2. Responses to Short Written Comments Received by EPA

The following written comments were received by EPA during the public comment period and are relatively short. It is therefore most efficient to respond to them in a single section. From certain other commenters, EPA received written comments of considerable length. For presentational clarity, EPA provided responses to these lengthy comments in the sections which follow this section, one section to each commenter.

John Joseph Carpenter, Jr. of Carson, CA

Comment:
My name is John J. Carpenter Jr. My academic background is in chemical and mechanical engineering. My interest is as a citizen of the area...Upon analysis of the presented data I feel that the plan presented on July 25, 1998 is ill contrived and doomed to failure. My thesis is based on the following:

- The study does not address the pCBSA plume and its effects.

✍7 **EPA Response:**

EPA's studies of the Montrose and Del Amo Sites have addressed pCBSA significantly in that (1) we are aware of the extent of pCBSA in the aquifer system, either to non-detect or in the case of the downgradient extent, to a concentration of about 200 parts per billion, and (2) the feasibility study thoroughly assessed technologies which would remove pCBSA from water and the costs for doing so, and (3) EPA's proposed plan does include actions for monitoring and for ensuring that groundwater contaminated by pCBSA is not consumed or used by people. Most importantly, EPA's proposal is protective of human health with respect to pCBSA as well as the other compounds in groundwater.

- The largest plume in the study is pCBSA and it was stated that no health and toxicological data exists for this material. Unless a risk can be factored in for this contaminant the overall risk is at this time unknown for the largest known contaminant plume.

✍8 EPA Response:

EPA did not state that there are *no* health and toxicological data for pCBSA. There are a limited number of studies, which if relied upon, would indicate a low toxicity for pCBSA, and indicator tests performed did not give indications of mutagenicity (causing mutations) or teratogenicity (causing birth defects) in laboratory animals. However, these studies were highly preliminary. The conclusions that can be drawn from these studies, and the number of studies, are insufficient for EPA to promulgate health-based standards for pCBSA. It is true that (1) the pCBSA distribution covers the largest area of any contaminant associated with the Joint Site and (2) the hypothetical risk should someone drink the pCBSA in the water is unknown in that it cannot be quantified. However, no one is drinking the water in the contaminated area. Therefore, while we have not set a cleanup number, EPA's groundwater remedy focuses on monitoring and ensuring that water from wells that are being used for drinking do not contain pCBSA.

- Why are there no defined data or health/toxicity figures available or proposed?

✍9 EPA Response:

Again, there are limited health data available, but they are not sufficient to allow EPA to determine health-based levels for pCBSA. Additional studies, especially chronic, or long-term, studies, will be needed to propose or set these values.

A refinement of your question would ask why these additional studies have not been or are not being done. The priorities for which toxicological studies are started and completed are not set directly by EPA's Superfund program but are set nationally by many organizations based on a wide number of factors. There are far more chemicals awaiting study nationally than can possibly be studied at any given time given resources available, both public and private. Hence, priorities for initiating studies are usually set higher for chemicals where (1) people are known to actually be consuming the chemical, and (2) preliminary studies have shown a high probability of toxicity, even if the toxicity is not yet quantified. There are many unstudied chemicals with these characteristics that take high priority for study. In the case of pCBSA, (1) no one is currently using the contaminated groundwater for drinking or other purposes, and (2) the preliminary and screening tests done on pCBSA would indicate a low toxicity. These two factors combine to place studies for pCBSA at a lower relative priority for initiation of studies. On the other hand, pCBSA would have a higher priority than chemicals that are not already present in the environment, as pCBSA is. EPA has informed the parties within EPA with influence on these priorities about the pCBSA at the Montrose and Del Amo Sites and has requested that studies be initiated when priorities will permit.

It is important to note that, once studies are performed which are sufficient to quantify the hypothetical risk from pCBSA if someone drank it, EPA will re-evaluate this remedy to determine whether it is still protective of human health and, if it is not, EPA will amend the remedy to make it protective. Such an amendment may include additional or different cleanup actions. Presently, however, such studies are not yet being performed for the reasons discussed above.

