

Rodriguez, Jane

From: DeWolfe, Stephanie
Sent: Tuesday, January 30, 2007 4:12 PM
To: Rodriguez, Jane
Subject: FW: A thought for compromise for the Desiderio Army Reserve Center site in Pasadena

More correspondence regarding Desiderio for the City Council packet . . .

From: SARTE1MEX@aol.com [mailto:SARTE1MEX@aol.com]
Sent: Sunday, January 28, 2007 11:48 AM
To: SARTE1MEX@aol.com
Subject: A thought for compromise for the Desiderio Army Reserve Center site in Pasadena

Hola - It would seem to me that a better compromise solution could be found that would allow for both projects (Habitat and Arroyo Seco Foundation) to give a bit. I would seek a meeting to explore the various possibilities, a Plan 3 as it were, something that has a broader community outreach and impact from all sides. Shalom, RuthAnne Tarletz, resident of Pasadena and Registrar and Representative for Recreation, Culture and the Arts, Arroyo Seco Neighborhood Council

Ann F. Scheid

31 January 2007

Members of the Pasadena City Council
117 East Colorado Street
Pasadena, California

RECEIVED
07 JAN 31 P4:47
CITY CLERK
CITY OF PASADENA

Re: Desiderio site

Dear Council Members:

Attached is a statement outlining many substantial reasons to consider open space as the best use for the Desiderio site.

Those of us supporting open space believe that this solution will bring the greatest benefit to the community. A proposal for open space was never allowed to come to the table, because it was excluded from the process at the very beginning by an internal decision by City staff.

This City has a reputation for and stated policies advocating community participation in the planning process. You, as our elected officials, have a responsibility to allow serious consideration of the open space proposal, which is advocated by many in the community. The Army's principal criterion in deciding the future of the site is "broad community participation." By not allowing open space to be considered at all, the City has sidelined a significant portion of the community and has blocked serious discussion of the open space alternative at all the Commission meetings.

I urge you to put the open space alternative into the process, so that it can be seriously discussed, debated, and weighed, as the other proposals have been.

Sincerely,

Ann Scheid
Ann Scheid

500 South Arroyo Boulevard
Pasadena, California 91105
Telephone: 626.577.7620 Facsimile 626.577.7073
email alund.ann@gmail.com

**Advocates for Desiderio Open Space
Keeping Public Land in Public Hands for Public Benefit**

Open space is State-mandated element in General Plan.

At a recent Rec and Parks meeting, citizens concerned about Open Space made the following demands:

- Place a moratorium on any/all facilities in open space areas
- Complete the sensitive land survey to identify existing/potential open space
- Survey inventory of public lands already taken by organizations/uses
- Re-establish the Parks Department

Expansion of the Lower Arroyo. Expansion by acquisition of sections of the Lower Arroyo for preservation is stated as public policy in the Arroyo Seco Master Plan. Desiderio site could easily be annexed to Lower Arroyo Park. All that is needed is a few paths and some discreet signage to explain the site, the ecology of the Arroyo and the history of the bridge.

Shortage of park land/open space: Pasadena is chronically short of open space/parkland. With respect to data about parkland, Section 4.5 (Acreage Analysis) of the Draft Parks Plan, states:

"The Park and Recreation Impact Fee Nexus Study (2004) . . . determined that by 2024 an additional 44.5 acres of parkland will be needed and 30.5 acres of open space to accommodate estimated population growth. Given the built-out condition of the city, it is very unlikely that even a fraction (of) this amount of acreage could be converted to parkland."

That's 75 acres to be acquired in the next 17 years. Five acres at Desiderio would bring it down to 70 acres.

Community participation: Both park documents call for community participation in the planning process. An internal decision by City staff, without input from elected officials or the citizenry, has closed off discussion of open space/parkland as an option for the Desiderio site.

Neighborhood scale: Draft Parks Master Plan, Policy 7.2, states: “Improvements are to be appropriate to neighborhood scale.” The existing buildings are clearly inappropriate to neighborhood scale, and they block views of the Arroyo and of the bridge. The Planning Commission agreed that the existing buildings were not worth rehabbing and should be demolished.

Toxic waste – Toxic waste issues on the site may make some of the proposed uses impossible or prohibitively expensive. No Phase I study has been done on the site. Possible waste issues include buried leaking fuel tanks, chlorinated solvents from a paint shop known to have been on the site, medical waste from the war-time hospital use.

Air Quality – Recent USC study recommends 550 yd (1/3 mile) buffer between major roadways/freeways and housing. Study showed decreased lung capacity in children. Also AQMD guidelines re schools recommend a distance of 2500 feet.

Protection of Lower Arroyo and native habitat. Any use other than open space will negatively affect the air and water quality through increased traffic and run-off from Arroyo Boulevard as well as loss of permeable land on the 5 acre Desiderio site.

