



**CENTRAL AREA INDUSTRIAL LAND SUPPLY
FOR BAY AREA GOODS MOVEMENT
BUSINESSES/INDUSTRIES**

**DELIVERABLE FOR TASK 2
BAY AREA GOODS MOVEMENT/LAND USE PROJECT PHASE 2**

Prepared for the
METROPOLITAN TRANSPORTATION COMMISSION

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CENTRAL AREA INDUSTRIAL LAND SUPPLY FOR BAY AREA GOODS MOVEMENT BUSINESSES/INDUSTRIES

Executive Summary

INTRODUCTION

This report summarizes work done to identify and map the industrial land supply that provides location options for goods movement businesses/industries along the central transportation corridors in the Bay Area. The work focuses on the two major goods movement corridors at the center of the region: the *East Bay I-80/880 Corridor* (from Richmond on the north to Fremont on the south); and the *North Peninsula US 101 Corridor* (from the San Mateo County line on the north to Millbrae and Burlingame on the south).

CENTRAL AREA INDUSTRIAL LAND SUPPLY CONCENTRATED ALONG KEY GOODS MOVEMENT CORRIDORS

Industrial land for goods movement businesses/industries remains concentrated along the major transportation corridors that ring the central parts of San Francisco Bay. These locations offer proximity to the business and population centers in the region and access to the major airports and seaports. Bay Area freight flows are concentrated along the central corridors.

- ◆ **About 28,500 acres of land remain in industrial and transportation land uses along East Bay I-80/880 Corridor and North Peninsula US 101 Corridor.**

Currently, there are approximately 28,500 acres of land being used for industrial and transportation-related land uses along the East Bay I-80/880 and North Peninsula US 101 corridors. About 7,000 of those acres include the airport, seaport, and rail facilities involved in freight transportation, along with related support uses and facilities. About 19,000 acres are devoted to industrial land uses, including goods movement businesses/industries, as well as other industrial businesses. About 2,500 acres are in mixed commercial/industrial use.

- ◆ **About 188 million square feet of warehouse and manufacturing space remain along the central corridors.**

There are approximately 188 million square feet of warehouse and manufacturing space occupying the industrial land along the central area study corridors. The largest amounts of industrial building space are located in Oakland, San Leandro, and Hayward along the East Bay I-80/880 Corridor and in South San Francisco on the North Peninsula US 101 Corridor. There also are large amounts of industrial

space in Fremont, Union City, and Richmond, at the southern and northern ends of the Inner East Bay corridor.

◆ **Industrial land use patterns reflect the region’s history of urbanization and the geography of the Bay Area.**

Central area industrial land use patterns reflect the region’s history of urbanization and the geography of the Bay Area, where the region’s transportation systems developed along the flatlands around San Francisco Bay and where the surrounding hills limit the transportation routes inland from the bayside areas. Because of the region’s geography, alternative industrial locations to those along the study corridors are much further from the region’s business and population centers and the major airports and seaports, and are primarily to the east (I-580/I-5 in San Joaquin County and Tri Valley areas) and somewhat to the north as well (I-80/780/680 in Solano County). Further reflecting the geography of the Bay Area, the central area industrial land supply is concentrated in locations that provide linkages across the Bay via the major bridges.

LAND USE PLANS AND POLICIES AFFECTING FUTURE SUPPLY OF INDUSTRIAL LAND IN CENTRAL AREAS

Land use designations from adopted local and regional plans for land within the key goods movement corridors identify the intent of local and regional policy regarding permitted and desired land use for the study corridors in the future.

◆ **Large Share of Existing Industrial Land Already Planned for New Uses in Local General Plans**

The research found that local land use plans and policies allow and/or encourage new uses of existing industrial land in many parts of the corridors. When viewed cumulatively, a large share of the central area industrial land supply is identified as being at-risk of transition to higher-value, new uses.

