VII. Summary of Environmental Issues

This chapter provides a summary of key environmental issues within the Plan Area relating to air quality, biological resources, cultural resources, geology and hydrology, hazards and hazardous materials, and noise. This chapter is intended to provide background information to guide the development of the Central Estuary Specific Plan (project) and the Project Alternatives.

Air Quality

There are numerous stationary air pollutant sources under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) in and near the Plan Area. Based on a review of the 2007 BAAQMD database, 29 stationary sources with toxic air contaminant (TAC) emissions within the Plan Area exceeded BAAQMD regulated emissions levels. Additionally, 33 stationary sources have criteria pollutant (i.e. carbon monoxide, nitrous oxide, sulfur dioxide, and particulate matter) emissions in exceedance of the BAAQMD standard thresholds. Figure 2 through Figure 6 shows the location of these stationary sources in exceedance of BAAQMD TAC and criteria pollutant standards. These stationary sources pose potential environmental concerns to people living and working in and around the Plan Area. Virtually all households within the Plan Area are within 1000 feet of at least one stationary source. Future land uses in the Plan Area need to consider the future disposition of these stationary sources. Mobile source emissions were not specifically analyzed for this memorandum, but it is safely assumed that I-880, traffic in the Plan Area, and trains are significant sources of mobile emissions.

Biological Resources

While the Plan Area is within an industrial area and almost entirely developed, areas containing native or naturalized habitat are located in the shoreline areas and the MLK Regional Shoreline Park within the Plan Area. As shown on Figure 2 through Figure 6, the shorelines bordering the western portion of the Plan Area are also considered tidal wetlands and jurisdictional resources. As such, a permit from the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and the San Francisco Bay Conservation and Development Commission (BCDC) would be required for any work that would result in fill being deposited into these shoreline areas.

While there are no documented occurrences of special-status wildlife species in the Plan Area, the MLK Regional Shoreline Park within the Plan Area contains habitat that could support special-status wildlife species, such as the salt marsh harvest mouse, salt-marsh wandering shrew, California clapper rail, California black rail, Alameda song sparrow, great egret rookery, great blue heron rookery, burrowing owl (wintering only), northern harrier, and osprey. Several special-status fish species could occur in the marine and estuarine habitats bordering the Plan Area as well. Figure 6 shows the location of the MLK Regional Shoreline Park in the Plan Area that would have the potential to support such habitats. Special-status plant species are also known to have the potential to occur in the MLK Regional Shoreline Park within the Plan Area. Furthermore, a large cluster of trees in the northern portion of 23rd Avenue are considered to be potentially protected by the City of Oakland Protected Tree Ordinance, as shown in Figure 3.

Cultural Resources

Archeological Resources

Based on a record search at the Northwest Information Center of the California Historical Resources Information Center (NWIC), no previously documented prehistoric archeological sites have been recorded in the Plan Area. However, it is expected that several types and classes of archeological sites may be present in the Plan Area, particularly along the bayshore and in close proximity to drainages and geomorphic features. Figure 2 through Figure 6 shows the locations with moderate potential for the presence of buried prehistoric resources.

While the Plan Area does not contain any documented prehistoric resources, two historic archeological sites are located within the Plan Area, including the Southern Pacific Railway rail spur that runs through the West Subarea of the Plan Area and a cluster of 10 historic period features near High Street and I-880. The mix of residential and commercial uses in the Plan Area also suggests a high likelihood of encountering historic-era archeological resources, including the archeological remains of building foundations beneath the existing potentially historic structures. Such potential historic resources are discussed further below, under the heading "Historic Resources."

Historical Resources

Although there are no known properties listed in the National Register of Historic Places, California Register of Historic Places, or landmarks identified by the Oakland Heritage Alliance, the Central-West and Central-East Subareas of the Plan Area are considered to have the potential for historic resources. As shown on Figure 3, Jingletown, a residential neighborhood located in the center of the Plan Area, and its surrounding areas are considered to have a high potential for historic resources in need of further historic survey in subsequent environmental analysis. The residential and industrial buildings within Jingletown, as well as bridges (i.e. Park Street Bridge, Fruitvale Bridge, and High Street Bridge), wharves, and piers are also considered potential historical architectural resources in the Plan Area. A more extensive review of historic properties, including coordination with staff at the Oakland Cultural Heritage Survey, will occur during project level review of potential impacts.

Geology And Hydrology

A variety of geologic issues need to be considered in planning for future uses in the Plan Area, such as subsurface conditions, seismic hazards, and flood hazards. The Plan Area is located in a seismically active region, as is the majority of northern California, with the closest known active fault (Hayward fault) located approximately 2.6 miles northeast of the Plan Area. Based on a review of published geologic maps, the central portion of the Plan Area is underlain by Quaternary alluvium, or soils deposited by a river or other running water originating in the Quaternary geologic time period (approximately 1.6 million years ago). Quaternary alluvium is typically made up of fine particulates of silt and clay with some sandy gravel. As shown on Figure 2 and Figure 6, the northern and southern portions of the Plan Area are underlain by recent artificial fill that overlies Bay Mud, or thick deposits of soft, unconsolidated silty clay that is typically unsuitable for foundation material. Strong seismic ground shaking can trigger liquefaction, or the process by which soils become suspended resulting in a loss of foundation bearing capacity, in portions of the Plan Area. The West Subarea and East Subarea of the Plan Area underlain with artificial fill and Bay Mud are considered to have high potential for liquefaction, while the Central-West and Central-East Subareas underlain by Quaternary alluvium are considered to have moderate potential for liquefaction, as shown on Figure 2 and Figure 6.

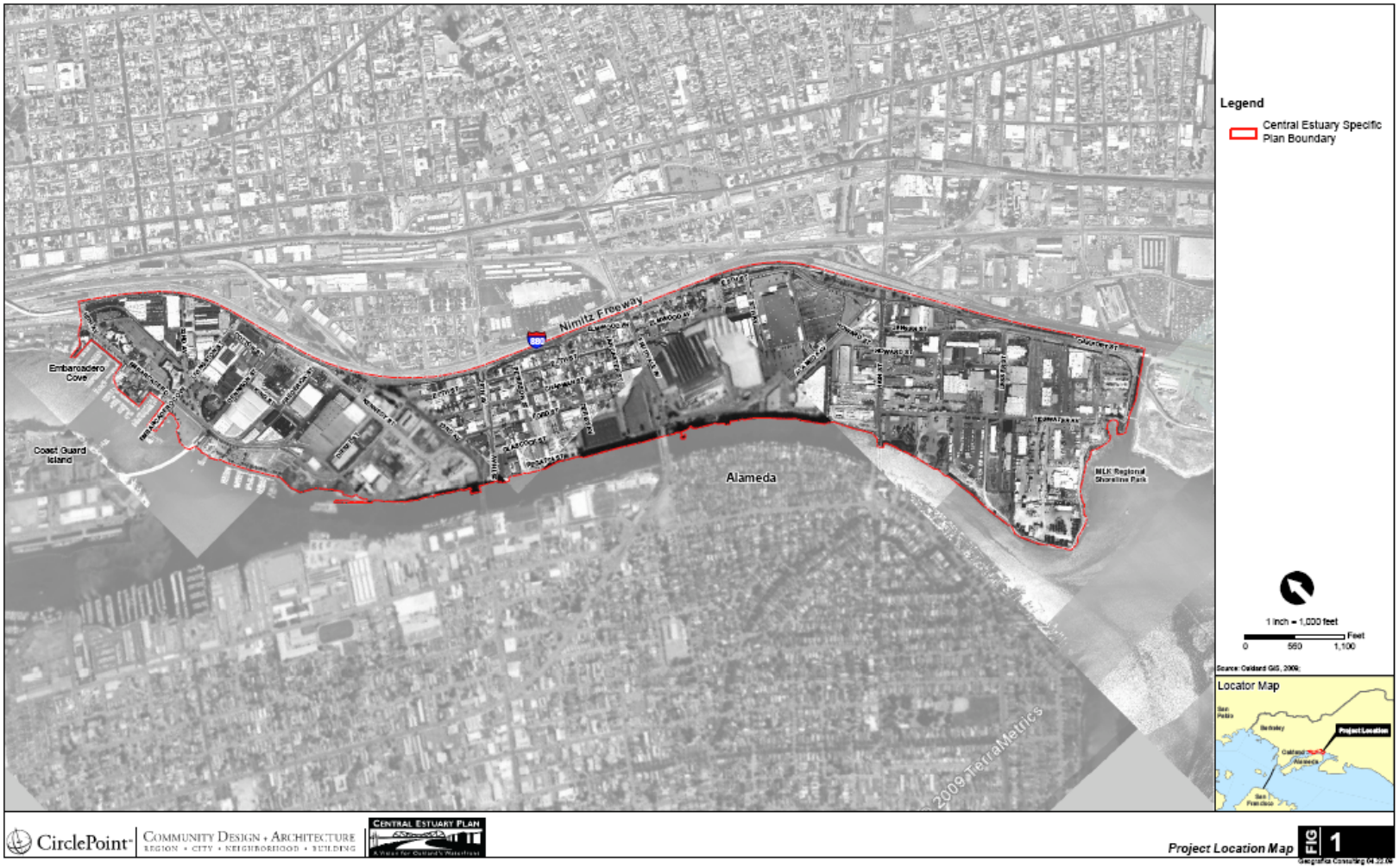
Figure 2 through Figure 6 also show the areas of hydrologic concerns, such as areas within a dam inundation zone, 100-year and 500-year floodplain, and tsunami run-up zone. Portions of the Central-West and Central-East Subareas of the Plan Area are located within the Central Reservoir Dam Failure Inundation Area and would be flooded following a conjectured catastrophic dam failure. Additionally, the Fruitvale Avenue corridor is within the 500-year floodplain and the engineered channel at the southern limit of the Plan Area is within the 100-year floodplain. This southern portion of the Plan Area is also considered to be within the tsunami run-up zone, as identified by the Oakland General Plan. There are also several creeks, engineered channels, former creeks (circa 1850) that have been buried or drained, and underground culverts located within and adjacent to the Plan Area, as shown on Figure 2 through Figure 6.

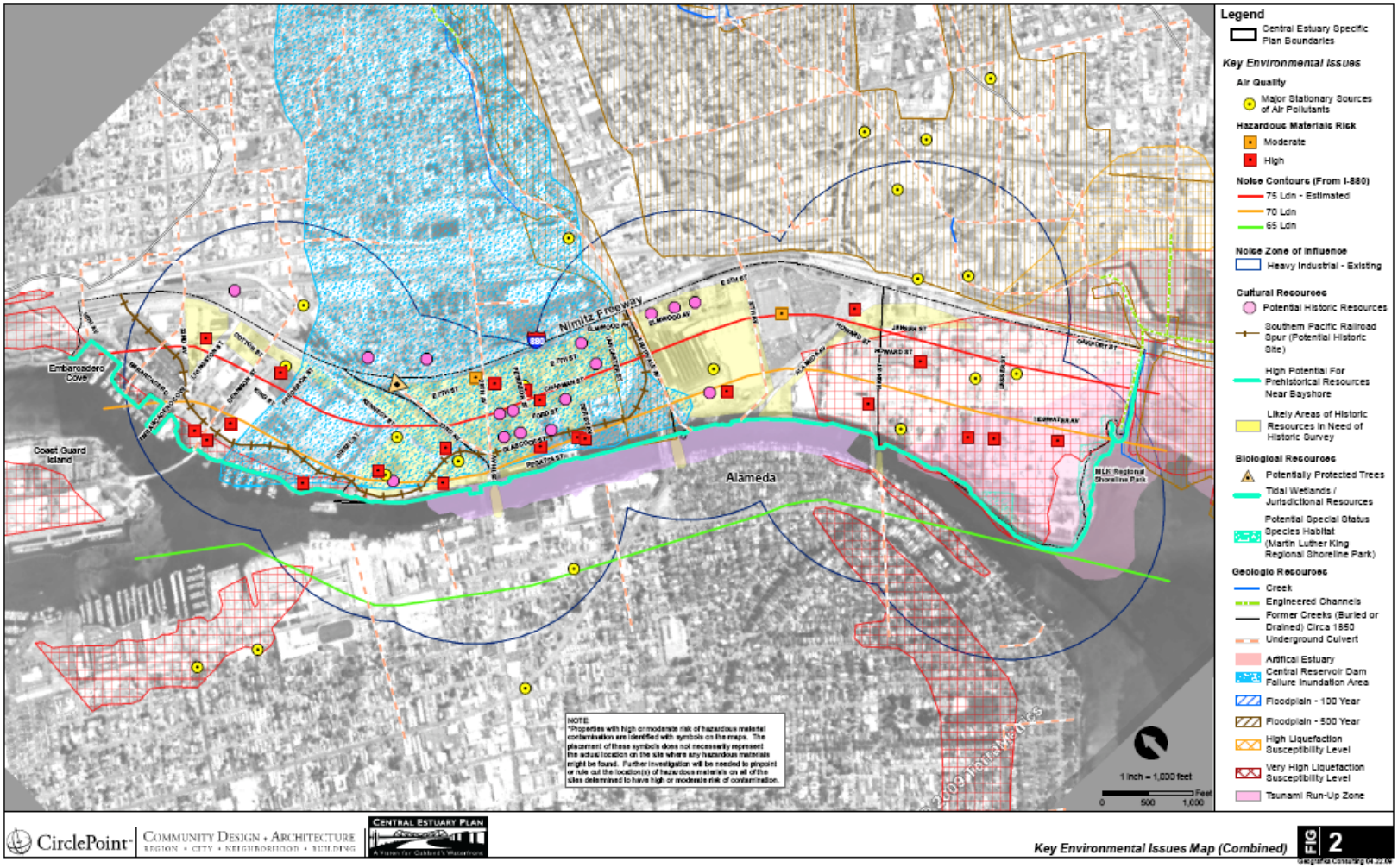
Hazards And Hazardous Materials

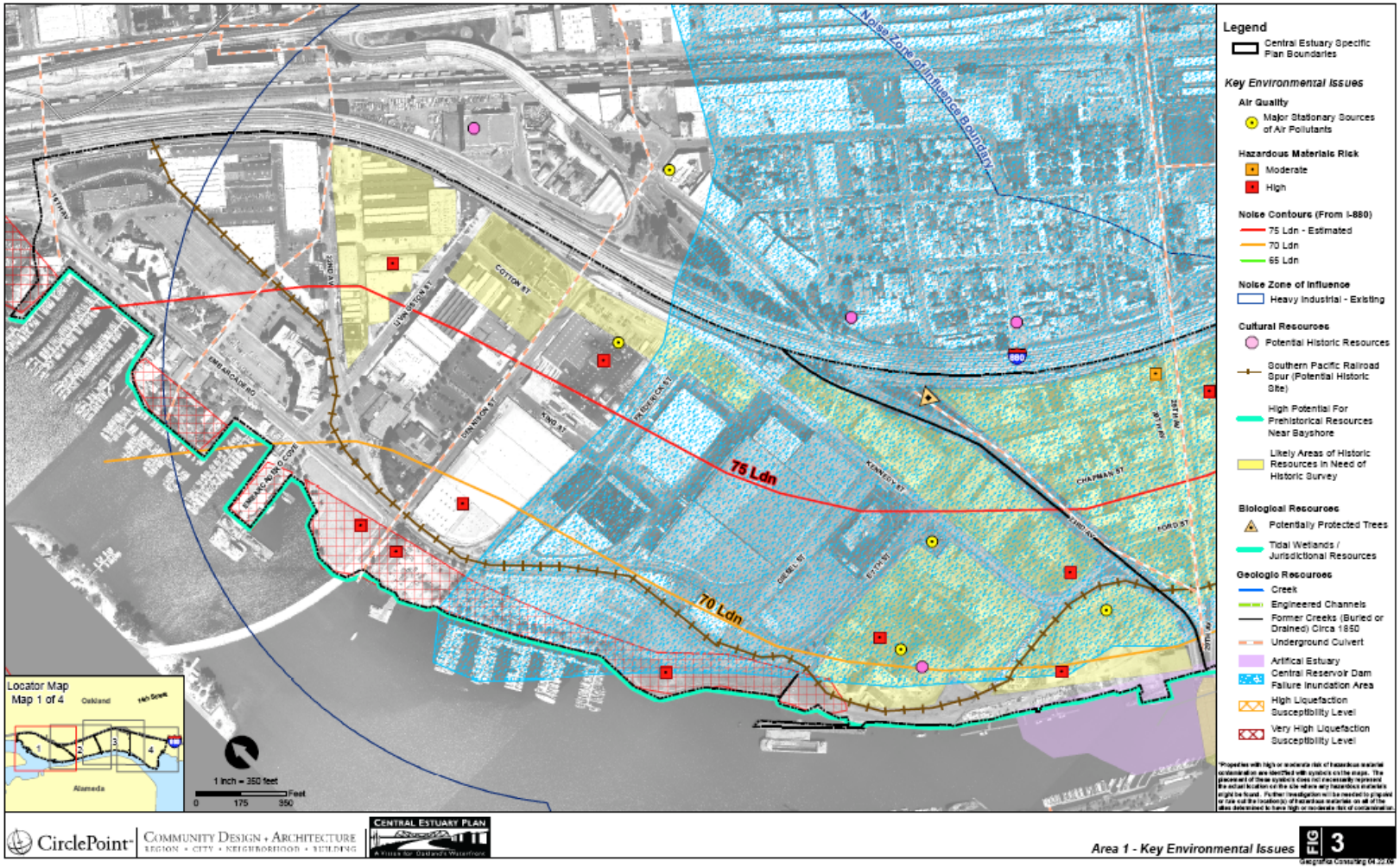
A Phase I Hazardous Materials Assessment (HMA) was conducted for the Plan Area in March 2009 to identify contaminated and potentially contaminated areas and other hazardous materials issues within the Plan Area. As shown on Figure 2 through Figure 6, the Phase I HMA concluded that there are 24 identified properties of high to moderate concern with regards to hazardous materials. The particular area of concern is within the East Subarea of the Plan Area (shown on Figure 6), where two properties of concern and a historical lumber yard operations are located. It is anticipated that this area has been contaminated with hazardous materials, such as motor-oil, volatile organic compounds, and other solvents. It is recommended that a limited Phase II Environmental Site Assessment be conducted at the potential future residential areas of the Plan Area to evaluate the existing soils and groundwater in the area.

Noise

The noise and vibration environment in the Plan Area is characterized primarily as an urban or industrial environment, dominated by the I-880 and local industrial uses. Sensitive receptors within the Plan Area include existing residential areas, including Jingletown, residences along I-880 south of Fruitvale Avenue, and residential lofts near the Beacon Day School. Figure 2 through Figure 6 shows the noise contours in the Plan Area and study area, showing an existing noise environment of 65 Ldn to 75 Ldn in the Plan Area, with the noise levels increasing with closer proximity to I-880. With regard to existing land uses, such as residential, school, and office, the compatibility of such uses with the Conditionally Acceptable or Normal Unacceptable noise levels, as defined by the Oakland General Plan's Land Use Compatibility Matrix, typically depends on the noise control provided by the building envelope. Outdoor areas such as parks and school yards can also be protected from some environmental noise by buildings or sound barriers in some areas, depending on the level of ambient noise.


Legend
Central Estuary Specific Plan Boundary
Nimitz Freeway
Embarcadero Cove
Coast Guard Island
Alameda
MLK Regional Shoreline Park
1 inch = 1,000 feet
0
560
1,100
Feet
Source: Oakland GIS, 2009;
Locator Map
Project Location
2009 TetraMetrics
CirclePoint
Community Design + Architecture
Region • City • Neighborhood • Building
Central Estuary Plan
Project Location Map
Fig 1


Legend
Central Estuary Specific Plan Boundaries
Key Environmental Issues
Air Quality
Major Stationary Sources of Air Pollutants
Hazardous Materials Risk
Moderate
High
Noise Contours (From I-880)
75 Ldn - Estimated
70 Ldn
65 Ldn
Noise Zone of Influence
Heavy Industrial - Existing
Cultural Resources
Potential Historic Resources
Southern Pacific Railroad Spur (Potential Historic Site)
High Potential For Prehistorical Resources Near Bayshore
Likely Areas of Historic Resources In Need of Historic Survey
Biological Resources
Potentially Protected Trees
Tidal Wetlands / Jurisdictional Resources
Potential Special Status Species Habitat (Martin Luther King Regional Shoreline Park)
Geologic Resources
Creek
Engineered Channels
Former Creeks (Buried or Drained) Circa 1850
Underground Culvert
Artifical Estuary
Central Reservoir Dam Failure Inundation Area
Floodplain - 100 Year
Floodplain - 500 Year
High Liquefaction Susceptibility Level
Very High Liquefaction Susceptibility Level
Tsunami Run-Up Zone
Nimitz Freeway
Embarcadero Cove
Coast Guard Island
Alameda
MLK Regional Shoreline Park
NOTE:
*Properties with high or moderate risk of hazardous material contamination are identified with symbols on the maps. The placement of these symbols does not necessarily represent the actual location on the site where any hazardous materials might be found. Further investigation will be needed to pinpoint or rule out the location(s) of hazardous materials on all of the sites determined to have high or moderate risk of contamination.
1 inch = 1,000 feet
0 500 1,000 Feet
CirclePoint
Community Design + Architecture
Region • City • Neighborhood • Building
Central Estuary Plan
Key Environmental Issues Map (Combined)
Fig 2


Noise Zone of Influence Boundary
75 Ldn
70 Ldn
Legend
Central Estuary Specific Plan Boundaries
Key Environmental Issues
Air Quality
Major Stationary Sources of Air Pollutants
Hazardous Materials Risk
Moderate
High
Noise Contours (From I-880)
75 Ldn - Estimated
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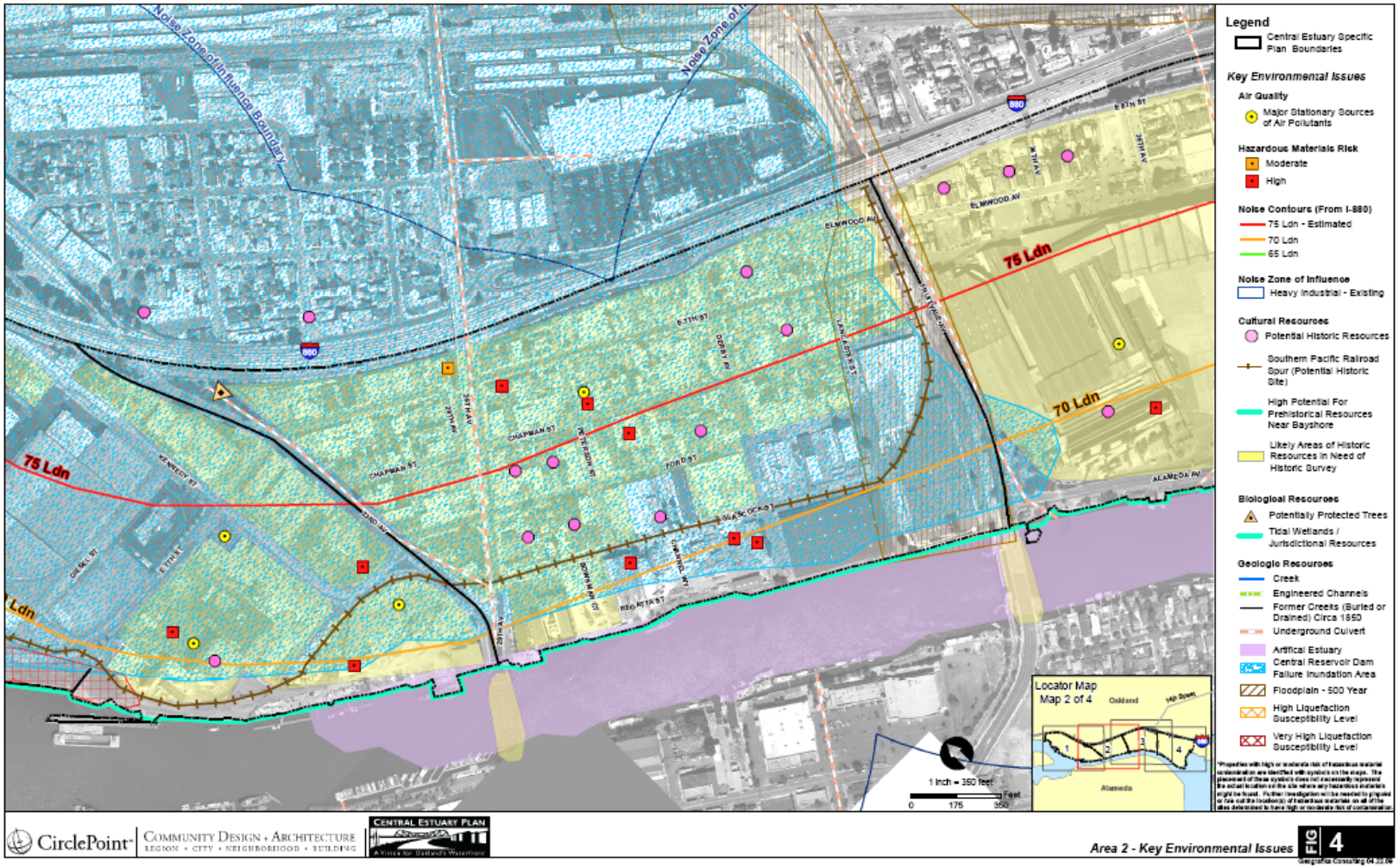
Former Creeks (Buried or Drained) Circa 1850
Underground Culvert
Artifical Estuary
Central Reservoir Dam Failure Inundation Area
High Liquefaction Susceptibility Level
Very High Liquefaction Susceptibility Level
Locator Map
Map 1 of 4
1 inch = 350 feet
0 175 350 Feet
CirclePoint
Community Design + Architecture
Central Estuary Plan
Area 1 - Key Environmental Issues
Fig 3


Legend
Central Estuary Specific Plan Boundaries
Key Environmental Issues
Air Quality
Major Stationary Sources of Air Pollutants
Hazardous Materials Risk
Moderate
High
Noise Contours (From I-880)
75 Ldn - Estimated
70 Ldn
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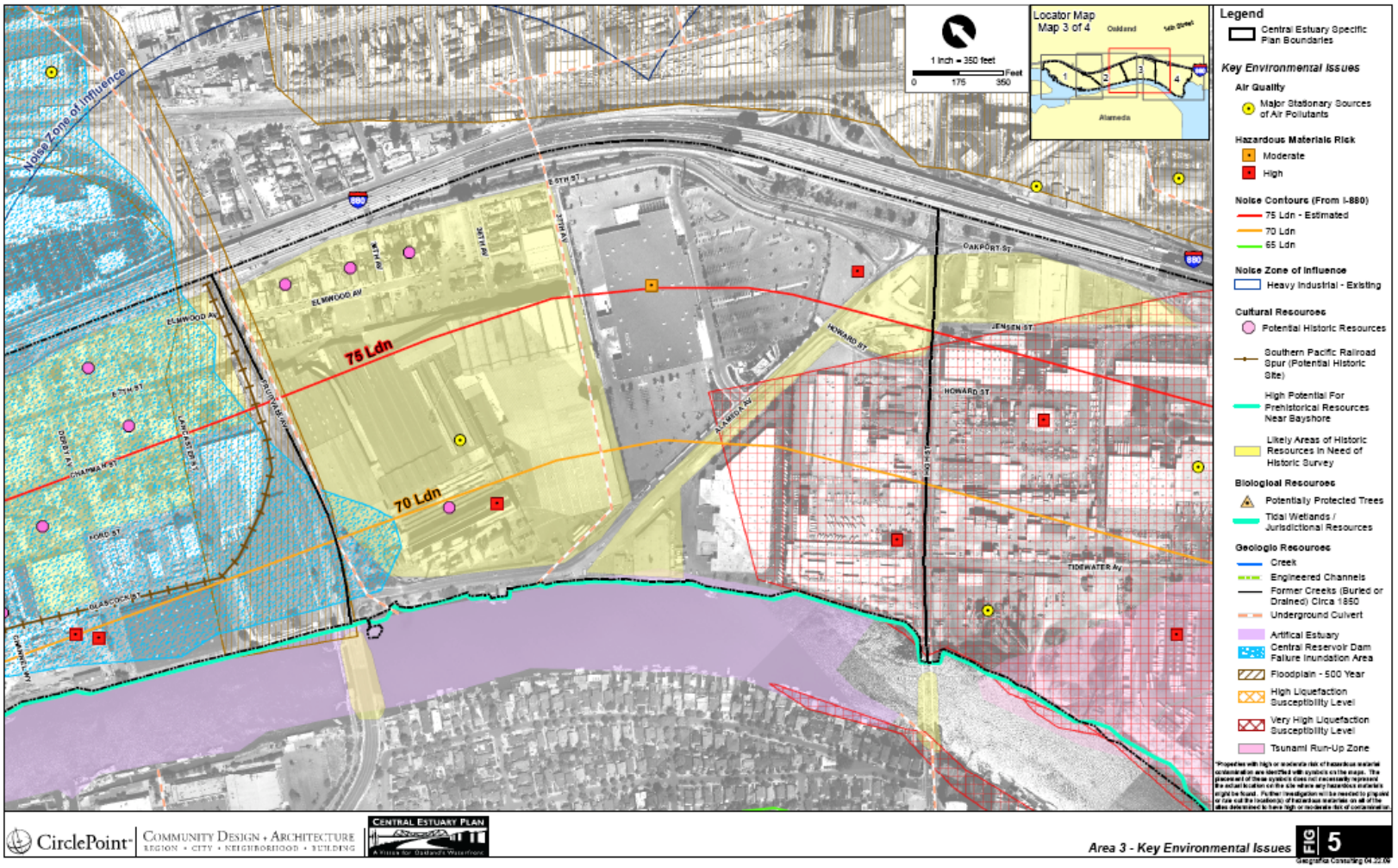
Former Creeks (Buried or Drained) Circa 1850
Underground Culvert
Artifical Estuary
Central Reservoir Dam Failure Inundation Area
Floodplain - 500 Year
High Liquefaction Susceptibility Level
Very High Liquefaction Susceptibility Level
75 Ldn
70 Ldn
Noise Zone of Influence Boundary
Locator Map
Map 2 of 4
1 inch = 350 feet
0 175 350 Feet
CirclePoint
Community Design + Architecture
Region • City • Neighborhood • Building
Central Estuary Plan
Area 2 - Key Environmental Issues
Fig. 4


Noise Zone of Influence
75 Ldn
70 Ldn
1 Inch = 350 feet
Feet
0
175
350
Locator Map
Map 3 of 4
Oakland
Alameda
Legend
Central Estuary Specific Plan Boundaries
Key Environmental Issues
Air Quality
Major Stationary Sources of Air Pollutants
Hazardous Materials Risk
Moderate
High
Noise Contours (From I-880)
75 Ldn - Estimated
70 Ldn
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Noise Zone of Influence
Heavy Industrial - Existing
Cultural Resources
Potential Historic Resources
Southern Pacific Railroad Spur (Potential Historic Site)
High Potential For Prehistorical Resources Near Bayshore
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Creek
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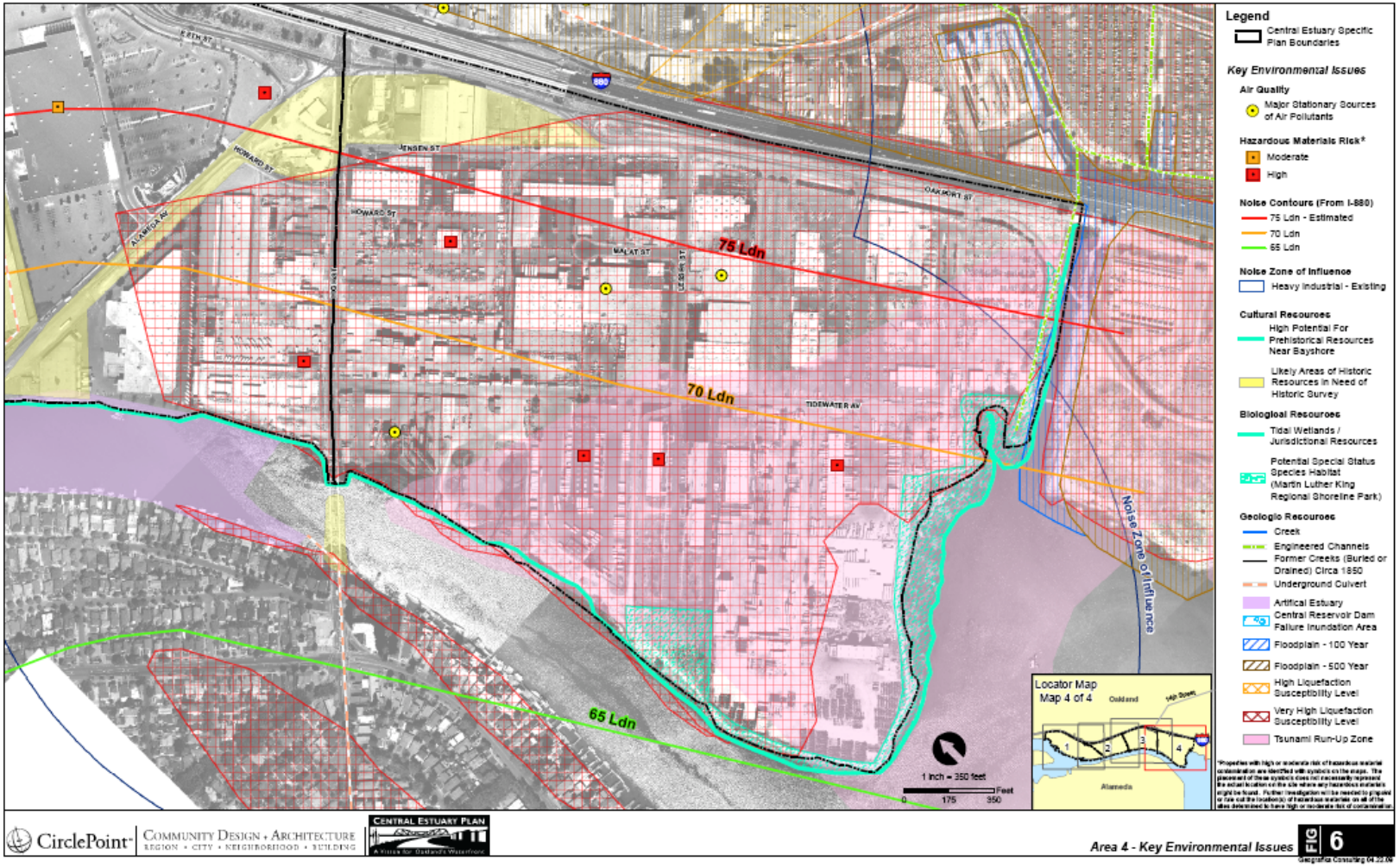
Underground Culvert
Artifical Estuary
Central Reservoir Dam Failure Inundation Area
Floodplain - 500 Year
High Liquefaction Susceptibility Level
Very High Liquefaction Susceptibility Level
Tsunami Run-Up Zone
CirclePoint
Community Design + Architecture
Region • City • Neighborhood • Building
Central Estuary Plan
Area 3 - Key Environmental Issues
Fig 5


Legend
Central Estuary Specific Plan Boundaries
Key Environmental Issues
Air Quality
Major Stationary Sources of Air Pollutants
Hazardous Materials Risk*
Moderate
High
Noise Contours (From I-880)
75 Ldn - Estimated
70 Ldn
65 Ldn
Noise Zone of Influence
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Floodplain - 100 Year
Floodplain - 500 Year
High Liquefaction Susceptibility Level
Very High Liquefaction Susceptibility Level
Tsunami Run-Up Zone
75 Ldn
70 Ldn
65 Ldn
Noise Zone of Influence
Locator Map
Map 4 of 4
1 inch = 350 feet
0 175 350 Feet
CirclePoint
Community Design + Architecture
Region • City • Neighborhood • Building
Central Estuary Plan
A Vision for Oakland's Waterfront
Area 4 - Key Environmental Issues
Fig 6

VIII. Economics and Demographics

Resident Profile

Though bound by common physical barriers, such as the Nimitz Freeway and the Oakland Estuary, the residential character of Central Estuary Plan Area cannot be described as a unified entity. In fact, only the Central-West and a small segment of the Central-East Subareas are residential neighborhoods in the traditional sense. Though neither is exclusively residential, these portions of the Plan Area have a dense street grid and housing that is a legacy of the period before it was disconnected from Fruitvale by the Nimitz Freeway. The Central-West Subarea has also been the locus of new condominium construction in the past decade. The West and Central-East Subareas have much smaller residential populations and, with the exception of a proposal for single-family housing at Estuary Cove, have not been the target of proposals for new residential construction. The East Subarea has almost no residential population. The analyses below describe how the residential population of the Plan Area compares to that of the rest of Oakland, as well as how these Subareas compare to each other. In addition, where possible, the analysis considers how places have changed over time.