Comment:

There is a statement that pCBSA is associated with DDT production which conflicts with a statement that pCBSA is widely distributed. There were not a large number of DDT manufacturing facilities. Is this material being seen just a long-lived contaminant which was in DDT used for agricultural uses which is now "background noise" everywhere?

✍10 EPA Response:

pCBSA was in fact associated solely with DDT production which occurred solely at the Montrose Chemical plant. The reason that pCBSA is widely distributed in groundwater is not that it has come from a large number of sources. Rather, this is because pCBSA is highly soluble in water, especially when compared to the other major contaminants at the Joint Site such as chlorobenzene and benzene. In general, as groundwater moves, the chemicals that are most soluble in water will move the most readily (fastest) with the groundwater. The chemicals that are less soluble will move more slowly than chemicals of higher solubility. EPA believes that the chlorobenzene and the pCBSA arrived in the groundwater at about the same time and continued to arrive in groundwater together under the former Montrose plant during its operations. However, once in the groundwater, the pCBSA moved faster than the chlorobenzene; hence we see a larger distribution of the pCBSA in the groundwater.

As to your question about agricultural uses, please note that after 15 years of investigation, EPA does not have information indicating that pCBSA was present in the DDT product from the Montrose plant. However, during DDT production at the Montrose plant, liquid waste streams were formed which contained pCBSA, which subsequently entered the ground. The point of origin was the Montrose plant itself. There is no reason to believe that pCBSA entered groundwater via agricultural application of DDT.

Comment:

Has any of the studies considered the proximity of the pCBSA plume to Dominguez Water Company wells along Carson Street?

✍11 EPA Response:

EPA did a well survey and compared the location of the plume to all water supply wells in the area. Under this remedy, this survey will be updated periodically and all production wells which remain in use and are within range of the pCBSA plume will be required to be tested for pCBSA.

Comment:

This Plan is fatally flawed in that a commitment is being made to use current technology for the 50-year cleanup duration. This is my primary objection. Since it will take 25 years to effect approximately a 50 percent volume reduction, why is it not mandatory to re-open the case every 5 years to assure that the best, most cost-effective technology is being applied? Every month there are new environmental cleanup protocols developed and I feel technological options must be open ended.

✍12 EPA Response:

EPA is required to perform a review of the protectiveness of all Superfund cleanups where hazardous substances remain on site at least every five years. Such reviews may be performed more often as necessary or appropriate. However, such reviews do not involve a "reopening" of the remedy selection process except in certain conditions. You are right that technologies are continually emerging. However, while small-scale technological improvements can be incorporated into the design, it is not practical and would be cost-prohibitive to change the entire remedial approach and/or technology each time a "better" technology arises. Consider, for instance, EPA or responsible parties implementing a $40 million cleanup action, only to operate that action for 5 years before changing to an entirely different action, technology, and/or remedial approach. With such an approach, over the course of the remedy, the total cost could run into the many hundreds of millions, if not billions, of dollars. Also consider that each new technology requires a design phase and may also require negotiation of legal agreements, a process that can require 1-3 years. Given this, it is doubtful that any actual cleanup would take place before the "next" technology came along five years later.

EPA must therefore use a different standard for requiring that the remedy selection be reopened to consider new major technologies and/or remedial approaches. During the 5-year review, a determination is made as to whether the remedy remains effective and

protective of human health and the environment. If the remedy remains protective, then in general, EPA does not require that the remedy switch to "better" technologies which may have emerged in the interim. If the remedy does not remain protective of human health and the environment, EPA in most cases would reopen the remedy selection process to incorporate new technologies or actions as necessary to make the remedy protective.

Comment:

My third objection is to that of equipment, maintenance, and life. ...

Most of the "environmental" equipment I see at remediation sites is poorly constructed with no well thought-out engineering. It is just a bunch of pieces from catalogs connected together. Most of the systems for vapor extraction at gas stations are unreliable and do not work 25 percent of the time.

✍13 EPA Response:

EPA cannot comment on your previous experience with remedial systems nor the state of the engineering you have experienced. However, with respect to the remedy EPA is selecting for groundwater at the Joint Site, EPA will require a comprehensive design, subject to EPA approval, and that the design be performed to accomplish the goals and requirements of the remedial action both over the short and long-term. Operation and maintenance, including replacement of equipment, will be planned for and enforced. EPA will continue to oversee, or directly perform, all aspects of the execution of this remedial action so that the scenarios which you say you have experienced elsewhere will not occur here.