Too many nature centers? The environmental center proposed for this site would be the third to be built in the City. There is one in Eaton Canyon and one is proposed for the Hahamongna area. Does the City need, and can it support 3 nature centers?

Special interests and parks: Rose Bowl, golf course, Aquatic Center, Kidspace in Central Arroyo, Casting Club, Archers in Lower Arroyo, Senior Center in Memorial Park, Bowling Club in Central Park, Caltech in Tournament Park, have taken existing parkland without replacing it.

The Arroyo Center for Art and the Environment proposal: As stated in this proposal, the land would be conveyed to the City under a public benefit conveyance through the Federal Lands to Parks program, making the land a city park. Although ACAE claims that it would maintain the site, what guarantee does the City have

that it will not eventually have to pick up the cost of maintaining both land and buildings? This is another example of the City acceding to a special interest that will use buildings on parkland and this must be maintained “in perpetuity.” Another loss of open space to the community as a whole. Let’s stop building in our parks!

Questions about the ACAE proposal:

How will they control traffic and accommodate parking for major events?

Is this a potential tourist attraction that will heavily impact the character of the neighborhood? Museums/galleries should be accessible by public transportation - ideally located in Old Pasadena or in the gentrifying industrial area south of Colorado (like Art Center), or on Colorado or South Lake.

Will they charge admission?

Will they sell paintings or act as agents for artists to sell their work, like a commercial gallery? Is this a commercial operation more suited to an urban site than to a park site?

Where is a scaled drawing that would allow measurement of their claims of “90% of the site as open space”?

Questions about Habitat proposal:

Their drawing (Scheme A) as approved by the Planning Commission with the claim of 75% open space shows only a little more than 50% open space, once the bungalows and their surrounding private yards, the art center and the 50-space parking lot are subtracted.

Questions about Police/Fire facility

What guarantee is there that this facility will not expand as needs expand in the future? Neither the use nor the buildings are compatible with the neighborhood or with the Lower Arroyo

Moule/Polyzoides proposal:

Clearly a transfer of public land, even at market rate, to a private developer, would be a giveaway that would most certainly be regretted in the future. Cf. Busch gardens land, transferred in the late 1940s, which now makes it impossible to restore the natural stream in that section of the Lower Arroyo. Moreover building so close to the Colorado Street Bridge, a National and City Landmark, would destroy the scenic vista of the bridge’s 9 arches striding

freely across the Arroyo. Two arches have already been severely impacted by building under the bridge.

Nine Reasons to Support the Nine-Unit Habitat Proposal

To: Mayor and City Council Members: Bill Bogaard, Joyce Streater, Victor Gordo, Paul Little, Chris Holden, Steve Haderlein, Steve Madison, Vice Mayor Sid Tyler

Re: Desidiero Army Base, you our representatives have a golden opportunity to make a difference!

As a community leader, Pasadena homeowner, author, and teacher I offer the following nine reasons for my support of the Habitat's proposal for a nine-unit Bungalow Court.

1. *Historic Architectural Character* - Habitat has chosen an historic indigenous Bungalow Court model, which originated in Pasadena in 1909 by Hienemann and Hienemann and later used by Myron Hunt, Marston and other famous architects like Frank Lloyd Wright. Their chosen architect is in keeping with the high quality of yesteryear by selecting the world-renowned architects RTKL
2. *Quality Design* - Habitat has proven their building expertise by earning two design awards for their Pacific Homes project in Glendale: a 2006 National Award of Merit from NAHRO (National Association of Housing and Redevelopment Officials) and the Homeownership Project of the Year from SCANPH (Southern California Association of Non-Profit Housing).
3. *Environmentally Sensitive* - Habitat's neighborhood park proposal (with extensive portions returned to native vegetation under the guidance of Matt Randolph and Amy Korn, both experts on plants of the Arroyo) allows Pasadena to enjoy the Arroyo with the inclusion of a parking grove similar to that at the Huntington Library's. This will limit traffic into the neighborhoods by those searching for parking spaces.
4. *Affordable Homeownership* - It is the only proposal that addresses our city's huge need for housing that is affordable for homeowners. This is in keeping with our city's Housing Element and Consolidated Plan. Our city remains at about 54% rental. To have a healthy community should be higher.
5. *Open Space Flexibility* - Habitat demonstrates a willingness to partner and listen to the community demonstrated by their provision of various schemes, and evidenced by their adjustment to provide more open space by changing their proposal from 20 units to nine. This now leaves 74% of the 5.1 acres with open space. Other proposals do not seem as flexible and as responsive to the neighbors concerns.
6. *Arroyo Center for Art and the Environment Compatibility* - The allowance for open space, gives an opportunity for the Arroyo Center for Art and the Environment to partner with Habitat—with room to spare. The Arroyo Center has other options like the Hahamonga Park where they have proposed their center, whereas Hahamonga is not zoned for homes. Additionally, their proposed art museum concept has other similar venues like the California Art Museum which offer a wonderful tribute to the early California Plein Air Painters. Due to the expense of land Habitat has not been able do a build in Pasadena for close to 15 years.
7. *Green Construction* - Habitat partners with funding sources for green construction methods and materials.
8. *West Gateway Specific Plan Compliant* - This site was never zoned for purely open space and is not in the Arroyo, but 50-60 feet above the Arroyo. Habitat's proposal complies with the West Gateway Specific Plan for low density housing and addresses neighborhood concerns regarding lot size and open space. At the time when the specific plan was being devised, the neighborhood wanted housing and to eliminate the military buildings.
9. *Maximum Public Benefit* - Habitat's proposal is in keeping with Army Base Closure guiding principles for public benefit purposes, not for private gain as in the proposed market rate units.