Summary of Key Findings

This profile finds that there are notable differences between the residential composition of the Plan Area and that of the rest of Oakland. These include:

- A different racial composition, with a higher shares of Hispanics and non-Hispanic Whites and smaller share of non-Hispanic African-Americans in the Plan Area;
- Slightly lower incomes in the Plan Area
- A lower owner-occupancy rate in the Plan Area;
- A smaller share of families, as a percentage of households, in the Plan Area; and
- Lower levels of educational attainment in the Plan Area.

However, the differences *among the Subareas are far greater than the differences between the Plan Area and the rest of Oakland.*

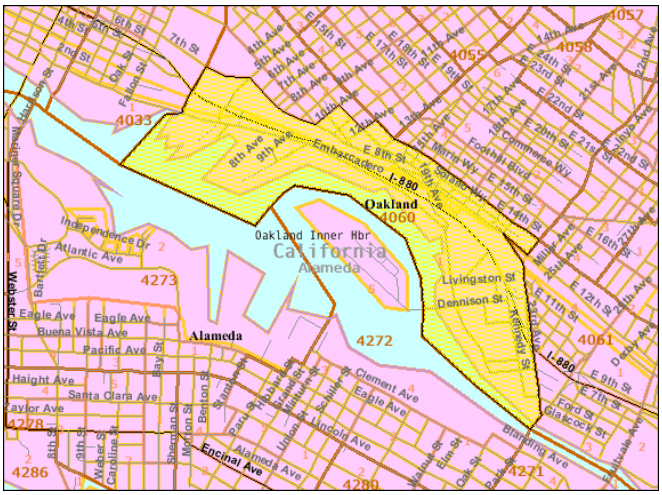
- The West Subarea is majority non-Hispanic White, is largely composed of one and two-person, non-family households, and, though it has a lower median income than the rest of Oakland, has a large share of affluent residents who are highly educated and work in white collar occupations.
- The Central-West Subarea, like the Fruitvale neighborhood on the other side of Interstate 880, is majority Hispanic and has much higher shares of families, children, and seniors than the West Subarea. In comparison to the West Subarea, Central-West Subarea residents are also much more likely to work in blue-collar jobs.
- The Central-East Subarea is fairly similar to the Central-West, though on most dimensions (including education, income, and unemployment rate) is more disadvantaged than either of the other Subareas with a residential population.

Methodology and Data Limitations

There are two important caveats to bear in mind about the data sources used for the analyses below. First, whenever possible, data reported is 2000 Census "short form" data, which is reported at geographies as

small as "block." In these cases, the data shown are drawn from areas that exactly match those of the Plan Area and Subareas, with the exception of the West Subarea.[1] However, many Census statistics are not reported at geographies smaller than "block group." Similarly, Claritas, the service used to collect data for 2008, only reports information at geographies as small as "block group." This is significant because the Plan Area is small in land area and has a small population. Thus, all census geographies larger than "block" include portions of land area that do not fall within the boundaries of the Central Estuary Plan. Therefore, when reporting statistics not available at the block-level, and when reporting 2008 data, the geographies used are as shown in Figures 8.1 through 8.3.

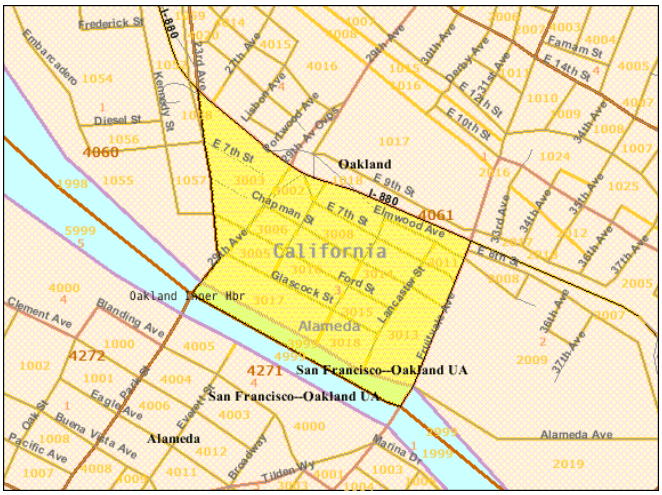
Figure 8.1: West Subarea (Tract 4060, block group 1)



Source: 2000 U.S. Census

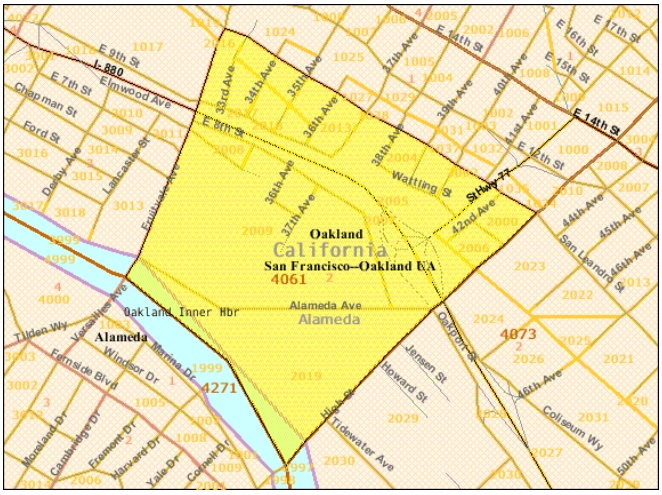
[1] For this purpose, the West Subarea excludes the area bounded by Denison St., Embarcadero, the Estuary, and the western edge of the Plan Area. However, this area does not include any residential land uses.

Figure 8.2: Central-West Subarea (Tract 4061, block group 3)



Source: 2000 U.S. Census

Figure 8.3: Central-East Subarea (Tract 4061, block group 2)



Source: 2000 U.S. Census

As will be explained below, the East Subarea has no significant residential population and, thus, is not analyzed at this level. When "block group," rather than "block"-level data is used, there will be a note to this effect. This distinction is important because block and block group data will not be strictly comparable. Furthermore, to the extent that the areas outside of the Plan Area are dissimilar from those within the boundaries, these data may not provide an accurate reflection of the demographic characteristics of residents.

Second, 2008 data is derived from Claritas, a service that utilizes census data to estimate current demographic characteristics based on local and regional trends. While the Claritas data does seem to reflect the population growth associated with the new residents of the recently constructed condominiums in the Central-West Subarea, it does not suggest that there has been any significant demographic change.

In 2005 and 2006, some units in these developments were selling for nearly $700,000, suggesting that these new residents have very different demographic characteristics than existing residents. However, in categories related to social class, such as income and education, Claritas does not show significant change from 2000 to 2008. Therefore, data from that year should be taken as a rough estimate, especially for the Central-West Subarea (since it has experienced the most housing growth).

Total Population and Housing

According to the US Census, in 2000, there were 916 residents living within the boundaries of the Central Estuary Plan Area, with an overall population density of 2.20 persons per acre (Table 8.1). This is considerably less than that of Oakland as a whole, which has a density of 11.14 persons per acre. However, this population is not evenly dispersed throughout the Plan Area. Five hundred ninety-three (593) of these residents (65 percent) live in the Central-West Subarea. The remaining population is primarily in the Central-East Subarea (23 percent), with a smaller number in the West Subarea (12 percent). Finally, there were an additional six residents recorded in the East Subarea. However, this represents far too small of a population for any statistics to be meaningful, so for the purposes of this report, the East Subarea will be considered non-residential, and will not be included in the resident profile.

Table 8.1: Population Density, 2000

	West	Central-West	Central-East	East	Plan Area	Oakland
Housing Units	108	593	209	6	916	399,484
Area (Acres)	125.6	74.2	95.2	121.0	416.0	35,875.7
Density (persons/acre)	0.9	8.0	2.2	0.0	2.2	11.1

Source: 2000 U.S. Census; Strategic Economics, 2009.

Table 8.2, below, shows that a similar pattern is reflected in the density of housing units in each of these areas.

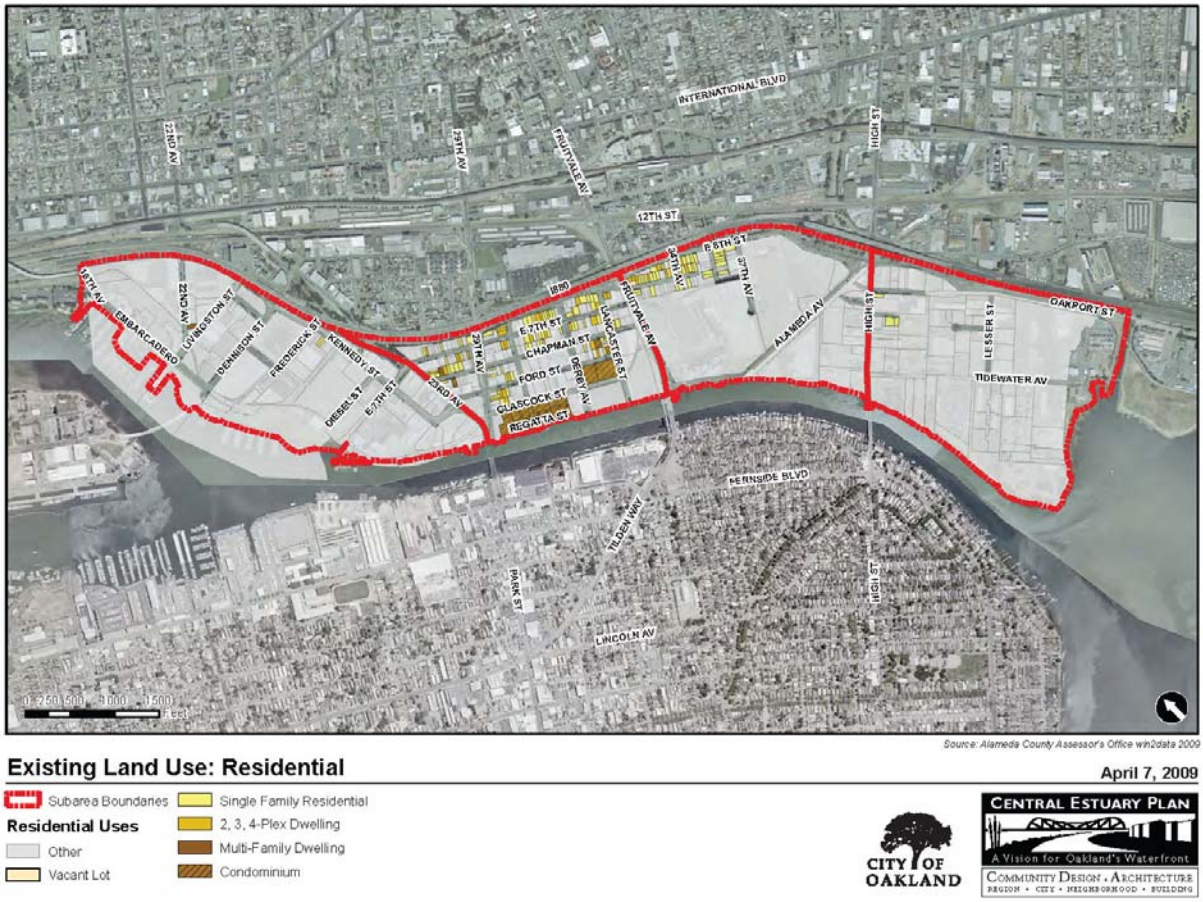
Table 8.2: Housing Unit Density, 2000

	West	Central-West	Central-East	East	Plan Area	Oakland
Housing Units	76	224	63	3	366	157,508
Area (Acres)	125.6	74.2	95.2	121.0	416.0	35,875.7
Density (persons/acre)	0.6	3.0	0.7	0.0	0.9	4.4

Source: 2000 U.S. Census; Strategic Economics, 2009.

Since 2000, 208 new units of housing have been built in the Plan Area, all of which are in the Central-West Subarea. As shown in Table 8.2, this nearly doubled the number of units in this Plan Area. An additional 71 new units of condo and live-work housing have been approved for this Subarea, and a large development of 149 single-family homes has been proposed, but not approved, for the West Subarea. However, there has been no recently constructed or approved housing in either the Central-East or East Subareas.

Figure 1, below, illustrates this development pattern, with residential uses clustered in the Central-West and northern Central-East Subareas. The single-family homes, which are interspersed with light industrial uses, are a legacy of the period before I-880 and before some of the heavier industrial uses were in place. Consequently, they closely resemble the single family homes found on the other side of the highway. The new condominium complexes are closer to the Estuary, within the Central-West Subarea. This map shows that in the entire West Subarea there is only one formal residential use: a small condominium complex. Initially, this seems to conflict with the census, which shows 70 housing units. However, in the block group that includes, the West Subarea, 51 out of 299 housing units were in the form of boats or RV's. Therefore, to the extent that the Census data is accurate, houseboats, along with work-live spaces, likely account for the majority of housing units in this Subarea.



Source: Alameda County Assessor's Office win2data 2009

Existing Land Use: Residential

April 7, 2009

Subarea Boundaries

Residential Uses

Other

Vacant Lot

Single Family Residential

2, 3, 4-Plex Dwelling

Multi-Family Dwelling

Condominium

CITY OF OAKLAND

CENTRAL ESTUARY PLAN

A Vision for Oakland's Waterfront

COMMUNITY DESIGN + ARCHITECTURE

REGION • CITY • NEIGHBORHOOD • BUILDING

Tenure

As shown in Table 8.3, in 2000, the overall rate of homeownership within the Plan Area is somewhat lower than the rest of Oakland, (slightly more than 1/3 of occupied housing units). However, this statistic was highly variable among the Subareas. In 2000, only 16 percent of housing units were owner occupied in the West Subarea, whereas 64 percent of housing units were owner occupied in the Central-East Subarea.

Table 8.3: Tenure of Occupied Housing Units, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Renter	59	84%	154	74%	21	36%	235	70%	88,301	59%
Owner	11	16%	53	26%	37	64%	103	30%	62,489	41%
Total	70	100%	207	100%	58	100%	338	100%	150,790	100%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Since 2000, all new housing construction in the Plan Area has been in the form of condominiums. Thus, although a portion of these may be rented, it is likely that the owner-occupancy rate of the Central-West Subarea has increased substantially.

Housing Types

Table 8.4 provides an estimate of the building types in which residents of the Plan Area live.[2] Overall, roughly a third of housing units are in the form of single-family attached homes, such as duplexes and townhouses. These are far more common in the Central-East and Central-West Subareas than in the West Subarea. Another third of the housing units in the Plan Area are within small-medium sized multifamily buildings, with three to nineteen units. These are approximately evenly distributed among the three subareas with residential populations. The remaining 36 percent of housing units are widely distributed in a variety of building types. Especially noteworthy, however, is that within the block group that contains the West Subarea, 17 percent of housing units are located in boats, RV's, or vans; given the presence of the marinas in the subarea, boats likely account for the majority of these units. This, coupled with the presence of work/live spaces, helps account for the presence of a residential population even in the subareas that have limited residential land uses.

[2] This data reflects block groups and thus is not comparable to the block level data presented above.

Table 8.4: 2008 Est. Housing Units by Units in Structure

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Single Family, Detached	14	3%	0	0%	25	10%	39	4%	6,785	4%
Single Family, Attached	74	18%	133	39%	114	47%	321	32%	71,667	45%
2 Units	80	19%	8	2%	7	3%	95	9%	11,757	7%
3-19 Units	138	33%	108	32%	75	31%	321	32%	41,060	26%
20-49 Units	43	10%	626	18%	22	9%	127	13%	15,123	9%
50 or More Units	0	0%	27	8%	0	0%	27	3%	13,171	8%
Mobile Home	0	0%	0	0%	0	0%	0	0%	362	0%
Boat, RV, or Van	71	17%	0	0%	0	0%	71	7%	121	0%
Total Units	420	100%	338	100%	243	100%	1,001	100%	160,046	100%

Source: 2008 Claritas; Strategic Economics, 2009.

Age of Housing

Table 8.5 illustrates how residential development has varied by Subarea.[3] Overall, a much larger share of housing in the Plan Area has been constructed from 1999-2008 than in Oakland as a whole. However, the vast majority of housing that was not constructed recently was built prior to 1970, with more than 25% built before 1940. In the Central-East Subarea, only 6 units have been built since 1969, reflecting a shift to a primarily industrial area. The other two Subareas have transitioned toward residential uses, with a large spike in housing production from 1999-2008. The block group used for the Central-West Subarea is coterminous with its actual boundaries, meaning these data reflect new housing within the Plan Area. However, in the West, much of this development is probably accounted for by the block group geography, which includes residential neighborhoods not within the Plan Area boundaries. Nonetheless, the increase in new housing in areas immediately adjacent to the West Subarea suggests the potential for future interest in new housing construction within this area.

Table 8.5: Year Housing Units Were Built, 2008

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
1999 to 2008	128	30%	125	37%	0	0%	253	25%	10,529	7%
1970 to 1998	52	12%	48	14%	6	2%	106	11%	30,497	19%
1940 to 1969	121	29%	86	25%	171	70%	378	38%	66,685	42%
1939 or Earlier	119	28%	79	23%	66	27%	264	26%	52,335	33%
Total Units	420	100%	338	100%	243	100%	1,001	100%	160,046	100%

Claritas; Strategic Economics, 2009.

Overcrowding

The Plan Area has a high degree of overcrowding in comparison to Oakland as a whole. Table 8.6 illustrates the proportion of households living in overcrowded conditions. Overcrowding, as defined by the U.S. Department of Housing and Urban Development (HUD), is greater than 1.01 people per habitable room. In 2000, 32 percent of households in the Plan Area lived in overcrowded conditions while only 16 percent of Oakland households lived in overcrowded conditions. The distribution of overcrowding was varied across the Plan Area. The Central-East Subarea experienced the highest rate of overcrowding (48 percent) and the Central West Subarea had the least degree of overcrowding (17 percent).

[3] This data reflects block groups and thus is not comparable to the block level data presented above.

Table 8.6: Overcrowding, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
1 Person or Less/Room	205	69%	180	83%	120	52%	505	68%	126,384	84%
More than 1 Person/Room	94	31%	38	17%	110	48%	242	32%	24,403	16%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Race

The Central Estuary Plan Area is racially and ethnically diverse. In 2000, the largest ethnic group was Hispanic, with 49 percent of the overall population; this is more than twice this group's share of the population in Oakland as a whole (Table 8.7). This reflects the demographic ties that the Plan Area continues to have to the Fruitvale and Lower San Antonio neighborhoods to its northeast. Thirty (30) percent of the Plan Area's population was Non-Hispanic White, which is also a somewhat greater share than in Oakland. Non-Hispanic Blacks (12 percent) and Non-Hispanic Asians (seven percent) make up the remainder of the population that identifies with a single race; each of these represents a substantially smaller portion of the population of the Plan Area than of the city as a whole.

Table 8.7: Race/Ethnicity, 2000

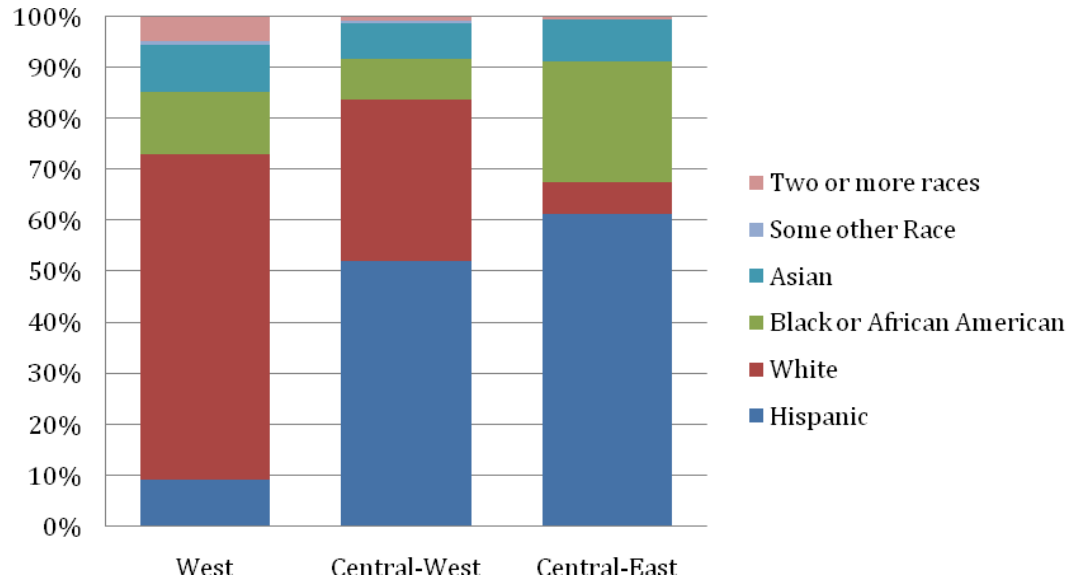
	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Non Hispanic										
White	69	64%	188	32%	13	6%	*272*	30%	93,953	24%
African American	13	12%	47	8%	50	24%	*112*	12%	140,139	35%
Asian	10	9%	41	7%	17	8%	*68*	7%	60,393	15%
Other	1	1%	3	1%	0	0%	*4*	0%	4,566	1%
Two or more races	5	5%	5	1%	1	0%	*13*	1%	12,966	3%
Hispanic	10	9%	309	52%	128	61%	*447*	49%	87,467	22%
Total	108	100%	593	100%	209	100%	916	100%	399,484	100%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Like population density, the distribution of race was highly uneven in the Plan Area. Relative to the other Subareas, a much larger share of residents in the West Subarea were Non-Hispanic White and much

lower shares of residents were Hispanic or Non-Hispanic Black (Figure 8.4). This may reflect a greater physical isolation of the West Subarea from the neighborhoods on the other side of the I-880, and may suggest a closer demographic relationship to the areas further northwest, along the waterfront. The racial compositions of the Central-West and Central-East Subareas are more alike, with Hispanics and Non-Hispanic Asians composing similar shares of the population. However, a substantially larger percentage of residents are Non-Hispanic White, and a substantially smaller share is Non-Hispanic Black, in the Central-West Subarea than in the Central-East Subarea.

Figure 8.4: Race and Ethnicity, 2000

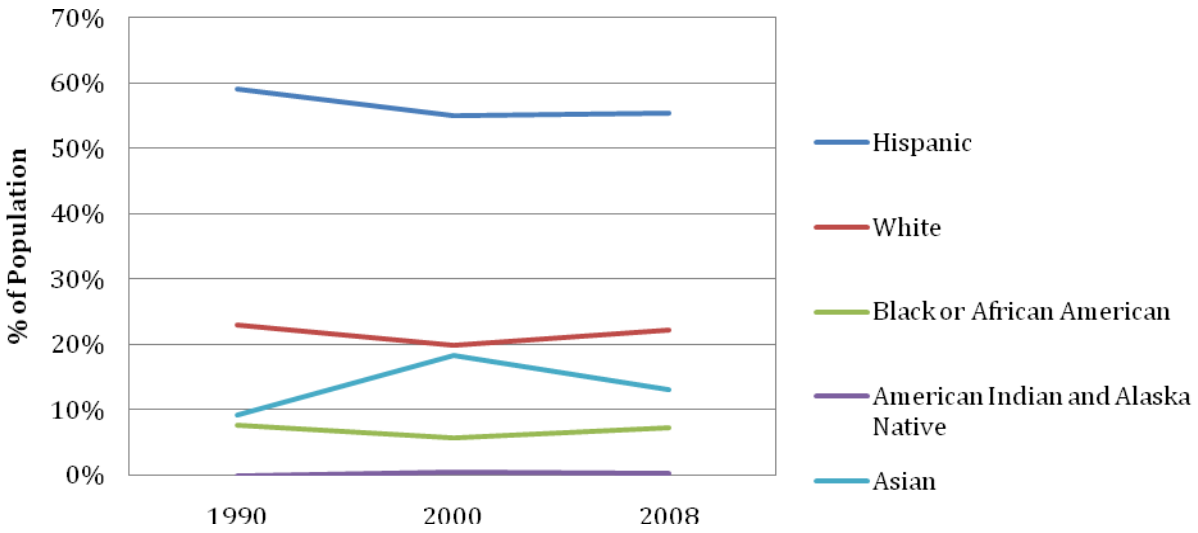


Source: 2000 U.S. Census; Strategic Economics, 2009.

From 1990-2008, the Census data and Claritas projections indicate that the racial and ethnic composition of the Plan Area was fairly stable, with only moderate fluctuations in the share of Non-Hispanic Asians and Non-Hispanic Whites and a slight decline in the share of Hispanics[4] (Figure 8.5).

[4] Neither 1990 nor 2008 data is available at the block level. Consequently, all time-series data uses block-group data, which includes several blocks that do not fall within the Plan Area. As a result, this data will not match that presented in the previous tables.

Figure 8.5: Race and Ethnicity in the Plan Area



Source: 2000 U.S. Census; Strategic Economics, 2009.

Place of Birth and Language Spoken

With respect to place of birth, a far greater proportion of the Plan Area population was born outside the United States than in Oakland overall (Table 8.8). In 2000, 44 percent of the Plan Area population was foreign-born as compared to 27 percent in Oakland. The percentage of foreign-born was relatively constant across all the Subareas with 40 percent of West Subarea residents, 47 percent of Central-West Subarea residents and 44 percent of Central-East Subarea residents being foreign-born. Table 8.9 illustrates data of on language spoken among the resident population. While only 13 percent of Oakland residents do not speak English well or at all, the proportion of the Plan Area population that does not speak English well or at all is twice that at 26 percent. Central-East and Central-West Subarea residents have higher proportions of the population not speaking English well or at all in comparison to Central Subarea residents.

Table 8.8: Foreign and Native Born Population, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Foreign-born	324	40%	313	47%	420	44%	1057	44%	106,116	27%
Native-born	478	60%	349	53%	535	56%	1362	56%	293,361	73%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Table 8.9: Non-English Speaking Population, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Speaks Only English, Speaks English Very Well or Well	609	79%	454	71%	571	71%	1634	74%	323,137	87%
Speaks English Not Well or Not at All	162	21%	183	29%	230	29%	575	26%	48,414	13%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Age Distribution

In 2000, the share of the population composed of fewer children and seniors was considerably smaller in the Plan Area than in the city of Oakland as a whole (Table 8.10). Children and seniors were an especially small portion of the population of the West Subarea, representing only six and two percent of residents, respectively. This suggests that the Central-West and Central-East Subareas have historically been family-oriented neighborhoods, where children are raised and seniors age-in-place. In comparison, the West is home to more to singles and childless couples. This is reinforced by the household structure data below.

Table 8.10: Youth and Seniors, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Less than 18 Years	6	6%	126	21%	55	26%	188	24%	99,759	25%
18-64 Years	100	93%	441	74%	138	66%	682	71%	257,937	65%
More than 64 Years	2	2%	26	4%	16	8%	46	5%	41,788	10%
Total	108	100%	593	100%	209	100%	916	100%	399,484	100%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Household Structure

While household structure in the Plan Area approximated that of Oakland as a whole in 2000, this assessment masks a large disparity among the residential Subareas. Of the 70 households living in the West Subarea, only 14 (20 percent) were families and, of these, only 4 were living with their own children. In comparison, in the Central-East Subarea, 48 out of 58 households (82 percent) were families, including 24 that were living with their own children. The Central-West Subarea was between these two poles, with a nearly 50-50 split between families and non-families, and with 25 percent of households living with their own children (Table 8.11).

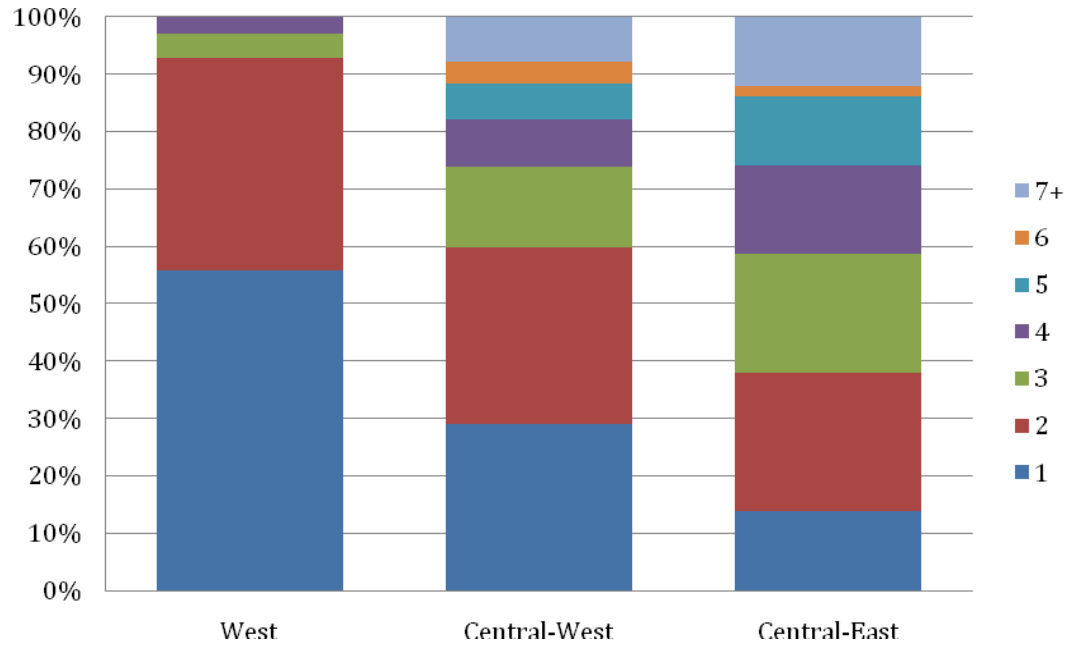
Table 8.11: Household Type, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Non-Family	56	80%	107	52%	10	17%	173	51%	64,443	43%
Family with own children	4	6%	49	24%	24	41%	78	23%	43,152	29%
Family not with own children	10	14%	51	25%	24	41%	87	26%	43,195	29%
Total Households	70	100%	207	100%	58	100%	338	100%	150,790	100%

Source: 2000 U.S. Census; Strategic Economics, 2009.

A similar pattern emerges when looking at household size. A much greater share of households in the West are composed of a single person, compared to the other two Subareas. Likewise, a much smaller share of households in this area are composed of more than two people, while there are no households with more than four people (Figure 8.6). These patterns are likely a reflection of the housing options that were available in 2000, with single family homes dominant in the Central-West and Central-East Subareas, and houseboats and industrial spaces the norm in the West. It is highly likely that with the additional condominiums constructed in the Central-West since 2000, a higher percentage of these residents are in small households without children.

Figure 8.6: Household Size



Source: 2000 U.S. Census; Strategic Economics, 2009.

Income

According to Claritas estimates, the median household income for the Plan Area was slightly below that of the city of Oakland in 2008.[5] However, households in the Central-West Subarea earned more, on average, than both other residential Subareas and the city of Oakland (Table 8.12).

Table 8.12: Median Household Income, 2008

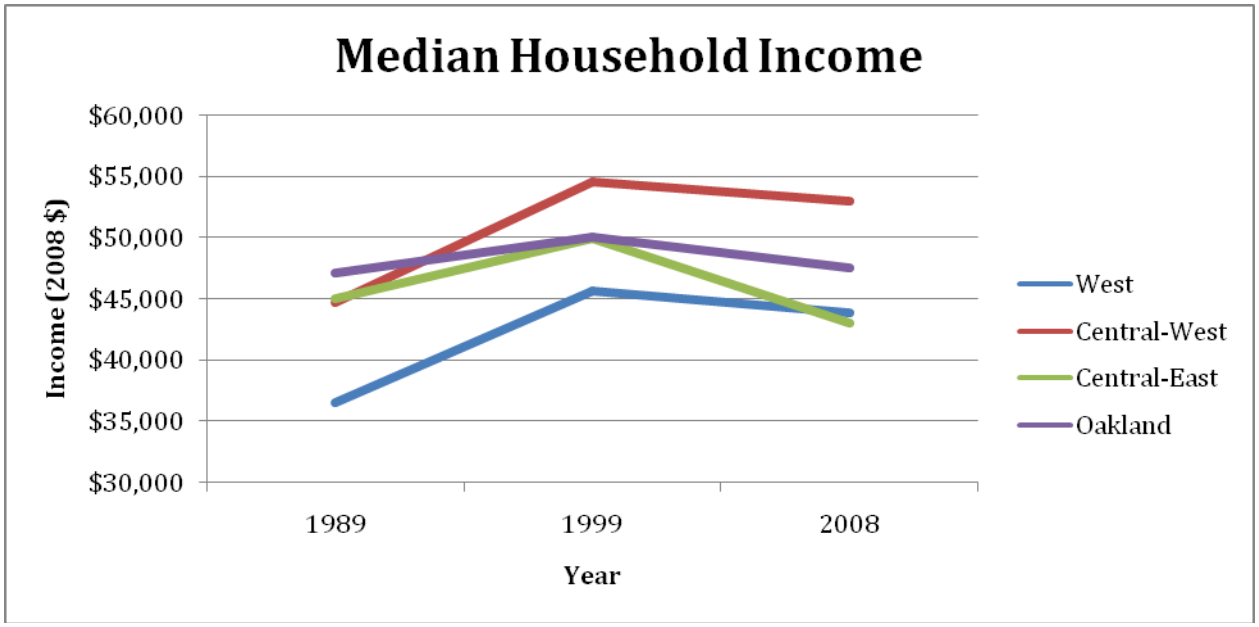
West	Central-West	Central-East	Planning Area	Oakland
$43,870	$53,024	$43,077	$45,550	$47,571

Source: 2008 U.S. Census; Strategic Economics, 2009.

[5] Income data is not available at the block level. Therefore, these data include several blocks that do not fall within the Plan Area.

Since 1990, incomes in the Plan Area have varied in roughly the same pattern as the rest of Oakland, with real incomes rising substantially from 1990 to 2000, then falling somewhat from 2000 to 2008 (Figure 8.7).

Figure 8.7: Median Household Income



Source: 2000 U.S. Census; Strategic Economics, 2009.

Table 8.13, below, shows the distribution of household incomes in the Plan Area and in Oakland in 2008. That year, 71 percent of households in the Plan Area would qualify as low income or below, earning less than 80 percent of the Alameda County Area Median Income (AMI) of $88,100 (less than $68,880). This is a slightly higher share than in the rest of Oakland, where 65 percent of households were low-income or below. Within the Plan Area, the low-income households includes the 46 percent that would qualify as very low-income or below (less than $43,050) and 21 percent that would qualify as extremely low income (less than $25,080).

Within the Plan Area, each Subarea has a unique distribution of incomes. The West Subarea has a large concentration of very low income households, and another concentration of households earning at least $150,000, but with very few households in the middle-income ranges. The Central-West Subarea is much more diverse, with a wide, and fairly even spread of incomes. Both of these findings are consistent with areas that were primarily composed of lower income households prior to influxes of markedly higher-income residents. Many of these residents moved into newly constructed units, so they did not directly displace the existing, lower-income residents. However, these patterns are an early predictor of gentrification, as will be discussed later in this profile. In contrast, the Central-East is almost entirely composed of lower income households, with only 10% of households earning more than the Area Median Income. This, coupled with the disproportionate decrease in median income from 1999-2008, suggests that households in this area are under no such gentrification pressure.

Table 8.13: Household Income Distribution, 2008

	West		Central- West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Less than $25,000	69	19%	70	23%	37	16%	176	20%	41,244	27%
$25,000 - $49,999	151	42%	76	25%	93	41%	320	36%	37,799	25%
$50,000 - $74,999	56	16%	61	20%	61	27%	178	20%	25,303	17%
$75,000 - $99,999	23	6%	50	16%	26	12%	99	11%	16,135	11%
$100,000 - $149,999	14	4%	35	11%	8	4%	57	6%	17,269	11%
$150,000 - $249,999	38	11%	4	1%	0	0%	42	5%	9,201	6%
$250,000 and more	5	1%	10	3%	0	0%	15	2%	3,975	3%
Total Households	356	100%	306	100%	225	100%	887	100%	150,926	100%

Source: Claritas; Strategic Economics, 2009.