Comment:

Nowhere in the Plan do I see any provisions for an equipment life/replacement schedule. Since the duration of this project is a 50-year window, how have equipment lives been determined? Over 50 years in a refinery or chemical plant generally over 5 to 8 major change-outs of pumps and equipment are the norm.

✍14 EPA Response:

The proposed plan is by its nature a summary document designed to assist the reader in commenting on all of the studies and documents related to EPA's proposal. While it did not specifically reference equipment life/replacement times, such aspects have been accounted for in the Joint Groundwater Feasibility Study, where cost estimates and feasibility are evaluated. Also note that when EPA selects a remedy, it is not designing a

remedy. Remedial design occurs in a phase after remedy selection. Thus, while replacement times, schedules, and costs are estimated for feasibility study purposes, these things are determined in much more detail, and made enforceable, during the remedial design process after the selection of the remedy.

Comment:

The logical extension of [the above comments] are that the most effective way to consider this project would be to start it up for 10 years with the assumption that at the end of 7 years the technology would be assessed and that assessment would drive the equipment selection for the next 10-year increment. This is because the plant equipment life is probably only going to be 10-12 years.

✍15 EPA Response:

This comment was largely addressed above. However, we wish to point out a possible difference in the interpretation of the terms "equipment" and "technology" as you have used them in your comments. As you suggest, as equipment wears out, it will be replaced, and in a small-scale sense (for instance, this type of pump versus that type of pump, using this new type of sensor or alarm, incorporating a new manifold) improvements to the equipment and the design will be incorporated through time and over replacement lifetime cycles. In a large-scale sense however, the technologies used in the remedy and the approach to cleanup most-likely would not change unless the remedy were determined not to remain protective of human health and the environment.

Comment:

The second great flaw to this program is that there is no up-front attack on the high concentration NAPL zone. Due to concentration driving forces, the area of the NAPL plume with high concentrations should share an equal priority for cleanup. This material with high concentrations is the most easily treated. To recover 25 pounds of contaminant at 5 ppm concentration (weight), 25 million pounds of contaminated solution must be treated. Conversely, at a concentration of 0.01 percent by weight only 2500 lbs. Of contaminated NAPL would have to be handled. This consideration does not appear to have been made for prioritizing NAPL cleanup.

✍16 EPA Response:

EPA will respond to the concepts implied by your comment rather than whether the actual numerical values you have provided are correct. Your comment, while containing some correct assertions, reveals several misunderstandings. First, you are referring specifically to the efficiency of removing dissolved phase contaminants from water. However, you fail

to make a distinction between the water with high dissolved phase concentrations on the one hand, and NAPL, on the other. The two are not the same. NAPL by definition is not contamination in the dissolved phase; rather, it represents a separate phase (NAPL stands for Non-Aqueous Phase Liquid). In the absence of NAPL, you are correct that it can be more efficient, on the basis of pounds of contaminant removed per volume of water treated, to remove contaminants from water where the contaminant concentration is higher.

However, with a NAPL phase present, the NAPL continues to dissolve into the water surrounding it, which very effectively re-contaminates the water. Thus, despite efficiencies that might otherwise exist in trying to clean the water with high concentrations, the concentrations of the contaminants in the water in the immediate proximity to the NAPL will not be reduced regardless of how much one pumps and treats this surrounding water. Said another way, the pounds of contaminant removed per gallon of water removed might be substantial, but no cleanup of the water in the ground would be occurring for the effort!

Contrary to your statements, removing the NAPL itself from the ground is far more complicated than removing water, especially in cases where it is necessary to remove virtually all NAPL. NAPL recovery to such a degree is often exceedingly difficult and fraught with a host of technical complications not typically associated with simple pumping of water.