Thanks for considering each for these nine points in your decision. If you have any questions, please don't hesitate to call.

Jill Suzanne Shook, Catalyst with Mission to the Americas
Author/Editor *Making Housing Happen: Faith Based Affordable Housing Models*
Books can be purchased though Amazon or local major book stores
jshook1@juno.com www.makinghousinghappen.com, (626) 797-4072 or cell (626) 675-1316

Rodriguez, Jane

From: Williams, Brian
Sent: Tuesday, January 30, 2007 1:23 PM
To: Rodriguez, Jane
Subject: FW: WWW PUBLIC COMMENT

FYI

BKW

-----Original Message-----

From: cityweb-server@cityofpasadena.net [mailto:cityweb-server@cityofpasadena.net]
Sent: Tuesday, January 30, 2007 1:24 PM
To: Williams, Brian
Subject: WWW PUBLIC COMMENT

Subject: CAC Proposal
Name: Beth Stevens
Address: 1444 South Marengo Avenue
City: Pasadena
State: CA
Zip: 91106
Email: beth@4stevens.org
Date: 1/30/2007
Time: 1:24:24 PM

Comment:

Dear Mr. Williams,
This email is to let you know that my husband and I are supporting the California Art Club's proposal for the use of the property that the United States Army is decommissioning under the Colorado Street Bridge.
Sincerely,
Roy and Beth Stevens

January 31, 2006

Pasadena City Council

RECEIVED

'07 JAN 31 P4:46

CITY CLERK
CITY OF PASADENA

Dear City Council members,

The Arroyo Seco is the heart and soul of Pasadena. It is the reason artists and writers have always loved this area. It the birthplace of much of what we associate with California culture. This is a landscape that should be respected. The Desiderio site is a gateway to Pasadena, the first dramatic thing one sees when heading to Pasadena over the beloved Colorado Street bridge.

Do we really want this gateway to be another housing development?

We

have already marred this precious arroyo landscape by building right up to the bridge. To allow any further housing on this land is to add insult to injury. Even if the housing plan calls for low income housing or "75 percent open space" (which in reality is mostly green lawn, sports field, and children's play equipment).

The Desiderio army reserve is in a key location environmentally. It is the only easily acquirable piece of land which is on the Arroyo Seco. It is contiguous with the only part of the Arroyo Seco streambed which remains in a "natural" state. All the other easily accessible portions of the streambed are channelized. It is a window through which city children, whose parents don't have time to drive out to Eaton Canyon or the Cobb Estate, can get a glimpse of what a streamside ecosystem might look like.

The decommissioning of the Desiderio army reserve is an opportunity to acquire a key piece of land which can be restored to arroyo habitat. There will probably never again in all of history be such an opportunity. It will be almost free: all we need is a little demolition, and a native plant restoration for the area to become one of the most beloved spaces in Pasadena, it will be an open space tribute to arroyo culture.

The "Open Space" component of the Habitat for Humanity proposal is in actuality, mostly a park of green lawn, with sports fields and children's playground. Not exactly my definition of "open space", and certainly a kind of park that can exist anywhere else in the city. We already have MANY such recreational parks. Building 9 single family homes with individual yards on such a key environmental site is utterly inappropriate and again, can happen anywhere else in the city. Single family homes are not the direction toward a sustainable city. The transportation planners should know that as well.

The Arroyo Center proposal has many commendable elements, but it is clear that the prestige and monetary value of art figure strongly in their conception of the museum. Not the sanctity of the stream-side landscape. The museum, again, is something that can be built ANYWHERE in Pasadena.

As an artist, the Arroyo Center, represents employment and exhibition opportunities. However, I sincerely believe that the original plein air painters, ostensibly the occasion for the proposed Center, would have been shocked to see the existing housing developments and a generic park right on the banks of the arroyo. I believe that they would have advocated for preserving this land in as close to its natural state as possible.

