greatest housing need, and at the same time, revitalize and stabilize our neighborhoods.

Our plan is to concentrate on a few neighborhoods first where actual needs can be identified and remediation brought to bear with the proper resources. Cooperation and coordination between City departments, other public agencies and the community will be critical. Strict code enforcement, police cooperation, and creative solutions will be essential.

We cannot ignore the neighborhood and housing issues facing us. We need to envision a future we can create for ourselves. And we must adopt a strategy to create that future.

We are pleased to present the FY 2005-2009 Long Beach Housing Action Plan, which outlines the City's strategy to meet these challenges.

Sincerely,

Melanie Fallon
Director of Community Development
City of Long Beach

B. HOUSING ACTION PLAN ORGANIZATION

The Long Beach Housing Action Plan contains the following six chapters:

1. *Introduction.* This chapter explains the purpose and organization of the report, describes consistency with other City housing plans, and outlines the next steps in program implementation.

2. *Housing Needs.* This chapter provides an overview of the City's most pressing housing needs.

3. *City Housing Policies.* This chapter presents the City's housing Mission Statement, and guiding principles for expenditure of housing funds.

4. *Housing Resources.* This chapter summarizes the various existing and potential resources available to achieve the City's housing assistance goals.

5. *Housing Production.* This chapter sets forth the City's 5-year plan for addressing affordable housing needs.

6. *Focus Neighborhoods.* This chapter identifies the first three focus neighborhoods for investment.

C. CONSISTENCY WITH RELATED CITY PLANS

The Housing Action Plan (HAP) builds upon the policies contained in two key City planning documents adopted by City Council: the 2000-2005 Housing Element and the Long Beach 2010 Strategic Plan.

The 2000-2005 Housing Element is a component of the Long Beach General Plan. The Housing Element is a comprehensive document that sets forth the City's housing goals, policies and programs to address identified housing needs, including regional growth needs adopted by the Southern California Association of Governments (SCAG). The State Department of Housing and Community Development (HCD) has certified the City's Housing Element as in-compliance with State housing element law.

The 2010 Strategic Plan identifies the restoration of neighborhoods as the center of community life and the most important step Long Beach can undertake to build toward a positive future in the 21st century. The Strategic Plan provides the foundation for development of both the Housing Element and HAP, and sets forth the following principles:

- *Build a strong network of healthy neighborhoods in Long Beach*
- *Strengthen community leadership, collaboration and stewardship and increase public participation*
- *Create healthy neighborhoods where diversity is celebrated, arts and cultural programs flourish, services are accessible, and all people have tools to improve the quality of their lives*
- *Support neighborhood efforts to create beauty and pride by removing blight and providing high-quality and well-maintained public infrastructure, parks and public facilities in each neighborhood*
- *Improve the quality and availability of neighborhood housing by addressing declining homeownership, deteriorating neighborhood and increasing overcrowding*

D. NEXT STEPS

Upon City Council's adoption of the 2005-2009 Housing Action Plan with three neighborhood Focus Areas, the Department of Community Development (CD) will undertake the following steps towards implementation of the Plan:

1. **Detailed assessment of each Focus Area's housing and community development needs.** This initial step will involve field surveys to document existing land uses, housing occupancy and conditions, infrastructure needs, open space and community resources in each of the Focus Areas.

2. **Identification of City and neighborhood resources to address needs.** Upon documentation of Focus Area needs and priorities, CD will evaluate resources available to match these needs with appropriate programs and projects. Resources and activities from other City departments will also be identified, such as code enforcement initiatives, and planned park and school facilities.

3. **Coordination of plans with other City departments and the Long Beach Unified School District (LBUSD).** As a means of addressing the broader community development needs within each Focus Area, CD will work with other City departments and LBUSD to provide coordinated neighborhood improvements. Through this coordination of resources, a comprehensive Implementation Plan will be developed for each area.

4. **Community outreach regarding proposed Plan.** An interdepartmental City staff team will share the proposed Implementation Plan with neighborhood organizations in each Focus Area. Based on input received from the community stakeholders, the Implementation Plans for each neighborhood will be finalized.

5. **Implementation of the Plan.** Housing Action Plan activities will be undertaken both Citywide and within the neighborhood Focus Areas. CD will continually monitor progress in implementation, and report to Council on an annual basis. Adjustments will be made as necessary to ensure achievement of the two primary goals of the HAP:

   - *Maximize investment towards providing quality affordable housing to as many City residents with the greatest housing needs as possible*
   - *Revitalize and stabilize Long Beach neighborhoods*

II. HOUSING NEEDS

The Housing Action Plan serves as the framework for the allocation of scarce resources to address the most critical housing needs in the community. To help understand the nature and extent of housing needs in Long Beach, this section provides an overview of these needs as they relate to:

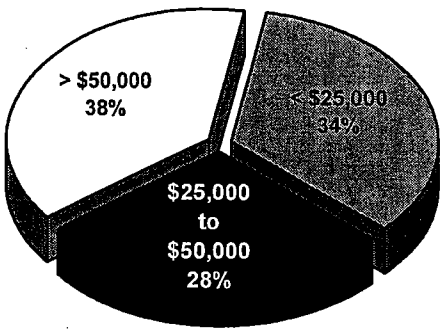
- Household Income and Affordability
- Housing Supply and Demand Factors
- Other Housing Issues

A. HOUSEHOLD INCOME AND AFFORDABILITY

1. Household Income

Income is a key determinant of how much a household can afford to spend on housing. In Long Beach, a growing concern is the increasing gap between income and housing affordability. As of the 2000 Census, households in Long Beach earned a median household income of $37,270 – well below the $42,189 median income for Los Angeles County. As shown in Exhibit 1, one-third of Long Beach households earned less than $25,000, and nearly two-thirds earned less than $50,000.

Exhibit 1: Household Income



Total Households: 163,088

Source: U.S. Census 2000

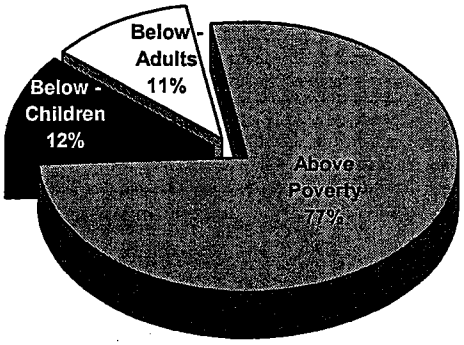
Many of the workers who make up the diverse fabric of Long Beach earn very limited incomes, and are faced with overcrowding or overpaying for housing to live in the community. Occupations earning less than $25,000 annually in Long Beach include people we interact with daily, such as:

- Fast food workers
- Retail salespersons
- Security officers
- Nurse's aides
- Social workers
- School aides
- Janitors

Poverty

The federal government publishes national poverty thresholds that define the minimum income level necessary to obtain the necessities of life. The 2000 poverty threshold for a family of four was $17,463. Long Beach has been ranked 10th in the United States in terms of the proportion of the population living below the poverty level (Source: U.S. Census).

Exhibit 2: Population in Poverty
(% Above or Below Poverty Line)

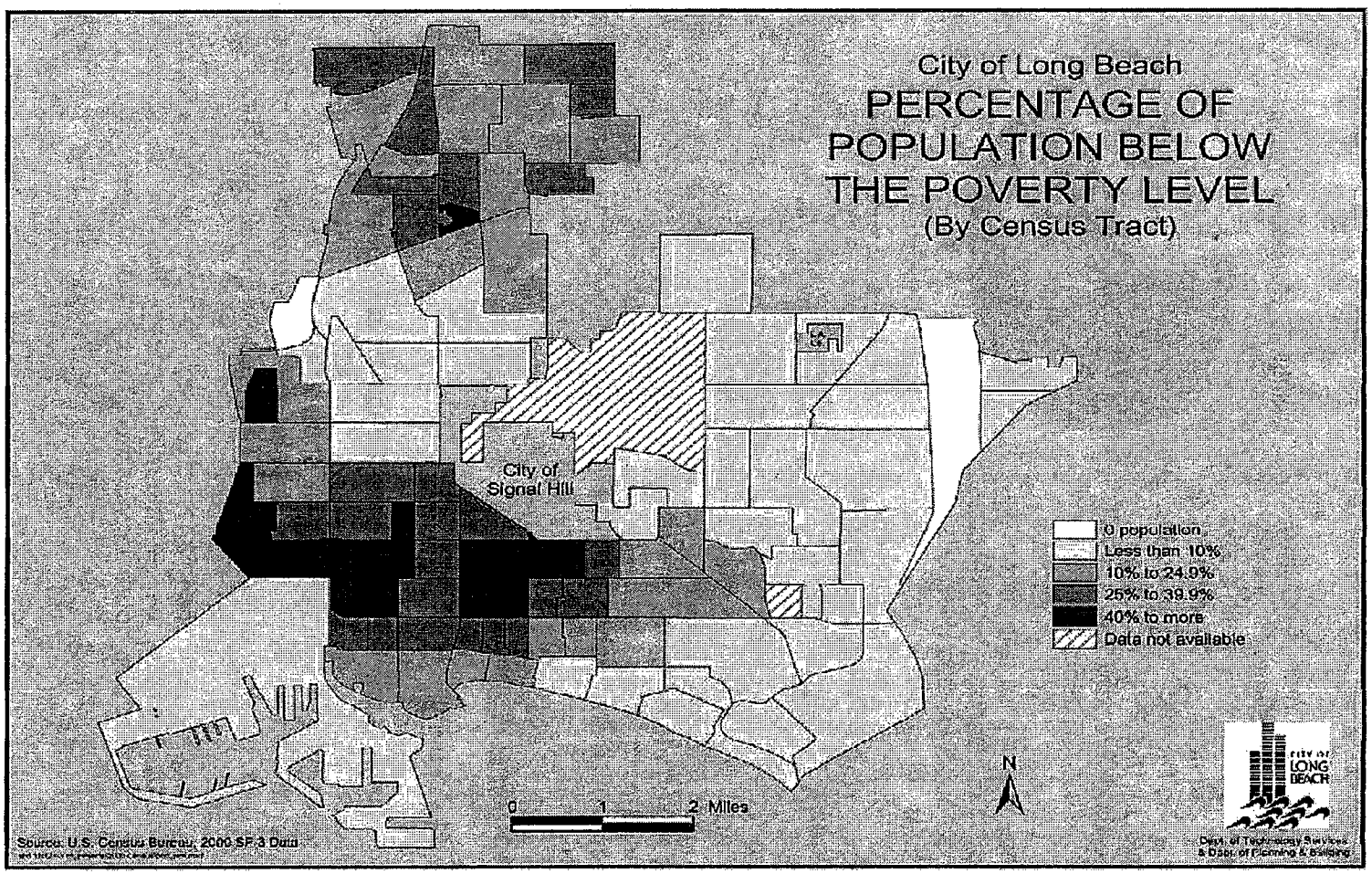


Total Population: 461,552
Source: U.S. Census 2000

The 2000 Census identifies 23% of Long Beach residents as living in poverty, a significant increase from the 17% poverty rate in 1995. Half of the approximately 103,000 City residents in poverty are children, translating to more than 55,000 children in poverty.

Where do households in poverty live? Exhibit 3, which follows, illustrates the percent of the population in poverty by census tract in the City. The two darkest areas illustrate census tracts where more than 25% of the population is in poverty, primarily concentrated in the Downtown, Central and Westside areas of Long Beach, as well as in scattered areas in North Long Beach.

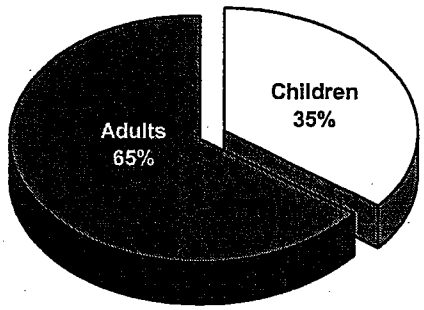
EXHIBIT 3


City of Long Beach
PERCENTAGE OF POPULATION BELOW THE POVERTY LEVEL
(By Census Tract)
City of Signal Hill
0 population
Less than 10%
10% to 24.9%
25% to 39.9%
40% to more
Data not available
N
0
1
2 Miles
Source: U.S. Census Bureau, 2000 SF 3 Data

Homelessness

The 2003 Long Beach Homeless Count and Assessment Survey conducted by the Health and Human Services Department identifies 5,845 homeless individuals in the City. Of these, over one-third are children under the age of 18 (Exhibit 4). The majority of the City's homeless population reside "on the street", such as in parks, sidewalks, abandoned buildings and riverbeds. Less than one-quarter of the homeless counted were in an emergency shelter or transitional housing facility.

Exhibit 4: Homeless Population



Total Homeless: 5,845

Source: Long Beach Homeless Count and Assessment Survey, 2003

With nearly one-quarter of the City's population in poverty, Long Beach has a substantial portion of its population at-risk of becoming homeless. Many of these persons can become homeless because of social structural issues such as increase in rent, loss of job, and rising health care costs. In addition, personal experiences such as domestic violence, physical disabilities, mental illness, and substance abuse can cause members of a low-income household to become homeless.

2. Housing Affordability

Renter Affordability

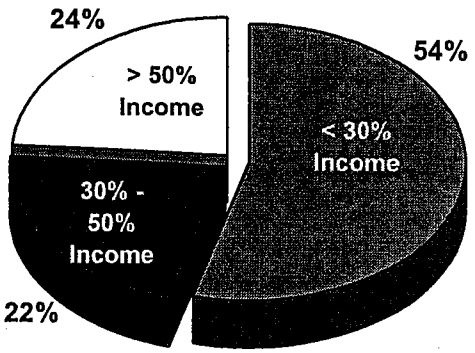
Average monthly market rents in Long Beach for a modest two-bedroom, two-bath unit run around $1,000 in 2003. The generally accepted standard for housing affordability is that households should not spend more than 30% of their incomes on rent and utilities. Thus, in order to afford a monthly rent of $1,000, a household needs to earn at least $40,000 per year, or $19.23 per hour.

The minimum wage in California is not enough to pay average rents in Long Beach. At $6.75 per hour, two full-time minimum wage workers would each need to work approximately 58 hours per week to afford $1,000 in rent.

Renter Overpayment

The 2000 Census documents renter overpayment in Long Beach. As illustrated in Exhibit 5, 46% of renters were spending 30% or more of their incomes on housing (42,126 households). Approximately one-quarter of all renters experienced severe renter overpayment, defined as spending more than half of income on shelter. Renters faced with severe overpayment have limited income remaining for other living expenses such as food, clothing, transportation, and health care, making such households particularly vulnerable to homelessness.

Exhibit 5: Percent of Income Paid for Rent



Source: U.S. Census 2000

Table 1 provides a more detailed review of the types of Long Beach households experiencing severe overpayment. As would be expected, extremely low-income renters (earning 0-30% of Median Family Income [MFI]) were most impacted, with approximately two-thirds spending more than half their incomes on rent. Low-income renters (earning 31%-50% of MFI) were also significantly impacted, with 30% severely overpaying for rent. Among extremely low-income renters, small and large families and "other" households (unrelated persons living together) were most affected by overpayment, whereas among low-income renters, other households and seniors were most impacted.

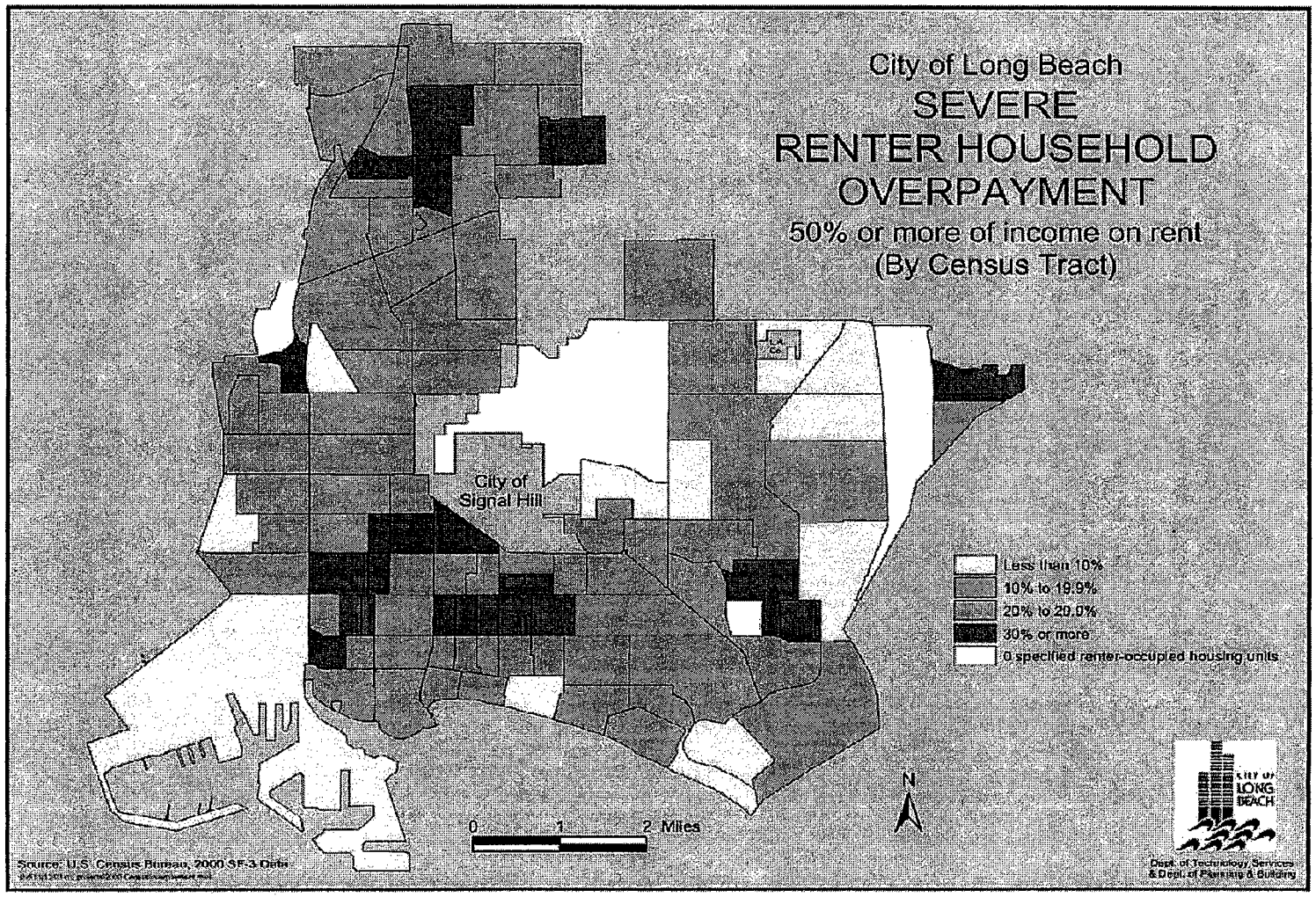
Table 1
Severe Renter Overpayment by Household Type

Income Level	Elderly	Small Family	Large Family	Other	Total
Extremely Low (<30% MFI)	54%	75%	67%	67%	68%
Low (31-50% MFI)	36%	28%	13%	45%	30%
Moderate (51-80% MFI)	17%	4%	1%	11%	7%
Middle/Upper (>80% MFI)	5%	<1%	<1%	1%	1%

Source: HUD, CHAS Data Book, 2000.

Exhibit 6 illustrates severe renter overpayment by census tract. Many neighborhoods in Downtown and Central Long Beach which evidenced a high incidence of severe renter overpayment (>30% households spending half their incomes on rent) were also identified in Exhibit 3 as areas of high poverty. In addition, several neighborhoods in North Long Beach as well as other pockets throughout the City (CSULB area, Windward Village mobilehome park) exhibited similarly high levels of severe renter cost burden.

Exhibit 6


City of Long Beach
SEVERE
RENTER HOUSEHOLD
OVERPAYMENT
50% or more of income on rent
(By Census Tract)
City of
Signal Hill
Less than 10%
10% to 19.9%
20% to 29.9%
30% or more
0 specified renter-occupied housing units
N
0
1
2 Miles
Source: U.S. Census Bureau, 2000 SF-3 Data
Dept. of Technology Services
& Dept. of Planning & Building

Homeowner Affordability

Similar to most communities throughout Southern California, for-sale housing prices in Long Beach have continued their upward trend from the late 1990s. Table 2 presents median single-family and condominium sales prices by Long Beach zip code (refer to Exhibit 7 for a map of zip code boundaries). During December 2003, over 330 single-family homes were sold in the City, commanding a median sales price of $362,000.[1] Home prices in most areas of the City reflected a minimum 20-30% price increase from the prior year's sales.

Table 2
Median Home and Condominium Sales Prices: December 2003

Zip Code	No. of Homes Sold	Median Home Price	% Change from 12/02	Home Price per sq. ft.	No. of Condos Sold	Median Condo Price	% Change from 12/02
90802	2	$270,000	-17.2%	$305	49	$228,000	34.9%
90803	22	$683,000	24.1%	$436	23	$335,000	36.2%
90804	14	$285,000	0.7%	$313	19	$240,000	42.0%
90805	84	$266,000	32.8%	$247	9	$110,000	12.2%
90806	23	$298,000	38.3%	$270	1	$177,000	-15.1%
90807	38	$418,000	13.9%	$299	9	$254,000	93.1%
90808	50	$395,000	19.0%	$312	1	$286,000	N/A
90810	24	$268,000	25.9%	$264	6	$86,000	-37.5%
90813	16	$244,000	52.5%	$226	8	$151,000	12.0%
90814	12	$603,000	40.2%	$368	9	$234,000	17.3%
90815	47	$420,000	21.4%	$307	9	$226,000	-7.8%

Source: Data Quick Real Estate News, January 22, 2004

[1] Southern California Home Sale Activity for December 2003, as printed in 1/04 *LA Times*, using the medians listed for 11 representative Long Beach city zip codes.

Exhibit 7

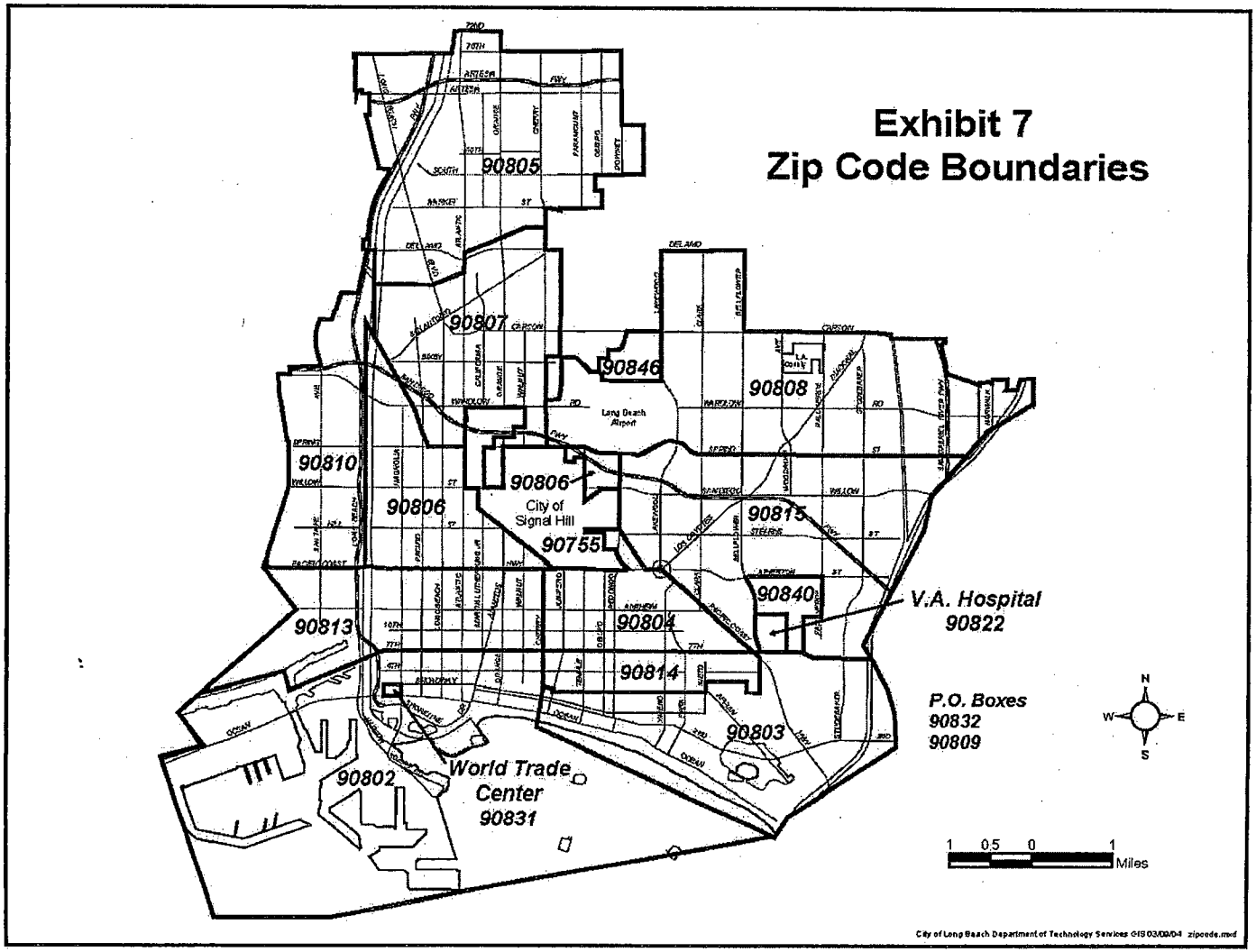


Exhibit 7
Zip Code Boundaries
90805
90807
90846
90808
90810
90806
90806
City of Signal Hill
90755
90815
90840
V.A. Hospital
90822
90813
90804
90814
90803
P.O. Boxes
90832
90809
90802
World Trade Center
90831
N
W
E
S
1 0.5 0 1
Miles
City of Long Beach Department of Technology Services GIS03/09/04 zipcode.mxd

Assuming a 5% downpayment, 6% interest and 30-year term, the monthly mortgage payment necessary to purchase the median priced ($362,000) Long Beach home is $2,062, or approximately $2,500 once taxes and insurance are included. A household would need to earn at least $90,000 per year to support this mortgage, assuming they pay no greater than 33% of household income for housing.

Less than 20% of Long Beach households earn the level of income necessary to purchase the median priced home, placing single-family homeownership out of reach for many professionals, including:

- Firefighters
- Police Officers
- Teachers
- Engineeers
- Civic Employees

Condominiums are a popular housing choice due to their relative affordability compared to single-family homes. As illustrated in Table 2, nearly 30% of Long Beach's housing sales during December 2003 were for condominiums, totaling approximately 150 units. With a Citywide median sales price of $230,000, the necessary income to support the associated mortgage is brought down to approximately $58,000. Approximately one-third of the City's households earn sufficient income to purchase the median priced condominium in Long Beach, making condominiums a more viable option for the City's homeownership assistance programs.

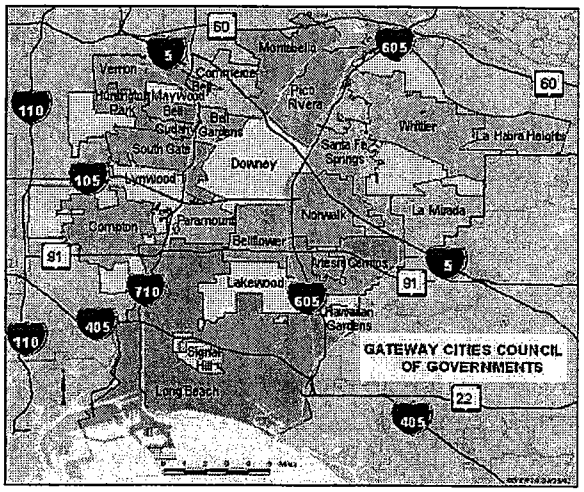
B. HOUSING SUPPLY AND DEMAND FACTORS

1. Housing Growth

To meet the housing needs of California's growing population, 220,000 new housing units are needed every year.[2] Housing production has fallen well below this level for over a decade, contributing to rising housing prices and rents, higher housing cost burdens, lower homeownership rates, increased crowding and longer commutes. In 2003, 165,000 units were built, representing a 15% increase over the prior year, yet still addressing only 75% of the total need.

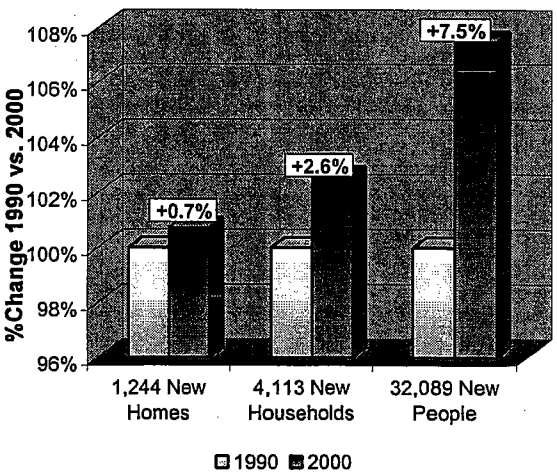
Statewide trends of insufficient housing production are realized both at the regional and local level. During the 1990's, the Gateway Cities population increased by 153,339 people (8.8%), mostly a result of natural growth (births rather than in-migration). However, during this same period, only 11,228 new housing units (2%) were added to the housing stock.

Exhibit 8: Gateway Cities Region



During this same period, Long Beach experienced a 7.5% increase in population, a 2.6% increase in households, and less than a 1% increase in the housing stock (Exhibit 9). This imbalance in population and housing growth translates into lower vacancies, upward pressure on housing prices, and larger household sizes with more people crowded into essentially the same housing stock.

Exhibit 9: Housing vs. Population Growth



Source: U.S. Census 1990 and 2000

Long Beach currently has over a dozen residential projects underway downtown, consisting of approximately 1,800 rental and condominium units. Even with

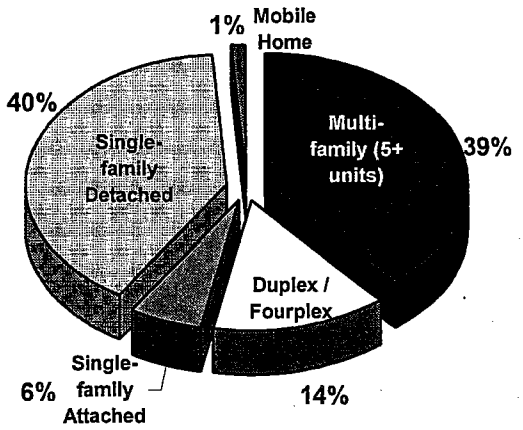
[2] California HCD, *"Raising the Roof,"* 2001.

this increase in supply of predominately luxury units, market strategists anticipate units to be readily absorbed, and average to above average rent trends to be sustained in Long Beach throughout 2004.[3]

2. Housing Type and Tenure

The 2000 Census documents a total of 171,632 housing units in Long Beach. With limited housing development activity over the past decade, the mix of housing has remained relatively stable, comprised predominately of single-family detached homes (40%) and multi-family units (39%), followed by duplexes/ triplexes/ fourplexes (14%), single-family attached units such as townhomes and condominiums (6%), and mobile home units (1%).

Exhibit 10: Housing Unit Mix



Total Housing Units: 171,632

Source: U.S. Census 2000

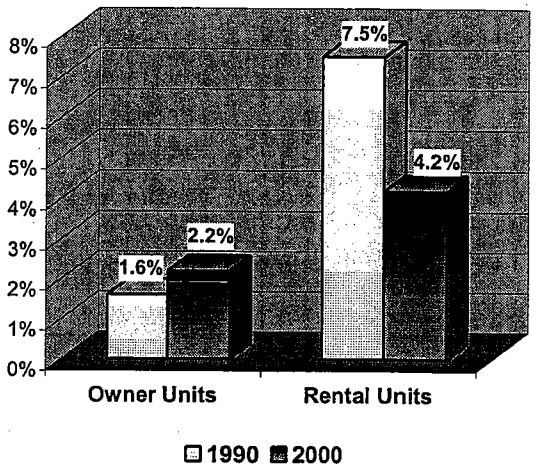
Contrary to public perception, owner-occupancy rates have also remained stable over the past two decades. During 1980, 1990 and 2000, the Census documents that 41% of Long Beach households were homeowners, with 59% renters. And while a significant number of the City's single-family homes are used as rentals, the proportion of single-family rentals actually declined between 1990 and 2000 from 24% to 23%.

[3] Los Angeles County, California Apartment Market Outlook, September 2003.

3. Vacancy Rates

Residential vacancy rates are a good indicator of how well the current supply of housing is meeting the demand for various types of units. In general, a healthy housing market is expected to maintain a 5% vacancy factor for rental units and a 2% vacancy factor for ownership units.

Exhibit 11: Housing Vacancy Rate



Source: U.S. Census 1990 and 2000

Exhibit 11 depicts rental and ownership vacancy rates in Long Beach in both 1990 and 2000. In 1990, rental vacancies were at 7.5%, indicating an adequate supply of rentals to allow mobility. However, with only limited increases in rental housing and continued population pressures, rental vacancies had dropped to 4.2% by 2000. According to California Apartment Market Outlook, rental vacancies had fallen to 3.7% in the South Bay in early 2003, and are projected to drop to the low- to mid- 3% range by the end of 2004.[4] These less than optimal vacancy rates can lead to increased competition for rental units, placing upward pressure on rents and potentially leading to households spending more than they can afford. Low vacancy rates can also contribute to overcrowding, as households "double-up" to afford scarce units.

Less dramatic changes were evidenced in the vacancy rates for ownership units. While the 1990 ownership vacancy rate of 1.6% was slightly below optimum, vacancies had increased to a healthy 2.2% by 2000. With the continued escalation in the real estate market prices since 2000 and limited increases in supply, it is likely homeowner vacancies are also declining.

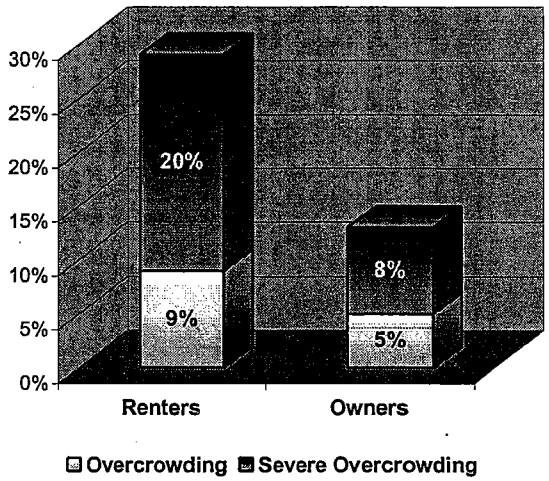
[4] Los Angeles County, California Apartment Market Outlook, September 2003.

4. Household Overcrowding

Overcrowding is a significant issue in Long Beach. While the Census considers units with more than one person per room to be overcrowded, 1.01 occupancy is common in today's urban environment and poses little threat to the stability of communities or longevity of properly managed housing. However, housing occupancy in excess of 1.5 persons per room, called "severe overcrowding" can significantly affect community health and housing viability.

