boards into a comprehensive master list;

11. To assure consistency of application of this Policy, the State Water Board will designate a Containment Zone Review Committee consisting of staff from the State Water Board and each of the Regional Water Boards. This review committee shall meet quarterly for two years and review all designation actions taken. The committee shall review problems and issues and make recommendations for consistency and improved procedures. In any event the State Water Board shall review the containment zone issue not later than five years after the adoption of Section III.H... and periodically thereafter. Such review shall take place in a public proceeding;

\*15 12. In the event that a Regional Water Board finds that water quality objectives within the containment zone have been met, after public notice, the Regional Water Board will rescind the designation of the containment zone and issue a closure letter; and

13. The Regional Water Board's cost associated with review of applications for containment zone designation will be recoverable pursuant to Section 13304 of the Water Code, provided a separate source of funding has not been provided by the discharger.

14. Designation of a containment zone shall have no impact on a Regional Water Board's discretion to take appropriate enforcement actions except for the provisions of Section III.H.4.

IV. The Regional Water Board shall determine schedules for investigation, and cleanup and abatement, taking into account the following factors:

- A. The degree of threat or impact of the discharge on water quality and beneficial uses;
- B. The obligation to achieve timely compliance with cleanup and abatement goals and objectives that implement the applicable Water Quality Control Plans and Policies adopted by the State Water Board and Regional Water Boards;
- C. The financial and technical resources available to the discharger; and
- D. Minimizing the likelihood of imposing a burden on the people of the state with the expense of cleanup and abatement, where feasible.
- V. The State and Regional Water Boards shall develop an expedited technical conflict resolution process so when disagreements occur, a prompt appeal and resolution of the conflict is accomplished.

Appendix to Section III.H.

Application for a Containment Zone Designation

The discharger is responsible for submitting an application for designation of a containment zone. Supporting information which is readily available to the Regional Water Board and which would be cumbersome or costly to reproduce can be included in the application by reference. In order to facilitate the preparation of an acceptable application, the discharger may request that the Regional Water Board provide a preliminary review of a partial application. The partial application should be detailed enough to allow the Regional Water Board to determine if the site passes the threshold criteria for establishment of a containment zone (e.g., it is not reasonable to achieve water quality objectives at that site, plume management measures are likely to be effective, etc.). As appropriate, the application shall include:

- a) Background information (location, site history, regulatory history);
- b) Site characterization information, including a description of the nature and extent of the discharge. Hydrogeologic characterization must be adequate for making the determinations necessary for a containment zone designation;
- c) An inventory of all wells (including abandoned wells and exploratory boreholes) that could affect or be affected by the containment zone;
- d) A demonstration that it is not reasonable to achieve water quality objectives;
- \*16 e) A discussion of completed source removal and identification of any additional sources that will be addressed during implementation of the management plan;
- f) A discussion of the extent to which pollutant mass has been reduced in the aquifer and identification of any additional mass removal that will be addressed during implementation of the management plan;
- g) If necessary, information related to the availability of funds to implement the provisions of the management plan throughout the expected duration of the containment zone designation;
- h) The proposed boundaries for the proposed containment zone pursuant to Section III.H.3.a.;
- i) An evaluation of potential impacts to water quality, human health and the environment pursuant to Sections III.H.3.b. and c.;

- j) A statement that the discharger believes that the site is not located in a critical recharge area, as required by Section III.H.3.d.;
- k) Copies of maps and cross-sections that clearly show the boundaries of the proposed containment zone and that show the locations where land use restrictions will apply. Maps must include at least four points of reference near the map corners. Reference points must be identified by latitude and longitude (accurate to within 50 feet), as appropriate for possible inclusion in a geographic information system (GIS) database; and
- l) A management plan for review and approval. The management plan must contain provisions for:
- 1) source removal as appropriate;
  - 2) pollutant mass removal from the aquifer as appropriate;
  - 3) land use or engineering controls necessary to prevent the migration of pollution, including the proper abandonment of any wells within the vicinity of the containment zone that could provide a conduit for pollution migration beyond the containment zone boundary;
  - 4) land use or engineering controls necessary to prevent water quality impacts and risks to human health and the environment;
  - 5) mitigation measures, an implementation schedule for mitigation, and reporting requirements for compliance with mitigation measures;
  - 6) a detailed description of the proposed monitoring program;
  - 7) a detailed description of the method to be used by the discharger to evaluate monitoring data;
  - 8) a specific protocol for actions to be taken if there is evidence that water quality objectives have been exceeded outside the containment zone as a result of the migration of pollutants from within the containment zone;
  - 9) a detailed description of the frequency and content of reports to be submitted to the Regional Water Board;
  - 10) detailed procedures and designs for well maintenance, replacement and decommissioning;
  - 11) a protocol for submittal to and approval by the Executive Officer of minor modifications to the management plan as necessary to optimize monitoring and containment; and
  - 12) a description of file and database maintenance requirements.