Poverty

The proportion of households living in poverty provides another measure of economic burden in the Plan Area (Table 8.14). Determined by the U.S. Census Bureau, poverty is measured by using forty-eight thresholds that vary by family size, number of children within the family and age of the householder. In 2000, a lower proportion of families in the Plan Area lived in poverty in comparison to Oakland (18 percent and 23 percent, respectively). Poverty by Subarea varied little across the Plan Area with a range of 17 percent of households in poverty line in the West Subarea, 18 percent in the Central-West Subarea and 19 percent in the Central-East Subarea. Given the significant debate regarding the poverty threshold and how it is measured, the income distribution data presented above present a far more nuanced and accurate representation of low income burden within the Plan Area.

Table 8.14: Poverty Status, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Below the Poverty Line	127	17%	114	18%	156	19%	397	18%	88,272	23%
At or Above the Poverty Line	629	83%	526	82%	671	81%	1826	82%	289,950	77%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Housing Cost Burden

The federal government defines households that spend more than 30 percent of their income on their homes as cost-burdened. The U.S. Census collects data on percentage of household income spent on gross rent, defined as the contract rent plus the estimated average monthly cost of utilities and fuels. Table 8.15 illustrates housing cost burden on renters living in the Plan Area. Overall, a lower percentage of renter households in the Plan Area are cost-burdened than in Oakland (39 percent and 42 percent respectively). However, the variation is more striking when disaggregated at the Subarea level. For example, renter households in the Central-West Subarea experience the highest degree of housing cost burden with just over half of renters paying greater than 30 percent of their income on rent. The Central-East Subarea has the lowest proportion of cost burden with only 27 percent of renter households paying greater than 30 percent of income on gross rent. Because this data is nearly a decade old, and because a majority of new ownership housing in the Plan Area has been built in the past several years, assessing cost burden on homeowner households yields less valid data.

Table 8.15: Housing Cost Burden, 1999

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Renters spending greater than 30% of income on gross rent	80	38%	90	51%	44	27%	214	39%	37,268	42%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Educational Attainment

In 2008, according to Claritas projections, shown in Table 8.16, residents in the Plan Area had much lower levels of educational attainment than the rest of Oakland.[6] Although the patterns among the Subareas vary considerably, all three Subareas have a higher percentage of residents who lack a high school diploma than Oakland as a whole. It is noteworthy, however, that while a greater share of residents in the West Subarea lack a high school diploma than in the rest of the city, there is also a higher rate of attainment of advanced degrees. This is consistent with the polarization of incomes in this Plan Area, as discussed above.

[6] Educational attainment data is not available at the block level. Therefore, these data include several blocks that do not fall within the Planning Area.

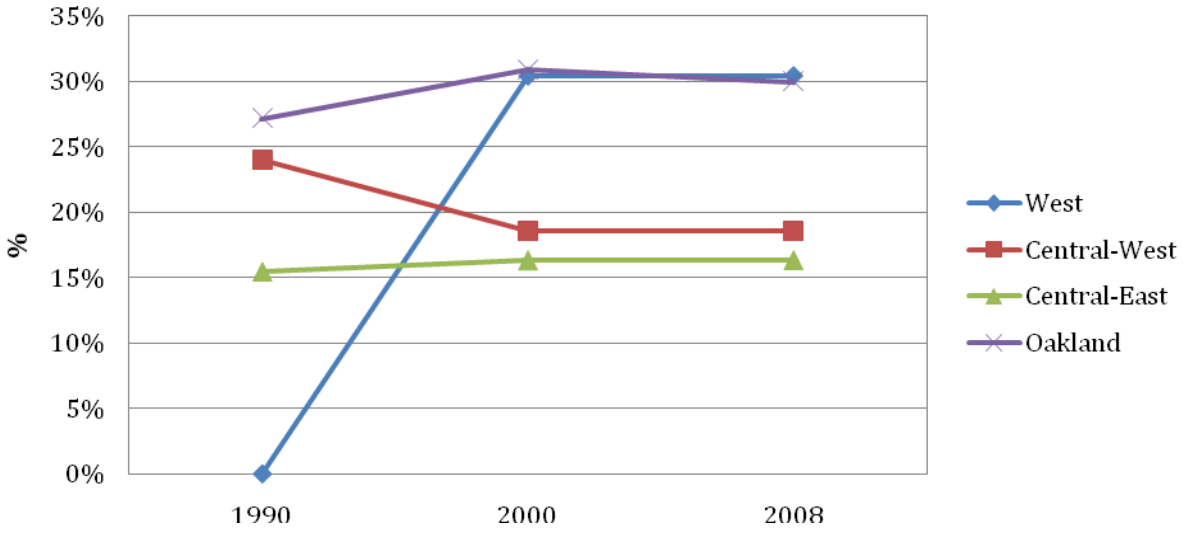
Table 8.16: Educational Attainment of Population Age 25+, 2008

	West		Central- West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
No High School Diploma	208	30%	262	44%	282	56%	752	42%	72,157	27%
High School Diploma	98	14%	76	13%	56	11%	230	13%	48,132	18%
Some College	176	25%	152	25%	82	16%	410	23%	68,687	25%
Bachelors Degree	104	15%	63	10%	71	14%	238	13%	47,446	18%
Advanced Degree	107	15%	49	8%	11	2%	167	9%	33,503	12%
Total Pop. Age 25+	**693**	**100%**	**602**	**100%**	**502**	**100%**	**1,797**	**100%**	**269,925**	**100%**

Source: Claritas; Strategic Economics, 2009.

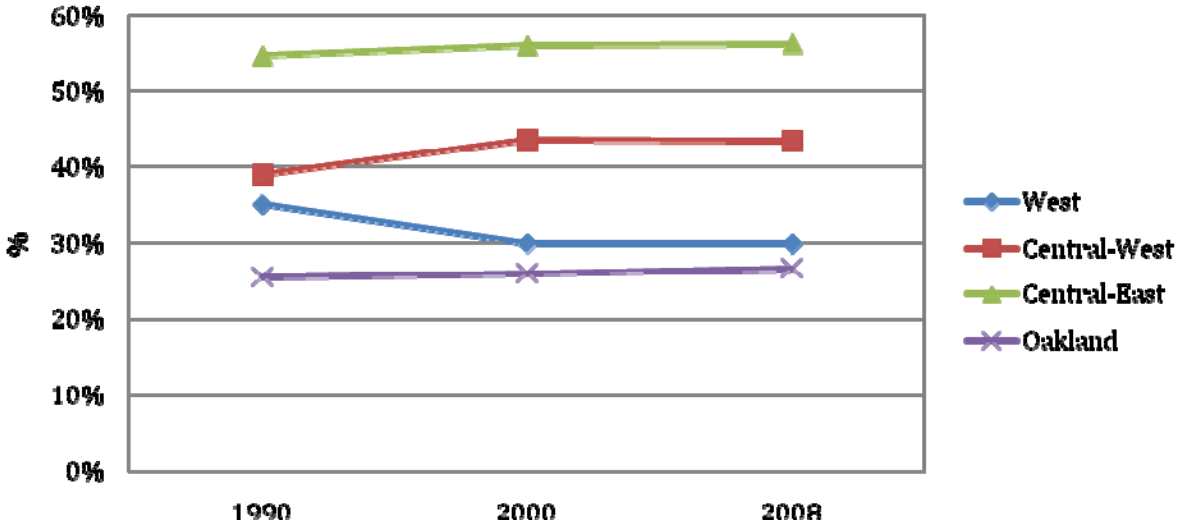
From 1990-2008, the most significant change in educational attainment within the Plan Area was the dramatic increase in the percent of West Subarea residents who had a Bachelors degree or more (Figure 8.9). In 1990, no residents of this Subarea had attained either an advanced degree or a BA; by 2000, more than 30 percent of residents had such a degree, bringing it up to the city average and well above the rates in either of the other two Subareas. In the same period, the percentage of West Subarea residents lacking a high school diploma fell moderately (Figure 8.10). This, in concert with the increase of median incomes during this period, suggests that there was notable shift in the demographic character of this Subarea from 1990-2000. While these Claritas projections show no major change in educational attainment from 2000-2008 in any Subareas, this may not accurately reflect the composition of the residents of the recently constructed condominiums in the Central-West Subarea, who are likely to be more highly educated than other residents, based on their apparent higher incomes.

Figure 8.9: Population with a BA or More



Source: 1990 & 2000 U.S. Census; Claritas; Strategic Economics, 2009.

Figure 8.10: Population Lacking a High School Diploma



Source: 1990 & 2000 U.S. Census; Claritas; Strategic Economics, 2009.

Employment Status

Although the overall unemployment and labor force participation rates for the Plan Area were comparable to that of Oakland in 2008, this varies dramatically among the residential Subareas.[7] Both the West and Central-West Subareas had lower unemployment rates than that of Oakland. However, at 20 percent, the Central-East Subarea had more than double the unemployment rate of the rest of the city. This, when coupled with a much lower labor force participation rate, means that only 38 percent of residents over the age of 16 in this Subarea were employed, compared to 56 percent for Oakland as a whole (Table 8.17).

[7] Employment data is not available at the block level. Therefore, these data include several blocks that do not fall within the Planning Area.

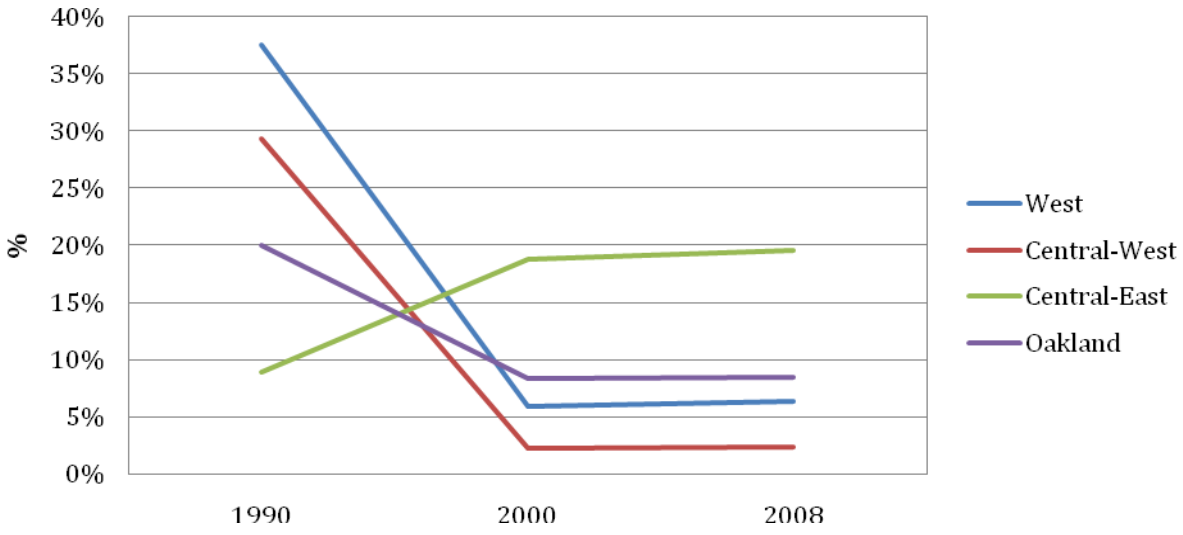
Table 8.17: Employment Status, 2008

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
In Labor Force	422	67%	356	62%	314	48%	1,092	58%	192,970	61%
In Armed Forces	0	0%	0	0%	0	0%	0	0%	72	0%
Employed	397	94%	348	98%	252	80%	997	91%	176,535	91%
Unemployed	25	6%	8	2%	62	20%	95	9%	16,363	8%
Not In Labor Force	212	33%	220	38%	345	52%	777	42%	121.747	39%
Total Labor Force	1,056	100%	932	100%	973	100%	2,961	100%	507,687	100%

Source: Claritas; Strategic Economics, 2009.

The unemployment rate in the Plan Area changed profoundly from 1990-2000. In 1990, unemployment rates in the West and Central-West were 38 percent and 29 percent, respectively; by 2000, however, both had fallen to single-digits (Figure 8.11). While Oakland as a whole experienced a significant drop in unemployment during this period, these Subareas started with much higher rates of unemployment and ended with much lower rates than the rest of the city. The Central-East Subarea moved in the opposite direction, however, starting with a nine percent unemployment rate in 1990 and rising to 19 percent in 2000. From 2000 to 2008, Claritas estimates that none of these areas experienced significant change in employment status.

Figure 8.11: Unemployment Rate, 1990 to 2008



Source: 1990 & 2000 U.S. Census; Claritas; Strategic Economics, 2009.

Occupations

As with most of the previous factors, the occupations of residents in the Central Estuary Plan Area closely mirror those of Oakland as a whole.[8] Among Subareas, there is also a high degree of variability, which closely matches the pattern displayed in the educational attainment data presented above. In 2008, the residents in the West Subarea worked primarily in white-collar jobs, with 67 percent in either Management/Professional occupations or Sales and Office occupations. The share of residents in these occupations declined moving eastwardly, with 57 percent of Central-West Subarea residents in these jobs and 40 percent of Central-East Subarea residents. Similarly, the share of residents employed in blue-collar jobs (Construction, extraction, and maintenance and Production, transportation, and material moving) increased moving from west to east: 14 percent of West Subarea residents, 30 percent of Central-West Subarea residents, and 37 percent of Central-East Subarea residents were employed in these jobs (Table 8.18).

[8] Occupation data is not available at the block level. Therefore, these data include several blocks that do not fall within the Plan Area.

Table 8.18: Occupations, 2008

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Management, professional, and related occupations	194	38%	158	38%	69	29%	421	36%	68,007	39%
Management, business, and financial operations	84	17%	57	14%	15	6%	156	13%	24,718	14%
Professional and related occupations	110	22%	101	24%	54	22%	265	23%	43,289	25%
Service occupations	95	19%	47	11%	57	24%	199	17%	28,182	16%
Sales and office occupations	144	29%	80	19%	27	11%	251	22%	44,482	25%
Farming, fishing, and forestry occupations	0	0%	7	2%	0	0%	7	1%	361	0%
Construction, extraction, and maintenance	25	5%	35	8%	45	19%	105	9%	13,311	8%
Production, transportation, and material moving	46	9%	92	22%	44	18%	182	16%	22,192	13%
Total Workforce	504	100%	419	100%	242	100%	1,165	100%	176,535	100%

Source: 2000 U.S. Census; Strategic Economics, 2009.

Vehicle Ownership

Household vehicle availability and number of vehicles available per household are indicators of the expense invested in automobiles and indirect indicators of the use of automobiles for travel. Table 8.19 illustrates that a greater percentage of Plan Area households have access to at least one vehicle when compared to Oakland as a whole (88 percent and 80 percent, respectively). The rates vary significantly by Subarea however; for example, virtually all Central-West households have at least one vehicle available (97 percent) while rates of ownership are actually below the city average in the West Subarea (70 percent).

Table 8.19: Vehicle Ownership, 2000

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Proportion of households with at least one vehicle available	227	76%	211	97%	208	90%	957	88%	121,203	80%

Source: 2000 U.S. Census; CirclePoint, 2009.

Journey To Work

Residents of the Central Estuary Plan Area, on average, had shorter commutes than other Oakland residents in 2008 (Table 8.20).[9] This is especially marked in the share of residents who travel less than fifteen minutes to their workplace: only 17 percent of Oakland workers had a commute of this length compared to 26 percent of the Plan Area workers. This difference was especially great for residents of the Central-East Subarea, where 40 percent of residents spend less than 15 minutes on their commutes to work. In contrast, residents of the West Subarea were far more likely to commute for at least 45 minutes than the other two Subareas.

[9] Journey to work data is not available at the block level. Therefore, these data include several blocks that do not fall within the Plan Area.

Table 8.20: Travel Time to Work, 2008

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Less than 15 Min.	126	25%	72	18%	97	40%	292	26%	29,953	17%
15-29 Min.	171	34%	155	38%	44	18%	370	32%	57,377	33%
30-44 Min.	58	12%	93	23%	69	29%	220	19%	38,284	22%
45-59 Min.	61	12%	24	6%	6	2%	91	8%	17,925	10%
60 Min. or More	50	10%	34	8%	11	5%	95	8%	21,748	13%
Work from Home	33	7%	31	8%	15	6%	79	7%	6,901	4%
Total Workers	499	100%	409	100%	242	100%	1,150	100%	172,188	100%

Source: Claritas; Strategic Economics, 2009.

Despite having shorter commutes, the mode split for residents of the Plan Area was very similar to the rest of Oakland (Table 8.21). Residents of the Central-West Subarea. However, were far more likely to carpool or take public transit than residents of other areas.

Table 8.21: Means of Transportation to Work, 2008

	West		Central-West		Central-East		Plan Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
Drive Alone	310	62%	155	38%	152	63%	617	54%	95,005	55%
Car Pool	76	15%	86	21%	6	2%	168	15%	28,962	17%
Public Transportation	58	12%	89	22%	31	13%	178	15%	30,108	17%
Bike/Ped	22	4%	35	9%	20	8%	77	7%	8,542	5%
Other	0	0%	13	3%	18	7%	31	3%	2,670	2%
Work from Home	33	7%	31	8%	15	6%	79	7%	6,901	4%
Total Workers	499	100%	409	100%	242	100%	1,150	100%	172,188	100%

Source: Claritas; Strategic Economics, 2009.

In 2006, through its Longitudinal Employer-Household Dynamics analysis, the U.S. Census Bureau identified the workplaces of 332 of the workers living within the Plan Area. As shown in Tables 8.22 and 8.23, Of these, 107 (32 percent) work in Oakland, while another 48 (14 percent) work in San Francisco, 16 (5 percent) work in San Leandro, and 11 (3 percent) work in Alameda. In all, 76 percent of Central

Estuary residents work in Alameda (52 percent), San Francisco (14 percent), or Contra Costa (10 percent) Counties.

Table 8.22: Job Counts in Cities where Plan Area Residents are Employed, 2006

	Count	Share
Oakland, California	107	32.2%
San Francisco, California	48	14.5%
Berkeley, California	19	5.7%
San Leandro, California	16	4.8%
Alameda, California	11	3.3%
Sacramento, California	7	2.1%
Walnut Creek, California	6	1.8%
San Jose, California	6	1.8%
San Rafael, California	5	1.5%
Hayward, California	5	1.5%
All Other Locations	102	30.7%
Total	332	100.0%

Source: LEHD 2006; Strategic Economics, 2009.

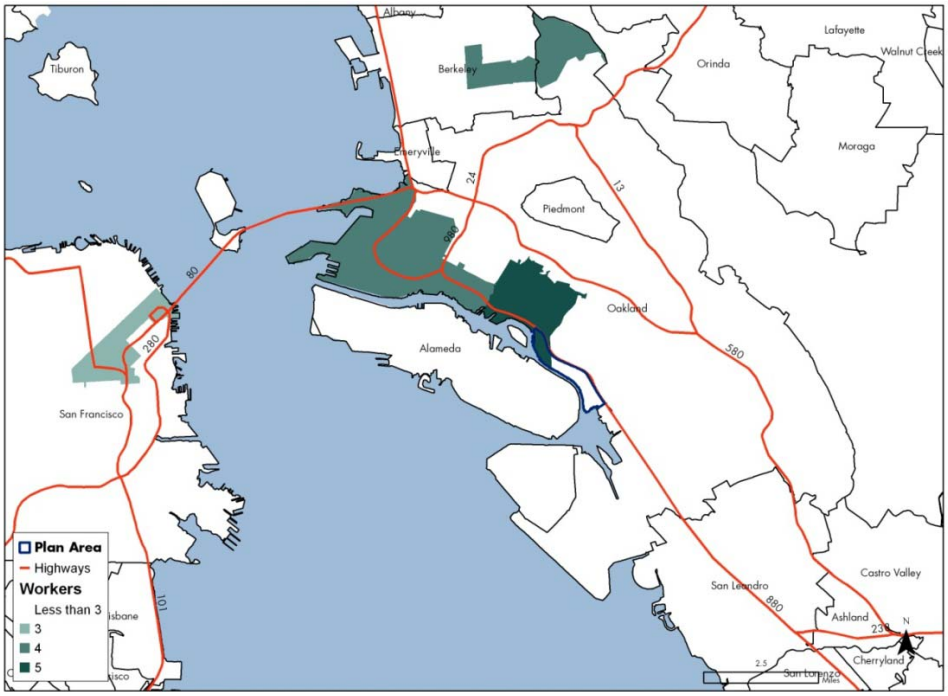
Table 8.23: Job Counts in Counties where Plan Area Residents are Employed, 2006

	Count	Share
Alameda Co., California	180	54.2%
San Francisco, Co., California	48	14.5%
San Mateo Co., California	26	7.8%
Contra Costa Co., California	25	7.5%
Santa Clara Co., California	13	3.9%
Marin Co., California	10	3.0%
Sacramento Co., California	9	2.7%
San Joaquin Co., California	4	1.2%
Monterey Co., California	4	1.2%
Sonoma Co., California	2	0.6%
All Other Locations	11	3.3%
Total	332	100.0%

Source: LEHD 2006; Strategic Economics, 2009.

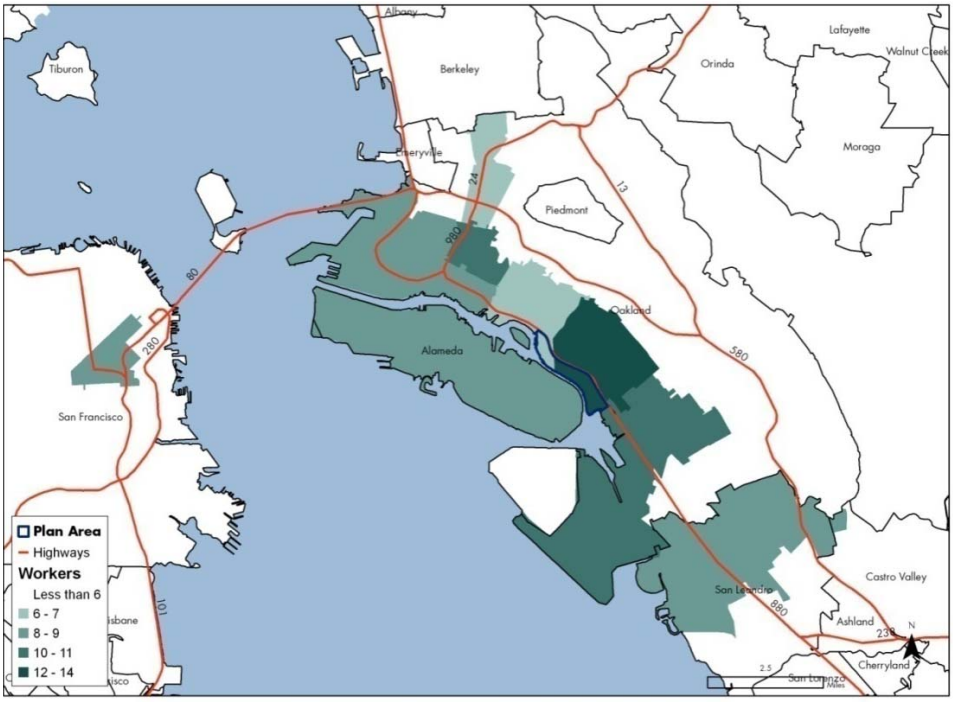
Figures 8.12 though 8.14 show the most common zipcodes for residents of each of the Subareas to work. These maps show that the destinations of workers in the West Subarea are significantly different than those of the Central-East and Central-West Subareas. All three Subareas have residents who work in the Western South of Market (SoMa) district of San Francisco and West Oakland/Jack London Square areas of Oakland. The West Subarea also has concentrations of residents who work in Downtown San Francisco, the area immediately around the campus of the University of California, Berkeley, and within the Subarea itself. These areas primarily offer white collar, professional jobs. In contrast, The vast majority of employment for residents of the Central-West and Central-East Subareas is in zipcodes in San Leandro, Alameda, West Oakland, and East Oakland, especially the zipcode in which these Subareas are located. These areas have much higher concentrations of blue collar, industrial-oriented jobs.

Figure 8.12: West Subarea- Where Residents Work



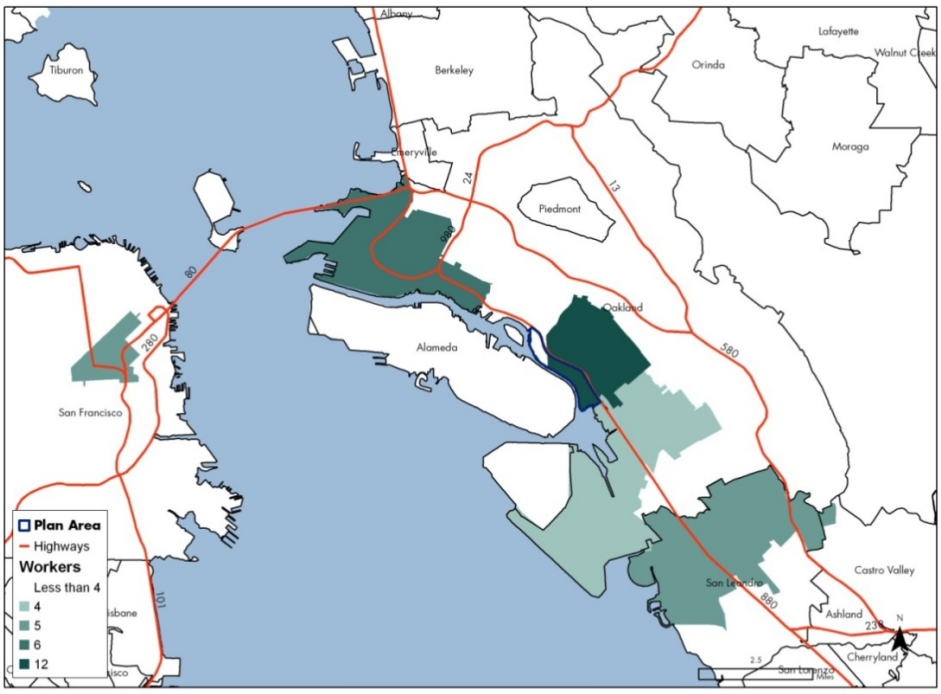
Source: LEHD 2006; ESRI; Strategic Economics, 2009.

Figure 8.13: Central-West Subarea- Where Residents Work



Source: LEHD 2006; ESRI; Strategic Economics, 2009.

Figure 8.14: Central-East Subarea- Where Residents Work



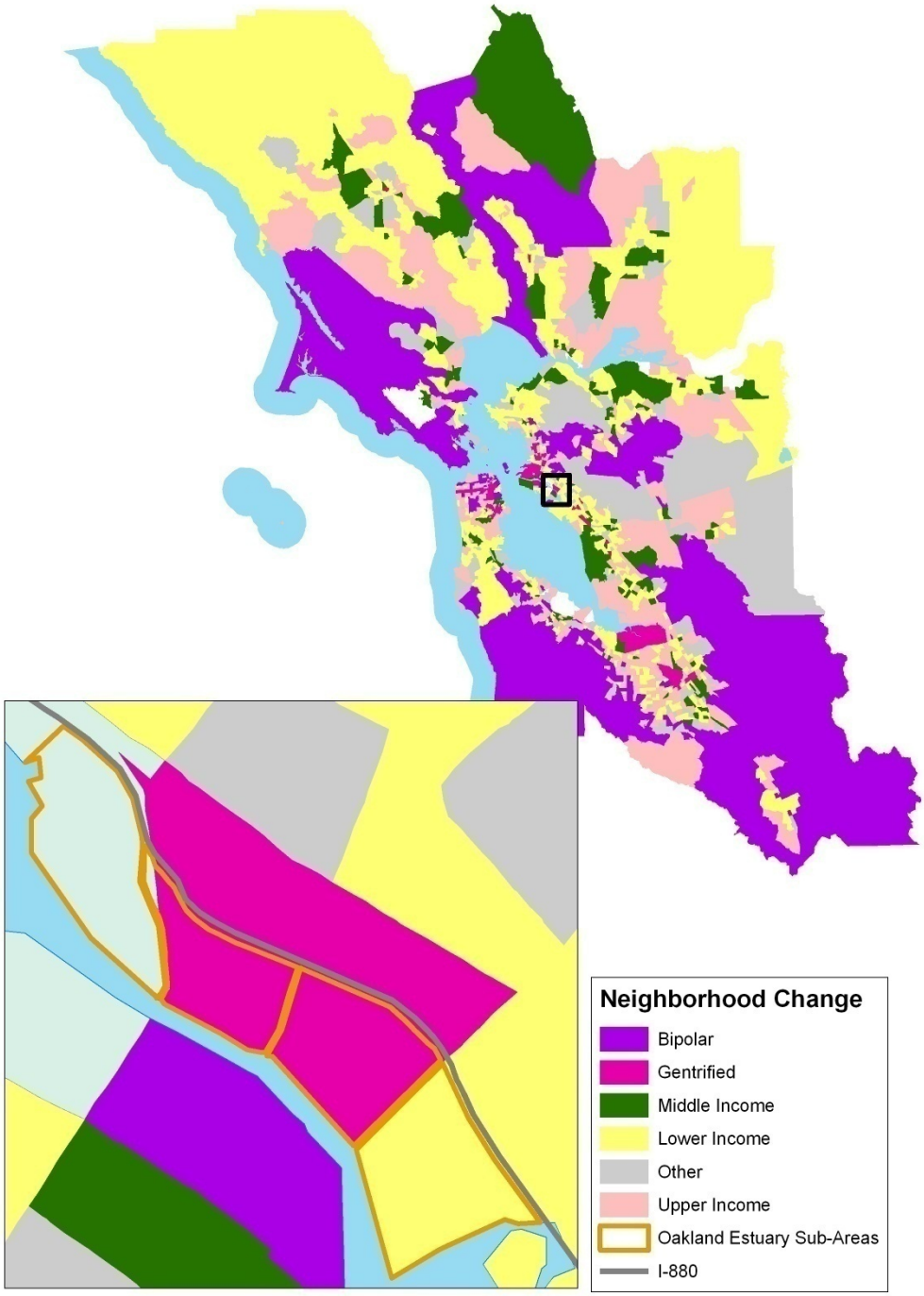
Source: LEHD 2006; ESRI; Strategic Economics, 2009.

Susceptibility to Displacement

Since it initially entered public discourse in the 1960s, the fear of gentrification has accompanied many planning efforts that seek to attract new investment to neighborhoods. In particular, there has been increasing concern over a particular form of gentrification, commonly referred to as "displacement." This is the process whereby a set of changes in neighborhood conditions compels existing residents to leave, usually to be replaced by new, more affluent residents. The causes of displacement are myriad, but often include the loss of subsidized housing units, rising housing costs, and loss of formal or informal social institutions.

The Center for Community Innovation (CCI), in conjunction with the Association of Bay Area Governments, has developed a Displacement Early Warning Tool Kit that helps predict the likelihood that displacement will occur in a given area. This Tool Kit was constructed by examining which neighborhoods around the Bay Area gentrified, from 1990 to 2000. Figure 8.15, below, is a map of these areas. Next, CCI determined which demographic, economic, physical, and political factors that most directly predicted these patterns. Finally, 2000 Census data was assessed to determine which neighborhoods exhibited these characteristics, suggesting that they would be more susceptible to gentrification in the future.

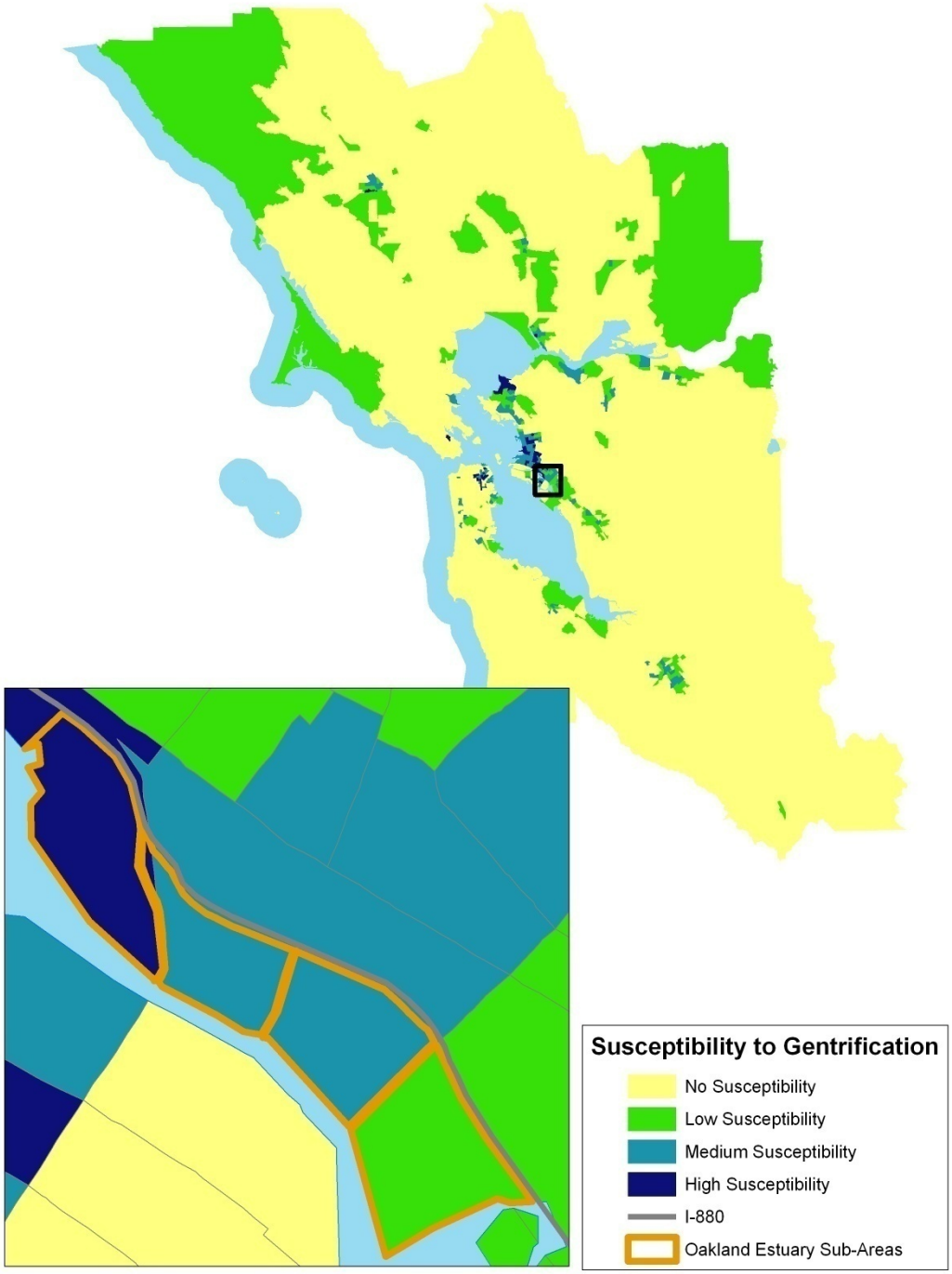
Figure 8.15: Neighborhood Change in the Bay Area, 1990-2000



Source: 2000 U.S. Census; ESRI; Center for Community Innovation, 2009.

Figure 8.16, below, is a map that depicts where susceptibility to gentrification is greatest in the Bay Area. It shows that, within the Plan Area, the West Subarea is highly susceptible to this type of neighborhood change. In fact, employment and education data, presented above, suggest that this gentrification has already been taking place since before 2000. The map marks the Central-West and Central-East Subareas as having "medium susceptibility." Indeed, while the residents of the new condominiums may not be displacing residents, their higher incomes and education levels could be implicit in a more benign form of gentrification. In the long-term, however, the changed character of the neighborhood may have an impact on the values of existing homes; given the low owner-occupancy rate in these areas, this may lead to displacement.

Figure 8.16: Susceptibility to Gentrification



Source: 2000 U.S. Census; ESRI; Center for Community Innovation, 2009.

