

**Jack London Gateway Rapid Health Impact Assessment:  
A Case Study**

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## Introduction

The United States is under construction. More than half of the buildings that will exist in the US in 2030 will have been built after 2000, and the amount of land used for industrial and commercial space in many metropolitan areas will more than double (Brookings Institute, Dec 2004). Urban areas are becoming more dense with infill housing, while agricultural land in rural areas is being replaced with suburbs and ex-urbs. In California, economic growth, the unmet demand for housing, and billions of dollars of public investment in transportation are the leading drivers of these changes.

The way land is used will impact determinants of health and human health outcomes. For example:

- Routine physical activity depends on the availability of walkable and bikable streets that connect homes, schools, parks, jobs and/or shopping areas; access to safe and clean parks; as well as the time it takes to commute to employment and schools. Yet infill development often happens without sufficient transportation and circulation planning and without sufficient regard for necessary infrastructure. This can lead to a lack of physical activity, which increases risks of heart disease, diabetes, obesity, blood pressure, and osteoporosis, symptoms of depression, and anxiety.
- The consumption of fruits and vegetables is largely determined by the proximity and availability of fresh produce. Many urban areas are developing with a limited selection of grocery stores and restaurants that sell healthy, fresh food. Nutrition impacts health in many ways including obesity and diabetes.
- Air quality varies considerably within cities, depending on proximity to pollution sources (*e.g.*, freeways and polluting industry), as well as on choice and maintenance of indoor building materials such as floor covering and paint. Poor air quality can increase the rate of respiratory diseases, like asthma, and cardiovascular disease.

Despite these potential impacts on health, decisions about the uses of particular sites or about city, regional or statewide land use plans, are often made without regard for their often substantial health consequences. This disregard of impacts on health is of greater concern given the facts that chronic diseases, such as diabetes and obesity, are more prevalent, environmentally-related illnesses are on the rise, and health disparities, such as the life-expectancy gap, between different classes and races have widened. In light of the anticipated massive changes expected in land use, the critical impacts on health need to be taken into account as land use decisions are made.

One set of tools that can be used to identify and mitigate adverse impacts on health is Health Impact Assessment (HIA). HIA is an emerging discipline that evaluates the impact of specific policies and projects on health. HIA analyses provide insights that can enable decision makers to make informed decisions affecting the health of communities. HIA has the potential to identify "those activities and policies likely to have major impacts on the health of a population in order to reduce the harmful effects on health and to increase the beneficial effects" (Northern and York Public Health Observatory, 2001). The current context of growth and development in California provides an important opportunity to use HIA constructively and proactively to improve health and reduce health disparities. For this to happen, additional practical examples of the application of

HIA to land use issues must be carried out and documented. This paper describes one such application.

### **The Context**

West Oakland is a neighborhood in Oakland, California whose residents have predominantly low socio-economic status (61% of residents earned less than \$30,000 in 1999, as compared to only 26% in Alameda County), are majority African-American (64%), and face many health issues [Alameda County Department of Public Health, Oct. 2005 Community Information Book Update]. Life expectancy in the area is 7.3 years lower than Alameda County as a whole. Mortality rate for every disease reported by the Alameda County Department of Public Health is higher in West Oakland than in the rest of the County, and particularly so for cancer and heart disease. Rates of asthma hospitalizations are also significantly higher.

Characteristics of West Oakland potentially related to health include:

- A high number of surrounding freeways and proximity to the Port of Oakland. Port-related trucking affects noise and air quality as well as traffic safety, retail vitality, and children's play. The Port is planning to expand and this will result in additional truck, train and ship traffic, all of which could further degrade air quality in West Oakland.
- Disinvestment in the neighborhood with little diversity in retail services, food resources, and financial services.
- Stress from residential development underway or in the planning phase due to the fear of displacement of life-long residents and loss of community.
- Poor quality public schools, resulting in about twice as many residents of West Oakland 25 years or older not completing high school, as compared with the County.
- Violence and crime in the neighborhood are, and are perceived to be, high.

Under the tenure of Jerry Brown, Oakland's mayor from 1998 to 2006, the city pursued policies (e.g., the "10K Plan") to increase residential and retail development with the philosophy that any improvement must be founded on an increased tax base for the City. Brown charged the Community and Economic Development Agency (CEDA), which includes the land use planners, with streamlining new development. The agency shifted staff resources to expediting project approvals while abandoning the idea of comprehensive planning. As a result, planning staff did not have the opportunity to engage the community in an assessment of their needs nor innovate with new forms of sustainable and environmentally conscious development.