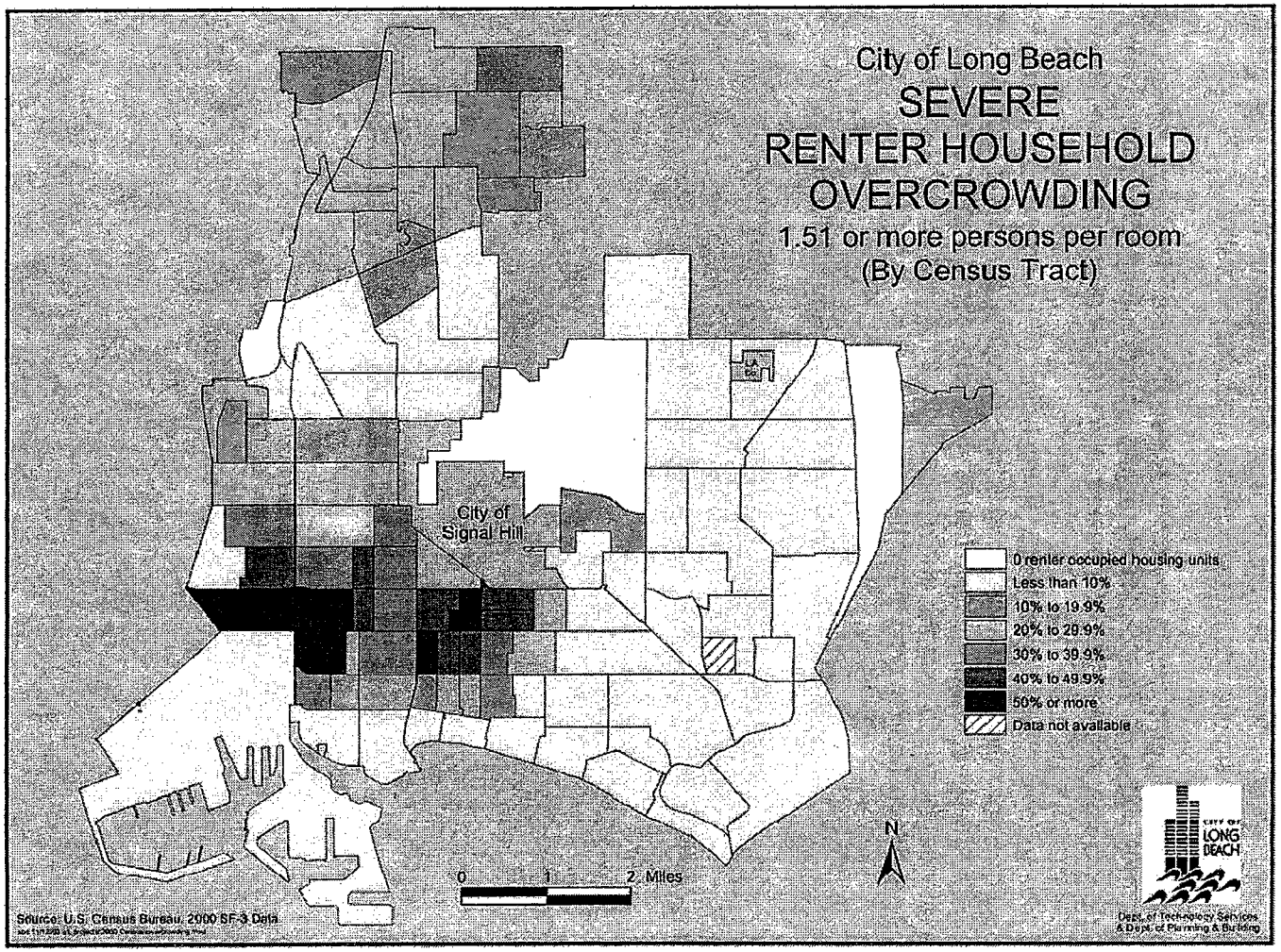
The 2000 Census documents the presence of severe overcrowding in 8% of homeowner households and 20% of renter households in Long Beach (Exhibit 12). Although these rates of overcrowding are fairly comparable to Los Angeles County as a whole, certain neighborhoods in the City experience extreme rates of overcrowding. As illustrated in Exhibit 13, numerous census tracts in Downtown, Central and North Long Beach are characterized by over one-third of renter households living in severely overcrowded housing.

Exhibit 12: Household Overcrowding



Source: U.S. Census 2000

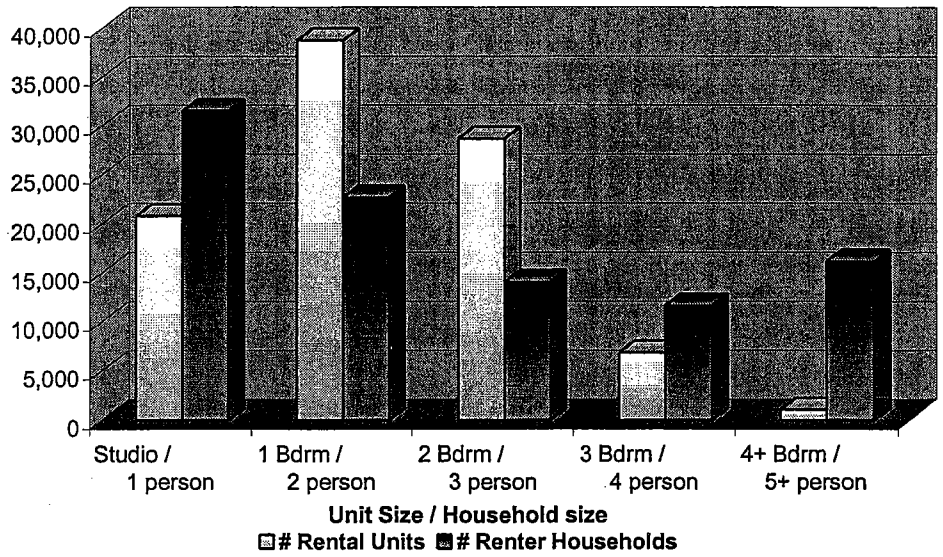
Exhibit 13


City of Long Beach
SEVERE
RENTER HOUSEHOLD
OVERCROWDING
1.51 or more persons per room
(By Census Tract)
City of
Signal Hill
0 renter occupied housing units
Less than 10%
10% to 19.9%
20% to 29.9%
30% to 39.9%
40% to 49.9%
50% or more
Data not available
N
0
1
2 Miles
Source: U.S. Census Bureau, 2000 SF-3 Data
Dept. of Technology Services
& Dept. of Planning & Building

One of the key demographic trends impacting housing needs in Long Beach is the City's transition from a majority white homeowner population comprised of smaller households to an increasing number of Hispanic and Asian renter households with large families. The City's existing rental housing stock of primarily older, small units are of inadequate size to house this population, contributing to significant unit overcrowding and deterioration.

Exhibit 14 highlights this mismatch between the need for larger rental units and the City's supply of predominately studio and one-bedroom units. Using State Redevelopment definitions of "household size appropriate for the unit" as number of bedrooms plus one, Long Beach has only 1,063 rental units (4+ bedrooms) to accommodate 16,191 large renter households (5+ members). Even adding in three-bedroom rentals results in less than 8,000 larger rental units – less than half that needed to adequately house the City's large renter population. This imbalance between supply and demand contributes to 86% of large renter households living in overcrowded housing.

Exhibit 14: Renters – Unit Size vs. Household Size
(Supply vs. Demand)



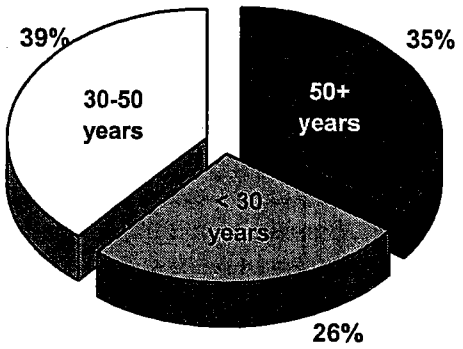
Source: U.S. Census 2000

5. Housing Age and Condition

The age of a community's housing stock can be an indicator of overall housing conditions. Typically, housing over 30 years in age is likely to have rehabilitation needs that may include new plumbing, roof repairs, foundation work and other repairs. Housing over 50 years in age may require total building replacement if not well maintained.

Exhibit 15 summarizes the age distribution of Long Beach's housing stock. As of 2000, 74% of the City's 170,000+ housing units were over 30 years old, with 35% of units older than 50 years. The prevalence of housing built prior to 1950 is also of concern because of lead-based paint hazards. According to the City's Consolidated Plan, Long Beach has 66,000 units that may likely contain lead-based paint.

Exhibit 15: Housing Age



Total Housing Units: 171,632

Source: U.S. Census 2000

While comprehensive information on housing stock conditions in Long Beach is not available, several sources of information provide indicators of housing conditions. The 1995 American Housing Survey asked households to rate the condition of their building, and based on this subjective survey, an estimate of 3,100 occupied dwelling units in the City had severe physical problems. Casual observation suggests widespread deterioration in many low-income single and multi-family neighborhoods, and Long Beach officials note that 750 inspections for substandard conditions are performed annually. City code enforcement staff are unanimous in their view that housing and neighborhood quality in lower income areas is declining.[5]

[5] Source: Long Beach Housing Assessment, Gary Squier, April 2001.

C. OTHER HOUSING ISSUES

In addition to household income and affordability, and supply and demand factors, several other housing issues have been identified in Long Beach which impact housing needs.

1. Owner-Occupancy and Neighborhood Stability

A high proportion of Long Beach single-family neighborhoods exhibit both high levels of absentee ownership and signs of instability: unkempt yards, building deterioration, graffiti, and gang and drug activity. According to the 2000 Census, 23% of single-family detached homes in the City were absentee-owned.

Single-family rental neighborhoods are notorious for the management challenges they create for property owners. Individual owners lack control over the practices of adjacent owners, absentee owners may not maintain their properties, deteriorating properties are harder to rent so landlord's tenant standards begin to slip, "bad" tenants scare away good tenants and the neighborhood starts to earn a bad reputation. This same process affects future owner-occupancy, as most families looking to buy a home avoid tough neighborhoods with a bad reputation. The only buyers in declining single-family neighborhoods with low owner occupancy may be investors taking advantage of depressed prices and high demand from renters. The result of this series of management and market decisions is that after a tipping point of absentee ownership is surpassed, single-family neighborhoods can spiral into rapid decline.

Cities can help reverse neighborhood decline by using code enforcement to make it unattractive for exploitative single-family landlords to operate in a given neighborhood, by providing incentives to homebuyers to purchase in the neighborhood, by assisting existing owner-occupants with property improvement loans, and by providing no incentives (loans, rent subsidies) to owners who would rent single-family homes. These housing strategies can be coupled with other community development efforts such as street maintenance, school programs and community-based policing, as well as community services such as childcare and after school programs to help stabilize neighborhoods.

2. Assisted Housing At-Risk of Conversion to Market

The City's Housing Element documents a total of 4,245 rental units located in Long Beach that have been assisted under federal, state, or local programs, including density bonus and local redevelopment or direct assistance programs. These assisted units are restricted for rent to lower-income households. However, restricted units may lose their affordability controls and revert to market-rate units under these situations: (1) prepayment provisions of HUD-insured mortgage loans; (2) expiration of Section 8 contracts; (3) expiration of

restrictions on mortgage revenue bonds issued by the locality; or (4) expiration of restrictions from other funding sources.

The primary concern is with FHA-insured project-based Section 8 developments whose Section 8 contracts have or will soon expire. In many communities, these project-based Section 8 projects are being converted to tenant based Section 8 voucher projects. After these conversions take place, as tenants leave, the valuable Section 8 housing resource is lost. This recently occurred in Long Beach's 594-unit Springdale Apartments, which is using tax-exempt bond financing and vouchers to convert from Section 8 housing to upper income occupancy. The Long Beach 2000-2005 Housing Element identifies four projects totaling 386 units eligible for conversion to market within the next 10 years: Del Amo Gardens, Scherer Park, Casitas Del Mar and Pacific Coast Villa. Another 884 units are under non-profit ownership, and though less vulnerable, may also be at risk. These projects are New Hope Home, Plymouth West, American Gold Star Manor, and Baptist Gardens.

The issuance of vouchers by the Long Beach Housing Authority to previously project-based Section 8 developments results in the loss of affordable units. As current tenants leave, they take their vouchers with them, and are replaced by market rent tenants. In addition, the Long Beach Housing Authority today is facing a decrease in the availability of ongoing subsidy to current Section 8 voucher-holders due to changes in federal regulations. An alternative solution is to work with existing or prospective owners to preserve the project-based Section 8 contracts, rather than facilitating the conversion to vouchers.

3. 8-10 Unit Apartments

During the 1980's, the proliferation of 8-10 unit apartment buildings in single-family areas in Long Beach led to neighborhood deterioration. Approximately 345 8-10 unit buildings exist in Long Beach. The problem is that small buildings are difficult to manage. They are often held by distant investors who are not professional managers and do not invest in long-term maintenance. There is no requirement for on-site management and tenant selection standards are low. The result is that 15-year old buildings are physically blighted and are often the location of social problems such as gang and drug activity.

In 1996, the Long Beach 8-10 Unit Task Force developed an action plan to address this problem. Recommendations included (1) neighborhood outreach and organization to build Neighborhood Improvement Strategy (NIS) - type partnerships with residents and the City, (2) neighborhood clean up and beautification, (3) property management training and encouragement of on-site managers, and (4) City support for minor rehabilitation. A recommended demonstration project would have purchased a vacant lot as open space for two adjoining 8-10 unit apartments.

One apartment building was purchased to serve as a pilot project and converted eight rental units to four ownership units. It turned out to be a successful yet very costly demonstration project. Another experiment, the Junipero Childcare Center, has proven successful. It involved the purchase and rehabilitation of a home that was wedged between two 10-unit apartment buildings. The home was sold to a family on condition that they operate a home- based childcare center. The result is visible physical improvement to the neighborhood, an owner-occupied unit, and childcare services for neighborhood families.

4. Single Room Occupancy Hotels

Long Beach has several hotel and motel buildings functioning as single room occupancy housing that have a blighting effect upon the surrounding community through their operation or appearance. Many have required significant use of public safety resources over the years. While originally intended as temporary lodgings, these motels have become "de-facto" permanent housing units. However, they are not being managed as "permanent" housing and oftentimes, are neighborhood nuisances.

Single-room occupancy hotels (SROs) contain small rooms, usually between 80 to 250 square feet. Rooms typically have a sink and closet, and share a bathroom, shower, and kitchen with other rooms. Residential hotel units may be affordable to low-income persons without the need for government subsidy. With subsidies, these units can be made affordable to very low-income households. Formerly homeless persons often find SROs an affordable entry point into the housing market.

Similar to many communities, SROs historically existed in and around Downtown Long Beach, providing affordable shelter to low-income individuals and wage earners re-settling in the area. However, as the characteristics of the Downtown area changed, so did the tenancy in these hotels, many functioning more as transient motels serving the down-and-out and catering to illicit activities. Many of these older SROs have been lost due to deterioration, hotel conversions, and demolition. In addition, the City's Zoning Ordinance does not currently provide for residential uses in most commercial districts.

The City is currently considering revisions to its Zoning Ordinance to allow conversion of motel/hotel uses to special needs residential uses on certain commercial corridors, such as along Anaheim Street, Pacific Coast Highway, and other arterials. The City is also considering one or two pilot projects that will convert motel buildings into SROs. The goal is to have better managed and maintained properties without the numerous problems found in transient motel/hotel uses.

III. CITY HOUSING POLICIES

A. MISSION STATEMENT

The Department of Community Development has developed the following Housing Action Plan mission statement to help provide direction for the use of affordable housing funds in the City:

- ***To provide safe and livable neighborhoods in Long Beach by promoting, developing and preserving decent, safe and affordable housing through use of available resources such as tax increment, federal capital resources, bonding authority, tax credits, and other funds from the public and private sector.***

B. HOUSING ACTION PLAN GOALS

The Housing Action Plan is designed to serve as the framework for the allocation of scarce affordable housing resources in the City. The two primary goals for the use of these resources are:

- ***To maximize investment towards providing quality affordable housing to as many City residents with the greatest housing needs as possible.***

- ***To revitalize and stabilize Long Beach neighborhoods.***

C. GUIDING PRINCIPLES FOR HOUSING ASSISTANCE

In meeting its goals, the Housing Action Plan is guided by the following five principles. These principles are developed in response to identified housing needs, and reinforce the principles of the 2010 Long Beach Strategic Plan.

- ***Provide and preserve safe, decent and affordable housing for Long Beach households with the greatest need***

- ***Address severe overcrowding in Long Beach neighborhoods***

- ***Address substandard conditions***

- ***Encourage owner-occupancy***

- ***Enhance neighborhood stability***

IV. HOUSING RESOURCES

Developing affordable housing, particularly for very low and low-income households requires deep financial subsidies. Layers of funding from various sources are often needed to make an affordable housing project financially feasible. Long Beach has access to a variety of existing and potential funding sources to support affordable housing activities, including programs from local, state, federal and private resources. The City and The Long Beach Housing Development Company, a non-profit created by the City, work with developers to secure various sources of outside funds to leverage local resources and maximize the number of households assisted.

For purposes of resource allocation and housing production goals, the Housing Action Plan focuses on the two primary existing affordable housing funding sources under direct City control - redevelopment housing set-aside funds and HOME funds. These funds must be spent on the appropriate income levels based on the needs of the community, as defined by the City's regional housing needs contained in the Housing Element. In addition, the use of funds for senior citizen housing projects is limited to no more than the proportion that seniors age 65+ represent in the City's total population as reported in the most recent Census.

A. EXISTING RESOURCES

1. Redevelopment Set-Aside

The City's primary source of funding for affordable housing is redevelopment housing set-aside funds for low- and moderate-income housing development. State law requires Long Beach's Redevelopment Agency (RDA) to set-aside 20% of tax increment revenue generated from redevelopment projects for activities that increase, improve, or preserve the supply of affordable housing.

Recent changes to Redevelopment Law have added more stringent requirements to the use of redevelopment housing set-aside[6]. Affordable housing developed with redevelopment housing funds must remain affordable to the targeted income group for at least 55 years for rental housing and 45 years for ownership housing.

[6] AB 637, Effective January 2002.

2. HOME Investment Partnerships (HOME)

Long Beach also receives an annual entitlement under the federal HOME program. The HOME Program provides federal funding for the development and rehabilitation of rental and ownership housing for low-income households. Funds can be used for activities such as site acquisition, new construction, reconstruction, moderate or substantial rehabilitation, first-time homebuyer assistance, and tenant-based assistance.

For Fiscal Years 2005–2009, the City of Long Beach anticipates approximately $69 million to implement the Housing Action Plan. This amount is anticipated from redevelopment housing set-aside revenues, HOME funds and program income, minus an allowance for administration, as shown in Table 3 below.

Table 3
Revenue Projections ($000)
Fiscal Years 2005-2009

	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	TOTAL
Housing Set-aside (1)	$9,531	$10,059	$10,444	$10,813	$11,190	$52,037
Program Income	$500	$250	$250	$250	$250	$1,500
Less Administration (2)	($2,006)	($2,062)	($2,139)	($2,213)	($2,288)	($10,707)
Subtotal	**$8,025**	**$8,247**	**$8,555**	**$8,850**	**$9,152**	**$42,830**
HOME (3)	$5,388	$5,000	$5,000	$5,000	$5,000	$25,388
Program Income	$1,000	$750	$750	$750	$750	$4,000
Less Administration (2)	($639)	($575)	($575)	($575)	($575)	($2,939)
Subtotal	**$5,749**	**$5,175**	**$5,175**	**$5,175**	**$5,175**	**$26,449**
TOTAL	**$13,774**	**$13,422**	**$13,730**	**$14,025**	**$14,327**	**$69,279**

(1) Based on Keyser Marston Associates' projections as of 10/7/03.

(2) Administration cost is assumed at 20% of set-aside and 10% of HOME.

(3) FY04-05 is actual; assumed at $5 million annually thereafter.

B. POTENTIAL ADDITIONAL RESOURCES

Additional funds may become available to the City as federal and state agencies offer competitive grants. In addition, the City is in the process of reviewing the establishment of a Housing Trust Fund to be funded by revenue sources not traditionally received by the City. If adopted, the Housing Trust Fund will become an additional revenue source for affordable housing.

Staff will make every attempt to maximize leveraging of City funds through partnerships with public and private agencies and technical assistance to housing developers in obtaining financing from the following sources:

- Low Income Housing Tax Credits
- Tax Exempt Mortgage Revenue Bonds
- Fannie Mae/ Freddie Mac
- California Housing Finance Agency Funds
- State Housing and Community Development Funds
- Federal Housing and Urban Development Funds
- City of Industry Funds
- Federal Home Loan Bank Affordable Housing Program
- Developer Equity
- Foundations

V. HOUSING PRODUCTION

A. HOUSING PROGRAMS SUMMARY

Housing and neighborhood conservation and preservation is an important means to improve the quality of life for our residents. As an older, highly urbanized, and densely populated community, Long Beach is confronted with a range of community development issues, particularly in older neighborhoods where housing conditions, public improvements, and community facilities have begun to deteriorate over time. Programs to enhance neighborhood stability, particularly in focus neighborhoods in critical need of assistance, are at the foundation of the Housing Action Plan. Increasing homeownership is another major goal of the City to achieve both neighborhood stability and affordable ownership opportunities for modest income households. Programs to expand and preserve affordable rental housing are also critical to addressing populations most in need, and to stem trends of increasing renter overcrowding and overpayment.

The housing programs presented in the following section implement policies contained in the City's Strategic Plan and Housing Element, and represent activities undertaken by the City to address owner and renter housing needs, and enhance the quality of life in Long Beach neighborhoods. Any of the programs listed below can be used in the neighborhood focus areas. New programs may be developed to meet the specific needs of focus areas.

OWNERSHIP PROGRAMS

Long Beach implements several programs to increase homeownership opportunities to low- and moderate-income households through The Long Beach Housing Development Company (LBHDC). These include programs to assist homebuyers in purchasing their first homes, new construction programs, and programs aimed at maintaining and improving the ownership housing stock. Program guidelines are reviewed periodically and may be revised to address prevailing market conditions and funding regulations.

1. First-time Homebuyer Assistance

Purpose: To assist qualified first-time homebuyers purchase homes in Long Beach.

Target Population: Low- or moderate-income households who live or work in Long Beach.

Program Description: Downpayment or second mortgage assistance to qualified first-time homebuyers up to a maximum of $50,000 towards the purchase price of a single-family unit, a townhome, a condominium or a duplex. The loan may be forgiven if the owner continues to live in the home for at least 45 years. If the property is sold or transferred prior to the 45th year, the LBHDC receives a share in the equity of the home, in addition to the principal loan amount and accrued interest.

2. New Construction

Purpose: To assist in the development of new for-sale housing available to qualified first-time homebuyers.

Target Population: Low- or moderate-income households who live or work in Long Beach.

Program Description: Assistance to housing developers in the construction of affordable for-sale ownership housing, up to a maximum of $200,000 per unit. LBHDC assistance usually takes the form of low-interest loans that convert to silent second mortgages to the ultimate buyers.

3. Acquisition and Rehabilitation

Purpose: Acquisition and rehabilitation of homes for sale to qualified first-time homebuyers in Long Beach.

Target population: Low- or moderate-income households who live or work in Long Beach.

Program Description: Acquisition and rehabilitation of multi-family and single-family homes, most of which are acquired from the City through HUD's "Homes to Local Government Program." The LBHDC acquires buildings and either (1) rehabilitates the units and sells them to low- and moderate-income households or to another non-profit organization with affordability restrictions in place, or (2) resells to a developer who will rehabilitate and resell the units to low- and moderate-income households. The maximum cost per unit under this program is $100,000.

4. Owner-Occupied Rehabilitation Program

Purpose: To provide low-interest rehabilitation loans to qualified owner-occupants of single-family homes in Long Beach.

Target Population: Low- or moderate-income households who live in Long Beach.

Program Description: Low-interest loans to qualified homeowners to make improvements and repairs to their homes, up to a maximum of $35,000 per unit at an interest rate of 3%. Payment on the loans may be deferred until the home is sold or transferred, depending upon the borrower's total housing cost. Proceeds can be used to correct code deficiencies, repair damage, and improve the building or grounds.

5. Mobile Home Rehabilitation Program

Purpose: To provide low-interest rehabilitation loans to qualified owners of mobile homes in Long Beach.

Target Population: Low-income households who live in Long Beach.

Program Description: Rehabilitation loans to qualified mobile home owners to correct deficiencies, up to a maximum of $5,000 per unit. Eligible corrective work includes weatherizing and energy conservation, exterior painting, roofing, vector control, and the repair of major systems (e.g., heating, air conditioning, plumbing, electrical, etc.).

RENTAL PROGRAMS

The City and the LBHDC implement two primary programs targeted towards production of very low- and low-income rental housing – multi-family acquisition and/or rehabilitation, and affordable new construction. Priority in funding is granted to projects, which serve special needs populations, or include amenities such as childcare centers, public open space, or community centers.

1. Acquisition and/or Rehabilitation

Purpose: To assist housing developers in acquiring and/or rehabilitating affordable rental housing in Long Beach.

Target Population: Very low- or low-income households.

Program Description: Assistance to housing developers in the acquisition and/or rehabilitation of affordable rental housing. LBHDC assistance may be up to a maximum of $135,000 per unit and takes the form of a land write-down, construction loan or predevelopment loan. All assisted units must be deed-restricted for occupancy by very low and low-income families or seniors for a minimum of 55 years. The LBHDC enforces occupancy standards and

periodically monitors property maintenance. The borrowers must give preference to displaced tenants and those referred through the Homeless Continuum of Care.

2. New Construction

Purpose: To assist housing developers in the construction of new affordable rental housing in Long Beach.

Target Population: Very low- or low-income households.

Program Description: Assistance to housing developers in the construction of affordable rental housing. LBHDC assistance may be up to a maximum of $150,000 per unit and generally takes the form of a land write-down, construction loan or predevelopment loan. All assisted units must be deed-restricted for occupancy by very low and low-income families or seniors for a minimum of 55 years. The LBHDC will enforce occupancy standards and monitor property maintenance. The borrowers must give preference to displaced tenants and those referred through the Homeless Continuum of Care. The LBHDC assists developers in seeking out other sources of funding, including HOME, CDBG, state, federal, and City of Industry funds. In many cases, the LBHDC assists other non-profits to provide affordable housing for special needs groups.

B. PROPOSED 5-YEAR ALLOCATION

Based on the programs described above, the City proposes to allocate available revenues between ownership and rental programs and use the funds to benefit very low-, low- and moderate-income households, as deemed most appropriate. The goal of the HAP's allocation of resources is to benefit as many residents with the greatest housing needs as possible, while revitalizing and stabilizing neighborhoods. Table 4 depicts the proposed 5-year allocation of funds, broken down by program and target population by income level. It also shows the anticipated number of units to be produced, based on an estimated cost per unit derived from recent developments and current market conditions.

The proposed allocation takes into consideration recent legislation that requires affordable housing funds to be spent in proportion to the City's regional housing needs as defined in the Housing Element, which for Long Beach translates to a funding allocation of 43% towards very low-income, 26% towards low-income, and 31% towards moderate-income households. In addition, the law limits the use of funds for senior citizen housing projects to no more than the proportion seniors age 65+ represent in the community, or 9% in Long Beach.

Table 4
Housing Programs Allocation ($000)
Fiscal Years 2005-2009

TARGET POPULATION/ PROGRAM	Cost Per Unit	Very Low Income		Low Income		Moderate Income		Total	
		Amount	Units	Amount	Units	Amount	Units	Amount	Units
OWNERSHIP PROGRAMS									
First-Time Homebuyer Assistance	$50			$500	10	$4,500	90	$5,000	100
Rehabilitation	$35	$1,225	35	$8,575	245	$2,450	70	$12,250	350
Acquisition / Rehabilitation	$100	$500	5	$1,300	13	$200	2	$2,000	20
New Construction	$200			$4,575	23	$10,675	53	$15,250	76
Subtotal		**$1,725**	**40**	**$14,950**	**291**	**$17,825**	**215**	**$34,500**	**546**
RENTAL PROGRAMS									
Acquisition / Rehabilitation	$135	$16,000	119	$1,250	9			$17,250	128
New Construction	$150	$12,000	80	$5,250	35			$17,250	115
Subtotal		**$28,000**	**199**	**$6,500**	**44**	**$0**	**0**	**$34,500**	**243**
TOTAL		**$29,725**	**239**	**$21,450**	**335**	**$17,825**	**215**	**$69,000**	**789**
Required Percentage		**43%**		**26%**		**31%**		**100%**	
Recommended Percentage		**43%**		**31%**		**26%**		**100%**	

VI. NEIGHBORHOOD FOCUS AREAS

In order to most effectively direct its limited resources to address Long Beach's five priority housing issues – housing affordability, overcrowding, substandard housing, owner-occupancy and neighborhood stability – the Housing Action Plan proposes spending at least 65% of the City's resources within focus neighborhoods in critical need of assistance. The goal of this approach is to achieve *measurable* improvement in the quality of life in these neighborhoods through the focused investment of resources.

In addition to housing needs, as a means of addressing the broader community development needs of each "Focus Area" neighborhood, the City envisions a comprehensive approach to neighborhood improvement involving the following City departments and public entities:

- Department of Community Development
- Department of Planning and Building
- Department of Parks, Recreation and Marine
- Police Department
- Department of Public Works
- Department of Health and Human Services
- City Prosecutor
- Long Beach Unified School District

The Department of Community Development, in conjunction with representatives from the City Council, Planning and Code Enforcement, have identified the following three Focus Area neighborhoods for initial investment under the Housing Action Plan (refer to Exhibits 16, 17 and 18 for neighborhood locations):

- **Washington School Focus Area**
  Anaheim Street – Pacific Coast Highway/Magnolia Avenue – Long Beach Blvd.
- **Central Focus Area**
  Pacific Coast Highway – Willow Street/Pacific Avenue – Western boundary of Signal Hill
- **North Long Beach King School Focus Area**
  Artesia Freeway – Greenleaf Blvd (North City limits)/ Delta Avenue - Long Beach Freeway

These three neighborhoods are in various stages of transition where concentrated public investment in housing and neighborhood improvements are seen as essential to reverse their decline. After extensive review of neighborhood conditions throughout the City, these particular neighborhoods were selected based on the following criteria:

- Severe renter overpayment
- Severe renter overcrowding
- High poverty levels
- High absentee ownership
- Concentrated building code violations
- High crime rates
- Geographic distribution
- Existence of other investment/programs

The following provides a summary of the demographic, housing and neighborhood conditions within each of the three neighborhood Focus Areas. A summary table highlighting key demographic and housing characteristics in each area is included in Appendix A. A more in-depth discussion of each area is included in the Neighborhood Analysis report included in Appendix B of the HAP.

1. Washington School Focus Area

Anaheim Street – Pacific Coast Highway/Magnolia Avenue – Long Beach Blvd

The Washington School Focus Area encompasses a population of approximately 9,200 residents, and 2,300 housing units. This area contains one of the highest concentrations of rental units in the City, with 93% of all occupied units utilized as rentals, compared to 59% Citywide. The housing stock is characterized primarily by small to medium sized apartment buildings (with less than 20 units) built in the 1950s and 1960s with off-site property management. Over half the single-family homes in this area are renter-occupied.

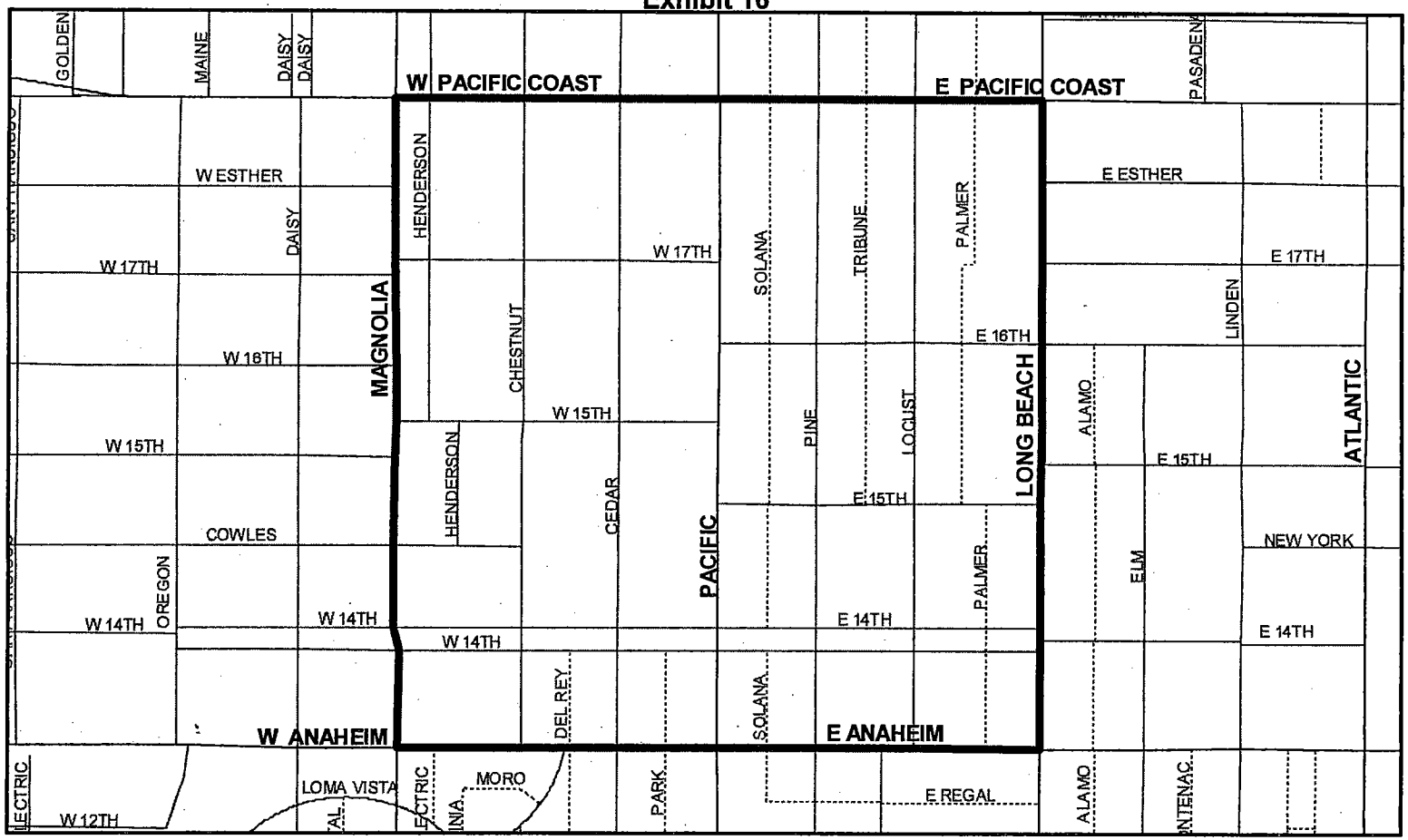
Washington School neighborhood residents reflect a range of ethnicities: 77% Hispanic, 10% African American, 6% Asian, and 4% White, among others. With 42% of the population under 18 years of age (compared to 29% Citywide), this area is characterized by a large number of families with children. And while the apartments in this area are typified by small unit sizes, households average 4.1 persons per unit, contributing to significant unit overcrowding. In fact, 47% of the renter-occupied housing is considered severely overcrowded, compared to 20% severe renter overcrowding Citywide.

