6. Demographics

Socio Economic and Workforce Evaluation

Note: this analysis was conducted with the assumption that, in Alternative 3, the PG&E site would be redeveloped into light industrial and incubator space. At the outset of the planning process and after initial discussions with PG&E representatives, it appeared that this large site could become available for partial redevelopment within the Plan's 25-year planning horizon. However, in a letter to staff and testimony at the December 2009 Planning Commission hearing on the preferred alternative, a PG&E representative indicated that redevelopment or more intensive use of the site was not compatible with PG&E's goals. With the elimination of this change and the movement of the incubator to elsewhere in the Plan Area, there is a net loss of 300,000 sq. ft. of industrial land and approximately 400 fewer jobs in Alternative 3. However, to maintain the integrity of the original comparative analysis, the numbers have not been modified.

This section provides a summary of the workforce characteristics outlined in the Business Profiles in the Existing Conditions Report. This is followed by a detailed assessment of the quantity and character of the jobs that would be eliminated, as well as of those that would be added to the Plan Area.

Currently, the Plan Area is occupied predominantly by a variety of industrial uses, including manufacturing, construction, warehousing, and transportation. Each of the three alternatives would significantly alter the landscape of employment opportunities by replacing some of these industrial areas with additional residences or higher density employment uses. However, the number, locations, and types of jobs that would be displaced or fostered varies widely between each alternative.

Alternative 1 would likely result in a small increase in jobs and due to redevelopment of several industrial areas in favor of a major retail center and an industrial business park. This alternative would also largely preserve the very strong food-related industrial cluster in the West Subarea. However, the jobs created would be of a substantially different quality than those lost. Owing largely to the concentration of retail, there would be a dramatic net gain in jobs that pay less than the Oakland Living Wage of $12.45, and a net loss in jobs that pay more than that.

Alternative 2 would induce the displacement of fewer jobs than any other alternative and, by a small margin, would also support the greatest overall increase in employment. In addition, while the greatest increase in employment would be in jobs that require more education and training than those lost, there would also be a net increase in jobs with similar training requirements to those lost. Thus, this alternative would best support the existing jobs-workforce match. Overall, wages of new jobs would be somewhat higher than those lost. However, this alternative would also result in the displacement of much of the food industry in the Plan Area.

Alternative 3 would be the most transformative of the three, in terms of both jobs and employment. A huge portion of the industrial jobs in the Plan Area would be lost, in favor of low-skill/low-pay retail jobs and high-skill/high-pay office and R&D jobs. In addition, by placing residential and office uses adjacent to the remaining industrial areas, many industrial uses would be expected to lose their viability, potentially exacerbating job loss. The increase in jobs under this alternative is comparable to that of Alternative 2 and significantly greater than that of Alternative 1. However, the existing workforce of the Plan Area would be poorly matched to these new jobs, which would require much higher education levels on average. Nonetheless, it is under this alternative that many of the non-employment related goals for the Plan Area, such as an increase in goods-access, neighborhood amenities, and waterfront housing are likely to be most feasible.

Characteristics of the Plan Area Workforce

A large share of the Plan Area workforce is composed of residents of Oakland and nearby cities. As shown in Tables 6.1, in 2006, more than a quarter of workers in the Plan Area were Oakland Residents; as shown in Table 6.2 more than half were residents of Alameda County.

Table 6.1: 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 6.2: 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

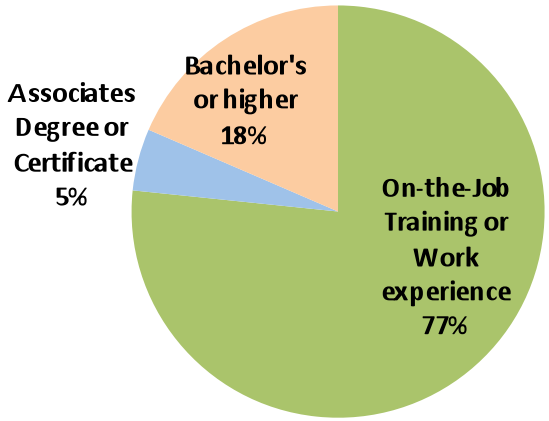
There is a relatively close match between the educational demands of the occupations in the Plan Area and the educational achievement of residents. As shown in Table 6.3, only 22% of Plan Area residents had a Bachelor's Degree in 2008. This is similar to the requirements of jobs in the Plan Area, of which only 18% required a Bachelor's Degree or more of potential employees (Figure 6.1).

Table 6.3: Educational Attainment of Population Age 25+, 2008

	West		Central-West		Central-East		Planning Area		Oakland	
	#	%	#	%	#	%	#	%	#	%
No HS Diploma	208	30%	262	44%	282	56%	752	42%	72,157	27%
HS 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

Figure 6.1: Share of Plan Area Employment by Level of Training Required, 2007



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

Thus, while these data demonstrate that most Plan Area residents work outside of the area, and that the workforce of Plan Area jobs includes residents of areas throughout the region, there is nevertheless a strong local jobs-workforce match. To the extent that these jobs are replaced with ones that require a different skill set or level of educational attainment, there are likely to be fewer employment opportunities for existing residents.

Impact of Alternatives on Employment

In assessing the impact of each alternative on jobs, several factors were considered. First, the displaced jobs resulting from changes to existing uses were evaluated in terms of educational/training requirements and wages.[20] Next, the quantity and character of new jobs were estimated based on the changes in land use projected by each alternative.[21] There are several important caveats to consider when assessing these data:

- The number of new jobs projected for each alternative is based on the assumption that employers will fully occupy the space allocated for each use. To the extent that there are commercial or industrial vacancies in the new buildings, the total number of new jobs may be substantially lower than projected here.
- Projections are based on the assumption that any new development will occur at a higher intensity than what currently exists. If new development is similar to what exists or does not have a higher employment density, the new jobs created may also be lower than those projected here.

[20] This assessment was performed by examining the number of jobs and industries that occupy the parcels selected for redevelopment, then applying data from the 2006 California Staffing Patterns database (published by the CA Employment Development Department) to determine educational requirements and average wages of these jobs.

[21] The number of new employees per parcel was determined using the data provided by ARUP. Within each land use, jobs were allocated across a variety of sectors that reflected either (a) industries already strong in the area (like food processing) (b) industries that do well in Oakland offices (like engineering consulting) or (c) businesses that serve locals (like grocery stores).

- While this analysis focuses on gross indicators like total jobs and the training required to access jobs, it is important to bear in mind the qualitative factors behind these numbers. It is not necessarily true that a worker whose firm is displaced will be able to obtain work with a new firm merely because it requires similar training and is located nearby. Instead, the impact of lost jobs may be long-lasting and should be taken as an important consequence of the alternatives, independent of whatever new jobs may also be added.
- It is obvious but of no small importance to note that merely building new office, retail, or industrial space will not create new office, retail, or industrial jobs. Instead, even if these commercial and industrial developments are successful, a large percentage of firms will be relocating from elsewhere in the city or region. Conversely, however, it is often true that the firms displaced will be forced to close altogether; those that do not will likely relocate outside of the City of Oakland or the region as a whole. Consequently, if one looks at the changes in jobs in the city that result from these alternatives (rather than just at the Plan Area), the net growth in jobs will likely be much less than is projected here.