It is important to note that the city of Oakland, like most other cities in California, does not have a health department; health is a county responsibility. There is no formal responsibility for city agencies, like CEDA, to take input from the Alameda County Department of Public Health, and the city does not directly pay the cost of health problems.

From the perspective of some in the community, the legacy of Brown's tenure is a profound distrust of planning and for-profit developers. Places like West Oakland have a profound need for investments in prime opportunity sites for land use development but a community-responsive blueprint for that development has yet to be created. In this context, HIA can begin to serve as a lens to assess community needs and facilitate the type of development that can meet those needs.

### **Developing a Collaborative for HIA**

The West Oakland Environmental Indicators Project (WOEIP) and the West Oakland Toxics Reduction Collaborative (WOTRC; started by WOEIP and the US Environmental Protection Agency) work on issues at the intersection of environment and health. Human Impact Partners (HIP), founded in the summer of 2006, expressed interest in providing technical assistance to communities interested in using HIA as a tool to address health disparities. Dialogue among HIP, WOEIP and WOTRC resulted in a commitment to educate community members on HIA and to pursue HIA, beginning with pilot projects, as a tool to improve the health outcomes of development for residents of West Oakland.

In July, 2006, WOEIP and WOTRC organized an introductory meeting, to be led by HIP, to engage the community in a discussion about health and land use and to inform the community about HIA. About 20 community members, including residents and representatives of community based organizations (CBOs), were present and, at the end of the meeting, participants requested that a rapid case study be conducted as a way to further understand HIA.

The following were the commonly recognized goals for WOEIP, WOTRC, and HIP for conducting the pilot HIA:

- 1) Increase the understanding among community residents and CBO representatives of HIA. The organizers were interested in increasing awareness about HIA to convey to the community that HIA could be used as a set of tools with which to advocate for the community's concerns with regard to health and development.
- 2) Increase the understanding among developers and city officials of HIA. In order for HIA to become more widely accepted and utilized, decision makers must also gain familiarity with the tools.
- 3) Increase the voice of the community residents in decision making around a land use project. Community residents in West Oakland often feel disempowered and feel that they have little say about projects that affect their lives. This project could demonstrate the potential of HIA as a tool to increase their voice and improve the democratic process.
- 4) Improve a land use development project from a health perspective. This is a main objective of HIA in general. Improving the health outcomes of a project was clearly a community goal, and demonstrated improvement is necessary for the community's acceptance of HIA as a useful set of tools. However, it is important to note that this was not the only goal; the other goals described above were of equal importance.

### **Steps in the HIA Process**

HIA is not one single process or tool; rather it describes diverse methods used to inform policy-makers about how policies, plans, programs, or projects can affect health, health behaviors, and social resources necessary for health [Quigley R. Health Impact Assessment. International Best Practice Principles. International Association of Impact Assessment 2006.]. Typical steps in HIA include screening, scoping, analysis, reporting, and monitoring.

- *Screening* involves determining whether or not a HIA is warranted.
- *Scoping* involves determining which health impacts to evaluate and the methods for analysis.
- *Assessment* of impacts involves using existing data and qualitative and quantitative research methods to determine the magnitude and direction of potential health impacts.
- *Synthesis and reporting* of the HIA can take many forms including written reports and public testimony.
- *Evaluation and monitoring* describe how the process and findings of the HIA affects the decision and ultimate policy outcomes.

Within this general framework, approaches to HIA vary greatly with regard to the breadth of issues analyzed, the research methods employed, their relationship to regulatory impact assessment requirements, the role of policy-makers, stakeholders and the public in the analysis, and the ways the assessment is used to influence policy.

### Screening

In this case study, the co-chair of WOEIP, a West Oakland resident, selected the Jack London Gateway Project (JLG), a project proposed by the East Bay Asian Local Development Corporation (EBALDC) as the subject of the case study. No formal HIA screening process was undertaken; community interest and perceived links between the project and health were implicit screening criteria in this process.

EBALDC is a non-profit developer well-respected for community-oriented projects in Oakland. In 2006, EBALDC proposed to build approximately 55 units of low-income senior housing and an additional 14,000 feet of retail space in an under-utilized parking lot of the existing Jack London Gateway Shopping Plaza (JLG; see figure 1). The 7.39 acre site currently contains an approximately 57,000 sq. ft. shopping center. The site is close to the junction of Interstate 980 and Interstate 880, and is less than 400 feet from Interstate 980. It is also approximately 1100 feet from the Port of Oakland and Interstate 880. The estimated project cost is \$16 million, and EBALDC is to receive \$4.9 million in affordable housing funds from the City of Oakland.