– **East Bay I-80/880 Corridor**

Overall, about 40 percent of existing industrial land along the Inner East Bay is at-risk under adopted local General Plan policies. About 60 percent is designated for continued industrial use. The pattern varies among East Bay cities with the largest share of industrial land at-risk at the center of the corridor in Oakland, followed by the shares at-risk in Richmond and North Richmond (unincorporated) at the northern end, and then by the shares at risk at the southern end in Fremont and Newark. Within the Inner East Bay, local policies are strongest in encouraging and retaining industrial land in San Leandro and Hayward, followed by nearby Union City.

Of existing industrial land at-risk in the East Bay, the majority is designated for residential, commercial, and mixed residential/commercial development, in land use categories where industrial uses are not permitted. Most of the rest is shown in land use categories that permit a mix of business uses, including light industrial uses as well as R&D, business park/campus, mixed commercial/industrial, and some commercial uses, most of which are higher-density and/or higher-value uses than most types of goods movement businesses/industries. Heavier industrial uses are generally not permitted by business mix designations in this latter group.

– **North Peninsula US 101 Corridor**

Overall, the large majority, about 70 percent, of existing industrial land along the North Peninsula is designated for new uses in local General Plans, while only about 30 percent remains designated for industrial uses. The only future industrial land use designations that remain are in South San Francisco, while no industrial land is designated for the corridor areas in Brisbane, Burlingame, and other nearby cities. On industrial land along much of the corridor, local General Plans anticipate accommodating higher-density business park development, such as for additional biotechnology uses, as well as waterfront and other commercial developments, including offices, hotels, and retail uses.

◆ **Land for Major Airport/Seaport Uses Preserved By Regional Plans**

There are regional plans that regulate land use so as to preserve locations for Bay Area seaports and airports, and the land for these facilities is largely publicly owned and controlled. Thus, the land in existing air/water/rail transportation use is planned to be preserved along the study corridors. However, as described above, land use plans for surrounding communities show a declining supply of industrial land for business activities that support these facilities and for businesses that handle, ship, and/or receive goods and other cargoes moving through these transportation facilities.

**NEW LAND USE POLICIES/PROGRAMS AND
DEVELOPMENT PROPOSALS HAVE FURTHER
IMPLICATIONS FOR INDUSTRIAL LAND SUPPLY**

In addition to approved local and regional land use plans and policies, there are current planning efforts and programs, and development projects and proposals that would involve General Plan and/or zoning changes and further increase the extent of central area industrial land supply that is “at-risk” of transition to new uses.

◆ **Additional Industrial Land Becoming At-Risk Due to Current Local Planning Efforts and Development Proposals, Particularly Along the East Bay Corridor**

There are local planning efforts underway and development proposals under review in communities along the East Bay corridor that involve further changes in local General Plan designations from industrial land use to other new uses. If approved, such changes would further increase the industrial land supply at-risk of transition to new uses. Current planning efforts and development proposals would increase the industrial land at-risk in Richmond, North Richmond, Berkeley, Emeryville, Oakland, San Leandro, and Fremont. Overall, with proposed changes, more than half of existing industrial land along the Inner East Bay corridor could be at-risk because local plans and policies allow/encourage transition to new uses.

As local General Plans already identify new uses for most existing industrial land on the North Peninsula corridor, local planning efforts and development proposals underway there are primarily implementing land use changes already identified in existing plans.

◆ **Priority Development Areas Under Regional Smart Growth Could Further Reduce Industrial Land Supply, Particularly Along the East Bay Corridor**

Regional Priority Development Areas (PDAs) adopted by ABAG in 2007, identify areas eligible for regional and state incentives to facilitate new neighborhood development. As mapped for the goods movement study corridors under this effort, there are PDAs that overlap with existing industrial areas as well as PDAs that overlap with areas designated to remain in industrial use under current, local General Plans. Depending on how these PDAs move forward, new developments in these areas could further increase the industrial land supply at-risk of transition to new uses. Within the study corridors, the most implications of PDAs for industrial land supply occur in Oakland, at the center of the I-80/880 Corridor, and in Richmond and North Richmond (unincorporated) at the northern end of that corridor.