Alternative 1

In Alternative 1, existing employment uses would be preserved in the West Subarea, while the on-going replacement of small-scale employment uses with residential is permitted to advance in the Central-East Subarea. As Table 6.4 shows, this results in a net loss of 50 jobs between these two subareas. Far more pronounced changes are planned for the other two subareas. In the Central-East Subarea, the Owens-Brockway facility would be redeveloped to an industrial business park while the Warehouse Triangle is set aside for development of a predominantly residential character. This change causes the loss of 507 jobs, offset by a gain of 570, chiefly in the business park. In the East Subarea, the existing industrial land uses would be converted to regional serving retail in the area north of Tidewater and to residential development south of Tidewater. This would result in the loss of 531 jobs, offset by a gain of 879 retail jobs. In sum, Alternative 1 would entail an estimated loss of 1,088 jobs, and a gain of 1,449 jobs, for a net gain of 361.

Table 6.4: Employment Change by Subarea, Alternative 1

	West	Central-West	Central-East	East	*Total*
Jobs Lost	0	50	507	531	*1,088*
Jobs Added	0	0	570	879	*1,449*
Net Change in Total Jobs	0	-50	63	348	*361*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.5, below, illustrates the educational requirements of the new and old jobs, broken down by subarea. In both the Central-East and East Subareas, the vast majority of jobs displaced would be those that are accessible to workers who lack a post-secondary education. In 84 percent of jobs displaced in the Central East Subarea, only on-the-job training is necessary for training potential employees; this is true of 77 percent of jobs displaced in the East Subarea.

Table 6.6 illustrates that, despite their low training requirements, the displaced jobs in both the Central-East and East Subareas offer a wide range of wages. While few of these jobs would be especially high-wage, 33 percent of displaced jobs in the Central East Subarea and 28 percent of displaced jobs in the East Subarea offer at least $25 per hour. In contrast, only 21 percent of displaced jobs in each of these subareas offer wages below the 2008 Oakland Living Wage of $12.45. In general, then, the displaced jobs would be ones that offer lower-middle class incomes, but with very few barriers to access in the form of education or training.

In terms of training, the new jobs created would be similar to those displaced. In each of these subareas, roughly 85 percent of new jobs would require only on-the-job training (Table 6.5). There is a bit of a disparity, however, between the two eastern subareas, with the plurality of the new jobs in the Central-East Subarea's industrial business park requiring moderate-to-long- term training, while the vast majority of the new retail jobs in the East Subarea would require only short-term training.

In terms of wages, the new jobs created in the Central-East Subarea would be comparable to those that would be displaced, though there is a significant gain in the number of jobs offering $17.50-$25.00 per hour (Table 6.6). In the East Subarea, however, the new jobs would be *much* lower-wage than those that would be displaced: while 21 percent of the industrial jobs that would be lost are below the Oakland Living Wage, 70 percent of the new jobs pay less than $12.45 per hour.

Table 6.5: Education/Training Requirements of Jobs, Alternative 1

	Displaced Jobs					New Jobs				
BLS Training Level	**West**	**Central-West**	**Central-East**	**East**	**Total**	**West**	**Central-West**	**Central-East**	**East**	**Total**
Short-Term On-the-Job Training	0	28	214	160	402	0	0	184	676	860
Moderate-to-Long-Term On-the-Job Training	0	12	210	247	469	0	0	298	69	367
Work Experience	0	3	33	36	72	0	0	38	87	124
Vocational or Associates Degree	0	3	14	29	46	0	0	12	4	17
Bachelors (w/ or w/o work experience)	0	3	32	52	87	0	0	38	38	76
Advanced Degree	0	0	1	1	3	0	0	0	5	5
n/a	0	1	3	5	9	0	0	0	0	0
Total	*0*	*50*	*507*	*531*	*1,088*	*0*	*0*	*570*	*879*	*1,449*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.6: Average Wages of Jobs, Alternative 1

	Displaced Jobs					New Jobs				
Wage Category	**West**	**Central-West**	**Central-East**	**East**	**Total**	**West**	**Central-West**	**Central-East**	**East**	**Total**
$12.45 or less	0	29	108	111	247	0	0	122	616	738
$12.45-$17.50	0	5	148	93	246	0	0	118	70	188
$17.50-$25.00	0	9	83	177	269	0	0	163	123	286
$25.00-$35.00	0	5	127	102	233	0	0	122	29	151
$35.00-$45.00	0	1	16	14	30	0	0	18	3	21
$45.00-$55.00	0	1	13	23	38	0	0	23	28	51
$55.00 and up	0	0	1	4	6	0	0	2	6	8
n/a	0	1	11	6	18	0	0	1	4	5
Total	*0*	*50*	*507*	*531*	*1,088*	*0*	*0*	*570*	*879*	*1,449*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.7: Change in Education/Training Requirements of Jobs, Alternative 1

BLS Training Level	Displaced Jobs		New Jobs		Net New Jobs	
	#	%	#	%	#	%
Short-Term On-the-Job Training	402	37.0%	860	59.3%	458	126.7%
Moderate to-Long-Term On-the-Job Training	469	43.1%	367	25.3%	-102	-28.1%
Work Experience	72	6.6%	124	8.6%	52	14.5%
Vocational or Associates Degree	46	4.2%	17	1.1%	-29	-8.1%
Bachelors (w/ or w/o work experience)	87	8.0%	76	5.2%	-12	-3.3%
Advanced Degree	3	0.2%	5	0.4%	3	0.8%
n/a	9	0.8%	0	0.0%	-9	-2.4%
Total	*1,088*	*100.0%*	*1,449*	*100.0%*	*361*	*100.0%*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.8: Change in Average Wages of Jobs, Alternative 1

Wage Category	Displaced Jobs		New Jobs		Net New Jobs	
	#	%	#	%	#	%
$12.45 or less	247	23%	738	51%	491	136%
$12.45-$17.50	246	23%	188	13%	-58	-16%
$17.50-$25.00	269	25%	286	20%	17	5%
$25.00-$35.00	233	21%	151	10%	-82	-23%
$35.00-$45.00	30	3%	21	1%	-9	-3%
$45.00-$55.00	38	3%	51	4%	14	4%
$55.00 and up	6	1%	8	1%	3	1%
n/a	18	2%	5	0%	-13	-4%
Total	*1,088*	*100.0%*	*1,449*	*100.0%*	*361*	*100.0%*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

The overall changes in employment composition in Alternative 1 are illustrated in Tables 6.7 and 6.8. These tables show that there would be a gain of 361 jobs overall and that the overwhelming majority of the change would be in jobs requiring only short-term on-the-job training. However, nearly all of this growth would be in the form of jobs that pay less than the Oakland Living Wage of $12.45 per hour. In fact, the number of jobs gained in this lowest wage class is greater than the total net growth, indicating that there would be a loss of jobs in higher wage classes.