Residents in this neighborhood earn very low incomes, with a 1999 median household income of $19,800 in contrast to a Citywide median of $37,270. Over half (51%) of neighborhood residents earn incomes that fall below the poverty level, compared to 23% poverty level households Citywide. Low resident incomes combined with relatively high housing costs result in high levels of household overpayment. The 2000 census documents 57% of renters in this Focus Area overpay for housing costs (> 30% income on rent), with one-third of renters spending more than half their income on rents.

Several important community development projects are currently planned for the Washington School neighborhood, which will bring needed resources to the area and aid in neighborhood stabilization. The County of Los Angeles has conveyed a two-acre site on Chestnut and 14th Street (former County health clinic) to the City for park use. The City has also submitted a grant to the State to purchase 0.35 acre of adjacent properties for the creation of "Seaside Park." The City is also assisting in the development of Pacific Apartments, a 42-unit affordable apartment complex for large families that will include a large recreation room, computer/study room, outdoor tot-lot, picnic area, and mini-soccer field.

This Focus Area falls entirely within the Washington School Neighborhood Improvement Strategy Area (NIS) and within the Central Long Beach Redevelopment Project Area.

Exhibit 16



City of Long Beach
Housing Services Bureau
Washington School Focus Area

Dept. of Technology Services & Dept. of Planning & Building

Major Street
Street
Alley
N
0 500 1000 Feet

abd 5/11/04 c:_projects\Community Development\housing plan areas.apr

2. Central Focus Area

Pacific Coast Highway – Willow Street/Pacific Avenue – Western boundary of Signal Hill

The Central Area encompasses a population of 18,700 and housing stock of 5,100 units. Three-quarters of the occupied housing in this area is used as rentals. With two-thirds of the housing comprised of multi-family, primarily apartment units and an average household size of 4.0 persons, household overcrowding is a significant issue: 54% of renter households are overcrowded, and 36% are severely overcrowded. Population densities in the area west of Long Beach Boulevard are among the highest in the City.

The predominant ethnic groups are: Hispanic (53%), African American (20%), and Asian (19%). The Area contains a significant number of families with children, with 41% of the population under 18 years of age. The majority of households earn very low incomes, with 39% of the population earning incomes below the poverty level.

The Central Area housing stock is quite old and deteriorating. Over half the parcels in this area contain units built prior to 1925, with the vast majority of all units built prior to 1950. The area is comprised of a diverse mix of single and multi-family housing, often located adjacent to one another without adequate buffering. Single-family homes comprise one-third of the housing in this area, with nearly half of these homes utilized as rentals. Despite the deteriorated condition of large segments of the housing stock, rents are high, resulting in 58% of renters overpaying for housing, with one-third severely overpaying and spending more than half their incomes on rent. (Citywide, 46% of renters overpay, with 23% severely overpaying).

The Central Focus Area falls almost entirely within the Central NIS Area with the exception of the South Wrigley neighborhood located west of Long Beach Boulevard. The Central Long Beach Redevelopment Project Area encompasses the western half of the Focus Area (west of Atlantic), and east along Pacific Coast Highway.

2A. Central Focus Area – Western Subarea

Pacific Coast Highway – Hill Street/Pacific Avenue – Atlantic Avenue

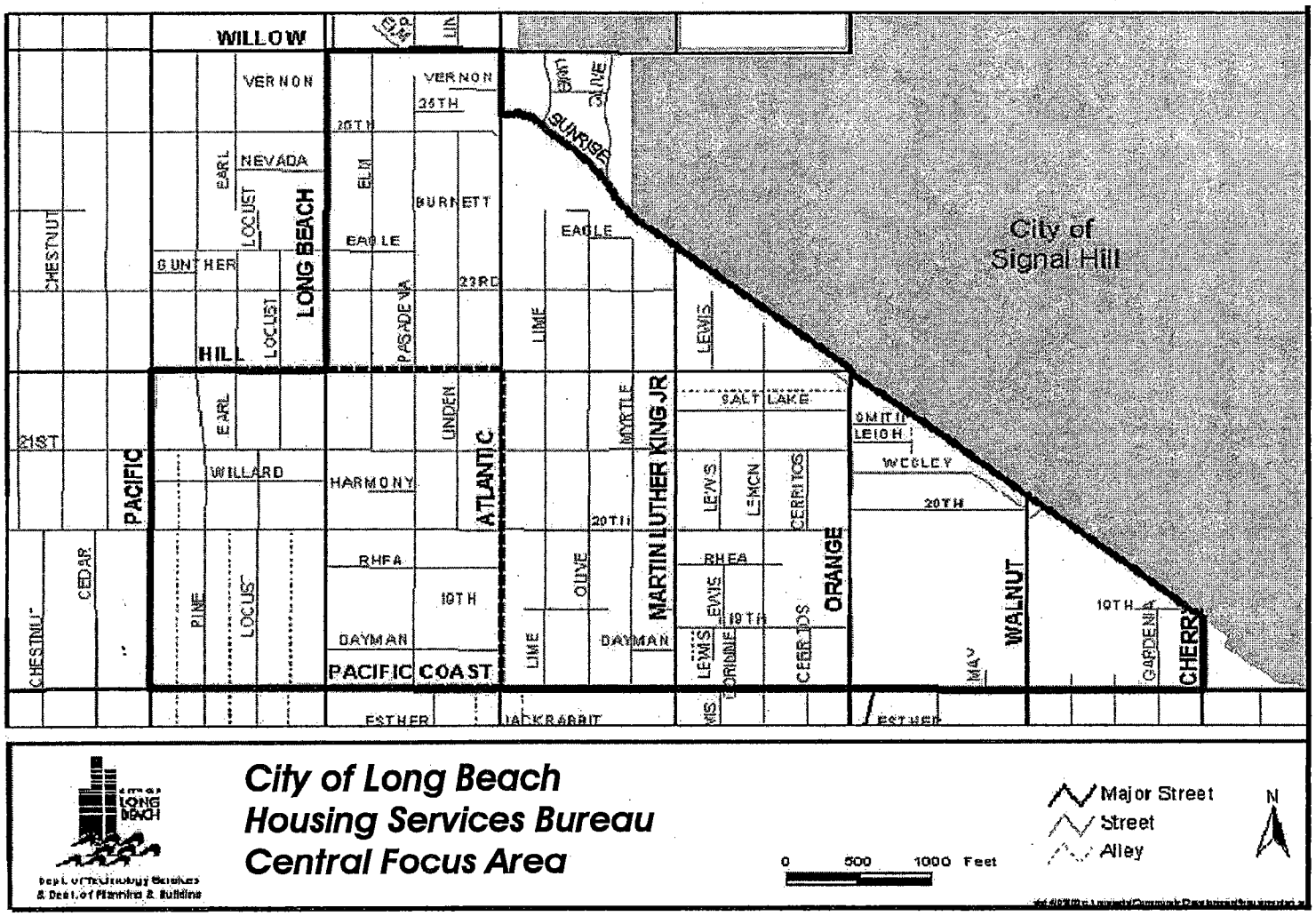
While the Central Focus Area exhibits significant housing and community development needs, the large geography of this area may dilute the impact of neighborhood revitalization activities. Therefore, the City feels it would be more effective to initially focus activities in a smaller area, and gradually expand to encompass the entire Focus Area. Based on review of census data and

discussions with the City Councilwoman representing the area, staff recommends focusing activities for the first several years of the HAP in the southwestern quadrant, west of Atlantic Avenue and south of Hill Street.

This western subarea encompasses a population of approximately 7,200 residents, representing approximately 40% of the entire Central Focus Area, and 2,000 housing units. Review of 2000 census data for this subarea exhibits a concentration of housing needs greater than the Central Focus Area as a whole - higher poverty levels (46% vs. 39%), greater proportion of renters (84% vs. 77%), greater levels of severe renter overpayment (42% vs. 34%), and greater incidence of severe renter overcrowding (38% vs. 36%). This data validates the initial focusing of resources within the western subarea of the Central Focus Area, consistent with HAP goals to assist as many City residents with the greatest housing needs as possible.

The City's Housing Services Bureau and LBHDC have already established a presence in this neighborhood through several ownership developments along Atlantic Avenue – the 15-unit Atlantic Villas townhomes, the 40 single-family homes and childcare canter at Renaissance Walk, and two Habitat for Humanity homes. Additional planned LBHDC-sponsored housing includes: Atlantic Avenue housing Phases III and IV (acquisition of 2 blocks across from Renaissance Walk for affordable development); and 88–93 units of mixed income ownership housing on the east side of Long Beach Boulevard to be developed in two phases. Other significant public investments in this area include business façade improvement along Atlantic Avenue and the development of Renaissance Square, a community-serving facility, as well as the opening of a much-needed supermarket on Long Beach Boulevard and 20th Street.

Exhibit 17


WILLOW
VERNON
35TH
NEVADA
EARL
LOCUST
ELM
BURNETT
EAGLE
GUNTHER
CHESTNUT
LONG BEACH
HILL
23RD
PASADENA
LIME
OLIVE
SUNRISE
City of
Signal Hill
LEWIS
SALT LAKE
21ST
PACIFIC
WILLARD
HARMONY
LINDEN
ATLANTIC
MYRTLE
MARTIN LUTHER KING JR
SMITH
LEIGH
WESLEY
20TH
LEMON
CERRITOS
ORANGE
RHEA
19TH
DAYMAN
PACIFIC COAST
CEDAR
PINE
LOCUST
WALNUT
CHERRY
ESTHER
JACKRABBIT
City of Long Beach
Housing Services Bureau
Central Focus Area
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Major Street
Street
Alley
N

3. North Long Beach King School Focus Area

Artesia Freeway – Greenleaf Blvd (North City limits)/ Delta Avenue – Long Beach Freeway

The North Long Beach King School Focus Area lies within the northwestern most corner of the City, isolated from the remainder of City by the 91 and 710 freeways which form the area's southern and eastern boundaries. The City of Compton abuts the area's northern and western borders, with Compton Community College located immediately to the west.

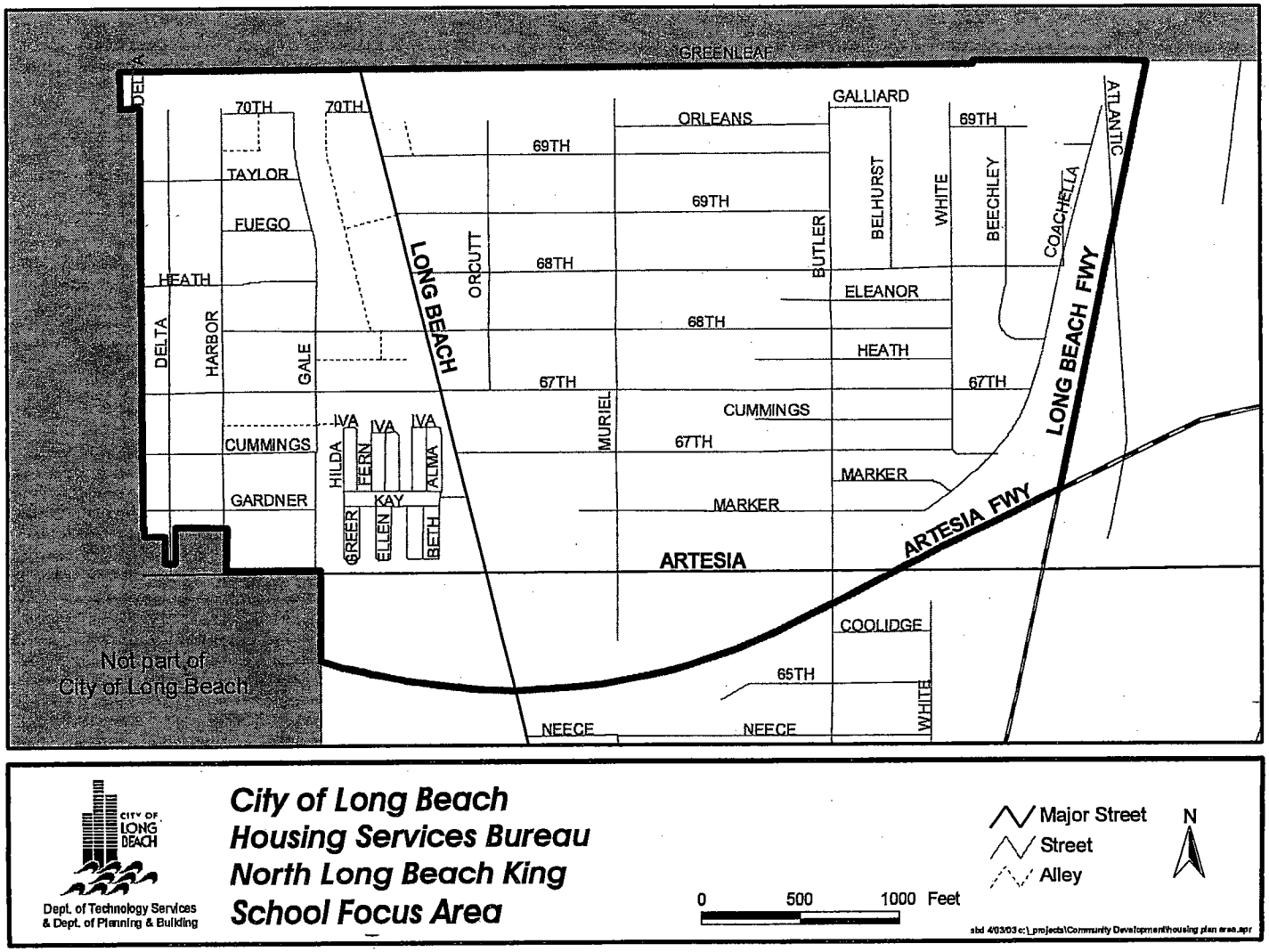
This Focus Area is home to 8,235 residents and consists of 2,080 dwelling units. Single-family homes comprise more than half of the housing in the area, along with over 200 mobile homes concentrated in one large mobilehome park. While the area does contain a mix of small-to-large multi-family properties, the overall housing and population density is well below that of the other two predominately multi-family Focus Areas. The age of the housing in this North Long Beach neighborhood is also much more recent than the other two areas, with the majority of the housing stock built post WWII. However, with over 50% renter-occupancy and one-third of the single-family homes used as rentals, this high level of absentee ownership contributes to neighborhood deterioration.

North Long Beach Focus Area residents are ethnically diverse: 62% Hispanic, 24% African American, 6% Asian and 4% White. With an average household size of 4.2 persons per unit, and 42% of the population under the age of 18, this area is characterized by a significant number of large families with children. Many census blocks average 5 or more persons per household, among the highest average household size in the City. The area's modest single-family homes are typically 2- to 3-bedroom units, and inadequately sized to house the large households prevalent in this area. This is evidenced by 60% of renter households that reside in overcrowded conditions, with 37% living in severely overcrowded conditions.

Median household incomes within 3 of the area's 4 census block groups range from $23,000 to $33,000, with a median income of $51,000 in the 4th block group located immediately west of the 710 freeway. Nearly one-third of the population falls below the poverty level. High rental rates in the area relative to incomes result in 56% of renters overpaying for housing, and 30% spending more than half their incomes towards rents.

The majority of this Focus Area falls within the North Long Beach/King School NIS Area, with the exception of the area located west of Long Beach Boulevard. The North Long Beach Redevelopment Project Area encompasses the entire Focus Area.

Exhibit 18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LONG BEACH HOUSING ACTION PLAN
Demographic and Housing Profile Summary Table
Citywide and Focus Areas

	City of Long Beach		Washington School Focus Area		Central Focus Area		Central Focus Area - Western SubArea		North Long Beach King School Focus Area	
Total Population	461,552		9,234		18,737		7,204		8,235	
Age										
Under 18 years	134,639	29.2%	3,871	41.9%	7,737	41.3%	2,848	39.5%	3,432	41.7%
18-64 years	284,981	61.7%	5,180	56.1%	10,266	54.8%	4,210	58.5%	4,529	55.0%
65 years and over	41,902	9.1%	183	2.0%	734	3.9%	146	2.0%	274	3.3%
Ethnicity/Race										
Hispanic	165,092	35.8%	7,115	77.1%	9,929	53.0%	4,534	62.9%	5,128	62%
White	152,899	33.1%	366	4.0%	627	3.3%	252	3.5%	365	4%
Black	66,836	14.5%	954	10.3%	3,830	20.4%	1,353	18.8%	2,010	24%
American Indian	1,772	0.4%	40	0.4%	44	0.2%	17	0.2%	21	<1%
Asian	54,937	11.9%	518	5.6%	3,512	18.7%	783	10.9%	284	3%
Pacific Islander	5,392	1.2%	130	1.4%	299	1.6%	121	1.7%	228	3%
Other	1,013	0.2%	11	0.1%	17	0.1%	3	<0.1%	9	<1%
2 or more races	13,581	2.9%	100	1.1%	479	2.6%	141	2.0%	120	1%
Housing										
Housing Units	171,632		2,332		5,085		2,008		2,080	
Single-family units	69,014		184		1,653		557		1,040	
% Single-family rentals	23%		53%		43%		40%		31%	
Owner Occupied Households*	66,928	41.0%	158	7%	1,072	23.0%	298	16%	909	47%
Renter Occupied Households*	96,160	59.0%	1,976	93%	3,604	77.0%	1,534	84%	1,044	53%
Vacant	8,544	(5.0%)	198	(8.5%)	409	(8.0%)	176	(8.8%)	127	(6.1%)
Total Households	163,088		2,134		4,676				1,953	
Ave. Household Size	2.77		4.1		4		3.9		4.2	
Total Renter Overcrowding	29%		63%		54%		58%		60%	
Severe Renter Overcrowding	20%		47%		36%		38%		37%	
Total Renter Overpayment	46%		57%		58%		61%		56%	
Severe Renter Overpayment	23%		34%		34%		42%		30%	
Median Asking Rent**	$639		$441 - $503		$425-$638		$440-$566		$525-$850	
Median Household Income **	$37,270		$19,800		$15,745 - $29,076		$15,745-$29,076		$26,953 -$50,506	
% Persons under Poverty Level	23%		51%		39%		46%		31%	

Source: U.S. Census 2000

Notes:
* % owner-occupied + % renter-occupied households = 100% total households. Excludes unoccupied vacant units.
** Median rent and income represents range for all block groups in each Focus Area.

APPENDIX B

NEIGHBORHOOD FOCUS AREA ANALYSIS

LONG BEACH HOUSING ACTION PLAN

Neighborhood Focus Area Analysis

Washington School Focus Area
Central Focus Area
North Long Beach King School Focus Area

May 2004

Prepared by
Housing Services Bureau
Department of Community Development
With Assistance from Karen Warner Associates

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I. BACKGROUND

Over the 100+ years since the City's incorporation, Long Beach has grown to nearly half a million residents and over 170,000 housing units, rendering it the fifth largest City in the State. With this growth has come significant change in the City's population, including ethnicity, age, family structure and special needs populations, all of which have important implications for the community's housing needs. And while the residential real estate market is strong in many parts of Long Beach, most new private sector construction is not addressing the community's most pressing housing needs, and skips over the City's most impoverished neighborhoods entirely.

One of the most important demographic trends impacting housing needs is the City's transition from a majority white homeowner population comprised of smaller households to an increasing number of Hispanic and Asian renter households with large families. The City's existing housing stock of primarily older, small units are of inadequate size to house this population, resulting in significant unit overcrowding and deterioration. This population is predominately lower income, and is significantly impacted by escalating market rents, which have recently spread to even Long Beach's traditionally more affordable neighborhoods.

In addition to the mismatch between housing needs and supply, the City faces another critical housing issue related to housing deterioration in many low-income single and multi-family neighborhoods. The high degree of absentee ownership in many neighborhoods contributes both to unit deterioration, and overall neighborhood instability. And with more than one-third of the City's housing more than 50 years old, diligence in monitoring and maintenance of the housing stock is critical to preventing the proliferation of substandard conditions.

In summary, a high proportion of Long Beach's existing lower income renters and homeowners face extremely high housing costs relative to income, are overcrowded, endure unsafe housing conditions and live in unsafe neighborhoods. In order to address these priority housing issues, the Community Development Department has adopted the following five guiding principles in which to concentrate its resources and focus its efforts:

Housing resources will be used to address severe overcrowding in Long Beach neighborhoods.

Findings: One in five Long Beach renter households live in severely overcrowded conditions. This problem is exacerbated by the fact that over 60% of the existing rental housing stock consists of single or one-bedroom apartments and that the majority of the City's population growth is in large families.

Housing resources will be used to provide and preserve safe, decent and affordable housing for Long Beach households with the greatest need.
Findings: About 23% of city renters pay 50% to 60% and more of their income for even the smallest apartment. Each month, over 20,000 Long Beach families must choose between rent, food, medicine and clothes for their children.

Housing resources will be used to enhance neighborhood stability.
Findings: Absentee ownership, substandard conditions, a lack of affordable housing, insufficient code enforcement, and overcrowding have caused a severe deterioration and an instability and decline in the health of Long Beach neighborhoods.

Housing resources will be used to address substandard conditions.
Findings: Three-quarters of the City's housing stock is more than 30 years old, the age when buildings typically begin to show signs of deterioration and require reinvestment. Housing conditions are continuing to deteriorate in spite of the City's considerable code initiatives. Absentee ownership has contributed to substandard conditions of housing and destabilized Long Beach neighborhoods due to lack of maintenance or consistent maintenance.

Housing resources will be used to encourage owner occupancy.
Findings: With a homeownership rate of 41%, a minority of the City's households are homeowners. In Long Beach, absentee ownership of single-family homes and small apartment buildings appears to be a significant contributing factor to the decline of surrounding neighborhoods.

In order to most effectively direct its resources to address these five problem areas, the Housing Action Plan proposes spending at least 65% of the City's housing resources within designated Neighborhood Focus Areas in critical need of assistance. Three initial Neighborhood Focus Areas have been identified for investment. The following analysis describes current demographic, housing and neighborhood conditions in each of these areas designed to assist in understanding the nature and magnitude of need. Upon final selection of the Focus Neighborhoods, detailed Housing Action Plans will be developed to meet the unique needs of each area and address the City's five housing priorities.

II. NEIGHBORHOOD FOCUS AREAS

The Long Beach Department of Community Development, in conjunction with representatives from the City Council, Planning and Code Enforcement, have identified the following three Focus Area neighborhoods for initial investment under the Housing Action Plan (HAP):

- **Washington School Focus Area**
  Anaheim Street – Pacific Coast Highway/Magnolia Avenue – Long Beach Blvd.
- **Central Focus Area**
  Pacific Coast Highway – Willow Street/Pacific Avenue – Western boundary of Signal Hill
- **North Long Beach King School Focus Area**
  Artesia Freeway – Greenleaf Blvd (North City limits)/ Delta Avenue - Long Beach Freeway

These three neighborhoods are in various stages of transition where concentrated public investment in housing and neighborhood improvements is essential to reverse their decline. After extensive review of neighborhood conditions throughout the City, these particular three neighborhoods were selected based on the following criteria:

- Severe renter overpayment
- Severe renter overcrowding
- High poverty levels
- High absentee ownership
- Concentrated building code violations
- High crime rates
- Geographic distribution
- Existence of other investment/programs

The following sections provide an overview of the demographic, household and housing stock characteristics in each Focus Area derived from the 2000 census, as summarized in Appendix A of the HAP. An analysis of the following neighborhood indicators for each Focus Area is also presented:

- Residential Real Estate Activity
- Market Rents
- Residential Development
- Code Enforcement Violations
- Police Activity
- Adequacy of Park Space

1. Washington School Focus Area

Anaheim Street – Pacific Coast Highway/Magnolia Avenue – Long Beach Blvd

The Washington School Focus Area encompasses a population of approximately 9,200 residents, and 2,300 housing units. This area contains one of the highest concentrations of rental units in the City, with 93% of all occupied units utilized as rentals, compared to 59% Citywide. The housing stock is characterized primarily by small to medium sized apartment buildings (less than 20 units) built in the 1950s and 1960s with off-site property management. Over half the single-family homes in this area are renter-occupied.

Washington School neighborhood residents reflect a range of ethnicities: 77% Hispanic, 10% African American, 6% Asian, and 4% White, among others. With 42% of the population under 18 years of age (compared to 29% Citywide), this area is characterized by a large number of families with children. And while the apartments in this area are typified by small unit sizes, households average 4.1 persons per unit, contributing to significant unit overcrowding. In fact, 47% of the renter-occupied housing is considered severely overcrowded, compared to 20% severe renter overcrowding Citywide.

Residents in this neighborhood earn very low incomes, with a 1999 median household income of $19,800 in contrast to a Citywide median of $37,270. Over half (51%) of neighborhood residents earn incomes that fall below the poverty level, compared to 23% poverty level households Citywide. Low resident incomes combined with relatively high housing costs result in high levels of household overpayment. The 2000 census documents 57% of renters in this Focus Area overpay for housing costs (> 30% income on rent), with one-third of renters spending more than half their income on rents.

Residential Real Estate Activity

Review of residential sales in the Washington School Focus Area during calendar year 2003 reveals 48 completed sales: 9 single-family homes, 11 condominium units, 7 duplex/triples/fourplex buildings, and 7 apartment buildings. Table 1 summarizes sales activity during this period.

Table 1
Washington School Focus Area
Residential Sales Prices – 2003

Unit Type	# Units Sold	Price Range	Median Price	Median Unit Size	Median Year Built
Homebuyer Units					
Single-Family	11	$180,000-$299,000	$239,000	1,206 sq.ft.	1920
Condominium	11	$109,500-$175,000	$155,000	827 sq.ft.	1988
Unit Type	**# Buildings Sold**	**Price Range per Unit**	**Median Price per Unit**	**Median Unit Size**	**Median Year Built**
Investment Properties					
Duplex – Fourplex	19	$70,000-$230,000	$115,000	---	1933
Apartments	7	$61,000-$93,000	$79,000	---	1924

Source: Real Quest, January 2003 -December 2003

Single-Family Homes: Eleven single-family homes sold in this predominately multi-family neighborhood during 2003, ranging in price from $180,000 to $299,000 and selling for a median of $239,000. As home prices continue to escalate, re-sale activity has been active, with two-thirds of these 11 units selling only two to three years prior and realizing over 50% appreciation in price. Many of these units were likely purchased by investors to utilize as rental property, as supported by census statistics, which document that 53% of the single-family homes in this Focus Area are occupied as rentals.

Single-family homes are modest in size, averaging 1,200 square feet, and comprised of predominately 2 and 3 bedroom units. All homes sold were over 70 years in age, with 1920 reflecting the median year built.

Condominiums: Eleven condominium units were sold in the Washington School Focus Area, ranging in value from $109,000 to $175,000, and commanding a median price of $155,000. Units were all within one of four complexes located on Locust, Pine or Cedar Avenues and built between 1985-1990. Three of these 11 units had previously sold within the last two years, and realized price increases of between 50% to100% upon resale.

Duplex/Triplex/Fourplex Buildings: In addition to homebuyer activity, the Washington School Focus Area is experiencing a high level of residential investor activity as investors are buying up duplex, triplex and fourplex properties prevalent in the area. A total of 19 such properties sold during 2003, including 12 fourplexes, 5 duplexes and 2 triplexes. The median purchase price was $115,000 per unit, with over half of these properties having previously sold since 2000 and realizing significant price appreciation of 30% to 50% and above. The majority of these properties were built between 1920-1950, with a median year built of 1933.

Apartments: Seven apartment complexes sold in the Washington School Focus Area during 2003, commanding a median price of $79,000 per unit. Apartment buildings were small, 4-6 unit complexes, and comprised entirely of studio and 1-bedroom apartments. Three of these seven complexes had previously sold in 2002, evidencing price increases of 40-50%. Exterior inspection of many of the recently sold apartment buildings evidence limited or no signs of physical upgrading such as painting. With extremely limited rental vacancies, property upgrades are not necessary to rent units in this neighborhood, contributing to deferred building maintenance. The apartments sold were all built between 1915 and 1929, with a median year built of 1924.

Market Rents

With 90% of the housing in the Washington School Focus Area occupied by renters, the rental market consists of a mix of apartments, condominiums, duplexes and single-family homes. Table 2 presents average market rents by unit type in the greater Downtown area (zip code 90813) as collected by the Long Beach Housing Authority. As of May 2004, market rents average $912 for a 2-bedroom apartment, $988 for a 2-bedroom condominium, $660 for a 2-bedroom duplex, and $1,030 for a 2-bedroom single-family home. Comparison with Housing Authority rents from January 2002 illustrate typical rent increases of 15% and above during the 2+ year period, with particularly high increases among duplexes and single-family homes.

Table 2
Washington School Focus Area (Zip Code 90813)
Rental Housing Rates: 2002-2004

Unit Type and Bedroom Size	Jan 2002 Average Rent*	May 2004 Average Rent*	Change
Apartments			
Studio	$464	$544	+17%
1	$641	$716	+12%
2	$805	$912	+13%
3	$1,134	$1,268	+12%
4	$1,198	$1,400	+17%
Condominiums/Townhomes			
1	$545	$545	--
2	$928	$988	+6%
Duplex			
2	$660	$660	--
3	$850	$1,249	+47%
House			
1	$400	$595	+49%
2	$940	$1,030	+10%
3	$891	$1,015	+14%
4	$1,100	$1,700	+55%

* Rents reflect average between 1-2 bathroom units
Source: Long Beach Housing Authority, Rent Surveys

Residential Development

The Washington School neighborhood has experienced limited development in recent years, with only six new units developed between 2002-2003. All these units were built in two-unit duplex structures. While the area's R-4 zoning provides for generous development densities to allow for recycling and intensification of underutilized properties, the area's small parcel sizes limit the development of larger multi-family projects without the consolidation of several parcels. Fortunately, the area falls within the Central Long Beach Redevelopment Project Area, providing opportunities for Redevelopment Agency assistance in site assembly.

The Long Beach Redevelopment Agency has developed a draft Strategic Guide for Development (March 2004) to define land use concepts and development strategies for the Central Redevelopment Project Area to facilitate the area's transformation. The Guide's "residential strategy" establishes the following goals and strategies:

Goals

- Increase the supply of housing stock
- Reduce overcrowding
- Preserve and upgrade existing neighborhoods
- Enrich the livability of the residential neighborhoods

Strategies

- Modify regulatory requirements to encourage residential development compatible with the neighborhoods
- Encourage moderate to high density residential development, which is compatible with the neighborhoods, along the arterials
- Encourage construction of larger residential units (with more bedrooms), more suitable to the average family size in the area
- Develop and enforce design guidelines that regulate appropriate siting and massing, relationship with adjacent structures, and quality

Consistent with these Strategic Plan goals, the City and The Long Beach Housing Development Company (LBHDC) are currently providing assistance for development of Pacific Apartments, a 42-unit affordable apartment complex to be developed at Pacific Avenue and 16th Street. The project is comprised of three and four bedroom units reserved for low- and very low-income large families, and will include a large recreation room, computer/study room, outdoor tot-lot, picnic area, and mini soccer field. Priority in tenant selection will be given to families in the neighborhood currently living in overcrowded conditions, including Cedar Avenue immediately to the west.

Code Enforcement Violations

The City estimates that about one-third of the housing in the Washington School neighborhood is in good physical condition, another third is in need of rehabilitation, and a final third is severely deteriorated and qualifies for code enforcement citations.[1] This neighborhood falls within the Washington School Neighborhood Improvement Strategy Area (NIS) where the City has conducted intensive code enforcement efforts over the past decade to improve overall neighborhood conditions. In 2003, the City stepped up code enforcement in the area with a sweep working from Magnolia Avenue east to Pacific Avenue. The City conducts monthly block clean-ups, and continues to fund a graffiti control program.

As of March 31, 2004, the City's Code Enforcement Division identified the following active cases in the Washington School neighborhood:

Abandoned Vehicles - 7
Property Maintenance – 10
Substandard Buildings – 20
Substandard Conditions – 34
Weed Abatement – 20
Zoning Enforcement - 9

Of the 414 residential parcels in this Focus Area, approximately 5% of the properties have current citations for substandard conditions, and 8% have citations for substandard building violations. Substandard building refers to severe code violations, which endanger the health and welfare of the occupants or public, and will result in City demolition of the structure if compliance is not achieved.

Numerous factors present in the Washington School Focus Area continue to contribute to code violations and inadequate building and property maintenance, including: the combination of extremely low vacancy rates and high level of absentee landlords; an aging housing stock; and high population densities and unit overcrowding placing additional wear and tear on the buildings and neighborhood.

Police Activity

The majority of the Washington School Focus Area falls within four police reporting districts. The LBPD handled an average 104 Part 1[2] crimes per

[1] City of Long Beach Tax Credit Application – Pacific Apartments, March 25, 2003.
[2] Part 1 crimes encompass crimes against persons and crimes against property. Crimes against persons include: murder, manslaughter, forced rape, robbery, and aggravated assault. Crimes against property

reporting district in the Washington School neighborhood in 2003, compared to the Citywide average of 68 Part 1 crimes per district.[3] While Part 1 crime increased by only 2% in this area between 2002-2003 (from 417 to 429 incidents), Part 2 crimes increased by 13% from 409 to 469 incidents. In contrast, Citywide Part I and Part 2 crimes each declined by 4% during this same period.

The most prevalent Part 1 crimes in the Washington School neighborhood are: auto theft (23%), aggravated assault (22%), robbery (14%), and petty theft (12%). Crime levels are exacerbated by overcrowded living conditions, as well as a number of active gangs in the area.

Adequacy of Park Space

As part of the Long Beach 2002 Open Space and Recreation Element, the City prepared a map of existing park service areas, and residential neighborhoods currently underserved by park facilities.[4] The map illustrates that the entire Washington School Focus Area falls outside the service area for any existing neighborhood, community or regional park. With high population densities and over 40% of the population under age 18, significant household overcrowding and a lack of on-site open space in most existing residential development, the Washington School Focus Area is significantly impacted by insufficient open space resources.

In recognition of these issues, several park and school projects are planned for the Washington School neighborhood, which will bring needed resources to the area and aid in neighborhood stabilization. The City's Department of Parks, Recreation and Marine has recently rebuilt 14th Street Park in the center of the neighborhood, converting it from a passive area with grass and trees to an active recreational area with playground, skate plaza and basketball court. In addition, the City has acquired a 2.4 acre site on Chestnut Avenue from the County of Los Angeles, and has submitted a grant to the State to purchase 0.35 acre of adjacent properties for the creation of "Seaside Park." The Long Beach Unified School District (LBUSD) is evaluating several sites in the Washington School neighborhood for development of a new elementary school, including potential development of a joint school/park where designated play areas will function as a public park in the evenings and on weekends.

include: residential, commercial and automobile burglary, grand and petty theft, auto and bike theft, and arson.

[3] In 2003, Long Beach Police documented 18,613 Part 1 crimes Citywide. With 271 reporting districts, this translates to an average of 68 Part 1 crimes per reporting district.

[4] The City has adopted the following service area standards: ¼ mile radius for neighborhood parks, and ½ mile radius for community and regional parks.

2. Central Focus Area

Pacific Coast Highway – Willow Street/Pacific Avenue – Western boundary of Signal Hill

The Central Area is geographically the largest of the three Focus Areas, and encompasses a population of 18,700 and housing stock of 5,100 units. Three-quarters of the occupied housing in this area is used as rentals. With two-thirds of the housing comprised of multi-family, primarily apartment units and an average household size of 4.0 persons, household overcrowding is a significant issue: 54% of renter households are overcrowded, and 36% are severely overcrowded. Population densities in the area west of Long Beach Boulevard are among the highest in the City.

The predominant ethnic groups are: Hispanic (53%), African American (20%), and Asian (19%). The Area contains a significant number of families with children, with 41% of the population under 18 years of age. The majority of households earn very low incomes, with 39% of the population earning incomes below the poverty level.