LAND USE PLANS AND POLICIES HAVE BOTH DIRECT AND INDIRECT EFFECTS ON INDUSTRIAL ACTIVITY AND LAND SUPPLY

As summarized above, local and regional land use plans and policies will have *direct* effects on industrial land supply by allowing and/or encouraging the conversion of existing industrial land to new uses. In addition, there can be *indirect* effects that reduce the viability of nearby industrial uses and lead to further land use transition in surrounding areas. Such effects occur when new uses on formerly industrial sites increase land use conflicts with existing industrial activities nearby, making it difficult and more costly for the remaining industrial operations. Development of new uses can also increase market interest in redeveloping nearby industrial

properties, influence land values and property owners' expectations, and reduce the willingness of owners to continue to invest in industrial uses.

DECLINES IN INDUSTRIAL SPACE OCCURRING ALONG MAJOR GOODS MOVEMENT CORRIDORS

While a large share of industrial land along the study corridors is "at-risk" because land use policies allow or encourage transition to new uses, the timing and extent of that transition depends on market demand and growth trends for the new land uses. Recent data indicates that the supply of warehouse and manufacturing space along the study corridors declined by almost 15 million square feet over the four years from 2003 to 2007. There were declines in industrial space in nearly all of the cities along the corridors. The recent declines are substantial and represent about a seven percent decline for the East Bay I-80/880 Corridor and an 11 percent decline for the North Peninsula US 101 Corridor. At the rate of recent declines, the remaining industrial land supply along the central corridors could be gone in 13 more years.

As the supply of industrial space has declined in central areas, the competition for the remaining industrial space has increased, evidencing continued demand for industrial locations in the inner Bay Area. Real estate market data show that as the supply of industrial space has declined, rents for industrial space have increased, and vacancy rates have declined. The changes have been substantial in just four years, 2003 to 2007.

TRENDS SHOW INCREASING PRESSURES ON CENTRAL AREA INDUSTRIAL LAND SUPPLY AND RAISE LAND USE POLICY ISSUES

Growth forecasts show continuing trends toward the intensification of residential and commercial development in the central bayside areas, providing competition for land currently in industrial use. At the same time, this growth will also increase the demand for production, distribution, and other goods movement activities to serve the growing business and population centers in the inner Bay Area. These trends in combination with land use policies in favor of new uses over industrial activities will continue to reduce the supply of affordable, close-in location options for goods movement businesses/industries, encouraging their growth and relocation to outlying parts of the region and beyond. Continued industrial dispersion is raising important economic, transportation, and environmental implications that are being addressed in other parts of this MTC project.

The trends raise land use policy issues and provide rationale for a regional strategy for industrial land use, as addressed in the last section of this report. The discussion highlights that the industrial land supply along the major transportation corridors represents a unique and valuable resource supporting the regional economy and the efficient provision and distribution of goods, and that it deserves regional attention. Trends identify that there is some urgency to address land use policy issues concerning industrial land supply, as continued redevelopment of new uses is resulting in a *permanent* loss of industrial land supply in the central Bay Area. Further, as evolving, there is no oversight of the cumulative, regional implications of local land use decisions for the efficiency of the regional goods movement system and for regional economic growth.

CENTRAL AREA INDUSTRIAL LAND SUPPLY FOR BAY AREA GOODS MOVEMENT BUSINESSES/INDUSTRIES

Deliverable for Task 2 Bay Area Goods Movement/Land Use Project Phase 2

INTRODUCTION AND PURPOSE

The supply of industrial land in central areas represents a unique and valuable resource to the region and its economy. The use of that land and its availability to support production, distribution, and freight transportation activities in the region will have long-term implications for the efficiency of the regional goods movement system and for regional economic growth. Decisions to redevelop/reuse industrial land for residential and commercial uses will result in a permanent loss of land supply in central areas for goods movement businesses and other industrial uses. As now progressing, the cumulative effects of individualized, local land use decisions are determining the regional location options for goods movement industries, somewhat by default. There is no oversight of the regional implications of local land use decisions.