Alternative 2

In Alternative 2, industries in the East Subarea and Warehouse Triangle would be supported and protected against potential conversion to residential, retail, or office uses. As in Alternative 1, however, the Owens-Brockway site would be reused as a higher-density employment area, including an R&D business incubator. As shown in Table 6.9, this would result in a loss of 216 jobs, replaced by 888 potential new jobs.[22] In addition, significant incursions of residential uses would be permitted in the West Subarea, with the ConAgra mill and adjacent parcels designated for Planned Waterfront Development. This redevelopment would displace 497 jobs, but generate 544 new ones as a result of new mixed-use infill near the northern most edge of the Plan Area. Overall, 734 jobs would be lost as a part of Alternative 2, but space for 1,432 would be created, for a balance of 697 additional jobs.

Table 6.9: Employment Change by Subarea, Alternative 2

	West	Central-West	Central-East	East	*Total*
Jobs Lost	497	21	216	0	*734*
Jobs Added	544	0	888	0	*1,432*
Net Change in Total Jobs	47	-21	672	0	*697*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.10, below, shows that the vast majority of jobs that would be displaced in the Central-East Subarea have very low educational or training requirements; 82 percent require no post-secondary education or prior work experience. In contrast, while most of the displaced jobs in the West are also low-skilled with minimal educational requirements (66 percent), 21 percent require a bachelor's degree or more. This difference is reflected in the distribution of wages (Table 6.11). In the Central-East, 34 percent of displaced jobs pay less than the Oakland Living Wage of $12.45; only 22 percent of lost jobs in the West Subarea pay less than $12.45. Conversely, 33 percent of jobs to be lost in the West Subarea pay at least $25 per hour, while only 22 percent of displaced jobs in the Central-East pay that amount or more. In general, the jobs to be lost as a part of the redevelopment of Owens-Brockway would be low-skilled, low-pay industrial jobs. Those lost in the West Subarea would be significantly more varied.

[22] As noted in the Market and Economic Impact of Alternatives, the land and building area designated for R&D incubator in this alternative is dramatically larger than most incubators around the country. Consequently, this analysis assumes that the majority of this space will be utilized in a manner similar to an industrial/R&D business park.

The new jobs associated with redevelopment in these two subareas would be extremely diverse in terms of wages and educational requirements. In both the West and Central-East Subareas, the new jobs would require a significantly greater amount of training and education than those that would be displaced, with 40 percent requiring a bachelor's degree or more. However, there would also be a large number of low-skilled jobs created with 50 percent requiring only on-the-job training. The new jobs would also offer higher wages than those displaced. In the West Subarea, 56 percent of new jobs would pay at least $25 per hour, while 50 of new jobs in the Central-East Subarea would pay at least that much. At the lowest range of the wage spectrum, only 6 percent of new jobs in the West Subarea would pay less than $12.45, while 15 percent would pay less than this, the Oakland Living Wage.

Table 6.10: Education/Training Requirements of Jobs, Alternative 2

BLS Training Level	Displaced Jobs					New Jobs				
	West	Central-West	Central-East	East	Total	West	Central-West	Central-East	East	Total
Short-Term On-the-Job Training	162	6	83	0	250	93	0	168	0	262
Moderate-to-Long-Term On-the-Job Training	166	8	94	0	268	127	0	277	0	404
Work Experience	32	1	16	0	49	23	0	48	0	70
Vocational or Associates Degree	20	3	3	0	27	68	0	52	0	121
Bachelors (w/ or w/o work experience)	91	2	17	0	111	195	0	322	0	517
Advanced Degree	11	0	1	0	12	37	0	21	0	58
n/a	15	1	2	0	18	0	0	0	0	0
Total	*497*	*21*	*216*	*0*	*734*	*544*	*0*	*888*	*0*	*1,432*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.11: Average Wages of Jobs, Alternative 2

	Displaced Jobs					New Jobs				
Wage Category	**West**	**Central West**	**Central East**	**East**	**Total**	**West**	**Central West**	**Central East**	**East**	**Total**
$12.45 or less	107	4	74	0	185	34	0	136	0	170
$12.45-$17.50	82	3	40	0	126	88	0	166	0	254
$17.50-$25.00	119	7	45	0	170	115	0	133	0	248
$25.00-$35.00	90	4	35	0	129	133	0	188	0	321
$35.00-$45.00	35	1	7	0	43	86	0	123	0	209
$45.00-$55.00	28	1	5	0	34	45	0	94	0	139
$55.00 and up	11	0	1	0	12	42	0	38	0	80
n/a	24	1	10	0	34	1	0	10	0	11
Total	*497*	*21*	*216*	*0*	*734*	*544*	*0*	*888*	*0*	*1,432*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.12: Change in Education/Training Requirements of Jobs, Alternative 2

BLS Training Level	Displaced Jobs		New Jobs		Net New Jobs	
	#	%	#	%	#	%
Short-Term On-the-Job Training	250	34.1%	262	18.3%	11	1.6%
Moderate-to-Long-Term On-the-Job Training	268	36.4%	404	28.2%	137	19.6%
Work Experience	49	6.6%	70	4.9%	22	3.1%
Vocational or Associates Degree	27	3.6%	121	8.4%	94	13.5%
Bachelors (w/ or w/o work experience)	111	15.1%	517	36.1%	406	58.2%
Advanced Degree	12	1.7%	58	4.1%	46	6.5%
n/a	18	2.4%	0	0.0%	-18	-2.5%
Total	*734*	*100.0%*	*1,432*	*100.0%*	*697*	*100.0%*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.13: Change in Average Wages of Jobs, Alternative 2

Wage Category	Displaced Jobs		New Jobs		Net New Jobs	
	#	%	#	%	#	%
$12.45 or less	185	25%	170	12%	-15	-2%
$12.45-$17.50	126	17%	254	18%	128	18%
$17.50-$25.00	170	23%	248	17%	78	11%
$25.00-$35.00	129	18%	321	22%	192	28%
$35.00-$45.00	43	6%	209	15%	166	24%
$45.00-$55.00	34	5%	139	10%	105	15%
$55.00 and up	12	2%	80	6%	68	10%
n/a	34	5%	11	1%	-24	-3%
Grand Total	*734*	*100.0%*	*1,432*	*100.0%*	*697*	*100.0%*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Tables 6.12 and 6.13 show the overall change in the composition of jobs under Alternative 2. Because of the massive expansion in the total number of jobs projected for the redevelopment of the Owens-Brockway site, there would be a net gain in jobs at nearly every training level and wage category. The only exception to this would be the net loss of jobs that pay less than the Oakland Living Wage of $12.45 per hour. However, the majority of the growth would be in jobs that require at least a Bachelors Degree. In addition, while the greatest amount of growth would be in jobs paying $25 to $35 per hour, nearly half would be in jobs that pay even more than this.

Alternative 3

Note: Please see disclaimer at the beginning of this chapter regarding changes to values and conclusions associated with this alternative.