Advocates of pure open space are speaking out not because we personally benefit from open space, but because we see the opportunity to preserve some of the things that make this city truly beautiful, and which contribute to our quality of life. The Desiderio site is an irreplaceable opportunity for the city to acquire land in a way that all will benefit from for generations to come.

yours,

Jane Tsong (signed)

5214 Coringa Drive

LA CA 90042

an Arroyo Seco foundation volunteer and artist 323-842-2991

January 31, 2007

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'07 JAN 31 P4 :47

Robert and Ann Tait
1377 Palm Terrace
Pasadena, CA 91104

CITY CLERK
CITY OF PASADENA

To: Pasadena City Council

I am submitting the attached statement on behalf of my husband Robert Tait, who is out of town.

My husband and I support the conversion of the Desiderio Site to Open Space use. This area should be rehabilitated with natural vegetation and added to the present Arroyo Natural Area for the benefit of all of Pasadena.

Sincerely

(signed)

Ann Tait

Environmental Liabilities
Desiderio Army Reserve Facility
by
Robert J. Tait, Ph.D., P.G.

Robert J. Tait, 1377 Palm Terrace, Pasadena 91104 –

B.S. Engineering, California Institute of Technology
M.S. Geology, California Institute of Technology
Ph.D. Geologic Processes, Scripps Institution of Oceanography
Professional Geologist, California Registration #4417

Two major issues

- Liabilities restricting land use
- Financial liabilities from legally required hazardous material cleanup

Background

- Facility has not had an environmental assessment.
- WW II era buildings have been demolished and replaced.
- Painting and vehicle wash activities have been documented in the past. Remains of hazardous material storage cabinets are still present behind former paint shop. Waste drums are currently present behind paint shop and beside wash rack. (as of 28 January 2007, photos on request)
- Facility still has no rainwater runoff controls, but drains directly into the Arroyo flood control channel.

Land Use Restrictions

- Demolition of WW II buildings usually results in lead paint residue in soil and human health risk levels above those acceptable for residential, recreational, and light industrial use.
- Paint shop activities, particularly prior to environmental regulation, commonly result in soil contamination with various heavy metals from paint pigments and groundwater contamination from solvents and paint thinners. (use restrictions as above)
- Vehicle wash racks (still present in SE corner) typically produce fuel, hydraulic fluid, and lead contamination of soil and groundwater. (use restrictions as above) Depending on the drainage configuration of the wash rack, this waste could be in soil directly under the wash facility, or drained to the flood control channel.

Financial Liabilities to Land Owner

- Groundwater contamination above legal “Maximum Contaminant Levels”, both state and federal, results in required cleanup by owner. Typical solvent cleanups cost \$10,000,000 to more than \$100,000,000. (Consult JPL “Superfund” activities for perspective.)
- Stormwater runoff control will be required to prevent parking lot and street runoff from entering the Arroyo flood control channel.

- Removal of contaminated soil will be required to protect groundwater, human health, and wildlife in the area. Excavation costs and disposal to a hazardous waste facility depend on chemicals present, but lead in soil costs roughly \$100 per cubic yard for disposal and site soil cleanup could reach \$1,000,000 for 10,000 cubic yards of soil.

Recommendations

- Demand environmental assessment and cleanup by U.S. Army as required by Comprehensive Environmental Response, Compensation, and Liability Act, 42 CFR, Section 9620.
- City of Pasadena should contractually require U.S. Army to assume all liability for environmental costs attributable to activities taking place prior to transfer, even if not discovered until after transfer.

RECEIVED

January 30, 2007

'07 JAN 31 P 4:49

The Honorable Bill Bogaard
Honorable Members of the City Council
117 E. Colorado Blvd.
Pasadena, CA 91105

CITY CLERK
CITY OF PASADENA

RE: City Council Meeting Agenda Item on Desiderio Army Reserve Site

Dear Mayor Bogaard and Members of the City Council:

I wish to file these comments regarding an important issue relating to the site itself, and not in support of any one of the four finalists. My purpose in submitting this letter is to inform the Council of a significant air quality issue at this location. Because of the proximity to heavily traveled roadways (the 134 Freeway and the Colorado Street Bridge), this location is very problematic for any type of residential use, and in fact presents health threats even for frequent daily users.

I live in the Arroyo and work as an attorney in the field of environmental regulations for Southern California Gas Co. and San Diego Gas & Electric. As a consequence of my work, I serve on several advisory groups for the South Coast Air Quality Management District, including the Environmental Justice Advisory Group, the Air Toxics Management Advisory Group, and others. This has given me the opportunity to learn about some of the latest research and policies pertaining to the health consequences of breathing elevated levels of diesel particulates. The air quality in this location is heavily influenced by the traffic on both the 134 Freeway and the Colorado Street Bridge. Before a final selection is made, I urge the City of Pasadena to fully consider the significant health impacts, especially to children, asthmatics and senior citizens, who may inhabit proposed residences there, or use the facilities at this location on a highly frequent basis.

I am including two recent policy decisions by the South Coast Air Quality Management District (SCAQMD) regarding safe distance from roadways, and two recent studies.