### Scoping

A follow-up meeting was scheduled to identify the most important questions for HIA for this project. Prior to this meeting, HIP and the project manager at EBALDC had discussions and exchanged emails and documents about the project. HIP attended a community meeting organized by EBALDC about the project at which many concerns about the project, including health-related ones, were raised by the community.



Figure 1: A map of the Jack London Gateway site (from Google Maps).

At the HIA scoping meeting, the EBALDC project manager described and answered questions about the project. The 16 participants were given a list of 15 health determinants which had been described at the first HIA community meeting, and then, as part of a rapid scoping exercise, were asked to describe potential positive and negative health impacts of the project. Concerns echoed those heard at the community meeting organized by EBALDC.

Potential health impacts were documented in a scoping worksheet, and health evidence supporting these potential health impacts was summarized and referenced. This document was then reviewed and revised by meeting participants via email. The document was also shared with the developer.

#### Assessment

A third HIA community meeting organized by WOEIP, WOTRC and HIP was used to review the scoping document, review and discuss supporting health data, and prioritize community concerns. Due to scheduling issues, five people attended. Those participants represented residents, an environmental justice CBO, and business interests. Participants prioritized four health determinants among the issues identified via the scoping exercise. It was decided that the participants would draft and send a letter to EBALDC to inform them of community concerns, related health evidence, and potential mitigations.

During the meeting, each participant was asked to list the health determinants considered to be most important and their reasoning, including health evidence. Consensus about the

issues of highest concern was quickly reached, and potential mitigations were then discussed. Below, we detail those concerns, describe evidence supporting those concerns, and describe studies and other mitigations recommended by the group to EBALDC. The complete analysis is available at [http://www.humanimpact.org/JLG\\_rapidHIA\\_final.xls](http://www.humanimpact.org/JLG_rapidHIA_final.xls).

### *1. Outdoor Air Quality*

**Community Concern:** The proposed plan for JLG includes senior housing within 400 hundred feet of Interstate 980, within 1100 feet of Interstate 880 and the Port of Oakland, and directly adjacent to busy city streets with significant truck traffic. Proximity to these pollution sources may result in relatively high levels of ambient particulate matter and other vehicle-related pollutants. As a result, without mitigation, future residents of JLG may be likely to experience relatively higher rates of chronic and acute respiratory illness and higher rates of morbidity from asthma compared to people living further from these pollution sources. No central ventilation system for the private residences was originally planned. In addition, the construction process could temporarily aggravate the air quality issues for existing residents near the project and they may be likely to experience similar health effects during construction.

**Supporting Evidence:** Nationally, motor vehicle related air quality impacts result in over 20,000 cases of chronic respiratory illness and 40,000 premature deaths annually [Our Built and Natural Environments: A Technical Review of the Interactions Between Land Use, Transportation, and Environmental Quality. USEPA, 2001. Available at <http://www.epa.gov/piedpage/publications.htm>]. In particular, epidemiological studies have found consistent associations between living in proximity to a busy roadway and respiratory disease symptoms and lung function measures [M. Brauer et al., American Journal of Respiratory and Critical Care Medicine. 2002; 166; p1092]. Examples of specific findings include:

- Increased asthma hospitalizations associated with living within 650 feet of heavy traffic and heavy truck volume [Lin et al. Environ Res. 2002; 88; p73.]
- Increased asthma symptoms with proximity to roadways with greatest risk within 300 feet. [Venn et al. American Journal of Respiratory and Critical Care Medicine. 2001; 164; p2177]

Air pollution exposure monitoring and modeling has confirmed that exposure to particulate matter, nitrogen dioxide and soot is much higher within 650 feet (200 meters) of freeways and other busy urban roadways. The California Air Resources Board recommends not locating sensitive land uses, including residential developments, within 500 feet of a highway with more than 100,000 vehicles per day [<http://www.arb.ca.gov/ch/landuse.htm>]. Interstate 980 surpasses this vehicle load.