To address these issues, this report summarizes the results of work done to:

- Identify and map the existing industrial land supply that provides location options for goods movement businesses/industries along the key goods movement corridors at the center of the region;
- Identify where and the extent to which the central area industrial land supply is “at risk” because land use policies allow or encourage transition to new uses; and
- Identify recent declines in industrial space supply and related trends that are reducing the availability of goods movement locations along key corridors, and raising land use policy issues with regional implications.

The results provide data and information for decision-makers and stakeholders about the industrial land supply that is important for regional goods movement. The work also provides inputs for use in defining future goods movement land use scenarios for the study corridors in a later task.

APPROACH

Work done under Task 2 of Phase 2 augments and completes the industrial land supply work done under Phase 1. That effort established the methodology for identifying and mapping goods movement locations from several perspectives, and provided funding for completing much of the work for the key goods movement corridors. This Phase 2 effort provided the funding to refine and complete the Phase 1 effort for the study corridors and to augment and expand those tasks to further define the industrial land supply for goods movement uses in more detail for use in developing future land use scenarios and assessing impacts in later tasks.

Technical memoranda produced under Phase 1 describe the methodologies and data sources for defining the study corridors (Deliverable for Task 2.1), identifying and mapping existing and planned land uses (Deliverables for Tasks 2.2, 2.3, and 2.4), and overlaying those results to identify industrial land uses at risk of transition to new uses (Deliverable for Task 2.5). This paper summarizes the findings about the industrial land supply along the key corridors, presenting maps and summary tables and highlighting the findings.

Throughout, this project focuses on the two major goods movement corridors at the center of the Bay Area region:

- **East Bay I-80/880 Corridor**, from Richmond on the north to Fremont on the south; and
- **North Peninsula US 101 Corridor**, from the San Mateo County line on the north to Millbrae and Burlingame on the south.

The study areas surrounding these corridors include land areas from San Francisco Bay inland, far enough to include all of the industrial areas that ring the Bay and that provide or could provide location options for goods movement uses. The study areas include the region's major seaport and airport freight facilities and major rail yards and freight rail tracks along the corridors. As the study area boundaries are generalized and follow major streets, the areas also include other, non-industrial land uses nearby. Overall, the corridor study areas include land in 22 jurisdictions, covering 19 cities and three county unincorporated areas.

CENTRAL AREA INDUSTRIAL LAND SUPPLY ALONG KEY GOODS MOVEMENT CORRIDORS

Industrial land for goods movement businesses/industries remains concentrated along the major transportation corridors that ring the central parts of San Francisco Bay. These locations offer proximity to the business and population centers in the region and access to the major airports and seaports. Bay Area freight flows are concentrated along the central corridors.

Existing Industrial and Transportation-related Land Uses

Work done to identify and map existing industrial and transportation-related land uses along the central area study corridors¹ identifies approximately 28,500 acres of land² in the following land uses:

¹ The primary source of data for identifying and mapping existing land use along the study corridors is the Association of Bay Area Governments (ABAG). The ABAG data were reviewed and updated/corrected to more accurately reflect local land use as needed. The methodology and definitions used are described in the Phase 1 Deliverable for Task 2.2: Technical Memorandum Concerning the Identification and Mapping of Existing Industrial Land/Space in the Study Corridors.

² The land use data shown on the next page and in Table 1 identify *land area* by use, including land occupied by buildings and land used for parking, driveways and loading areas, outside storage, and landscaping and walkways.