A more thorough explanation of the methodology employed by this Tool Kit, along with a series of maps that display the data used to make the assessment of susceptibility to gentrification is contained in Appendix A.

Business Profile

Oakland's Central Estuary area is home to a range of uses, including offices, warehousing, and both light and heavy manufacturing. However, both these general types of uses and the industries that they support are highly concentrated within the Plan Area. As a consequence, each of the four Subareas has a distinct character:

- The West Subarea, which is home to more than half of the Plan Area's total employment, is a mix of uses, including mid-rise offices, mixed office-industrial spaces, both light- and heavy-industrial uses, and warehousing.
- The Central-West Subarea, with its small, urban block patterns, is a checkerboard of small-scale industrial spaces among the recently expanding residential uses. Many of these industrial spaces have been converted to work-live buildings, hosting small artisan businesses.
- The Central-East Subarea's land includes two very large parcels, including a 27-acre parcel occupied by a glass container factory and an 18-acre parcel occupied by two retail operators. Aside from a single residential street, the rest is occupied by industrial users, especially construction and automotive repair and servicing.
- Finally, the East Subarea is composed almost entirely of land-intensive industrial uses, including trucking, manufacturing, and the wholesale trade of heavy machinery.

The analysis below assesses business conditions, both in the Plan Area as a whole and within each subarea. Conditions of industry groups and individual industries, both in terms of number of establishments and of employment levels, are analyzed by spatial distribution and by change over time. Finally, the education level required and incomes supplied by occupations in the Plan Area are also assessed in order to determine the overall quality of jobs present. The results are based on a combination of quantitative analysis and interviews with business owners. A summary of key findings is provided, followed by the detailed results of the analysis.

Summary of Key Findings

- **Since 1990, Manufacturing has declined in the Plan Area, both in terms of the number of jobs, and the number of firms.** Despite this decline, however, manufacturing continues to account for more employment than any other industry group in three out of the four subareas.
- **After a sharp decline from 1990-1998, Services Industries grew steadily in employment from 1998 to 2007.** Key examples of these industries in the Plan Area are social services, security services, and architectural/engineering services. As of 2007, Services industries accounted for more employment than any other industry group in the Plan Area as a whole, as well as within the West Subarea. **However, this growth is almost entirely attributable to Alameda County Behavioral Health Services, which has 498 employees** (ten percent of the total employment in the Plan Area).
- **From 2001 to 2007, the total employment in the Plan Area shrank by 18 percent, even as the number of firms increased by three percent.** Consequently, the average size of establishments fell from 15.5 employees in 2001 to 12.4 in 2007. Representatives from businesses in the Plan Area indicate that this is partly attributable to manufacturing firms that have lost employment, but own their buildings and, thus, are less motivated to relocate.
- **According to business interviews, the primary reason that manufacturing and wholesale users are located in the Plan Area is logistical.** The area is both highly accessible to the

regional transportation network, including the highway, ports, and rail, and is in the geographical center of their market area. Office users report the location advantage as being in the geographical center of the labor market, as well as proximity to the amenities of Jack London Square and Alameda.

- **Two key industries reported growth in employment and number of firms from 2001 to 2007: the manufacture of food and related products and the wholesale trade of nondurable goods (such as food and paper products).** Representatives from these industries report that they like to be located close to similar businesses because they are a part of a "community." Nevertheless, they also report that they do not benefit economically from co-location. Instead, they are attracted to the area due to the efficiencies provided by high quality access to the transportation network.
- **Office-related employers most often cited lack of public transportation or lack of amenities within walking distance as the primary constraint for the Plan Area.**
- **Manufacturers most often cited encroaching residential uses as their primary concern.**
- **Partly because they tend to be dominated by a small number of large firms, the Plan Area's key industries tend to be clustered in only one of the four subareas.** 94 percent of Stone, Glass, and Concrete Products jobs are located in the Central-East (the location of Owens-Brockway); 100 percent of Social Services jobs are located in the West (the location of the Alameda County offices); 88 percent of Business Services jobs are located in the West (the location of ABC Security); 75 percent of Food and Kindred Products jobs are located in the West (the location of Earthgrains Baking).
- **In general, jobs in the Plan Area offer low to moderate wages, with 66 percent of these occupations paying between $25,000 and $60,000 a year. The vast majority of jobs (77 percent) in the Plan Area require On-the-job training or work experience rather than a college degree.** Since 2001, however, the vast majority of job losses have come in occupations that pay between $25,000 and $40,000 and do not require a college degree.
- **Most businesses interviewed expressed a strong preference for remaining in the immediate area**. However, some indicated that they would need to leave because their building no longer met their needs, and there are no other suitable spaces in the Plan Area or Oakland as a whole. Others indicated that they were considering moving because other cities were offering relocation incentives or because traffic on I-880 made commutes unacceptably long for employees.

Methodology and Data Limitations

The employment trend analysis presented in this section is primarily based on National Establishments Time Series (NETS) data from 1990-2007 and Dun & Bradstreet data from 2008. These data sources are based on survey data and subject to inconsistencies, especially when applied to small geographies, such as the Plan Area and its subareas. Nevertheless, if taken as approximations, the data provide important insights into the dynamics and character of employment generating uses in the Plan Area.

These data have been supplemented, and in some cases modified, with qualitative data drawn from interviews with representatives from key businesses in the Central Estuary Plan Area. Twenty-one such businesses were contacted, and 11 agreed to be interviewed. The response rate was disproportionately high among businesses in the Central-West and West Subareas, while only one business in the East Subarea and no businesses in the Central-East Subarea responded to requests to be interviewed. At least one of these businesses was from each of the following key industries: Food and Kindred Products;

Printing, Publishing, and Allied Industries; Fabricated Metal Products, Except Machinery & Transportation Equipment; Industrial and Commercial Machinery and Computer Equipment; Wholesale Trade-Durable Goods; Social Services; and Engineering, Accounting, Research, Management and Related Services. Key industries from which no representatives were interviewed included: Business Services; Automotive Repair, Services and Parking; Stone, Clay, Glass, and Concrete Products; Furniture and Fixtures; Wholesale Trade – Nondurable Goods; Construction – Special Trade Contractors; Heavy Construction, Except Building Construction – Contractors; Building Materials, Hardware, Garden Supply & Mobile Home Dealers; Insurance Agents, Brokers, and Service; and Motor Freight Transportation. Consequently, the qualitative data collected from these interviews should not be considered comprehensive or a reflection of all businesses in the Central Estuary Plan Area. While detailed results of these are confidential, major themes have been described in this analysis, as appropriate.

Plan Area 2007 Employment Profile

The following section makes use of NETS data, supplemented with interview data, to generate a "snapshot" of the business landscape in the Plan Area in 2007 (the most recent year for which NETS data is available). Businesses are assessed at the industry group level, including Service Industries; Manufacturing; Retail Trade; Wholesale Trade; Construction Industries; Transportation, Utilities, and Communication; and Public Administration. From these, seventeen key industries were selected for further analysis. These were chosen because they met one or more of the following criteria:

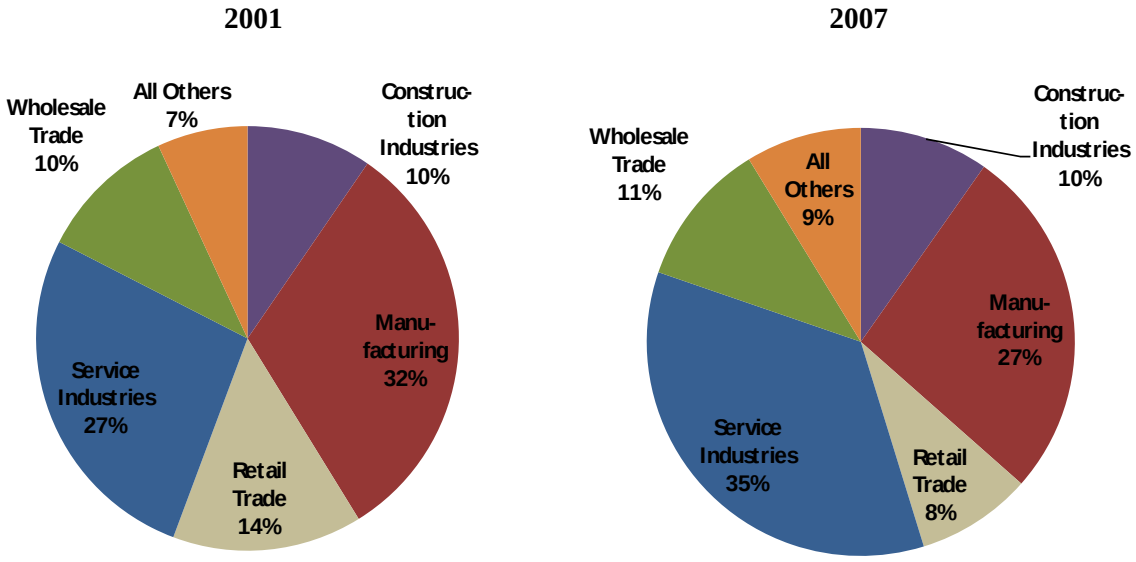
1) the industry represent a large share of Plan Area's employment;

2) the industry's employment levels within the Estuary changed dramatically from 1990 to 2007; or,

3) a large share of the industry's total employment in Alameda County is located in the Plan Area.

In 2007, there were approximately 4,796 jobs and 388 firms located in the Plan Area. Over 60 percent of employment falls into Service Industries or Manufacturing (Figure 1).

Figure 1: Plan Area Employment by Industry Group, 2001 and 2007



Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Table 1: Plan Area Employment Profile by Major Industry Group, 2007

Major Industry Group	Total Employment	Share of Total Employment	Total Firms	Share of Total Firms	Avg Firm Size
Service Industries	1,680	35%	149	38%	11.3
Manufacturing	1,283	27%	51	13%	25.2
Wholesale Trade	526	11%	53	14%	9.9
Construction Industries	468	10%	36	9%	13.0
Retail Trade	419	9%	43	11%	9.7
Finance, Insurance, and Real Estate	170	4%	31	8%	5.5
Transportation, Communication, and Utilities	120	3%	20	5%	6.0
Public Administration	87	2%	2	1%	43.5
Agriculture, forestry, and fisheries	43	1%	3	1%	14.3
Total Employment	**4,796**	**100%**	**388**	**100%**	**12.4**

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Table 2: Plan Area Employment Profile by Key Industry, 2007

Key Industry	Total Employment	Share of Total Employment	Total Firms	Share of Total Firms	Average Firm Size
Service Industries					
Social Services	515	11%	3	1%	171.7
Business Services	466	10%	45	12%	10.4
Engineering, Accounting, Research, Management & Related Svcs	309	6%	33	9%	9.4
Automotive Repair, Services and Parking	110	2%	13	3%	8.5
Legal Services	52	1%	15	4%	3.5
Manufacturing					
Stone, Clay, Glass, and Concrete Products	533	11%	3	1%	177.7
Food and Kindred Products	456	10%	7	2%	65.1
Industrial and Commercial Machinery and Computer Equipment	90	2%	8	2%	11.3
Furniture and Fixtures	75	2%	3	1%	25.0
Printing, Publishing and Allied Industries	16	0%	7	2%	2.3
Wholesale Trade					
Wholesale Trade - Durable Goods	283	6%	38	10%	7.4
Wholesale Trade - Nondurable Goods	243	5%	15	4%	16.2
Construction Industries					
Construction - Special Trade Contractors	328	7%	27	7%	12.1
Heavy Construction, Except Building Construction - Contractors	112	2%	3	1%	37.3
Retail Trade					
Building Matrials, Hrdwr, Garden Supply & Mobile Home Dealrs	158	3%	2	1%	79.0
Finance, Insurance, and Real Estate					
Insurance Agents, Brokers and Service	71	1%	3	1%	23.7
Transportation, Communication, and Utilities					
Motor Freight Transportation	76	2%	11	3%	6.9
All Other Industries	903	19%	152	39%	5.9
Total Employment	**4,796**	**70%**	**388**	**100%**	**12.4**

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Although Social Services and Stone, Clay, Glass, and Concrete Products were responsible for 22 percent of employment in the Plan Area, these jobs were concentrated in only six establishments, (Table 2). Specifically, Alameda County was by far the largest employer in the Social Services Sector and Owens-Brockway Glass Container is major employer for Stone, Clay, Glass, and Concrete Products.

While employment in Business Services appears to be more diffuse, with an average of 10.4 employees in each of 45 establishments, ABC Security Services accounts for 300 of these 466 jobs. In addition, it is important to note that many of these jobs, and others related to security services, are actually located off-site, with only administrative positions concentrated within the Plan Area. Overall, if ABC Security is not included, the remaining 44 Business Services establishments are very small, averaging 3.8 employees.

Food and Kindred Services is less dominated by a single firm than the three largest industries, with 456 jobs (10 percent of the total) provided by seven establishments. However, Earthgrains Baking Company is by far the largest of these, with 158 employees.

Service Industries

In 2007 Service Industries accounted for 35 percent of the Plan Area's employment base and 38 percent of its establishments, (Table 1). The top industries within the Service Industries group are Social Services with 11 percent of total employment, Business Services with 10 percent of total employment, and Engineering, Accounting & Research with 6 percent of total employment, (Figure 2).

When interviewed, businesses in Service Industries most often reported that they located in the area for the following reasons:

- The area is near the center of the Bay Area labor market and, thus, the location is convenient for employees.
- The Plan Area contains a building type that is very uncommon in Oakland: class B office space with loading docks.
- The area is close to the highway and not far from the amenities of Jack London Square and Alameda or related businesses in downtown Oakland.
- In the larger office complexes, there is ample parking.
- The waterfront location offers good views and good weather, while the unique set of buildings and overall unique "neighborhood feel" makes the area more desirable than more suburban office park locations.

Businesses in Service Industries most often reported the following issues as significant problems with the Plan Area:

- There is poor access to public transportation, especially in the West Subarea.
- There are few amenities, such as hotels or community-service retail/restaurants within walking distance.
- Traffic on I-880 makes commuting during rush hour difficult.
- Property crime and vandalism are common.
- Rent is high (though lower than in much of Oakland).

Manufacturing

In 2007, Manufacturing had the second highest number of jobs among the Major Industry groups.[10] However, only 13 percent of establishments were in this Industry Group. This is because, on average, manufacturing firms have an average firm size twice that of most other Major Industry Groups. From 1990-2007, the number of employees in Manufacturing firms declined dramatically, even as the total number of establishments increased; this may be due to increasing efficiency in existing firms and a shift to higher value manufacturing in new firms. The top key industries within Manufacturing are Stone, Clay, Glass and Concrete Products with 11 percent of total employment and Food and Kindred Products with 10 percent of total employment.

When interviewed, businesses in Manufacturing most often reported that they located in the area for the following reasons:

- Many of the manufacturers in the Plan Area ship the majority of their products to customers in the Bay Area. This area's central location helps facilitate quick and inexpensive delivery of products.
- There is a high degree of access to the transportation network, including the highway, the port, and rail.
- For heavy industry firms, the number of locations in Oakland where their use is permitted is very limited; if they were not in this area, they would most likely need to move to southern Alameda County, Vallejo/Benecia, or the Tri-Valley.
- The area is relatively quiet and, in most subareas, does not have a significant residential population.
- There is greater access to amenities and more of a "neighborhood feel" than other nearby industrial areas, such as along Hegenberger Road.
- For some manufacturers, the area is close to where their employees live.

Businesses in Manufacturing most often reported the following issues as significant problems with the Plan Area:

- The roads are in poor condition, especially in the East Subarea. The 23rd Avenue ramp onto I-880 was cited frequently as a safety concern.
- Property crime and vandalism are too common.
- The increasing amount of housing in the area has created some problems with parking and creates uncertainty about the ability to continue operations in the future (such as if rail service is discontinued or if more manufacturers are displaced by additional housing).

[10] Note that "Manufacturing" does not include wholesale or distribution firms, which are included in the "Wholesale Trade," and "Transportation, Communications, and Utilities" industry groups, respectively. Because industry groups account for much less employment than Manufacturing, they are not analyzed as comprehensively in this section. However, recent and projected change in these three areas may be considered collectively in assessing the strength of industrial uses in the Plan Area.

Plan Area Employment Trends

The following section traces the major trends in these industries and industry groups from 1990 to 2007. Special attention has been given to the period from 2001 to 2007, as changes in the number of jobs and establishments during this most recent period are most likely to predict future patterns of employment growth in the Plan Area.

From 2001 to 2007, employment in the Plan Area decreased by 18 percent, but the total number of firms increased by 3 percent, (Table 3). Establishments are either shedding employment or are being replaced by smaller firms: the average establishment size was 15.5 employees in 2001 and decreased to 12.4 in 2007. These trends are particularly pronounced in Wholesale Trade; Retail Trade; Finance, Insurance, and Real Estate; and Transportation, Communication, and Utilities.

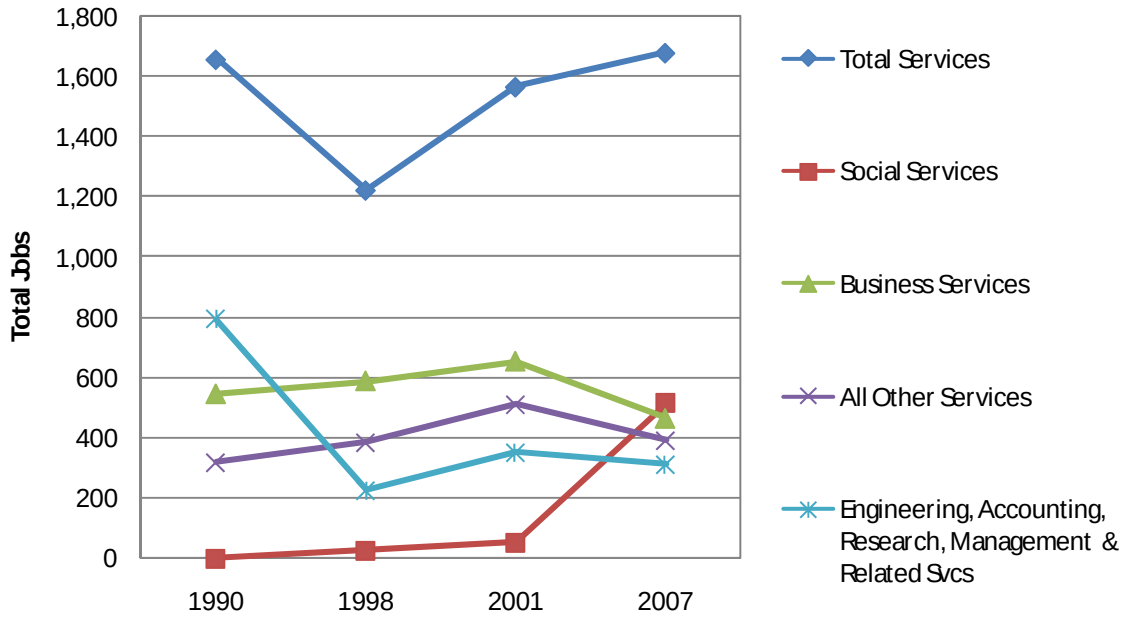
From 2001 to 2007, only two of the Key Industries (Food and Kindred Products and Wholesale Trade-Nondurable Goods) had increases both in the number of jobs and the number of establishments, (Table 4).

Given the close relationship between these two industries, this may represent a particularly strong sector for the Plan Area.

Service Industries

- Between 2001 and 2007, Service Industries became the top employment group, whereas previously Manufacturing has been the top employment group, (Figure 1).
- Overall, Service Industries ran counter to the trend found in most industry groups, with growing employment, but a decreasing number of establishments. However, as noted, this is primarily due to the Alameda County Behavioral Health Services office.
- Employment in the Service Industries has increased 7 percent from 2001 to 2007, and employment gains in Social Services accounts for the nearly all of that increase. Other Service Industries like Business Services and Engineering, Accounting & Research, and Legal Services have experienced declining employment from 2001 to 2007.
- In 2002, Alameda County Behavioral Health Care Services moved 498 employees to an office building in the Plan Area. This was the primary driver of an increase in Social Services from 2001 to 2007. In fact, without the growth attributable to this employer, there would be decrease of 385 jobs in the Service Industries group during this period.
- Business Services exemplifies the overall pattern for the Plan Area, with an increasing number of establishments, but decreasing number of jobs. Although there was a net gain of 16 firms (55 percent increase), there was a net loss of 189 jobs (29 percent decrease).

Figure 2: Employment in Service Industries from 1990 to 2007



Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Table 3: Plan Area Employment Trends by Major Industry Group, 2001 to 2007

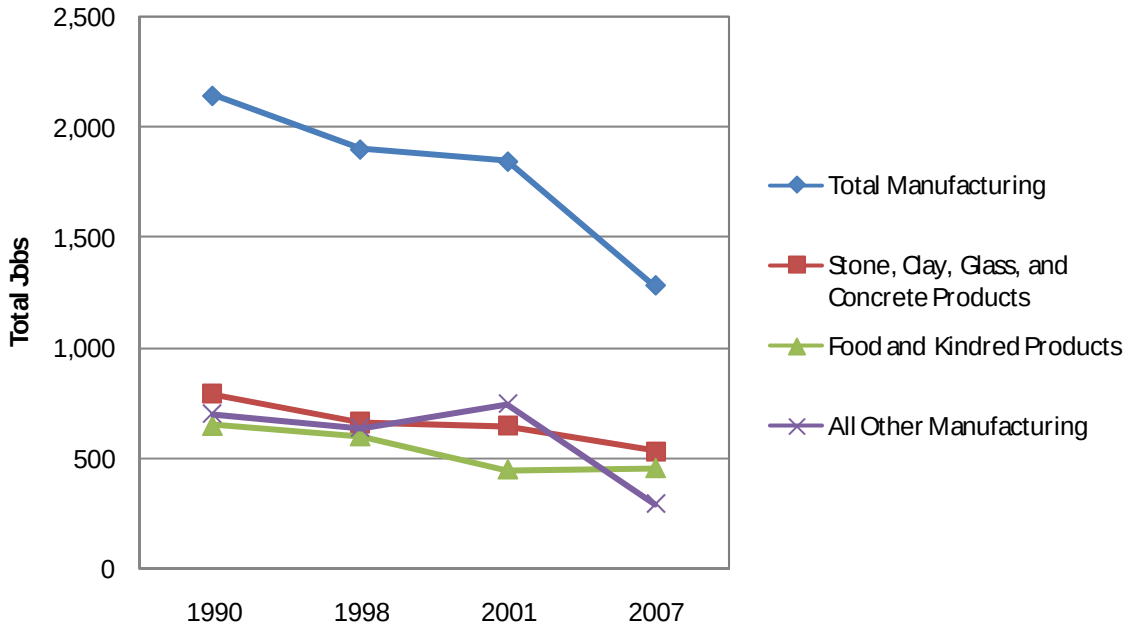
	2001		2007		% Change '01 - '07	
Major Industry Group	**Total Employment**	**Total Firms**	**Total Employment**	**Total Firms**	**Total Employment**	**Total Firms**
Service Industries	1,567	151	1,680	149	7%	-1%
Manufacturing	1,847	61	1,283	51	-31%	-16%
Wholesale Trade	617	51	526	53	-15%	4%
Construction Industries	559	41	468	36	-16%	-12%
Retail Trade	846	35	419	43	-50%	23%
Finance, Insurance, and Real Estate	159	13	170	31	7%	138%
Transportation, Communication, and Utilities	157	19	120	20	-24%	5%
Public Administration	57	1	87	2	53%	100%
Agriculture, forestry, and fisheries	30	5	43	3	43%	-40%
Total Employment	**5,839**	**377**	**4,796**	**388**	**-18%**	**3%**

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Manufacturing

- Unlike most industry groups in the Plan Area, Manufacturing had decreases both in the number of jobs and the number of firms. Because employment is dropping faster than the number of firms, however, it seems that firms are both shrinking and relocating/closing. Employment in Manufacturing has been declining steadily since 1990, but the decline accelerated from 2001 to 2007 (Figure 3). Between those years, Manufacturing lost 31 percent of employment and 16 percent of firms. However, these losses are not chiefly attributable to either of the two largest manufacturing industries.
- Despite the overall decline in manufacturing employment from 1990 to 2007 and the steep decline in the number of firms from 2001-2007, there was an overall increase in the number of manufacturing firms from 1990-2007 (Table 5). However, the new firms are smaller than those they replace and are often engaged in specialty food production.
- From 2001 to 2007, all Key Industries in the Manufacturing Industrial Group, except for Food and Kindred Products, lost employment. Printing, Publishing, and Allied Industries posted the most extreme loss, shedding 154 jobs, a 91 percent decrease. Furniture and Fixtures had a net loss of three firms (out of six) and 108 jobs (a 56 percent decrease). Both Stone, Glass, Clay, and Concrete Products and Industrial and Commercial Machinery and Computer Equipment also had net losses in establishments and employees, though by smaller margins than the other two.
- Although Manufacturing is no longer the number one employment group in the Plan Area overall, it continues to have the highest employment in three out of the four subareas: Central-West, Central-East and East.

Figure 3: Employment in Manufacturing Industries from 1990 to 2007



Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Table 4: Plan Area Employment Trends by Key Industry, 2001 to 2007

	Planning Area					
	2001		2007		% Change '01 - '07	
Key Industry	Total Employment	Total Firms	Total Employment	Total Firms	Employment	Firms
Service Industries						
Social Services	53	6	515	3	872%	-50%
Business Services	655	29	466	45	-29%	55%
Engineering, Accounting, Research, Management & Related Svcs	348	37	309	33	-11%	-11%
Automotive Repair, Services and Parking	107	14	110	13	3%	-7%
Legal Services	151	23	52	15	-66%	-35%
Manufacturing						
Stone, Clay, Glass, and Concrete Products	648	4	533	3	-18%	-25%
Food and Kindred Products	450	6	456	7	1%	17%
Industrial and Commercial Machinery and Computer Equipment	148	9	90	8	-39%	-11%
Furniture and Fixtures	183	6	75	3	-59%	-50%
Printing, Publishing and Allied Industries	170	8	16	7	-91%	-13%
Wholesale Trade						
Wholesale Trade - Durable Goods	382	38	283	38	-26%	0%
Wholesale Trade - Nondurable Goods	235	13	243	15	3%	15%
Construction Industries						
Construction - Special Trade Contractors	305	27	328	27	8%	0%
Heavy Construction, Except Building Construction - Contractors	144	6	112	3	-22%	-50%
Retail Trade						
Building Matrials, Hrdwr, Garden Supply & Mobile Home Dealrs	63	2	158	2	151%	0%
Finance, Insurance, and Real Estate						
Insurance Agents, Brokers and Service	100	2	71	3	-29%	50%
Transportation, Communication, and Utilities						
Motor Freight Transportation	87	10	76	11	-13%	10%
All Other Industries	1,610	137	903	152	-44%	11%
Total Employment	**5,839**	**377**	**4,796**	**388**	**-18%**	**3%**

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Firm Start-ups, Closures, and Relocations

The NETS data offer a unique opportunity to look beyond the growth and decline in employment and total number of establishments to understand more about the dynamic nature of these businesses. Because it tracks individual businesses, these data can be used to determine whether employment trends are a consequence of change within existing firms or complete changes in establishments. By assessing the rate at which start-up businesses choose to locate in, or existing businesses choose to relocate into, the Plan Area, this also provides a measure of the suitability of the area for new and growing businesses. Conversely, the rate at which businesses close or move out of the Plan Area provides insight into how well the area is able to support the operations of existing businesses. Together, these offer a richer account of the overall health and stability of the Plan Area.

The data reflected in Table 5 suggests that the Plan Area has a highly dynamic economy. Overall, there has been a net gain of 168 establishments. The 468 start-ups and 295 move-ins from 1990 to 2007 dramatically eclipsed the 220 firms that existed from before that period. In addition, while the number of closures during this period was only slightly less than the number of start-ups, the number of move-ins was nearly double the number of relocations. This accounts for the overall growth in the number of firms in the Plan Area from 1990-2007.

This high rate of growth and turnover in individual businesses was accompanied by a significant drop in employment, from 5,630 jobs in 1990 to 4,796 in 2007. This suggests that new firms, though larger in number, are much smaller in terms of employment than the ones they are replacing. Furthermore, over this period, there were nearly three times as many closures as relocations. This suggests that, as firms leave the Plan Area, it is far more likely to be a consequence of an inability to continue operations, rather than because there is more suitable location elsewhere. This, coupled with the large number of start-ups, may reflect the fragile nature of these new, smaller businesses in the Plan Area.

From 1990 to 2007, more than half of the net gain in establishments in the Plan Area came from the Service Industries. This was partly because 38 percent of new establishments (including both start-ups and move-ins), were in this Industry Group. In addition to having a somewhat higher start-up rate than other industry groups in the Plan Area, service industries also had a disproportionately high survival rate. Much of this is attributable to Business Services, which accounted for 12 percent of all start-ups in the Plan Area during this period and roughly 30 percent of the overall net gain in establishments. Nevertheless, while this represents a substantial growth in establishments in the Service Industries, it did not translate into growth in employment. In fact, if the 498 employees of Alameda County Behavioral Health Services are not included, there is an overall decline in employment in Services Industry Group, from 1,658 jobs in 1990 to 1,182 jobs in 2007, (Figure 2). That is because, as with other industries in the Plan Area, these new firms are smaller and offer fewer jobs than the ones that closed or relocated.

Table 5: Births, Deaths, and Moves in Plan Area, 1990-2007

	Method of Entry				Method of Exit						
Industry Group	Startups	Share of Startups	Move-Ins	Share of Move-Ins	Closures	Share of Closures	Relo-cations	Share of Relocations	Start Up Rate	Overall Survival Rate	Net Gain/ Loss
Service Industries	188	40%	100	34%	140	32%	57	36%	54%	44%	91
Business Services	*58*	*12%*	*28*	*9%*	*37*	*8%*	*16*	*10%*	*59%*	*46%*	*33*
Engineering, Accounting, Research, Management & Related Services	*35*	*7%*	*27*	*9%*	*29*	*7%*	*15*	*9%*	*45%*	*33%*	*18*
Wholesale Trade	55	12%	60	20%	75	17%	29	18%	35%	34%	11
Manufacturing	43	9%	39	13%	59	14%	20	13%	33%	39%	3
Retail Trade	64	14%	29	10%	61	14%	16	10%	53%	36%	16
Construction Industries	46	10%	25	8%	40	9%	15	9%	51%	40%	16
Finance, Insurance, and Real Estate	35	7%	20	7%	30	7%	7	4%	51%	46%	18
Transportation, Communication, and Utilities	35	7%	22	7%	32	7%	14	9%	53%	30%	11
Public Administration	2	0%	0	0%	0	0%	0	0%	100%	100%	2
Total	**468**	**100%**	**295**	**100%**	**437**	**100%**	**158**	**100%**	**279%**	**231%**	**168**

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

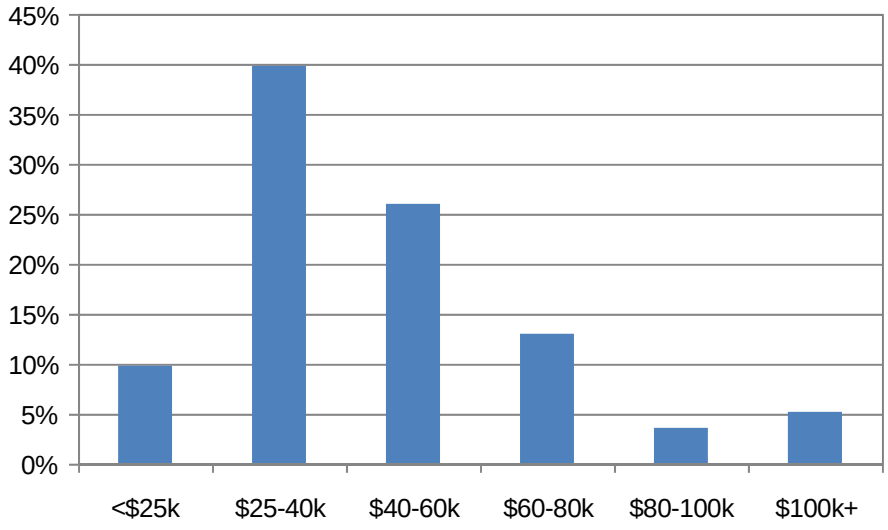
Job Quality Analysis

By evaluating key trends in the number of jobs and establishments that are located in the Plan Area, within each industry, the above analyses generate a basic profile of the business landscape. These data are critical to assessing the viability of the Plan Area as a locus for these industries. However, a key factor in evaluating these industries is the *types of jobs* that they generate for residents in the surrounding neighborhoods, city, and region. The Job Quality Analysis below makes use of data about the typical occupations provided by each industry to determine how well these jobs fit the needs of the residents, as well as to assess the incomes that workers are likely to earn.

Wages

In general, jobs in the Plan Area offer low to moderate wages, with 66 percent of these occupations paying between $25,000 and $60,000 a year (Figure 4). This reflects the low level of educational attainment required for the majority of jobs in the area.

Figure 4: Share of Plan Area Employment by Wage Category, 2007

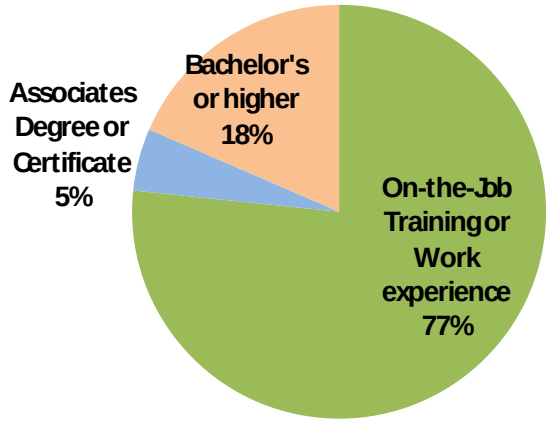


Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Education Requirements

The vast majority of jobs (77 percent) in the Plan Area require on-the-job training or work experience rather than a college degree, (Figure 5). This, coupled with income data, supports the characterization of most of the employment in the area as low-to-medium skilled and blue-collar in nature.

Figure 5: Share of Plan Area Employment by Level of Training Required, 2007



Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Residential Locations of Workers

Overall, 27 percent of jobs in the Plan Area are held by Oakland residents (Table 6). By a small margin, this exceeds the share of all Oakland jobs held by Oakland residents. This is especially noteworthy given the Plan Area's proximity to Alameda (the place of residence for only six percent of workers in the Plan Area). In total, 68 percent of workers commute from Alameda or Contra Costa Counties (Table 7).

When asked about whether they felt satisfied with the quality of the workforce in the area, representatives from businesses gave highly variable responses. Office-based employers tended to be very pleased with the labor pool, drawing primarily from the inner East Bay. Manufacturers and wholesalers that required lower-skilled manual labor also reported overall satisfaction, though also commented that they would be able to save on labor costs if they were located elsewhere in the state. These workers also tend to be recruited from Oakland, Alameda, or other nearby cities. However, manufacturers that made use of high-skilled manual labor, such as mechanics, reported that it is often difficult to find qualified workers, and tend to draw from a much larger labor shed.

Table 6: Share of Workers Living in Oakland, 2006

	Workers Living in Oakland	All Workers	Share
Plan Area	1,118	4,143	27.0%
Oakland	39,106	150,689	26.0%

Source: LEHD 2006, Strategic Economics 2009

Table 7: Where Plan Area Workers Live (Counties), 2006

	#	Share
Alameda	2,239	54.0%
Contra Costa	558	13.5%
Sacramento	210	5.1%
San Francisco	172	4.2%
Santa Clara	138	3.3%
Solano	132	3.2%
San Joaquin	130	3.1%
San Mateo	125	3.0%
San Diego	57	1.4%
Sonoma	49	1.2%
All Other Locations	333	8.0%

Source: LEHD 2006, Strategic Economics 2009

Key Occupations in the Plan Area

These general characterizations and trends are corroborated by the following table, which shows the largest occupations in the Plan Area, (Table 8). In 2007, only one occupation out of the top fifteen required a formal degree. However, that occupation, 'General and Operations Managers," had more than double the median hourly wage of the next highest paying job on this list. Blue-collar occupations still represent the majority of employment in the Plan Area, though these occupations have been declining rapidly since 2001.