The Central Area housing stock is quite old and deteriorating. Over half the parcels in this area contain units built prior to 1925, with the vast majority of all units built prior to 1950. The area is comprised of a diverse mix of single and multi-family housing, often located adjacent to one another without adequate buffering. Single-family homes comprise one-third of the housing in this area, with nearly half of these homes utilized as rentals. Despite the deteriorated condition of large segments of the housing stock, rents are high, resulting in 58% of renters overpaying for housing, with one-third severely overpaying and spending more than half their incomes on rent. (Citywide, 46% of renters overpay, with 23% severely overpaying).

Residential Real Estate Activity

Review of all residential sales in the Central Focus Area during 2003 reveals 161 completed sales: 84 single-family homes, 2 condominium units, 65 duplex/triplex/fourplex buildings, and 10 apartment buildings.

Table 3
Central Focus Area
Residential Sales Prices – 2003

Unit Type	# Units Sold	Price Range	Median Price	Median Unit Size	Median Year Built
Homebuyer Units					
Single-Family	84	$108,000-$315,000	$215,000	985 sq.ft.	1922
Condominium	2	$101,000-$193,000	$147,000	1,050 sq.ft.	1995
Unit Type	**# Buildings Sold**	**Price Range per Unit**	**Median Price per Unit**	**Median Unit Size**	**Median Year Built**
Investment Properties					
Duplex – Fourplex	65	$62,500-$225,000	$121,500	---	1928
Apartments	10	$37,000-$121,000	$63,000	---	1939

Source: Real Quest, January 2003-December 2003

Single-Family Homes: With 84 units sold, the Central Focus Area evidenced strong single-family sales activity in 2003, representing a 5% turnover in the single-family housing stock. One-third of these units had previously sold since 2000, realizing significant price appreciation in a two-three year period. According to local realtors, the demand for single-family homes in this area is high, with a shortage of interested sellers. While home values have increased dramatically, with a median sales value of $215,000, home values in the Central Focus Area remain well below the $345,000 average Citywide median[5]. Single-family homes were on average only 985 square feet in size, and less than one-third of these units contained 3 or more bedrooms, a significant need for the large families prevalent in this area. A few single-family homes did evidence recent upgrading, likely indicating owner-occupancy, as well as the results of the City's intensive code enforcement efforts in the Central NIS.

[5] Source: Dataquick January 2003 - December 2003 residential sales by zip code. Citywide average median sales price calculated as weighted average of median prices for 11 Long Beach zip codes.

Duplex/Triplex/Fourplex Buildings: Similar to the Washington School Focus Area, with 65 duplex/triplex/fourplex buildings sold in 2003, the Central Focus Area is experiencing a high level of investor activity as investors are buying up these smaller properties. Half of these properties had post-2000 prior sales, and realized significant price appreciation of 40 to 100% and above. The purchase price in 2003 ranged from $62,500-$225,000 per unit, with a median price of $121,500. The median year built was 1928.

Condominiums: With only two condominiums sold in this large Focus Area, condos represent a limited segment of the area's housing market. The sales price on these units varied significantly, from a low of $101,000 to a high of $193,000. The median year built of these units was 1995, and they were on average 1,050 square feet in size.

Apartments: Discussions with local realtors indicate apartment values have risen dramatically in the Central Focus Area over the past several years. Among the ten apartment buildings that sold in 2003, the median sales price per unit had reached $63,000, a 35% increase above the $46,000 per unit median price for the 20 apartments sold in this area in 2001-2002. Half of the ten properties sold in 2003 had sold just two-three years earlier. Apartments are typically in smaller buildings (80% have 8 or fewer units), and predominated by studio and 1-bedroom units. The median year built was 1939, indicative of potential rehabilitation needs based on age alone.

Market Rents

In addition to apartments and duplexes, single-family homes comprise approximately 20% of the rentals in the Central Focus Area, providing a wider range of rental options for families. As illustrated in Table 4, market rents in the mid-section of Long Beach (zip code 90806) average $923 for a 2-bedroom apartment, $1,795 for a 3-bedroom condominium, $930 for a 2-bedroom duplex, and $1,050 for a 2- bedroom single-family home. Single-family home rents varied dramatically by unit size, with 3-bedroom units commanding an average $1,430 in rents, reflecting a 35% increase above 2-bedroom rents and indicative of the demand for larger rentals in the area.

Comparison of average rent levels between January 2002 – May 2004 indicate a significant rise in apartment rents, particularly among studios (25% increase) and 3-bedroom units (42% increase). Single-family home rents have also risen dramatically, with rents on 2-bedroom homes rising by 34%.

Table 4
Central Focus Area (Zip Code 90806)
Rental Housing Rates: 2002-2004

Unit Type and Bedroom Size	Jan 2002 Average Rent*	May 2004 Average Rent*	Change
Apartments			
Studio	$426	$533	+25%
1	$632	$701	+11%
2	$782	$923	+18%
3	$839	$1,193	+42%
4	$1,323	$1,431	+8%
Condominiums/Townhomes			
3	$1,545	$1,795	+16%
Duplex			
2	$850	$930	+9%
3	$1,217	$1,319	+8%
House			
1	$774	$720	-7%
2	$785	$1,050	+34%
3	$1,261	$1,430	+13%
4	--	$1,714	--

* Rents reflect average between 1-2 bathroom units
Source: Long Beach Housing Authority, Rent Surveys

Residential Development

During calendar years 2002-2003, no new residential development occurred in the Central Focus Area. The most significant residential development in this area in recent years is Renaissance Walk on Atlantic Avenue. This Redevelopment Agency and LBHDC assisted project provides 40 units of mixed-income single-family detached housing along with an on-site child care facility for 65 children. In addition, three new single-family homes were developed, two of which were affordable ownership units sponsored by Habitat for Humanity.

Neighborhoods within the Central Area are predominately designated R-1 and R-2 zones, with only small pockets of R-3 and R-4 zoning, indicating the City's desire to maintain the predominate low density character of the area. Future residential development opportunities will be focused along the major commercial corridors – Atlantic Avenue and Long Beach Boulevard. Consistent with this effort, future LBHDC sponsored housing in the Central Focus Area includes: Atlantic Avenue housing Phases III and IV (acquisition of 2 blocks across from

Renaissance Walk and adjacent Burnett Library and Elementary School for affordable development), and 58 units of mixed income ownership housing in Phase I and an additional 30-35 units in Phase II to replace dilapidated buildings and vacant lots on Long Beach Boulevard north of Pacific Coast Highway.

The Central Redevelopment Project Area encompasses the western half of the Central Focus Area (west of Atlantic), and continues east along Pacific Coast Highway. The Redevelopment Agency plays an active role in assembling sites for development, and as presented earlier, has developed a draft Strategic Guide for Development to define land use concepts and development strategies for the Central Redevelopment Project Area to facilitate the area's transformation.

Code Enforcement Violations

The City's Code Enforcement Division identified the following active cases in the Central Focus Area as of March 31, 2004:

Abandoned Vehicles - 24
Property Maintenance – 72
Substandard Buildings – 31
Substandard Conditions – 45
Weed Abatement – 68
Zoning Enforcement - 27

Of the 1,899 residentially zoned parcels in the Central Focus Area, 4% have active property maintenance violations. In addition, 2% of the properties have citations for substandard conditions, and 2% have citations for substandard building violations.

Since 1990, ten neighborhoods have been designated Neighborhood Improvement Strategy Areas (NIS) areas by the City Council based upon public safety issues (crime, fire and paramedic responses), social indicators (welfare recipients, household incomes, and absentee ownership), and property conditions (property maintenance/substandard building cases, graffiti, health inspections). The majority of the Central Focus Area falls within the Central NIS (with the exception of the South Wrigley neighborhood west of Long Beach Blvd.), where the City continues to conduct proactive code enforcement efforts. For the past several years, the Central NIS area has had a full time code enforcement officer whose responsibility includes completion of a block based survey to identify and remedy code violations. The high number of active code violations recorded in the Central Focus Area in part reflects the proactive work of the City to identify violations in this area. Factors that contribute to code violations include the large number of absentee landlords, the age of the housing stock, and the high population density in this area.

Police Activity

The Central Focus Area is comprised of 16 police reporting districts, and averaged 64 Part 1[6] crimes per district in 2003, fairly comparable to the Citywide average of 68 Part 1 crimes per district. From 2002-2003, Part 1 crimes in this area decreased by 8% from 1,115 to 1,027 incidents. While both Part 1 and Part 2 crimes have been declining in the Central Area over the past several years, the area nonetheless continues to experience serious violent crimes. During 2003, seven murders were committed, with five murders in 2002.

LBPD reports that the eastern portion of this Focus Area, and those neighborhoods, which border Signal Hill, have fewer calls for service. The Pacific Coast Highway corridor, which forms the southern edge of the Focus Area, is a highly traveled thoroughfare, with many hotels and commercial establishments. This area experiences significant police activity related to prostitution and traffic-related incidents. The most prevalent Part 1 crimes in the Central Focus Area in 2003 were: auto theft (18%), aggravated assault (18%), robbery (14%), petty theft (13%), and auto burglary (12%).

Adequacy of Park Space

Approximately half of the Central Focus Area falls within the service radius of several parks. The area east of Pasadena and south of Hill are served by Chittick Field, Martin Luther King Jr. Community Park, and California Recreation Center Neighborhood Park. The northwestern corner of this Focus Area is also served by Veterans Community Park. However, the neighborhoods within the Central Focus Area that exhibit the highest population densities (west of Pasadena Avenue) fall entirely outside the service radius for any existing neighborhood, community or regional park. This absence of local open space resources can serve to exacerbate the impacts of significant household overcrowding already present in this area.

[6] Part 1 crimes encompass crimes against persons and crimes against property. Crimes against persons include: murder, manslaughter, forced rape, robbery, and aggravated assault. Crimes against property include: residential, commercial and automobile burglary, grand and petty theft, auto and bike theft, and arson.

3. North Long Beach King School Focus Area

Artesia Freeway – Greenleaf Blvd (North City limits)/ Delta Avenue – Long Beach Freeway

The North Long Beach King School Focus Area lies within the northwestern most corner of the City, isolated from the remainder of City by the 91 and 710 freeways which form the area's southern and eastern boundaries. The City of Compton abuts the area's northern and western borders, with Compton Community College located immediately to the west.

This Focus Area consists of approximately 2,080 dwelling units and is home to 8,235 residents. Unlike the other Focus Areas, single-family homes comprise more than half of the housing in the area, along with over 200 mobile homes concentrated in one large mobile home park. While the area does contain a mix of small-to-large multi-family properties, the overall housing and population density is well below that of the other two predominately multi-family Focus Areas. The age of the housing in this North Long Beach neighborhood is also much more recent than the other two areas, with the majority of the housing stock built post WWII. However, with over 50% renter-occupancy in this area and one-third of the single-family homes used as rentals, this high level of absentee ownership contributes to deterioration of the neighborhood.

North Long Beach Focus Area residents are ethnically diverse: 62% Hispanic, 24% African American, 6% Asian and 4% White. With an average household size of 4.2 persons per unit, and 42% of the population under the age of 18, this area is characterized by a significant number of large families with children. Numerous census blocks in this Focus Area average 5 or more persons per household, among the highest average household size in the City. The modest single-family homes in this Focus Area are typically 2 to 3-bedroom units, and inadequately sized to house the large households prevalent in this area. This is evidenced by 60% of the renter households, which reside in overcrowded conditions, with 37% living in severely overcrowded conditions.

Median household incomes within 3 of the area's 4 census block groups range from $23,000 to $33,000, with a median income of $51,000 in the 4th block group located immediately west of the 710 freeway. Nearly one-third of the population falls below the poverty level. High rental rates in the area relative to incomes result in 56% of renters overpaying for housing, and 30% spending more than half their incomes towards rents.

Residential Real Estate Activity

Review of 2003 residential sales in the North Long Beach King School Focus Area documents 76 completed sales: 56 single-family homes, 19 duplex/triplex/fourplexes, and 1 apartment building.

Table 5
North Long Beach King School Focus Area
Residential Sales Prices – 2003

Unit Type	# Units Sold	Price Range	Median Price	Median Unit Size	Median Year Built
Homebuyer Units					
Single-Family	56	$173,000-$315,000	$235,000	1,088 sq.ft.	1948
Unit Type	**# Buildings Sold**	**Price Range per Unit**	**Median Price per Unit**	**Median Unit Size**	**Median Year Built**
Investment Properties					
Duplex – Fourplex	19	$69,000-$175,000	$127,500	---	1950
Apartments	1	$40,000	$40,000	---	1955

Source: Real Quest, January 2003-December 2003

Single-Family Homes: With 56 homes sold in this area, this represents a healthy 5% turnover in the single-family housing stock. The majority of units sold were 2-bedroom (37%) and 3-bedroom (55%) units. The median sales price of $235,000 makes this area still relatively affordable in contrast to the average Citywide median of $345,000. Among units sold, the average year built was 1948, and the average unit size 1,088 square feet. The average parcel size was 5,750 - significantly larger than single-family parcels in the other two Focus Areas – possibly providing potential for room additions to alleviate overcrowding.

Duplex/Triplex/Fourplex Buildings: A total of 19 duplexes sold in this Focus Area in 2003. With only two of these properties evidencing post-2000 prior sales, property "flipping" by investors is not yet as prevalent as in the other Focus Areas. The median purchase price was $127,500 per unit, and the median year built 1950.

Apartments: Given the fact that this Focus Area is comprised predominately of single-family units and mobile homes, only one apartment complex sold in this area over the past year. A six-unit building (all 1 bedrooms) built in 1955 sold for $40,000 per unit. This property previously sold in 2001 for $30,000 per unit, a 33% increase in value in two years.

Market Rents

Nearly half of the rental housing in this Focus Area is in single-family housing, providing rental options for large families. As depicted in Table 6, May 2004 rents for single-family housing in the North section of Long Beach (zip code 90805) average $800 for a 1-bedroom home, $1,123 for a 2-bedroom home, $1,341 for a 3-bedroom home, and $1,515 for a 4-bedroom home. Similar to the other two Focus Areas, single-family home rents have risen dramatically over the past two years, increasing 24% and 33% for 1 and 2-bedroom units respectively.

Apartment rents in North Long Beach average $947 for a 2-bedroom unit and $1,160 for a 3-bedroom unit, and have risen anywhere from 5%-19% over the past two years, depending on unit size.

Table 6
North Long Beach King School Focus Area (Zip Code 90805)
Rental Housing Rates: 2002-2004

Unit Type and Bedroom Size	Jan 2002 Average Rent*	May 2004 Average Rent*	Change
Apartments			
Studio	$490	$575	+17%
1	$641	$707	+10%
2	$817	$947	+16%
3	$1,105	$1,160	+5%
4	$1,200	$1,428	+19%
Condominiums/Townhomes			
2	$688	$788	+15%
Duplex			
1	$553	$666	+20%
2	$843	$905	+7%
3	$1,088	$1,112	+2%
House			
1	$647	$800	+24%
2	$842	$1,123	+33%
3	$1,182	$1,341	+13%
4	$1,398	$1,515	+8%

* Rents reflect average between 1-2 bathroom units
Source: Long Beach Housing Authority, Rent Surveys

Residential Development

During calendar years 2002-2003, a total of 8 residential building permits were issued in the North Long Beach King School Focus Area. All of these permits were for new single-family home construction, and indicate a modest level of investment occurring in the neighborhood. The predominant zoning in this Focus Area is R-1 single-family, providing for preservation of the area's low density neighborhoods. Multi-family R-3 zoning is limited to locations along Long Beach and Artesia Boulevards.

The North Long Beach Redevelopment Project Area encompasses the entire Focus Area. The North Long Beach Strategic Guide for Redevelopment (2002) identifies strong market opportunities for development of new housing in the greater North Long Beach community. Within the North Long Beach King School Focus Area, the Strategic Guide identifies opportunities for single-family residential development along Long Beach Boulevard, similar to the Renaissance Walk project on Atlantic Avenue.

The Strategic Plan for Redevelopment establishes the following strategies for residential uses in North Long Beach:

- Design principles for pedestrian areas
- Strategies for improving or maintaining the quality of existing residential areas
- Conversion of certain existing commercial corridors to residential uses
- Conversion of mixed commercial and residential minor arterials into consistent residential zones
- Create opportunities for homeownership

Code Enforcement Violations

The City's Code Enforcement Division identified the following active cases in the North Long Beach King School Focus Area as of March 31, 2004:

Abandoned Vehicles - 27
Property Maintenance – 29
Substandard Buildings – 3
Substandard Conditions – 11
Weed Abatement – 37
Zoning Enforcement - 32

With 1,149 residential parcels in this Focus Area, 3% of the properties have active code violations related to inadequate property maintenance, such as broken windows, screens or fences in disrepair, etc. Identified substandard

buildings and conditions are much lower than the other two Focus Areas, with 1% of the properties with active cases. Concentrations of code violations are evidenced in the R-3 and R-2 zoned areas west of Long Beach Boulevard to Gale Avenue, and in the area's 200+ space mobile home park in particular.

Approximately two-thirds of this Focus Area falls within the North Long Beach/King School Neighborhood Improvement Strategy (NIS), which extends from Long Beach Boulevard east to the 710 freeway. The City has conducted focused code enforcement in this area over the past decade to improve overall neighborhood conditions, although this area is not currently considered an "active" NIS so that code enforcement is currently on a complaint basis.

Police Activity

The three police reporting districts that comprise this area averaged 84 Part 1 crimes in 2003, approximately 25% higher than the Citywide average of 68 Part 1 crimes per district. Between 2002-2003, Part 1 crimes increased by 8% (from 235 to 251 incidents), and Part 2 crimes increased by 13% from 200 to 227 incidents. In contrast, Part 1 and Part 2 crimes Citywide each declined by 4% during this same period. The most prevalent Part 1 crimes in the King School neighborhood in 2003 were: auto theft (31%), aggravated assault (16%), and auto burglary (15%). During calendar years 2002 and 2003, four murders were reported in the area.

Both the 91 and 710 freeways intersect this Focus Area and contribute to the relatively high level of criminal activity by providing easy access to and from the area. There are many businesses located along Artesia and Long Beach Boulevards, which serve as a target for crime in the area. Gang members from the area and neighboring cities contribute to the crime problems.

Adequacy of Park Space

The City's Open Space and Recreation Element illustrates that almost the entire North Long Beach King School Focus Area falls outside the service area for any existing neighborhood, community or regional park. The five-acre Coolidge Park is the nearest park, and is both physically and psychologically separated from this neighborhood by the Artesia Freeway. King Elementary School is located within the Focus Area, and if a joint-use agreement were reached between the City and Long Beach Unified School District, could offer 4.6 acres of recreational open space to the neighborhood. While relative population and housing densities in this area are lower than the other two Focus Areas, and the area's predominance of single-family homes offer some amount of outdoor play area, the area is characterized by a majority of large family households with children and significant unit overcrowding, thus generating significant needs for recreational open space.

III. BIBLIOGRAPHY

Persons Contacted

1. Sergeant Lisa Lopez, Office of the Chief of Police, LBPD
2. Corinne Swart, Crime Analysis Supervisor, LBPD
3. Dennis Thys, Neighborhood Services Bureau Manager
4. Mark Sutton, Building Inspection Officer
5. Dale Wiersma, Principal Building Inspector
6. Jeff McIntosh, Main Street Realtors

References

1. Real Quest residential sales: January 2003-December 2003.
2. Long Beach Housing Authority: average rent data, April 2004.
3. Long Beach crime statistics Citywide and reporting district: 2002 – 2003.
4. Long Beach Housing Assessment, April 2001, Gary Squier.
5. Long Beach Housing Element, April 2001.
6. Draft Central Long Beach Strategic Plan Guide, March 2004.
7. North Long Beach Strategic Guide for Redevelopment, January 2002.
8. Pacific Apartments & Revitalization Efforts – March 2003 Tax Credit Application.
9. Long Beach Open Space and Recreation Element, August 2002.
10. 1990 and 2000 Census data, compiled by Long Beach Department of Technology Services and Department of Planning and Building, and Karen Warner Associates.

Urban Environments and Health

Research Brief

Unaffordable Housing: the Costs to Public Health

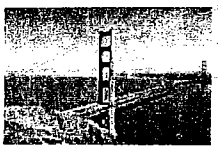
Research Report
June 2004

City and County of San Francisco
San Francisco Department of Public Health
Occupational and Environmental Health
Program on Health, Equity, and Sustainability
www.dph.sf.ca.us/ehs

Urban Environments and Health

Research Brief

Introduction



California suffers a longstanding affordable housing crisis. In San Francisco, families need annual incomes of $86,100 to afford the typical rent for a two-bedroom apartment. Only seven percent of households earn enough income to afford to buy a house. Even individuals earning modest wages, such as public service employees and those in the construction trades, cannot afford to live where they work. For those faced with low wages and high housing costs, subsidized housing programs have not met demand. In California, over two-thirds of qualifying households remain on waiting lists for housing assistance.

Unmet housing needs result in significant public health costs. People unable to afford housing often work extra hours or at multiple jobs at the expense of personal well-being and family relationships. Spending more money on housing can mean doing without necessities, such as food and clothing. Inadequate or unaffordable housing often forces San Francisco residents into crowded or substandard conditions. Unaffordable housing may also require people to relocate, compromising access to jobs, public services, or quality education.

In its broadest sense, environmental health comprises those aspects of human health, disease, and injury that are determined or influenced by factors in the environment. This includes not only the study of the direct pathological effects of various chemical, physical, and biological agents, but also the effects of health of the broad physical and social environment, which includes housing, urban development, land use, and transportation, industry, and agriculture.

—World Health Organization

Unaffordable housing has indirect environmental and economic consequences as well. High housing costs are disincentives for business development or expansion, which means reduced economic opportunities for residents. High cost housing in regional job centers such as San Francisco is one factor that drives development of lower cost housing on the urban fringe, contributing to traffic congestion and air pollution, as well as the loss of regional farmland and open space.

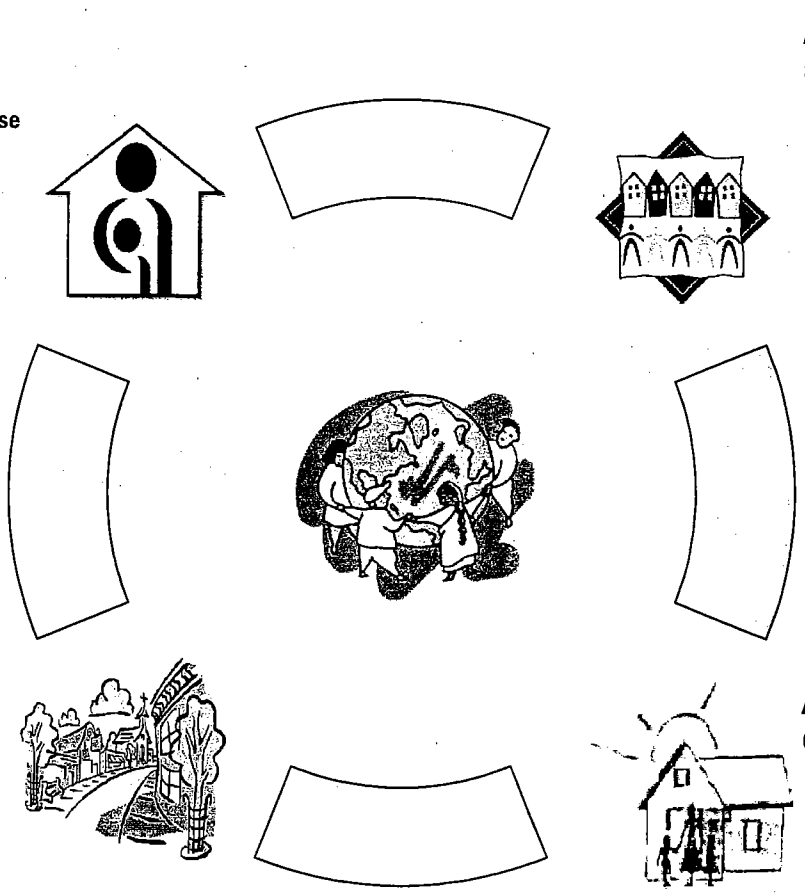
This research report examines the consequences of declining affordability on the health of the residents of San Francisco and lists some of the actions the Department of Public Health is taking to support housing affordability.

Urban Environments and Health

Research Brief

Housing and Human Needs: A Comprehensive Framework

The World Health Organization defines housing as a home (a shelter), a house (a group of people living under the same roof), a neighborhood (an immediate environment), and a community (people living in the same area). Adequate housing is affordable, physically safe, stable, spacious, and located in a setting that allows for meaningful work and community participation. Adequate housing also provides opportunities for freedom and expression. The following figure illustrates the multiple dimensions of housing and their relationships to health and well-being.



A Shelter

- Protection from weather and noise
- A source of heat and water
- A place to cook, eat, bathe and sleep

A setting for social relationships

- Nurturing children's development
- Strengthening family ties
- Providing interpersonal support
- Building trust, reciprocity, and collective-efficacy

A route to livelihood

- Access to transportation
- Proximity to employment and education
- Proximity to public services
- Access to consumer goods
- Proximity to parks and recreation

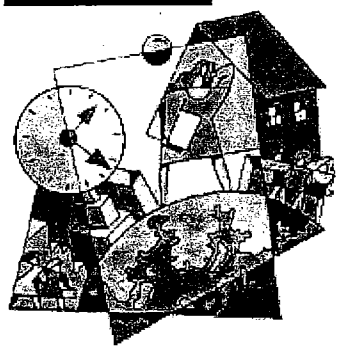
A requirement of dignity

- A stable space for privacy and control
- A source of pride and self-esteem
- A place for growth and identity

Urban Environments and Health

Research Brief

The Health Consequences of Declining Affordability

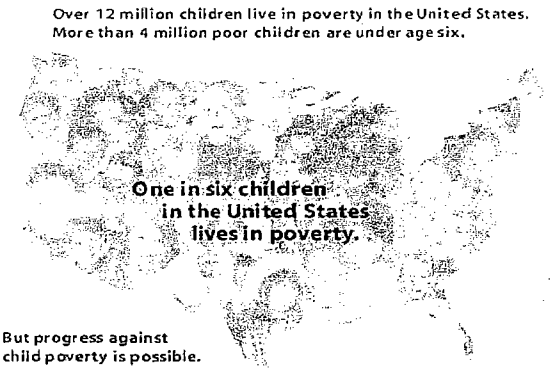


Poverty

Unaffordable housing is both a dimension of poverty and a contributor to poverty. Households with incomes several times the full-time minimum wage can pay more than half of their incomes for housing. Nationally, households with incomes in the bottom fifth of the income distribution and over fifty percent of their incomes spent on housing have an average of $417 to cover all non-housing monthly expenses. When housing is unaffordable, people often sacrifice other material needs including food, clothing, and health care services.

There is little doubt that poverty leads to poor health. Numerous research studies in diverse countries show that poverty contributes to a poorer subjective sense of health, higher mortality, less emotional stability, more chronic disease, and poorer physical functioning. The poorest Americans live almost six fewer years than those with the highest incomes. Children living in poverty are four times more likely to become pregnant when they become teenagers.

The lack of affordable housing has also been directly linked to inadequate nutrition, especially among children. A recent survey of American cities found that low paying jobs and high housing costs are the most frequently cited reasons for hunger. Further evidence for the relationship between unaffordable housing and hunger comes from a study demonstrating increased child growth among low-income children receiving housing subsidies compared with children whose families were on a subsidy waiting list.



www.soc.sbs.ohio-state.edu/cdb/ childtrends_files/usakids.jp

Stress

Insecure housing creates stress. For example, people struggling to pay rent may work extra hours at multiple jobs. They may sacrifice time for personal leisure. If unaffordable housing means moving further from jobs or schools, longer commutes may worsen time pressures. Scientific studies have demonstrated health consequences of psychosocial stress. A randomized study of healthy human volunteers demonstrated that chronic stress doubled the rate at which inoculation with a common cold virus led to a clinical infection. Other studies have linked the experience of stress with chronic diseases including heart disease, hypertension, and diabetes. Among pregnant women, stress has also been associated with a greater likelihood for pre-term delivery and low birth weight birth – both factors that potentially lead to developmental delays and increased infant morbidity and mortality.

Most of the time homelessness begins after an eviction. The first step may be an impossible rent increase. Or the boss may put off a paycheck. Then comes the eviction notice. There's no money for lawyers and no time for hearings. After the judgment, what's left of the money goes to hotel rooms putting off the inevitable. Later, even if I can find a place and can put together the first and last, no one rents to you because of the eviction.

---Story of an Evicted San Francisco Tenant

Housing Safety

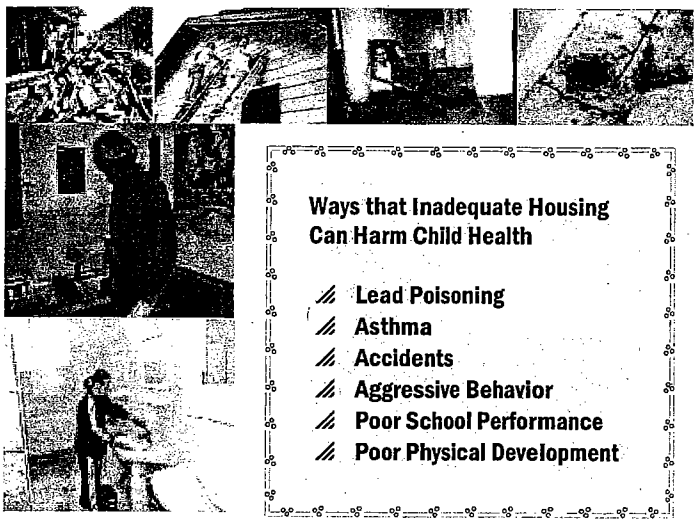
Over half of San Francisco's housing was built more than fifty years ago and requires significant rehabilitation, with ninety four percent of the housing stock built before 1978. Most of the city's pre-1950 dilapidated housing stock is located in low-income neighborhoods. Older and low-income units both tend to have a greater likelihood of deferred maintenance. A number of environmental conditions in older and poorly maintained housing affect health. Inadequate heating can lead to overexposure to cold. Poorly maintained paint results in lead poisoning. Other unsafe conditions include exposed heating sources, unprotected windows and slippery surfaces that increase risks for injuries.

Eviction, moving, displacement, and departure is like death, no matter how much you talk about it, plan for it, or think about it, it still devastates, it still tears you apart and is still filled with misery.

-Displaced San Francisco Tenant

Overcrowding

Families frequently double up to cope with the lack of affordable housing. In San Francisco, over 30% of renter households are overcrowded. Similarly, displaced residents often find temporary lodging with families or friends. Overcrowding results in respiratory infections in adults and ear infection in children. Overcrowding also means the lack of quiet space for children to do homework, negatively impacting their development, education, and future life opportunities. Crowding also contributes to familial stress and conflict, potentially resulting in domestic violence, separation and divorce.



Ways that Inadequate Housing Can Harm Child Health

- **Lead Poisoning**
- **Asthma**
- **Accidents**
- **Aggressive Behavior**
- **Poor School Performance**
- **Poor Physical Development**

Indoor Air Quality

Conditions that promote exposures to irritants and allergens, such as second hand smoke, house dust mites, cockroach antigens, and mold spores, are frequently found in low-income housing. These irritants and allergens cause or aggravate diseases like asthma. Old carpeting acts as a reservoir for allergens. Kitchens and baths, particularly in older housing stock, often lack adequate ventilation, increasing the problems associated with moisture and mold. While public agencies may enforce laws to ensure the safety and habitability of housing, inspectors and tenants may be reluctant to initiate enforcement actions because of fears of landlord reprisal or eviction.

Freedom and Control

Home is much more than a shelter. A home is a place of refuge which contributes to a sense of belonging and stability. It allows people a measure of control over their actions and relationships with other people. A home supports self-expression, creativity, and self-identity–states that we associate with substantial freedom. For many, inadequate housing can mean a loss of freedom or the sense of control.

To feel depressed, bitter, cheated, vulnerable, frightened, angry, worried about debts or job or housing insecurity; to feel devalued, useless, helpless, uncared for, hopeless, isolated, anxious, and a failure: these feeling can dominate people's whole experience of life, coloring their experience of everything else. It is the chronic stress from feeling like these that does the damage [to health].

-Richard Wilkinson

Child Development

Stresses created from inadequate housing may reduce a parent's capacity for supportive parenting. Time-pressured parents may choose either more punitive or low-effort strategies to resolve conflict with children. Studies have shown that economic strains, such as being unable to pay the bills, cause depression in mothers and harsh parenting styles. Protected outdoor play spaces are also important for healthy childhood development and successful child-parent attachment. Frequent family relocation leads to children's grade repetitions, school suspensions, and emotional and behavioral problems. Living in resource-poor neighborhoods, living in substandard housing, and changing schools frequently each may contribute to poor child development and school performance.

Unaffordable Housing Means:
Overwork, Eviction, Displacement, Poverty, Overcrowding, & Stigma.

Social Support

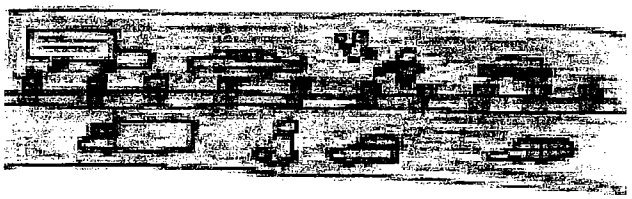
Families in inadequate or unaffordable housing move often, resulting in the loss of supportive family and community relationships. If displaced residents are forced to relocate outside of their neighborhood, valuable supportive family and community relationships can be lost both for those leaving, as well as for those remaining behind. Strong social relationships are protective of health in multiple ways. Neighbors, friends, and family can provide material, as well as emotional, support. Such support can help buffer stressful situations, prevent damaging feelings of isolation, and contribute to a sense of self-esteem and value. The effect of social support on health is substantial as illustrated by several long term studies in the United States. For example, in the Alameda County Study, those with fewer social contacts (e.g., marriage, family, friends, and group membership) had twice the risk of early death, even after accounting for income, race, smoking, obesity, and exercise.

Maria, one of my clients, is a desperate single mother of a one-year- baby that has bad asthma. She's practically homeless, but has a one-room unit in a windowless garage. Her son has gone to the ER four times in the past six months and his asthma symptoms are almost constant. The child's tiny unit has no closet, no space to put things away and the only window in the room was closed. There is no place for the child to play on the floor, except the bed. Maria has been on a waiting list for Section 8 housing for a couple of years. Recently, Section 8 offered her a house at either Sunnyvale or Potrero, both very unsafe places. Maria did not accept the offer. She'll have to wait 2 more years for Section 8.

--San Francisco Health Educator

Social Cohesion

Increases in housing costs may precipitate gentrification and eviction. One of the most significant effects of residential displacement is the erosion of social capital and social cohesion—factors associated with health, education, and neighborhood safety. Where social cohesion exists, residents invest in maintaining the built environment and the community, contributing to community cohesion and youth development. In contrast, where residents feel less invested in communities, one may find dilapidated environmental conditions, such as broken windows, illegal disposal of hazardous substances, loitering, and higher crime rates.