**Recommended Studies and Mitigations:** Gaining an objective understanding of air pollution exposure levels at the project site relative to nearby areas away from the freeway is the first step in evaluating the need for and planning mitigations. Despite the proximity to the freeway, air quality may be affected by wind patterns and other topographical and physical features. Measurements and/or modeling help define the extent of the issue objectively and aid in planning appropriate solutions. Mechanical

ventilation systems with modest filtration (ASHREA 85% filtration) are mitigations to reduce outdoor fine particle pollution indoors. Given the expansion of the Port of Oakland, on-going measurement of air quality at the site and inside the proposed building was also recommended. Additionally, it was recommended that “clean” construction techniques be used.

## 2. *Noise*

**Community Concern:** As described above, the proposed project site is proximate to busy roadways. Traffic on these roads may result in very high noise levels in and around the housing. Furthermore, noise from the adjacent retail area, such as car radios, may add to the noise levels. Without mitigation, future residents of JLG may experience chronic high noise levels that may result in annoyance, high blood pressure, and sleep loss. The project attempted to address outdoor ambient noise by creating a courtyard as community space buffered by the building and to address indoor noise by allowing fresh air to enter rooms via “z-ducts”. In addition, the construction process could temporarily aggravate the noise issues for existing neighbors. This may result in increased noise-related health complaints among neighbors and in interrupted sleep among seniors at the neighboring senior housing complex.

**Supporting Evidence:** Long term exposure to moderate levels of environmental noise can adversely affect sleep, school and work performance and can lead to cardiovascular disease [C. Dora et al., *Transport, Environment and Health: reviews of evidence for relationships between transport and health*, World Health Organization, 1999]. The health impacts of environmental noise depend on the intensity, duration of exposure and context of exposure. The World Health Organization published a comprehensive synthesis of the health effects of noise [<http://www.who.int/docstore/peh/noise/guidelines2.html>], that describes effects including: “noise-induced hearing impairment; interference with speech communication; disturbance of rest and sleep; psychophysiological; mental-health and performance effects; effects on residential behavior and annoyance; and interference with intended activities.”

**Recommended Studies and Mitigations:** A more thorough understanding of current environmental noise measures at the project site and in nearby areas away from the freeway is important in understanding necessary mitigations. A noise study was therefore recommended. Further recommendations included, the use of noise-insulating windows and acoustical exterior doors and walls to meet Title 24 requirements; posting noise regulations in retail parking lot; and limiting the hours of construction to those that would limit the amount of sleep interruption of current neighbors, while allowing construction to move forward expediently.

## 3. *Safety*

**Community Concern:** Safety was a community concern from two perspectives: 1) the proposed project is in a high crime area and future senior residents may be susceptible to health issues as a result of crime; 2) the high volume of trucks on the surrounding streets may increase risk of pedestrian injuries. The proposed project included a monitored and

secured entry to the senior housing off a busy street adjacent (Brush Street) and parallel to the highway; additional lighting in the retail and surrounding area; and traffic features to reduce truck traffic on an adjacent street and in the parking lot of the retail space. The community indicated that the private security firm that works at the existing retail area does not have the public's confidence. The added lighting from the proposed project and the additional population in the housing (“eyes on the street”) may deter crime. However, seniors are a likely target of crime and are therefore a vulnerable population. If mitigations do not reduce crime: physical injury to senior residents may increase; indirect effects of crime including fear, stress, and poor mental health may increase; and walking may be discouraged, leading to lack of exercise and reduction in benefits of walking. Additionally, residents may be vulnerable to pedestrian injuries or restrict activity because of fear of injuries. Severity of injuries is greater for seniors at all vehicle speeds and seniors are at greater risk for pedestrian injuries due to age-related changes in vision, hearing and reaction times. Improved walkability and bikeability in the area might lead to benefits to all residents and neighbors.

The issue of crime in the area was linked to the issue of the use of the retail space, which is discussed further below. If the retail attracted additional customers and there were therefore more people at the site, crime might be deterred. As the amount of crime decreases, it is more likely that more customers would be attracted to the retail area.

Supporting Evidence: Walking is the most common physical activity among Americans [CE Ross. *Social Science and Medicine*. 2000; 51; p265]. Many studies have linked the amount an individual walks with actual or perceived safety, where safety includes both freedom from crime and freedom from pedestrian injury [for a review, see A Loukaitou-Sideris. *Journal of Planning Literature*. 2006; 20; p219]. A 1999 CDC study found that fear of lack of safety reduced physical activity most in those over 65, women, and minorities [Centers for Disease Control. *Morbidity and Mortality Weekly Report*. 1999; 48: p143]. Additional studies have linked fear of victimization with psychological distress [CE Ross. *Journal of Quantitative Criminology*. 1993; 9: p159].

