

Comments Pertaining to Appeal of Planning Commission Decision of May 5, 1993:
Project Nos. 92250-(4) Puente Hill Landfill Expansion and
Project No. 92251-(4) Puente Hills Materials Recovery & Rail Loading Facility
for Hearing June 24, 1993

Three Letters to Supervisor Edmund D. Edelman, Chairman, and
Members of the Los Angeles County Board of Supervisors
Los Angeles, CA June (1993) by

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June 21, 1993

Supervisor Edmund D. Edelman, Chairman
and Members of the Los Angeles County
Board of Supervisors
Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Re: Appeal of Planning Commission decision of May 5, 1993:
Project Nos. 92250-(4) Puente Hills Landfill Expansion and Project No. 92251-(4) Puente Hills
Materials Recovery and Rail Loading Facility;
Appellant: RR&C Development Company
Hearing Date and Time: June 24, 1993 at 9:30 am

Dear Chairman Edelman and Board Members:

Beginning in November 1992, we (Dr. Anne Jones-Lee and Dr. G. Fred Lee) have conducted extensive reviews of the Los Angeles County Sanitation Districts' (Districts') draft and final Environmental Impact Reports (EIR's) on the proposed Puente Hills Landfill expansion and the proposed Materials Recovery and Rail Loading Facility (Facility), and have either attended or reviewed the transcripts of the Los Angeles County Regional Planning Commission hearings, and Sanitation District No. 2 Board of Directors' meeting on that proposed landfill expansion.

We have submitted extensive comments and testimony on the EIR and the Planning Commission hearings; these items are listed at the close of this letter. The written testimony and comments are included in the Appendix to this letter.

Enclosed with this letter is additional testimony I am submitting on the following items:

- Conditional Use and Oak Tree Permits 92250-(4) Puente Hills Landfill and Conditional Use and Oak Tree Permit 92251-(4) Puente Hills Materials Recovery and Rail Loading Facility, Dated May 5, 1993
- April 8, 1993 hearing before the Regional Planning Commission, County of Los Angeles in the Matter of Agenda Item 6: County Sanitation District No. 2 of Los Angeles County Project no. 92-250-(4) Puente Hills Landfill Expansion, Project no. 92-251-(4) Puente Hills Material Recovery and Rail Loading Facility
- Groundwater Quality Protection at the Existing Puente Hills Landfill, June (1993)
- Technical information on the effectiveness of the Los Angeles County Sanitation Districts' Groundwater Barriers in Preventing Puente Hills Landfill Leachate from Polluting San Gabriel Basin Groundwater Aquifer System
- Overview of Environmental Issues for the Proposed Puente Hills Materials Recovery and Rail Loading Facility

Qualifications

We have submitted substantial amounts of specific information on our qualifications to address the technical issues of landfills and groundwater quality protection pertinent to the proposed Puente Hills Landfill expansion, in connection with previous testimony made in this matter. Presented below is a brief summary of key aspects of our qualifications in this matter.

I am president, and Dr. Jones-Lee is vice-president, of G. Fred Lee & Associates, an environmental quality consulting firm located in El Macero, CA. I am a registered Professional Engineer in the state of Texas, and a Diplomate in the American Academy of Environmental Engineers; I serve as Chief AAEE examiner for the Sacramento area.

For 30 years, I held university graduate-level teaching and research positions at the Universities of Wisconsin and Texas, and at Colorado State University; I retired from university teaching as Distinguished Professor of Civil and Environmental Engineering in July 1989. I hold a Ph.D. degree from Harvard University in environmental engineering and environmental sciences, a Master of Science in Public Health degree from the University of North Carolina, and a bachelor degree from San Jose State University. I have conducted more than \$5 million in research on various aspects of water quality and solid and hazardous waste management and have published more than 500 professional papers and reports on that work. Over the years I have served as an advisor to numerous governmental agencies and industries in the US and other countries on various aspects of water quality, and solid and hazardous waste management.

Over the past 25 years, I have had extensive experience in addressing issues of pollution of groundwater by landfills, evaluating the ability of landfill liners and liner systems to prevent groundwater pollution, and monitoring of groundwater in general and specifically in association with landfills. I have an academic and professional background, understanding, and expertise in the chemical characteristics of wastes and their potential to pollute groundwater; landfill processes; liner performance; impacts of chemicals on beneficial uses of groundwater; and the nature, transport, and transformation of chemical contaminants in groundwater systems. In recent years I have been active with water utilities and districts and others concerned with groundwater quality protection in the review of the technical aspects of Environmental Impact Reports for landfills and in evaluating the impacts of existing and proposed landfills on groundwater quality.

Dr. Jones-Lee has a Ph.D. degree in environmental science from the University of Texas at Dallas and taught and conducted research for 11 years in university graduate programs in environmental engineering and science. She has worked with me over the past 15 years on water quality and solid and hazardous waste management issues.

I am active in presenting invited lectures and short-courses on landfills and groundwater quality protection issues, under sponsorship of University of California extension programs, as well as of a variety of professional societies including the American Society of Civil Engineers, the American Water Resources Association, and the American Chemical Society. I will be presenting a one-day short-course on landfills and groundwater quality protection issues on June 24, 1993 through the University of California Riverside Extension. I have pioneered in the development of the Fermentation/Leaching Wet Cell approach for management of municipal solid wastes without groundwater pollution, and in alternative approaches for landfilling of municipal solid wastes to provide substantially greater protection of groundwater quality from landfill leachate-pollution that recognize that wastes in lined "dry tomb" landfills represent a threat to groundwater quality essentially forever.