1. The SCAQMD adopted Rule 1401.1 November 4, 2005, which establishes tests for determining the minimum safe distance for siting various types of permitted facilities from schools. In support of the formula adopted in the rule the staff relied upon studies by the California Office of Environmental Health Hazard Assessment (OEHHA). The SCAQMD staff noted that OEHHA concluded that "the concentration of freeway emissions could impact downwind receptors up to 1500 feet (460 meters) before diminishing to background levels."

2. The SCAQMD developed a Guidance Document for local governments, "Air Quality Issues in School Site Selection." Referencing five separate regulations or guidance on an appropriate distance, it recommended, "...a general buffer zone of no less than 500 feet (150 meters), and possibly as much as 1000 feet (300 meters), between major roadways and school sites should be adopted to protect the health of its students and employees and meet state guidelines on location of mobile source emissions."
3. University of Southern California recently released a study (part of the Children's Health Study) that found that "... children living within 75 meters (about 82 yards) of a major road had a 50 percent greater risk of having had asthma symptoms in the past year than were children who lived more than 300 meters (about 328 yards) away."
4. In another USC study, to be published February 17, 2007, researchers found that children who lived within 500 meters of a freeway, or approximately a third of a mile, since age 10 had substantial deficits in lung function by the age of 18 years, compared to children living at least 1500 meters, or approximately one mile, away.

Permanent residential use of this site will expose the occupants to far greater levels of diesel particulate emissions than the rest of us are exposed to. This should be given serious consideration in cases, such as this, regarding residential use of such a problematic location. Even though land is dear in Pasadena for residential uses, we should not be allowing children, asthmatics and senior citizens to reside in areas that are of much greater threat to their long term health, such as this location.

Thank you for taking the time to consider these points. I hope to be able to discuss this with you in person on February 5, 2007.

Lee Wallace

Lee Wallace
190 South Arroyo Blvd.
Pasadena, CA 91105-1535
213-244-8851 (day)

Attachments (4)



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

BOARD MEETING DATE: November 4, 2005 AGENDA NO. 34
*(Continued from October 7, 2005 Board Meeting for
Board Deliberation and Action Only)*

PROPOSAL: Adopt Proposed Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools

SYNOPSIS: Proposed Rule 1401.1 implements Strategy No. 2 from the White Paper titled Potential Control Strategies to Address Cumulative Impacts from Air Pollution. The proposed rule consists of more stringent risk requirements for new or relocated facilities siting near schools.

COMMITTEE: Stationary Source, February 25, 2005, April 22, 2005, July 22, 2005, and September 23, 2005 Reviewed

RECOMMENDED ACTIONS:

Adopt the attached resolution:

1. Certifying the Notice of Exemption for Proposed Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools; and
2. Adopting Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools.

Barry R. Wallerstein, D.Env.
Executive Officer

EC:SN:AYL:CAM

Background

Proposed Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools, is based on Strategy 2 of the 2003 White Paper “Potential Control Strategies to Address Cumulative Impacts from Air Pollution.” The concept of the strategy was to establish more stringent toxics requirements for new or relocated toxic-emitting facilities that site

using the procedures in the hot spots guidance document and the 70 year exposure period for risk management decisions is consistent with OEHHA guidelines. The OEHHA representative also stated that the school risk assessment guidelines were developed specifically for toxics on site, and were not designed to assess facility emissions. Thus, the procedures as applied in this proposed rule are fully consistent with the CalEPA guidelines regarding risk assessment and risk management decisions.

Facility-wide risk values are the sum of the risk values for all the permit units at the facility. A permit unit is defined as any article, machine, equipment, or other contrivance, or combination thereof, which may cause or control the issuance of air contaminants, and which requires a written permit pursuant to Rules 201 and/or 203. The definition is identical to that in Rule 1401. For the purpose of this staff report, the term "source" refers to a permit unit. Proposed Rule 1401.1 uses AQMD's "Risk Assessment Procedures for Rules 1401 and 212" for calculating risk. Consistent with these guidelines, in determining distance for Proposed Rule 1401.1, the distance is measured from the source to the outer boundary of the school. For a point source, such as a boiler or engine, this means the distance from the exhaust stack to the school fence line. For a volume source such as a service station, this means the distance from the middle of the facility to the school fence line. This approach is consistent with the methodology used for Rules 1401, 1402, and 212.

The risk level requirements for Proposed Rule 1401.1 are based on all equipment at the facility requiring a written permit and do not include equipment at the facility that does not require a written permit pursuant to Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II, including, but not limited to, onsite mobile equipment or portable equipment. Portable equipment registered under CARB's Portable Equipment Registration Program does not require AQMD permits and is, therefore, exempt from the proposed rule. Certain equipment is exempt under the proposed rule because it is exempt from written permits, is regulated under other rules and/or is temporary in nature. The definition for facility is consistent with the definition used for other AQMD rules.