Table 8: Largest Occupations in the Plan Area, 2007

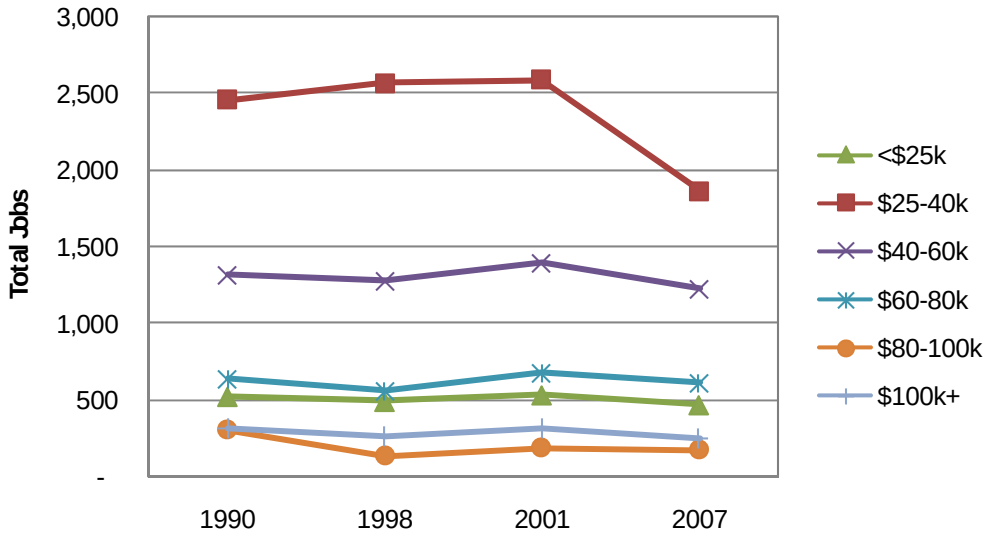
	Employment, 2007		Median Hourly Wage, 2008	BLS Training Level
	#	%		
General and Operations Managers	98	2%	$53.61	Work Experience, Plus a Bachelor's or Higher
Sales Rep, Wholesale and Manuf, Except Technical and Scientific Products	102	2%	$26.59	Moderate-Term On-the-Job Training
Executive Secretaries and Administrative Assistants	67	1%	$21.98	Moderate-Term On-the-Job Training
Construction Laborers	83	2%	$20.94	Moderate-Term On-the-Job Training
Truck Drivers, Heavy and Tractor-Trailer	75	2%	$19.94	Moderate-Term On-the-Job Training
Bookkeeping, Accounting, and Auditing Clerks	74	2%	$18.86	Moderate-Term On-the-Job Training
Office Clerks, General	104	2%	$15.32	Short-Term On-the-Job Training
Packaging and Filling Machine Operators and Tenders	57	1%	$14.11	Short-Term On-the-Job Training
Bakers	61	1%	$13.18	Long-Term On-the-Job Training
Team Assemblers	73	2%	$12.28	Moderate-Term On-the-Job Training
Personal and Home Care Aides	95	2%	$11.73	Short-Term On-the-Job Training
Laborers and Freight, Stock, and Material Movers, Hand	118	3%	$11.70	Short-Term On-the-Job Training
Security Guards	266	6%	$11.41	Short-Term On-the-Job Training
Retail Salespersons	133	3%	$10.63	Short-Term On-the-Job Training
Packers and Packagers, Hand	63	1%	$8.99	Short-Term On-the-Job Training

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Job Quality Trends

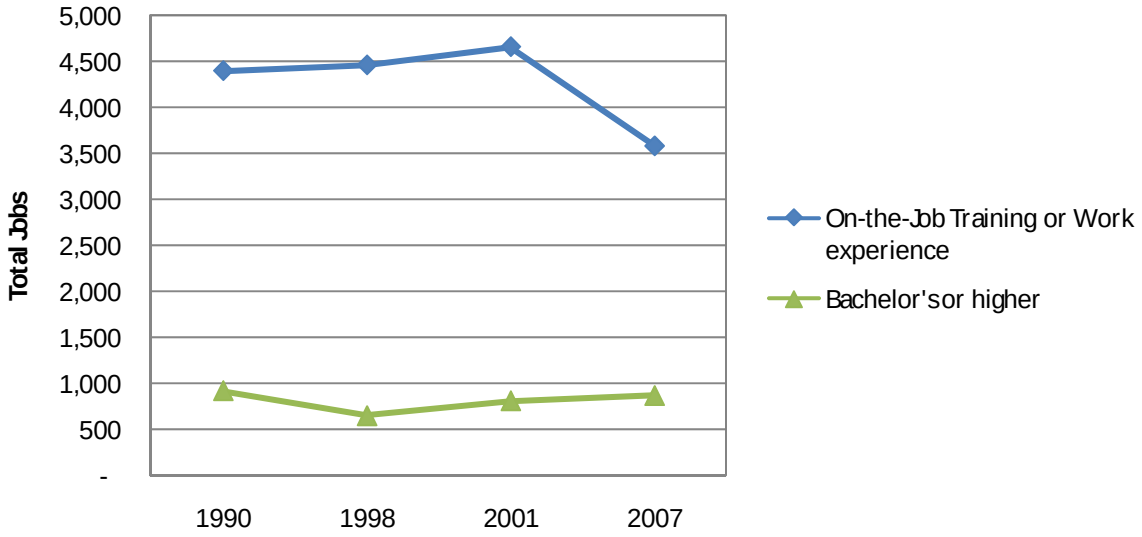
Wages offered by, and education required of, jobs in the Plan Area were fairly stable from 1990-2001, (Figures 6 and 7). However, from 2001-2007, the number of jobs that pay between $25,000 and $60,000 fell by 890, while the number of all other jobs fell by 206. Even more dramatic, the number of jobs that do not require an education beyond high school fell by 1,076 as the number of those that require a Bachelor's or higher rose by 55. These trends match the shrinking employment base of manufacturing establishments in the Plan Area.

Figure 6: Wages in Plan Area, 1990-2007



Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Figure 7: Employment by Education Required, 1990-2007



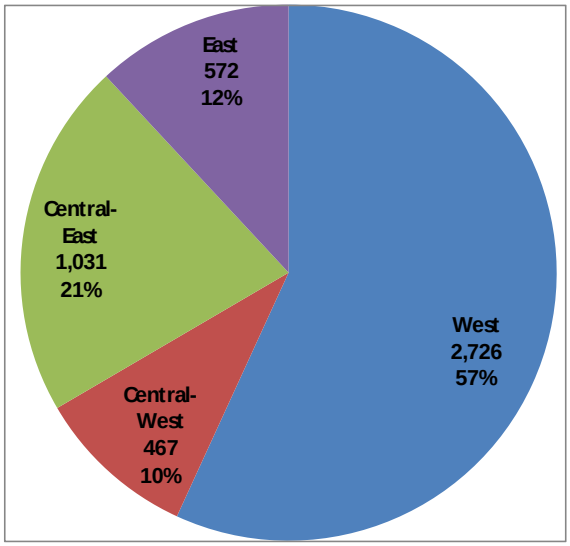
Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Industry analysis by Subarea

The analyses presented in this section examine how the businesses in the Plan Area are distributed among each of the four subareas. This section focuses on the industries as the key unit of analysis and illustrates where, within the Plan Area, they are most highly concentrated. The sections that follow this industry analysis focus on the subareas themselves, illustrating how these conditions are manifested in qualitative "neighborhood" profiles.

As shown in Figure 8, more than half of the Plan Area's employment is concentrated in the West Subarea. There is also a high density of employment in the Central-East Subarea, which has 21 percent of all jobs in the Plan Area. However, neither the Central-West nor East Subareas has a large employment base, with only ten percent and twelve percent of Plan Area jobs, respectively. In the case of the Central-West Subarea, this is because establishments are small, and employment uses are interspersed with a large number of residential units. In the case of the East Subarea, this is due to the prevalence of land-intensive uses, such as transportation and wholesale trade, which do not employ a large number of people per acre.

Figure 8: Employment by Subarea, 2007



Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

West Subarea

- The dominance of this subarea in overall employment is largely attributable to the high concentration of Service Industries jobs- 82 percent of Plan Area's jobs in this Industry Group are in the West Subarea. This Industry Group represents roughly half of the employment in this subarea.
- The West also has 82 percent of Finance, Insurance, and Real Estate (FIRE) jobs, and 100 percent of Public Administration jobs in the Plan Area. These concentrations reflect the large presence of office space in the West area, a land use that is much less represented in the other subareas.
- Fifty-two percent of Wholesale Trade jobs in the Plan Area are located in the West Subarea, pointing to the other dominant land use, warehousing.
- Agriculture, Forestry, and Fisheries is the only Industry Group with fewer than a third of its Plan Area jobs in the West Subarea.

Central-West Subarea

- Those jobs that are located in the Central-West Subarea are not clustered in any particular Industry Group.
- The only Industry Group in which the Central-West has more employees than any other subarea is Agriculture, Forestry, and Fisheries.
- This subarea is primarily residential, with small-scale commercial and industrial scattered throughout.

Central-East Subarea

- Nearly half of the employment in this subarea is in the Manufacturing Industry Group. These 511 jobs represent 40 percent the manufacturing employment base for the Plan Area.
- There are also large concentrations of jobs in the Construction Industries and Retail Trade, with 35 percent and 45 percent of the Plan Area's jobs in these Industrial Groups in the Central-East.

- Other than the 135 Service Industries jobs, there are very few jobs outside of the above mentioned Industrial Groups.

East Subarea

- In this subarea, there are large concentrations of jobs in Transportation, Communications, and Utilities and Wholesale Trade, with 53 percent and 35 percent of the Plan Area's jobs in these Industrial Groups.
- The largest number of jobs (201) in this subarea are in Manufacturing; however, this represents only 16 percent of the Plan Area's jobs in this Industrial Group.
- Generally white-collar Industry Groups, such as FIRE, Retail Trade, and Public Administration have virtually no jobs in this subarea. There are also fewer Service Industries jobs in this subarea than any other in the Plan Area.

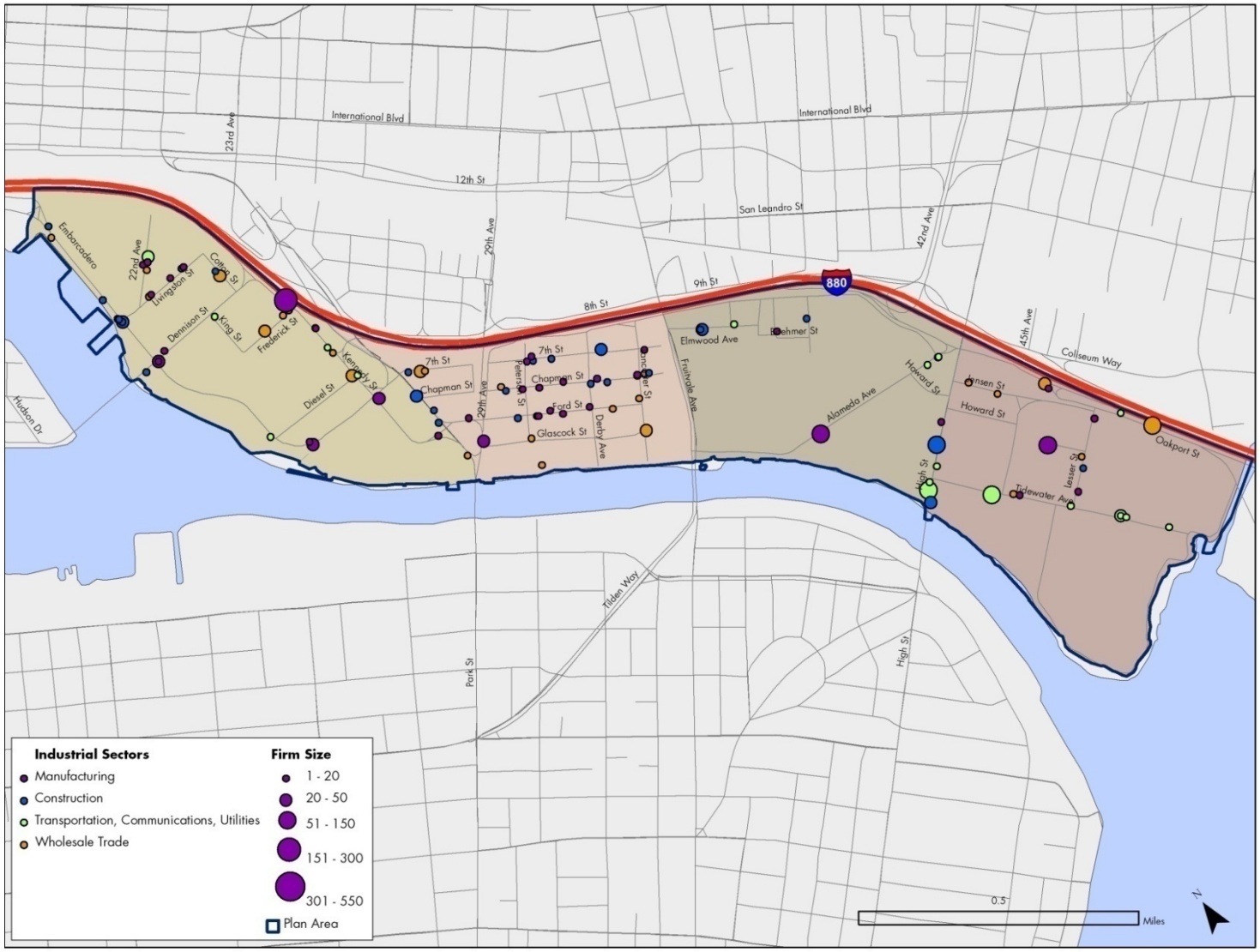
Table 10: Distribution of Major Industry Groups Across Subareas, 2007 Establishments

	West		Central West		Central East		East		Planning Area	
Major Industry Group	Firms	Share of Industry Group	Firms	Share of Industry Group	Firms	Share of Industry Group	Firms	Share of Industry Group	Firms	Share of Industry Group
Service Industries	95	64%	32	21%	9	6%	13	9%	149	100%
Wholesale Trade	25	47%	4	8%	3	6%	21	40%	53	100%
Manufacturing	19	37%	20	39%	4	8%	8	16%	51	100%
Retail Trade	18	42%	16	37%	5	12%	4	9%	43	100%
Construction Industries	10	28%	15	42%	4	11%	7	19%	36	100%
Finance, Insurance, and Real Estate	21	68%	8	26%	2	6%	0	0%	31	100%
Transportation, Communication, and Utilities	8	40%	2	10%	1	5%	9	45%	20	100%
Agriculture, forestry, and fisheries	1	33%	2	67%	0	0%	0	0%	3	100%
Public Administration	2	100%	0	0%	0	0%	0	0%	2	100%
Total Establishments	**199**	**51%**	**99**	**26%**	**28**	**7%**	**62**	**16%**	**388**	**100%**

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

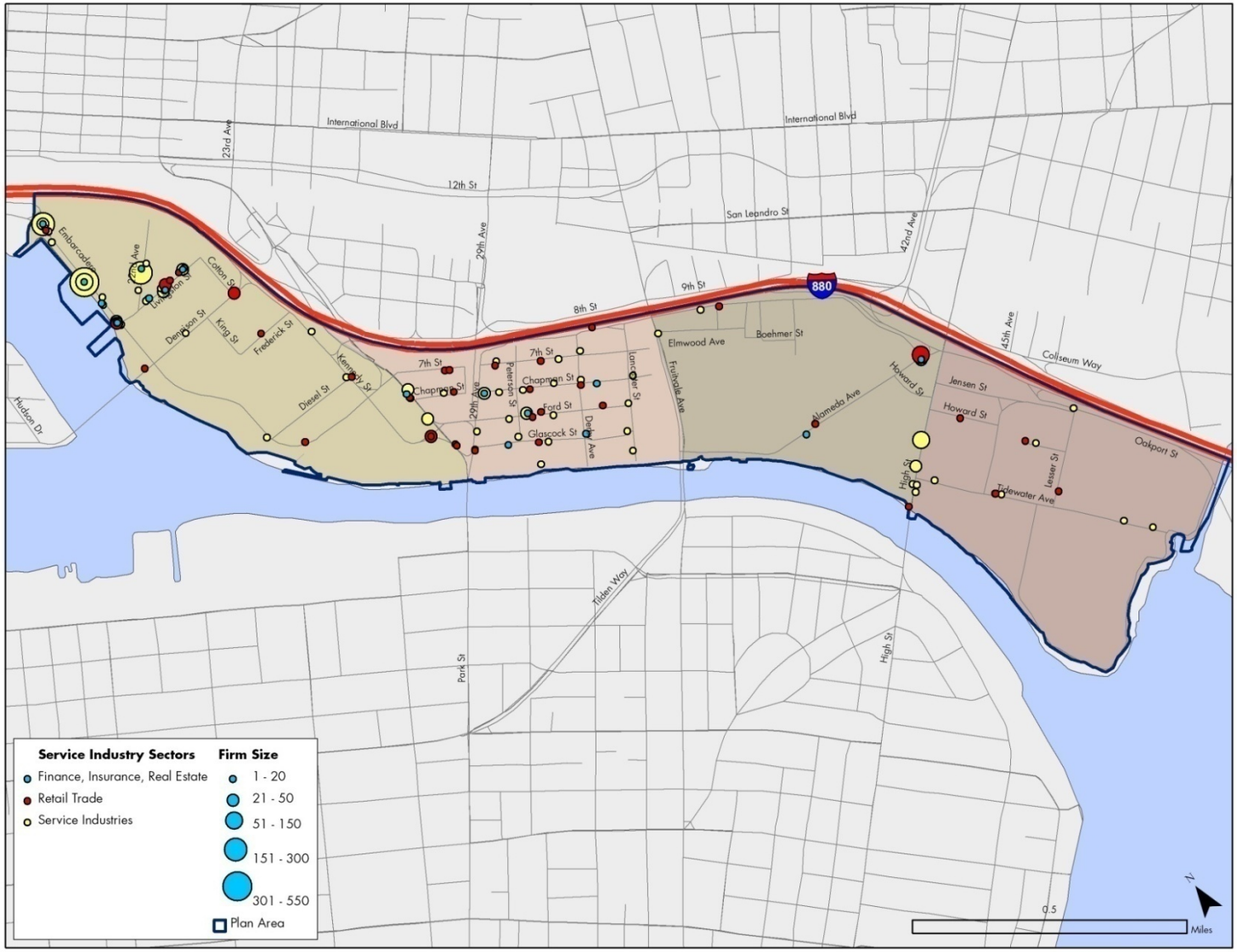
Figures 10 and 11, below, illustrate the spatial distribution of jobs and establishments described in these tables. Especially apparent is the high concentration of small firms in the Central-West Subarea and concentration of non-Industrial employment in the West.

Figure 10: Industrial Employment in the Plan Area, 2008



Source: Dun and Bradstreet, Urban Explorer 2009, Strategic Economics 2009

Figure 11: Non-Industrial Employment in the Plan Area, 2008



Source: Dun and Bradstreet, Urban Explorer 2009, Strategic Economics 2009

The four largest key industries are highly concentrated in particular subareas (Table 11).

- 94 percent of Stone, Glass, and Concrete Products jobs are located in the Central-East (the location of Owens-Brockway)
- 100 percent of Social Services jobs are located in the West (the location of the Alameda County offices)
- 88 percent of Business Services jobs are located in the West (the location of ABC Security)
- 75 percent of Food and Kindred Products jobs are located in the West (the location of Earthgrain Baking)

Both Key Industries with increases in employment and establishments from 2001-2007 (Food and Kindred Products and Wholesale Trade- Nondurable Goods) are highly concentrated in the West Subarea.

- Both Food and Kindred Products and Wholesale Trade- Nondurable Goods have at least 75 percent of Plan Area jobs in this subarea. These related industries may form an important cluster.

Industrial and Commercial Machinery is the only Key Industry that has more than 20 percent of its Plan Area jobs in the Central-West Subarea

- However, this industry is highly clustered in that subarea, with 80% of jobs located there.
- 42 percent of jobs in this subarea are in industries other than these seventeen.

In addition to the Stone, Glass, and Concrete Products industry, the Building Materials, Hardware, and Garden Supply industry is highly concentrated in the Central-East Subarea

- 99 percent of jobs in this industry are located in this subarea (the location of Home Depot).
- There is also a large concentration of Construction- Special Trade Contractor and Automotive Repair, Services, and Parking jobs in this subarea.

Wholesale Trade-Durable Goods and Furniture and Fixtures are the only key industries with the majority of their Plan Area jobs in the East Subarea

- Roughly 44 percent of jobs in the East subarea are in these two industries.
- Nearly half of the Motor Freight jobs in the Plan Area are in the East Subarea.
- There are also smaller, but significant, concentrations of Food and Kindred Products, Heavy Construction (Except Building Construction), and Automotive Repair, Services, and Parking jobs.

Table 11: Distribution of Key Industries Across Subareas, 2007 Employment

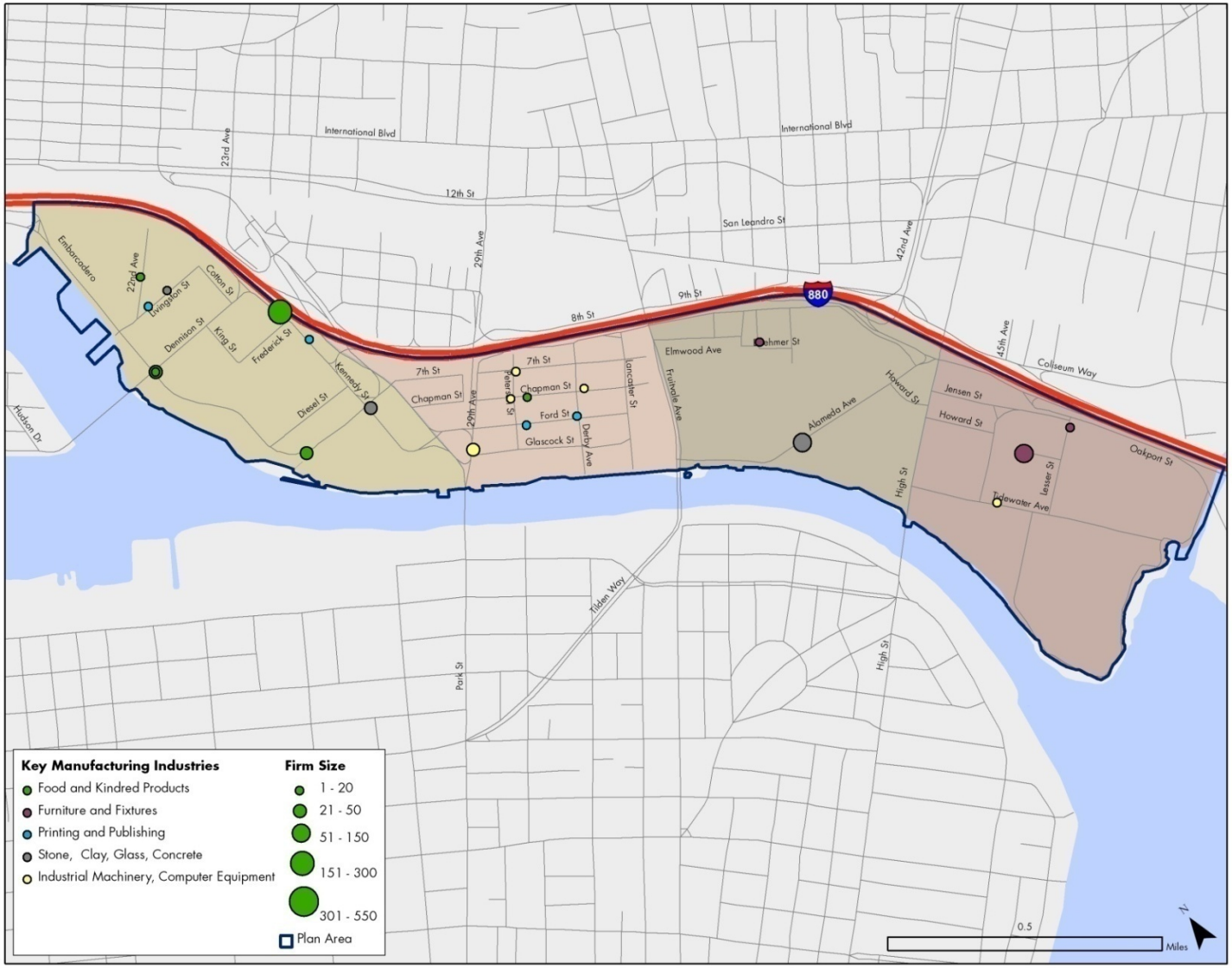
Key Industry	West		Central West		Central East		East		Planning Area	
	Jobs	Share of Key Industry	Jobs	Share of Key Industry	Jobs	Share of Key Industry	Jobs	Share of Key Industry	Jobs	Share of Key Industry
Service Industries										
Social Services	513	100%	0	0%	2	0%	0	0%	515	100%
Business Services	412	88%	18	4%	30	6%	6	1%	466	100%
Engineering, Accounting, Research, Management & Related Svcs	237	77%	56	18%	2	1%	14	5%	309	100%
Automotive Repair, Services and Parking	8	7%	10	9%	65	59%	27	25%	110	100%
Legal Services	52	100%	0	0%	0	0%	0	0%	52	100%
Manufacturing										
Stone, Clay, Glass, and Concrete Products	33	6%	0	0%	500	94%	0	0%	533	100%
Food and Kindred Products	344	75%	2	0%	0	0%	110	24%	456	100%
Industrial and Commercial Machinery and Computer Equipment	16	18%	72	80%	0	0%	2	2%	90	100%
Furniture and Fixtures	0	0%	0	0%	2	3%	73	97%	75	100%
Printing, Publishing and Allied Industries	13	81%	3	19%	0	0%	0	0%	16	100%
Wholesale Trade										
Wholesale Trade - Durable Goods	90	32%	4	1%	12	4%	177	63%	283	100%
Wholesale Trade - Nondurable Goods	186	77%	33	14%	15	6%	9	4%	243	100%
Construction Industries										
Construction - Special Trade Contractors	110	34%	47	14%	162	49%	9	3%	328	100%
Heavy Construction, Except Building Construction - Contractors	65	58%	22	20%	0	0%	25	22%	112	100%
Retail Trade										
Building Matrials, Hrdwr, Garden Supply & Mobile Home Dealrs	1	1%	0	0%	157	99%	0	0%	158	100%
Finance, Insurance, and Real Estate										
Insurance Agents, Brokers and Service	71	100%	0	0%	0	0%	0	0%	71	100%
Transportation, Communication, and Utilities										
Motor Freight Transportation	35	46%	2	3%	2	3%	37	49%	76	100%
All Other Industries	540	60%	198	22%	82	9%	83	9%	903	100%
Total Employment	**2,726**	**57%**	**467**	**10%**	**1,031**	**21%**	**572**	**12%**	**4,796**	**100%**

Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Note: The seventeen key industries shown in Table 11 represent 81 percent of employment in the Plan Area

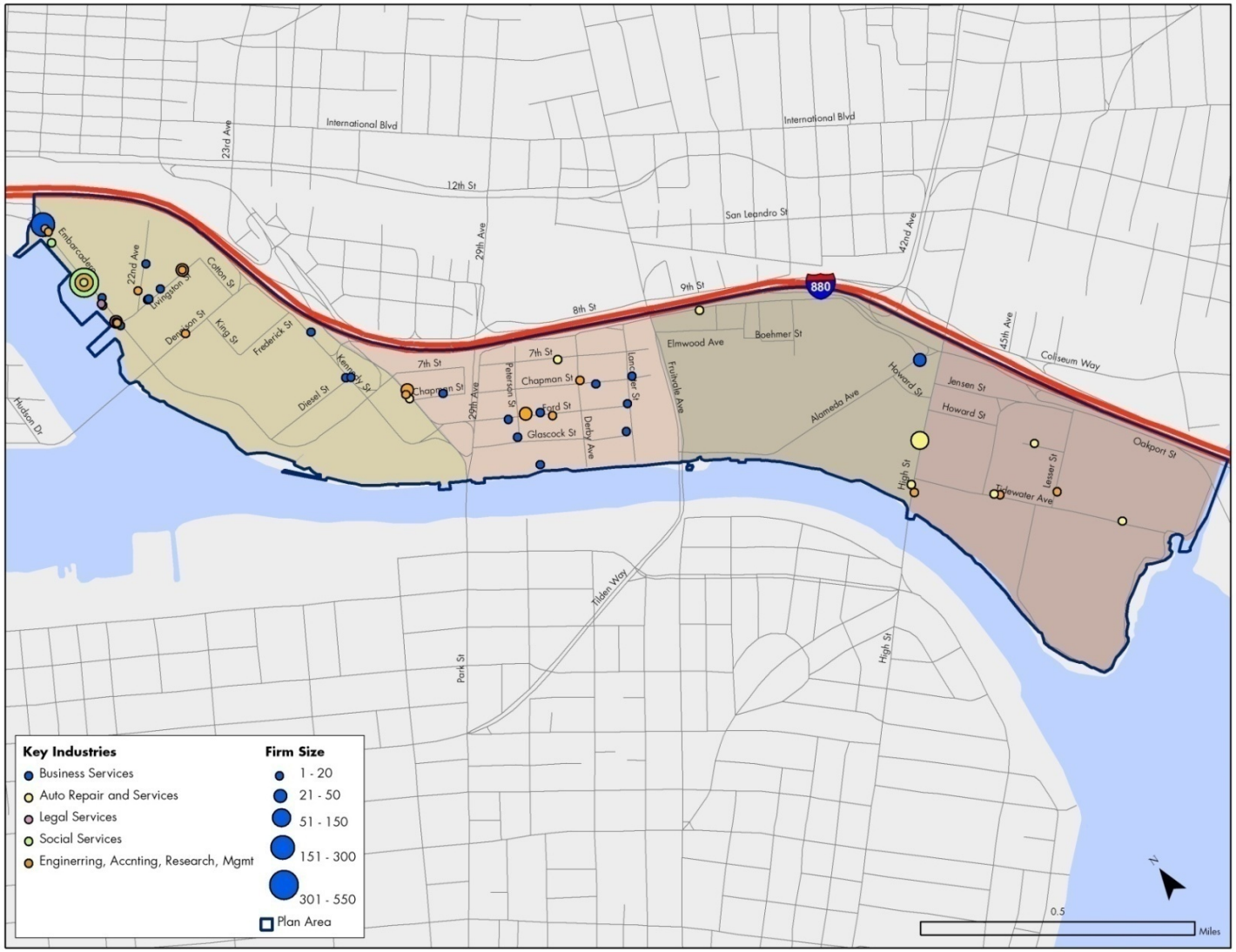
The following maps illustrated the spatial distribution of establishments in the Key Industries in the Service Industries and Manufacturing Industry Groups, (Figures 12 and 13).

Figure 12: Employment in Key Manufacturing Industries in the Plan Area, 2008



Source: Dun and Bradstreet, Urban Explorer 2009, Strategic Economics 2009

Figure 13: Employment in Key Service Industries in the Plan Area, 2008

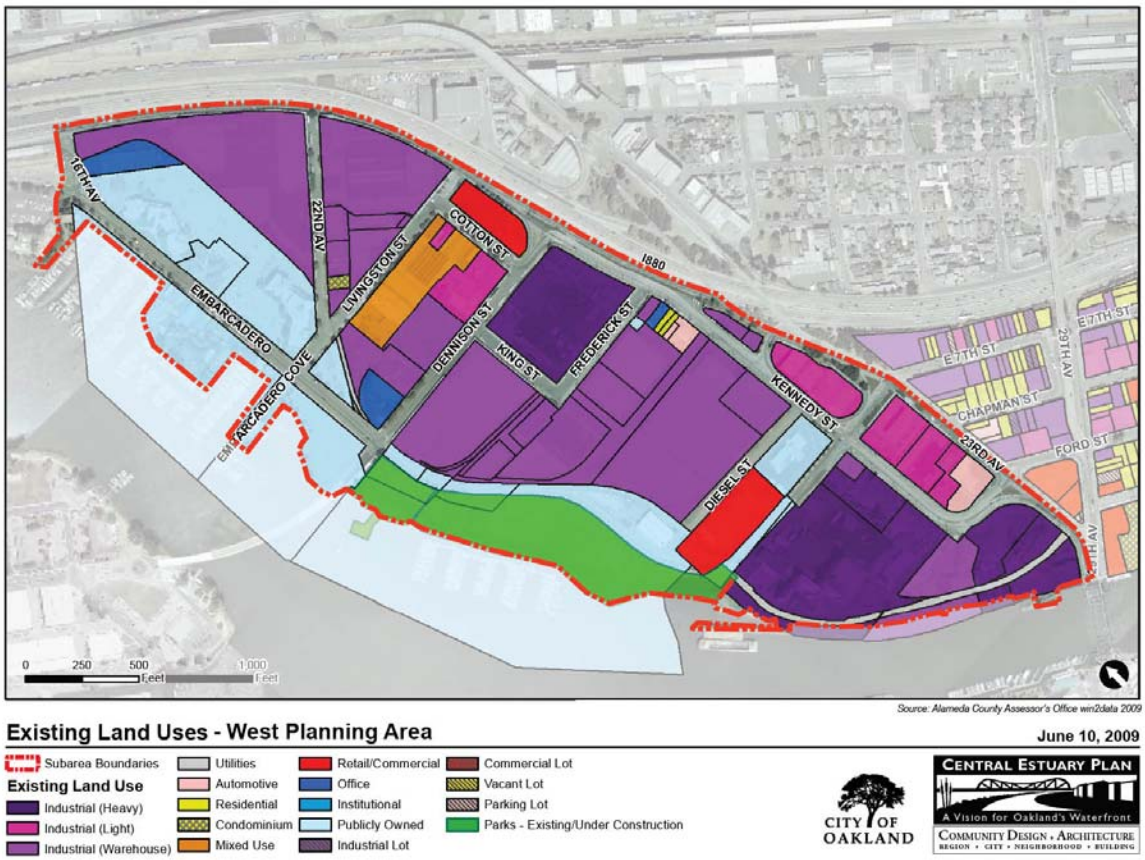


Source: Dun and Bradstreet, Urban Explorer 2009, Strategic Economics 2009

West Subarea

With 2,726 employees and 199 establishments, the West Subarea is home to more jobs and firms than the other three subareas combined. As shown in Figure 14, the land in the West Subarea is primarily occupied by warehouse space, with two very large heavy industrial parcels (which house ConAgra flour milling and the Earthgrains bakery), a publicly owned office complex (1900 and 2000 Embarcadero, where Alameda County and the Coast Guard are the two largest tenants), and an array of smaller-scale uses.

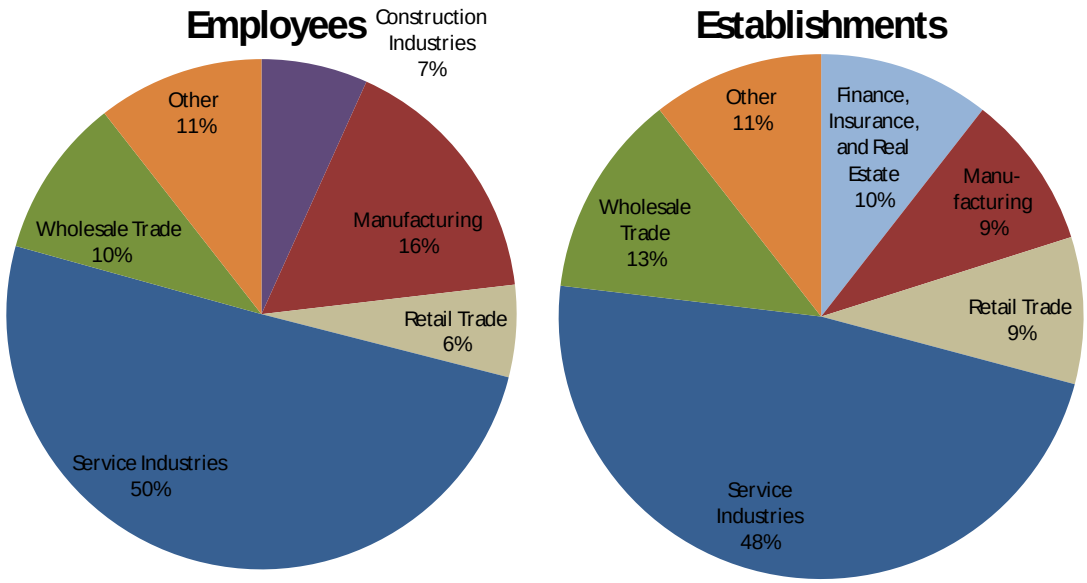
Figure 14: Land Use in the West Subarea



Source: Community Design + Architecture, 2009

However, the relatively large amount of space devoted to warehousing in this subarea (which includes major national firms, such as Numi Teas and Veronica Foods) belies the composition of employment in the area, half of which is accounted for by Service Industries (Figure 15). This is attributable to two factors. First, the single largest industry in the subarea is Social Services, which are primarily housed in the office space at the northwest corner of the subarea. This industry has a much higher employment density than warehousing, trade, or manufacturing and these office buildings are multi-story, Alameda County's 550 employees fit into a relatively small land area. Secondly, a major component of the next largest industry in the subarea (business services) is ABC Security Service. Here, although a large number of workers are employed by a firm within the subarea, most work at off-site locations.