Conclusions

With respect to the proposed Puente Hills Landfill expansion, we conclude the following:

- The Districts' Environmental Impact Report (EIR)

The Districts' EIR for the proposed Puente Hills Landfill expansion, which was developed by the Districts' staff and certified by the Districts, is a self-serving, project-advocacy document that does not provide an adequate, reliable discussion of the adverse impacts of the existing Puente Hills Landfill or of the anticipated adverse impacts of the proposed expansion of that landfill. It is significantly deficient in reliably identifying and addressing the impacts of the proposed landfill expansion on groundwater resources in the San Gabriel Basin. It significantly overstated the functional capabilities of the design components for the proposed landfill expansion and unjustifiably minimized the real issues and concerns for groundwater pollution by landfill gas and leachate.

The Districts' EIR significantly understated and unreliably represented the impacts of the existing Puente Hills Landfill operations on owners and users of adjacent and nearby properties; of particular concern are the odors and other airborne emissions from the landfill. The Districts have not been able to control the air pollution from the existing landfill. Owners and users of adjacent and nearby properties experience and have reported frequent, highly obnoxious odors emanating from the landfill operations that are a significant signal to the transport of highly hazardous chemicals (with or without odors themselves) that could affect the public health and welfare of those people. These issues have not been properly mitigated for by the provisions of the Conditional Use Permit.

The Districts' EIR does not reliably report the potential, significant adverse impacts of the more than 4,000 tons/day of garbage that is proposed to be handled in the Materials Recovery and Rail Loading Facility. That Facility will likely cause significant adverse impacts on the

owners/users of adjacent properties owing to truck traffic and associated air pollution; severe odors; flies, vermin, insects, rodents, and other animals; and decreased property values.

- **Puente Hills Site Poor for Landfill**

The Puente Hills site is a poor site for a landfill because of

- the close proximity of the operations and proposed expansion operations to properties owned and used by others; there is inadequate landfill owner-owned buffer lands
- the hydrogeology and fractured rock geology that characterize the site provide conduits by which leachate-polluted groundwater beneath the landfill can be transported to the San Gabriel Basin aquifer system
- the San Gabriel Basin aquifer system hydraulically connected to the groundwaters beneath the Puente Hills site is an extremely important, highly vulnerable groundwater supply that provides domestic water to more than one million people in the San Gabriel Valley; contamination by landfill leachate/gas-associated contaminants renders groundwaters unusable for domestic water supply and the affected areas of the aquifer unsuitable for conjunctive use storage
- the close proximity of the site to the Whittier Narrows, the inevitable pollution of groundwater by the Puente Hills Landfill could significantly adversely affect groundwater systems in the Central Basin aquifer system

- **Inadequate Groundwater Monitoring/Remediation**

The Districts have not been conducting a reliable groundwater quality investigation and monitoring program. The Stetson Engineers (1993) evaluation pointed to the inadequacies of that program and reliably and properly characterized the overall significant deficiencies in the regional Water Quality Control Board (Regional Board) and Districts' groundwater quality "protection" program.

The expansion of the Puente Hills Landfill as proposed by the Districts will greatly increase the potential for groundwater pollution in the San Gabriel Basin aquifer system by that landfill.

- **Proposed Landfill Expansion Will Not Protect Groundwater Quality from Use-Impairment for as Long as the Wastes Represent a Threat**

The landfill liner system proposed by the Districts for the landfill expansion will not prevent groundwater pollution. At best it will postpone groundwater pollution for a few years. The existing landfill and the proposed landfill expansion will represent a threat to groundwater quality forever.

- **Groundwater Barrier System**

The groundwater barrier system (slurry walls) used and being constructed by the Districts will not be effective in preventing the transport of leachate-contaminated groundwater to the San Gabriel Basin aquifer system.

Overview of Water Quality Issues

By issuing of the Conditional Use Permit for the proposed Puente Hills Landfill expansion, the Los Angeles County Regional Planning Commission has allowed the desire to perpetuate cheaper-than-real-cost solid waste management in the County by continuation of landfilling at the Puente Hills landfill to override the protection of the public health and welfare of the owners and

users of adjacent and nearby properties, and the protection groundwater resources of the area. That approach of the Planning Commission is in direct contradiction to the Los Angeles County General Plan requirements that the criteria to be applied by the Commission in considering an application include the regional and local need for the specific waste disposal facility as well as the potential impacts the use will have on the community including but not limited to noise, odor, visual, circulation/traffic, air and water quality, seismic safety and safety. By that General Plan, regional need should not outweigh the impact on the community; potential hazards should be given greater consideration than the regional need.

While the Planning Commission asserted that it is the best interest of County residents - in order to minimize adverse impacts on the waste generators - to continue landfilling at the Puente Hills Landfill for at least another 10 years, approximately doubling the current size of the landfill, to do so as proposed gives inadequate attention to the protection of the public health and welfare of owners/users of the Puente Hills area properties and of groundwater resources.