Homelessness

Twenty-three major U.S. cities have reported that the lack of affordable housing is the leading cause of homelessness. Hunger and homelessness are on the rise in major American cities. Over 350,000 Californians are estimated to be homeless. A particularly disturbing trend is the rise of family homelessness. It is estimated that between 80,000 and 95,000 homeless children exist in California. Temporary housing for the homeless may be a source of respiratory infections, such as tuberculosis. Housing for the homeless often lacks safe drinking water and hot water for washing; often has ineffective waste disposal and intrusion by disease vectors (e.g., insects and rats); and often has inadequate food storage. A 1994 study of children living in homeless shelters in the Los Angeles area found that the vast majority (78%) of homeless children interviewed suffered from depression, a behavioral problem, or severe academic delay. Among sheltered homeless men and women, age-adjusted death rates are several fold higher than in the general population.

Segregation

Because low-income housing is concentrated in low-income neighborhoods, further loss of affordable housing and increased residential displacement may contribute to residential segregation. A study that examined expiring HUD Section 8 agreements with private owners in California found that, on average, families relocated to relatively more racially-segregated communities. Racially-segregated neighborhoods tend to have less neighborhood amenities, such as schools, libraries and public transportation, due to economic, political, and linguistic isolation and racism. Many studies have shown, for example, a strong association between segregation and homicide rates. Besides an excess in mortality, studies have also demonstrated a relationship between residential segregation and teenage childbearing, tuberculosis, cardiovascular disease, availability of food establishments serving healthy fare and exposure to toxic air pollutants. Recent evidence from the HUD Moving to Opportunity demonstration programs suggests that poor families relocating to private rental housing in non-poverty neighborhoods experience improved mental health and reduced obesity.

Sprawl

New affordable housing is often built far from job centers and often on the urban fringe. An imbalance between where jobs are located and where housing is affordable can result in significant environmental costs due to the building of highways, the production and consumption of fossil fuels and energy, and the destruction of habitats.

Urban Environments and Health

Research Brief

Affordable Housing for All of Us... Taking Action

According to State Treasurer Phil Angelides, our State is becoming "...two Californias: one of opportunity and wealth, and one of struggle that is outside the mainstream of economic hope." While San Francisco has a long history of diversity, increasingly it is a city where few can afford to live. Moreover, among urban areas, San Francisco has one of the most unequal distributions of income. We all pay the social and health costs of unaffordable housing, and we all would benefit from a diverse city where families can afford to raise their children.

Affordable housing is necessary as well for an environmentally sustainable San Francisco. Applying smart growth principles, such as mixed uses, increased density, and transit-oriented development, can decrease automobile dependence and strengthen local and neighborhood economies only if we assure housing affordability. Smart growth without adequate guarantees of affordability means displacement for many, thereby negating the environmental benefits of smart growth.

If there is no struggle, there is no progress.

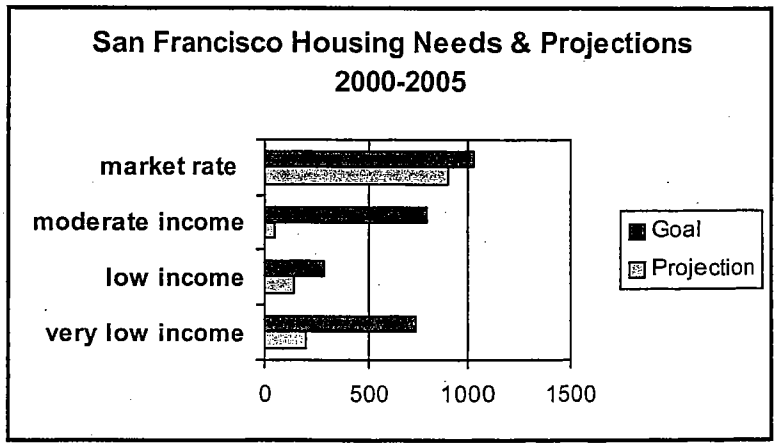
Those who profess to favor freedom, and yet deprecate agitation, are men who want crops without plowing up the ground. They want rain without thunder and lightning.

They want the ocean without the awful roar of its many waters.

Frederick Douglass

Sufficient affordable housing in San Francisco faces challenges related to economics, land availability, and public and political will. This goal requires developing citywide consensus on several fronts, including: preserving neighborhood character, protecting the environment , promoting economic development, and ensuring social justice. The Department of Public Health contributes to solutions to housing affordability challenges through the following actions:

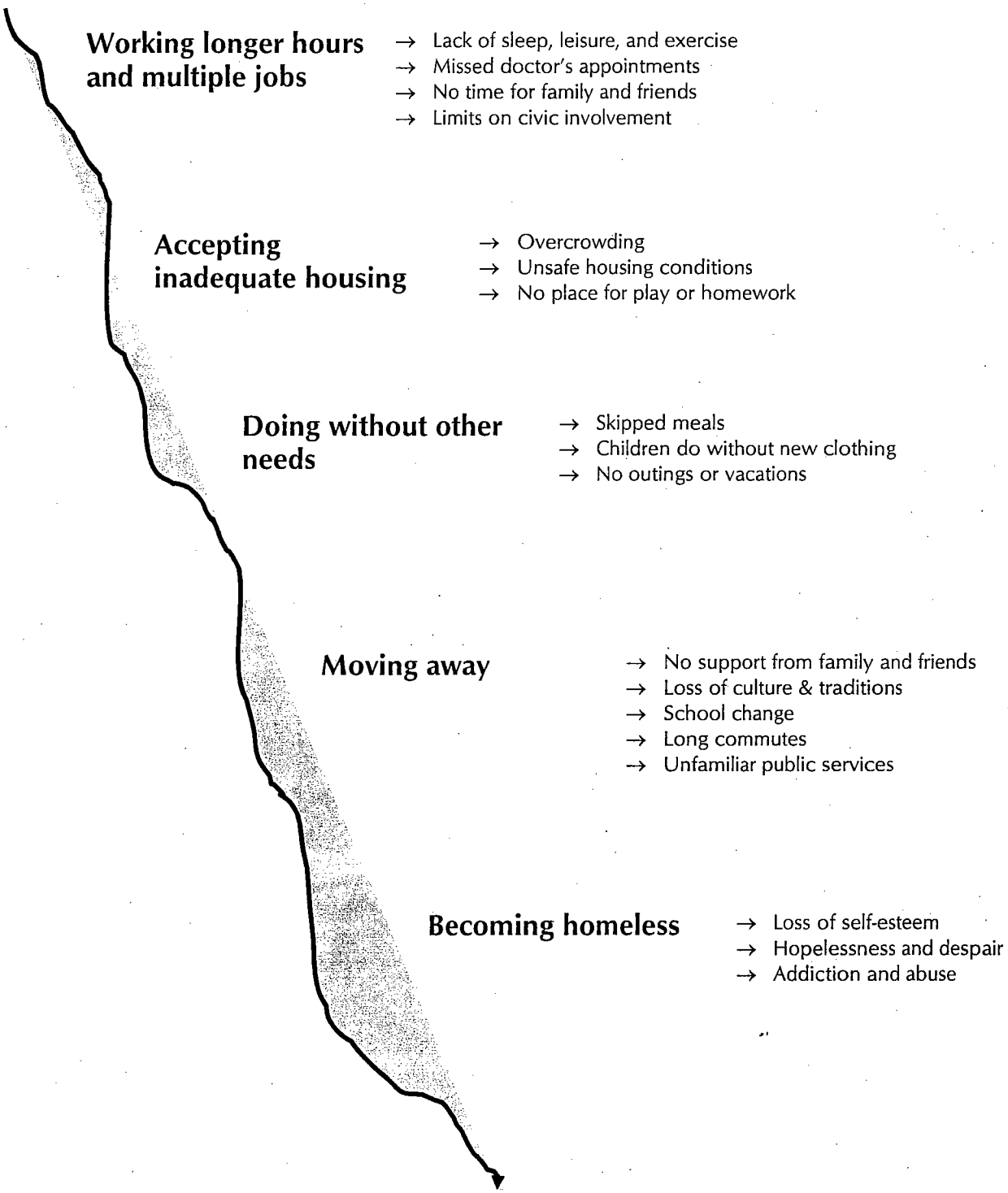
- Creating more supportive housing options for homeless individuals with long-term health needs;
- Ensuring that housing constructed on previously contaminated property is safe;
- Enforcing city health and safety laws for housing;
- Providing training to property owners and managers on housing maintenance;
- Educating housing policy makers on the health impacts of affordability, density, and social integration;
- Researching the adverse health effects of inadequate housing and displacement; and
- Developing tools for housing impacts assessment for environmental impact review under CEQA.



Urban Environments and Health

Research Brief

Summary
Unaffordable Housing: A Slippery Slope for Health



Urban Environments and Health

Research Brief

Sources of Information

- Acevedo-Garcia D, Lochner KA, Osypuk TL, Subramanian SV. Future Directions in Residential Segregation and Health Research: A Multilevel Approach. American Journal of Public Health. 2003; 93:215-221.
- American Housing Survey. (Accessed at: http://www.census.gov/hhes/www/ahs.html)
- Barrow, SM, Herman, DB, Cordova P, Stuening, EL. Mortality among Homeless Shelter Residents in New York City. American Journal of Public Health. 1999; 89: 529-534.
- Cohen, S, Underwood, LG, Gottlieb, BH. Social Support Measurement and Intervention. Oxford University Press. New York. 2000.
- Cooper, M. Housing Affordability: A Children's Issue. Canadian Policy Research Networks Discussion Paper. Ottawa. 2001.
- Dunn, James R. A population health approach to housing: A framework for research. University of Calgary. 2002.
- Forbes E. Eroding Neighborhood Integration: The Impact of California's Expiring Section 8 Rent Subsidy Contracts on Low-Income Family Housing. 2000 The Ralph and Goldy Lewis Center for Regional Policy Studies. UCLA, School of Public Policy and Social Research. Los Angeles. 2000.
- Frumkin, H. Urban Sprawl and Public Health. Public Health Reports. 2002; 117: 201-217.
- Governor's Environmental Goals and Policy Report. Office of Planning and Research 2003.
- Institute of Medicine. Clearing the Air: Asthma and Indoor Air Exposures. National Academy Press. Washington D.C. 2000.
- Krieger, J & Higgens, DL. Housing and Health: Time again for Public Health Action. American Journal of Public Health. 2002; 92: 758-768.
- Local Government Commission. Creating Great Neighborhoods: Density in Your Community. Washington 2003.
- McEwen, BE. Protective and damaging effects of stress mediators. New England Journal of Medicine. 1998; 338(3): 171-179.
- National Low Income Housing Coalition Out of Reach 2003: America's Housing Wage Climbs. (Accessed at: http://www.nlihc.org/oor2003/)
- Phipps, S. The Impact of Poverty on Health: A Scan of the Research Literature. Canadian Institute for Health Information. Ottawa. 2003.
- Ross, DP & Roberts, P. Income and child well being: A new perspective on the policy debate. Canadian Council for Social Development. Ottawa. 1999.
- San Francisco Planning Department. Update of the Housing Element of the General Plan.
- Sandel, M, Sharfstein, J, Shaw, R. There's no place like home: How America's Housing Crisis Threatens our Children. Housing America. San Francisco 1999.
- Smart Growth Network. Affordable Housing and Smart Growth: Making the Connection. Washington 2001.
- U.S. Department of Housing and Urban Development Moving to Opportunity for Fair Housing Demonstration Program: Interim Impacts Evaluation. 2003.
- US Environmental Protection Agency. Our Built and Natural Environments. Washington 2001.
- US Conference of Mayors The United States Conference of Mayors Hunger and Homelessness Study. 2003.
- Zima BT, Wells KB, Freeman HE. Emotional and behavioral problems and severe academic delays among sheltered homeless children in Los Angeles County. American Journal of Public Health. 1999; 84: 260-264.

THE CASE FOR HOUSING IMPACTS ASSESSMENT:

THE HUMAN HEALTH AND SOCIAL IMPACTS OF INADEQUATE HOUSING AND THEIR CONSIDERATION IN CEQA POLICY AND PRACTICE

PHES TECHNICAL RESEARCH REPORT
MAY 2004

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH
OCCUPATIONAL & ENVIRONMENTAL HEALTH SECTION
PROGRAM ON HEALTH, EQUITY, & SUSTAINABILITY

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INTRODUCTION

The California Environmental Quality Act (CEQA)[1] requires governmental agencies to provide a public accounting of all potentially adverse impacts of decisions that change the environment. While some consider CEQA to be concerned exclusively with the physical environment, the aims of CEQA extend to human well being. For example, CEQA's policy goals include maintaining "...conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations," and "..,providing a decent home and satisfying living environment for every Californian." (California Government Code §21000) Under CEQA, a local agency must consider reasonably foreseeable "... environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly."[2]

Traditionally, health and human impact assessment within environmental review has focused on hazardous environmental agents such as air pollutants. While such impacts are important, the relationships between the physical environment and human health include many other neglected dimensions.

Unmet housing needs in San Francisco result in particularly significant public health costs. Inadequate or unaffordable housing forces San Francisco residents into crowded or substandard conditions; requires them to compromise access to jobs and services, and quality education; and requires them to work multiple jobs to make ends meet. The Department of Public Health witnesses these effects when we care for the homeless, in the course of our enforcement of environmental health and housing standards, and through our efforts to improve the housing of those with environmentally related illnesses such as asthma.

Unmet housing needs also have indirect environmental and economic consequences. High housing costs are disincentives for business development or expansion which also means reduced economic opportunities for residents. High cost housing in regional job centers such as San Francisco is one factor that drives development of lower cost housing on the urban fringe, contributing to traffic congestion and air pollution, as well as the loss of regional farmland and open space.[3]

As one strategy to ensure adequate affordable housing in San Francisco, the San Francisco Department of Health, in partnership with the City's Department of Planning, has researched how environmental impact analysis might more

[1] CEQA, similar to NEPA, predated the more proscriptive environmental regulatory approaches such as the Clean Water Act aiming instead to ensure transparency and accountability in decision making. CEQA requires public agencies to produce an Environmental Impact Report (EIR) prior to making public decision that may have significant adverse environmental effects. (California Public Resources Code, Environmental Protection, §21000) An EIR must analysis on all potentially significant adverse environmental impacts, feasible alternatives, and steps to avoid or limit impacts. If an EIR concludes that a project would have significant impacts, the agency can not approve it until it either they determine that mitigation or alternatives are infeasible or that the project's benefits outweigh the adverse impacts.

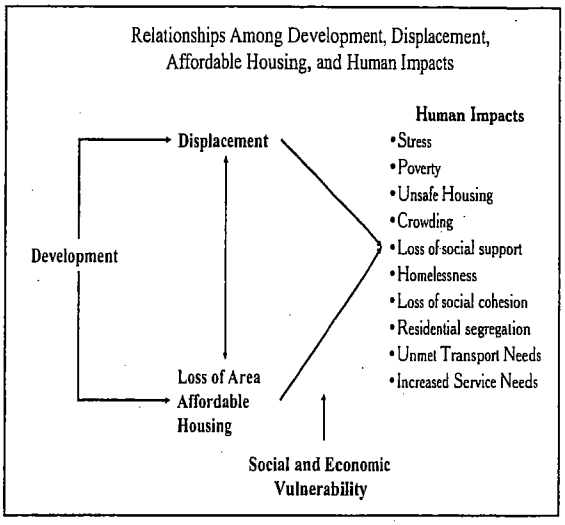
[2] CEQA Guidelines. Title 14. California Code of Regulations. (Accessed at http://ceres.ca.gov/topic/env_law/ceqa/guidelines/)

[3] http://www.brookings.edu/views/speeches/downs/20030529_downs.htm

comprehensively account for impacts on affordable housing and residential displacement.

CEQA guidelines allow cities to determine their own impacts of concern, screening criteria, assessment and evaluative methodologies, and preferred mitigation measures. In addition, though the guidelines provide a list of potential adverse impacts on the environment they do not provide a way of judging whether the effects are significant in a particular set of circumstances. One way for local jurisdictions and public agencies to ensure consistent and objective determinations in their environmental review is to adopt a 'threshold of significance.'[4]

CEQA authorizes local governments to adopt by "...ordinance, resolution, rule, or regulation" locally specific "objectives, criteria, and procedures for the evaluation of projects." (California Government Code §21082). These 'thresholds of significance' are qualitative or quantitative standards that provide local agencies a way to differentiate whether a particular environmental effect is significant. Thresholds may be based on health based standards, service capacity standards, ecological tolerance standards, policies and goals within the city's general plan, or any other standard based on environmental quality. Ideally, threshold development should involve public participation and the documentation of a threshold should include (1) a definition for the effect (2) the reasons the effect is significant (3) the criteria at which effect becomes significant (4) references and sources (5) potential mitigation measures if available.



Methods to consider impacts on housing affordability and residential displacement exist; however, these methods have not been applied to impact assessment practice in San Francisco. In California, several local jurisdictions (Los Angeles, Santa Barbara, and LakeTahoe) have adopted comprehensive, environmental review guidelines which include thresholds of significance for housing impacts. San Francisco adopted level of service standards (LOS) for the evaluation of impacts on automobile and transit in 2002 but does not have consistent evaluative criteria for several other important environmental effects included effects on housing.

This technical report outlines several ways that impacts on housing affordability and residential displacement can be included in the process of environmental review. It also provides the groundwork for developing local significance thresholds criteria for housing impacts. We have organized this document into three sections: (1) Social and health consequences of housing affordability and residential displacement; (2)

[4] Thresholds of Significance: Criteria for Defining Environmental Significance. CEQA Technical Advice Series Govenor's Office of Planning and Research 1994 Accessed May 24th 2004 at: http://ceres.ca.gov/topic/env_law/ceqa/more/tas/threshld.pdf

Interpretation of CEQA policy and guidelines with regards to the analysis of social, health, and environmental justice impacts; (3) Public agency guidelines for affordable housing and displacement impact assessment.

The first section provides a scan of the public health and social science research that relates affordability and displacement to adverse human outcomes. We organized this section using a public health framework that relates project development to residential displacement and housing affordability and these effects to indirect adverse human impacts. (The framework used in this report is illustrated in the figure above.) The second section considers the impacts on affordability and displacement as indirect social impacts, as indirect human health impacts, as environmental justice impacts, and as impacts that affect long term environmental policy goals. The third section provides a scan of impact assessment methods and practice applicable to housing impacts analysis bringing together a number of federal, state, and local tools and guidelines.

SECTION I. SOCIAL AND HEALTH CONSEQUENCES OF HOUSING AFFORDABILITY AND RESIDENTIAL DISPLACEMENT

The pathways between affordable housing, residential displacement, and human health and well being are numerous and complex. The impacts of any particular project or program that affects housing affordability or displaces residents depend on both contextual and individual factors including the availability of affordable housing units, the extent of relocation assistance provided, the income and savings of displaced residents, and the availability of social support networks.

This section provides a summary of available evidence on the adverse human consequences of housing affordability and residential displacement. Sources include case studies, interviews, and studies on homelessness, and public health and social science research.

Unmet Needs for Affordable Housing in California and San Francisco

According to *Slum Housing in LA*, a recent publication by UCLA's Advanced Policy Institute, the Federal goal of "securing the health and living standards of its people..." has only been met for upper and moderate income groups, while communities that are poor in both rural and inner city areas lack adequate housing. [5] Three in ten US households have housing affordability problems.

The affordable housing crisis is particularly acute in California. In San Francisco, only 7.3% of households currently earn enough to afford the median sale price of housing.[6] In addition, the fair market rent for a two-bedroom apartment is $1,904 which is affordable only to those who make 90% of the average family's median income of $86,100.[7] Exacerbating this situation, the gap between the minimum wage and the minimum hourly wage required to afford adequate housing has increased. Currently, over 35,000 low income renters pay more than 50% of their income in rent. Even individuals earning modest wages, such as, public service employees and those in the construction trades simply cannot afford to live where they work.[8]

A related factor, affecting low income renters, is the unmet demand for subsidized housing programs. In California, over two-thirds of qualifying low income households remains on waiting lists for housing assistance.[9] The state has 186,000 rental units housing 450,000 low income people which benefited from public finance. About 70% of this stock, over 120,000 units, represents housing in the HUD Section 8 program for which rent subsidy contracts are expiring. The conversion of subsidized housing will further aggravate unmet demand for low income housing.

[5] Richman N, Pitkin B. Understanding Slum: The Case of Los Angeles, USA. 2003 UCLA Advanced Policy Institute. Los Angeles, CA.

[6] San Francisco Planning Department. Update of the Housing Element of the General Plan. (Accessed at: http://www.ci.sf.ca.us/planning/citywide/c1_housing_element.htm)

[7] National Low Income Housing Coalition Out of Reach 2003: America's Housing Wage Climbs. (Accessed at: http://www.nlihc.org/oor2003/)

[8] Governor' Environmental Goals and Policy Report. Office of Planning and Research 2003

[9] Forbes, Elaine. 2000

While the population of San Francisco is growing, San Francisco is not currently meeting the housing production goals of moderate income, low income and very low income communities. The Mayor's Office of Housing estimates that the City needs to build 19,000 units of affordable housing between 2001 and 2005 to meet its needs. Furthermore, according to the Housing Element of the General Plan, the strongest job growth is expected in the service and retail sectors; however, much of that growth is represented by low and medium wage jobs including cashiers, waiters and cooks, sales people and clerks, and painters, carpenters and electricians.

The Relationship between Displacement and Affordable Housing

Residential displacement has become a critical issue in California where housing shortage disproportionately affects low income and minority populations. Displacement can occur in the context of demolition or redevelopment of residential property or the conversion of rental units to ownership housing. Displacement also occurs in the context of gentrification when neighborhoods change in a way that inflates rents. Structural forces that contribute to displacement of individuals and families and unsatisfactory relocation in San Francisco include the relatively high cost of housing relative to incomes, the large unmet need for housing particularly at lower income levels, and the high cost of land and housing. Given that San Francisco is a setting with a limited supply of affordable housing, residents displaced through eviction or redevelopment are unlikely to be successfully relocated into adequate and affordable housing replacement housing.

Human Health Impacts of Inadequate Housing

Residential displacement or the permanent loss of area affordable housing can be expected to lead to diverse health effects. Both displaced residents and those entering the housing market may have to pay more for housing.[10] Some may accept affordable but inadequate, substandard, or poorer quality housing. Some may move out of the city or region while others may move into a temporary living situation with a friend or family member. Finally, some may become homeless. Low income individuals and families are more susceptible to adverse consequences after displacement as they have limited options for relocation.

Stress Displacement may increase levels of psychological and physiological stress, for example, by creating a new economic strain among low income individuals. If residents are displaced away from jobs or schools, longer commutes may be a further source of stress and reduce time for leisure or family activities. For children, frequent family relocation leads to children's grade repetitions, school suspensions, and emotional and behavioral problems.[11] Living in resource poor neighborhoods, frequent school changes, and substandard housing all contribute to poor child development and school

[10] Hartman, Chester. Comment on "Neighborhood revitalization and displacement: A review of the evidence. Journal of the American Planning Association. 1979;45:488-491.

[11] Cooper, Merrill. Housing Affordability: A Children's Issue. Canadian Policy Research Networks Discussion Paper. Ottawa. 2001

performance.[12]

A number of scientific studies have demonstrated health consequences of psychosocial stress. For example, a randomized study of healthy human volunteers demonstrated that chronic stress doubled the rate at which inoculation with a common cold virus led to a clinical infection. [13] Other studies have linked the experience of stress with chronic diseases including heart disease, hypertension, and diabetes.[14] Among pregnant women, stress has also been associated with a greater likelihood for pre-term delivery and low birth weight birth – both factors that potentially lead to developmental delays and increased infant morbidity and mortality.

Poverty There is little doubt that poverty leads to poor health. Numerous research studies in diverse countries show that poverty contributes to a poorer subjective sense of health, higher mortality, less emotional stability, worse chronic conditions, and poorer physical functioning.[15]

Unaffordable housing is both a dimension of poverty and a contributor to poverty. Households with incomes several times the full-time minimum wage can pay more than half of their incomes for housing.[16] When housing is unaffordable, people often sacrifice other material needs including food, clothing, and health care services. Nationally, those with incomes in the bottom fifth of the income distribution and paying 50% of their incomes for housing have an average of $417 to cover all non-housing monthly expenses.[17] Lack of affordable housing has also been linked to inadequate nutrition, especially among children. A recent survey of American cities found that low paying jobs and high housing costs are the most frequently cited reasons for hunger.[18] Children from low-income families receiving housing subsidies showed increased growth compared with children whose families were on a subsidy waiting list, an observation consistent with the idea that subsidies provide a protective effect against childhood malnutrition.

Unaffordable housing may add to psychosocial stress. People required to work extra hours or at multiple jobs may sacrifice personal leisure family relationships. Time pressured parents may choose either more punitive or low-effort strategies to resolve conflict with children.[19] Studies have shown that economic strains such as being unable to pay the bills cause depression in mothers and harsh parenting styles. Displacement and relocation may also result in job loss with potential further aggravation of

[12] Ross, DP & Roberts, P. Income and child well being: A new perspective on the policy debate. Canadian Council for Social Development. Ottawa. 1999.

[13] Cohen, Sheldon et al. Types of Stressor that increase susceptibility to the common cold in Healthy Adults. Health Psychology. 1998; 17(3):214-223.

[14] McEwen, Bruce E. Protective and damaging effects of stress mediators. New England Journal of Medicine. 1998; 338(3): 171-179.

[15] Phipps, Shelly. The Impact of Poverty on Health: A Scan of the Research Literature. Ottawa. Canadian Institute for Health Information 2003.

[16] The State of the Nation's Housing. Joint Center for Housing Studies of Harvard University. 2003.

[17]

[18] Sandel, M, Sharfstein, J, Shaw, R. There's no place like home: How America's Housing Crisis Threatens our Children. Housing America. San Francisco. 1999.

[19] Dunn, James R. A population health approach to housing: A framework for research. Report prepared for the National Housing research Committee and the Canada Mortgage and Housing Committee. University of Calgary. 2002.

economic strain and psychosocial stress.

Overcrowding Statewide, 24% of renter households are overcrowded while in San Francisco over 30% of renter households are characterized as overcrowded.[20] [21] Families frequently double up as a way to cope with the lack of affordable housing. Similarly, displaced residents find temporary lodging with families or friends. Overcrowding results in respiratory infections in adults and ear infection in children.[22] Overcrowding also means the lack of quiet space for children to do homework, negatively impacting their development, education, and future life opportunities.[23]

Housing Safety Over half of the San Francisco's housing was built over 50 years ago and requires significant rehabilitation to maintain habitability; 94% of the housing stock was built before 1978. Most of the city's pre-1950 dilapidated housing stock is located in low-income neighborhoods. A number of environmental conditions in older and poorly maintained housing affect health. Inadequate heating can lead to overexposure to cold. Poorly maintained paint leads to lead poisoning. Other unsafe conditions include exposed heating sources, unprotected windows and slippery surfaces that increase risks for injuries. Older units and low-income units tend also to have a greater likelihood of deferred maintenance.

[20] Govenor's Environmental Goals and Policy Report. Op Cit.
[21] Based on San Francisco data from the 1999 American Housing Survey. (Accessed at: http://www.census.gov/hhes/www/ahs.html)
[22] Krieger, J & Higgens, DL. Housing and Health: Time again for Public Health Action. American Journal of Public Health. 2002; 92: 758-768.
[23] Cooper, M. op cit.

Indoor Air Quality Irritants and allergens present in one's home environments contribute to asthma. Some of the most important allergens implicated in the development and recurrence of asthma include house dust mites, cockroach antigens, cat dander, mold spores, and pollens.[24] Old carpeting serves as a reservoir for dust, allergens and chemicals. Kitchens and baths, particularly in older housing stock, often lack adequate ventilation increasing problems associated with moisture and mold.

Since 1999, SFDPH has conducted several hundred assessments for asthmatic children and adults and identified through evaluation research the role of housing affordability as a barrier to reducing asthma triggers in the home. While SFDPH enforces laws to ensure the safety and habitability of housing, inspectors have found many instances where substandard and unhealthy conditions exist yet tenants are reluctant to initiate enforcement actions. Commonly, tenants are fearful of landlord reprisal or eviction in an unaffordable housing market.

Social Support If displaced residents are forced to relocate outside of their neighborhood, valuable supportive family and community relationships can be lost both for those leaving and well as for those remaining behind. Strong social relationships and community cohesion are protective of health in multiple ways. Neighbors, friends, and family provide material as well as emotional support. Support, perceived or provided, can buffer stressful

[24] Institute of Medicine. Clearing the Air: Asthma and Indoor Air Exposures. National Academy Press. Washington D.C. 2000.

situations, prevents damaging feelings of isolation, and contributes to a sense of self-esteem and value.[25] The magnitude of the effect of social support on health is substantial and has been illustrated by several prospective long term studies in the United States. For example, in the Alameda County Study, those with fewer social contacts (e.g. marriage, family, friends, and group membership) had twice the risk of early death, even accounting for income, race, smoking, obesity, and exercise.[26]

Homelessness One of the most severe consequences of both unaffordable housing and displacement is homelessness. Hunger and homelessness are on the rise in major American cities, according to a 2003 survey by the U.S. Conference of Mayors.[27] Requests for emergency shelter assistance increased by an average of 13 percent in the 25 large cities surveyed. Twenty-three participating cities reported that lack of affordable housing was the leading cause of homelessness.

Over 350,000 Californians are estimated to be homeless.[28] A particularly disturbing trend is the rise of family homelessness. It is estimated that between 80,000 and 95,000 homeless children exist in California.[29] The USCM survey documents that Eighty-four percent of the cities have turned away homeless families from emergency shelters due to lack of resources.

Homelessness contributes to a number of other well described physical, behavioral and mental health problems in adults and children. Lack of housing and the overcrowding found in temporary housing for the homeless have been found to contribute to morbidity from respiratory infections and activation of tuberculosis. Substandard housing, such as that used by the homeless population, often lack safe drinking water and hot water for washing; often have ineffective waste disposal, intrusion by disease vectors (e.g., insects and rats); and often have inadequate food storage, all of which have long been identified as contributing to the spread of infectious diseases. [30] A 1994 study of children living in homeless shelters in the Los Angeles area found that the vast majority (78%) of homeless children interviewed suffered from depression, a behavioral problem, or severe academic delay.[31] Among sheltered homeless men and women, age adjusted death rates are several fold higher than in the general population.[32]

Homelessness is strongly linked to hunger. Temporary housing for homeless children often lacks cooking facilities.[33] In the 2003 US

[25] Cohen, S, Underwood, LG, Gottlieb, BH. Social Support Measurement and Intervention. Oxford University Press. New York. 2000.
[26] Berkman LF, Syme SL Social networks, host resistance, and mortality: a nine-year follow-up study of Alameda County residents. American Journal of Epidemiology. 1979; 109(2):186-204.
[27] The United States Conference of Mayors Hunger and Homelessness Study December 2003.
[28] Governor's Environmental Goals and Policy Report. Op Cit.
[29] Governor's Environmental Goals and Policy Report Op Cit.

[30] US Conference of Mayors
[31] Zima BT, Wells KB, Freeman HE. Emotional and behavioral problems and severe academic delays among sheltered homeless children in Los Angeles County. American Journal of Public Health. February 1994 Vol 84: 260-264
[32] Barrow, SM, Herman, DB, Cordova P, Stuening, EL. Mortality among Homeless Shelter Residents in New York City. American Journal of Public Health. 1999; 89: 529-534.
[33] Krieger J, Higgins DL. Housing and Health: Time Again for Public Health Action. American Journal of Public Health. May 2002, Vol 92, No. 5: 758-768

Conference of Mayors' (USCM) survey, requests for emergency food assistance increased by an average of 17 percent over the past year. The USCM survey finds that 59 percent of individuals requesting emergency food assistance were members of families with children and their parents, and that 39 percent of the adults requesting such assistance were employed. Eighty-seven percent of the cities surveyed expect that requests for emergency food assistance will increase again over the next year. Ninety-one percent of cities participating in the survey expect that requests for emergency food assistance by families with children will increase next year. Eighty-eight percent expect that requests for emergency shelter will increase next year, and 80% expect requests for shelter by homeless families will increase in 2004.

Social Cohesion One of the most significant effects of eviction and displacement may be the erosion of social capital and social cohesion which are social indicators strongly associated with health, education, and neighborhood safety.[34]

The New York Times recently profiled a community, Franklin Square, as one of the few places in the NY area where housing affordability is promoted resulting in the integration of generations residing side-by-side. In addition to the richness of sharing experiences across generations, the Franklin Square community benefits from long-term residents who invest in maintaining the built environment, invest in the community, and contribute to community cohesion and youth development:

> "'[Franklin Square] It's just a wonderful, very stable community,' said Julie Soffientini, an assistant school superintendent who moved in 30 years ago and raised two daughters with her husband, Raymond. She said she appreciated the clean streets, well-kept properties and convenient local shopping."
>
> "Pupils begin at the Franklin Square Union Free School District, an elementary district with an enrollment of 1,975 in three schools, all for kindergarten through Grade 6. Statistics released by the state Department of Education in October showed that 99.3 percent of fourth grade students in the district met or exceeded state standards in math. Elementary school students in the Franklin Square district consistently score above state averages on other standardized tests."

The example provided above illustrates the positive impacts on society by long-term resident investment: cleaner streets, resulting in reduced cost of City-subsidized loitering cleaning; higher school performance, particularly among the younger aged-group, which results in higher school completion.

In contrast, the erosion of neighborhoods as a result of forced displacement results in the reduction of long-term residents who are most likely to invest in their communities. In areas where residents feel less invested because of the continual threat of displacement, one can find depilated environmental conditions, such as broken windows on buildings, loitering and illegal disposing of hazardous substances. Furthermore, neighborhoods where residents have little incentive to invest are shown to have higher high school drop out rates, as well as crime rates.

[34] Putnam, Robert. Social Capital: Measurement and Consequences. ISUMA. 2001(Spring): 41-51.

Segregation The loss of affordable housing and displacement may also lead to residential segregation and 'ghettoization'. Displacement may contribute to residential segregation (by ethnicity, income, or class) if available housing for displaced residents is not available in integrated neighborhoods. A study that examined expiring HUD Section 8 agreements with private owners in California, found that, on average, families relocated to relatively more racially-segregated communities.[35]

Racially segregated neighborhoods tend to have less neighborhood amenities such as schools, libraries and public transportation due to economic, political and linguistic isolation, and racism. Research has documented the health impacts of residential segregation. Many studies have shown, for example a strong association between segregation and homicide rates. Besides an excess in mortality, studies have also demonstrated a relationship between residential segregation and negative health outcomes including teenage childbearing, tuberculosis, cardiovascular disease, availability of food establishments serving healthy fare and exposure to toxic air pollutants.[36]

Strong evidence for the effects of segregated environments comes from the HUD Moving to Opportunity demonstration program. This program, implemented in five US cities, evaluated the health and social effects of relocating households from public or subsidized housing in high poverty neighborhoods to private rental housing in non-poverty neighborhoods. The program design involved a random assignment of families to an experimental group (vouchers for housing in low poverty neighborhoods and relocation assistance) a section 8 group (geographically unrestricted vouchers), and a control group and longitudinal follow-up of families over 10 years. The executive summary of the interim evaluation (midpoint of follow up) testify to the social value of non-poverty area residence. [37]

> From the families' perspectives, the principal benefit of the move was a substantial improvement in housing and neighborhood conditions. Families who moved with program vouchers largely achieved the single objective that loomed largest for them at baseline: living in a home and neighborhood where they and their children could feel and be safe from crime and violence. On a list of observable characteristics, their homes and neighborhoods were substantially more desirable than those where control group members lived. These benefits accrued to families in both the experimental group and the Section 8 group, although the improvements tended to be roughly twice as large for experimental group families, who were required to move to low-poverty areas, at least initially.
>
> Perhaps not surprisingly, these improvements in living environment led to significant gains in

[35] Forbes E. Eroding Neighborhood Integration: The Impact of California's Expiring Section 8 Rent Subsidy Contracts on Low-Income Family Housing. 2000 The Ralph and Goldy Lewis Center for Regional Policy Studies. UCLA, School of Public Policy and Social Research. Los Angeles, California

[36] Acevedo-Garcia D, Lochner KA, Osypuk TL, Subramanian SV. Future Directions in Residential Segregation and Health Research: A Multilevel Approach. American Journal of Public Health. 2003; 93:215-221

[37] U.S. Department of Housing and Urban Development Moving to Opportunity for Fair Housing Demonstration Program: Interim Impacts Evaluation. 2003 (accessed at www.huduser.org)

mental health among adults in the experimental group. The levels of psychological distress and depression were substantially reduced in this group. In addition, adults in both the experimental and Section 8 groups experienced substantial reductions in obesity for reasons we do not yet understand. Among the children in these families, girls appear to have benefited from the move in several ways. They experienced improved psychological well-being, reporting lower rates of psychological distress, depression, and generalized anxiety disorder, and improved perceptions of their likelihood of going to college and getting a well paid, stable job as an adult. These girls' behaviors changed as well, with a smaller proportion working instead of attending school. They were less likely to engage in risky behavior or to use marijuana. Finally, both these girls and society as a whole benefited from a reduced number of arrests for violent crimes.