Figure 15: Employment and Establishments by Industry Group in West Subarea, 2007



Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Figure 16, below, shows the origins of commutes to the West Subarea. Although this area is host to a wide range of business types, its workers are highly clustered within East Oakland, Alameda, and San Leandro. A particularly high concentration of workers (117, or six percent of total employment) live in the same zip code as the West Subarea. Businesses in this area reported that their needs for employees were highly stratified, requiring either those with bachelors or advanced degrees or those with little prior training. They reported that for positions at each of these ends of the spectrum, the inner East Bay had a labor pool with which they were very satisfied. However, they also reported that for the few skilled manual labor positions they needed, such as mechanics, they often had difficulty hiring and needed to search in a larger geographical area.

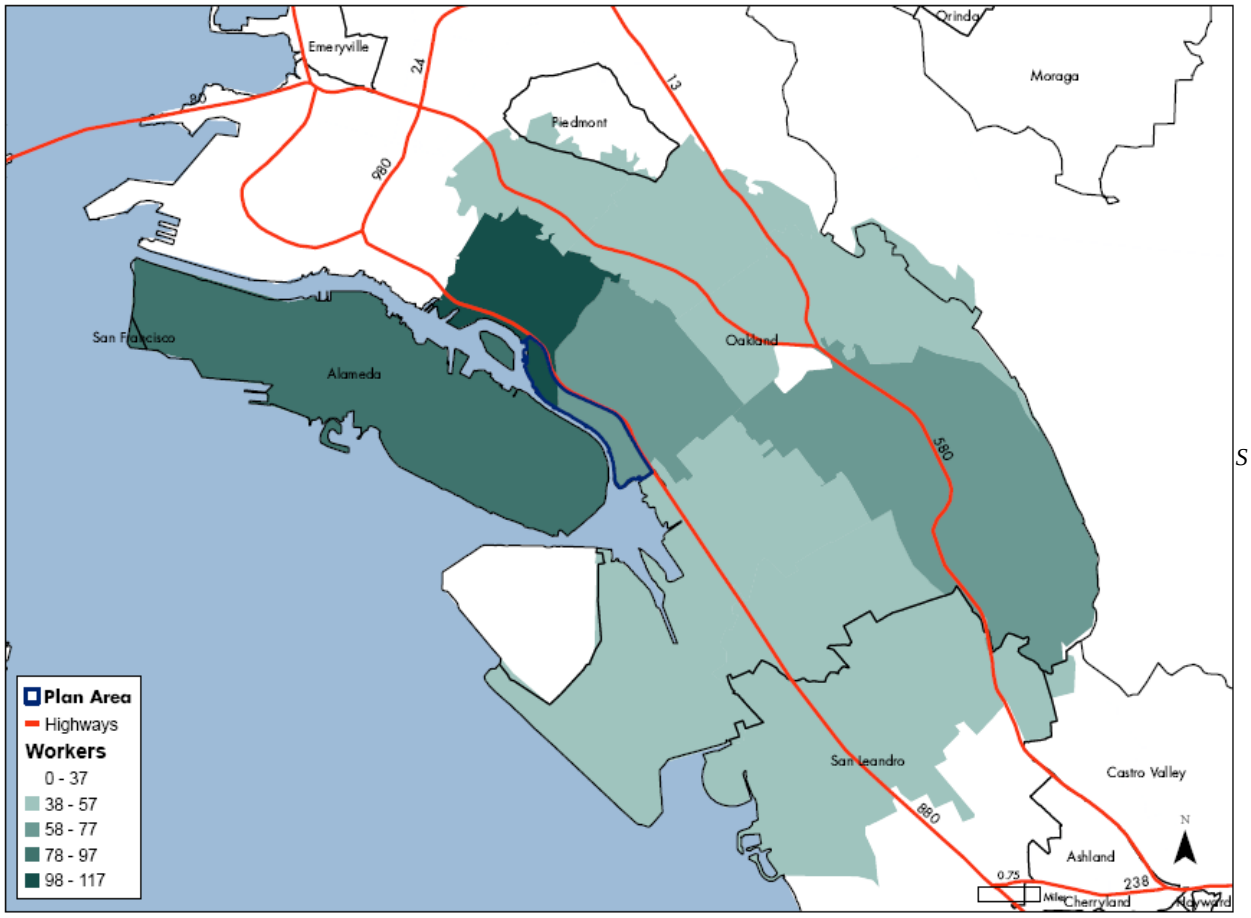
Office and warehousing businesses in the West Subarea were more likely than businesses in any other subarea to report the need for more public transportation. Heavy industry businesses in this subarea did not think that their employees would use public transit, due to their 24-hour operations, which include shifts that make public transit less attractive. Office and warehouse users were also most likely to express a desire for more neighborhood amenities, such as community-serving retail, restaurants, hotels, and street trees. Most businesses reported concern that additional residential development would hinder their ability to do business due to additional traffic, less available parking, or complaints from new residents.

However, the majority of businesses in the subarea reported a high degree of satisfaction with the accessibility to the transportation network for shipping and receiving goods. In general, they felt that the area, though not particularly rich in amenities, is preferable to many comparable areas (such as the area near Hegenberger Road) due to the proximity to food and retail in Jack London Square and Alameda and to the unique, waterfront character of the area.

Among businesses interviewed, those with stable employment levels expressed a desire to stay in their current spaces for the foreseeable future. More than one, however, noted that they were outgrowing their space and will need to either move to a larger building or add space at another location. Each of these expressed a desire to stay in the Central Estuary area, if possible, but did not think that there were

currently any suitable buildings in the neighborhood. Another business interviewed noted that they planned to eliminate their non-office functions, and were considering moving to a more amenity-rich area with comparable rents for office space (such as Emeryville). Overall, contacts reported a high degree of stability in the subarea, with little turnover in businesses.

Figure 16: Origins of Commutes to the West Subarea, 2006

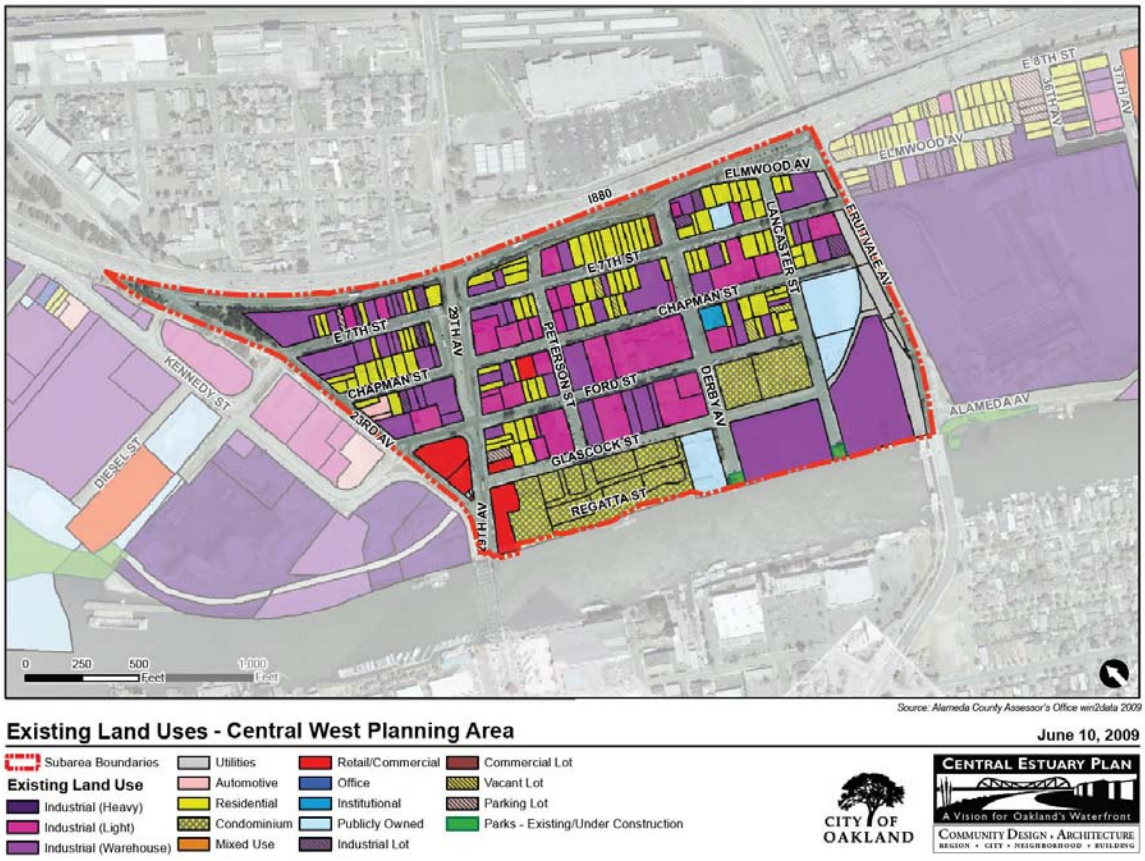


ource: LEHD 2006; ESRI; Strategic Economics, 2009.

Central-West Subarea

As illustrated in Figure 17, the Central-West Subarea is a patchwork of residential, light industrial, and warehouse uses. With the exception of some of the newest condominium developments, most of the parcels are very small and do not support the large-scale industry that is prevalent in the other subareas. The Central-West Subarea has the smallest amount of employment of any subarea, with only ten percent of total employment in the Plan Area, but accounts for 26 percent of total establishments. In addition, there is no establishment in the subarea with 50 employees or more. This attests both to the strength of employment uses in the subarea, but also to the small scale at which they operate.

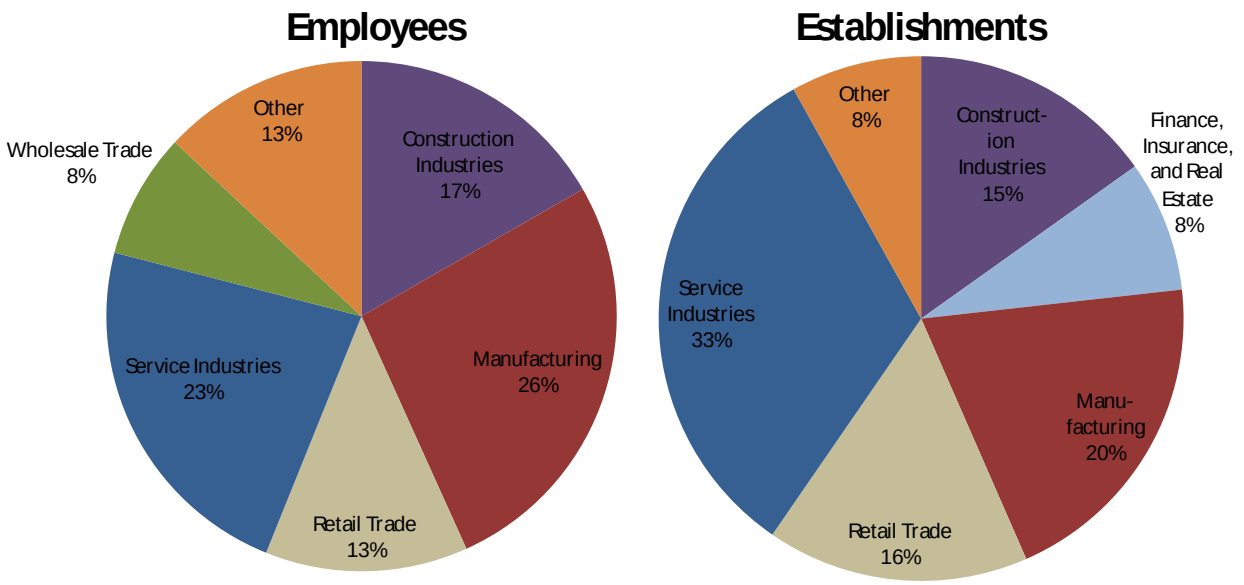
Figure 17: Land Use in the Central-West Subarea



Source: Community Design + Architecture, 2009

Figure 18 shows that employment is widely distributed across industry types, with Manufacturing and Service Industries accounting only a quarter of total employment, each. In addition, there is little industrial clustering in the Central-West Subarea: only Industrial and Commercial Machinery has a high concentration of employment here. When interviewed, a business owner in this industry indicated that the high concentration of machine shops, including platers and grinders, as a major reason for locating there. However, most of these have already left, partly due to financial or regulatory incentives to locate elsewhere and partly due to global economic changes in the industry. According to this contact, the related increase in transportation costs and conflicts with residential uses has further hurt the industry in this subarea.

Figure 18: Employment and Establishments by Industry Group in Central-West Subarea, 2007



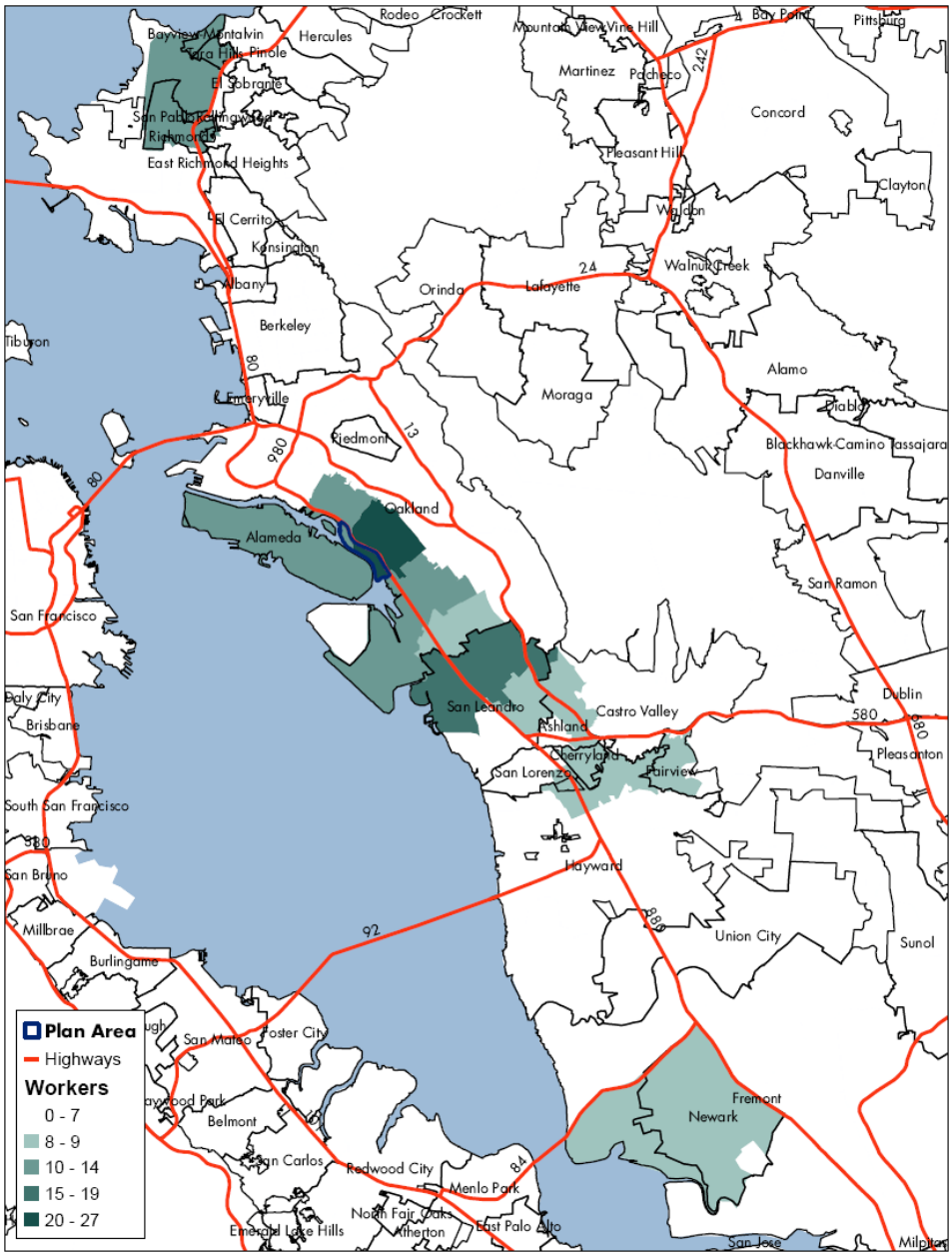
Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

More than in the West Subarea, businesses interviewed in the Central-West Subarea require skilled manual labor, which was identified as being in short supply. Consequently, the commutes for workers in this subarea are much more dispersed than in the other three. Figure 19 shows that the ten most common zipcodes for workers include one in Richmond and another in Newark. Nevertheless, the greatest concentration of residences is in the same East Oakland zipcode as the subarea.

Contacts in the Central-West Subarea reported a higher degree of satisfaction with existing neighborhood amenities (such as food and retail) and with the access to public transportation than those in the West Subarea. However, businesses here were more likely to express concern about the availability of parking and the presence of traffic, especially on I-880. The ramp on 23rd Avenue was mentioned frequently as a major safety hazard.

Although most of these businesses noted that they enjoy positive relationships with their neighbors, those that rent their buildings expressed concern that the growing residential population would push them out of the area, whether due to inflated rent or because their building would be converted to condominiums. Those that own their building also suggested that these condos were having a negative impact on their business, primarily in the form of decreased parking. However, for these businesses, there was a greater likelihood that a move or closure would result from instability in their industry or firm, and not from changes in the neighborhood.

Figure 19: Origins of Commutes to the Central-West Subarea, 2006

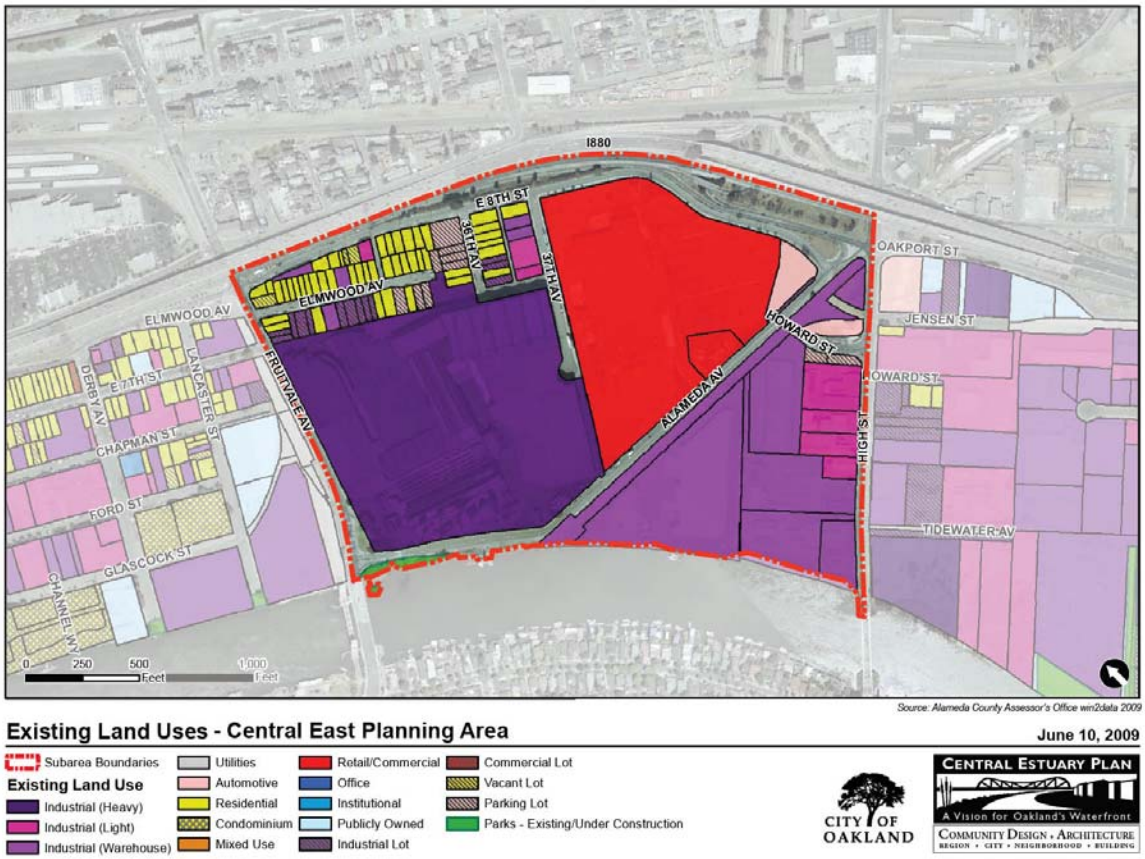


Source: LEHD 2006; ESRI; Strategic Economics, 2009.

Central-East Subarea

The Central-East Subarea is dominated by two large parcels: the Owens-Brockway glass container factory and a retail center that includes a Home Depot and a 24-Hour Fitness gym, among other smaller retail uses. As shown in Figure 20, below, the remainder is devoted to warehousing and a few light industrial uses.

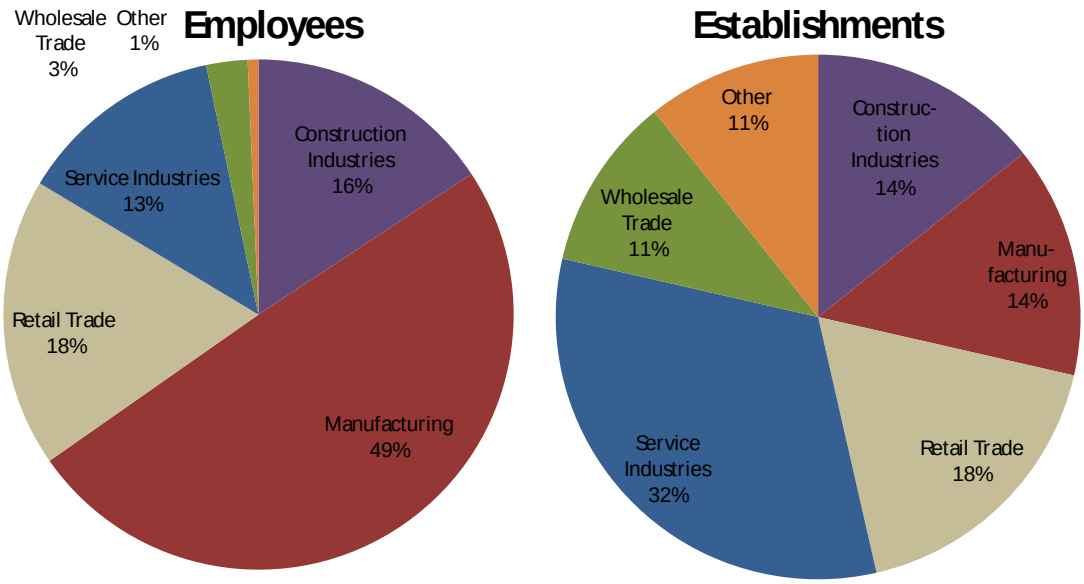
Figure 20: Land Use in the Central-East Subarea



Source: Community Design + Architecture 2009

In keeping with these land use patterns, manufacturing accounts for the most jobs in this subarea, with 49 percent of total employment; simultaneously, however, it accounts for only 14 percent of firms, with most of this jobs attributable to Owens-Brockway (Figure 21). Retail also accounts for a greater share of employment in the Central-East Subarea than in any other subarea.

Figure 21: Employment and Establishments by Industry Group in Central-East Subarea, 2007

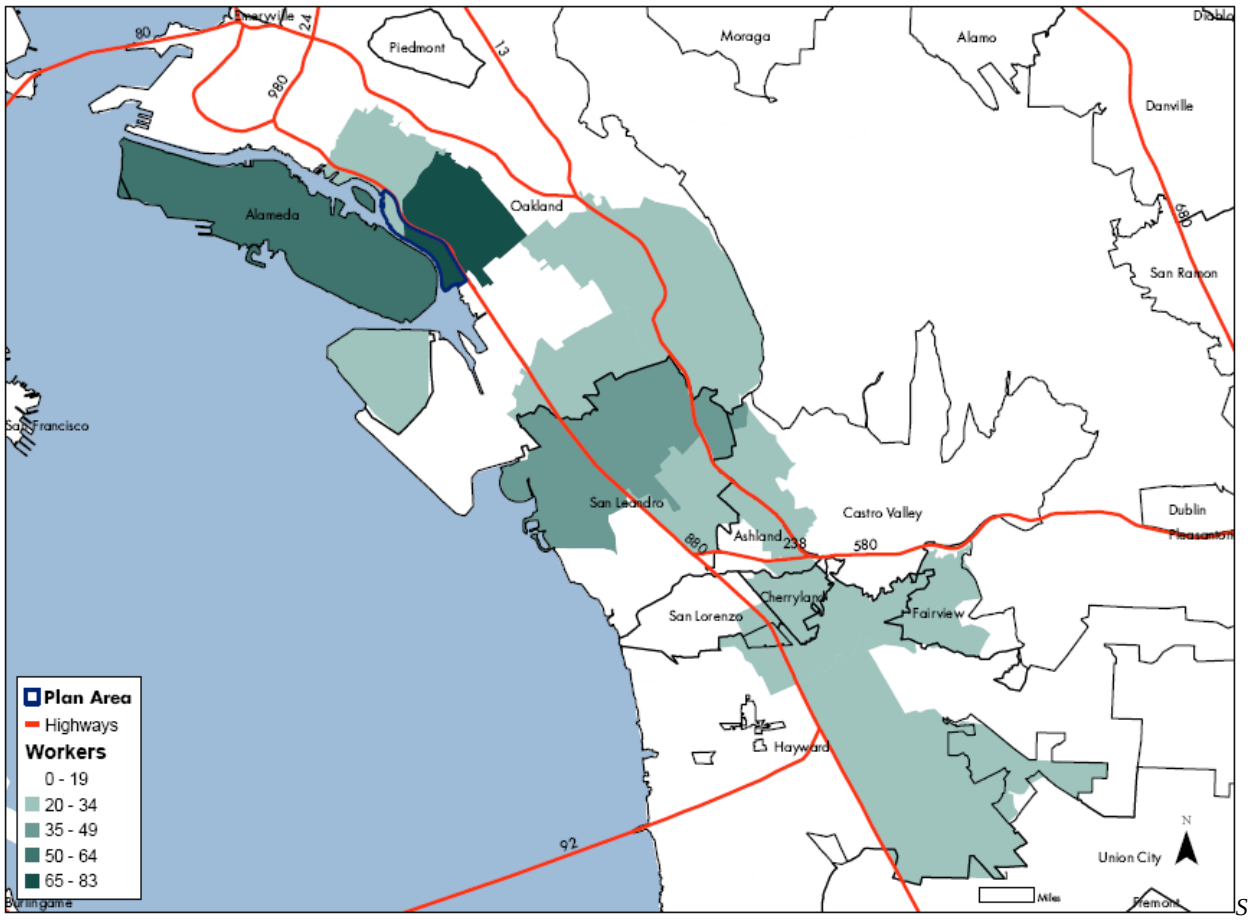


Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

In addition to the high concentrations in the Stone, Glass, and Concrete Products and in Building Materials, there is also a large concentration of Construction- Special Trade Contractor and Automotive Repair, Services, and Parking jobs in this subarea. However, in keeping with having the smallest number of establishments of any subarea (only 28), these concentrations are also a reflection of a handful of large firms.

Figure 22 illustrates that, as with all four subareas, the most common location of residences for workers in this subarea is in the immediately adjacent areas of East Oakland, with a larger number of employees traveling from Alameda as well. However, more than the two western subareas, there is a heavy concentration of workers in the cities to the south of Oakland, including San Leandro and Hayward.

Figure 22: Origins of Commutes to the Central-East Subarea, 2006



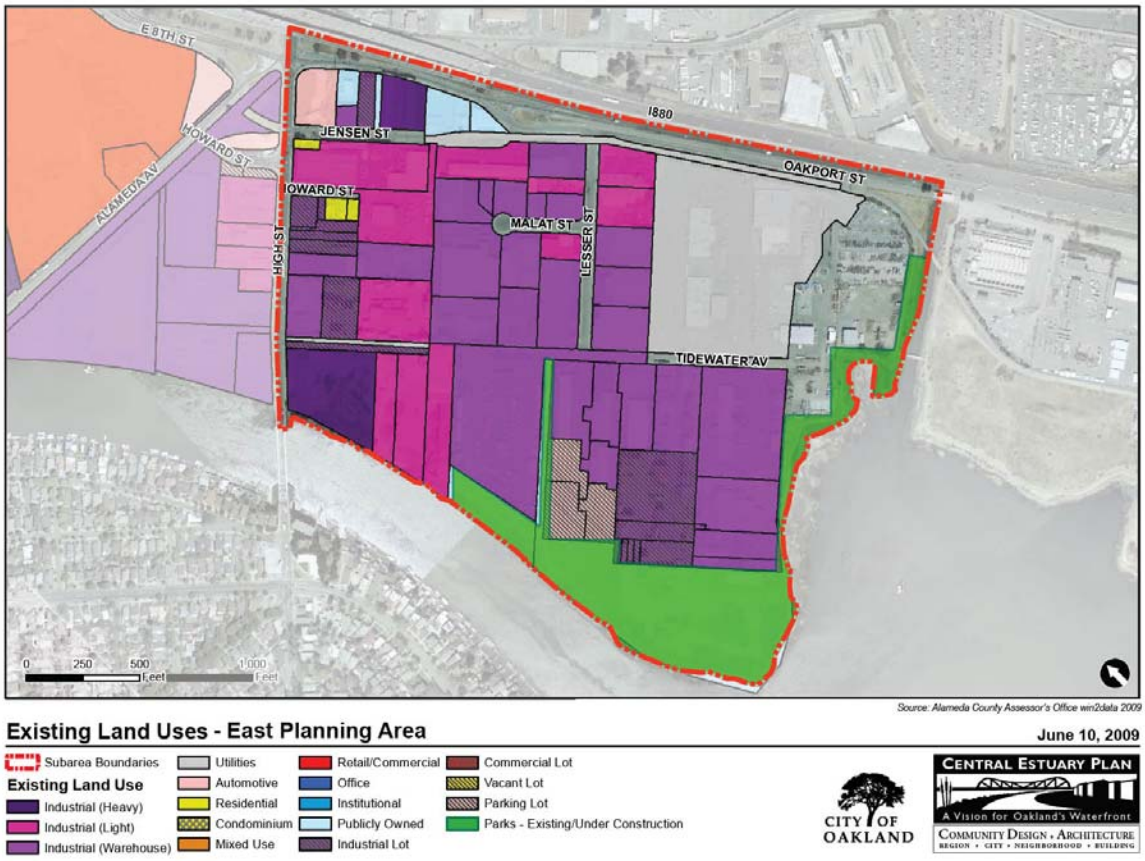
ource: LEHD 2006; ESRI; Strategic Economics 2009

Unfortunately, all businesses contacted in the Central-East Subarea declined to be interviewed for this profile, so qualitative information about these firms are not available.

East Subarea

As shown in Figure 23, below, land in the East Subarea is almost exclusively occupied by industrial uses, primarily in the form of light industry and warehousing. Although firms in this area occupy a large amount of land area, they have a very low density of employment: only three of the 62 establishments in this subarea have more than 50 employees.[11]

Figure 23: Land Use in the East Subarea



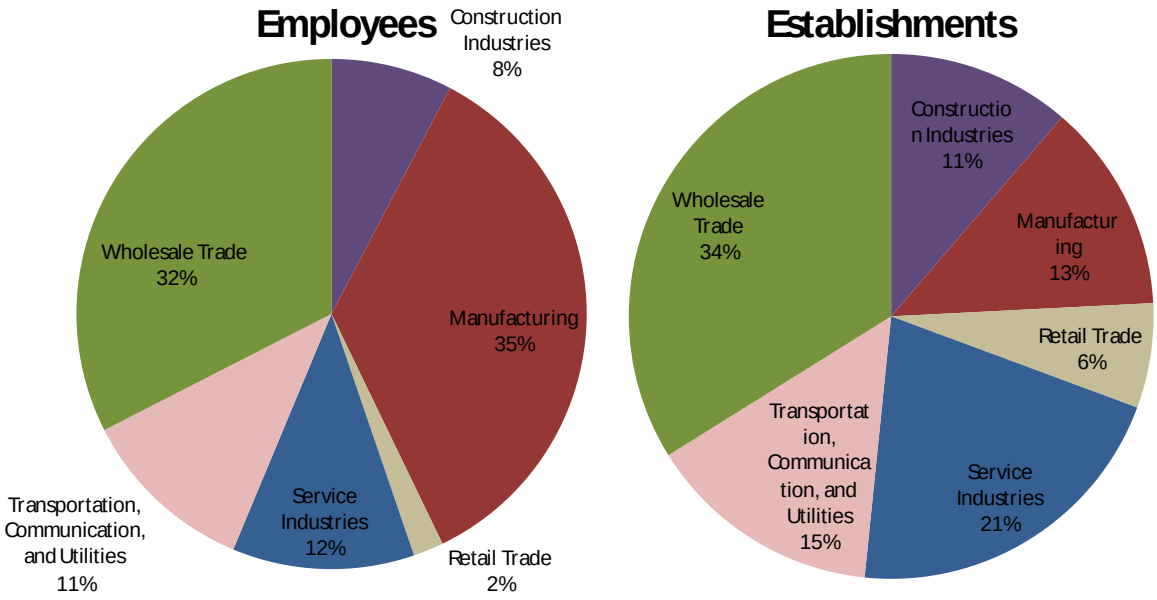
Source: Community Design + Architecture 2009

Figure 24, below, illustrates that the dominant industry groups in the East Subarea are Wholesale Trade and Manufacturing. Wholesale Trade establishments in the East Subarea generally deal in durable goods, such as heavy machinery and auto parts; leading to a feel of heavier industry than in the West Subarea, where Wholesale Trade is most often nondurable goods, such as foodstuffs. This industrial feel

[11] In 2009, Jetro, a restaurant supplier, relocated from the Jack London Square area to the East subarea. Though City of Oakland staff estimate that this location has 115 to 125 employees, these are not included in the Dunn and Bradstreet or NETS data, which have 2008 and 2007 as their most recent years, respectively.

is magnified by the infrastructure in the area, which includes many unpaved, dead-ending roads that are occupied by parked tractor trailers.