Recommended Studies and Mitigations: Statistics on crime types and frequency and on the pedestrian injuries and fatalities near the site should be obtained in order to fully understand the magnitude of the issue. Mitigations that could be implemented include: increasing private security if crime at the mall is high; taking the appropriate steps to increase the confidence of current residents in the existing private security; asking police to review security plans and offer suggestions for improvement; talking with the Neighborhood Crime Prevention Council (NCPC) about suggestions for improvements; working with the City of Oakland to prioritize adding walkability amenities such as curb extensions, properly designed pedestrian protection medians on multilane crossings, audible countdown signals and high visibility multilane crosswalk markings to increase access to neighboring communities and to retail; providing the funds to install the walkability amenities adjacent to the project site; implementing traffic calming measures to reduce vehicle speeds; and working with the City to divert through traffic around neighborhood.

#### *4. Retail Planning*

**Community Concern:** The future usage of the additional retail space had not been determined during the building planning phase. Many options were described, ranging from restaurants to medical services to national chain stores. Overall, retail uses that respond to neighborhood preferences and needs might promote the local economy, help meet residents' material needs, encourage walking, and deter crime and prevent physical harm and stress of residents. However, the costs and benefits of retail uses ultimately depend on the specific uses chosen. Depending on specific retail and services offered, new retail or medical offices might provide needed services and retail to the community. If the retail space provides, for example, access to high quality and low cost food, the morbidity from nutrition-related chronic disease such as diabetes may decrease. Matching retail to local unmet needs and preference is also consistent with business success for retailers. Alternatively, some retail uses may be adverse to community health: alcohol outlets are associated with violent assaults; fast food establishments tend to lead to low quality nutrition choices, and the existing retail space already contains several fast food restaurants.

**Supporting Evidence:** Consumption of healthy foods, like fruits and vegetables, correlates with access and proximity to supermarkets for African-Americans [K. Morland et al., *American Journal of Public Health*. 2002 11; p1761]. The same study reported that full-service restaurants are also associated with better diet, while there is little association between fast-food restaurants and consumption of healthy food. Additionally, rates of assault are correlated to the density of liquor stores in an area [PJ Gruenewald et al., *Addiction*. 2006: 101; p666].

**Recommended Studies and Mitigations:** Information about the retail and services that would be used and preferred by current and expected residents should be obtained by surveying neighbors and West Oakland residents. A commitment to providing retail and services that would be beneficial to the community should be made as this would increase sustainability of that business and reduce the likelihood of having an unoccupied storefront. Additionally it is recommended that a neighborhood council composed of residents, retailers and public safety officers be convened to create a plan for the retail space; meetings with local groups (*e.g.*, churches and PTAs at schools) be convened to discuss retail needs and wishes; and community members be provided with results of past surveys of residents regarding retail uses.

#### Reporting

A letter to EBALDC summarized the above finding from the analysis stage of the rapid HIA. EBALDC responded to the community's letter just prior to a meeting of the Design Review Committee, a sub-committee of Oakland's Planning Commission, which had approved the project subject to the Design Review Committee's approval. In the letter EBALDC indicated that it was committed to creating a project that would meet the needs of the community, but would not guarantee implementation of specific suggested mitigations. Due to a lack of a guarantee, two members of the HIA Working Group testified before the Design Review Committee. Testimony indicated support for the project overall, but raised community concerns regarding health. As a result, the Design

Review Committee approved the project, but asked EBALDC to work with the HIA Working Group to include mitigations for community health concerns.

### Monitoring

The HIA Working Group continues to engage with EBALDC around the four areas of concern. EBALDC has conducted the following actions as a result of this process.

#### *1. Air Quality*

EBALDC met with a mechanical engineer familiar with air quality issues to discuss the design of a central ventilation system that would filter the air entering the private residences. They also conducted their own research as to the health risks associated with poor air quality and with regard to potential mitigations and detailed their findings in a memo to the HIA Working Group. Furthermore, EBALDC developed a set of drawings for the residential units that included a central ventilation system with filtration and estimated the cost of this system to be approximately \$100,000. However, due to the small project budget (\$16M), EBALDC has not yet committed to implementing this system and, instead, is considering installing filtration systems in each unit, despite the knowledge that such systems are not as effective at providing clean air. Including a central ventilation system would necessitate removing other health-beneficial aspects of the project, such as the garden courtyard area, unless additional funding could be secured.