It is clear that the Districts have been operating the Puente Hills Landfill for costs far less than those required at municipal solid waste landfills that are sited at suitable locations and provide appropriate, perpetual protection of public health and welfare, and groundwater resources. The very low cost cited for operation of the Puente Hills Landfill is an artifact of the inadequacies of the protection of health and welfare of area property owners/users during the active life of the landfill and of the long-term protection provided for the groundwater resources. Those real costs - not being paid by those contributing wastes to the Puente Hills Landfill - are being paid by area property owners/users and will continue to be paid by future generations as they lose groundwater resources and have to address the groundwater pollution and the source of pollution, i.e., the wastes stored in the landfill. The history of inexpensive burial of municipal solid waste at the Puente Hills Landfill and the very low costs being paid by those contributing wastes to the Puente Hills Landfill have biased and distorted the Districts' perception of the costs and requirements of proper handling of municipal solid waste at that geologically unsuitable site. It would require extraordinary effort and expenditure many times the current level by the Districts to properly control odors, seagull, fugitive litter, truck traffic etc. from a municipal solid waste landfill located in as close a proximity to adjacent and nearby residential and commercial properties as the Puente Hills Landfill and proposed expansion in the absence of adequate land buffers, and to properly and reliably protect groundwater resources in the San Gabriel Basin aquifer system hydraulically connected to the groundwater beneath the landfill.

The Stetson Engineers (1993) report on the adequacy of the groundwater quality protection provisions of the Puente Hills Landfill showed that the Districts have been self-policing its operation because of inadequate funding. That, combined with the inadequate availability of staff at the Regional Board, has resulted in the Districts' failure to conduct a credible groundwater monitoring program appropriate for a landfill located at a geologically and hydrogeologically unsuitable site that is hydraulically connected to a highly valued groundwater aquifer system of the San Gabriel Basin. The hydrogeological and geological characteristics of the Puente Hills area make it virtually impossible to reliably monitor and control groundwater pollution from the landfill. The Puente Hills Landfill groundwater monitoring program is substantially deficient with regard to the numbers and locations of monitoring wells, methods of well sampling, analytical methods used, and compliance with regulatory requirements for data analysis and reporting.

The slurry walls ("groundwater barriers) placed and being developed by the Districts will not prevent the transport of leachate-polluted groundwater from beneath the landfill to the San Gabriel Basin aquifer system as intended. Two of the existing slurry walls have already failed. The placement so-called "Barrier no. 3" - a cement/bentonite slurry walls - is at best, a stop-gap measure that will also not prevent the transport of leachate-polluted groundwater from beneath the landfill to the San Gabriel Basin aquifer system through and around it, as intended.

Recommendations

The Regional Board does not have adequate staff to properly supervise and police the operations of the Districts in their responsibility to protect groundwater quality from adverse impact by leachate and gas migration from the Puente Hills Landfill, and since based on past and current performance the self-policing activities of the Districts have not be reliable, a third-party, independent oversight panel should be appointed. That panel should have as its objective the protection of groundwater quality in the San Gabriel Basin from pollution by the Puente Hills Landfill. That oversight panel should have a staff with adequate funds to inspect the Districts' day-to-day operations pertinent to groundwater quality protection at the Puente Hills Landfill. It should report to the Main San Gabriel Basin Watermaster and the Upper San Gabriel Basin Municipal Water District. The Sanitation Districts should fund that panel at a sufficient level to enable its staff to conduct independent sampling and analysis, and to carry out other activities to ensure with a high degree of reliability, that the groundwater pollution by the Puente Hills Landfill will be reliably identified and remediated, *ad infinitum*. However, the Districts should have no veto power or other control over the panel's operations.

We strongly urge that the Board of Supervisors not approve the proposed Puente Hills Landfill expansion on the basis of the significant adverse impacts that it will have on the property owners and users of adjacent and nearby properties, as well as on the groundwater resources of the area, aspects that are not controlled by the conditions set forth in the Conditional Use Permit.

We also strongly urge that the Board of Supervisors not approve the development of the Materials Recovery and Rail Loading Facility proposed by the Districts because of the significant adverse impacts of the proposed Districts' operation of that Facility on the owners/users of adjacent properties.

June 24, 1993 Hearing

Because of my previous commitment to University Extension of the University of California, Riverside, to teach a short-course on landfills and groundwater quality protection issues on June 24, 1993, I will be unable to attend the Board of Supervisors' hearing on the proposed Puente Hills Landfill expansion on that date. I will, however, be available to meet with the Board of Supervisors or members of the Board at another time to discuss any aspect of this statement and enclosed materials, or other materials and testimony that I have developed in this matter.

Detailed technical back-up for these conclusions is provided in the appended testimony and reports. Additional information on any of these areas is available upon request.

Sincerely yours,
G. Fred Lee, Ph.D., D.E.E.

enclosures

Reference

Stetson Engineers, "Puente Hills Landfill Investigation," Prepared for Upper San Gabriel Valley Municipal Water District, by Stetson Engineers, West Covina, CA, June (1993).

List of Testimony and Comments

Lee, G. F., and Jones-Lee, A., "Appropriateness of Planning of Municipal Solid Waste Management by the Los Angeles County Sanitation Districts and Los Angeles County Public Works," Testimony before Los Angeles County Regional Planning Commission on Proposed Puente Hills Landfill Expansion, March 30 (1993).

Lee, G. F., "Comments on Transcript of Wednesday, February 17, 1993 Hearing before the Regional Planning Commission, County of Los Angeles, CA in the Matter of Puente Hills Landfill Expansion," Written testimony submitted to Los Angeles County Regional Planning Commission by G. Fred Lee & Associates, El Macero, CA, March 30 (1993).

Lee, G. F., and Jones-Lee, A., "Summary Comments on EIR for the Proposed Expansion of the Puente Hills Landfill," Presentation to Los Angeles County Regional Planning Commission, March 30 (1993).