EPA has not placed NAPL recovery on a lower priority than cleanup of the dissolved phase. Rather, EPA will have a second phase of remedy selection to address whether and to what degree NAPL recovery will occur. It will take longer to complete the studies needed to select this portion of the remedy. In the meantime, however, EPA has determined that not enough of the NAPL can be removed to obtain drinking water standards in the water surrounding the NAPL. Therefore, EPA's approach is to isolate both the NAPL and the water surrounding it, and contain it. The water outside this containment area will then be cleaned up. However, it will not be possible to clean the groundwater in the areas near the NAPL which have the very highest contaminant concentrations. In summation, EPA is not failing to "attack" the NAPL at all; in fact addressing the NAPL is the primary prerequisite for this remedy and the basis of the second phase of the remedy to be selected later.

For the reasons discussed above, EPA does not agree that the remedy we have proposed is doomed or flawed as you have proposed. Rather, the remedy will be effective in cleaning up as much of the groundwater as we can, containing the portions of groundwater we cannot clean up, and protecting human health and the environment both in the short and the long term.

Clare F. Adams of Torrance, CA and

Joeann Valle, Harbor City/Harbor City Gateway

Chamber of Commerce

EPA is responding to these two commenters together as several of the comments they presented are related. EPA has noted the actual commenter associated with a given comment.

Comment [Clare F. Adams]:

I am writing you concerning the Remedy Proposed Plan for the Dual Site referred to as Montrose and Del Amo Superfund Sites for the clean up of the water table.

✍17 EPA Clarification:

For clarity, we note that "water table" normally refers to the depth at which the first groundwater occurs, or the first aquifer (layer) in which groundwater occurs. EPA's proposed remedy addresses not only the water table but the other layers, known as hydrostratigrahpic units, under the water table, as well.

[Comment resumes] This letter is in regard to the site from the south east corner of the intersection of Vermont and Del Amo Blvd. At the intersection of the City of Los Angeles and the County of Los Angeles. The property to which I refer extends south to Torrance Blvd. also in the County of Los Angeles. The postal addresses for this property, known as the Ponderosa Pines, is Torrance, 90502. This property is just south of the land labeled a Superfund site, but it is in the water cleanup area, MBFB.

✍18 EPA Clarification:

The definition of a Superfund site includes all physical locations where contamination has come to be located. Therefore, the area you reference is within the area targeted for groundwater cleanup, and within the Del Amo Superfund site as well, although it is not within the original Del Amo Synthetic Rubber Plant property.

Comment [Clare F. Adams]:

Having attended your presentation on July 25, 1998, I have the following concerns:

[EPA should ensure that] ...actions taken to remediate the contaminated water table do not destabilize the ground or cause a subsidence under the buildings which run along the east side of Vermont between Del Amo Blvd. and Torrance Blvds. in the County portion known as Torrance.

✍19 EPA Response:

EPA appreciates your concern about ground subsidence or destablization, which can occur in certain cases where groundwater is shallow and a very large quantity of water is being withdrawn in a small area. Such occurrences are exceedingly rare with respect to groundwater cleanup actions. In this case:

1. **The groundwater is more than 50 feet under the surface, which is deep compared to the usual depths to groundwater at which such problems might occur;**
2. **The vast majority of the groundwater to be withdrawn for the cleanup remedy is not from the water table at 50 feet but from aquifers (layers) much deeper under the ground; in fact, in the area of Ponderosa Pines, the cleanup remedy would imply no withdrawal of water from the water table unless natural biodegradation fails to keep the benzene in that area contained; and**
3. **The withdrawal of water will be spread within the area of contamination, not concentrated in a single area; the amount of water being withdrawn for EPA's remedy is not significant enough to cause subsidence problems.**

Therefore, EPA does not believe that subsidence or destabilization will be an issue with respect to the groundwater remedy proposed.

We note that subsidence may occur within the Ponderosa Pines property you have mentioned for other reasons. Historical information indicates that these properties lie at least in part above former landfills. The land surface over a former landfill can subside over time if the landfill is not properly compacted and prepared prior to development for housing. EPA has no knowledge or information as to the manner in which the landfills were prepared prior to construction of the Ponderosa Pines development. Should property owners have concerns in this regard, EPA recommends they contact local authorities with jurisdictions in this area, or the property developers.

Comment [Clare F. Adams]:

...actions should be taken by the EPA to make it clear to the public that the property listed as the Superfund site is safe for uses involved with business and normal commerce. Further that the EPA make it clear to the public that most of the land is clean and safe and may be deemed so for purchase and development.