FN1. For the purposes of this section, "land use controls" means recorded instruments, proposed by the discharger and agreed to by the owner of the affected property, restructuring the present and future uses of the affected property, including, but not limited to, recorded easements, covenants, restrictions or servitudes, or any combination thereof, as appropriate. Land use controls shall run with the land from the date of recordation, shall bind all of the owners of the land, and their heirs, successors, and assignees, and the agents, employees, and lessees of the owners, heirs, successors, and assignees. Such instruments shall provide for (a) amendment or rescission of the restriction upon application of the holder of fee interest in the property and upon the approval of the Regional Water Board if warranted by changed circumstances (e.g., new information demonstrates that a modification to land use restriction is appro-

priate, the containment zone designation has been rescinded because water quality objectives have been attained throughout the containment zone, etc.), and (b) except for the restriction contained in the instrument, the establishment of a containment zone shall not prohibit the full use of enjoyment of the property.

FN2. For the purposes of this section, "engineering controls" means measures to prevent migration of pollutants and to prevent, minimize or mitigate environmental damage which may otherwise result from a release of threatened release, including, but not limited to, caps, covers, dikes, trenches, leachate collection systems, treatment systems, and ground water containment systems or procedures and decommissioning of wells.

FN3. For the purposes of this section, these agreements could be formal, private agreements between parties related to the property use, existing or potential water use, etc.

#### ADDITIONAL INFORMATION RELATED TO ADOPTION OF CONTAINMENT ZONE POLICY

##### \*17 1. ADDITIONAL PROVISIONS OF RESOLUTION NO. 96-079

State Water Resources Control Board (SWRCB) Resolution No. 96-079, which adopted the Containment Zone Policy Amendment to Resolution No. 92-49, also:

- o Directs the Containment Zone Review Committee established pursuant to Section III.H.11. of the amendment to review the implementation of this policy and the incorporation of risk assessment into this policy and provide recommendations to the SWRCB by May 1, 1997, on any further adjustments to the policy.

- o Expands the Containment Zone Review Committee to include other public officials and private individuals as determined by the State Board.

##### 2. ANTICIPATED FUTURE MINOR CHANGES TO BE MADE TO CONTAINMENT ZONE PROVISIONS OF RESOLUTION NO. 92-49

On October 2, 1996, the SWRCB adopted Resolution No. 96-079 which amended SWRCB Resolution No. 92-49 to include provisions for a containment zone policy.

Pursuant to Government Code Section 11355, this amendment was submitted to the Office of Administrative Law (OAL) for review and approval. Staff of OAL approved this amendment on January 13, 1997 and brought to our attention two minor matters which need correction. In the first sentence of Section III.H.4., the word "pollutant" should be substituted for the word "chemical". In the second sentence of Section III.H.9. the word "advice" should be substituted for the word "designation".

These minor changes will be corrected the next time Resolution No. 92-49 is revised.

1994 WL 1892115 (Cal.St.Wat.Res.Bd.)  
END OF DOCUMENT

Jill C. Teraoka, Esq.  
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October 28, 2009

**Via E-mail and Federal Express**

Catherine Hagan, Esq. [chagan@waterboards.ca.gov]  
California Regional Water Quality Control Board, San Diego Region  
9174 Sky Park Court  
Suite 100  
San Diego, CA 92123-4353

**Re: Request for Evidentiary Hearing re Revised Cleanup and  
Abatement Order No. R9-2009-0124  
[T0605902379:bpulver]**

Dear Ms. Hagan:

Chevron U.S.A. Inc. ("Chevron") submits this request for a formal evidentiary hearing ("Request") before the California Regional Water Quality Control Board, San Diego Region ("Regional Board") to present and rebut evidence relating to the issuance of Revised Cleanup and Abatement Order No. R9-2009-0124 ("CAO") by the Regional Board on September 28, 2009. As you are aware, the CAO named Chevron and the City of San Juan Capistrano ("City") as Responsible Parties for the remediation of an MTBE plume downgradient from a Chevron gasoline service station using the City's Dance Hall Well and a groundwater treatment system to capture and treat the plume. Concurrent with this Request, Chevron has submitted to the State Water Resources Control Board a Petition for Review ("Petition"), Request for Stay, and Request for Abeyance, a copy of which is attached to this Request.