Lee, G. F., and Jones-Lee, A., "Comments on 'Environmental Impact Report Puente Hills Waste Management Facilities,'" Submitted to Los Angeles County Sanitation Districts by G. Fred Lee & Associates, El Macero, CA, November 10 (1992).

Lee, G. F., Letter to Board of Directors, County Sanitation Districts of Los Angeles County, Comments on Aesthetic Impacts of Existing Puente Hills Landfill and Proposed Expansion: Odor, Fugitive Litter, Vectors-Seagulls, Truck Traffic, 14 pp. November 18 (1992).

Lee, G. F., and Jones-Lee, A., "Comments on 'Puente Hills Waste Management Facilities Final Environmental Impact Report Responses to Comments Volume 4,'" Submitted to Los Angeles County Sanitation Districts, G. Fred Lee & Associates, El Macero, CA, November 19 (1992).

Lee, G. F., and Jones-Lee, A., "Comments on Districts' Staff Comments in Transcript of November 11, 1992 Board of Directors' Meeting in the Matter of the Final EIR Covering the Proposed Puente Hills Landfill Expansion," Submitted to Los Angeles County Sanitation Districts, G. Fred Lee & Associates, El Macero, CA, November 19 (1992).

Lee, G. F., and Jones-Lee, A., "Comments on Comments of Sanitation Districts' Staff on the EIR for the proposed Puente Hills Landfill Expansion at November 25, 1992 Meeting of the Board of Directors, Sanitation District No. 2," Submitted to Los Angeles County Sanitation Districts, G. Fred Lee & Associates, El Macero, CA, December 4 (1992).

Appendix to Letter to Los Angeles County Board of Supervisors

G. Fred Lee, Ph.D., D.E.E. - June 21, 1993

Jones-Lee, A., and Lee, G. F., "Groundwater Pollution by Municipal Landfills: Leachate Composition, Detection, and Water Quality Significance," Proceedings of Sardinia '93 IV International Landfill Symposium, Sardinia, Italy, October (1993).

Lee, G. F., and Jones-Lee, A., "Groundwater Quality Monitoring at Lined Landfills: Adequacy of Subtitle D Approaches," Report of G. Fred Lee & Associates, El Macero, CA, May (1993).

Lee, G. F., and Jones-Lee, A., "Financial Assurance - Landfill Post-Closure Care: Can Owners Guarantee the Money Will Be There?" Report of G. Fred Lee & Associates, El Macero, CA; Condensed version to be published in *Solid Waste & Power* (1993).

Lee, G. F., and Jones-Lee, A., "Appropriateness of Planning of Municipal Solid Waste Management by the Los Angeles County Sanitation Districts and Los Angeles County Public Works," Testimony before Los Angeles County Regional Planning Commission on Proposed Puente Hills Landfill Expansion, March 30 (1993).

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Lee, G. F., and Jones-Lee, A., "Summary Comments on EIR for the Proposed Expansion of the Puente Hills Landfill," Presentation to Los Angeles County Regional Planning Commission, March 30 (1993).

Lee, G. F., and Jones-Lee, A., "Comments on 'Environmental Impact Report Puente Hills Waste Management Facilities,'" Submitted to Los Angeles County Sanitation Districts by G. Fred Lee & Associates, El Macero, CA, November 10 (1992).

Qualifications Statement

Lee, G. F., Letter to Board of Directors, County Sanitation Districts of Los Angeles County, Comments on Aesthetic Impacts of Existing Puente Hills Landfill and Proposed Expansion: Odor, Fugitive Litter, Vectors-Seagulls, Truck Traffic, 14 pp. November 18 (1992).

Lee, G. F., and Jones-Lee, A., "Comments on 'Puente Hills Waste Management Facilities Final Environmental Impact Report Responses to Comments Volume 4,'" Submitted to Los Angeles County Sanitation Districts, G. Fred Lee & Associates, El Macero, CA, November 19 (1992).

Lee, G. F., and Jones-Lee, A., "Comments on Districts' Staff Comments in Transcript of November 11, 1992 Board of Directors' Meeting in the Matter of the Final EIR Covering the Proposed Puente Hills Landfill Expansion," Submitted to Los Angeles County Sanitation Districts, G. Fred Lee & Associates, El Macero, CA, November 19 (1992).

Lee, G. F., and Jones-Lee, A., "Comments on Comments of Sanitation Districts' Staff on the EIR for the proposed Puente Hills Landfill Expansion at November 25, 1992 Meeting of the Board of Directors, Sanitation District No. 2," Submitted to Los Angeles County Sanitation Districts, G. Fred Lee & Associates, El Macero, CA, December 4 (1992).

Lee, G. F., and Jones-Lee, A., "Practical Environmental Ethics: Is There an Obligation to Tell the Whole Truth?" Invited Paper Submitted for Publication, May (1993).

The above-listed papers, reports, testimony, and comments themselves contain additional professional papers and reports as appendices that support the conclusions presented herein.

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June 25, 1993

Supervisor Edmund D. Edelman, Chairman
and Members of the Los Angeles County
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Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Re: Appeal of Planning Commission decision of May 5, 1993:
Project Nos. 92250-(4) Puente Hills Landfill Expansion and Project No. 92251-(4) Puente Hills
Materials Recovery and Rail Loading Facility;
Appellant: RR&C Development Company
Hearing Date and Time: June 24, 1993 at 9:30 am

Dear Chairman Edelman and Board Members:

I have received and reviewed a copy of the transcript of the June 24, 1993 hearing on the above mentioned matter. From that review I found that representatives of the Los Angeles County Sanitation Districts (Districts) made several untrue and misleading statements about the Stetson Engineers report (concerning the significant water quality evaluation and management problems that the Districts have had and continue to have with the existing Puente Hill Landfill) that was contracted by the Upper San Gabriel Valley Municipal Water District.