Comment [Joeann Valle, Harbor City/Harbor City Gateway Chamber of Commerce]:

[The Harbor City/Harbor Gateway Chamber of Commerce is concerned about] the false perception of the community that this area is dangerous. This perception has resulted not only from the labeling of this area as a Superfund site (although many properties have been deemed clean by the EPA), but also from the information released regarding the water table correction activities. Existing businesses have already experienced significant economic losses due to the misperception of this valuable and viable economic area as being unsafe.

This area generates considerable economic benefit to the voters of the 37th U.S. Congressional District and the 15th Councilmanic District of the City of Los Angeles, as well as the 2nd and the 4th Supervisorial Districts of the County of Los Angeles. The declaration of this area as a Superfund site has proved devastating enough. Now to have individuals and business groups fearful of working or using this area as a result of the misperceptions resulting from the water table improvements is intolerable.

We expect that the EPA does not wish to be, nor appear to be, the source of unwarranted financial losses due to the nature of information released. For example, water table contamination has nothing to do with surface land safety and that point should be made clear to the lay folks who hear or read of EPA's activities.

Frightening comments made on the record at the July 25th meeting clearly showed the misunderstanding by the public even to the statements from the public that the surface area used by business was unsafe. This perception must be corrected.

In order to lessen the economic impact to this critical source of businesses and jobs, the EPA owes the business community every effort to correct the misperception regarding this area. This is particularly so since the incorrect ideas about this area result from the EPA's communications with the press and others. We expect that the EPA must take a pro-active position to maintain the economic viability of this area. To clean up an area while leaving economically destroyed is pointless.

✍20 EPA Response:

EPA is aware of and sensitive to the economic issues faced by businesses by virtue of being on a Superfund site. The commenters are correct that many of these issues arise from independent perceptions among businesses, lenders, and individuals about Superfund and what it means to be on a Superfund site. Please understand that EPA focuses on cleaning up sites and protecting human health as the law requires. We also do the best job we can to educate communities, including businesses, about known risks at Superfund sites. It is our goal to encourage the economic vitality of the business community by demonstrating progress in the progress of cleanup.

EPA has endeavored, and will continue to endeavor, to explain to the public completely and clearly what we know about site-related health risks. Should the press or other individuals harbor or promote misperceptions about the site, EPA can continue to provide correct information but cannot guarantee that those perceptions will change.

It is important to note that EPA's activities at the Del Amo Superfund Site would not be necessary had pollution not been released into the ground historically from the Del Amo Plant. And, certainly, EPA would not be expending the time, effort and costs to investigate and develop cleanup actions for the Del Amo site if the potential for certain health threats did not exist, either now or in the future. EPA therefore believes it would be misleading to state that there are no actual or potential health threats associated with the Del Amo Site. The issues posed by the site contaminants are serious and we would not label all concerns about them as "misperceptions."

That said, the comment is still well-taken in that sometimes perceptions of health threats can develop which are <u>not</u> realistic. During the time that EPA's investigation is underway but not yet complete, EPA lacks the data it needs to make final statements about site contamination. As already stated, EPA will try to address misperceptions that may arise during this period of time.

The Del Amo Superfund Site encompasses the areas where contamination has come to be located. However, there are a vast majority of locations within the Superfund Site that would not present a chemical exposure to persons at the ground surface. For example, in some parts of the site there is groundwater contamination far underground but no soil contamination between the groundwater and the ground surface. In these areas, so long as the groundwater is not pumped to the surface and used, there is no health threat to persons at the ground surface and routine surface activities are safe with respect to Superfund contaminants (we point out that the safety of, and possible chemical exposures from, ongoing industrial activities and practices are not part of EPA's Superfund investigations and are typically addressed by other laws and agencies such as the Occupational Safety and Health Administration (OSHA)). This conclusion carries more certainty because the groundwater portion of EPA's investigation is largely complete (additional investigation will be conducted to be able to design the groundwater remedial action).