In addition, EBALDC changed the proposed balconies facing the freeway into bay windows and designed the ventilation system for the common spaces with filtration in order to mitigate some of the air quality issues.

#### *2. Noise*

EBALDC also modified the design of the residential building to include a second entry to the building through the side of the building away from the freeway, *i.e.*, through the noise buffered garden courtyard and toward the more residential side of the development. This mitigation will contribute to reducing the outdoor noise impact on future residents, to increasing the social network of future residents by easing their interaction with neighbors, and to improving safety by allowing seniors to avoid the busier roadways when walking.

#### *3. Safety*

EBALDC has been in discussions with the NCPC about crime in the area and how to mitigate it.

#### *4. Retail Planning*

With regard to the retail use, EBALDC has provided the community with the results of a small survey it conducted to evaluate the community's interests in retail usage. However, at the time of writing this case study, EBALDC had decided to postpone the retail development and focus on the residential development due to the inability to secure an anchor tenant in the future retail space.

Dialogue between EBALDC and the West Oakland Health Impact Assessment Working Group continues, as the community's concerns have not been addressed fully. Continued constructive dialogue has helped both sides understand the issues and constraints and it is believed that this will lead to creative solutions. For example, the HIA Working Group may help EBALDC secure grant funding to implement the central ventilation system with filtration.

### Evaluation

The four goals for the Jack London Gateway rapid HIA described above were achieved to varying extents.

- 1) *Increase the understanding among community residents and CBO representatives of HIA.* Prior to this project, residents, CBOs, developers and government officials in West Oakland had only been exposed to one Health Impact Assessment, the Oak to Ninth Avenue Health Impact Assessment (<http://ehs.sph.berkeley.edu/hia/>), an HIA completed by faculty and students at University of California at Berkeley. The JLG HIA demonstrated a community participatory process that productively engaged a developer and the Design Review Committee of Oakland's Planning Commission.
- 2) *Increase the understanding among developers and city officials of HIA.* EBALDC actively engaged with the residents conducting the HIA. They conducted research on air quality and health. They consulted with mechanical engineers with regard to the issue and potential designs and costs. As a result of the HIA, EBALDC became more aware of the health issues associated with their non-profit housing development work.

Furthermore, the recognition by the Design Review Committee of Planning Commission of community concerns and the validity of the evidence presented in testimony is significant and may lead to elected officials and planning staff in the City of Oakland being more open to engaging around issues of health and land use.

- 3) *Increase the voice of the community residents in decision making around a land use project.* Through the process, a total of 27 community residents and CBO representatives attended at least one of the community meetings organized by WOEIP, WOTRC and HIP. Average attendance was 17. Many of these participants engaged actively by speaking during meetings, editing documents, signing names to the letter sent to EBALDC, and testifying at the Design Review Committee hearing.

Perhaps the best measure of community understanding, involvement and empowerment is that the participants have gone on to apply for and receive a grant to do more work in West Oakland with an expanded stakeholder group that includes elected officials and the Alameda County Public Health Department and the Alameda County Environmental Health Department, among others. This stakeholder group is conducting another rapid HIA of a private housing development as well as an HIA of proposed options for the use of land currently zoned as industrial in West Oakland – an issue at the forefront of planning decisions being made in the City.

- 4) *Improve a land use development project from a health perspective.* EBALDC implemented design mitigations to address some of the potential health impacts raised by the community. Examples of these include: changing proposed balconies facing the freeway into bay windows, designing the ventilation system for the common spaces with air filters, modifying the plans to include a main rear entrance through the garden area for increased safety and connection with the existing community, and further engaging the community around security issues.

However, it is important to note that not all the concerns of the community were addressed. Specifically, the developer was unwilling to conduct an air quality study or to include a ventilation system with air filters for the private residences. The HIA Working Group is continuing to engage with EBALDC around the issues that have not been addressed, and all the parties are continuing to think creatively about possible solutions. Non-profit developers like EBALDC frequently do take community concerns seriously and may want to implement mitigations, but may not have the resources and profit margins available to do so.

### **Conclusion**

As detailed above, the Jack London Gateway Rapid Health Impact Assessment achieved its goals and is the basis for continued HIA work with West Oakland residents.

This case study describes one project where HIA was applied to contribute positively towards improving the health outcomes of land use projects in California and in the United States. Every project informs more communities, developers and decision makers about the links between land use and health and about how HIA can be used constructively to achieve common goals and facilitate dialog. It is hoped that such projects will lead to a reduction in chronic diseases, in environmentally-related illnesses, and in health disparities.