One of the claims made by Mr. Maguin of the Districts' staff was that I was involved in the development of the Stetson Engineers report and that the fact that the report concurs with a number of previously stated technical findings and concerns of ours causes the report to lack technical credibility. The transcript states (page 14, lines 3-8)

"In fact, the report clearly mentions discussions with opponents to the landfill expansion, including Dennis Williams of Geoscience and G. Fred Lee, both of whom are consultants to RR&C development, one of the litigants in this case, and Barbara Fish, a member of HHIA, another litigant in this case.

The opinions of these people, which were all addressed in the final certified environmental report, are clearly reflected in this report, which is supposedly objective and has been betrayed as facts despite the lack of any credible technical analysis."

As mentioned in the Stetson Engineers report, a general meeting was held several months ago that was attended by Rey Rodriguez of Stetson Engineers and several technical individuals including me, during which information was exchanged on general issues of water quality concern. It is important to note that while representatives of the Districts' staff were not present at that particular meeting, representatives of Stetson Engineers did, in fact, have meetings with representatives of the

Districts during the course of the development of their report. It is common and appropriate practice for a technical consultant contracted for a project such as this Stetson Engineers' project, to conduct meetings of this type to gain information and insight into the issues and problems from those who have information and concerns. Both Dr. Dennis Williams and I have a number of years of experience in matters of groundwater quality issues in the San Gabriel Basin, especially as related to landfills. Had Stetson Engineers not met with persons of our expertise and experience in this matter, the report could well be judged technically deficient. While I participated in one meeting, neither Dr. Jones-Lee nor I was involved in the data analysis conducted by Stetson Engineers or in the formulation of conclusion and recommendations presented in their report. We did not see the report in any stage of its development prior to its release, nor were we privy to the specific content of the report; in fact we did not see the final draft report until several days after it had been made public.

Mr. Maguin's charge that because technical information and findings presented by Dr. Williams and us during the public review of the proposed Puente Hills Landfill expansion, were reflected in Stetson Engineers' report, the report lacks technical credibility, is absurd and clearly nothing but a feeble attempt at face-saving. Maguin is asking the Board of Supervisors to believe that all technical findings on the groundwater quality data at the Puente Hills Landfill that are not in keeping with the self-interest opinion of the Districts' staff are incorrect. It is apparently Mr. Maguin's position that Stetson Engineers and all other knowledgeable professionals who review data developed by the Districts on groundwater quality evaluation and management issues at the Puente Hills Landfill whose independent conclusions are contrary to the opinions of the Districts' staff are unjustifiably biased and should be disregarded.

As documented in our testimony to the Sanitation Districts regarding the significant technical deficiencies in the Districts' EIR, and to Planning Commission and the Board of Supervisors, Maguin has repeatedly provided unreliable, inaccurate, misleading information regarding groundwater quality and other public health and environmental quality issues of the existing Puente Hills Landfill.

Mr. Maguin's statement that the issues raised by Dr. Williams and us during public comment on the proposed Puente Hills Landfill expansion were "*all addressed in the final certified environmental report*" (as quoted above), is false. As we have repeatedly discussed and documented in our comments on this matter, the Districts did not address many of the highly significant public health and environmental quality issues that have been raised by us and others regarding the existing Puente Hills Landfill and the proposed Puente Hills Landfill expansion. As discussed in our testimony and comments, we are frequently asked to review draft and final EIR's on landfills and other matters; over the past several years we have reviewed about a dozen EIR's for the sufficiency and nature of the technical information presented on the public health and environmental quality issues. The Districts' response to the comments made by the reviewers of their draft EIR was the most superficial, self-serving, technically unreliable of all such documents we have reviewed. The only way that such grossly inadequate responses could ever be allowed to stand the technical scrutiny that "certification" is supposed to provide would be if the developers of the EIR also served as the certifiers. This was the case in the Puente Hills Landfill expansion; the Districts' staff developed the EIR and the Districts' Board certified it. It is unbelievable to us, and contrary to the intent of CEQA, that the developer of an EIR could also serve as its "certifier."

A review of the responses provided to technical comments and testimony regarding the groundwater quality and other environmental and public health issues will show that the Districts' staff basically stated - believe us, this is not a problem and will not be a problem in the future. Such positions were espoused not only without technical support, but also in the face of contrary technical information and fact.

Supervisor Dana drew and stated the conclusion (transcript page 14, lines 15-19),

"... as I understand it many of these issues raised in this report [Stetson Engineers report] have already been addressed in the environmental report. Based upon the Sanitation Districts' response, counsel, is it necessary for this Board to ask for supplement environmental documents?"

Mr. Clinton's response was (beginning on transcript page 14, line 20) was,

"Mr. Dana, members of the Board, the only time a subsequent EIR would be necessary is if there is substantial new information to change the circumstances that would require that. From what I'm hearing from the Sanitation Districts, it is apparently their position that all of this information has been before the bodies on its way here and that there is no substantial new information.

Therefore, if the Board agrees with that conclusion, and I believe that the Board would -- that there would be no need for a subsequent EIR. If the Board finds that there is no (sic) new information in the report and it is substantial, it might have an effect and then it might be that a new EIR would be required."