Also, based on the partial soils sampling done to date within the former Del Amo plant property, EPA has not identified an unacceptable health threat to persons living or working at the ground surface from Superfund contamination in soils. EPA has discovered contamination in some soils at depth; however indoor air sampling has not shown that this contamination has entered buildings. Because of the distribution of the contamination, the commenter is most-likely correct that the vast majority of buildings within the Del Amo Site are safe to occupy with respect to Superfund contaminants. EPA's sampling is not complete, however, and EPA <u>may</u> later discover sporadic locations where health threats

from soils do exist. For this reason, it would be inappropriate for EPA to make the broad conclusions called for by the first commenter. For specific information about the results of existing sampling and plans for additional sampling, persons may contact the Del Amo project manager at EPA.

Finally, we wish to note that it is not possible or practical for EPA to sample in every location within the Del Amo Superfund Site, even at the conclusion of its investigation. For this reason, EPA cannot and does not make parcel-by-parcel determinations of "clean" or "not clean." Our mandate under Superfund is to define the nature and extent of the Del Amo contamination and develop cleanup actions as necessary to protect human health and the environment; it is not to make parcel-specific evaluations of all properties within the site. Thus, there will be some parcels with many samples, some with few samples, and some with no samples at all, depending on the degree of characterization needed with respect to the contamination released from the former Del Amo plant. Even on parcels we do sample, we cannot eliminate the potential (which of course we try to minimize) that some contamination could be missed by the sampling. On the other hand, we can and will always tell a landowner or business owner what was found and what is known about contamination on their property. Also, EPA can explain why it did not sample in certain locations and why additional contamination may not be expected in those locations.

In conclusion, EPA does understand the issues raised in these comments and will endeavor to provide the most accurate information within the framework of what we know. It is our hope that our communications with the public will assist it in understanding the concerns of EPA, as well as the types of health effects that are not likely to exist, in relation to the Del Amo Site.

Comment Synopsis:

Both the Clare F. Adams and The Harbor City/Harbor Gateway Chamber of Commerce requested that EPA documents in the future correctly identify the properties in or near the site as being either the City of Los Angeles or the County of Los Angeles with a mailing address of Torrance or Gardena.

✍21 EPA Response:

EPA understands this comment to refer to the matter of the Montrose Superfund Site, in particular, but also potentially the Del Amo Superfund Site, being referred to in EPA documents as being within the City of Torrance. Technically, the commenters are correct that the former Montrose plant, and in fact, the former Del Amo plant, are within the Harbor Gateway, a narrow strip of the City of Los Angeles which provides it with a jurisdictional pathway to the Los Angeles Harbor (under California law, cities must be contiguous). Historically, during the operations of the former Montrose plant, it was

referred to by Montrose as well as the City agencies regulating it as "the Torrance plant." Also, because the Montrose plant was much closer to Torrance than to Los Angeles proper, the historical "Torrance" label continued to be used when EPA began investigating the site and placed it on the National Priorities List (the formal register of Superfund sites).

Within the last few years, EPA has, in fact, endeavored and been largely successful in being careful to refer to the Montrose and Del Amo Sites as being within Los Angeles, near Torrance. We will continue to endeavor to make this clear in documents (both for Montrose and Del Amo) that we produce today; however, because of the historical factors discussed above, you may continue to find older documents which refer to the Montrose Chemical Site as being in Torrance.

3M Corporation and Goodyear Tire and Rubber Company

EPA received written comments from 3M Corporation and Goodyear Tire and Rubber Company. The comments received from each company were identical in that one issued a letter incorporating the other's comments by reference.

Upon review of these comments, EPA has determined that they are not pertinent to EPA's proposed plan and selection of alternatives for groundwater for the Joint Site. EPA finds that these comments are focused on allocation of liability and/or responsibility among responsible parties, and on establishing these companies' position with respect to such matters. In making this determination, EPA does not wish to minimize the concern these companies may have for these issues, nor dismiss their positions. However, the remedial selection process (culminating in the ROD) does not address or establish liability allocation, and hence such issues are not pertinent to the selection of alternatives and this is not the proper forum for addressing them. Because these comments are extensive, were EPA to address them here, it would fill this response summary with lengthy discussion not related to, and distracting from, the matter at hand. As stated in the NCP, EPA is only required to address pertinent comments in the response summary [40 C.F.R. §300.430(f)(3)(C) and (F). Because the 3M and Goodyear comments are not relevant to the issue of remedy selection, EPA has chosen not to address these comments here.