Increased Transportation System Demands Displaced residents may find that affordable and adequate replacement housing only exists far from their current neighborhoods, potentially, meaning that they will live far from jobs and schools. Relocation may thus create a new demand for public transportation services or alternatively new demands for automobile purchase and use. Studies on the effects of urban sprawl have found that low income families, children and the elderly are disproportionately affected by the longer distances needed to travel as a result of relocation to the outskirts of a city or a region. The working poor rely on both urban public transit systems to hold steady jobs and access health care, child care and other critical social services. Former welfare recipients are particularly dependent upon the provision of reliable and convenient transportation services.

Increased Demands for Social Services For a project that results in significant displacement or relocation to non comparable housing, the magnitude of human health and social impacts may be severe. This may result in the need to fund and develop new social services to address the human impacts. For example, displacement may potentially result in new demand for safety net services for health and welfare, for mental health services, and for special educational services for children. In San Francisco, services for homeless adults and children cost the City millions of dollars and over the past several years demand for services has greatly exceeded capacity. The demand for such services is indirectly related to the magnitude of the adverse displacement outcomes.

Displacement in California and San Francisco

During the period from March 2002 through February 2003, a total of 1,643 various eviction notices were filed with the department. This figure includes 93 notices given due to failure to pay rent, which are not required to be filed with the department. The number of notices filed with the department for this period represents a 22% decrease over the prior year's filings (2,101).

The largest declines were in owner occupancy evictions, 516, or a 29% decrease, nuisance declined by 10% to 251 and eviction notices for breach declined by nearly 40% to 231. The only increases were in temporary capital improvement evictions which increased from 44

to 68, or a 26% increase and Ellis Act evictions, from 148 buildings to 187 for a 26% increase for the period. In San Francisco, the Ellis Act, a state law which says that landlords have the unconditional right to "go out of business" is used by property owners to 'change the use' of the building (condominium conversions) resulting in evictions.

Reasons for Just-Cause Evictions 2001/02 and 2002/03[38]

Just Cause	2001/02	2002/03
Owner-Occupied	726	516
Demolish/remove unit	113	67
Capital improvement (temporary)	44	68
Ellis eviction	148	187

While the issues of affordable housing, displacement, and gentrification are high on the public agenda, limited recent research has tracked the direct consequences of displacement on people. A 1999-2000 analysis of Ellis evictions in San Francisco conducted by the San Francisco Tenants' Union reveals that:

- Seniors, people with disabilities and children are most likely to become victims of the Ellis Act, comprising 51% of all Ellis Act evictions since 1999.

- Those most apt to be evicted are renters with long-term tenancies and affordable rents. Those evicted under Ellis had an average tenancy of over 11 years and were paying an average rent of $1,024 for a 2 bedroom apartment.

- Further, the Ellis Act is resulting in the loss of thousands of affordable units. For every new affordable unit that is built, 5 affordable units are lost.

Accounts from local housing advocacy organizations reveal some consequences of forced eviction among low-income families and the elderly. St. Peter's Housing, a Mission district-based non-profit organization serving low income families around housing issues and landlord/tenant problems, for example, report that a significant proportion of the families they serve are forced to separate to obtain temporary shelter, while other families resort to overcrowding in illegal units and yet other families are forced to leave their neighborhoods and the City in order to secure an affordable place to live.

St. Peter estimates that at least 20% of their clients have one or more family member aged 60 years or older. According to St. Peter's Housing, elderly residents and families are more frequently displaced, experience particularly high levels discrimination in securing housing, and are most vulnerable for separation as a result of eviction. The following case history illustrates the complexity of housing issues confronted by families with elderly members:

> An elderly couple was forced to separate (from their daughter and grandchildren) and to resort to live in an illegal in-law unit. The unit was so poorly maintained that the stairs leading to the entrance of the unit collapsed resulting in the broken hip of the elderly woman. The elderly woman reported the incidence to St. Peter's for advice. St. Peter reported this case the

[38] Rent Stabilization and Arbitration Board, April 28, 2003

Department of Building Inspections (DBI) whose inspector cited the owner for the illegal unit, and forced the owner to shut down the illegal unit. DBI's inspection is in itself intended to protect families from living in substandard conditions and yet, in this particularly case, served to aggravate the elderly couple living situation. The elderly couple was not only forced to separate from their family, but were now suffering from the injured hip and its incurred health care cost, and as a result of the inspection was now faced with displacement. [Personal communication, St. Peter's Housing, December 2003]

The effects of displacement as a result of the lack of affordable housing among the senior population are heightened among its Gay and Lesbian subgroups. Recent, cross-sectional evidence of GLBT elderly living in the greater Los Angeles Area shows that:

- Same-sex partners cannot share a room in most care facilities, forcing many GLBT older adults retreat back into the closet, in order to secure housing at nursing homes.
- Same-sex partners cannot receive Social Security survivor benefits.
- GLBT older adults do not have the same family support systems as their heterosexual counterparts.
- There are many government programs that target the elderly, but none are geared towards GLBT older adults.[39]

[39] Gay and Lesbian Elder Housing of Los Angeles Website: http://www.glehc.org/facts.htm, accessed on December 3, 2003

SECTION II SOCIAL, HEALTH, AND ENVIRONMENTAL JUSTICE IMPACTS IN CEQA POLICY

As discussed in the section above, the lack of housing affordability in California and its human impacts suggests that environmental impact assessment (EIA) should consider how a development project might impact housing affordability or displaced residents. Four ways in which these issues fit into the framework of the California Environmental Quality Act (CEQA) include:

- As potential indirect social and economic impacts on population and housing;
- As indirect health impacts of physical or social impacts;
- As environmental justice impacts;
- As impacts requiring evaluation for consistency with city, regional and state housing and environmental policy goals.

Adverse Social and Economic Effects of Impacts on Population and Housing

CEQA considers the loss of housing requiring construction of new housing and the displacement of people as potential adverse environmental impacts requiring analysis in the environmental checklist provided in CEQA Guidelines. The checklists screening questions include:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

However, impacts on population and housing may have particular adverse effects on parts of the population. For example, if a project replaces low income housing with market rate housing, this may disproportionately and adversely impact those with lower income. This type of impact may be considered an adverse social impact. Under CEQA, adverse social and economic impacts may be analyzed in determining the significance of physical environmental changes. Title 14, section 15064, subsection (e) of the California Administrative Code provides the following guidance:

> Economic and social changes resulting from a project shall not be treated as significant effects on the environment. *Economic or social changes may be used, however, to determine that a physical change shall be regarded as a significant effect on the environment.* Where a physical change is caused by economic or social effects of a project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project. Alternatively, economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment. *If the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant.* [Emphasis added] For example, if a project would cause overcrowding of a public facility and the overcrowding causes an

> adverse effect on people, the overcrowding would be regarded as a significant effect.

Despite the guidance above, the inclusion of social and economic impacts under CEQA is controversial. Many interpret the language in section 15064, subsection (e) to mean that the analysis of indirect adverse social and economic effects may be considered in an EIR but are not, strictly speaking, required.[40] According to the California Department of Transportation: "Many people in California, including some decision-makers, harbor the general belief that CEQA addresses only purely "environmental" issues, not social, demographic, or economic issues often raised by proposed projects. This is erroneous. The assumption however is understandable due to the complex linkage that must be demonstrated between the physical, social, and economic environment, and the determination of 'Significance'."[41]

Some case law has directly addressed this issue. In Citizen's Association for Sensible Development of Bishop Area v. County of Inyo,[42] the courts reconciled the ambiguity of section 15064, subsection (e) with subsections (d) and (f) which discussed evaluation of secondary or indirect consequences of a project. In the Bishop case, the Court ruled that subsection (f) gave the lead agency discretion to determine whether the consequences of social and economic changes were significant but did not give it discretion not to consider these consequences at all. In their ruling, the Court interpreted section 15064 as follows: "the lead agency shall consider the secondary or indirect environmental consequences of economic and social changes, but may find them to be insignificant."

[40] Bass, RE., Herson, AI, Bogdan, KM. CEQA Deskbook A step-by-step guide on how to comply with the California Environmental Quality Act. Solano Press. Point Arena, 2001.
[41] Guidelines for Community Impact Assessment. California Department of Transportation. 1997
[42] Citizen's Association for Sensible Development v. County of Inyo, 172Cal.App.3d 151 (1985)

Indirect Health Impacts

Environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly are considered mandatory findings of significance in accordance with CEQA Guidelines Section 15065.

> A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where any of the following conditions occur: (d) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

As discussed in the evidence provided above, housing affordability and displacement affect health in numerous ways. Projects that have area or regional affects on the availability of affordable housing may be considered to have potential indirect adverse health consequences. Since displaced residents may not be relocated in adequate housing, the potential indirect health impacts of displacement also warrant consideration.

Environmental Justice Impacts

Environmental justice is rooted in the Equal Protection Clause of the U.S. Constitution and can be advanced using National Environmental

Policy Act (NEPA) as well as the Civil Rights Act of 1964. Environmental Justice provides another rationale for considering the effects on affordable housing or the displacement of low income residents under CEQA. California Law defines Environmental Justice as "... the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."[43]

While environmental justice analysis and efforts in California have historically emphasized disproportionate health effects of toxic physical environmental agents, the concept of environmental justice is broader than the physical environment and human health. As stated in the 1997 President's Council of Economic Quality (CEQ) guidance adverse environmental justice effects can be also economic, social, cultural, and ecological impacts directly or indirectly related to physical environmental changes or impacts. 1997 CEQ Guidance states:

> When determining whether environmental effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:
> (a) Whether there is or will be an impact on the natural or physical environment that significantly (as employed by NEPA) and adversely affects a minority population, low-income population, or Indian tribe. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelated to impacts on the natural or physical environment; and
> (b) Whether environmental effects are significant (as employed by NEPA) and/or may be having an adverse impact on minority populations, low-income populations, or Indian tribes that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group; and
> (c) Whether the environmental effects occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

In California, Assembly Bill 1553 requires that the principles of environmental justice be incorporated into state guidelines for local general plans. As discussed below, this broader definition of environmental justice effects is consistent with adverse environmental effects under NEPA and CEQA as well as the 2003 State of California General Plan Guidelines Section on Environmental Justice and Sustainability and the 2003 Governor's Environmental Goals and Policy Report. The 2003 General Plan Guidelines include mixed-income housing development as a component of sustainability and environmental justice. Even from the standpoint of public health, inequitable social and economic effects can be equally if not more important that inequitable environment quality effects. An environmental justice analysis of projects that result in population or housing loss could focus on the potential for disproportionate impacts to low income and minority populations both living in the current units as well as effects on the market for affordable housing in the region.

[43] California Government Code Section 65040.12

Consistency with Local, Regional and State Land Use Policy

CEQA guidelines consider potential significant environmental impacts to include: "Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?" Local policies related to affordable housing can be found in the Housing Element of the General Plan, the HUD Consolidated Plan, and local ordinances related to rent and to eviction prevention.

California State law defines also a jurisdictions fair share housing goals in terms of four categories of affordability through the Regional Housing Needs Determination (RHND) process, devised to address the need for and planning of housing across a range of affordability and in all communities throughout California. Each jurisdiction within the Bay Area (101 cities, 9 counties) is given a share of the anticipated regional housing need. The Bay Area's regional housing need is specified by the California State Department of Housing and Community Development (HCD) and finalized through negotiations with Association of Bay Area Governments. The timeframe for this RHND process is January 1, 1999, through June 30, 2006, (a seven and a half year planning period). The current RHND requires 5244 units affordable to very low income residents, 2136 units affordable to low income residents, 5639 units affordable to moderate income residents, and 7363 units affordable to above moderate income residents. While San Francisco has met its market rate housing targets in recent years, it has not met moderate income, low income and very low income housing needs.

Total Need	Very Low	Low	Moderate	Above Moderate
20,372	5,244	2,126	5,639	7,363

The 2003 State of California General Plan Guidelines may also be viewed as applicable impacts on affordable housing.[44] The guideline's section on sustainability and environmental justice emphasize the need to carefully match employment potential, housing demand by income level and type, and new housing production.

The importance of ensuring adequate and affordable housing for every sector of the population to long term environmental quality and ecological sustainability is also emphasized in the 2003 Governor's Environmental Goals and Policy Report.[45] These State policies together with the emphasis on long term environmental goals in CEQA guidelines Section 15065 (b) suggests that impacts on housing affordability and adequacy are also potential mandatory findings of significance.

[44] 2003 State of California General Plan Guidelines. Office of Planning and Research. 2003

[45] Governor's Environmental Goals and Policy Report. Office of Planning and Research. 2003 (Accessed at: http://www.opr.ca.gov/EnvGoals/PDFs/EGPR--11-10-03.pdf)

SECTION III IMPACT ASSESSMENT METHODS AND GUIDELINES FOR AFFORDABLE HOUSING AND DISPLACEMENT

A number of federal, state and local agencies consider displacement of low-income populations and loss affordable housing as potentially adverse impacts in the context of Environmental Impact Assessment. Examples of methods and guidelines are provided below:

Social Impact Assessment (SIA) The practice of SIA dates back to the construction of the trans-Alaska pipeline. At the time, critics argued that the Environmental Impact Statement (EIS) produced for that project failed to address potential social effects such as the influx of tens of thousands of non-native construction workers on the culture of the Inuit. In 1994, the U.S. Federal Government published a set of guidelines for SIA to support social assessment under NEPA.[46] Social impacts are defined as "...the consequences to human populations of any public or private actions-that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society." The guidelines categorized social impact variables as follows:

1. Population Characteristics mean present population and expected change, ethnic and racial diversity, and influxes and outflows of temporary residents as well as the arrival of seasonal or leisure residents.

2. Community and Institutional Structures mean the size, structure, and level of organization of local government including linkages to the larger political systems. They also include historical and present patterns of employment and industrial diversification, the size and level of activity of voluntary associations, religious organizations and interests groups, and finally, how these institutions relate to each other.

3. Political and Social Resources refer to the distribution of power authority, the interested and affected publics, and the leadership capability and capacity within the community or region.

4. Individual and Family Changes refer to factors which influence the daily life of the individuals and families, including attitudes, perceptions, family characteristics and friendship networks. These changes range from attitudes toward the policy to an alteration in family and friendship networks to perceptions of risk, health, and safety.

5. Community Resources: Resources include patterns of natural resource and land use; the availability of housing and community services to include health, police and fire protection and sanitation facilities. A key to the continuity and survival of human communities are their historical and cultural resources. Under this collection of variables we also consider possible

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46 http://www.nmfs.noaa.gov/sfa/social_impact_guide.htm

changes for indigenous people and religious sub-cultures.

U.S. Department of Transportation Community Impact Assessment Guidance Among transportation agencies, changes in policies have included redefining the definition of "environment" to include "the natural environment, the built environment, the cultural and social fabric of our country and our neighborhoods, and the quality of life of the people who live here,' and considering project mediated effects on community cohesion; public facilities; employment; tax and property values; displacement of people, businesses, and farms; and adverse impacts on community and regional growth.

DOT guidelines for community impact assessment consider a number of social and economic factors.[47] They further recognize that while community impact assessment should not be exhaustive, it should focus on community goals and issues of community concern and controversy. The guidelines identify that displacement can involve, neighborhoods, businesses, and people. (www.ciatrans.net) Recommended analysis of impacts on residential displacement include the number and type (multi-family, single family) of residences displaced and the particular needs of vulnerable groups (disabled, minority, elderly).

Council on Environmental Quality Environmental Justice Guidance The Council on Environmental Quality, the federal agency tasked with oversight of NEPA and government compliance with Executive Order 12898 developed guidance to assist federal agencies with addressing environmental justice concerns in the context of NEPA procedures. This guidance suggests that agencies should 'determine whether minority populations, low-income populations, or Indian tribes are present in the affected area...consider data concerning the potential for multiple or cumulative exposure to human health or environmental hazards...recognize the interrelated cultural, social, occupational, historical, or economic factors that may multiply the natural and physical environmental effects...[and]...should assure meaningful community representation in the process.[48]

California Department of Transportation The California Department of Transportation (CalTrans) reference documents for CEQA provide specific guidance for the evaluation of impacts on population and on housing displacement. The 1997 Guidelines for Community Impact Assessment point out that the disproportionate displacement of vulnerable populations can have significant adverse human impacts:

> Certain population groups such as senior citizens, low income residents and non English speaking people often have strong community ties and depend on primary social relationships and important support networks that can be severed upon relocation. Households with school aged children may consider relocation especially disruptive if school transfers would be involved. Disabled people and those

[47] Federal Highway Administration Community Impact Assessment Website (Accessed at: www.ciatrans.net)

[48] Environmental Justice: Guidance under the National Environmental Policy Act. Council on Environmental Quality. 1997.

without automobile transportation often have special relocation problems.

The guidelines suggest investigating the demographics of the residents to determine if any vulnerable groups (Low income, minority, seniors, disabled, and children) would be impacted. The guidelines suggest evaluating the effects on the stock of affordable housing:

> A loss of a substantial number of houses affordable to people with low and moderate incomes may have an effect on the community stock of affordable housing. This could have the effect of increasing the demand for housing in a given sector of the market, bidding up the cost of that housing if the market supply is constrained and thereby disproportionately affecting certain income groups.

Similarly, the 2003 Desk Guide for Environmental Justice in Transportation Planning and Investments. The environmental justice guidelines categorize social and economic impacts into land use and development, population and housing, and fiscal and economic. These guidelines suggest analysis of population and housing impacts consider a number of variables. These include:

- Property acquisition and displacement
- Access to neighborhoods
- Community Cohesion
- Safety and security
- Visual and aesthetic quality
- Property values and gentrification

A particular concern emphasized by CalTrans is impacts of displacement and relocation on neighborhood or community cohesion. The decision tree for residential displacement includes assessment of the availability of relocation housing in the community where displacement is occurring. Social impacts considerations identified by CalTrans related to cohesion include:

- Is there evidence that community cohesion exists?
- Will the proposed project affect interaction among persons and groups?
- Will the proposed project cause redistribution of the population or an influx or loss of populations?
- Will certain people be separated or set apart from others?

City of Los Angeles Thresholds Guide In its *1998 CEQA Thresholds Guide*, the City of Los Angeles uses the following screening criteria for evaluating significant effects on population and housing displacement.[49]

- *Would the project result in the net loss of any existing housing units affordable to very low income or low income households (as defined by federal and/or City standards), through demolition, conversion, or other means.*

The Los Angeles guidelines evaluate the significance of population and housing impacts by considering the following factors:

- The net change in market rate and affordable units in the project area
- The current and anticipated supply of market rate and affordable units in the project area

[49] http://www.ci.la.ca.us/EAD/EADWeb-AQD/Thresholds_PDF/introceq.pdf

- The demographics of the project area
- The consistency with city and regional housing policies

The guidelines also suggest the following two mitigation measure for displacement of affordable housing:

- Exceed the statutory requirements for relocation assistance
- Increase the number of housing units affordable to lower income households

Tahoe Regional Planning Agency (TRPA) The TRPA Initial Environmental Checklist[50] requires a response to and evidence for the following questions relevant to the displacement of low income residents and the loss of affordable housing:

- Will the proposal include or result in the temporary or permanent displacement of residents?
- Will the proposal decrease the amount of housing in the Tahoe Region historically or currently being rented at rates affordable by lower and very-low-income households?
- Will the proposal result in the loss of housing for lower-income and very-low-income households?

Mitigation of affordable housing loss is required for project approval. According to planners at the TRPA any loss of affordable housing due to redevelopment has to be either rebuilt on site or offsite taking into account similar accessibility to transport resources. A recent example of such mitigation occurred with the proposed development of the 138 unit Round Hill Vacation Resort. The development of the time share condominium involved the removal of the 186 unit Lake Park Apartments. To mitigate displacement, the project included the construction of 67 new apartment units offsite prioritized for displaced tenants, affordable housing restrictions for the new apartments, phased demolition over 24 months with eviction of no more than 8 units per month, and relocation assistance.[51]

County of Santa Barbara Santa Barbara's 1993 Environmental Thresholds and Guideline Manual[52] provide a specific threshold for the loss of affordable housing. The rationale for establishing such a threshold comes from the county's affordable housing policies. The Santa Barbara County Housing Element documents a substantial shortfall in affordable housing opportunities and the preservation of the existing affordable housing stock is a stated goal of the Housing Element. According to the Element, "the loss or demolition of existing affordable units can displace very low to moderate income persons and further restricts the housing market." The threshold for Very Low to Moderate Income Housing Units is as follows:

- *The loss of four or more very low to moderate income housing opportunities through demolition, conversion, or other means represents a significant housing impact. Affordability is determined on the basis of the applicable definitions within the County's Comprehensive Plan and Coastal Plan.*

[50] http://www.trpa.org/Applications/new_applications2003/IECFINAL%20APRIL%202002%20Comp.pdf

[51] Lyn Barnett, Tahoe Regional Planning Association,. Personal Communication. and Balloffet and Associates. Round Hill Vacation Resort / Lake vista Apartments Environmental Assessment.

[52] http://ceres.ca.gov/planning/ceqa/thresholds.html

Mitigations to assist persons residing in those units shall be applied.

Santa Barbara's CEQA guidance also provides the following mitigation measures:

- *Mitigations would include extended length of notice to quit premises, relocation expenses, demolished or converted units through physical on or off-site replacement or by the payment of fees. Onsite replacement of low or moderate income housing is the preferable alternative. If onsite replacement is infeasible, the units shall be replaced offsite. Payment of an in-lieu fee shall occur only if on and off-site replacement are proven to be infeasible. Housing mitigation fees shall be sufficient to provide replacement of the demolished or converted units.*

Appendix I Model Housing Impacts Analysis

Screening Criteria

- Will the project result a decrease in the supply of housing?
- Will the project result in an increase in the demand for housing?
- Will the proposal result in the loss of housing affordability, availability or quality for low income or otherwise sensitive populations?
- Will low income or otherwise sensitive be displaced or relocated?

Setting Variables

- The demographics of the project area and locality
- The current and anticipated supply of housing units in the project area and locality disaggregated by affordability;
- Availability of vacant units in the project area and locality disaggregated by level of affordability;
- The quality (safety, environmental conditions...) of available housing units in the project area and locality (sources: census, local housing complaint data)
- Evidence of social cohesion in project area(e.g. organization, interactions, relationships, and support among residents)
- Access to public services in the project area (transportation, schools, childcare...)
- The number and type of employment opportunities in proximity to the project area

Analysis Variables

- The net change in market rate units historically or currently being rented at rates affordable by lower and very-low-income households in the project area
- The net change in affordable (including section 8, permanently affordable, and rent-controlled) units historically or currently being rented at rates affordable by lower and very-low-income households in the project area
- Existence within the displaced population of a higher than average proportion of ethnic minority, low income, medically vulnerable or health sensitive populations among displaced residents
- The location and comparability of replacement housing for displaced households;
- Effects on support (food, advice, childcare, elder care) provided to and by displaced residents
- Increased dependence on public assistance or public services
- Changes in accessibility to or utilization of public services
- Changes in the number of family or relatives living in close proximity
- Effects on crowding: changes in the number of individuals per room in the project area
- Changes in accessibility to public transportation
- Changes in the need for automobile ownership or use

Significance Criteria

- Net loss of housing supply relative to demand in the area, locality, or region;
- Net loss of affordable housing in the project area or locality;
- Significant reduction in housing quality or safety;
- Significant number of residents relocated to non-comparable housing;
- Any residents made temporarily or permanently homeless;
- Loss of community cohesion in project area;
- Increase of local residential segregation.

Mitigation Measures

- Change land use / zoning controls to enable increased housing density;
- Develop relocation plan consistent with California State Relocation Assistance and Property Acquisition Guidelines;
- Construct of replacement affordable housing onsite or offsite;
- Housing impact fees.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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May 30, 2005

Richard Drury
Adams Broadwell Joseph & Cardozo
651 Gateway Boulevard, Suite 900
South San Francisco, California 94080

Subject: Comments on the Long Beach Memorial Medical Center Draft Environmental Impact Report

Dear Mr. Drury:

Soil/Water/Air Protection Enterprise (SWAPE) is pleased to present our comments on the Long Beach Memorial Medical Center Draft Environmental Impact Report (DEIR). According to the DEIR, the proposed project will require a master land use plan for the development of six individual projects at the 54-acre Long Beach Memorial Medical Center (LBMMC) campus as follows:

1. Todd Cancer Institute (TCI);
2. Miller Children's Hospital (MCH) -- Pediatric Inpatient Tower, Utility Trench, and Central Plant Building;
3. Miller Children's Hospital -- Pediatric Outpatient Building;
4. Miller Children's Hospital -- Link Building;
5. Roadway Realignment; and
6. Parking Program.

The following comments follow from the review of documents included in the DEIR and technical appendices and from the review of documents at the Department of Toxics Substances Control, as conducted on May 23, 2005. This review focuses on potential impacts to the health of construction workers, hospital workers and patients, and to nearby residents from hazardous waste at LBMMC.

COMMENTS

1. DTSC-Led Assessment of Hazardous Waste Only Recently Commenced

On February 16, 2005, DTSC negotiated a Voluntary Cleanup Agreement (VCA)[1] with LBMMC. The VCA requires LBMMC to prepare the following documents, consistent with California Health and Safety Codes, the National Contingency Plan (Superfund) and applicable U.S. EPA and DTSC guidance:

- Workplan to characterize soil contamination onsite and offsite of the LBMMC;
- Site characterization of hazardous substances;
- Identify migration pathways;
- Assessment of health risks; and
- Removal Action Workplan (if appropriate on basis of above documentation).

Under terms of the VCA, the site characterization and health risk assessment are currently being prepared under DTSC oversight. At the time of this review, draft documentation of site characterization and health risk assessment were not available. DTSC has indicated final documentation would not be complete until June 2005 at the earliest (May 18, 2005 telephone conversation).

DTSC stated in comments on the DEIR[2]: "the final EIR should be updated with information from the most current environmental investigation, the Supplemental Site Investigation, and the updated Human Health Risk Assessment." Therefore, according to DTSC, the EIR should not be finalized until site characterization, risk assessment and public participation activities have been completed for onsite and offsite contaminants.

We concur with DTSC's recommendation. We recommend that the DEIR process should be halted until the site has been characterized and risks have been assessed under DTSC oversight to ensure adequate disclosure of risk to workers, patients and nearby residents. Only then can the public be confident in the findings. Previous risk assessments as included in Appendix F to the DEIR were prepared without agency oversight. As shown below, previous site characterization reports and risk assessments fail to follow agency protocol in identifying likely contaminants and pathways for exposure. As such, these reports are unreliable and the conclusions in the risk assessments as included in the DEIR for the MCH and TCI (Appendix F) must be considered unsubstantiated until certified by regulatory agencies.

2. Cleanup Actions Have Not Been Initiated and DTSC-led CEQA Process Has Not Commenced

The Removal Action Workplan (RAW) under DTSC oversight is dependant on documentation not yet completed as described above (*i.e.*, site characterization and health risk assessment).

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[1] Voluntary Cleanup Agreement, Docket Number HAS-A 04/05-116, February 16, 2005

[2] DTSC, March 16, 2005. Comment Letter on DEIR to City of Long Beach, as included in Section 13.0, Response to Comments on DEIR

DTSC guidelines for RAWs require public participation plan, public review and 30-day comment period, and written response to comments[3].

DTSC stated in comments on the DEIR: "actions that will be outlined in the draft RAW ... must be evaluated and incorporated in the final version of the EIR." We again concur with DTSC in recommending cessation of the DEIR process until the RAW has been completed and the public has been allowed the opportunity to participate.

Additionally, DTSC, as the responsible agency in charge of the RAW, is required to prepare stand-alone CEQA documentation to assess the potential for site remediation measures to have adverse health impacts on construction workers, hospital workers, and nearby residents. The DEIR should incorporate the DTSC-led CEQA process to insure that any necessary remediation (*e.g.*, soil excavation, soil vapor extraction and treatment) does not pose risk to human health during construction or post-development conditions.

3. Current Health Risks May be Unacceptable for Workers and Residents

The importance of allowing the DTSC-led process to reach completion prior to certification of the DEIR is illustrated by what is currently known about site conditions. The following examples show site conditions that may pose a risk to construction workers and nearby residents and children at two schools until adequately evaluated.

A report prepared in 2004[4] noted the results of a 1991 study that included vapor testing in shallow soils at LBMMC for the presence of chlorinated hydrocarbons. The report documented the detection of TCE in 6 of 16 samples that were tested at concentrations ranging from 20 to 30 ug/m3. The report concluded: "Additional soil vapor and methane gas studies should be performed at the subject site." The detections of TCE are well in excess of federal screening levels for TCE in shallow soil: U.S. EPA considers a concentration of TCE in shallow soil of 0.22 ug/m3 to be protective of human health where no more than one additional cancer in a million is considered acceptable[5]. Thus, the TCE levels found in shallow soil on the LBMMC site were up to 136 times higher than the federal EPA screening level.

The findings in the 2004 report are not mentioned at all in the DEIR or in the technical appendices. In fact, no reference is made in the DEIR or in the technical appendices regarding the potential for the presence of TCE, a contaminant commonly associated with former landfill operations similar to those which have been documented at LBMMC. Instead, the DEIR incorrectly states: "Analytical results from chemical analyses of soil samples collected during previous investigations at the Project Site are summarized in Tables 3-1 and 3-2." This review has documented that key analyses were not contained in this table, including data for TCE.

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[3] DTSC, 2001. Public Participation Manual (http://www.dtsc.ca.gov/PolicyAndProcedures/ppp/OEA_Pol_PublicParticipationManual_Chapter3.pdf)

[4] Mactec, March 2, 2004. Geotechnical Considerations.

[5] U.S. EPA, 2002. Draft Subsurface Vapor Intrusion Guidance (http://www.epa.gov/correctiveaction/eis/vapor/complete.pdf)

Regulatory agencies have gained recent appreciation for the toxicity of TCE and for the potential of TCE to move in the vapor phase from shallow soil and groundwater to indoor air. The U.S. EPA recently published new draft guidance on TCE's toxicity[6] and on what is know as "soil vapor intrusion," the potential for vapors to move from shallow groundwater and soil to air inside buildings[7]. There is at least a fair argument that due to the high levels of TCE and benzene found in the soil at the LBMMC site that significant levels of the toxic chemicals may migrate into buildings where future occupants may be exposed to significant risks.

The potential for movement to indoor air is increased where groundwater that is contaminated with TCE is found at shallow depths (*i.e.*, 15 feet or less). Recent monitoring of groundwater levels from wells installed in early 2005 indicate water at depths of 11.6 to 16 feet in depth which "may suggest perched water zones with significant lateral extent (tens of feet)"[8] in the area of the proposed MCH.

Another example of inadequate evaluation of site conditions is provided by the inappropriate selection of detection limits in soil vapor investigations. Previously, benzene detection limits of 500 ug/m3 and 1000 ug/m3 have been used for soil vapor investigations[9, 10]. These concentrations are two to three orders of magnitude higher than U.S. EPA guidance for benzene in shallow soil (3.1 ug/m3 in shallow soil[11]) and one to two orders of magnitude higher than Cal/EPA guidance for benzene in shallow soil (36 ug/m3 in shallow soil[12]).

Use of inappropriate detection limits may potentially mask concentrations that would indicate significant health concerns, *i.e*, an analysis will not reveal contamination below the detection limit. For example, if the detection limit is 1000 ug/m3, then a level of 900 ug/m3 will not be detected (or will not be quantified), and it will appear as if no contamination is present, despite the fact that contamination may exist on site a some level below 1000 ug/m3. Since detection limits of 500 ug/m3 and 1000 ug/m3 were used in this case for benzene, it is possible that benzene may exist on the site at levels of up to 499 ug/m3 or 999 ug/m3, but would not be detected at all. This is highly concerning since the U.S. EPA guidance level is 3.1 ug/m3. In other words, benzene may exist on the project site at levels up to 300 times higher than U.S. EPA guidance, but the contamination may not have been detected.

The studies cited in the DEIR that utilized detection limits exceeding screening concentrations were not conducted under DTSC oversight. This emphasizes the need for careful study at

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[6] Trichloroethylene Health Risk Assessment: Synthesis and Characterization (External Review Draft). U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington Office, Washington DC, EPA/600/P-01/002A, 2001.
[7] U.S. EPA, 2002. Draft Subsurface Vapor Intrusion Guidance (http://www.epa.gov/correctiveaction/eis/vapor/complete.pdf)
[8] SCS Engineers, February 23, 2005. Installation of Piezometers and Water Level Monitoring, Operable Unit 1.
[9] Table 3-5, Data Summary for Soil Vapor Samples, Appendix F
[10] Table 3-2, Summary of Soil Vapor Survey Analytical Results, Appendix F
[11] U.S. EPA, 2002. Draft Subsurface Vapor Intrusion Guidance (http://www.epa.gov/correctiveaction/eis/vapor/complete.pdf)
[12] Use of California Human Health Screening Levels in Evaluation of Contaminated Properties, 2005. (http://www.calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf)

LBMMC and the need to halt the DEIR process until characterization reports that better quantify contamination are complete.

4. Data Collected Near Site Boundaries Show Soil Vapor Concentrations That May Indicate Potential Risk to Nearby Residents

In Appendix F, benzene was reported at 6800 ug/m3 in shallow soil vapor in probe SV-27 (Table 3-2, Appendix F). This sampling probe is at the corner of Long Beach Boulevard and Spring Street (Fig. 2, pp. 100 - 101). A note, apparently made during DTSC file review, was found on a map from the SCS LBMMC Workplan that stated "free product" with an arrow extending northwest toward an area of residences along Spring Street within a few hundred feet of SV-27.