Alternative 3 includes the most far-reaching changes to existing employment uses of any of the three. In the West Subarea, the ConAgra mill and adjacent parcels would be designated for Planned Waterfront Development, while additional live-work units would be developed throughout the area. In the Central-East Subarea, all of the existing industrial uses would be converted to housing, along with a small amount of retail. And finally, in the East Subarea, all the industrial uses south of Tidewater would be converted to high-density residential and offices; the land north of Tidewater would be reserved for potential spin-off businesses from the energy-related R&D incubator. These plans would result in a net loss of jobs in the West, Central-West, and Central-East Subareas (Table 6.14). This would be offset by the substantial growth in jobs in R&D incubator and new office space in the East Subarea. In total, 996 mostly-industrial jobs would be replaced by 1,614 jobs that would be largely office or retail-based.

Table 6.14: Employment Change by Subarea, Alternative 3

	West	Central-West	Central-East	East	*Total*
Jobs Lost	195	93	507	201	*996*
Jobs Added	10	0	150	1,454	*1,614*
Net Change in Total Jobs	-185	-93	-357	1,253	*618**

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Note: the removal of the PG&E site reduced the net gain in jobs in Alternative 3 from 618 to 220. However, the more detailed sub-area and wage analysis presented here was not revised to reflect this change.

Table 6.15 demonstrates that, as with the other two alternatives, most jobs that would be displaced would be those with low education and training requirements. In each subarea, at least 77 percent of jobs lost require no post-secondary education or prior work experience. In general, the jobs lost would be in the lowest wage categories (Table 6.16). Nonetheless, there is some variability between the subareas, in terms of the distribution of wages of displaced jobs. In the Central-East Subarea, where most of the job loss would take place, 22 percent of lost jobs pay less than the Oakland Living Wage, while another 52 percent pay between $12.45 per hour and $25 per hour. This is similar to the West Subarea, where 27 percent of these jobs pay less than $12.45 per hour and 47 percent pay between $12.45 per hour and $25

per hour. However, the jobs lost in the East Subarea would be somewhat higher wage. Only 13 percent of these jobs pay less than $12.45 per hour and 74 percent pay at least $17.50 per hour.

The new jobs that would be fostered by these alternatives would be very diverse, but would generally be quite different from those that they would displace. In the retail jobs of the Central-East, the vast majority of new jobs would be very low-skill and very low-wage: 74 percent would require only short-term on-the-job training and 65 percent would pay less than the Oakland Living Wage. In contrast, the jobs created in the East Subarea would require much high more education than existing jobs: 46 percent would require a bachelor's degree or more, while only 40 percent would be accessible to those lacking post-secondary education or prior work experience. Similarly, the wages of the new jobs would be much higher than existing jobs. While more new jobs would be in the $17.50-$25 per hour category than any other, 45 percent of new jobs would pay at least $25 per hour.

Table 6.17 shows that, while Alternative 3 would result in an overall increase of 931 jobs, it would entail a net loss of jobs that require only on-the-job training; the vast majority of the employment growth would be in jobs that require a bachelor's degree or more. However, these jobs would also be higher wage, with 64 percent of growth being in the form of jobs that would pay at least $25 per hour (Table 6.18).

Table 6.15: Education/Training Requirements of Jobs, Alternative 3

BLS Training Level	Displaced Jobs					New Jobs				
	West	Central-West	Central-East	East	Total	West	Central-West	Central-East	East	Total
Short-Term On-the-Job Training	69	40	214	51	375	8	0	112	228	348
Moderate-to-Long-Term On-the-Job Training	90	32	210	105	437	1	0	13	365	378
Work Experience	13	5	33	15	66	1	0	15	60	76
Vocational or Associates Degree	4	4	14	9	31	0	0	4	129	134
Bachelors (w/ or w/o work experience)	12	8	32	19	71	0	0	5	595	601
Advanced Degree	0	2	1	1	3	0	0	1	76	78
n/a	6	1	3	2	12	0	0	0	0	0
Total	*195*	*93*	*507*	*201*	*996*	*10*	*0*	*150*	*1,454*	*1,614*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.16: Average Wages of Jobs, Alternative 3

	Displaced Jobs					New Jobs				
Wage Category	**West**	**Central West**	**Central East**	**East**	**Total**	**West**	**Central West**	**Central East**	**East**	**Total**
$12.45 or less	53	36	108	27	223	8	0	98	228	333
$12.45-$17.50	29	11	148	26	214	1	0	11	228	240
$17.50-$25.00	63	15	83	90	251	1	0	20	328	349
$25.00-$35.00	31	22	127	39	218	0	0	10	273	283
$35.00-$45.00	5	3	16	8	31	0	0	1	186	188
$45.00-$55.00	6	3	13	8	30	0	0	8	116	124
$55.00 and up	0	2	1	1	5	0	0	1	84	86
n/a	9	2	11	2	24	0	0	1	10	12
Total	*195*	*93*	*507*	*201*	*996*	*10*	*0*	*150*	*1454*	*1614*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.17: Change in Education/Training Requirements of Jobs, Alternative 3

BLS Training Level	Displaced Jobs		New Jobs		Net New Jobs	
	#	%	#	%	#	%
Short-Term On-the-Job Training	375	37.6%	348	21.5%	-27	-4.3%
Moderate-to-Long-Term On-the-Job Training	437	43.9%	378	23.4%	-59	-9.5%
Work Experience	66	6.6%	76	4.7%	9	1.5%
Vocational or Associates Degree	35	3.5%	134	8.3%	102	16.5%
Bachelors (w/ or w/o work experience)	67	6.8%	601	37.2%	530	85.7%
Advanced Degree	3	0.3%	78	4.8%	74	12.0%
n/a	12	1.2%	0	0.0%	-12	-2.0%
Total	*996*	*100.0%*	*1,614*	*100.0%*	*618*	*100.0%*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.18: Change in Average Wages of Jobs, Alternative 3

Wage Category	Displaced Jobs		New Jobs		Net New Jobs	
	#	%	#	%	#	%
$12.45 or less	223	22%	333	21%	110	18%
$12.45-$17.50	214	21%	240	15%	26	4%
$17.50-$25.00	251	25%	349	22%	98	16%
$25.00-$35.00	218	22%	283	18%	64	10%
$35.00-$45.00	31	3%	188	12%	157	25%
$45.00-$55.00	30	3%	124	8%	95	15%
$55.00 and up	5	1%	86	5%	81	13%
n/a	24	2%	12	1%	-12	-2%
Total	*996*	*100.0%*	*1,614*	*100.0%*	*618*	*100.0%*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.19: Displacement of existing jobs

Subarea	Alternative 1	Alternative 2	Alternative 3
West	+	--	-
Central West	0	0	-
Central East	--	-	--
East	--	+	-

Table 6.20: Creation of new jobs

Subarea	Alternative 1	Alternative 2	Alternative 3
West	0	+	0
Central West	0	0	0
Central East	++	++	-
East	-	0	+

++ = Significantly Improved
+ = Improved
0 = Neutral Impact
- = Decreased
-- = Significantly Decreased

Affordable Housing and Displacement Evaluation

As noted in the Resident Profile contained in the Existing Conditions Report, the Plan Area is primarily non-residential in character, with only 335 housing units as of the 2000 Census. Thus, in terms of number of households, the potential for residential displacement in the Central Estuary is quite limited. Nevertheless, because the impact of development on these households may vary considerably depending the amount and type of development, it is important to consider displacement in the evaluation of each plan alternative.