**A. Summary of Evidence and Arguments Chevron Intends to Present**

Chevron has several concerns regarding Directives B and D of the CAO and proposes to introduce evidence and testimony to assist in the resolution of these concerns. Chevron's concerns are as follows:

- The deadlines in Directive B for implementation of the wellhead treatment system described in the Interim Remedial Action Plan ("IRAP") are unreasonably short given the technical impossibility for Chevron to comply due to the City's failure to grant Chevron access to the Dance Hall Well. Such deadlines should be revised and conditioned upon the City's grant of access.

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**EXHIBIT 33**

- Given the City's history of blocking Chevron's access to the Dance Hall Well to implement the approved Interim Remedial Action Plan, Directive B should be revised to permit Chevron to implement an alternate remedial action in lieu of the wellhead treatment system.
- Since the City owns the Dance Hall Well, operates the Groundwater Recovery Plant ("GWRP"), and will operate the wellhead treatment system once it is installed as an integral part of the GWRP, Directive B should be revised to specify minimal operational requirements for the Dance Hall Well and treatment system to ensure the plume is timely remediated.
- Directive B should include a force majeure provision to address any future failure of the City to permit Chevron access to the Dance Hall Well.
- The deadline for submission of the operations and maintenance plan ("O&M Plan") in Directive B should be changed to 30 days after completion of the shakedown period for the wellhead treatment system, and Directive B should specify that it is the City's responsibility to submit the O&M Plan, as the City will be the operator of the system.
- Directive D, regarding the provision of and payment for replacement water, should be removed from the CAO because the water from the Dance Hall Well does not exceed the primary maximum contaminant level for MTBE and is safe for drinking.

These concerns are more fully briefed in the Petition attached to this Request, which includes additional supporting evidence.

**B. Request for Formal Evidentiary Hearing**

Chevron respectfully requests that the Regional Board issue a notice of hearing for a formal evidentiary hearing regarding the CAO. We anticipate the hearing notice to identify a date for the hearing, state the Regional Board's decision to hold a formal hearing, and specify the governing procedures.<sup>1</sup> Among the

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<sup>1</sup> The City submitted on October 5, 2009, and October 22, 2009 Petitions for Review (including a request to stay the Order and to hold the Petition in abeyance) and Requests for Evidentiary Hearing, and Chevron requests that Chevron's Request for an Evidentiary Hearing be considered at the same time as the City's Requests.

## **AGENDA REPORT**

October 28, 2008

**TO:** Water Advisory Commission  
**FROM:** John G. O'Donnell, Utilities Director  
**SUBJECT:** Consideration of Utilities Department Status Update for September 2008

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### **RECOMMENDATION:**

By motion, receive and file.

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### **ADMINISTRATION DIVISION:**

#### **Commission Name/Duties Update – Ordinance Update**

At the October 7, 2008, City Council meeting, the Ordinance updating the Commission's name and duties was approved with the addition of bullet item (h) under duties which states "representation on local and regional boards involving any of the above, as designated by the Council from time to time." Commission members are now attending local and regional meetings. Per Ordinance posting requirements, the Ordinance will have a second reading on October 21, 2008, and the Ordinance goes into effect 30 days later, on November 20, 2008. Also at their October 7th meeting, Council approved the department name change to "Utilities Department" rather than "Utility Department."

#### **Rate Study**

Late October, the City issued a "Request for Proposals" to professional services providers to perform a Rate Study for City utilities including water, recycled water, wastewater and storm water. Proposals are due November 10, 2008. Staff anticipates presenting the results of the proposals for Commission recommendation to the Council at the November 25, 2008, Commission meeting. It is staff's desire to have the rates approved for fiscal year 2008/09 commencing July 1, 2008.