Figure 24: Employment and Establishments by Industry Group in East Subarea, 2007

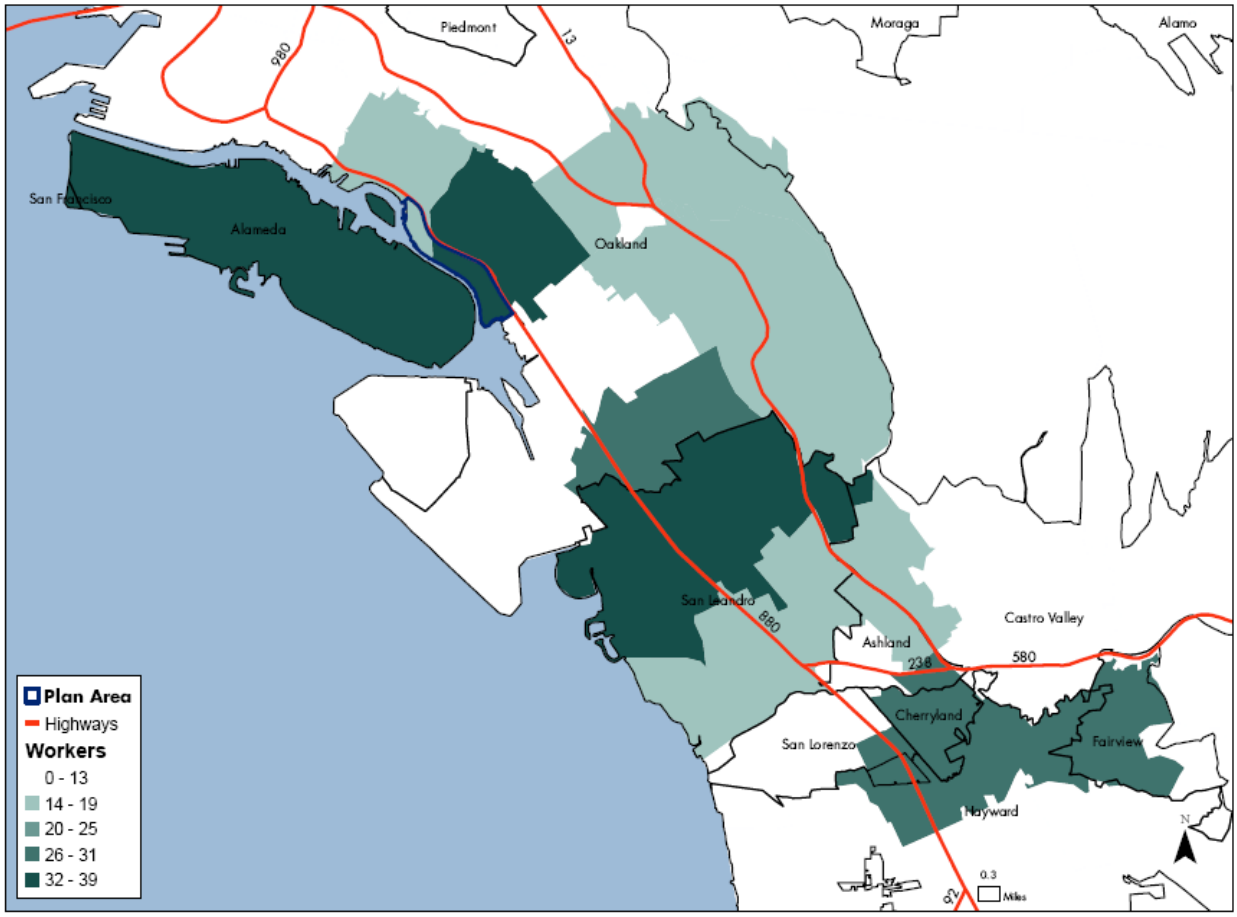


Source: NETS, Center for Community Innovation 2009, Strategic Economics 2009

Interviews indicate that, as with industrial firms throughout the Plan Area, the primary draws to the area are the high quality access to the transportation network (including highway, rail, port, and barge transport) and the central location within the Bay Area. The businesses and brokers interviewed in this area reported that, in general, firms are not sensitive to some of the neighborhood amenities that those in the two western subareas mentioned, but are dissatisfied with the level of maintenance of public roads within the area. They also reported that, although there is little turnover among the firms present in the area, establishments in general are reducing their workforce.

As illustrated in Figure 25, the commute patterns for workers in the East Subarea is very similar to that of workers in the Central-East area: there is a high concentration of residences in the immediate area and in Alameda, and secondary concentrations in San Leandro and Hayward.

Figure 25: Origins of Commutes to the East Subarea, 2006



Source: LEHD 2006; ESRI; Strategic Economics, 2009.

Market Assessment

This section assesses the real estate market conditions and trends for commercial and industrial buildings and lands in the Central Estuary Plan Area. Broker calls and market data, in concert with findings from the Business Profile, are used to determine the competitiveness of this area among various employment sectors. These sources are also used to evaluate the degree to which the needs of businesses are being met by the area's buildings. Next, local and regional employment projections are used to estimate the potential future demand for various employment-related land uses. The section concludes with an evaluation of the Plan Area as a locus for growth in "green" jobs and businesses.

Summary of Key Findings

- **In general, the Plan Area has high demand for light manufacturing and warehousing buildings.** The biggest challenge is an older building stock, but the central location near transportation hubs outweighs the drawback of the building quality.
- **The Plan Area is a weaker location for office uses due to the lack of public transit and retail amenities.** Currently there are only significant office uses in the West Subarea.
- **Existing employment uses in the Plan Area face a considerable challenge from residential demand both in and around the area.** Housing is not compatible with most industrial uses and allowing mixed-use development would likely displace most these businesses over time.
- **There will be a large increase in jobs in industries that will demand land in the Plan Area.** These goods movement-dependent industries will be drawn to the area due to its central location and access to the full range of transportation modes. These businesses will also be pushed to the Plan Area by the dwindling supply of industrial lands in the rest of the Inner Bay Area, assuming that land and buildings are available and land use compatibility challenges do not increase.
- **These industry groups, such as wholesale trade, manufacturing of nondurable goods, and transportation, will require a large amount of land and building space per employee.** A conservative estimate of future demand shows that these three industry groups could require 24 additional acres of land to support anticipated employment growth.
- **There is the potential for a significant increase in office-based jobs in the Plan Area.** However, this would be a result of high rates of growth for the city of Oakland as whole, and not due to strengths in the Plan Area's office market.
- **The Plan Area has many features that make it a strong market for growth in "green" jobs and businesses.** However, key barriers to this include a lack of public transportation, as well as high taxes, high rents, traffic congestion and burdensome permitting processes.

Market Overview

It is important to note that the bulk of the research for this study was completed in the second quarter of 2009 during a severe economic downturn in the global economy. While this overview focuses primarily on the long-term demand for industrial and office building space, the impact of the current economic situation cannot go unmentioned. Manufacturing, warehousing, and office rents have all decreased since early 2008 and available properties have remained on the market for longer periods of time. Nevertheless, this should not be misinterpreted as an inherent shortcoming of the Plan Area's ability to attract tenants, but rather symptoms of broader problems in the national and global economy. As mentioned above, one key finding is that there is a variety of industrial users, and to a lesser extent, office users, interested in locating in the Plan Area even during this challenging economic situation.

Residential Market

The Association of Bay Area Governments (ABAG) projects that Oakland will grow by 17,830 households between 2010 and 2020 and by 47,640 households by 2035. Because of its unique waterfront location and proximity to regional transportation networks, the Plan Area is an attractive area for new residential development.

Despite the current residential market slowdown, over the longer term any land available for development is expected to be more valuable for residential development. Where there is a market for residential uses, industrial land values tend to be lower than residential land values, because industrial uses have relatively low densities and typically generate lower rents and sales prices on a per square foot basis. As a result, property owners are likely to be induced to sell industrial land to residential developers. Currently, brokers estimate that warehousing and manufacturing buildings rent for $0.35 to $0.55 per square foot per month (triple net), which implies a value of approximately $68 per square foot.[12] However, based on sales from July 2008 to February 2009, condominiums in the Plan Area are selling for $200 to $400 per square foot of residential area. This, coupled with floor-area-ratios that are likely to be at least four times higher for residential than for industrial, translates into a dramatically greater amount of revenue for residential than industrial buildings. While some of this difference in revenue is consumed by the significantly higher construction costs associated with residential space, it is nevertheless clear that land is more valuable, in pure monetary terms, when it can be sold for residential uses.[13]

However, conditions throughout much of the Plan Area may limit the potential for new housing. Currently, only the Central-West Subarea has the infrastructure necessary to support additional housing. In order to develop housing in other areas, developers would potentially need to pay for new streets, sidewalks, street lighting and, in many cases, environmental remediation. These costs may be substantial enough to render residential projects infeasible, except at very high sales prices for which there may not be sufficient demand in the near term.

Retail Market

With a population of approximately 1,200 residents in less than 600 households, there is limited potential for neighborhood-serving retail within the Plan Area. On its own, the size of the market area is smaller than that which is necessary to support most individual retail uses. In addition, I-880 and the Estuary pose formidable physical barriers that limit the ability of small retailers to draw customers from adjacent areas of Alameda or Fruitvale. A substantial amount of market demand within the Plan Area is being met by stores and restaurants in these two areas, as well as those closer to Jack London Square. These locations offer a competitive advantage for retailers, because they can draw from a broader market area. Although additional housing units within the Plan Area will increase demand somewhat, it is unlikely that new retail will be able to compete substantially with these existing retail centers.

However, there are several features of the Plan Area that make it well suited to regional-serving retail. Proximity to I-880 provides for both a high level of visibility and accessibility to customers from well

[12] Value estimated assuming an 8 percent capitalization rate.

[13] While it is likely that development of industrial uses is more feasible than residential uses in the current residential market downturn, land values are still likely to be driven by the long-term expectation of the potential for residential development.

outside of the immediate area. In addition, the large parcels that are endemic to most of the Plan Area are able to accommodate the surface parking that many large retailers prefer.

Industrial Market Context

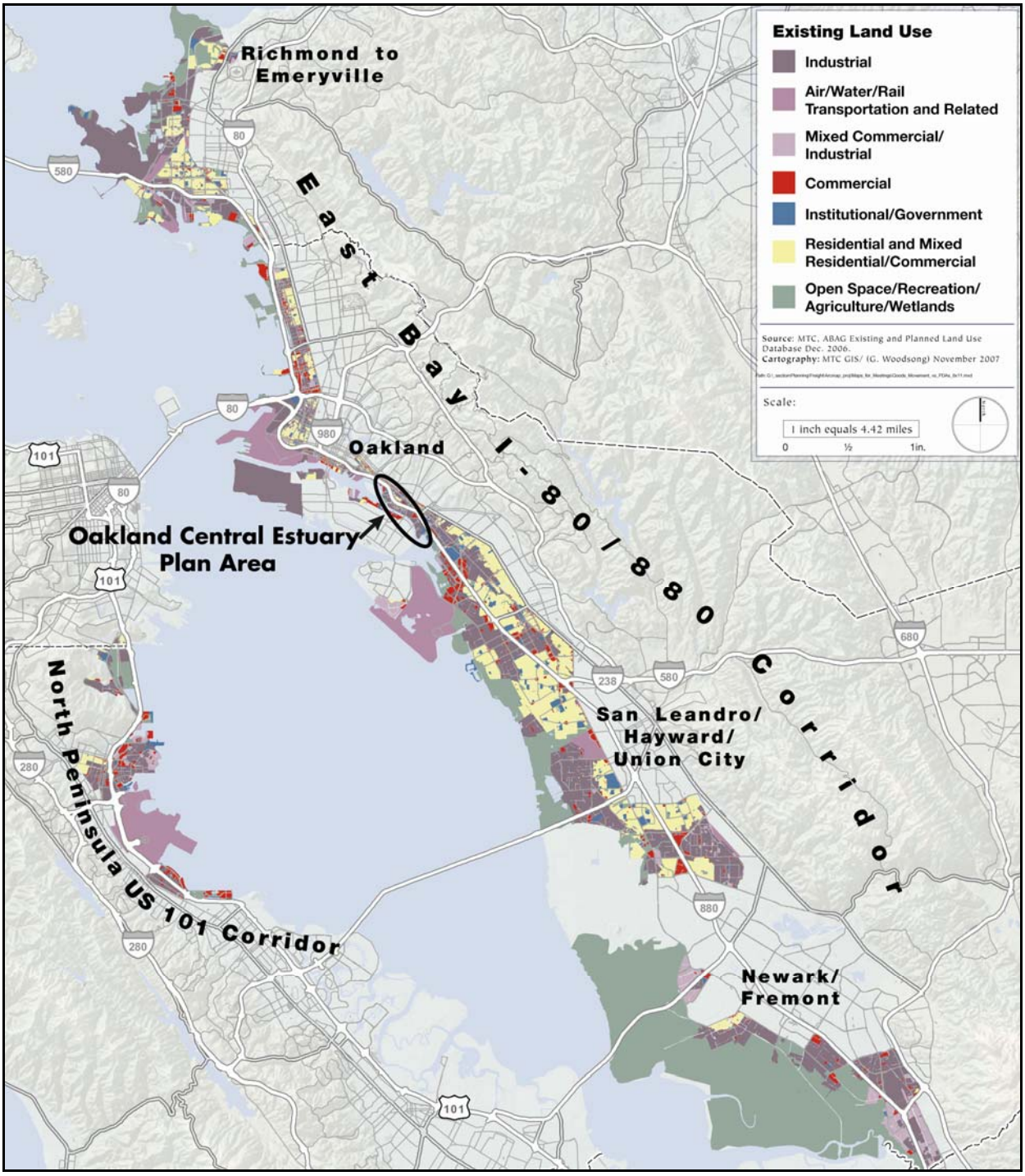
The Plan Area offers industrial firms a location in the heart of the metropolitan region, close to key transportation nodes and highly populated areas. Companies considering moving to the Plan Area tend to consider industrial spaces along the entire I-80 and I-880 corridors, as far north as Richmond and as far south as Fremont. Berkeley and Emeryville also have industrial districts in the urban core, and have some of the highest rents. In fact, manufacturing rents in Berkeley are on average 62 percent higher than Oakland[14]. Compared to Berkeley and Emeryville, the Plan Area is just as centrally located, but with more affordable rents, thus offering opportunities for the incubation of start-ups and small firms.

Compared to more suburban industrial markets in the East Bay like Hayward, Fremont, and Union City, the Plan Area has better access to transportation nodes. However, the building supply is generally older and some buildings are becoming functionally obsolete as industrial technologies and methods change. Despite the fact many warehousing buildings in the Plan are old and not up to modern standards, low vacancy rates indicate that the building supply and infrastructure are still functional for industrial tenants. Furthermore, it is likely that the cost savings associated with proximity to transportation nodes and population centers (reduced travel-distance and travel-time) offsets the inefficiencies of the older buildings.

The industrial building supply in the Plan Area is considered some of the best in Oakland. While some of the building stock in the Plan Area is functionally obsolete, there are still many buildings in relatively good condition. When combined with the Plan Area's high quality access to key infrastructure, these buildings are considered some of the best options for light industrial and warehouse users in Oakland. Also, compared to other industrial areas in the city, the Plan Area has retail and restaurant amenities within a relatively close distance at Jack London Square, Park Street in Alameda, and Fruitvale Ave.

[14] NAI BT Commercial, East Bay Manufacturing Report, 1Q 2009

Figure 1: Location of the Plan Area Relative to all East Bay Industrial Land



Source: MTC Goods Movement/Land Use Project 2008; Hausrath Economics Group, Strategic Economics, 2009.

Brokers report interest in industrial spaces in the Plan Area from port-related businesses, such as warehousing, distribution, and transportation. These types of companies choose to locate in the Plan Area because of its proximity to key transportation nodes, such as the Port of Oakland and I-880. Many of these firms are involved in, or depend upon, goods movement, so proximity to the I-880 is vital.

There is high interest from furniture wholesalers, food producers and food warehousing. The Plan Area's proximity to major population centers is a key asset for these types of industrial companies. The absence of residential neighbors is another advantage for industrial firms looking to locate in the Plan Area.

Industrial Market Trends

The vacancy rate in the Plan Area industrial market is low, between five and ten percent. This is generally lower than the industrial vacancy rate in Oakland overall. It is also lower than many of the suburban industrial markets. More recently, vacancy rates have been rising and brokers report some difficulty leasing space due to the economic downturn. Nevertheless, this area is considered a tight and stable market in normal economic conditions.

Brokers report that rents for industrial space in the Plan Area were relatively steady from 2003 to 2007, peaked in mid 2008 and declined in 2009. Rents for manufacturing space range from $0.45 to $0.55 per square foot (NNN), which is slightly higher than manufacturing rents in the City of Oakland overall ($0.43 per square foot NNN). Rents for warehouse space in the Plan Area range from $0.35 to $0.45 per square foot (NNN). These rents are comparable to warehouse rents in the City of Oakland overall, which are on average $0.43 per square foot (NNN). See Figure 2 below for a comparison of rent gradients for industrial building types.

Office Market Context

The Plan Area office market, limited to the area around Embarcadero and 22nd Avenue, attracts engineering and design firms, non-profits, and other professional services. Companies are generally drawn to this location because it offers less expensive rents than other office districts. Additionally, proximity to the Port of Oakland is an asset as many office users are port-related businesses. Office users in the area tend to be small, needing only 3,000 to 10,000 square feet.

The lack of transit and retail amenities in the Plan Area significantly limits the strength of the office market. Most office users prefer to locate in dense employment areas, such as a downtown, where there are more services available. The office users in the Plan Area do benefit, however, from abundant free parking and lower rents than in Downtown Oakland.

Office Market Trends

Brokers report that rents for office space in the Plan Area range from $1.25 to $2.00 per square foot full service (FS). These rents are lower than other Oakland office markets such as City Center, Lake Merritt, and Jack London Square, which average $2.25 to $2.60 per square foot (FS). Brokers estimate that office vacancy in the Plan Area is fairly high, around 20 percent. See Figure 2 below for a comparison of the rent gradients for industrial and office building types.

A new mixed-use retail and office development, just north of the Plan Area at 1211 Embarcadero, has been slow to absorb. The 25,000 square foot building was built in 2006 and the office portion of the building is 50 percent vacant. It is not clear whether the onset of the economic downturn is the primary contributor to the high vacancy rate in that building or if there are other factors at play. Companies that have expressed interest in the office space are often already located in Jack London Square or Marina Village in Alameda and are involved in professional services, such as engineers, CPAs, and architects. The ground floor has been leased by Starbucks and Quiznos.

Key Market Findings by Subarea

West Subarea

Brokers report that there is usually high demand for industrial space in the area from Dennison Street to 23rd Avenue. Although there is currently not much activity because of the economic downturn, vacancy rates are generally low in this area. Brokers report interest from food producers and warehousing, transportation, and port-related businesses. The competitive advantages of this area for industrial users include excellent freeway access, the lack of residential neighbors, and a range of industrial building types.

The warehousing buildings are older and becoming obsolete. Brokers report that some prospective tenants prefer more modern warehousing facilities than those available in this subarea.

Potential demand for residential uses threatens the viability of the industrial market in the area. Brokers report that landowners of waterfront warehousing space are hoping to transition to residential uses when the housing market recovers. However, these two land uses are not compatible and waterfront residential uses would compromise industrial activity closer to I-880. Additionally, the Oak to 9th redevelopment project, which is just outside of the Plan Area boundaries, could increase pressure for residential development in this subarea. If Oak to 9th becomes a high quality residential neighborhood, this could increase pressure to convert other industrial properties along the waterfront to residential uses.

There is office space in the north-west portion of this subarea, but rents are relatively low and vacancy rates relatively high. It is a discount office market and some of the businesses located here are port-related or related to the industrial users in that area. Other office users include engineers, architects, non-profits, and other professional and social services. Brokers report that the lack of public transportation in the area is a challenge for some office users.

Central-West Subarea

Brokers report that industrial users in this area are leaving and that warehouses are being converted to housing. This neighborhood currently has a wide variety of uses (small industrial businesses, live-work artist spaces, and new condos) that co-exist in close proximity with relatively little tension. However, brokers expect the subarea to become more residential over time, due to the higher land prices paid by residential uses as compared to industrial. Furthermore, the parcels are small, which is a challenge for modern industrial uses.

Central-East Subarea

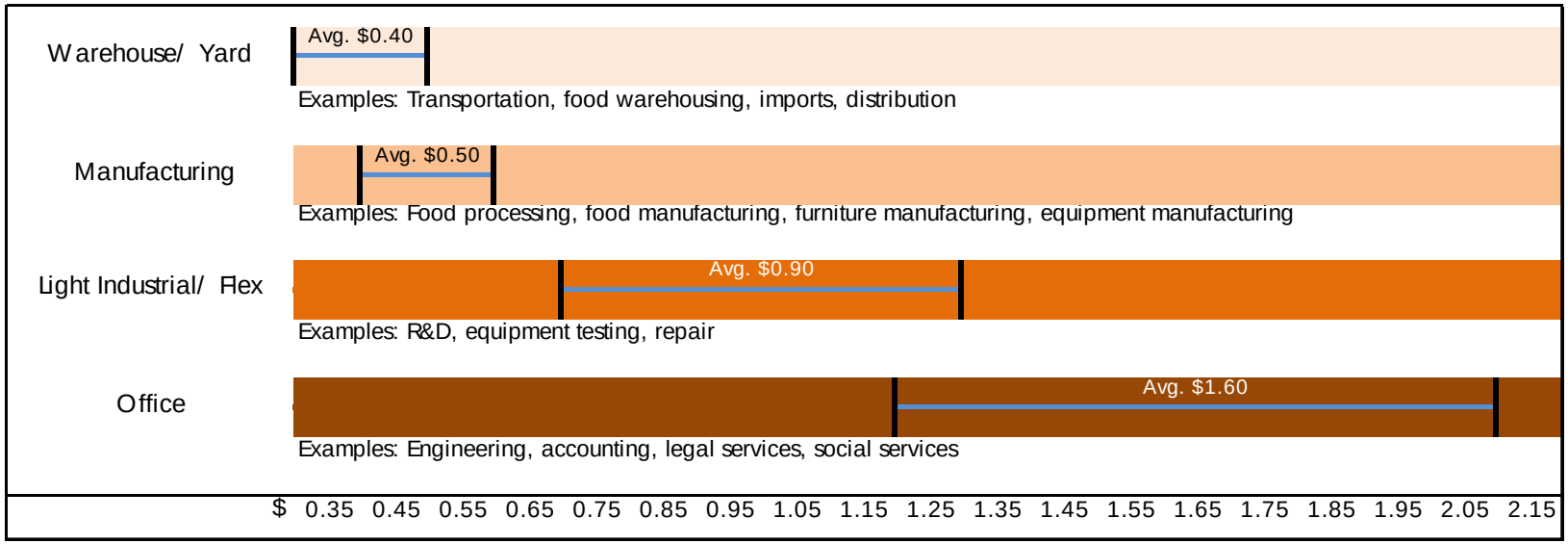
Brokers envision the Owens Brockway site as a mid- to long-term opportunity site for a variety of uses. Brokers anticipate strong demand for mixed-use housing and retail, or possibly a mixed-use office project on this site. These local experts also think that there would be enough demand to support a light industrial business park, especially since many of the existing industrial spaces in the Plan Area are becoming functionally obsolete. However, this sets up a potential conflict between two user groups that could both locate in this area, but are not compatible with each other and can support very different land values.

From Alameda to High St., brokers do not envision significant change from its current state as an industrial area. There are some modern buildings in this location and successful businesses that want to stay in their current locations.

East Subarea

Uncertainty in land use policy in this subarea had led to a lack of investment by industrial firms. Although there has been interest from light manufacturers in locating in this area, these companies have chosen to locate elsewhere because they do not want to move into an area that may eventually be adjacent to a residential neighborhood. The area is currently home to transportation, warehousing, manufacturing, and storage uses, which are not compatible with residential uses. There is relatively little development in this area, which has been limited by a lack of a road network. Lesser Street and Tidewater Street are the most intensely developed roads.

Figure 2: Approximate Industrial and Office Rent Averages and Ranges by Building Types



Source: Strategic Economics, 2009.

Employment-based Demand Estimate

The following analysis represents an estimate of the potential demand for building space and land area in the Plan Area. It is important to note that, while these estimates are based on employment projections for Oakland and the Bay Area as a whole, the Central Estuary Plan Area represents only a small fraction of the land in the region. As a consequence, estimating future demand in the area is somewhat imprecise. As confirmed through interviews with businesses and real estate brokers, the Plan Area's location is of great importance to a variety of industries. Therefore, the growth rates of the industries that most heavily depend on locations similar to the Plan Area, and the attendant change in demand for land are important considerations in determining the potential future land use patterns of the area.

This analysis is composed of two parts. The first is a more traditional demand estimate, making use of the Association of Bay Area Governments' (ABAG) Projections 2007. In this component, ABAG's employment projections for Oakland from 2010 to 2035 are further segmented into individual industries, using data from projections conducted by the California Economic Development Department (EDD). To the extent that these projections indicate that each industry will grow in Oakland, a share of this growth can be expected to be attracted to the Plan Area. Based on estimates of these shares of city-wide growth, the potential for new employment then translated into new demand for building space and land area. This estimate is then used to determine the extent to which there may be demand for various land uses in the Plan Area.

The second part of the analysis is a more qualitative assessment of demand, based on the findings of a recent study conducted by the Metropolitan Transportation Commission, "Goods Movement/Land Use Project for the San Francisco Bay Area." These data are used to modify the initial demand estimate and to highlight how, based on likely land use changes in the region, the traditional method may be understating potential demand for certain land uses.

Demand Estimate Methodology and Assumptions

The following demand estimate has been broken into two major steps. First, projections for job growth in the city and region must be refined into projections for individual industries within the Plan Area. Next, these projections must be translated into the building space and land area that these jobs would require in order to locate in the Plan Area. Both of these steps necessitate an array of assumptions about future economic conditions and development patterns. These assumptions are outlined below.

The first step in translating ABAG's employment projections into demand for land in the Plan Area is estimating the share of the increment of new jobs in each industry that could be attracted to the area. This can partly be predicted by assessing the share of the city's industries that are currently located there. However, this method is based on at least two ***false assumptions***:

1) Land availability and building stock is not a factor in a firm's decisions about where to locate. As a consequence, the extent to which each industry is located in the Plan Area is purely a reflection of the degree to which the area suits its needs.

In fact, **land availability is a critical factor** in determining the share of Oakland jobs that will demand space in the Plan Area. For instance, if industrial land in other parts of the city is converted to other uses, a higher share of manufacturing, wholesale, and transportation jobs will be attracted to this area. Likewise, to the extent that industrial land within the area is converted to residential or office uses, fewer firms from these industries will demand space in the Plan Area. Finally, as office vacancy rates and rents shift in other portions of the city and region, there will be an impact on demand in the Plan Area.

2) The economic and physical conditions that generated the rate of demand for space in the Plan Area in the past will remain constant, except insofar as each industry may grow or shrink.

This is similarly false. Transportation costs, land costs, and a host of other factors are likely to change in the future in ways that have a range of impacts on different industries. Although many of these variables are considered in regional employment projections, the extent to which they may generate disproportionate demand for space in the Plan Area is less clear.

As such, while the share of employment that is currently located in the Plan Area is used as a baseline, this figure is adjusted up or down based on data collected from broker and business interviews and from the quantitative data analyzed in the Business Profile (Table 1). The estimated share of future employment growth diverges from the Plan Area's current share of employment in the following industry groups:

Manufacturing

Firms engaged in the manufacture of durable goods are highly concentrated within the Central-West Subarea, wherein residential growth has been the greatest. This suggests that, at least in its current form, this sector will continue to decline in the Plan Area. While there is strong potential for new durable goods manufacturers to locate to one of the other three subareas, the decline in the Central-West is likely to mitigate this growth. Therefore, these estimates assume that this sector will grow at a slower rate in the Plan Area than in the rest of Oakland.

In contrast, the manufacture of non-durable goods (including food products), which is most concentrated in the West subarea, is a particularly strong sector in the Plan Area. These firms, for which high quality access to the transportation network and a location in the center of the region are critical for preventing food spoilage, are likely to continue to demand land in the Plan Area. Therefore, it is assumed that employment in these firms will be drawn to the area at a higher rate than is represented by the Plan Area's current share of Oakland's employment in these industries.

Between these two trends, manufacturing as an industry group is estimated to have the potential to attract a slightly higher percentage of new jobs than the Plan Area's current share.

Wholesale Trade

Interviews and recent business trends suggest that wholesale trade is also a particularly strong industry group in the Plan Area. As with manufacturing, the wholesale trade of non-durable goods is highly dependent on a location that allows for timely delivery. Though timeliness is often less critical to their operations, firms engaged in the wholesale trade of durable goods are also highly sensitive to transportation costs. Consequently a disproportionate share of demand in these industries will likely be directed to the Plan Area.

Transportation and Warehousing

Although transportation and warehousing do not represent a high percentage of the Plan Area's employment base, they are well represented as a share of Oakland's total employment. This is because, as with wholesale trade and the manufacture of nondurable goods, these industries are highly dependent on location and access to the transportation network. By their nature, these firms have a strong preference for locations where transportation costs are lower. As these costs increase, this is likely to result in a higher rate of demand for land in the Plan Area.

Retail Trade

A large amount of new housing has recently been constructed or planned within, and adjacent to, the Plan Area. This is likely to generate new demand for neighborhood-serving retail, a use that is currently

under-supplied, according to interviews with businesses. This demand for retail by residents and businesses may translate into demand for space by retailers. As additional housing may be built in the coming decades, this demand will further grow, most likely at a higher rate than in areas of Oakland where population levels are more stable.

Professional, Scientific, and Technical Services

Among the office-using businesses interviewed for the Business Profile, a majority expressed satisfaction with their location in the Plan Area. In addition, businesses indicated that there is significant demand for flex/R&D spaces that are not currently provided in much of Oakland. However, broker interviews indicate that there is a high rate of vacancy in office buildings very close to the area and there was a consensus among businesses that the area does not currently offer the amenities (including public transportation, restaurants, and community-serving retail) to support a high density of office users. If these factors change, there is the potential for the Plan Area to capture a significant share of new office demand. Because this demand would require a large amount of new investment, as well as a decrease in vacancy within Oakland's other office markets, these estimates assume that the Plan Area will attract office-based employment at a lower rate than in Oakland as a whole.

Health Care and Social Assistance

Within Heath Care and Social Assistance industries, employment in the Plan Area is overwhelmingly represented by a single entity: Alameda County Behavioral Health Services. Although some growth may occur, it is unlikely that this public agency will grow at the same rate as the industry as a whole. In addition, due to the lack of public transportation and the small residential population, the Plan Area may only be appropriate for administrative offices, and not for direct client/patient services. This further limits these industries' potential for growth in the Plan Area. Therefore, it is assumed that demand for space in these industries will grow at a significantly lower rate than in the rest of Oakland.

Table 1: Projected Share of Employment Growth by Industry in Plan Area

Industry	2008 Employment			Potential Share of Citywide Growth in Plan Area
	Oakland	Plan Area	Existing Share of Industry in Plan Area	
Construction	**9,219**	**385**	**4.18%**	**4.18%**
Construction of Buildings	2,377	48	2.02%	2.02%
Heavy and Civil Engineering Construction	1,220	54	4.43%	4.43%
Specialty Trade Contractors	5,622	283	5.03%	5.03%
Manufacturing	**24,315**	**701**	**2.88%**	**3.00%**
Durable Goods	15,533	332	2.14%	1.25%
Nondurable Goods	8,782	368	4.19%	5.50%
Wholesale Trade	**12,386**	**467**	**3.77%**	**4.75%**
Wholesalers, Durable Goods	6,345	231	3.64%	4.50%
Wholesalers, Nondurable Goods	4,569	236	5.17%	6.50%
Transportation and Warehousing	**8,122**	**275**	**3.39%**	**4.25%**
Truck Transportation	1,929	108	5.60%	7.00%
Warehousing and Storage	990	42	4.24%	5.25%
Retail Trade	**15,406**	**360**	**2.34%**	**2.75%**
Motor Vehicle and Parts Dealers	1,740	70	4.02%	4.02%
Miscellaneous Store Retailers	952	39	4.10%	4.50%
Professional, Scientific, and Technical Services	**13,770**	**385**	**2.80%**	**2.25%**
Architectural, Engineering, and Related Services	2,943	114	3.87%	3.25%
Administrative and Support and Waste Management and Remediation Services	**10,642**	**456**	**4.28%**	**4.28%**
Investigation and Security Services	1,407	337	23.96%	23.96%
Educational Services (Private)	**5,781**	**312**	**5.40%**	**5.40%**
Health Care and Social Assistance	**31,114**	**605**	**1.94%**	**0.75%**
Social Assistance	4,752	566	11.91%	4.00%

Source: Dun & Bradstreet 2008, ABAG 2007, EDD 2006, Strategic Economics 2009

The second step in estimating employment-based demand is generating assumptions about the amount of building space and land that each job will require. To make these assumptions, several data sources were consulted. Businesses within the Plan Area were contacted and asked about their current employment levels and space usage (the results of these interviews are shown in Appendix B). However, these data demonstrate that, even within the Plan Area, there is a wide variety of employment densities and floor area ratios (FAR) for businesses. This is true, even among users in similar industries. In addition, the interviews did not include businesses representing all industries in these projections. Therefore, assumptions were further clarified and generated by consulting the Building Owners and Managers Association International 2004 Exchange Report, examining a sample of parcel data within the Plan Area, and drawing upon prior experience with these data. The assumptions shown in Table 2 are based on a combination of these two sources.

Table 2: Building Requirements by Industry

Industry	FAR	Square Feet per Employee (Building)
Construction	**0.5**	**500**
Construction of Buildings	0.5	500
Heavy and Civil Engineering Construction	0.2	500
Specialty Trade Contractors	0.7	500
Manufacturing	**0.5**	**1,000**
Durable Goods	0.5	1,000
Nondurable Goods	0.5	1,000
Wholesale Trade	**0.3**	**1,500**
Wholesalers, Durable Goods	0.3	1,500
Wholesalers, Nondurable Goods	0.3	1,500
Transportation and Warehousing	**0.3**	**1,000**
Truck Transportation	0.1	200
Warehousing and Storage	0.5	1,500
Retail Trade	**0.3**	**500**
Motor Vehicle and Parts Dealers	0.3	500
Miscellaneous Store Retailers	0.3	500
Professional, Scientific, and Technical Services	**0.7**	**300**
Architectural, Engineering, and Related Services	0.7	300
Administrative and Support and Waste Management and Remediation Services	**0.7**	**350**
Investigation and Security Services	0.7	200
Educational Services (Private)	**0.7**	**500**
Health Care and Social Assistance	**0.7**	**400**
Social Assistance	0.7	200

Source: BOMA International 2004, Dun & Bradstreet 2008, ABAG 2007, EDD 2006, Urban Explorer 2009, Strategic Economics 2009

The projections that resulted from these assumptions are outlined in the following section.

Projections

As shown in Table 3, in 2008, Oakland had 218,350 jobs. Of these, 4,307 (two percent) were located in the Central Estuary Plan Area. By 2035, ABAG projects that Oakland will add 67,250 jobs. Using the assumptions above, it is estimated that there is the potential for an additional 1,188 jobs to be located in the Plan Area (1.8 percent of the total for the city). These jobs would generate demand for an additional 705,688 square feet of building area on 39.7 acres of land.[15]

[15] For some uses, especially offices, higher FARs are possible if parking is provided in structures rather than as surface parking. This would reduce the total amount of land area demanded. However, for some uses, such as wholesale trade and transportation, low FARs are necessary to accommodate the movements of delivery vehicles.