It is obvious to anyone who critically reviews the final EIR that substantial new information has been developed on the groundwater quality issues since the certification of the EIR, as presented in the Stetson Engineers report. As we have commented, the Districts' EIR was highly unusual and grossly deficient since it did not present detailed groundwater quality information that was in existence in the Districts' files. At the time we reviewed the draft EIR last fall, we commented on that deficiency but did not appreciate the full significance of that omission. Now that we have acquired and reviewed the background data from the Districts, and after reviewing Stetson Engineers' independent review of those data, we can see why the Districts did not want those data in their EIR. Those data clearly showed, as reliably reported in the Stetson Engineers report, that the Districts have been conducting a grossly inadequate groundwater quality evaluation and management program at the existing Puente Hills Landfill. As reliably reported by Stetson Engineers, there were substantial data in the Districts file when the Districts staff developed the EIR that documented pollution of groundwater by the existing landfill and that showed that the Districts' and Regional Water Quality Control Board's staff's approach toward managing that pollution had failed to protect groundwater quality. Further, as presented in our recent testimony to the Los Angeles County Board of Supervisors on the evaluation of the expected efficacy of the groundwater "barriers" (slurry walls), the so-called groundwater "barriers" will not prevent groundwater pollution of the San Gabriel Basin aquifer system by landfill-derived constituents. Dr. Dennis Williams mentioned in his testimony to the Districts last fall that leachate and gas-contaminated groundwater could pass around those barriers through the fractures in the rock system underlying the landfill

area. Our recent work has shown that in addition to that route of contaminant transport, contaminated groundwater can also readily pass through those barriers even when newly placed; further, the properties of the barriers that impede groundwater transport deteriorate over time, allowing even greater transport of leachate/gas-contaminated groundwater.

There is no legitimate question about the fact there is substantial new information that clearly justifies a supplemental EIR, on the groundwater quality issues alone. Further, the EIR developed by the Districts was grossly inadequately technically and did not conform to the requirements of CEQA for full disclosure of information pertinent to the proposed project. Therefore, there is strong justification for requiring that a new EIR be developed by a competent disinterested individuals who will reliably evaluate the technical information and present it in an unbiased manner.

Beginning on transcript page 15, Ms Ponek-Bacharoski of the Los Angeles Regional Water Quality Control Board staff made a series of statements regarding the groundwater pollution issues of the Puente Hills Landfill. On transcript page 17, beginning on line 2 she stated,

"At that meeting, I stated that the county San Districts had a long history of good compliance with the waste discharge requirements of the Regional Board. I was asked if the Puente Hills Landfill was leaking. I explained to the commissioners that the appropriate question should be, is the landfill adversely affecting the beneficial uses of groundwater, since certain diminimus leakage due to landfill gas or leachate is expected from all Class III landfills. My answer was "no" to that question."

The draft Stetson report did not provide any meaningful new information concerning water quality at the landfill. We will be submitting comments regarding this draft report in the next couple of weeks. Specific things mentioned in the Stetson report were not any news to us. Volatile organic compound occurrences near barrier 1 and the replacement of the compacted clay barrier were addressed in the 1990 review of their Puente Hills solid waste assessment test report."

As the person response for supervising the Districts' groundwater quality monitoring and management program at the Puente Hills Landfill for the past several years, Ms Ponek-Bacharoski would not be expected to testify to deficiencies in that program that have allowed groundwater pollution to go unevaluated and unaddressed. Ms Ponek-Bacharoski's sidestepping response to the question of whether the landfill was leaking is indicative of the Regional Board staff's attempts to cloud and circumvent the evidence of groundwater pollution by the landfill that was brought to light in the Stetson Engineers report.

On transcript page 18 beginning on line 6, Ms. Ponek-Bacharoski stated,

"Another issue came up in the Stetson report of additional background in the groundwater monitoring wells is needed. We do agree, because as expansion continues east into the canyons, the background wells will no longer serve as useful background wells and additional wells most likely will need to be installed."

In that statement, Ms Ponek-Bacharoski has not reliably presented the information presented in the Stetson Engineers report, and independently by us on the problems of the Districts' and Regional Board's approach for establishing "background" groundwater characteristics. The issue raised in this matter by the Stetson Engineers report is not with regard to the expansion of the landfill, but rather the deficiencies in background groundwater characterization for the existing landfill monitoring data. The Stetson Engineers report did not address issues of the proposed Puente Hills Landfill expansion, but was limited in scope to issues of groundwater pollution by the existing Puente Hills Landfill. The existing pollution, of course, has considerable pertinence to review of the proposed expansion of the landfill since the failure of the Districts and the Regional Board to conduct a reliable monitoring and contaminant control program for the existing landfill reflects poorly on their ability to protect groundwater quality from the expanded landfill.

Reliable information on the background groundwater characteristics at the existing Puente Hills Landfill is essential in evaluating the situation with regard to groundwater pollution by contaminants derived from the existing landfill. Without reliable background (uncontaminated) groundwater characteristic information, it is difficult to reliably evaluate contamination since it is a comparison of groundwater characteristics downgradient and upgradient (background) that is used to determine if pollution is occurring. The issue of needing reliable information on "background" groundwater characteristics is not new; the requirement was set forth in the 1984 requirements of then-subchapter 15. Those regulations established that background groundwater characteristics had to be reliably determined. It is now 9 years later, and the Districts and the Los Angeles Regional Water Quality Control Board have still not established reliable information on the background groundwater quality-related characteristics at the Puente Hills Landfill. This information - "new information" - was reported in the June 1993 Stetson Engineers report. The issue of inadequate background groundwater quality-related characteristics was not reliably discussed in the Districts' EIR.