Cancer Risk over Distance

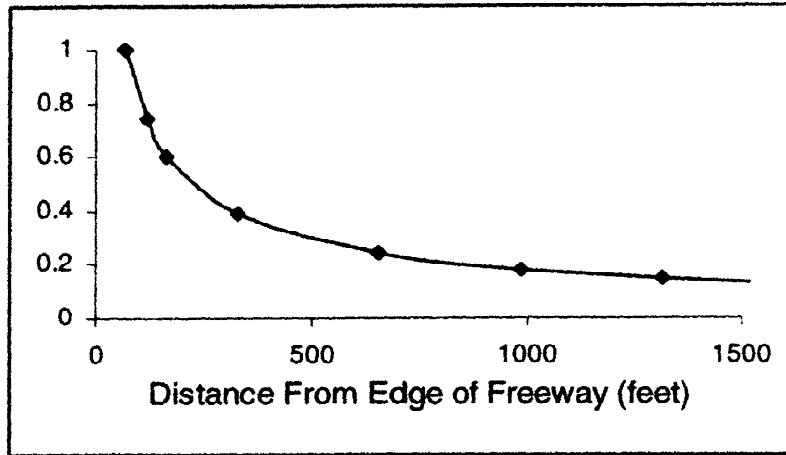
The policy objective for Proposed Rule 1401.1 is to achieve a risk level at schools or schools under construction of no greater than one in one million cancer risk from new facilities. Existing Rule 1401 allows a maximum individual cancer risk of ten in one million at the nearest receptor provided Best Available Control Technology for Toxics is used. In order to streamline permit processing, Proposed Rule 1401.1 relies on dispersion factors established based on past modeling analyses for stationary sources (point or volume sources).

A recent study¹ by the California Office of Environmental Health Hazard Assessment (OEHHA) and the California Department of Health Services noted that the concentration of freeway

¹ Proximity of California Public Schools to Busy Roads, Environmental Health Perspectives, January 2004.

emissions could impact downwind receptors up to 1,500 feet (460 meters) before diminishing to background levels. Figure 1 shows the relative risk of freeway toxic emissions as a function of downwind distance. The curve shows how relative risk decreases as the distance from the freeway increases. The scale for risk is zero to one, but could represent any set of values. For example, if the cancer risk at the freeway was 500 in one million, it would be reduced by approximately 80 percent to about 100 in one million at 1,000 feet from the freeway. The curve represents only the risk from the freeway without considering background risks levels.

Figure 1
Relative Cancer Risk from Freeway as a Function of Downwind Distance



In addition, profiles of risk levels from spray booths and service stations show that emissions and risk drops off significantly at about 300 to 500 feet. Figure 2 shows the relative cancer risk from a service station based on distance from a receptor. The first curve shows the decrease in risk over distance for the source. It assumes there is a receptor approximately 30 feet from the emissions source and that receptor is subject to 10 in one million cancer risk. The second curve assumes the nearest receptor is at approximately 150 feet from the source and is subject to ten in one million cancer risk. The figure illustrates that in both cases, the risk drops off to less than one in one million by approximately 350 feet from the source, regardless of whether the first receptor is at 30 feet or 150 feet.



**South Coast Air Quality
Management District (SCAQMD)**

**Air Quality Issues
in School Site Selection**

Guidance Document

June 2005

4. Summary of Recommendations

There is a strong connection between health risk and the proximity of the source of air pollution. Previous sections of this document have detailed recommendations or regulations suggested or required in specific documents related to air quality. In this section we first synthesize recommended threshold distances from three primary classifications of sources of air emissions expected to be of concern during the site selection process. The brief summaries presented here represent key, relevant results only; more detail from each of the cited documents is provided in the previous section, along with links to the full documents. Each of these general recommendations presented here is tailored to sensitive receptors.

This section also includes a discussion of the possible feedback mechanism of school construction generating traffic, and hence emissions, in an area, and how it may be addressed in planning.

The section concludes with some examples of evaluating the distance criteria.

Distance Criteria for Mobile Sources

Siting of school and child care facilities should include consideration of proximity to roads with heavy traffic and other sources of air pollution. New schools should be located to avoid "hot spots" of localized pollution.²³ As demonstrated through the various subsections of CEQA § 21151 and in SB 352, both discussed above, California law is very clear about separating sources of hazardous emissions, particularly those from mobile sources, from sensitive receptors at school sites. Other recommendations for appropriate distances between schools and other sensitive receptors and various mobile source emissions from relevant documents include:

- CEQA § 21151 restricts emitters of hazardous pollutants within ¼ mile (400 m) of any public school.
- SB 352 requires specific responses assessing health risk for schools within 500 feet (150 m) of busy roadways.
- CARB's ATCM regarding diesel school bus idling limits idling emissions within 100 feet (30 m) of a school.
- AQMD's HRA CEQA guidance for diesel idling recommends a 300 m (1,000 ft) buffer between sensitive receptor locations and sources of truck traffic emissions.
- CARB's Air Quality and Land Use Handbook recommends 500 feet (150 m) between busy roadways and sensitive receptor locations, 1,000 feet (300 m) from busy distribution centers and rail yards, and generally downwind of busy ports.
- The OEHHA study on schools and busy roads used a threshold of 500 feet (150 m) to define close proximity to roadways.
- Based on safety considerations, the CDE site selection guide recommends distances of 2 miles (3.2 km) between schools and airport runways, and as much as 2,500 feet (760 m) from railways and major roadways.