The concentration of benzene at this location is several orders of magnitude greater than U.S EPA and Cal/EPA screening levels and may indicate the presence of free product, as noted by DTSC. This concentration is 2193 times higher than the US EPA guidance level of 3.1 ug/m3 for benzene in shallow soil. However, sampling results that would document the extent offsite of the benzene vapor plume were not included in the DEIR. The DEIR should be revised to show the extent of the plume and any risk to nearby residents. Also, the potential for the presence of free product should be acknowledged and the potential risk to construction workers should be quantified before construction. Offsite investigations should be completed under DTSC oversight to define true boundaries of plumes that likely extend beyond property boundaries and results should be included in a revised DEIR

5. DEIR Fails to Acknowledge Methane Detections Above DTSC Screening Levels

Methane has been detected at 0.6720% (6,720 ppmv) in a probe installed adjacent to the Miller Children's Hospital at a depth of 15 feet on November 21, 2003[13]. The DEIR fails to properly disclose this detection as follows:

1. The DEIR rounded the result of 0.6720% downward and reported it to be 0.6% in the DEIR (p. 3.5-7) when it should have been reported at 0.7%.
2. The DEIR failed to mention that field instrumentation recorded the detection in the same probe on November 21, 2003 at 1.6% (16,000 ppmv) and failed to acknowledge that methane was detected on November 19, 2003 at 1.7% (17,000 ppmv) using a field instrument. Thus, methane has been detected in recent tests on the site at levels 2.5 times higher than disclosed in the EIR.

The DTSC maintains the following requirements for methane sampling[14].

- "When methane is detected at 1,000 ppmv or more, additional sampling and/or further investigation is recommended to identify the source(s)."
- At sites where methane is investigated and detected at a level of 5,000 ppmv or more, fixed and biogenic gas (O2, CO2, and CH4) data should be obtained using a Thermal-Conductivity Detector (TCD) or a hand-held instrument.

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[13] Kleinfelder, December 22, 2003. Limited Soil Gas Assessment Report, Proposed Addition to the Miller Children's Hospital.

[14] DTSC Advisory, Active Soil Gas Investigations, 2003. (http://www.dtsc.ca.gov/PolicyAndProcedures/SiteCleanup/SMBR_ADV_activesoilgasinvst.pdf)

It appears that these tests were not performed at the LBMMC site.

A supplemental EIR should be prepared only after DTSC-led site characterization has been completed in accordance with guidance, to include an evaluation of methane and hydrogen sulfide in the subsurface and of health risks to construction workers, hospital workers and patients, and to nearby residents.

6. DEIR Fails to Recognize Previous Methane Mitigation Measures

The DEIR states (p. 3.5-15) that methane and hydrogen sulfide mitigation will be implemented "if determined to be required by the Health Risk Assessment." The DEIR does not mention that mitigation has already been required at the Miller Children's Hospital and that a detection system is in place. The Health Risk Assessments prepared in support of the DEIR (Appendix F) similarly do not acknowledge the in-place methane mitigation and detection systems.

A report by "Methane Specialists" found during DTSC file review documents a "Methane Gas Control for Miller Children's Outpatient Center and Entry" dated May 1998. The list of drawings included the following:

- Membrane Details and Specs;
- Gas Detection Plan; and
- Gas Detection Details (two drawings).

In March 2005, in response to a DTSC comment requesting sample results for the "existing methane control system," a LBMMC consultant stated that they located "a copy of what we believe to be the final plans (dated September 29, 1999) for the methane control system beneath the Miller Children's Outpatient Center and Entry"[15]. The consultant stated that the as-built drawing for the probes (BP-4 and BP-5) were not included in the plans and added that "probe data has been requested from LBMMC and will be forwarded to DTSC as soon as it is available." However, in a letter dated May 20, 2005[16], DTSC concluded that data from the methane detection system "have not been located" and "unfortunately it appears that the records have been misplaced."

The existence of the methane detection and mitigation system was also unknown to a consulting firm that was hired by LBMMC in 2003 to conduct an assessment of the potential presence of methane gas in vadose zone soils" [17] It was "during a site walk" that the consultant "identified two methane gas monitoring wells at the front door of the Miller Children's Hospital" (p. 2). The consultant stated:

> "Kleinfelder was unable to obtain details regarding the circumstances surrounding the installation of the methane monitoring wells."

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[15] SCS Engineers, March 8, 2005. Addendum to Workplan, Supplemental Site Investigation, LBMMC, OU-1 and OU-2

[16] DTSC, May 20, 2005. Letter to Brain Olney from Thomas Cota re: Long Beach Memorial Medial Center Expansion Project

[17] Kleinfelder, December 22, 2003. Limited Soil Gas Assessment Report, Proposed Addition to the Miller Children's Hospital.

The consultant identified a number of methane mitigation measures that would be appropriate for the methane concentrations that were found in the probes advanced for the study (see above comment), including an impervious membrane, perforated horizontal piping, gravel packs and gravel blankets, and vent risers. These recommendations were made without the benefit of knowing the specifics of mitigation system design and without knowing of the system's effectiveness.

The existence of the methane mitigation system and the methane detection wells were apparently not known during the preparation of DEIR and the Health Risk Assessments. Any data that were collected from detection monitoring have apparently been lost. Given that methane has been detected at concentrations well in excess of DTSC screening levels, the DEIR process should be halted until full characterization and a risk assessment are complete. A revised DEIR should also acknowledge the lost data and the circumstances of the data were misplaced. Finally, a revised DEIR should describe the current system, the rationale for its installation, its effectiveness, and the implications for future additional methane mitigation that may be necessary.

7. Former Oil and Gas Wells May Act as Conduits for Migration of Vapors

Four oil and gas wells are known to have been drilled in the area of the Todd Cancer Institute. According to the DEIR, "two of these wells were improperly abandoned in the early 1900s (p. 5.3-6). The other two wells were abandoned in 1958 and 1972.

Prior to 1920, six oil wells were drilled in the MCH area. Following a 2004 survey, the approximate locations of three of these wells was determined while the locations of the remaining three remain unknown. None of these wells have been abandoned in accordance with the modern standards of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR).

The potential for upward movement of gasses in abandoned wells has been recognized elsewhere in Southern California. The DEIR for the Playa Vista housing development in an area of former oil and gas production in Southern California concluded:

> "Common practice by some operators in the 1920s through 1940s was to abandon wells and dry holes by filling them with construction debris or other items, such as telephone poles or railroad ties, prior to covering the surface with soil or other available materials. Old dry holes and noncommercial wells have a high potential to provide migration pathways"[18].

Improperly abandoned wells may act as conduits for migration of methane and benzene and other toxic gasses. There is at least a fair argument that the abandoned wells on the LBMMC site may pose a significant risk to public health and safety and that the construction of the project may result in significant toxic chemical exposure to construction workers, hospital employees and nearby residents. The precise location and re-abandonment of these wells (along with other

[18] Appendix F, Draft Environmental Impact Report for Sale of Surplus Southern California Gas Property at Playa del Rey and Marina del Rey SoCalGas A.99-05-029 (http://www.playadivest.com/pdfs/apndx_f.pdf, p. F-10)

wells possibly located on the site) is critical given potentially necessary mitigation measures for the project, including

- soil gas venting;
- constructing impermeable barriers to interrupt gas migration pathways;
- subsurface indoor air monitoring; and
- indoor air venting and alarms.[19]

A supplemental EIR should incorporate an exhaustive review of historical oil and gas operations. Results of the review should be included in the SEIR to identify all potential oil and gas wells at LBMMC. Maps showing the locations of all wells should be included as appendices. The LBMMC EIR should not be finalized until all wells have been located and abandoned according to current DOGGR standards.

In addition, contrary to representations made in the DEIR, the DTSC RAW will not comprehensively ensure public safety from toxic chemicals on the site. The DTSC RAW will not include measures to mitigate risks posed by the abandoned oil and gas wells at all since those wells are under the jurisdiction of DOGGR, not DTSC.

CONCLUSIONS

The DEIR fails to adequately characterize the extent of subsurface contaminants and the risk they may pose to construction workers, hospital patients, and nearby residents and school children. Previously collected data for benzene and TCE in soil vapor may indicate risk that may be unacceptable to workers, patients, and residents without significant remediation, including soil excavation, soil vapor extraction, and groundwater extraction and treatment. Adequate quantification of risk can only be achieved when DTSC-led investigations have been completed to include the following exposure pathways:

- Subsurface vapor intrusion of benzene and TCE and other volatile compounds; and
- Methane and hydrogen sulfide vapor migration, including flow though improperly abandoned wells.

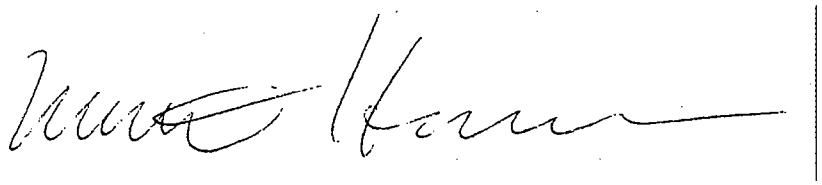
The DEIR also fails to recognize that methane mitigation has previously been required at LBMMC. Data collected under this program have apparently been lost.

It is out opinion that the LBMMC DEIR process should be halted until:

- Under DTSC oversight, LBMMC has been adequately characterized, the risks have been quantified, and cleanup is underway; and
- DTSC's responsibility as lead agency under CEQA for the cleanup (RAW) has been fulfilled.

[19] Draft Environmental Impact Report for Sale of Surplus Southern California Gas Property at Playa del Rey and Marina del Rey SoCalGas A.99-05-029 (http://www.playadivest.com/deir_pdfs/4g_safety.pdf)

Sincerely,



Matt Hagemann

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June 1, 2005

Adams, Broadwell, Joseph & Cardozo
651 Gateway Boulevard, Suite 900
South San Francisco, California 94080

Attn: Mr. Richard Drury

Subject: **Review and Comment on Air Quality Issues Related to Long Beach Memorial Medical Center EIR**

Dear Mr. Drury:

Soil/Water/Air Protection Enterprise (SWAPE) has prepared the following comments regarding the adequacy of the Draft Environmental Impact Report (EIR) referenced above. The project proponents have failed to accurately characterize the potential impacts from construction (demolition of existing structures, grading activities at the site, construction of the new medical center) and operation (hospital activities) of the project. Deficient areas include:

1. EIR Fails to Accurately Describe or Mitigate Traffic Impacts.
2. EIR Fails to Adequately Describe or Mitigate Significant Air Quality Impacts from Project Construction.
3. EIR Fails to Include All Feasible Measures to Reduce Construction Particulate Emissions.
4. EIR Fails to Include All Feasible Measures to Reduce Construction Diesel Emissions.
5. EIR Fails to accurately determine the impact remedial activities of the abandoned ravine (oil field waste) will have on the local and regional air quality;
6. EIR Fails to Address Odor Issues From the Construction and Operation Phases of the Project
7. EIR Fails to Address the Duration of Exposure From Construction at the Site (Short Term Versus Long Term Exposure).
8. EIR Fails To Describe Or Mitigate The Project's Cumulative Impacts.

The California Environmental Quality Act (CEQA) Guidelines recommend that potential air quality impacts from a project be evaluated against the following questions:

1. Is there a conflict or does the project obstruct the implementation of the applicable air quality plan?

2. Does the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

3. Does the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

4. Does the project expose receptors to substantial pollutant concentrations?

5. Does the project create any objectionable odors affecting a substantial number of people?

For the project as described in the proponents EIR, the answer to questions 1 through 5 above is yes.

The project as described is located in Source Receptor Area 4 of the South Coast Air Quality Management District (SCAQMD). Air quality within this section of the Air Quality District (District) has been characterized as impaired due to the historic exceedances of criteria pollutants and toxic air contaminants (TACs). Recent studies by the SCAQMD estimate the cancer risk from exposure to these compounds in the Long Beach area in excess of 1,200 in 1,000,000, making Long Beach one of the most hazardous areas of the District based on the ambient levels of pollutants. By comparison, the SCAQMD considers any cancer risk in excess of 1 in 1,000,000 to be significant.[1]

The primary sources of the pollutants within this subregion of the District (greater than 90%) are mobile sources contained within the Ports of Los Angeles and Long Beach and mobile sources from surface streets (cars, trucks, etc...). The project as outlined will reside between the largest mobile sources of pollution within the subregion, the Ports of Los Angeles and Long Beach, Interstates 405 and 710, and the Long Beach Airport. Growth in traffic for each of these sources will continue to impact the sub-region, decreasing the air quality with the project area.

Although immediately bordered by commercial properties to the east and south, within a ½ mile radius of the project Site large tracts of residential properties exist around the project Site. The impacts of the project will therefore be felt by a large population, including sensitive subpopulations, such as children, pregnant women, the elderly, the

[1] South Coast Air Quality Management District ("SCAQMD"), *CEQA Air Quality Handbook, April 1993, p. 10-5*

infirmed, on a continual basis during the construction (6 years) and operation phases of the proposed project. Within 1-mile of the proposed project site are a hospice (Long Beach Memorial Medical Center Home Health Hospice), two schools (Soldedad Enrichment Action and Oakwood Academy), and ten child daycare/pre-school centers. Nowhere in the Air Quality analysis is the impact to these sensitive receptors discussed or quantified. The project proponent should be required to model the actual ground level concentration of pollutants from the site at each of these receptors to ensure their protection.

Deficiencies within the EIR that must be addressed in a Supplemental Environmental Impact Report ("SEIR") include:

1. EIR Fails to Accurately Describe or Mitigate Traffic Impacts.

An analysis of traffic impacts in the EIR by a Registered Professional Engineer, Tom Brohard, has determined that the project proponents have underestimated the potential daily trips by between 6% and 25% depending on the methodology used. Given that mobile sources account for 90% of the health risk associated with air quality within this sub-region of the District, the proponents of the project must re-evaluate the traffic components and prepare an SEIR that properly analyzes and discloses the Project's traffic impacts and proposes feasible mitigation measures. Current modeling efforts of the impacts of vehicular traffic to the site (during the operational phase) therefore underestimate the potential impacts and should be re-evaluated in the SEIR.

2. EIR Fails to Adequately Describe or Mitigate Significant Air Quality Impacts from Project Construction.

Modeling of the construction and operation of the project show significant impacts on air quality in the sub-region of the air quality basin and to the region as a whole. The EIR admits that construction emissions will exceed applicable significance thresholds for carbon monoxide (CO) by over 300%, nitrogen oxides (NOx) by over 1700%, and reactive organic compounds (ROGs, also known as VOCs) by over 450%. (EIR, p. 3.2-11). The EIR also admits that the Project's operational emissions will combine with these construction emissions in 2010 to create cumulatively significant air impacts for CO, NOx and ROGs. (Id. p. 3.2-12). The EIR also admits that the Project's operational impacts a build-out will be significant for NOx and ROGs (Id., p. 3.2-15).

Despite these admissions of significant air quality impacts, the EIR fails to require implementation of all feasible mitigation measures, and admits that the Project's air quality impacts will remain significant even after implementation of all mitigation measures set forth in the EIR. (Id., p. 3.2-20). While the EIR includes several construction emission mitigation measures, the list fails to include many feasible measures that are routinely required by other agencies.

The EIR includes almost no mitigation required for operational emissions other than to "encourage" carpooling and the use of public transportation. The EIR is silent on how the "encouragement" will be enforced or executed. Possible operational emission mitigations could include shuttle service to public transit stations, financial subsidies for employees for use on public transit, use of energy efficient windows, insulation and appliances, preferential parking for electric, hybrid and low-emission vehicles, and other measures. The EIR considers none of these. An SEIR must be prepared to propose and require implementation of additional feasible mitigation measures.

3. EIR Fails to Include All Feasible Measures to Reduce Construction Particulate Emissions.

The EIR fails to consider numerous feasible measures to reduce construction emissions. Construction mitigation measures that are currently being used within the SCAQMD and in other Districts such as the BAAQMD include:

- The installation of wind- breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
- The suspension of excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- Limitations on the area subject to excavation, grading and other construction activity at any one time.

The EIR requires some but not all of these measures. They are all feasible, and CEQA requires their implementation.

In addition, there are numerous additional relevant and reasonable measures contained in the CEQA guidelines and rules of air districts and other agencies that should be required for this Project. Further, several agencies have conducted comprehensive studies of fugitive dust control measures to bring their region into compliance with federal ambient air quality standards on PM_{10}.

The South Coast Air Quality Management District ("SCAQMD") has sponsored research, passed regulations (*e.g.*, Rule 403),[2] and published guidelines that identify best management practices for controlling fugitive dusts at construction sites. The *Rule 403 Implementation Handbook*[3] contains a list of such measures. Some of the feasible mitigation measures identified by the SCAQMD and other agencies include:

- For backfilling during earthmoving operations, water backfill material or apply dust palliative to maintain material moisture or to form crust when not actively handling; cover or enclose backfill material when not actively handling; mix backfill soil with water prior to moving; dedicate water truck or

[2] South Coast Air Quality Management District ("SCAQMD"), *Revised Final Staff Report for Proposed Amended Rule 403—Fugitive Dust and Proposed Rule 1186—PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations,* February 14, 1997.

[3] South Coast Air Quality Management District ("SCAQMD"), *Rule 403 Implementation Handbook,* January 1999.

large hose to backfilling equipment and apply water as needed; water to form crust on soil immediately following backfilling; and empty loader bucket slowly; minimize drop height from loader bucket. (CCHD)[4]

- During clearing and grubbing, pre-wet surface soils where equipment will be operated; for areas without continuing construction, maintain live perennial vegetation and desert pavement; stabilize surface soil with dust palliative unless immediate construction is to continue; and use water or dust palliative to form crust on soil immediately following clearing/grubbing. (CCHD)

- While clearing forms, use single stage pours where allowed; use water spray to clear forms; use sweeping and water spray to clear forms; use industrial shop vacuum to clear forms; and avoid use of high pressure air to blow soil and debris from the form. (CCHD)

- During cut and fill activities, pre-water with sprinklers or wobblers to allow time for penetration; pre-water with water trucks or water pulls to allow time for penetration; dig a test hole to depth of cut to determine if soils are moist at depth and continue to pre-water if not moist to depth of cut; use water truck/pull to water soils to depth of cut prior to subsequent cuts; and apply water or dust palliative to form crust on soil following fill and compaction. (CCHD)

- For large tracts of disturbed land, prevent access by fencing, ditches, vegetation, berms, or other barrier; install perimeter wind barriers 3 to 5 feet high with low porosity; plant perimeter vegetation early; and for long-term stabilization, stabilize disturbed soil with dust palliative or vegetation or pave or apply surface rock. (CCHD)

- In staging areas, limit size of area; apply water to surface soils where support equipment and vehicles are operated; limit vehicle speeds to 15 mph; and limit ingress and egress points. (CCHD)

- For stockpiles, maintain at optimum moisture content; remove material from downwind side; avoid steep sides or faces; and stabilize material following stockpile-related activity. (CCHD)

- To prevent track-out, pave construction roadways as early as possible; install gravel pads; install wheel shakers or wheel washers, and limit site access. (CCHD)

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[4] The following acronyms are used in this listing of mitigation measures: ADEQ = Arizona Department of Environmental Quality; BCAQMD = Butte County Air Quality Management District; CCHD = Clark County (Nevada) Health Department; MBUAPCD = Monterey Bay Unified Air Pollution Control District; SBCAPCD = Santa Barbara County Air Pollution Control District; SJVUAPCD = San Joaquin Valley Unified Air Pollution Control District; SLOCAPCD = San Luis Obispo County Air Pollution Control District.

- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained. (BAAQMD, SJVUAPCD, Rule 403 Handbook, ADEQ)

- Where feasible, use bed-liners in bottom-dumping haul vehicles. (Rule 403 Handbook)

- Grade each phase separately, timed to coincide with construction phase or grade entire project, but apply chemical stabilizers or ground cover to graded areas where construction phase begins more than 60 days after grading phase ends. (Rule 403 Handbook)

- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (BAAQMD) *(The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)* (SJVUAPCD)

- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. (SJVUAPCD, ADEQ)

- During initial grading, earth moving, or site preparation, projects 5 acres or greater may be required to construct a paved (or dust palliative treated) apron, at least 100 ft in length, onto the project site from the adjacent site if applicable. (BCAQMD)

- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hrs. (BCAQMD, MBUAPCD, CCHD)

- Prior to final occupancy, the applicant demonstrates that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions. (BCAQMD)

- Gravel pads must be installed at all access points to prevent tracking of mud on to public roads. (SBCAPCD)

- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. (SBCAPCD, SLOCAPCD)

- Prior to land use clearance, the applicant shall include, as a note on a separate informational sheet to be recorded with map, these dust control requirements. All requirements shall be shown on grading and building plans. (SBCAPCD, SLOCAPCD)

- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. (SLOCAPCD)

- Barriers with 50% or less porosity located adjacent to roadways to reduce windblown material leaving a site. (Rule 403 Handbook)

- Limit fugitive dust sources to 20% opacity. (ADEQ)

- Require a dust control plan for earthmoving operations. (ADEQ)

All of these measures are feasible and various combinations of them are routinely required elsewhere to reduce fugitive PM_{10} emissions. These measures have been previously implemented in other projects including the fugitive dust control program for the Big Dig (Kasprak and Stakutis 2000[5]), for the El Toro Reuse Draft EIR[6], and for the Padres Ballpark Final EIR.[7]

The EIR requires implementation of some, but not all of these measures. They are all feasible, and so must all be required under CEQA. The City must prepare a SEIR that includes all the above feasible measures to mitigate the significant adverse impact caused by fugitive PM_{10} pollution.

4. EIR Fails to Fully Assess the Impact of Diesel Emissions From Construction Activities and Include All Feasible Measures to Reduce Construction Diesel Emissions.

In 1998, the California Air Resource Board (CARB) formally identified particulate emissions from diesel-fueled engines as a toxic air contaminant ("TAC"). Diesel exhaust is a serious public health concern. Diesel exhaust has been linked to a range of serious

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[5] A. Kasprak and P.A. Stakutis, A Comprehensive Air Quality Control Program for a Large Roadway Tunnel Project, *Proceedings of the Air & Waste Management Association's 93rd Annual Conference 7 Exhibition*, June 18-22, 2000.

[6] County of Orange, *Draft Environmental Impact Report No. 573 for the Civilian Reuse of MCAS El Toro and the Airport System Master Plan for John Wayne Airport and Proposed Orange County International Airport, Draft Supplemental Analysis*, Volume 1, April 2001, pp. 2-121 to 2-123.

[7] City of San Diego, *Final Subsequent Environmental Impact Report to the Final Master Environmental Impact Report for the Centre City Redevelopment Project and Addressing the Centre City Community Plan and Related Documents for the Proposed Ballpark and Ancillary Development Projects, and Associated Plan Amendments*, V. IV. Responses to Comments, September 13, 1999, pp. IV-254 to IV-256.

health problems including an increase in respiratory disease, lung damage, cancer, and premature death. Fine diesel particles are deposited deep in the lungs and can result in increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death. (CARB 6/98.[8])

According to the OEHHA's Toxicity Criteria Database for Cancer Potency diesel exhaust particulate has an inhalation unit risk factor or 0.003 $(ug/m^3)^{-1}$ and an inhalation slope factor or 1.1 $(mg/kg\text{-}day)^{-1}$. Exposure of construction workers to as little as 0.03 ug/m^3 per day for a 1 year construction project will result in a risk of 1 in 1,000,000. A preliminary dispersion model (using Industrial Source Complex Short Term Version 3 (ISCST3), a U.S. EPA approved dispersion model, and meteorological data for the Long Beach monitoring station north of the Site) of the Todd Cancer Institute (TCI) Phase I Construction shows that the ground level concentration to which construction workers will be exposed, based upon the proponent's estimates of diesel emissions (approximately 15 lbs per day of diesel exhaust), will exceed the *de miminus* risk levels of 1 in 1,000,000. Assuming 15 lbs of diesel exhaust is emitted daily during the estimated 14 month construction period, the annual ground level concentrations of diesel exhaust for the area encompassing the TCI construction would exceed 27 ug/m^3. Workers exposed for one year to those concentrations would have an estimated health risk of 900 in 1,000,000. Exposure of residential receptors to the same concentration for a one year duration would result in a risk in excess of 1,000 in 1,000,000. In other words, the cancer risk created by diesel emissions from the LBMMC Project exceed the SCAQMD significance threshold of one in a million by between 900 and 1000 times. There is clearly a fair argument that diesel emissions from the Project may have an adverse environmental and public health impact and must be analyzed in the EIR. The EIR ignores the diesel emission health risk entirely. The cumulative effect of the diesel emissions from construction equipment must be fully evaluated prior to the initiation of any construction activities. The proponent is estimating that in the worst case scenario, 5 times more diesel exhaust will be emitted when all phases of construction are considered. The resulting risk to the community and workers at the site, as well as patients and staff at the existing hospital, will exceed any acceptable regulatory guideline. An SEIR should be prepared to analyze the potential health impacts from diesel emissions at the Site.

a. The EIR Fails to Assess the Impact of Diesel Emissions From Construction Activities on the Surrounding Community

Within the sub-region of the District in which the project resides, diesel emissions account for over 76% of the estimated cancer risk from air pollution. According to MATES II Study the risk in Long Beach from the primary cancer risk drivers is 1,204 in one million. Removing the diesel emissions from the area would significantly lower the cancer risk from 1,204 to 284 in one million.

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[8] California Air Resources Board (CARB), Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998.

Table 1. Comparison of the Network Averaged Modeled Risk to Measured Risk at the MATES-II Sites[9]

City	Benzene	1,3- Butadiene	Other	Diesel	Total
Compton	96	65	147	994	1302
Downtown L.A.	94	65	170	1176	1505
Long Beach	**88**	**58**	**138**	**920**	**1204**
Wilmington	81	46	222	1182	1531
Monitored Average*	**92**	**118**	**187**	**1017**	**1414**

The sources of these diesel emissions include mobile sources contained within the Ports of Los Angeles and Long Beach (including trucks, trains, cranes, and ships) and mobile sources from surface streets (cars and trucks). The project as outlined will reside between the largest mobile sources of pollution within the subregion, the Ports of Los Angeles and Long Beach, Interstates 405 and 710, and the Long Beach Airport. Growth in traffic for each of these sources will continue to impact the sub-region, decreasing the air quality with the project area.

While the proponent calculates that during the construction phase of the project the maximum PM_{10} loading (which can be used as a partial surrogate for diesel emissions) is 86.94 lbs per day, below the 150 lbs per day CEQA threshold, the addition of the nearly 100 lbs per day of diesel exhaust to the already impaired sub-region from construction vehicles will only aggravate the existing health issues in the City, and will constitute a cumulatively significant health impact to the community.

b. The EIR Does Not Qualitatively Evaluate the Risk From Diesel Emissions From Construction Activities on the Surrounding Community

Page 3.2-13 of the EIR incorrectly states that the "Risks associated with diesel particulate from the proposed project are qualitatively evaluated in the risk assessment (Appendix C)." Appendix C is the Air Quality Technical Report and does not contain a qualitative or quantitative risk assessment for diesel. A risk assessment was prepared for soil contamination at the site in Appendix F, but the risks associated with diesel particulates is not discussed. Given that diesel exhaust accounts for over 76% of the potential risk to residents from ambient air pollution within the subregion and the extended duration of the construction (6 years) will insure that the community surrounding the project will continue to be impacted by diesel emissions on a daily basis, the proponent should be required to quantify the risk from the exposure to diesel emissions for the project in a SEIR. As discussed above, the diesel emissions from the LBMMC Project will create a cancer risk up to 900 to 1000 in a million, which is up to 1000 times above the CEQA significance threshold of one in a million. There is at least a fair argument that the Project will have significant diesel emissions, and the cumulative

[9] SCAQMD, 2005. Summary of MATES II Results

diesel emissions impact will certainly be significant as demonstrated above. An SEIR must be prepared to analyze this important human health impact and to proposed mitigation.

c. The EIR Fails To Include Any Significant Measures To Reduce Diesel Emissions During Construction

The EIR fails to include any significant measures to reduce diesel emissions during construction. Measure Air-12 (page 3.2-20) focuses on using smaller CARB certified diesel construction equipment rather than advocating procedural changes which would have a direct impact on emissions such as:

- Use of alternative fueled construction equipment
- Minimizing idling time
- Maintaining properly tuned equipment
- Limiting the hours of operation of heavy duty equipment and/or the amount of equipment in use

These approaches are outlined in the BAAQMD's CEQA Guidelines. The BAAQMD guidelines recommend that "[if] a project may result in public exposure to high levels of diesel exhaust, the Lead Agency should propose mitigation measures to reduce this impact" and recommend the following measures for construction equipment (*Id.*, p. 60.):

- Conversion to cleaner engines
- Use of cleaner (reduced sulfur) fuel
- Regular maintenance – keep equipment well tuned
- Add-on control devices, *e.g.*, particulate traps, catalytic oxidizers
- Buffer zone between facility and sensitive receptors

In addition, other feasible measures to reduce diesel emissions include:

- Requiring Aqueous Diesel Fuels
- Requiring Diesel Particulate Filters
- Requiring Cooled Exhaust Gas Recirculation (EGR)
- Requiring ultra low sulfur diesel
- Requiring the use of electric-powered equipment where possible
- Requiring alternative diesel formulations
- Requiring post-combustion controls

These measures are achievable and would have a significant impact on the potential emissions from the project and should be required of the proponent. An SEIR should be prepared to analyze and implement such measures.

5. EIR Fails To Accurately Determine The Impact Remedial Activities Of The Abandoned Ravine (Oil Field Waste) Will Have On The Local And Regional Air Quality.

To date the DTSC-led site characterization and health risk assessment of the oil field waste at the site have not been completed. While the proponent has performed a baseline risk assessment for exposure to hazardous waste from the abandoned oil field, it has not included in its air quality analysis an assessment of the impacts that the remediation efforts will incur on the community. Concurrent removal of hydrocarbon waste with construction activities at other areas of the project site will release criteria pollutants and VOCs to which the construction workers, hospital employees and the community will be exposed. Removal of hydrocarbon impacted materials must be performed in a manner consistent with SCAQMD guidance (Rule 1166) for the protection of the community and should include a health risk assessment of any continuous remediation technology to be implemented (e.g., soil vapor extraction systems that could be installed to treat VOCs within the subsurface). The impacts to the community of the immediate removal of hydrocarbon impacted soils and the long-term remediation of the subsurface beneath the former ravine must be quantified and included in the SEIR.

The site is heavily contaminated with highly toxic chemicals, including the known human carcinogen, benzene. This is a potentially perilous situation for both construction workers and nearby neighbors, who may be unwittingly exposed to contaminated soils and vapors through ingestion, inhalation, and dermal absorption. Most contamination cannot be identified through observation, thus allowing construction to take place in an unsafe environment. Contaminants may cause cancer and temporary or permanent damage to the eyes, ears, skin, internal organs, or nervous and circulation system. Benzene, which has been found at high levels on the Project site, has been identified by the State of California as a chemical known to cause cancer and reproductive toxicity in humans. (See Proposition 65 Status Report: Safe Harbor Levels).

Sampling at the site measured benzene at concentrations up to 6800 ug/m^3 from shallow soil gas probes. This concentration is several orders of magnitude higher than U.S. EPA guidance for benzene in shallow soil (3.1 ug/m3 in shallow soil[10]) and several orders of magnitude higher than Cal/EPA guidance for benzene in shallow soil (36 ug/m3 in shallow soil[11]). Despite this heavy contamination, the EIR makes no attempt to analyze the impacts of potentially contaminated soils on construction workers and nearby sensitive receptors and residents.

A statistical analysis of the soil gas data was performed using ProUCL. Exposure assessment and cleanup decisions in support of USEPA projects are often made based upon the mean concentrations of the contaminants of potential concern. A 95% upper confidence limit (UCL) of the unknown population arithmetic mean (AM), μ_1, is often used to:

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[10] U.S. EPA, 2002. Draft Subsurface Vapor Intrusion Guidance (http://www.epa.gov/correctiveaction/eis/vapor/complete.pdf)

[11] Use of California Human Health Screening Levels in Evaluation of Contaminated Properties, 2005. (http://www.calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf)

- Estimate the exposure point concentration (EPC) term,
- Determine the attainment of cleanup standards,
- Estimate background level mean contaminant concentrations, or
- Compare the soil concentrations with site specific soil screening levels.

It is important to compute a reliable, conservative, and stable 95% UCL of the population mean using the available data. The 95% UCL should approximately provide the 95% coverage for the unknown population mean, μ_1. The USEPA has issued guidance for calculating the UCL of the unknown population mean for hazardous waste sites, and ProUCL software has been developed to compute an appropriate 95% UCL of the unknown population mean. ProUCL tests for normality, lognormality, and a gamma distribution of the data set, and computes a conservative and stable 95% UCL of the unknown population mean, μ_1. It should be emphasized that the computation μ_1 of an appropriate 95% UCL is based upon the assumption that the data set under study consists of observations only from a single population. The results of the analyses are presented in Appendix B and summarized below.

Thirty-one samples of soil gas were collected and analyzed for VOCs at the Site and reported by the proponent's consultant. The 95% UCL of benzene soil gas calculated by the proponent, 1.23 ug/L underestimated the 95% UCL of benzene soil gas calculated by ProUCL by 45% (95% UCL of 1.78 ug/L). This miscalculation significantly affects the estimation of vapor concentrations migrating to the surface using various models for the site, and severely under estimates the potential cancer risk from benzene for workers, residents, staff and patients at the hospital.

The EIR states that contaminated soils would be analyzed and remediated. However, it provides no way to detect contamination, either prior to construction and/or during the construction process itself nor any assurance that it would actually be monitored and remediated, even if found. Construction workers may inhale, ingest, and contact contaminated soils that cause cancer and other serious health problems that cannot be identified by observation. Working in a potentially hazardous environment requires that appropriate methods be used to identify the hazards and protect workers.

Dusts are generated and inhaled by construction workers during all phases of construction, but particularly during grading, excavation, and utility and pipeline trenching. The highest dust concentrations occur close to the point of generation where workers are located. Dust and vapors can also expose hospital workers to significant levels of hazardous chemicals. Also, winds may carry contaminated soil and vapors off-site, potentially exposing nearby residents to significant levels of hazardous chemicals. This is a potentially significant impact that is not analyzed in the EIR.

Adverse health effects may occur even if the OSHA permissible exposure limit on total dust of 15 mg/m^3 is complied with because this standard was not intended to apply to contaminated soils and it does not address dermal exposure. (AICGH 1976, 1986.[12])

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[12] American Conference of Governmental Industrial Hygienists (ACGIH), Documentation of the Threshold Value Limits, 3rd Ed., Cincinnati, Ohio, 1976; ACGIH, Documentation of the

In fact, it is well known the OSHA exposure levels, frequently used to protect construction workers, were established more than three decades ago and reflect levels of exposure that were achievable in industry at the time, not levels that are health protective. (Roach and Rappaport 1990.[13]) Further, it is well known that serious health impacts occur from short-term exposures to dust concentrations that are substantially below occupational exposure standards and ambient air quality standards.[14]

In addition to dust, vapors are also released during construction, particularly in areas with hydrocarbon contamination, as identified here. As a result of construction activities, such as grading and excavation, vapors could migrate to the surface and be inhaled by construction workers, hospital employees and nearby residents. Hydrocarbon and petroleum vapors would be expected to contain substantial amounts of benzene, a carcinogen and toluene, a neurotoxin, among others. The EPA, for example, reported that 50 lbs/hr of volatile organic compounds, including 1 lb/hr or 336 lbs total of benzene, have been released while excavating petroleum contaminated soil at other sites.[15] This is a substantial amount of benzene and could result in adverse health impacts unless to construction workers, hospital employees and nearby residents.