#### **Water Conservation Ordinance Implementation**

The Water Conservation Ordinance took effect October 2, 2008. The educational phase of implementation is continuing. The "Residential Elements" brochure is being mailed with all water bills this month, and additional summaries are completed and being printed. These brochures summarize: landscape elements, commercial aspects, construction activities, and car washing. Commercial and landscape customers are receiving these by direct mail. All brochures will be available at public counters and on the City website.

**ITEM NO. 4**

**EXHIBIT 34**

### **Groundwater Recovery Plant (GWRP)**

#### ***Production:***

After a stutter start from September 5<sup>th</sup> to the 19<sup>th</sup>, the GWRP consistently produced water free of color from September 20<sup>th</sup> onward at a "half plant" daily production rate of 2.5 mgd. September total production was low, however, at 104 AF.

#### ***Plant Operations***

Commencing October 7<sup>th</sup>, the City has been working on a daily basis with Southwest Water in order to assume operations of the GWRP by October 31, 2008, at the end of the business day. Utility Operations and Engineering are assessing plant performance in an effort to produce an optimization plan. The City has hired a temporary Chief Plant Operator, West Curry, to assist in the transitioning of the operations.

#### **Colored Water Issues**

The water quality produced in September 2008 has higher than acceptable turbidity coming in at approximately 0.4 NTU vs. the 0.05 NTU required. The iron and manganese of the product water have met the Enhanced Standards. The TDS has marginally deviated from the Enhanced Standards coming in at 170, 400, 530, 544, 530, and 467 mg/l for the days sampled (TDS should be between 450 – 500 mg/l). The water is passing a white bucket test, and no customer complaints have been received.

#### **MTBE in Groundwater near the Kinoshita Well**

The work plan was completed by Haley & Aldrich Inc (H&A) and submitted to the Orange County Health Care Agency (OCHCA) on September 23, 2008. OCHCA will complete its review and send comments by October 23, 2008. The preliminary response by OCHCA has been that they will not add work items. OCHCA has reported that since the apparent source of the MTBE is an agricultural fuel storage tank this case falls under the OC-UST program. OCHCA has jurisdiction but no funding; ergo it will send invoices for staff time spent directly to the City. Proposals for execution of the work plan have been solicited to four firms – Haley and Aldrich, Ninyo & Moore, Environ Strategy; and Kennedy Jenks, with proposals due October 24, 2008. See related agenda item.

#### **Eastern Wells and Pipeline Project**

With the recent changes of the operation of the Groundwater Recovery Plant, the City will continue with the Eastern Wells project independently. Staff made a presentation of the Eastern Wells project during the September WAC meeting. On September 24, 2008, Staff received four proposals for design of the Eastern Wells and Pipelines Project (CIP #775). Close review of the proposals has concluded that AKM Consulting Engineers proposal best meets the needs and budget for the project. Staff will be going to City Council on November 4, 2008, for award of the agreement.

#### **Cooks Reservoir Replacement**

Cooks Reservoir is complete and in service. Staff took the Notice of Completion for the project to the October 21, 2008, City Council meeting. A presentation of the project will