Based on the recommendations from the above documents, a general buffer zone of no less than 500 feet (150 m), and possibly as much as 1000 feet (300 m), between major roadways and school sites should be adopted to protect the health of its students and employees and meet state guidelines on location of mobile source emissions. Additionally, school bus idling should be limited within 100 feet (30 m) of

²³ American Academy of Pediatrics, Committee on Environmental Health, Policy Statement, Ambient Air Pollution: Health Hazards to Children, PEDIATRICS Vol. 114 No. 6 December 2004, pp. 1699-1707 (doi:10.1542/peds.2004-2166), <http://aappolicy.aappublications.org/cgi/content/full/pediatrics;114/6/1699>

Summary of Recommendations

school sites. Other major mobile sources should not be located closer than 1,000 feet (300 m) from school sites, and possibly further, depending on the source.

Distance Criteria for Stationary Sources

Major and minor stationary sources of air emissions within the immediate vicinity of proposed school sites are also likely to be issues of concern for site selection personnel, particularly in urban areas. As discussed above, California law (e.g., CEQA § 21151 and SB 352) has direct regulations regarding separation of stationary sources of hazardous emissions and locations sensitive receptors (e.g., schools). Specific recommendations for appropriate minimum distances between sensitive receptors and various stationary sources of criteria and toxic air emissions from relevant documents include:

- Based on safety considerations, the CDE School Site Selection Guide recommends not siting on or near a variety of known or potential stationary sources of hazardous material emissions, such as landfills, dump areas, chemical plants, oil fields, refineries, natural sources of asbestos, unless the site has been sufficiently cleaned and documented. Also, the document recommends against siting within ¼ mile (400 m) of any stationary source of toxic air contaminants and disallows siting on any location containing pipelines transferring hazardous materials.
- DTSC documents indicate that naturally occurring or constructed sites containing asbestos or lead, and sites where the soil may be contaminated from past pesticide, oil development, or other toxic use must be adequately documented and remediated before construction, and are best avoided if possible.
- CARB's "Air Quality and Land Use Handbook" recommends consulting with local air quality districts to determine an adequate separation distance from refineries, a minimum separation of 1,000 feet (300 m) between metal plating operations and sensitive receptor locations, and 300 feet (90 m) between sensitive receptors and dry cleaners using PCE (Perc) or large gasoline dispensing operations. A minimum distance of 50 feet (15 m) is recommended between sensitive receptor locations and small gasoline facilities. Separation distances for other significant stationary sources, including commercial, industrial, public, and transportation facilities emitting toxic air contaminants should be determined by consulting with local air quality control districts.
- AQMD's guidance for stationary sources is consistent with CARB's for consulting the air quality district, as given above, but indicates the availability of some emissions inventories within the Air Basin under AB 2588 and annual emissions reporting under Rule 301.
- SB 352 dictates that *all* potential stationary sources within ¼ mile (400 m) must be surveyed and assessed for health risks from toxic air emissions.
- CEQA § 21151 essentially restricts emitters of hazardous pollutants within ¼ mile (400 m) of any public school.

Based on the recommendations in these documents, new school sites separated from all stationary sources of toxic and hazardous emissions, including natural sources (e.g., asbestos), by ¼ mile (400 m) should be adequately conservative to protect the health of students and employees. Depending on the pollutants and the amount emitted, the threshold distance may be significantly less (e.g., in the case of natural asbestos properly mitigated) or more (e.g., for large sources like active port complexes). In these cases, the local air quality agency should be consulted to obtain relevant data on emissions and associated health risks.

University of Southern California

USC News

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Lead author Rob McConnell

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Children Near Roads Face Asthma Risk

Youngsters close to major thoroughfares are more likely to be affected than peers not far away, study says.

By Monika Guttman

Young children who live near a major road are significantly more likely to have asthma than children who live only blocks away, according to a study that appeared in the May 1 issue of *Environmental Health Perspectives*.

The study found that children living within 75 meters (about 82 yards) of a major road had a 50 percent greater risk of having had asthma symptoms in the past year than were children who lived more than 300 meters (about 328 yards) away. Higher traffic volumes on the different roads also were related to increased rates of asthma.

"These findings are consistent with an emerging body of evidence that local traffic around homes and schools may be causing an increase in asthma," said lead author Rob McConnell, professor of preventive medicine in the Keck School of Medicine of USC. "This is a potentially important public health problem because many children live near major roads."