The following evaluation of affordable housing and displacement addresses three basic questions with regard to each plan alternative.

1) **What is the impact on existing households in the Plan Area?** These impacts are dependent on three primary factors:

    a. The vulnerability of existing households

    b. The degree to which housing prices are likely to change

    c. The impact on the ability to pay for housing (i.e. access to employment opportunities)

    This question will be largely addressed through the lens of the Center for Community Innovation's Displacement Early Warning Tool Kit.[23]

2) **What is the impact on Oakland's housing needs?** Given the small residential population, the need for additional affordable housing to mitigate displacement in the Plan Area may be small. Because there is existing unmet need for additional affordable housing throughout Oakland, however, it is important to assess the degree to which each plan alternative addresses this need.

3) **What are the overall public health consequences of placing new housing units in the Plan Area?** Even if development occurs in a manner that is sensitive to the needs of existing residents in the Plan Area and Oakland as a whole, it is important to assess health consequences of placing new housing in these locations.

Impact on Existing Households

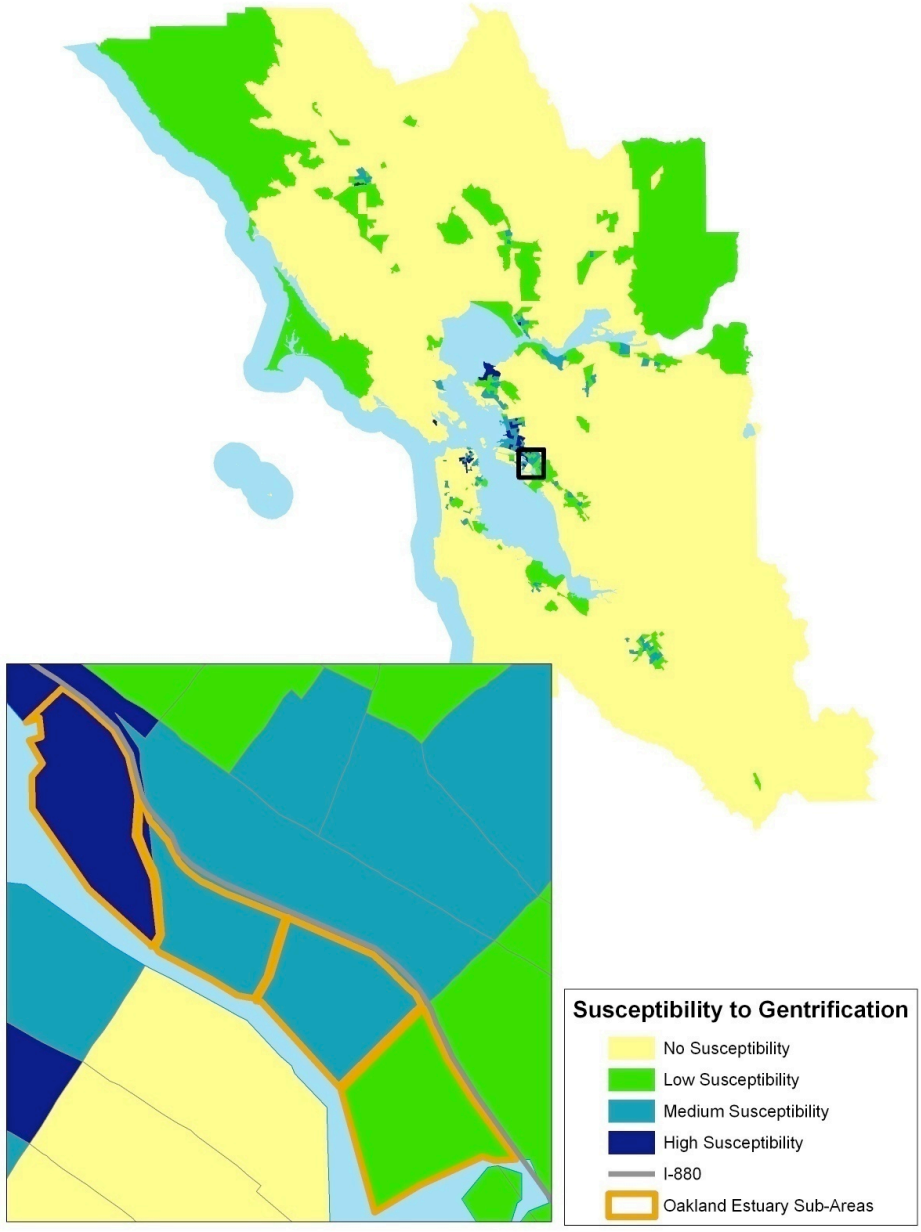
As discussed in the Resident Profile, the Plan Area ranges from low vulnerability to displacement in the East Subarea to high vulnerability in the West Subarea. However, the vast majority of the existing population is in the Central-West Subarea, which, as shown in Figure 6.2, has a moderate susceptibility to gentrification.[24] This Subarea has a very high proportion of renter-occupied households (74 percent in 2000, as shown in Table 6.21), who are typically considered to be more vulnerable to displacement. In addition, as shown in Table 6.22, more than half of these renters have a housing burden, meaning that they spend more than 30 percent of their income on rent. Next, Table 6.23 shows that only 20% of rental units in the Central-West Subarea are below the level that the Department of Housing and Urban

[23] The Displacement Early Warning Tool Kit is presented in detail in the Existing Conditions Report.

[24] This map displays an index that includes several distinct variables, aggregated at the Census Tract level. Detail on the methodology is presented in the Existing Conditions Report.

Development considers fair market rent; this means that there is a paucity of market-rate affordable units in this subarea. Finally, Table 6.24 shows that a high proportion of the households of this Subarea are low-income, with 48 percent of households earning less than $50,000. Together, these statistics suggest that households in the Central-West Subarea are highly sensitive to increases in housing costs. Thus, while none of the plan alternatives promote the redevelopment of any existing housing units in this Subarea, the extent to which new development on adjacent parcels may induce rent increases is an important consideration.

Figure 6.2: Susceptibility to Gentrification



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

Table 6.21: 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.

Table 6.22: Housing Cost Burden, 199925

	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.

Table 6.23: Rental Units with Rents Below Oakland PSMA Fair Market Rent (FMR), 200026**

	West	Central-West	Central-East
Number of Rental Housing Units	208	175	165
Number of Rental Units with Rents Below FMR	113	35	118
Percent of Rental Units with Rents Below FMR	54%	20%	72%

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

[25] This data is only available at the Block Group level. Consequently, these data are for areas somewhat larger than the actual boundaries of the subareas. For more information, please see the Existing Conditions Report.

[26] This data is only available at the Block Group level. Consequently, these data are for areas somewhat larger than the actual boundaries of the subareas. For more information, please see the Existing Conditions Report.

Table 6.24: Household Income Distribution, 2008[27]

	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	*356*	*100%*	*306*	*100%*	*225*	*100%*	*887*	*100%*	*150,926*	*100%*

Source: Claritas; Strategic Economics 2009.