Total Hours Available per month 1040	January		February		March		April		May		June	
	Tasks	Hours	Tasks	Hours	Tasks	Hours	Tasks	Hours	Tasks	Hours	Tasks	Hours
Mainline Leaks	1	280	2	20	5	293	2	112	2	51	3	184
Mainline Abandoned	0	0	0	0	0	0	0	0	0	0	0	0
Service Leaks	1	48	4	99	5	90	6	221	2	98	8	67
Services Replaced	0	0	4	44	2	42	4	106	1	10	0	0
Services Installed	0	0	0	0	0	0	2	102	0	0	0	0
Services Abandoned	0	0	0	0	0	0	1	18	0	0	0	0
Hydrants Installed	0	0	0	0	0	0	0	0	1	65	0	0
Hydrants Repaired	2	26	7	80	3	52	4	23	3	51	2	12
Hydrants Exercised /Flushed	7	5	0	0	43	54	0	0	1	2	0	0
Hydrants Replaced	0	0	1	18	0	0	2	36	0	0	1	29
Hydrants Reflectors Installed	0	0	0	0	0	0	0	0	0	0	0	0
Hydrants Painted	0	0	18	14	20	19	0	0	0	0	1	1
Valves Located	1	9	0	0	2	4	0	0	4	18	0	0
Valves Repaired	1	2	0	0	0	0	2	54	3	82	1	18
Valves Box Raised	0	0	0	0	0	0	0	0	5	23	1	3
Valves Replaced	1	40	0	0	0	0	0	0	0	0	0	0
Valves Installed	0	0	0	0	0	0	1	12	0	0	0	0
Valves Exercised	42	44	9	9	20	23	33	61	6	5	25	29
Meter Box Installation	4	10	6	32	3	4	0	0	2	4	6	32
Angle Stops replaced	1	21	6	89	2	26	2	21	2	28	4	60
Meter Install & Replace	6	24	3	13	6	38	7	58	9	16	2	5
Dead Ends Flushed	21	50	11	20	6	7	40	72	31	58	14	24
Inventory	0	0	0	0	0	0	0	0	0	0	6	116
Air Vacs Replaced	2	4	0	0	0	0	2	4	2	13	2	24
Air Vac Relocated	0	0	0	0	0	0	0	0	0	0	0	0
Main Line Shut Downs	7	0	5	0	10	0	14	0	5	0	13	0
Dump Runs	0	0	0	0	0	0	14	34	37	86	8	16
Air Vacs Installed	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Work Orders	23	63	15	49	2	42	20	43	10	22	14	22
Holidays	1	63	1	63	0	0	0	0	1	63	0	0
Sick Leave Hours	2	19	3	94	6	63	4	39	3	28	4	41
Vacation Hours	4	62	3	36	5	41	1	18	1	9	3	28
Administration Hours	7	101	4	131	1	70	1	83	3	120	3	131
Customer Service	2	6	3	5	2	13	4	11	2	15	2	3
Engineering Production	6	359	4	257	7	353	4	238	7	239	6	185
Building, Vehicles, Yard Maint	6	14	5	22	4	26	6	26	6	34	6	30
Safety Training	7	7	3	80	7	7	7	12	7	12	7	7
GWRP Flushing	6	30	0	0	0	0	0	0	0	0	0	0
	161	1,287	117	1,175	161	1,267	183	1,404	156	1,152	142	1,067

ATTACHMENT 2

Total Hours Available per month 1040	July		August		September	
	Tasks	Hours	Tasks	Hours	Tasks	Hours
Mainline Leaks	2	105	3	77	4	128
Mainline Abandoned	0	0	0	0	0	0
Service Leaks	6	124	11	212	5	99
Services Replaced	4	69	9	106	0	0
Services Installed	0	0	0	0	3	215
Services Abandoned	0	0	0	0	3	38
Hydrants Installed	1	9	0	0	0	0
Hydrants Repaired	8	176	3	43	3	24
Hydrants Exercised /Flushed	0	0	1	2	0	0
Hydrants Replaced	1	4	0	0	0	0
Hydrants Reflectors Installed	0	0	0	0	2	12
Hydrants Painted	12	7	0	0	0	0
Valves Located	0	0	4	2	0	0
Valves Repaired	1	5	0	0	0	0
Valves Box Raised	1	6	0	0	0	0
Valves Replaced	1	9	0	0	1	44
Valves Installed	1	9	0	0	0	0
Valves Exercised	17	41	34	43	44	62
Meter Box Installation	2	7	2	4	1	2
Angle Stops replaced	4	42	43	142	2	36
Meter Install & Replace	2	9	19	16	5	11
Dead Ends Flushed	0	0	0	0	0	0
Inventory	0	0	0	0	0	0
Air Vacs Replaced	0	0	1	2	1	2
Air Vac Relocated	0	0	0	0	0	0
Main Line Shut Downs	0	0	13	0	0	0
Dump Runs	0	0	12	40	9	22
Air Vacs Installed	0	0	1	2	0	0
Miscellaneous Work Orders	10	17	23	75	15	31
Holidays	0	0	0	0	1	63
Sick Leave Hours	4	130	1	9	3	40
Vacation Hours	5	171	3	45	4	45
Administration Hours	2	46	4	114	4	132
Customer Service	2	9	2	10	0	0
Engineering Production	4	237	7	290	6	207
Building, Vehicles, Yard Maint	5	19	6	39	6	40
Safety Training	18	32	7	17	7	7
GWRP Flushing	5	15	0	0	0	0
	118	1,298	209	1,290	129	1,260