More than 5,000 children ages 5 to 7 were involved in the study, which is an expansion of the Children's Health Study currently underway in 13 Southern California communities. The researchers determined how far each participating child lived from a major road, freeway, large highway or feeder road to a highway.

"These results suggest that living in residential areas with high traffic-related pollution significantly increases the risk of childhood asthma," said David A. Schwartz, director of the National Institute of Environmental Health Sciences (NIEHS), the primary agency that funded the study. "Children with no parental history of asthma who had long-term exposure or early-life exposure to these pollutants were among the most susceptible."

Children who lived at the same residence since age 2 had slightly higher rates of asthma than those who had moved to the residence later.

"That is what you would expect if the asthma was being caused by traffic," McConnell said. Risk for

wheeze also decreased the farther away a home was from a major road, dropping to background rates at roughly 150 meters (not quite two blocks).

Study sites included the cities of Alpine, Anaheim, Glendora, Lake Arrowhead, Lake Elsinore, Long Beach, Mira Loma, Riverside, San Bernardino, San Dimas, Santa Barbara, Santa Maria and Upland.

McConnell noted that air pollution regulations typically focus on regional air pollutants rather than localized exposures within communities, such as living near a busy road, that may also be a problem.

"We've taken some tentative steps to address that, for example with a law that a new school can't be built within 500 feet of a freeway. But we have to also consider whether building parks, play areas or homes right next to a major road is a wise land-use decision in terms of health," he said.

McConnell and his colleagues plan to follow up with a subgroup of the children to measure pollutants in their homes and also to look at characteristics that may make children more susceptible (or that may be protective), such as genetic characteristics.

This study was supported by the NIEHS, California Air Resources Board, the Southern California Particle Center and Supersite, the Environmental Protection Agency, the South Coast Air Quality Management District, the National Heart Lung and Blood Institute and the Hastings Foundation.

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Living near freeways hurts lungs

USC study charts types of damage to youths

Study cities

USC researchers studying the effects of freeway pollution on lung capacity followed 3,600 children from fourth grade until they graduated high school in the following cities: Alpine, Anaheim, Glendora, Lake Arrowhead, Lake Elsinore, Long Beach, Mira Loma, Riverside, San Bernardino, San Dimas, Santa Barbara, Santa Maria and Upland.

BY ELISE KLEEMAN
STAFF WRITER
Pas Star-News
1/26/07

Children growing up near freeways are not only more likely to develop asthma and other respiratory problems, their lung function also may be permanently stunted, according to a USC study released Thursday.

The USC study found that children who lived within 550

yards (about a third of a mile) of a freeway for the first 10 years of their lives grow up to have lower lung capacity than their peers who live a mile away.

“What we see on average by the time these children reach age 18 is about a 7 percent reduction in their natural lung health,” said James Gauderman, the study’s lead author epidemi-

ologist.

The researchers followed more than 3,600 children in 13 Southern California cities — including Glendora and San Dimas in the San Gabriel Valley — from fourth grade until they graduated high school.

The damaging effect of living near a freeway was evident, Gauderman said, even after taking into account such factors as

LUNGS

Proximity to freeways is key

Continued from page 1

socioeconomic status and whether they or their family members smoked. The impact on children’s lungs seems to be permanent, he added.

“We have continued following these children into their 20s and we don’t see any evidence that they are experiencing rebound growth,” Gauderman said. “That’s probably because the development of the body and the lungs is pretty much done.”

Though the children would probably not be immediately affected by their weakened lungs, “what we do know from other studies is that decreased

lung function is a significant factor for respiratory problems and more severe problems like cardiovascular disease and emphysema,” Gauderman said.

Previous work by Gauderman and his colleagues also has demonstrated a link between poor regional air quality and stunted lung growth.

Though this study did not investigate which component of freeway pollution affected lung function, Gauderman guessed that one important factor could be the high concentration of ultrafine particles — the “very smallest little bits of dust that come out of the tailpipes of trucks and cars.”

“It is known that ultrafine particles can be inhaled deeply into the lungs,” he said. “Ultrafine particles have been found in the bloodstream, in the brain.”

Such particles could cause

chronic irritation and swelling that would keep lungs from filling completely with air.

Whatever the precise cause, the impact can perhaps be seen at Huntington Hospital’s asthma clinic, said allergist Sarah Kehl, many children come in with lung function of 60 or 70 percent of what would be predicted for them.

Though it is complicated to untangle which factors could lead to such dismal numbers — one very common source of chronic lung irritation is cockroach droppings — many of the sickest children come from poorer families, more likely to live near freeways.

“The implications are potentially important in terms of thinking about where we live, where we put our schools,” said Jonathan Samet, an epidemiologist at Johns Hopkins University who lead an advisory panel for the study.

The impact on living near a freeway, Samet said, “certainly is not small. The Clean Air Act for the major pollutants means that the [Environmental Protection Agency] should set a standard that protects the public from adverse effects. Certainly, this is an adverse effect.”

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