Concentrations of buildings with multiple units create the potential for large-scale displacement, since landlords may raise rents and/or evict multiple tenants simultaneously. Though Oakland's condo conversion protections prevent large-scale transition of rental stock to home ownership, some conversion can be expected in these subareas once the housing market recovers.

Another indicator of potential for displacement is foreclosures and adjustable-rate mortgage resets.[28] These phenomena result in higher rates of property turnover, as lenders sell off the properties. In some situations, this may serve as an opportunity for investors to assemble land for future development that may fundamentally change the character of an area. Table 6.25 indicates that there is a very high foreclosure rate (24%) in the planning area, with a particularly high rate in the Central-West subarea (28%).

[27] This data is only available at the Block Group level. Consequently, these data are for areas somewhat larger than the actual boundaries of the subareas. For more information, please see the Existing Conditions Report.

[28] An "adjustable-rate mortgage reset" is when a mortgage's interest rate and payments are scheduled to increase above the introductory rates. This increase can often be substantial and can place a household in danger defaulting on their mortgage, if they are not able to afford the larger payments. Consequently, an adjustable-rate mortgage reset is taken as a predictor of foreclosure.

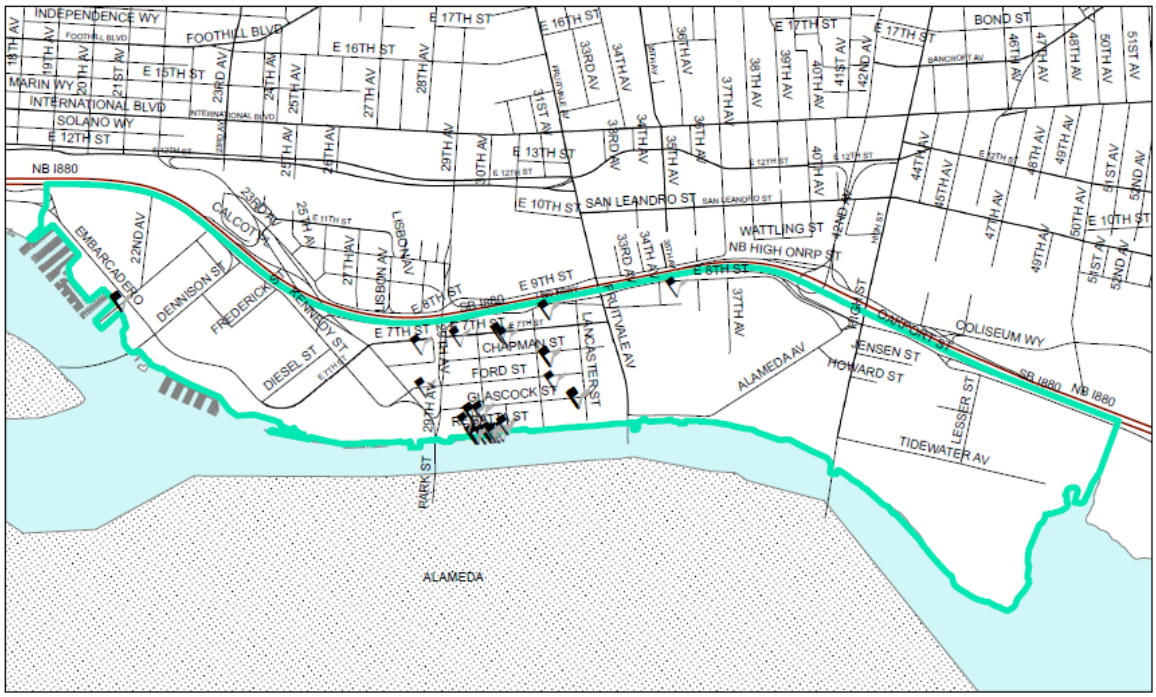
Table 6.25: Foreclosures and Anticipated Adjustable-Rate Mortgage (ARM) Resets in the Central Estuary Planning Area

Subarea	Foreclosures (Jan. 2007 to June 2009)	ARM Resets (Nov. 2008 to Nov. 2010)	Total Housing Units (2009)	Share of Units Foreclosed or with ARMs
West	10	0	70	14%
Central-West	92	26	415	28%
Central-East	2	2	58	7%
Total	104	28	543	24%

Sources: RealtyTrac 2009, American Core Logic 2009, U.S. Census 2000, Strategic Economics 2009

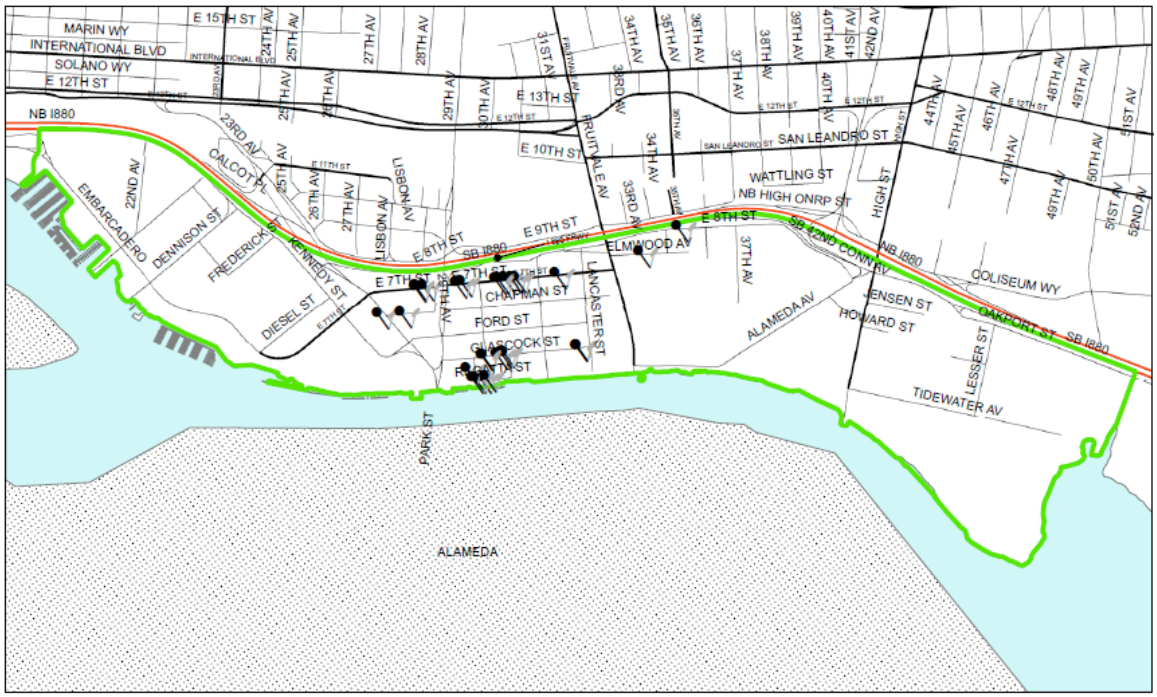
It is important to note that in the case of the Plan Area, however, a large number of the ARM Resets (29 percent) and the vast majority of Foreclosures (73 percent) were for units in one of the condominium complexes that were developed within the last decade (Figures 6.3 and 6.4). Consequently, the resulting drops in housing prices and increases in vacancy rates within these developments may actually act as a buffer against broader change in neighborhood demographics and against the displacement of households in adjacent rental units. Simultaneously, however, these same drops in values may increase the vulnerability of homeowners with adjustable rate mortgages, who may not be able to borrow against the reduced values of their own homes.