The Stetson Engineers report documented a series of deficiencies in the groundwater quality evaluation and management program for the existing Puente Hills Landfill, compared with the requirements set forth in the waste discharge requirements; those issues were not reliably addressed in the EIR. While Ms Ponek-Bacharoski appears to now claim that she is aware of all of the deficiencies in the groundwater quality evaluation and management program for the existing Puente Hills Landfill - as evidenced by her claim that the Stetson Engineers report "*did not provide any meaningful new information concerning water quality at the landfill.*" (quoted above), that information was not included in the EIR. This is information that the public should have had in its review of the proposed landfill expansion. As noted above, CEQA requires full disclosure in the EIR. It is certainly inappropriate for the staffs of the Districts and Regional Board to maintain a closed relationship whereby they are the only ones to know the deficiencies in the implementation of the waste discharge requirements, and to allow them to continue. The Stetson Engineers report revealed to the public, for the first time, the inability of the Districts and Regional Board to protect groundwater quality associated with the existing Puente Hills Landfill. This is new information that mandates a new EIR review of these issues.

On transcript page 16, beginning on line 18, Ms Ponek-Bacharoski stated,

"Regional Board duties to protect the beneficial uses of waters in this region are clearly stated in the California Water Code."

The implication of her statement is that the Regional Board is in fact carrying out its duties. However, as revealed in the Stetson Engineers report, when the issue of why there were such significant deficiencies in the implementation of the waste discharge requirements for the existing Puente Hills Landfill, the Regional Board staff, presumably Ms Ponek-Bacharoski, responded that the deficiencies arose from the fact that the Regional Board does not have the staff or funds needed to properly police the Districts' operations and that the Districts are, therefore, largely self-policing their activities at the Puente Hills Landfill. As stated in our testimony and statements in this matter, we have been aware of these types of problems in the Los Angeles Region for several years. As we discussed, the Los Angeles Regional Water Quality Control Board staff has had data in its files since the mid-1980's that clearly show that the Azusa Landfill has been polluting groundwater, rendering it unsuitable for domestic use, since at least 1985. That pollution is still occurring today.

Several years ago, the Los Angeles County Medical Society Environment Committee conducted a review of the proposed Azusa Landfill expansion. One of the issues of concern to that committee was whether or not the existing Azusa Landfill was polluting groundwater. While the Los Angeles Regional Board staff claimed at Regional and State Board hearings on the proposed expansion that no pollution was occurring, others who examined the data - including T. Stetson and us, independently - found that the data in the Regional Board's files showed that without question groundwater pollution had been occurring for many years and continued to occur. It was also shown from data in the files that the pollution was spreading at a rate of more than 500 feet/year in the San Gabriel Basin aquifer system. That contradiction between the claims of the Regional Board staff and the independent review of the same data by technically competent individuals led the Los Angeles County Medical Society Environment Committee to conduct a review of that issue in 1990. The Executive Officer for the Los Angeles Regional Water Quality Control Board and I were both asked to make presentations to that committee on that and other related issues. After reviewing the information provided at that meeting by each of us the Committee concluded that the existing Azusa Landfill was in fact polluting groundwater and that the Los Angeles Regional Board staff was not reporting the significant pollution that was occurring. That finding by the Committee resulted in its developing a recommendation that the Azusa Landfill not be expanded and the existing pollution be cleaned up.

There are striking similarities in the groundwater quality evaluation and protection issues at the Azusa Landfill and the Puente Hills Landfill. In both cases the Regional Board staff allowed the owner/operator to deviate significantly from the waste discharge requirements set forth by the Board; in both cases the Regional Board staff did not implement the provisions of Chapter 15 that require protection of groundwater quality; in both cases, the Regional Board staff did not reliably report to the public on the groundwater pollution that was occurring. The Stetson Engineers report has done the public a tremendous service in revealing deficiencies in the groundwater quality protection provided by the Districts and the Los Angeles Regional Water Quality Control Board. There were hints in the EIR - in comments made by the public on the EIR - that these types of problems existed. The Districts chose to not reveal what it knew or should have known about these problems and issues in the development of, and responses to comments on, the EIR. Clearly, because of the new information that has come to light since the self-certification of the Districts'

EIR by the Districts - through the Stetson Engineers report and comments submitted to the Planning Commission and Board of Supervisors - a proper EIR should be conducted. Failure to do so, will, in my opinion, be a clear violation of the CEQA requirement for full disclosure of technical issues highly pertinent to review of the proposed expansion of the Puente Hills Landfill.

If the Board of Supervisors has any questions about these comments or our previously submitted statements to the Board of Supervisors, the Planning Commission, or the Districts, please contact me.

Sincerely yours,
G. Fred Lee, Ph.D., D.E.E.