Workers' exposed skin (i.e., face, neck, hands, arms, and sometimes torso and thighs, particularly if loose fitting clothing is worn) frequently becomes coated with wet muddy soil during construction. Contaminants, particularly fat-soluble compounds like polynuclear aromatic hydrocarbons ("PAHs") that are commonly present in petroleum-contaminated soil, can migrate from the soil through the skin and into the body.[16]

Threshold Limit Values and Biological Exposure Indices, 5th Ed., 1986.

[13] S.A. Roach and S.M. Rappaport, But They Are Not Threshold: A Critical Analysis of the Documentation of Threshold Limit Values, American Journal of Industrial Medicine, v. 17, 1990, pp. 727-753.

[14] C.A. Pope, III, Respiratory Disease Associated with Community Air Pollution and a Steel Mill, Utah Valley, American Journal of Public Health, v. 79, no. 5, 1989, pp. 623-628; C. A. Pope III, Respiratory Hospital Admissions Associated with PM_{10} Pollution in Utah, Salt Lake, and Cache Valleys, Archives of Environmental Health, v. 46, no. 2, 1991, pp. 90-97; C.A. Pope and others, Respiratory Health and PM_{10} Pollution. A Daily Time Series Analysis, American Review of Respiratory Disease, v. 144, no. 3, 1991, pp. 668-674; J. Schwartz, D. Slater, T.V. Larson, W.E. Pierson, and J.Q. Koenig, Particulate Air Pollution and Hospital Emergency Room Visits for Asthma in Seattle, American Review of Respiratory Disease, v. 147, 1993, pp. 826-831; Joel Schwartz and Douglas W. Dockery, Increased Mortality in Philadelphia Associated with Daily Air Pollution Concentrations, American Review of Respiratory Disease, v. 145, no. 3, 1992, pp. 600-604; B.D. Ostro and S. Rothschild, Air Pollution and Acute Respiratory Morbidity: An Observational Study of Multiple Pollutants, Environmental Research, v. 50, 1989, pp. 238-247; J. Schwartz and A. Marcus, Mortality and Air Pollution in London: A Time Series Analysis, American Journal of Epidemiology, v. 131, no. 1, 1990, pp. 185-194; USEPA, Air Quality Criteria for Particulate Matter, Volumes I-III, April 1996.

[15] U.S. EPA, Air Emissions from the Treatment of Soils Contaminated with Petroleum Fuels and Other Substances, Report EPA-600/R-92-124, July 1992, p. 3-6.

[16] Thomas E. McKone, Dermal Uptake of Organic Chemicals from a Soil Matrix, Risk Analysis, v. 10, no. 3, pp. 407-31, 1990; R.A. Howd and T. E. McKone, Dermal Uptake of Chemicals at

Benzene is readily absorbed through the skin. Construction workers also commonly accidentally ingest dirt, transferred from dirty hands or tools, because there is frequently no place on the site for them to wash their hands or clean their tools. Dirt ingestion is often the major exposure route for construction workers. Children playing at nearby homes may ingest contaminated dust that may be carried off-site.

There are no applicable laws or ordinances that specifically address construction at a site with undiscovered contamination. Therefore, one cannot rely on compliance with regulations to adequately mitigate these potentially significant impacts. Further, compliance with hazardous waste regulations in general does not require that construction be halted when contamination is observed, and does not require that discovered contamination be remediated before construction resumes. Thus, even if contamination were detected, the applicant would be under no obligation to halt the project and remediate it.

The EIR does not identify any specific mitigation measures for the heavy contamination identified on site. Even if appropriate requirements existed, compliance with them is not legally binding on the owner as CEQA mitigation because they are not identified as such and thus would not be included in the mitigation monitoring plan.

The EIR does not explain how the contamination would be identified once construction starts. Most contaminants cannot be observed, smelled, or otherwise identified through inspection. Observation can only identify the grossest indicators of contamination, such as buried tanks and pipelines, zones containing fragments of landfilled material, oily deposits, or highly odoriferous materials. Most contamination does not leave a trail of observable clues. Contamination can only be reliably detected through analytical measurements. Its presence can only be detected through sampling and analysis. Further, the construction crew is not trained to identify hazardous substances that can be observed, such as gross petroleum contamination. Thus, even if

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Hazardous Waste Sites, The Toxicologist, v. 11, 1991, pp. 193-102; Ronald C. Wester and others, Percutaneous Absorption of [^{14}C]DDT and [^{14}C]Benzo(a)pyrene from Soil, Fundamental and Applied Toxicology, v. 15, 1990, pp. 510-516; Thomas J. Franz, Absorption of Petroleum Products Across the Skin of the Monkey and Miniature Pig, American Petroleum Institute, Annual Report, March 15, 1979 to March 14, 1980; D. Goon, N.S. Hatoum, J.D. Jernigan, S.L. Schmitt, and P.J. Garvin, Pharmacokinetics and Oral Bioavailability of Soil-Adsorbed Benzo(a)pyrene (BaP) in Rats, The Toxicologist, v. 10, no. 1, February 1990, p. 218; D. Goon, N.S. Hatoum, M.J. Klan, J.D. Jernigan, and R.G. Farmer, Oral Bioavailability of "Aged" Soil-Adsorbed Benzo(a)pyrene (BaP) in Rats, The Toxicologist, v. 11, no. 1, February 1991, p. 345; John C. Kissel and David R. McAvoy, Reevaluation of the Dermal Bioavailability of 2,3,7,8-TCDD in Soil, Hazardous Waste & Hazardous Materials, v. 6, no. 3, 1989, pp. 231-240; T.A. Roy, J.J. Yang, A.J. Krueger, and C.R. Mackerer, In Vitro Percutaneous Absorption of Benzo(a)pyrene (BaP) from Crude Oil Sorbed on Soil Using Rat and Human Skin, The Toxicologist, v. 12, no. 1, February 1992, p. 114; In Vitro and In Vivo Percutaneous Absorption of Benzo(a)pyrene from Petroleum Crude-Fortified Soil in the Rat, Bulletin of Environmental Contamination and Toxicology, v. 43, 1989, pp. 207-214.

the developer did agree to cleanup any discovered contamination, there is no guarantee that contamination would be detected for the foregoing reasons.

Normally, to assure that construction workers and nearby off-site receptors are protected, soil and soil gas sampling is conducted prior to the start of construction. The resulting data are used to prepare a health risk assessment to evaluate impacts to construction workers. If significant risks are found, cleanup levels are set to protect construction workers and the site is remediated before the start of construction. Because these documents ordinarily require public review, these tasks are normally completed as part of CEQA compliance.

A typical example is the Southern Pacific Railyard site, a 265-acre former railyard located in Sacramento. This site was used from the 1860s until the 1990s for locomotive maintenance and refurbishing. The EIR to redevelop the site required that contamination be remediated prior to construction. It further acknowledged that "previously unidentified pockets of contamination could be discovered during construction" and required the following mitigation measures to protect construction workers (City of Sacramento 12/93, pp. 4.13-61/62):

- Each parcel had to be cleaned up at the time of development to protect construction workers;
- A Health and Safety Plan had to be prepared prior to construction that included personal protective equipment and on-site continuous air quality monitoring during construction;
- Reconnaissance sampling was required during construction in all areas where excavation would occur, unless covered by a final Remedial Action Plan;
- An environmental site inspector, reporting to the City and oversight agency, had to be present during construction to detect previously undiscovered contamination.

No such protective requirements are imposed here, despite the acknowledgement in the EIR of the potential presence of soil contamination. Because the impacts of coming into contact with and dispersing contamination are potentially significant, an SEIR should be prepared that requires soil testing and other common-sense measures to protect construction workers and off-site sensitive receptors. These provisions should include, at a minimum, the following:

- Test all surface and subsurface soils to locate and quantify the extent of any contaminated soil. All disturbed soils should be tested.
- If any contamination is detected, prepare a health risk assessment with the resulting data to evaluate the safety of construction workers and nearby sensitive receptors.

- Fully remediate any area with significant health risks to a level acceptable to the agency or agencies with jurisdiction.
- Train workers to identify contaminated soils to the extent feasible;
- Develop a health and safety plan that require the use of personal protection equipment and includes decontamination provisions.
- Require construction shutdown if contamination is detected.[17] (Martin and Levine 1994.[18])

Many cities require sampling prior to construction in areas with a long history of industrial use. The City of San Francisco, for example, requires building permit applicants proposing to disturb 50 cubic yards of soil to assess the soil for possible hazardous waste. Where hazardous wastes are found in excess of standards, the permit applicant is required to submit a site mitigation plan and certify its completion prior to issuance of a building permit. (San Francisco Public Works Code, Article 20, Sec. 1000 *et seq.*, "Analyzing the Soil for Hazardous Waste.")

If construction takes place without pre-sampling for contamination, a field protocol should be developed to identify contamination. The protocol should require the use of an on-site Environmental Professional ("EP") during all earth moving activities. The EP should use both a handheld photoionization detector ("PID") and a flame ionization detector ("FID") to monitor gases emitted by each load of excavated soil. In addition, perimeter monitoring should be conducted throughout the excavation for PM_{10} and hydrocarbons. The Environmental Professional should be empowered to shutdown the Project and assure that it remain shutdown until any identified problem is fully investigated and remediated.

Other agencies have required similar measures in EIRs to protect construction workers when building projects on formerly contaminated sites. These include redevelopment of the Southern Pacific Railyard (City of Sacramento 12/93, 10/94.[19]), the new federal courthouse in Sacramento (City of Sacramento 1995), and the Padres Ballpark in San Diego. (City of San Diego 10/99 and CCRP 7/99.[20])

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[17] If any evidence of contamination is identified, all construction should be immediately suspended until the finding is thoroughly investigated and remediated to the satisfaction of the responsible regulatory agency.

[18] William F. Martin and Steven P. Levine, Protecting Personnel at Hazardous Waste Sites, 2nd Ed., Butterworth-Heinemann, Stoneham, MA, 1994.

[19] City of Sacramento, Final Environmental Impact Report, Railyards Specific Plan and Richards Boulevard Area Plan, Prepared by EIP Associates, December 1993; City of Sacramento, Final Supplemental Environmental Impact Report, Railyards Specific Plan and Richards Boulevard Area Plan, Prepared by EIP Associates, October 1994.

[20] City of San Diego, Master Workplan, Portion of the East Village Redevelopment Area Environmental Remediation, Volume I, Prepared by Centre City Development Corporation on Behalf of the Redevelopment Agency of San Diego, July 230, 1999, Appendix C and Centre City Development Corporation (CCRP), Final Subsequent Environmental Impact Report, Ballpark and

It is of critical importance to analyze both the contamination and the proposed mitigation measures in an SEIR. The mitigation measures themselves may have adverse impacts that must be analyzed and mitigated. For example, excavation and removal of contaminated soil may itself release toxic chemical vapors and dust into the air that may expose workers and nearby residents to significant levels of toxic chemicals. Analyzing the mitigation measures in an SEIR will allow for development of mitigation measures to reduce such impacts.

6. EIR Fails to Address Odor Issues From the Construction and Operation Phases of the Project.

On page 3.2-13 the proponent states that "potential sources of odors during the construction phase include the use of architectural coating and solvents." The proponent ends with the statement that since the VOCs in the architectural coatings and solvents will be limited by SCAQMD Rule 1113, no odor impacts are expected. This line of reasoning ignores the substantial odor issues associated with the use of diesel powered engines and the remedial efforts that will need to be undertaken to excavate and treat the hydrocarbon impacted soils in the Ravine area. Nitrogen dioxide and various aldehydes formed during incomplete combustion of diesel fuels produce an acrid smell that are perceptible at concentrations as low as 2 mg/m^3 (NO_2) to 0.0002 mg/m^3 (acetaldehyde) (Ruth, 1986). The proponent estimates from URBEMIS 2002 show continuous excess levels of NOx and ROG during the construction and operational phases of the project. The proponent should be required to model the ground level concentrations of odorants in the surrounding neighborhood prior to the initiation of work to ensure that the project will not adversely impact the community with unwanted odors. If the ground level concentrations of odorants exceed the odor threshold, control measures should be implanted prior to the initiation of any field work. There is at least a fair argument that the Project may result in significant odor impacts that have not been analyzed in the EIR. An SEIR should be prepared to analyze such impacts.

7. EIR Fails to Address the Duration of Exposure From Construction at the Site (Short Term Versus Long Term Exposure).

While the definition of short term and long term are not expressly provided in the EIR, the length of the construction phase (6 years), clearly does not impact the community for a short period of time. The project proponent should be required to re-evaluate the scheduled project to determine where compression of the schedule is possible, while trying to ensure that emissions from the project do not increase.

8. EIR Fails To Describe Or Mitigate The Project's Cumulative Impacts.

To comply with CEQA, an EIR must contain either "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary,

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Ancillary Development Projects, and Associated Plan Amendments, October 1999.

those projects outside the control of the agency," or "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact."[21]

Here, the EIR violates CEQA by failing to provide any cumulative impact analysis at all for most subject areas, including air quality, aesthetics, geology, hazardous materials, land use planning and public services. However, the EIR admits that there are significant environmental impacts from air pollution, hazardous materials, and impacts to fire protection services. Instead of analyzing these and other potential environmental impacts, the EIR provides conclusory statements that there will be no cumulative impacts, contradicting its conclusions that there will be significant impacts, impermissibly limits the geographic scope of the cumulative impacts, and impermissibly relying on planning documents.

A. The Cumulative Impacts Analyses Are Contradictory, and Incomplete

This EIR fails to support its conclusions with any evidence that there will be no cumulative impacts for almost every category of impact analyzed. The EIR states that "proposed project would be anticipated to have significant impacts to air quality during operations due to the exceedance of the SCAQMD significance threshold for NOx." (EIR at 3.2-13). However, the City then makes the contradictory claim that the project would not have significant cumulative air impacts because "the operational emissions from the proposed project are individually insignificant." (*Id.* at 3.2-16). The City, however, admits that the project's air emissions would be significant, leading to the conclusion that the cumulative impacts will also be significant.

Furthermore, the air quality cumulative impacts analysis is deficient because it fails to provide the necessary quantitative analysis, impermissibly limits the geographic scope considered and impermissably relies on planning documents to obviate the proper study of the cumulative air quality impacts. These issues are addressed in Section B below.

B. Cumulative Air Quality Impacts From This Project Are Significant

As discussed above, this EIR admits that project operations will create significant impacts to air quality. (EIR at 3.2-13). Thus, the conclusion that there will be no cumulative impacts is incomprehensible and incorrect as a matter of law. (*Id.* at 3.2-16).

The cumulative air quality impacts analysis is also deficient because it fails to provide the necessary quanitative analysis, imperssiably limits the geographic scope considered and impermissably relies on planning documents to obviate the proper study of the cumulative air quality impacts.

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[21] CEQA Guidelines § 15130(b)(1); *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 740.

1. The Air Quality Cumulative Impacts Analysis Lacks the Required Detail and Analytical Analysis.

The Air Quality Cumulative Impacts analysis is sorely deficient. The EIR merely contains one conclusory paragraph, which incorrectly concludes that there will be no cumulative air quality impacts. (EIR at 3.2-16). When conducting a cumulative impacts analysis, the EIR must consider past, present and reasonably future impacts.

An EIR must include objective measurements of a cumulative impact when such data are reasonably available or can reasonably be produced by further study, and is necessary to ensure disclosure of the impact.[22] It is impossible to evaluate the air quality impacts unless the EIR analyses and considers the data of other projects that must be considered. *Id.*

Here, the cumulative impact analysis contains no data whatsoever of other past, present, or reasonably future projects that may contribute to the cumulative air impacts. Simply referencing a list of other projects, without providing data and/or analysis explaining what type and magnitude of impact those projects may have is not an adequate cumulative impacts analysis.

2. The Air Quality Cumulative Impacts Analysis Impermissably Limits the Geographic Scope

In its air quality impacts analysis, the EIR considers forty-three related projects. (EIR Figure 2.6-1). Although the air quality cumulative impacts analysis fails to even mention a single other project in the vicinity, the conclusion that there are no cumulative air impacts implicitly considers these "related projects." Considering only these local projects, not more than approximately two miles from the Project location, impermissibly limits the geographic scope of the cumulative impacts analysis.

The courts have held that cumulative impacts analyses for air quality impacts must consider projects from the entire air basin.[23] The recent *Bakersfield Citizens* case demonstrates why the City has improperly limited the geographic scope.[24] In *Bakersfield Citizens*, two separate parties were each developing unrelated retail shopping centers 3.6 miles from one another.[25] Each shopping center failed to consider the cumulative impacts of the other shopping center.[26] The Court found that both EIRs were inadequate because the lead agency failed to properly define the geographic scope according to CEQA Guidelines Section 15130(b)(1)(B)(3).[27] The Court explained that "inaccurate minimization of the cumulative impacts on air quality" undermined the need for "[p]roper

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[22] *Kings Country Farm Bureau* (1990) 221 Cal.App.3d 692, 729.
[23] *Kings Country Farm Bureau*, 221 Cal.App.3dv692, 723.
[24] *Bakersfield Citizens v. City of Bakersfield* (2004) 124 Cal.App.4th 1184
[25] 124 Cal. App. 4th at 1184.
[26] *Id.* at 1193.
[27] *Id.*

cumulative impacts analysis [as] absolutely critical to meaningful environmental review."[28]

The City of Long Beach cannot limit its cumulative impacts analysis to a few projects merely two miles away. It must consider other projects in the air basin that stand to have cumulative effects with this Project.

Furthermore, the South Coast Air Quality Management District (SCAQMD) has already provided its view of the geographic scope for cumulative impact analysis of projects in this area when it prepared its Paramount Refinery Clean Fuels Project EIR. The Paramount EIR considered many projects up to 18 miles away, including two Long Beach projects – the City of Long reach Streetscape Improvements and the North Long Beach Redevelopment. (Paramount EIR, Figure 5-2, p. 5-4). For this Project EIR, however, the City failed to consider Paramount's emissions, or the emissions of any of the other facilities in the same vicinity.

The City is legally required to consider the cumulative impacts of other projects identified in the EIR, and the other projects identified in the Paramount Refinery EIR. All of those projects are in the same air basin, and that they all contribute to the same cumulative air pollution. If, as set forth in the Paramount Refinery EIR, Projects in Long Beach contribute to the cumulative emissions of the Paramount Refinery, then the Paramount Refinery and other projects described in SCAQMD's EIR for that refinery must contribute to the cumulative emissions of this Project.

In the table below, we add the Project's air emissions as set forth in the EIR to the cumulative emissions set forth in the Paramount EIR. It is clear that the Project's cumulative emissions are significant for every pollutant.

[28] *Id.* (citing *Kings Country Farm Bureau*, 221 Cal.App.3d 692).

Table 1
Cumulative Operational Emissions
Modified Based on Responses to Comments
(lbs/day)

SOURCE	CO	VOC	NOx	SOx	PM10
Ultramar CARB Phase 3 Project	514	156	2,164	2,678	287
ConocoPhillips Ethanol Import & Dist. Project	9	-54[1]	10	--	1
ConocoPhillips CARB RFG Phase 3	136	22	514	402	43
BP ARCO CARB Phase 3 Project	42	86	49	0	57
Shell CARB Phase 3 Project	2,213	482	2030	71	57
ExxonMobil CARB Phase 3 Project	29	288	138	12	103
ChevronTexaco CARB Phase 3 Project	393	347	3,103	2,498	843
Third Party Terminals	-	4	-	-	-
Paramount Clean Fuels Project	104	66	52	1	69
Industrial Warehouse Project (No. 10)[2]	76	7	10	<1	5
Recreational Center Project (No. 11)[2]	39	3	5	<1	3
Banco Popular Project (No. 13)[2]	109	9	14	<1	8
Residential Development (No. 14 and 15)[2]	80	25	5	<1	10
Long Beach Memorial	286	25.8	64	3.38	65
Cumulative Emissions	**4030**	**1,468**	**8,158**	**5,665**	**1,551**
SCAQMD Thresholds	**500**	**55**	**55**	**150**	**150**
Significant (?)	**YES**	**YES**	**YES**	**YES**	**YES**

(1) Negative numbers represent emission reductions.
(2) Based on URBEMIS2002 Model, using default assumptions.

Table 1 indicates that cumulative emissions of all criteria pollutants exceed the SCAQMD's emission significance thresholds (in bold). The EIR did not disclose that any emissions were cumulatively significant. These are new significant impacts that must be mitigated. An SEIR should be prepared to evaluate and mitigate these significant impacts.

An SEIR should also consider the cumulative impacts of the Project together with emissions from other major sources of pollution in the area, particularly emissions from ships, trucks and other transport in an around the Port of Long Beach and the Port of Los

Angeles. The SEIR should also consider the cumulative impacts from additional pollution expected from major proposed expansions of the Ports of Long Beach and Los Angeles as well as a proposed expansion of Long Beach Airport. These projects will add to the cumulative impacts of the Long Beach Memorial Project, and these cumulative impacts have not been analyzed at all.

3. The EIR Impermissibly relies on Planning Documents to Avoid a Valid Cumulative Impacts Analysis.

Relying on planning documents to avoid preparing a cumulative impacts analysis in an EIR does not satisfy CEQA's cumulative impact analysis requirement if summary projections from the planning document are inaccurate, outdated, or insufficient.[29] Reliance on planning document is also improper when the proposed project requires amendments to the plan that are not taken into account by the general plan EIR's cumulative impacts analysis. *Id.*

Here, the EIR simply states that because the project is consistent with land use plans and zoning, no cumulative impacts analysis are required. (EIR at 3.2-16). As stated in *Bakersfield*, this is inadequate without at the very least showing a summary of the data leading to this conclusion.

Additionally, the EIR states that land use zoning amendments will be necessary for this project. Thus, the EIR cannot rely on these planning documents and current zoning rules.

4. The City's Reliance on Air Quality Management Plan is Misplaced

The City claims that it does not need to conduct a cumulative impacts analysis for this project because the project complies with the Air Quality Management Plan (AQMP).

Reliance on the 2003 AQMP is misplaced, however. CEQA Guidelines Section 15064(h)(3) allows an agency to forgo cumulative analysis only when a plan addresses the cumulative problem with a mitigation program that contains "*specific requirements* that will avoid or substantially lessen the cumulative problem ... *within the geographic area in which the project is located.*" Here, the City fails to show any evidence that the AQMP satisfies this requirement.

Conclusion

The Project has numerous highly significant impacts that have not been addressed in the EIR and must be evaluated in an SEIR including:

1. Inaccurate estimates of the traffic impacts which directly affect air quality;
2. Inaccurate estimates of air quality impacts from criteria pollutants emitted during the construction phase of the project

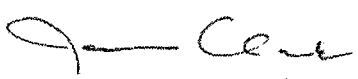
[29] *Bakersfield Citizens v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1217.

3. Failure to identify sensitive receptors and quantify the impacts adjacent to the project site;
4. Failure to include all feasible measures to reduce construction particulate emissions;
5. Failure to include all feasible measures to reduce diesel particulate emissions (the primary health risk driver to the community) from construction activities at the site;
6. Failure to accurately determine the impact remedial activities of the abandoned ravine (oil field waste) will have on the local and regional air quality;
7. Failure to address odor issues from construction and operation activities at the site;
8. Failure to address the duration of construction and effects on the community; and
9. Failure to describe or mitigate the projects significant cumulative impacts on the community.

Closure

If you have any questions regarding the above or have additional questions regarding this assessment, please do not hesitate to call at (310) 907-6165.

Sincerely,



James Clark, Ph.D.
Principal Toxicologist

PROPOSED

State of California
AIR RESOURCES BOARD

Resolution 05-31

April 28, 2005

Agenda Item No.: 05-4-1

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the ARB or Board) to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 39606(a)(2) of the Health and Safety Code requires the Board to adopt standards for ambient air quality "in consideration of public health, safety, and welfare, including, but not limited to, health, illness, irritation to the senses, aesthetic value, interference with visibility, and effects on the economy"; and requires health-based standards to be based on the recommendation of the Office of Environmental Health Hazard Assessment (OEHHA);

WHEREAS, section 39606(d)(2) of the Health and Safety Code requires the Board to revise ambient air quality standards determined to be inadequate to protect infants and children with an adequate margin of safety, and to establish the standards "at levels that adequately protect the health of the public, including infants and children, with an adequate margin of safety";

WHEREAS, section 39606(b) of the Health and Safety Code requires OEHHA to assess four specific factors relevant to infants and children in preparing its recommendation to the Board: exposure patterns, special susceptibility, effects of exposure, and interaction of multiple air pollutants;

WHEREAS, section 39014 of the Health and Safety Code defines "ambient air quality standards" (AAQS) to mean "specified concentrations and durations of air pollutants which reflect the relationship between the intensity and composition of air pollution to undesirable effects established by the state board";

WHEREAS, section 70101 of title 17, California Code of Regulations, states that "the objective of ambient air quality standards is to provide a basis for preventing or abating the effects of air pollution, including effects on health, esthetics and economy"; that "pollution levels below those shown in the standards should not ordinarily produce the associated effects"; that "ambient air quality standards shall be reviewed and subject to modification whenever substantial pertinent new information becomes available and at

least once every five years"; and that "to the extent feasible, review of a standard shall be coordinated with the review of any corresponding federal standard by the Environmental Protection Agency";

WHEREAS, based on section 39014 of the Health and Safety Code and on sections 70100 and 70200 of title 17, California Code of Regulations, California ambient air quality standards have four elements: (1) a definition of the air pollutant, (2) an averaging time, (3) a pollutant concentration, and (4) a monitoring method to determine levels of the pollutant in the ambient air relative to attainment of the standard;

WHEREAS, section 39606(d)(1) of the Health and Safety Code required the Board, in consultation with OEHHA, by December 31, 2000, "to review all existing health-based ambient air quality standards to determine whether, based on public health, scientific literature, and exposure pattern data, these standards adequately protect the health of the public, including infants and children, with an adequate margin of safety";

WHEREAS, on December 7, 2000, the Board approved a joint ARB/OEHHA staff report that contained preliminary reviews of all of the health-based California ambient air quality standards, and found that health effects may occur in infants, children, and other potentially susceptible subgroups exposed to several pollutants at or near levels corresponding to current California ambient air quality standards;

WHEREAS, on December 7, 2000, the Board further found that the ambient air quality standard for ozone had the second highest priority for review and revision;

WHEREAS, the current state ambient air quality standard for ozone is 0.09 ppm for one-hour, and the current national ambient air quality standards for ozone are 0.12 ppm for one-hour and 0.08 ppm for eight-hours;

WHEREAS, on June 4, 2004 ARB received the OEHHA draft recommendation for revision of the ozone standard, which was to retain the current one-hour standard of 0.09 ppm and add a new eight-hour standard of 0.070 ppm;

WHEREAS, on June 21, 2004, staff released for public review a draft report titled "Review of the California Ambient Air Quality Standard for Ozone, Public Review Draft," authored by ARB and OEHHA staff, which contained draft recommendations for amending the ozone standard as recommended by OEHHA;

WHEREAS, during July and August 2004, public workshops were held in three California cities to receive public input on staff's draft proposal to amend the ozone standard;

WHEREAS, in accordance with section 57004 of the Health and Safety Code, the draft staff report and proposed amendments were peer reviewed by the Air Quality Advisory Committee (AQAC), an independent scientific review committee, comprised of scientific experts on ozone and appointed by the Office of the President of the University of

California, and were discussed at a public meeting on January 11 and January 12, 2005;

WHEREAS, the AQAC submitted its written report on the draft staff recommendations for amending the ozone standard on February 24, 2005, finding that the recommendations for revising the ozone standard are based upon sound scientific knowledge, methods, and practices, and are supported by the scientific literature;

WHEREAS, on March 11, 2005 the ARB released its final staff report titled "Review of the California Ambient Air Quality Standard for Ozone, Staff Report, Initial Statement of Reasons for Proposed Rulemaking," which presents the findings of the joint ARB/OEHHA staff review of the health and scientific literature on ozone, as well as exposure pattern data for ozone in California, including background, and staff recommendations for amending the ozone standard;

WHEREAS, on April 11 and 12, 2005 public workshops were held to receive public input on staff's final proposal to amend the ozone standard;

WHERAS, staff wishes to amend the Staff Report to clarify the discussion regarding the incremental health benefits of attaining the new standard;

WHEREAS, the California Environmental Quality Act and Board regulations approved by the Resources Secretary as a certified regulatory program require that no project which may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts, and that the decision-maker shall make a written response to significant environmental issues;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

WHEREAS, the Board has received and reviewed a substantial body of evidence and testimony, in both written and oral form, from the ARB and OEHHA staff, AQAC, and members of the public prior to and at a duly-noticed public hearing held on April 28, 2005 relating to the adverse health effects of ozone, and finds as follows:

1. The potential health impacts of exposure to ozone air pollution are significant and include reduced pulmonary function, increased respiratory symptoms, airway hyperreactivity and airway inflammation, in addition to premature mortality, increased hospital admissions for cardiopulmonary causes, and exacerbation of bronchitis, asthma, and respiratory symptoms. The groups most at risk of experiencing adverse responses include children and adults who are active outdoors, and outdoor workers.

2. The scientific review suggests the need for separate standards for one-hour and eight-hour averaging times to provide adequate public health protection from both short, peak exposures, and longer, lower concentration exposures.

3. The scientific review indicates that the current one-hour ozone standard of 0.09 ppm should be retained.

4. The scientific studies currently available do not indicate that the existing one-hour standard for ozone needs to be revised.

5. The establishment of a new eight-hour average ozone standard at 0.070 ppm, not to be exceeded, is necessary to protect public health with an adequate margin of safety. This conclusion is based on controlled human exposure studies demonstrating decrements in pulmonary function, increased respiratory symptoms, increased airway reactivity and induction of airways inflammation in healthy and asthmatic adults exposed for 6.6 to 8 hours to 0.08 ppm ozone.

6. The current monitoring method for ozone, which uses the ultraviolet (UV) photometry method for determining compliance with the State ambient air quality standard for ozone, should be retained, and all federally approved UV methods (i.e., samplers) for ozone should be incorporated by reference as "California Approved Samplers." This will result in no change in air monitoring equipment practices, and will align state monitoring requirements with federal requirements.

7. The monitoring methods proposed should eliminate any issues that may exist concerning the acceptable use of samplers for state and federal programs.

8. The health benefits reducing ozone from current levels to the proposed standards for ozone are substantial, including an estimated reduction of 580 premature deaths per year, and reduced hospitalizations related to chronic obstructive pulmonary disease, cardiovascular disease, and other respiratory diseases, including bronchitis, and asthma, as well as reduction in statewide school absenteeism.

9. The proposed standards provide the required margin of safety that allows for and compensates for scientific uncertainty, as well as the lack of precise predictions regarding the health impacts of air pollutants on a multiplicity of potentially susceptible subpopulations.

10. The proposed standards are, by state statute, required to be set at health protective levels and will, in and of themselves, have no adverse environmental or economic impacts. While the Federal EPA has promulgated NAAQS for ozone, the different state standards are justified by air quality considerations in this state to benefit human health, public safety, and welfare. Furthermore, any impacts from implementing the standards will be considered in detail as control measures to attain and maintain the standards are developed.

11. The review of the proposed standards has been coordinated to the extent feasible with the review of the corresponding federal standards, which has led to proposed methods, samplers, and instruments for measuring ozone in California that include the adoption of federal reference methods.

12. Due to California's unique circumstances, and the seriousness of the health impacts of ozone and the requirements of state laws, it is necessary and appropriate to proceed with the adoption of State ozone standards before the federal EPA completes its review of the National Ambient Air Quality Standard for ozone.

13. Because of the potential negative impacts on both air quality and the competitiveness of certain California businesses if the NAAQS for ozone are significantly less stringent than California's standards, the ARB should cooperate with other interested parties through the Clean Air Science Advisory Committee (CASAC) and U.S. EPA process, to achieve a health-protective outcome in the federal standard-setting process.

14. No reasonable alternative considered by the agency or that has otherwise been identified and brought to the attention of the ARB would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

15. Clarification of the health benefits discussion in the Staff Report is useful in enhancing public understanding of the incremental health effects of attaining the new one-hour standard.

NOW, THEREFORE, BE IT RESOLVED that the Board approves amendments to sections 70100, 70100.1 and 70200, title 17, California Code of Regulations, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to make the amended Staff Report available for public review and comment on the amendments for a period of at least 15 days, and to consider any comments received during this period before taking final administrative action to adopt the standard as approved by the Board.

BE IT FURTHER RESOLVED that the Board reiterates a goal of accelerated reductions in ozone concentrations over time in order to attain the health-based ambient standards for ozone, to be accomplished in consultation with local air quality management districts and air pollution control districts, other stakeholders, and the public.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to actively participate in the EPA's review of the NAAQS for ozone, including the timely submittal of comments to the CASAC and active staff participation where appropriate.

Resolution 05-31

April 28, 2005

Identification of Attachments to the Resolution

Attachment A: Amendments to sections 70100 and 70200 and new section 70100.1, title 17, California Code of Regulations, as included in the Initial Statement of Reasons released March 11, 2005

California Environmental Protection Agency

NEWS RELEASE

Air Resources Board

Release 05-10

FOR IMMEDIATE RELEASE
April 28, 2005

CONTACT: Jerry Martin
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(916) 322-2990
www.arb.ca.gov

California Adopts New Ozone Standard
Children's Health Focus of New Requirement

EL MONTE, CALIF. -- Today the California Air Resources Board (ARB) approved the nation's most health protective ozone standard with special consideration for children's health. The new 8-hour-average standard at 0.070 parts per million (ppm) will further protect California's most vulnerable population from the adverse health effects associated with ground-level ozone, or smog. The new 8-hour-average ozone standard is the first of its kind in the st

"It is clear that children who grow up under smoggy skies have greater health problems than those who breathe clean air," said ARB Chairman Barbara Riordan. "California has a longstanding record of adopting the world's cleanest air quality standards and today's action continues our leadership in protecting public health."

The Children's Environmental Health Protection Act, passed in 1999, requires the ARB, in consultation with the Office of Environmental Health Hazard Assessment, to "review all existing health-based ambient air quality standards to determine whether these standards protect public health, including infants and children, with an adequate margin of safety." As a result of that requirement, the ARB today adopted the new ozone standard:

- A new 8-hour-average standard for ozone is established at 0.070 ppm, not to be exceeded.
- The 1-hour-average ozone standard is retained at 0.09 ppm, not to be exceeded.

Ozone, also known as urban smog, can affect human health in many ways including: itchy, watery eyes, scratchy throat, difficulty breathing, shortness of breath, coughs, heightened asthma rates, cardiopulmonary cases and premature deaths. Research has also shown that ozone is associated with increased hospital visits, emergency room admissions, student and worker absences, activity restrictions and premature death. ARB research has shown that ozone is associated with new cases of asthma.

ldren are a particularly vulnerable population because their increased exposure to ozone can affect lung function. research has also shown that children spend more time outside, are more active and breathe at a higher rate ive to their size than do adults.

Photochemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOCs) form unhealthy ground-level ozone. California's geography and climate help with the creation of ozone because of its warm, sunny

days and mountains that trap air pollution.

The new standards amount to new clean air goals for the state and set the state's definition of healthy air. The standards will go into effect late this year or early next year, after going through California's review process for new regulations.

For further information, click here.

The Air Resources Board is a department of the California Environmental Protection Agency. ARB's mission is to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy. The ARB oversees all air pollution control efforts in California to attain and maintain health based air quality standards.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy cost, see our web site at http://www.arb.ca.gov

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