Figure 6.3: Central Estuary Foreclosures, January 2007 to June 2009



Sources: RealtyTrac 2009, CEDA/Housing & Community Development 2009

Figure 6.4: Central Estuary Adjustable Rate Loan Resets, November 2008 to November 2010



Sources: First American Core Logic 2008, CEDA/Housing & Community Development 2009

In sum, given the small residential population and somewhat ambiguous indicators it is not possible to predict the exact numbers of households that would be likely to be involuntarily displaced from the Plan Area under each of the alternatives. However, the alternatives do seem to suggest varying potentials for displacement, described below.

Within the Central-West Subarea, current ownership conditions suggest that there will ultimately be additional new multi-family housing development, especially toward the waterfront. None of the three plan alternatives proposes making attempts to limit this redevelopment. In addition, there is not a large degree of variability in the number of new units expected in this Subarea (Alternatives 1 and 3 project an additional 367 and 417 units, respectively, while Alternative 2 projects a somewhat lower 211 additional units). Therefore, the greatest determinants on the potential for displacement of existing households, both in this subarea and the less populated ones on either side, are the amount of new development in adjacent subareas and the number of jobs lost.

West Subarea

In Alternative 1, the protection of the existing industrial uses will help to keep land and housing prices low, and thus will likely lead to a minimum of displacement of households in the West Subarea. This protection is critical to the prevention of displacement in this Subarea, due to the large new Oak-to-Ninth development that is underway immediately to the west. However, Alternatives 2 and 3 each propose substantial increases in housing development in this Subarea. In each case, it can be anticipated that market pressures will affect most or all the 59 rental units in that subarea, increasing rents and condo conversion rates and likely leading to displacement. This is especially likely in Alternative 2, where major development is not limited to a small set of adjacent parcels, as is the case in Alternative 3.

Central-West Subarea

In all three alternatives, households in the Central-West Subarea are exposed to market pressures that emerge from new development near the waterfront. However, in Alternative 1, it is likely that these pressures will be somewhat limited, as the adjacent subareas are preserved for employment uses. Susceptibility to gentrification will be somewhat greater in Alternative 2, given the major increase in residential development in the West Subarea. Finally, in Alternative 3, the changes of displacement are extremely high, as the single family homes on the north side of this Subarea will be surrounded on three sides by new moderate-high density development.

Central-East Subarea

The residential population of this subarea is very small and limited to a narrow band of homes near I-880. Given that the adjacent Owens-Brockway land is identified for redevelopment in all three alternatives, the chance of direct or indirect displacement is fairly high. However, this is somewhat less likely in Alternatives 1 and 2, where redevelopment on that parcel will be in the form of moderate-scaled employment uses, rather than the higher density mixed-use proposed in Alternative 3.

East Subarea

There is negligible existing residential population in the East Subarea. In addition, households in the other subareas are somewhat buffered from the potential market impacts of new development in this area as a consequence of the regional-serving retail in the Central-East Subarea. Therefore, in the case of this subarea, focus should be on the potential displacement of jobs, not of residents.

Table 6.26: Impact on Existing Renter-occupied Households

Subarea	Alternative 1	Alternative 2	Alternative 3
West	**0**	**-**	**-**
Central West	**-**	**-**	**-**
Central East	**0**	**0**	**-**
East	**0**	**0**	**0**

0 = Neutral Impact

- = Negative Impact (e.g. potential for increased rent pressure on existing households)

Employment

Greater detail on the impact of the alternatives on employment is provided in the Socio-Economic/Workforce Evaluation section of this report. However, insofar as access to employment is a critical indicator of potential for displacement, it is important to examine how the number of jobs located nearby will change in each alternative. Tables 6.27, 6.28 and 6.29 show the total change in employment levels fostered by each alternative.

Table 6.27: Employment Change by Subarea, Alternative 1

	West	Central-West	Central-East	East	*Total*
Jobs Lost	0	50	507	531	*1,088*
Jobs Added	0	0	570	879	*1,449*
Net Change in Total Jobs	0	-50	63	348	*361*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.28: Employment Change by Subarea, Alternative 2

	West	Central-West	Central-East	East	*Total*
Jobs Lost	497	21	216	0	*734*
Jobs Added	544	0	888	0	*1432*
Net Change in Total Jobs	47	-21	672	0	*697*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Table 6.29: Employment Change by Subarea, Alternative 3

	West	Central-West	Central-East	East	*Total*
Jobs Lost	195	93	507	201	*996*
Jobs Added	10	0	150	1,454	*1,614*
Net Change in Total Jobs	-185	-93	-357	1,253	*618*

Sources: Center for Community Innovation 2009, Strategic Economics 2009

Note: This analysis was conducted with the assumption that the PG&E site would be redeveloped into light industrial and incubator space. At the outset of the planning process and after initial discussions with PG&E representatives, it appeared that this large site could become available for partial redevelopment within the Plan's 25-year planning horizon. However, in a letter to staff and testimony at the December 2009 Planning Commission hearing on the preferred alternative, a PG&E representative indicated that redevelopment or more intensive use of the site was not compatible with PG&E's goals. With the elimination of this change and the movement of the incubator to elsewhere in the Plan Area, there is a net loss of approximately 300 jobs in Alternative 3. To maintain the integrity of this analysis, the jobs figure has not been updated here.

As the above charts demonstrate, there is wide variability in the changes in employment levels that each alternative will foster. Alternative 1 is the weakest alternative from an employment perspective, entailing the largest amount of gross job loss and the smallest net gain in employment. Alternative 2 can be seen as

the "preservation" strategy, given that it entails the smallest amount of job loss and, by a small margin, the largest net gain in jobs. Alternative 3 has a slightly smaller increase in jobs than Alternative 2, but with many more jobs displaced.