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June 25, 1993

Supervisor Edmund D. Edelman, Chairman
and Members of the Los Angeles County
Board of Supervisors
Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

[Additional Comments]

Re: Appeal of Planning Commission decision of May 5, 1993:
Project Nos. 92250-(4) Puente Hills Landfill Expansion and Project No. 92251-(4) Puente Hills
Materials Recovery and Rail Loading Facility;
Appellant: RR&C Development Company
Hearing Date and Time: June 24, 1993 at 9:30 am

Dear Chairman Edelman and Board Members:

In review of the transcript of the Board of Supervisors June 24, 1993 hearing on the proposed Puente Hills Landfill expansion, I found that Mr. Carry of the Sanitation Districts provided a considerable amount of unreliable information to the Board of Supervisors on what is known about the impacts of landfills on owners and users of adjacent and nearby properties. While most of Dr. Jones-Lee and my previous comments on the matter of the proposed Puente Hills Landfill expansion have been directed toward water quality issues, I also have considerable expertise and experience on the impacts of landfills on owners/users of nearby properties. I am involved in several projects at this time in the US and in Canada in which I have been specifically asked to address such issues. Mr. Carry touted the sufficiency of protection proposed for nearby property owners and users including schoolchildren by claiming that the proposed Puente Hills Landfill expansion would include land buffer between the deposition area and adjacent properties that would be

"...a sizable setback compared to all the other landfills which are successfully run throughout the country." (transcript page 60)

It is very clear that Mr. Carry's characterization of a landfill as "successfully run" does not include its protection of nearby properties from adverse impact by landfill operations. Those who objectively and reliably report on this issue know that owners/operators of landfills who deposit municipal solid waste within a few hundred feet of adjacent properties adversely affect the ability to use and enjoy those properties by severe odors, fugitive litter, seagull defecation, etc. All the Board of Supervisors needs to do to judge the reliability of Mr. Carry's claim of sufficient attention to the nearby property owners/users' interests is to ask themselves whether they would move their families

or business to a property located a few hundred to a thousand or so feet from the active area of a landfill operated under the supervision of Mr. Carry and the Districts. The Board of Supervisors should listen to the testimony of those who live near the existing Puente Hills Landfill and whose children have to attend a school located a thousand feet or so from the Districts' landfill.

On page 84 of the hearing transcript, Mr. Carry stated,

"All our other monitoring systems would be in place as far as groundwater, air pollution. All of these systems are in and would be done in compliance with regulatory agencies that insist upon all of these systems. Again, systems that we've developed that have now become state of the art throughout the state. Even at a thousand feet, I do not think there was any impact whatsoever."

It is preposterous for Mr. Carry to claim that the monitoring programs conducted now or proposed for the expansion are "state of the art." I know from my work in other areas of California, in other states in the US, and in other countries that the monitoring and environmental protection programs conducted by the Districts at the Puente Hills Landfill would not be accepted at many other locations, even at locations that are geologically more suitable than the Puente Hills site and that have greater land buffers than those that Mr. Carry claimed to be adequate. We have pointed out with technical documentation the fallacy of the Districts' staff's claims, in testimony and comments submitted on this matter; the Districts' staff has, to date, failed to address our critique of its claims of a "state of the art" character of those systems and simply continues to make the claims. The Districts systems are not "state of the art" and are not adequate to prevent adverse impacts on groundwater quality or nearby property owners/users; the staff's repeating claims that they are "state of the art" do not make them adequate.

Beginning on transcript page 85, the various Supervisors asked the Districts' staff questions about issues of concern such as regarding odors, and impacts of the existing landfill and the proposed expansion of the landfill on schoolchildren. In addressing these issues in the past, the Districts' staff have made responses similar to those provided to the Board of Supervisors, namely that there are no impacts and that the Puente Hills Landfill is a well-run, no-impact landfill; they extrapolate that therefore the landfill expansion would not adversely impact nearby property owners and users. For example, in response to Mr. Burke's question, *"What about the odor?"*, Ms Chan stated,

"The primary source of odors is from the release of landfill gas. We have a very extensive landfill gas collection system. Both horizontal trenches and vertical wells throughout the fill that's continuously placed throughout the fill and helps us prevent migration of landfill gas to meet AQMD regulations."

By that response, Ms Chan failed to answer the question. The question that begs an answer is have there been odors on adjacent properties due to recent landfill operations? The answer is yes. She also neglected to mention that a significant source of odors for an operating landfill is the stench of the freshly dumped garbage in the active area of the landfill. We have discussed that source of odor in connection with our comments on the Materials Recovery and Rail Loading Facility. Contrary to the impression provided by Ms Chan's response to the question of odors, the active area of the

landfill where the malodorous garbage lies is not subject to odor control. As is well-documented, there are severe odor problems in the Hacienda Heights area and on the commercial properties near the existing landfill, due to the existing landfilling operations. Expansion of the Puente Hills Landfills and construction of the Materials Recovery and Rail Loading Facility as proposed will, without question, result in significant odor problems on adjacent and nearby properties impairing their use and value. While Mr. Carry claimed that the Districts will certainly "*mitigate and solve*" these and similar problems (transcript page 86), such claims are hollow and represent a commitment that neither he nor the Districts can keep. As we have discussed in our testimony and statements, to truly mitigate the active life problems of the existing Puente Hills Landfill and the proposed Puente Hills Landfill expansion on nearby property owners/users, the costs of solid waste management at Puente Hills Landfill will have to be increased many-fold above those at many other locations, to the point where the Puente Hills Landfill would no longer be used. The very high costs for proper management of the problems at the Puente Hills Landfill are due to inherent and insurmountable deficiencies of the site for landfilling of municipal solid waste.

If the Board of Supervisors has any questions about these comments or our previously submitted statements to the Board of Supervisors, the Planning Commission, or the Districts, please contact me.

Sincerely yours,
G. Fred Lee, Ph.D., D.E.E.