Table 3: Projections by Industry, 2008-2035

	2008		2020				2035			
Industry	Jobs, Oakland	Jobs, Plan Area	Change in Jobs from 2008, Oakland	Change in Jobs from 2008, Plan Area	Change from 2008 in Demand for Space (SF)	Demand for Land in Plan Area (Acres)	Change in Jobs from 2008, Oakland	Change in Jobs from 2008, Plan Area	Change from 2008 in Demand for Space (SF)	Demand for Land in Plan Area (Acres)
Construction	**9,219**	**385**	**1,372**	**57**	**28,676**	**1.3**	**2,812**	**118**	**58,777**	**2.7**
Construction of Buildings	2,377	48	311	6	3,145	0.1	677	14	6,838	0.3
Heavy and Civil Engineering Construction	1,220	54	165	7	3,655	0.4	353	16	7,827	0.9
Specialty Trade Contractors	5,622	283	896	45	22,525	0.7	1,782	90	44,815	1.5
Manufacturing	**24,315**	**701**	**1,323**	**40**	**39,684**	**1.8**	**3,524**	**106**	**105,731**	**4.9**
Durable Goods	15,533	332	725	9	9,062	0.4	2,121	27	26,513	1.2
Nondurable Goods	8,782	368	598	33	32,882	1.5	1,403	77	77,182	3.5
Wholesale Trade	**12,386**	**467**	**1,017**	**48**	**72,497**	**5.5**	**2,168**	**103**	**154,504**	**11.8**
Wholesalers, Durable Goods	6,345	231	288	13	19,473	1.5	858	39	57,925	4.4
Wholesalers, Nondurable Goods	4,569	236	543	35	52,910	4.0	982	64	95,704	7.3
Transportation and Warehousing	**8,122**	**275**	**741**	**32**	**31,501**	**2.4**	**1,502**	**64**	**63,847**	**4.9**
Truck Transportation	1,929	108	219	15	3,064	0.7	403	28	5,646	1.3
Warehousing and Storage	990	42	179	9	14,112	0.6	280	15	22,018	1.0
Retail Trade	**15,406**	**360**	**2,464**	**68**	**33,880**	**3.1**	**5,764**	**159**	**79,255**	**7.3**
Motor Vehicle and Parts Dealers	1,740	70	183	7	3,672	0.3	538	22	10,814	1.0
Miscellaneous Store Retailers	952	39	98	4	2,216	0.2	292	13	6,580	0.6
Professional, Scientific, and Technical Services	**13,770**	**385**	**4,509**	**101**	**30,433**	**1.0**	**8,023**	**181**	**54,156**	**1.8**
Architectural, Engineering, and Related Services	2,943	114	806	26	7,855	0.3	1,526	50	14,883	0.5
Administrative and Support and Waste Management and Remediation Services	**10,642**	**456**	**2,052**	**88**	**30,744**	**1.1**	**4,493**	**192**	**67,309**	**2.4**
Investigation and Security Services	1,407	337	178	43	8,519	0.3	482	116	23,118	0.8
Educational Services (Private)	**5,781**	**312**	**1,247**	**67**	**33,656**	**1.1**	**2,871**	**155**	**77,527**	**2.5**
Health Care and Social Assistance	**31,114**	**605**	**6,227**	**47**	**18,682**	**0.6**	**14,861**	**111**	**44,583**	**1.5**
Social Assistance	4,752	566	1,062	42	8,494	0.3	2,406	96	19,248	0.6
Total	**218,350**	**4,307**	**24,750**	**548**	**319,753**	**18.0**	**67,250**	**1,188**	**705,688**	**39.7**

Source: BOMA International 2004, Dun & Bradstreet 2008, ABAG 2007, EDD 2006, Urban Explorer 2009, Strategic Economics 2009

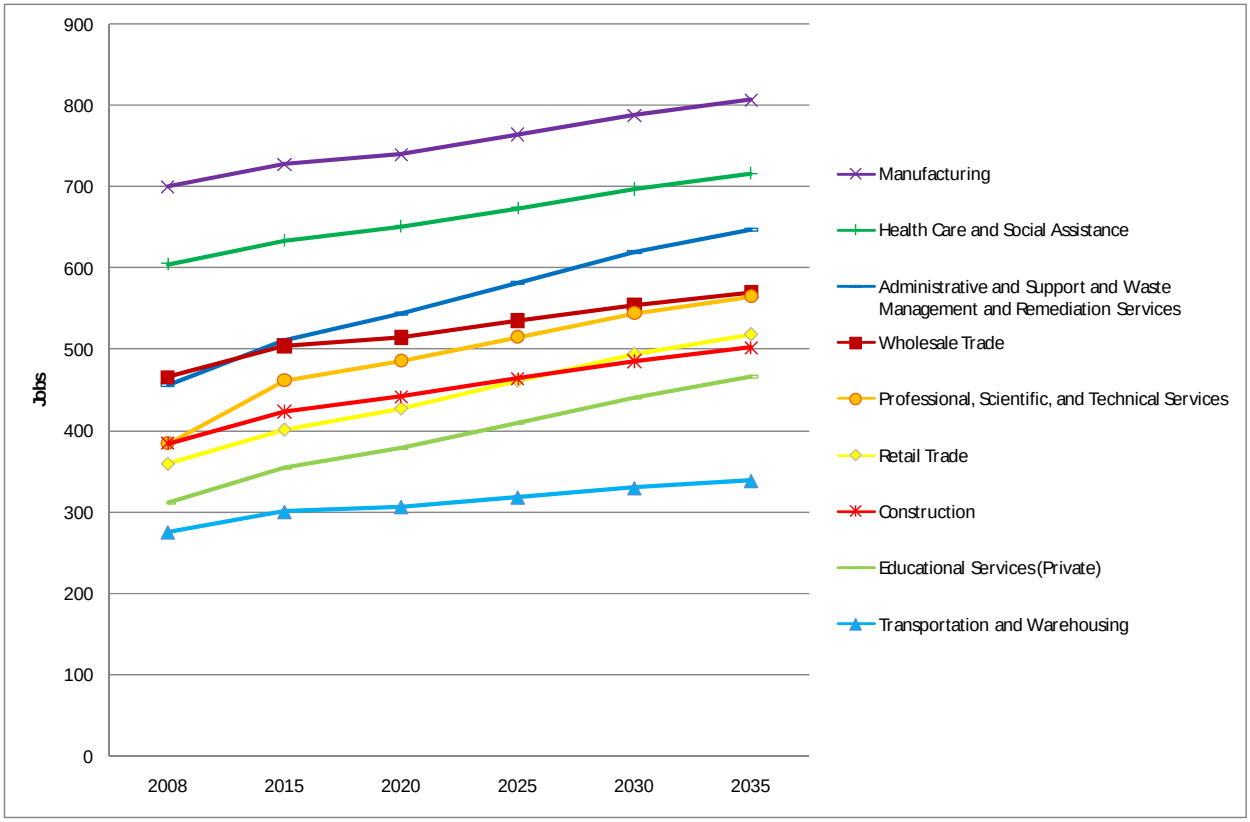
The largest increment of potential job growth in the Plan Area from 2008 to 2035 will be in the trade and transportation industries (including Wholesale Trade, Transportation and Warehousing, and Retail Trade). These industries will potentially account for 325 new jobs, or 27 percent of job growth in the Plan Area. As space- and land -intensive uses, these jobs would require 297,606 square feet of building space (42 percent of total demand) on 24 acres (60 percent of total demand).

While they are currently highly concentrated in a smaller portion of the Plan Area, office-based uses, including Professional, Scientific, and Technical Services and Health Care, are estimated to have an increase in employment that is nearly equal to the trade and transportation industries. These two industry groups will account for 292 new jobs, or 25 percent of potential employment growth in the Plan Area. However, because both industry groups are primarily composed of higher-density uses, these new jobs would only account for 98,739 square feet of building space and 3.2 acres of land area (14 percent and eight percent of total demand, respectively).

While potential growth in high-density uses would usually include Administrative and Support and Waste Management and Remediation Services, this is not the case in the Plan Area. In this area, the majority of new jobs in this industry group will be in the security services sector, whose workforce is primarily located off-site. Thus, except for administration space, this sector will not require an appreciable increment of land or building area. While this is accounted for in the land and building space demanded by this sector, the FAR and employment density assumptions for this industry group, in general, may result in an overestimate of potential demand.

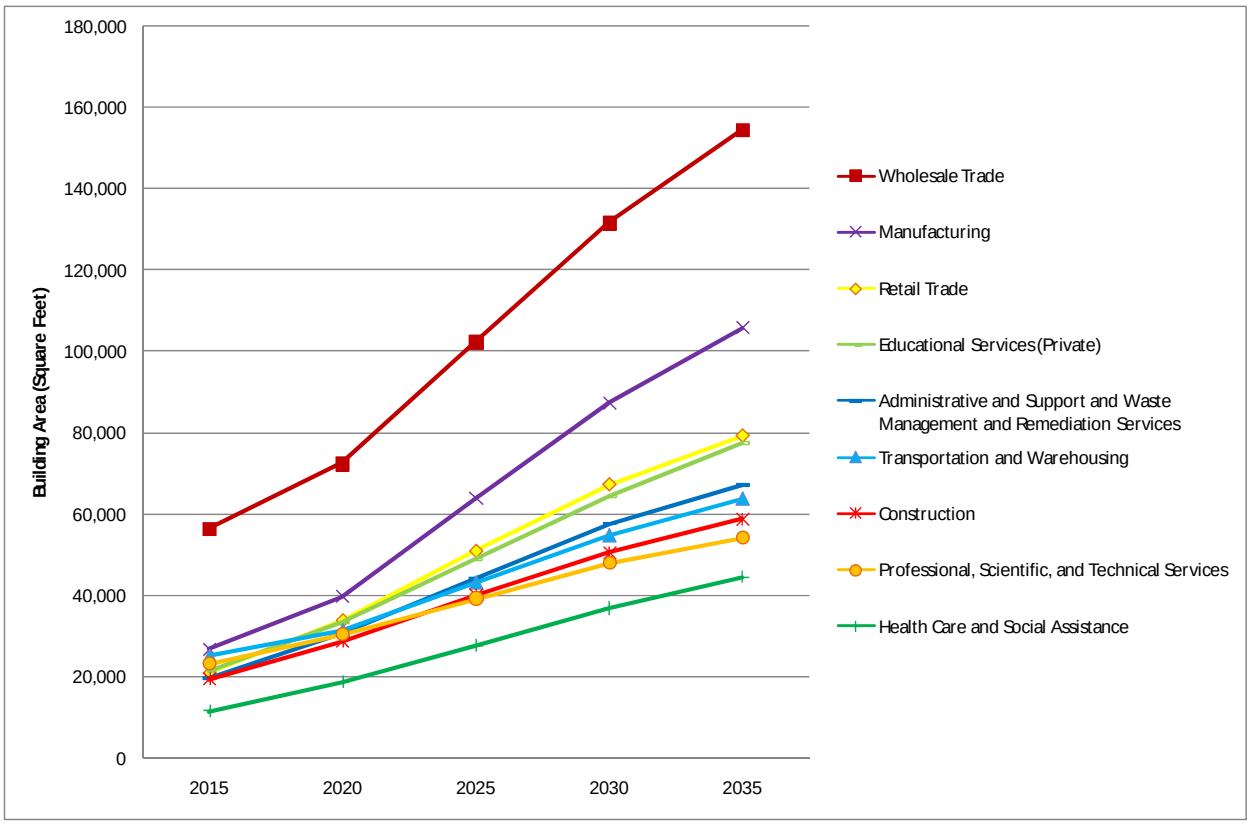
Finally, Manufacturing industries, while having a smaller increment of job growth than six of the other eight industry groups (106 additional jobs, from 2008 to 2035), this group is projected to remain the largest category of employment in the Plan Area (Figure 3). In order to maintain this status, however, these industries would require an additional 105,731 square feet of building space (second only to Wholesale Trade), (Figure 4). Manufacturing is highly variable in building types (FARs among manufacturing firms interviewed in the Plan Area ranged from 0.2 to 1.8). However, employing a conservative estimate of 0.5 FAR, this would translate into demand for 4.9 acres of land.

Figure 3: Job Projections by Industry Group, 2008-2035



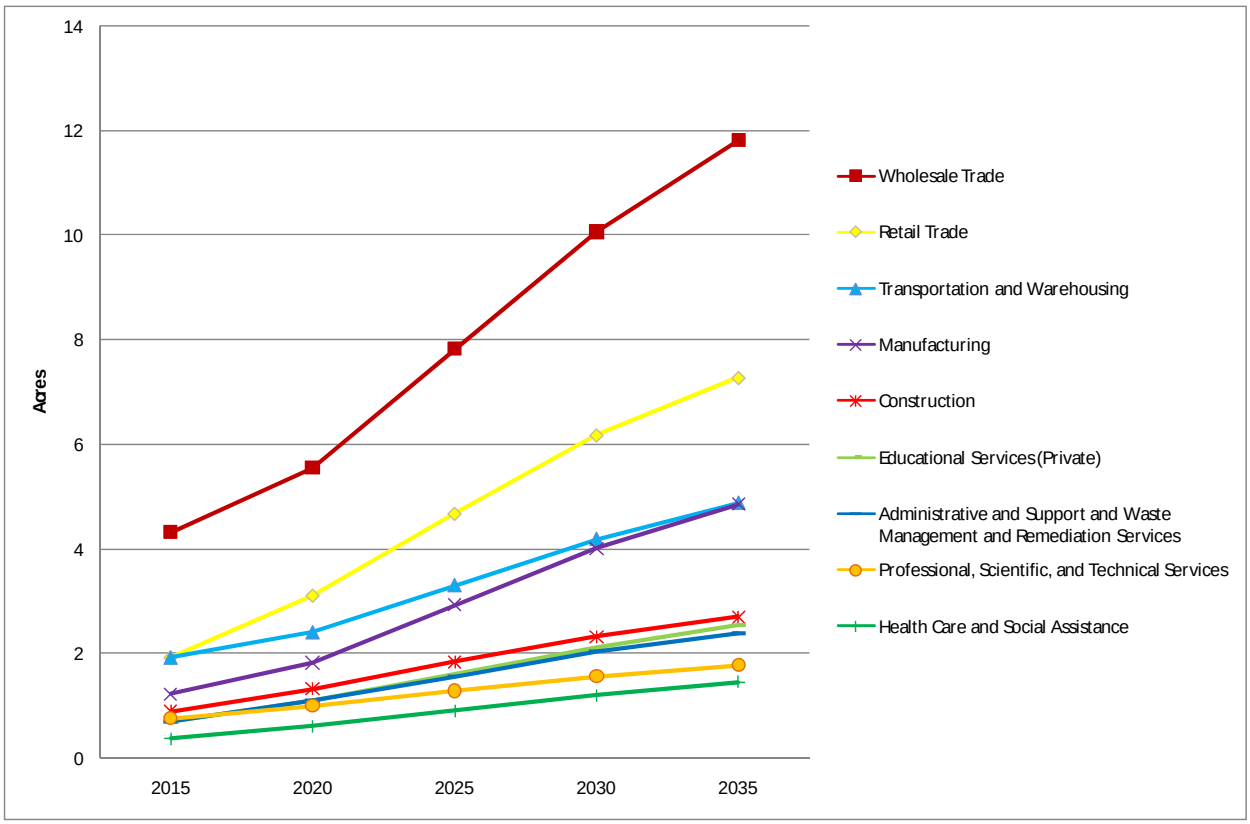
Source: Dun & Bradstreet 2008, ABAG 2007, EDD 2006, Strategic Economics 2009

Figure 4: Additional Building Space Demand Projections by Industry Group, 2008-2035



Source: BOMA International 2004, Dun & Bradstreet 2008, ABAG 2007, EDD 2006, Urban Explorer 2009, Strategic Economics 2009

Figure 5: Additional Land Demand Projections by Industry Group, 2008-2035



Source: BOMA International 2004, Dun & Bradstreet 2008, ABAG 2007, EDD 2006, Urban Explorer 2009, Strategic Economics 2009

These projections suggest that by 2035, the supply of land in the Plan Area would be dramatically eclipsed by demand, especially for low-density employment uses. In the absence of policy that protects these uses, it is likely that this dynamic will lead to higher land values and pressure for conversion to more profitable uses, including higher-density employment uses or housing. The conversion of a portion of land to non-industrial uses often accelerates the loss of industrial land in an area, as commercial and residential uses often generate impacts that inhibit non-compatible industrial operations.

Demand for Land in Goods Movement Industries

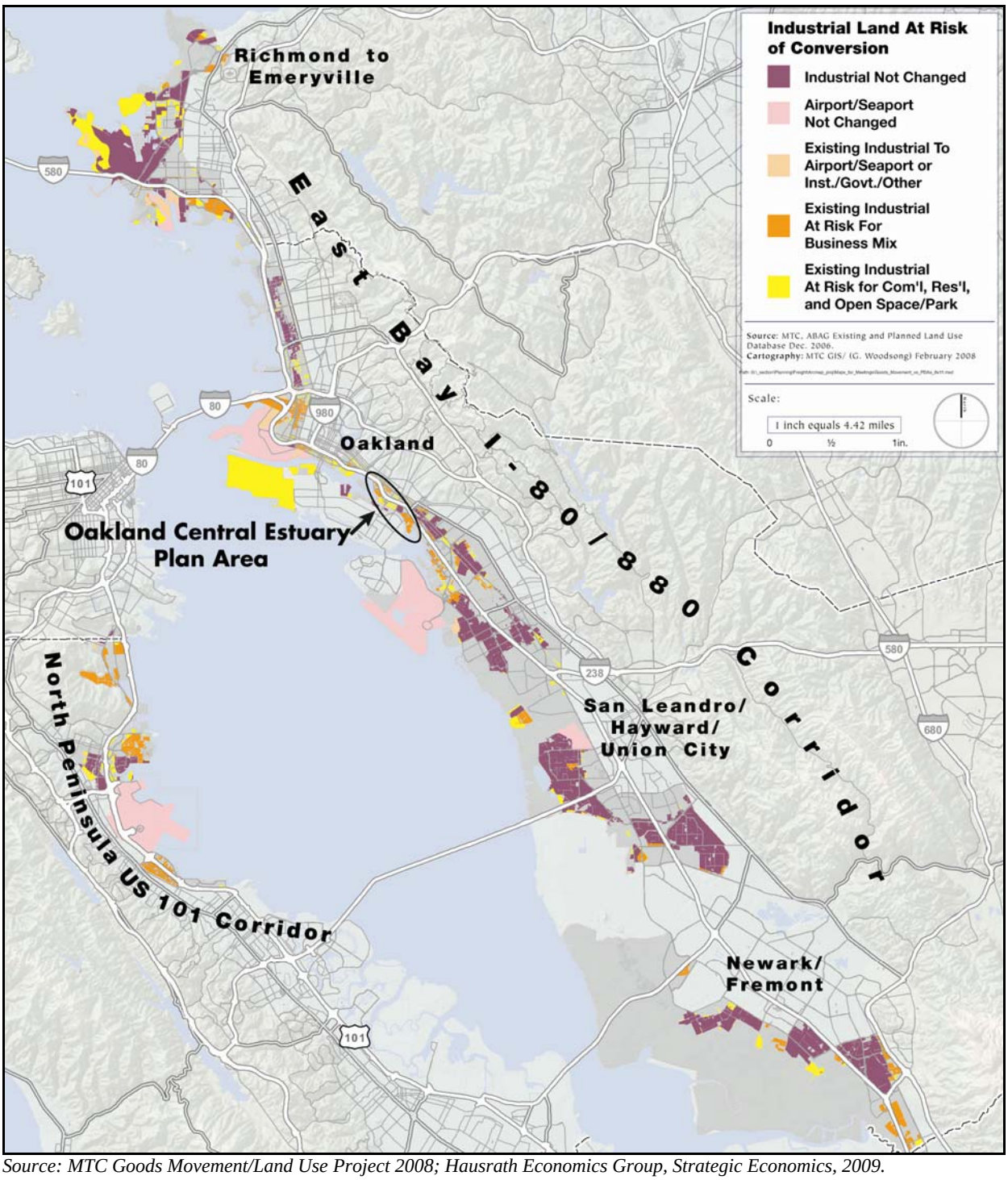
In the final publication for MTC's "Goods Movement/Land Use Project," the authors assess the condition of goods movement industries in the "Central Corridor," an area that includes the industrial coastlines of the East Bay (from Fremont to Richmond) and the North Peninsula (from Millbrae/Burlingame to the San Francisco line). These industries include transportation, manufacturing, and wholesale trade, industry groups that have a strong presence in the Central Estuary Plan Area. These were also the industries that were most likely to cite access to, and ease of, transportation as their primary reason for locating in the Plan Area.

In their report, MTC projects that employment in industries that demand locations in the Central Corridor will grow by an average of 59 percent from 2006 to 2035. This includes a 94 percent growth in the

transportation sector and a 49 percent growth in wholesale trade. Each of these growth rates far surpasses ABAG's projections for the city of Oakland from 2008-2035 (18 percent growth for each of these industry groups). Consequently, based on the increment of jobs in the Central Corridor, the potential growth in demand for industrial lands, such as those in the Plan Area, may be significantly greater than the ABAG projections for Oakland indicate.

While projecting a high rate of growth among goods movement industries in the Central Corridor, MTC notes that from 2003-2007, warehouse and manufacturing space in this area declined by 15 percent. Furthermore, it designates 70 percent of the industrial land in the North Peninsula and 38 percent of industrial land in the East Bay (including nearly all of the Plan Area), as at risk of conversion to non-industrial uses.

Figure 6: Industrial Land at Risk of Conversion



Source: MTC Goods Movement/Land Use Project 2008; Hausrath Economics Group, Strategic Economics, 2009.

MTC projects that, if these trends persist, only 57 percent of forecast demand for space in the Central Corridor will be able to be accommodated in the industrial land there. This scenario would have two major implications:

First, those industries that are not able to locate in this area will be pushed to the periphery of the region (30 percent of unmet demand), the San Joaquin Valley (64 percent of unmet demand), or out of the region altogether (6 percent of unmet demand). This will lead to increased congestion on roadways, elevated pollution levels, and an economic loss to these businesses (estimated at $47 per truck trip) and to the inner Bay Area as a whole (estimated at 87,100 fewer jobs).

Secondly, the land in the Central Corridor that remains in industrial use will command a much higher share of the demand. Consequently, depending on the degree to which land in the rest Bay Area is converted to non-Industrial uses, the capture rates used to project jobs in the Plan Area may significantly underestimate demand.

Consequently, the MTC study suggests that there may be **more job growth in industries that prefer locations like the Plan Area** than ABAG's employment projections indicate and **a higher percentage of these jobs may require land in the Plan Area** than they do now. This also implies that the Strategic Economics employment related demand estimate for building space and land could be extremely conservative depending on other conditions not just in Oakland, but in the Central East Bay.

Market for Green Business

The "green" economy includes all firms whose products, services, or processes reduce energy consumption and/or improve environmental quality. This broad definition includes two general, non-mutually-exclusive classes of green businesses:

1) Businesses that are green because their products, services, or internal processes directly improve environmental quality and/or reduce energy consumption.

2) Businesses that are green because their operations have an impact on larger systems which, in turn, leads to an improvement in environmental quality and/or a reduction in energy consumption

The Plan Area is in a strong position to attract *both* types of green businesses. However, because of its location in the region and proximity to a range of transportation nodes, it is especially poised to draw businesses that fit this second definition.

Presently, there is only one Alameda County Certified Green Business in the Plan Area (Cenveo, a national company that produces envelopes at its Oakland facility).[16] In addition, a recent study by the Center for Community Innovation at UC-Berkeley has identified almost 240 industries that are related to the green economy; 172 of these might be considered "core green," where the bulk of their work is related

[16] While the Alameda County Certified Green Business Program is primarily directed to retail firms, some other types of firms, such as construction firms and manufacturers, have chosen to obtain the green certification. Nevertheless, the orientation toward retail may exclude many firms in the Plan Area.

to either reduction of energy use or improvement of environmental quality.[17] Only three companies in Plan Area would be considered green, based on their classification within these industries: an urban planning/environmental analysis consultant, an environmental, health, and safety business consultant, and a paper shredding company. These are small operations, with a combined total of 69 employees.

Of course, due to the nature of green business, which is often more about the process used to produce products than the products themselves, any classification system using industrial codes will miss some green businesses. For instance, businesses within the Plan Area also include a glass container manufacturer that makes use of recycled glass, a waste management company that recycles electronics and other materials, and company that produces asphalt that includes recycled content.

Consequently, this small number of "core green" firms does not, reflect the potential for green business in the Plan Area. In fact, relative to areas around the country, and even within the Bay Area, there are several reasons why green businesses might be especially attracted to the Plan Area.

First, nearly every business interviewed for the Business Profile noted that being at the geographic center of the Bay Area is very important as a means of saving on transportation costs and time. In addition to costs and time savings, though, this location also helps to reduce environmental impacts associated with transportation, a critical component of green industry. The high quality access to environmentally friendlier alternatives to truck transport, such as rail and barge, further enhance this advantage. The MTC Goods Movement/Land Use Project highlights this advantage: goods movement-depend firms that locate at the periphery of the region or in the San Joaquin Valley generate more vehicle-miles traveled (VMT), vehicle-hours traveled (VHT), and pollution than those in the central Bay Area. Consequently, for goods movement-dependent firms, a location in the Plan Area represents a "green" alternative to other areas of the region.

Next, the Bay Area as a whole attracts green businesses at a higher rate than most other regions of the country. A recent survey showed that executives of green businesses are more likely to be drawn to this region, rather than locate near their residence, because of factors relating to quality of life and the local market. This, combined with a high density of venture capital and the presence of a highly talented workforce, has made the East Bay the region with the second greatest concentration of green jobs in the state (only slightly behind Los Angeles County).

Green businesses have noted a preference for locating in Oakland or Berkeley to have access to the talent and innovations coming out of the UC-Berkeley. They also prefer locating in the in East Bay due to the lower costs (relative to San Francisco, the North Bay or Silicon Valley) and lower traffic (relative to the outer East Bay).

Finally, several businesses that exist in the Plan Area have expressed a strong desire to adopt greener practices and embrace strategies that reduce their environmental impact. One business noted that they have plans to move into and/or construct a LEED®-certified building to reinforce the environmentally-oriented ethos of the firm. This establishment expressed a strong preference for staying within the Plan Area as a part of that move. As a consequence, in addition to the high potential for recruiting new green firms to the Plan Area, some existing firms may be able to become green businesses in the future.

[17] Each of these industries is represented by an 8-digit Standard Industrial Classification (SIC) code.

However, for all these assets, there are several factors that could limit the growth of green businesses within the Central Estuary Plan Area. Executives of green businesses often place a high priority on the accessibility of public transit. Although the Fruitvale BART station is less than a half mile from the edge of the Plan Area and there is some bus service, this is a factor that many businesses, especially in the West subarea, cited as a major problem. It is possible that public transit would need to be improved, either with augmented bus service or with a BART shuttle, to attract many green businesses.

In addition, executives of green businesses surveyed have cited high taxes, high rents, traffic congestion and long, unpredictable permitting processes as major obstacles to locating in the East Bay. Given that businesses contacted within the Plan Area frequently cited these same concerns as potential reasons for leaving, these barriers may be especially acute there.

As explained above, the Plan Area's chief asset for drawing businesses is its location within the region. This factor will have the greatest appeal to green businesses in the manufacturing, wholesale trade, and transportation industries. However, the lack of public transportation and neighborhood amenities will be a major barrier to attracting green businesses where operations are primarily housed in office spaces.

IX. Sustainability

The City of Oakland has adopted a number of policies and accords aimed at improving its sustainability performance. The City has developed a Sustainable Community Development Initiative, and is a signatory of the United Nations Urban Environmental Accords. These stated goals, targets and goals form the policy framework that will guide the development of the Central Estuary Plan (CEP).

This section of the Existing Conditions report outlines many of the existing sustainability policies that will impact the CEP. This preliminary policy review will be further developed and expanded as the CEP alternatives take shape. In addition to further developing the sustainability policy framework, the sustainability strategies will include:

- Outcome from meetings with utility providers such as PG&E and EBMUD, and service providers including Waste Management Inc.
- Site-specific opportunities to further the sustainability performance of the Central Estuary.
- An evaluation of climate conditions, to assess the potential of the site for renewable energy generation, and passive building ventilation, heating, and cooling.
- Preliminary demand calculations for utilities.
- Overview of best practices in the areas of clean energy, water quality, sustainable waste management, climate change, and green-collar employment.

The focus areas for this section are Energy, Water, Waste, Climate Change, Habitat Conservation, and Green Economy.

Energy

As a signatory to the Urban Environmental Accords, the City of Oakland committed to obtaining at least 10% of the City's peak electric load from renewable sources. The City also committed to reducing its peak electric load by 10% through energy efficiency, shifting the timing of demands and other conservation measures.

Some of the current programs that will help the city meet these goals are:

Electrical and Energy Efficiency Program

This program of the Public Works Agency monitors, manages, and maintains electrical and alternative energy apparatus and programs throughout the city. This program is responsible for maintaining street lighting, traffic signals, and administering energy efficiency programs, and electrical-related capital improvements. The Public Works Agency aims to collaborate with other City agencies to encourage the acquisition of energy efficient equipment, retrofit public facilities, and expand energy efficient practices through education and technical support.

Pacific Gas and Electric Company

Pacific Gas and Electric Company (PG&E) runs a series of programs aimed at improving user's energy efficiency. These programs include rebates, and incentives, energy analyses, demand response programs,

and others. One of the initiatives that could benefit the Central Estuary is the East Bay Energy Watch Partnership which involves offering technical assistance to jurisdictions that are interested in improving their energy efficiency. Some of the services that are offered through the partnership include:

- Direct installation of selected residential energy efficiency measures (such as lighting) for a targeted area and limited number of homes
- Direct installation of selected energy efficiency measures for small businesses (such as lighting retrofits for a targeted area or business type)
- Municipal building energy analysis and retrofits
- Design assistance for new buildings
- Locally based energy efficiency seminars, vendor and subcontractor training
- Specialized marketing and outreach to each local community

Oakland Green Building Resolution

Resolution 79871, which was approved in 2006, encourages private residential and commercial developers in the City of Oakland to use green building and sustainable landscape design, construction, and operation whenever feasible. This resolution provides as reference the Alameda County Residential Green Building Guidelines and the U.S. Green Building Council's LEED rating system for new commercial construction, as well as bay-friendly landscape designs. This resolution does not require the implementation of these guidelines.

Water

Watershed and Storm Water Management Program

The Watershed and Stormwater Management Program provides watershed-based planning and management approach for water quality improvements, habitat preservation, restoration, stormwater treatment, and implements capital projects including creek restoration projects, estuary and habitat improvement projects, water quality projects and storm drainage projects.

The program enforces implementation of the City's Creek Protection Permit - one of the components of the program is the 'Creek Protection, Stormwater and Discharge Control Ordinance," which describes the permitting guidelines for construction projects taking place on a creekside property.

The program is also responsible for implementing all Stormwater Regulations including design practices aimed at controlling and reducing pollution in storm drains and creeks. This program requires new developments and redevelopment projects to implement measures to reduce the discharge of pollutants in stormwater, and to prohibit non-stormwater discharges into municipal storm drain systems and water courses.

These regulations require that projects of a certain size[18] that create or replace impervious surface utilize stormwater pollution management measures during and after construction. These measures include:

- Stormwater treatment measures aimed at removing pollutants from stormwater runoff
- Stormwater design measures, which reduce the amount of impervious surface
- Source control measures, which reduce the potential of contamination at the source of pollution.

Finally, the Storm Water Quality Management Plan also requires new projects to use of best management practices (BMPs) that enable 85% of the volume of runoff typical of an average wet season to be treated.

Waste

Zero Waste Plan

The City of Oakland adopted a 'Zero Waste Strategic Plan' that aims at helping Oakland achieve Zero Waste by 2020.

The five main strategies outlined in the Zero Waste Strategic Plan are:

- Expand and enhance existing local and regional recycling and composting systems
- Develop and adopt new rules and incentives to reduce waste disposal
- **Preserve land for sustainable development and green industry infrastructure**

This policy in the City's Zero Waste Strategic Plan is included to highlight the idea that recycling and recycling–manufacturing facilities represent critical infrastructure for sustainability, even though many of these facilities are privately operated. As Oakland seeks to reduce its waste even further, more land will be needed for such uses, although siting them may be difficult given the significant impacts associated with many of these facilities. If any existing facilities in the Plan Area are displaced by the Estuary Plan, the City should have plans for other areas (such as the Oakland Army Base) where these facilities can relocate.

Examples include Gallagher and Burke, Owens-Brockway and Universal Waste Management Electronics Recovery. Recycled asphalt capacity is particularly critical since alternative sources may involve mining of resources and much longer hauling distances that will significantly increase the cost of building materials.

- Advocate for manufacturer responsibility for product waste and ban problem materials
- Educate, promote, and advocate a Zero Waste Sustainability Agenda.

Through voluntary participation in voluntary programs, the City has successfully surpassed the 50% waste reduction target required by the California Integrated Waste Management Act (AB 939).

[18] Threshhold to be determined in July, 2009.

Construction and Demolition Debris Recycling Ordinance

This ordinance requires construction and demolition projects in the City of Oakland to submit a waste reduction and recycling plan that indicates how the project will attain at least 50% diversion from landfill of the total amount of debris. Following with the stipulations of this ordinance, the Central Estuary Plan could explore options for centralizing the collection and recycling of construction debris on site.

StopWaste.org

StopWaste.org is the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board operating as one public agency. These agencies are responsible for the long term planning for waste management facilities, coordination among providers, and programs to reduce solid waste and promote recycling. StopWaste.org provides grants and loans to implement waste prevention, reuse, and recycling projects.

Climate Change

Oakland Energy and Climate Action Plan

The City of Oakland is currently in the process of developing an Energy and Climate Action Plan (ECAP). This plan, which is scheduled to be presented to the City Council in Fall 2009, will be the first comprehensive effort to develop a city-wide strategy to reduce energy consumption and minimize greenhouse gas emissions (GHG). ECAP focuses on targeting the three main sources of GHG in Oakland: Building energy use, transportation, and waste. The guidelines for energy efficiency and GHG minimization from ECAP will have a direct impact on the redevelopment of the Central Estuary, so it will become necessary to align the sustainability objectives and targets of the specific plan with those reflected in ECAP.

California Global Warming Solutions Act

The California Global Warming Solutions Act (AB 32), which was signed in 2006, establishes a program of regulatory mechanisms with the purpose of achieving reductions on emissions of greenhouse gases (GHG). The bill requires that by 2020 the state's emissions be reduced to 1990 levels. The California Air Resources Board (CARB) is in the process of developing guidelines for reporting GHG emissions that may result from project implementation. It is likely that the guidelines will be public by the time the environmental impact report for the Central Estuary Plan is developed.

SB 375

SB 375 requires metropolitan planning organizations to include sustainable community strategies for the purpose of reducing GHG emissions. The bill also intends to align planning for transportation and housing and creates incentives for the implementations of the strategies. Strategies such as mixed use zoning, higher residential densities, and transit oriented development, which are all being evaluated for the Central Estuary Plan (CEP), are consistent with the intent of SB 375. Future projects in the Plan Area might be able to benefit from the incentives that have been proposed for these strategies.

Habitat Conservation

Estuary Policy Plan (EPP) – Open Space and Habitat Preservation

The CEP builds upon policies set forth in the Estuary Policy Plan (EPP) (City of Oakland, 1999). A main objective of the EPP is to guide the transformation of the Oakland waterfront into a regional amenity. In particular, the EPP calls for a "system of open spaces and shoreline access that provides recreational use opportunities, environmental enhancement, interpretive experiences, visual amenities, and significant gathering places". The EPP also recommends that the plans for the various districts in the area incorporate "a series of individual parks, open spaces and shoreline access points, connected by a continuous parkway with promenades, bikeways and shoreline trails." In addition to serving as a recreational amenity, the proposed parks and open spaces offer an opportunity for restoring the habitat for local threatened and endangered species.

Open Space, Conservation and Recreation Element (OSCAR)

The Open Space, Conservation, and Recreation Element of the City of Oakland's General Plan addresses the management of open land, natural resources, and parks in Oakland. The Conservation Chapter provides guidelines for the management of water and biological resources.

Green Economy

Green-Collar Jobs

Green collar jobs have been defined as 'well paid, career track jobs that contribute to preserving or enhancing environmental quality . These jobs can range from low-skill entry-level positions, to specialized technical positions. Green-collar jobs can be found in a wide range of industries such as construction, manufacture, provision of utilities, maintenance, and agriculture among others.

The national movement to promote green-collar jobs originated in Oakland, and the City is home to a number of pioneering organizations such as Green for All and the Ella Baker Center, which helped launch the Oakland Green Jobs Corps. With the redevelopment of the Central Estuary, the City of Oakland has an opportunity to partner with these and other groups and advance the social and environmental goals of this sector.

Estuary Policy Plan – Research and Development Uses

The EPP identifies research and development and other high-technology uses as strategically beneficial for the site. The EPP specifies that the locations in the planning area that offer the strongest potential for this type of development include "those offering an attractive, high-amenity environment; good access and proximity to services; a quiet and somewhat contained site area; and a certain critical mass or minimum scale of development". In addition, preserving the waterfront setting and providing access to open space is considered to enhance the marketability of these research and development uses.

The area located south of Tidewater Avenue, on the eastern portion of the Planning Area is identified in the EPP as having the potential for research and development uses. Specifically, the intent of the land use designation 'Planned Water Front District' (East of High Street and South of Tidewater), suggests allowing for the transition of the existing industrial uses to light industrial, research and development, and office uses in a waterfront business park setting.

While the language in the EPP does not specify that the research and development uses be restricted to green industries, this proposed land use is compatible with needs in this sector.