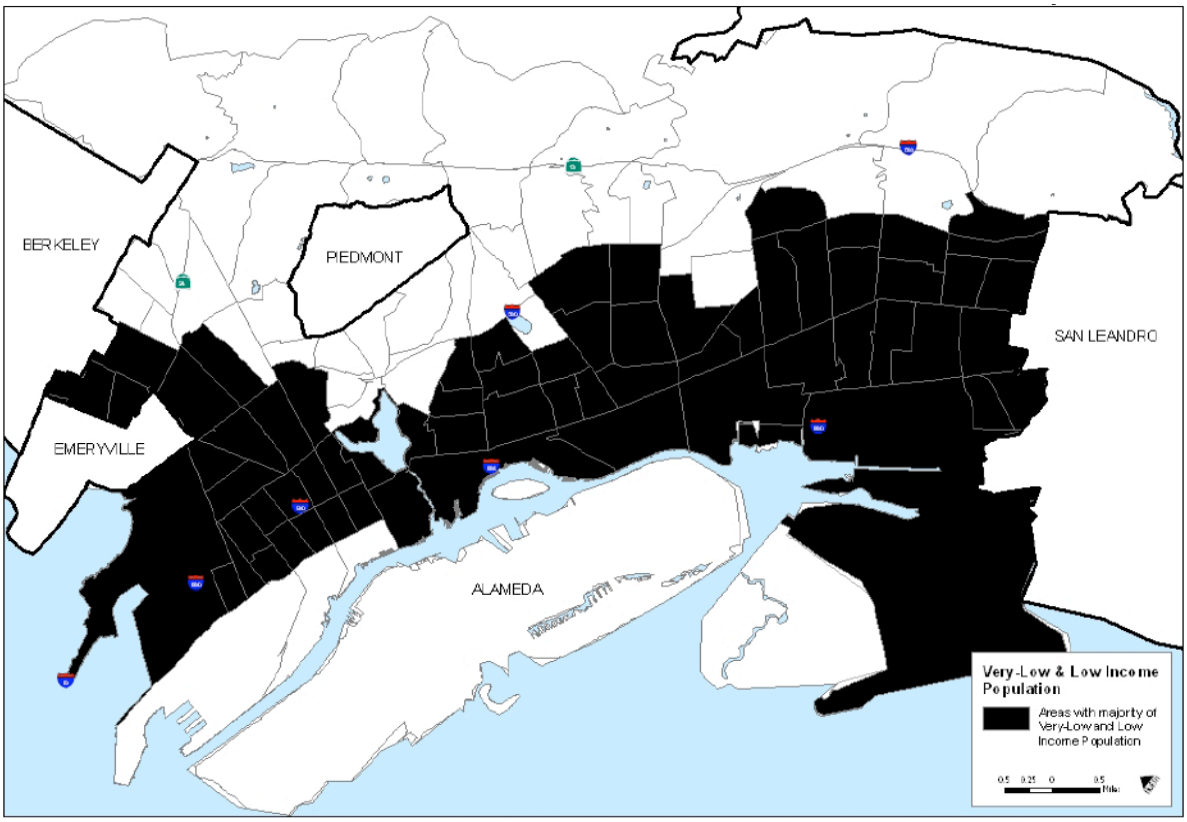
In terms of gross employment levels, it would appear that all three options offer an enhancement in jobs access, with a key differences being the amount of improvement. However, a critical factor not reflected in this analysis is the *types* of jobs that are lost and added. Thus, the more detailed analysis of the wages and education levels of existing and potential jobs in the Socioeconomic and Workforce Evaluation section is necessary to make a determination of the displacement potential of each alternative. If low-skilled jobs are replaced by high-skilled jobs (as is often the case in these alternatives), then there will be a mismatch between workers and employers. To the extent that these workers are unable to be trained for the higher skilled jobs, the number of jobs lost is a more important factor in judging displacement potential than the net change in employment levels. Using this factor, the plans for the Central-East Subarea in Alternative 2 offers the best buffers against employment-related displacement both in terms of job quality and total numbers. In the East, Alternative 3 would provide the largest increase in jobs, but they would be poorly matched to the current workers; this is also true of Alternative 2 in the West Subarea.

Impact on Housing Needs

In addition to considering the impact of each alternative on households currently living in the Plan Area, an evaluation of affordability must take into account the degree to which the alternatives might address city- and area-wide housing needs.

As Figure 6.5 shows, the majority of the population living in each of the census tract to the east and south of Lake Merritt is classified as Very Low- or Low-Income. In addition, in 2000, 31 percent of low-income households and 60 percent of very low-income households had a "housing burden," paying at least 30 percent of income on housing.

Figure 6.5: Areas with a Majority of Very-Low and Low-Income Persons



Sources: Census 2000, CEDA/Housing & Community Development 2009

Table 6.30: Households in Oakland Paying 30%+ of Income on Housing

	Renters		Owners		All Households	
Income Level	**1990**	**2000**	**1990**	**2000**	**1990**	**2000**
Extremely Low Income (0 to 30% MFI)	78%	74%	64%	73%	76%	74%
Very Low-Income (31 to 50% MFI)	72%	60%	43%	58%	63%	60%
Low Income (51 to 80% MFI)	43%	24%	35%	46%	40%	31%
Moderate Income (81 to 95% MFI)	1%	n/a	7%	n/a	4%	n/a

Sources: Census 1990, Census 2000, HUD 1990, CEDA/Housing & Community Development 2009

Oakland's 2005 Consolidated Plan reports that the average wait time for qualifying households to be placed in one of the city's 3,221 public housing units is 3 to 4 years, and the wait list is currently closed. The last time that the wait list to receive one of the City's Section 8 vouchers was opened, 10,000 households applied, adding to the 4,000 that were already on the list. Despite this need the supply of

these subsidized units is in danger of shrinking citywide. Of the 4,585 federally-subsidized rental units in the city, 458 (10 percent) are at risk of being converted to market rate between now and 2014.[29].

Currently, there are no publicly subsidized units within the Plan Area, and the only subsidized project nearby is a senior housing development in Fruitvale.

Despite this documented need, as Oakland's Draft Housing Element 2009-2014 states, *"Development trends in Oakland suggest that market rate housing constructed, under construction, or approved since 2007 contains, or will contain, some housing units affordable to moderate-income small households and families. By contrast, units affordable to very low- and low-income households are not mandated in market rate projects and require significant amount of financial assistance. If these trends in housing costs and incomes continue in Oakland, the City may need strategies to:*

1. increase the supply of affordable housing for lower-income households, especially very low-income households and large families;

2. address cost increases in rental housing and an increasing need for rental assistance;

3. facilitate the continued construction of market-rate rental housing affordable to moderate income households;

4. seek new sources of funding for affordable housing."

The development of additional housing units in the Plan Area can indirectly address some of Oakland's housing needs. By increasing the supply of market rate housing, developers may be induced to construct more moderate-income rate housing and increasing the overall supply of high-quality housing in the city. However, as this statement from the Housing Element suggests, this is unlikely to address the city's greatest need, an expansion of the supply of housing for low- and very-low income households.

One potential manner for addressing this need, however, can be through the inclusion of lower-income projects within the context of larger, master-planned developments. Subsidies for affordable housing [especially from sources such as the federal low income housing tax credit (LIHTC)] are often easier to obtain when buildings are 100% affordable. Therefore, strategies that include the development of multiple adjacent buildings on a large aggregation of land may be more successful than ones that seek to encourage mixed-income housing within a single building. There is high potential for construction of new affordable housing under this type of strategy in each of the three alternatives. However, the strongest potential exists in Alternative 3, which includes redevelopment of the 27-acre Owens-Brockway site, a location that offers the added benefit of good transit accessibility.

[29] Estimate by California Housing Partnership Corporation.

Table 6.31: Impact on Housing Needs

Subarea	Alternative 1	Alternative 2	Alternative 3
West	**0**	**+**	**+**
Central West	**0**	**0**	**0**
Central East	**+**	**0**	**++**
East	**+**	**0**	**++**

++ = Significantly Improved
+ = Improved
0 = Neutral Impact
- = Decreased