Industrial (heavy industrial, light industrial, metal salvage and recycling, warehousing, petroleum refining, vacant industrial, and closed military facilities)	19,000 acres ³
Air/Water/Rail (airports, seaports, rail yards, truck/bus maintenance yards, and inspection and weighing stations)	7,000 acres
Mixed Commercial/Industrial (mixed commercial and industrial, and research centers and R&D)	2,500 acres
TOTAL	28,500 acres

The *industrial* land use category includes locations for goods movement businesses/industries, as well as other industrial businesses. The *air/water/rail* land use category includes the major airport, seaport, and rail facilities involved in freight transportation, along with related support uses and facilities. Many goods movement businesses value proximity to these major transportation facilities. The *mixed commercial/industrial* land use category is included because of difficulties identifying industrial uses in some cases, particularly in older industrial areas. Typically, this mixed category includes somewhat higher-density, higher-value uses with office and R&D functions as well as industrial functions, and is not attractive/competitive for most goods movement uses.

The locations of existing industrial and transportation land uses along the study corridors are summarized by city, in Table 1 on the next page. Existing land use maps for the corridors overall and for each corridor segment are included at the end of the text (see the overall corridor maps in Part A and the maps for corridor segments in Part B). The maps identify existing industrial and transportation-related land uses, as well as other land uses nearby within the corridor study areas.

The following describe existing industrial and transportation land uses within the central area study corridors, drawing from the data in Table 1 and the corridor land use maps.

◆ **Bayside Industrial Concentrations Along the Transportation Corridors**

There are concentrations of industrial land uses remaining along the bayside freeway corridors in the Inner East Bay and North Peninsula. Often the industrial areas extend to the waterfront. The land use patterns reflect the region’s history of urbanization and the development of transportation systems to serve the region’s markets. They also reflect the geography of the Bay Area, where the flatlands along the Bay are surrounded by hills, resulting in a somewhat linear

³ Of the 19,000 industrial acres, about 1,900 acres are estimated to be devoted to petroleum tanks, pipelines, and refinery uses in the Richmond area, and about 1,500 acres are in the closed military base in Alameda, leaving about 15,600 acres for manufacturing, warehouse, and storage industrial uses as well as vacant industrial land. The Task 4A Report summarizing the future goods movement land use scenarios for the corridors provides additional information on the uses of the central area industrial land supply.

TABLE 1				
Existing Industrial and Transportation-Related Land Uses in Major Goods Movement Corridors in the Central Bay Area				
Jurisdiction / Corridor	Acres of Land			
	Industrial	Air/Water/Rail	Mixed Comm'l/Ind	TOTAL
<u>East Bay I-80/880 Corridor</u>				
Richmond /a/	3,673	436	165	4,274
Berkeley	320	1	0	321
Emeryville	146	9	22	177
Rest of Richmond to Emeryville Corridor	840	3	39	882
Richmond to Emeryville Segment	4,979	449	226	5,654
Oakland	2,078	3,891	137	6,106
Alameda /b/	1,672	30	274	1,976
Oakland/Alameda Segment	3,750	3,921	411	8,082
San Leandro	1,627	0	0	1,627
Hayward	2,614	314	120	3,048
Union City	758	0	95	853
Rest of San Leandro/Hayward/Union City Corridor	338	106	2	446
San Leandro/Hayward/Union City Segment	5,337	420	217	5,974
Newark	943	0	105	1,048
Fremont	2,341	0	1,236	3,577
Newark/Fremont Segment	3,284	0	1,341	4,625
East Bay I-80/880 Corridor Subtotal	17,350	4,790	2,195	24,335
<u>North Peninsula US 101 Corridor</u>				
Brisbane	370	13	5	388
South San Francisco	911	195	257	1,363
Burlingame	249	1	6	256
Rest of Peninsula Corridor	104	2,052	2	2,158
North Peninsula US 101 Corridor Subtotal	1,634	2,261	270	4,165
TOTAL	18,984	7,051	2,465	28,500
<p>NOTE: Maps of existing land use by corridor segment are included at the end of this report. The primary source of data for identifying existing land use is the Association of Bay Area Governments (ABAG). The methodology and definitions used are described in the Phase 1 Deliverable for Task 2.2.</p> <p>/a/ Industrial acreage includes large land areas with petroleum tanks and pipelines.</p> <p>/b/ Industrial acreage largely reflects the former Alameda Naval Air Station property.</p> <p>Source: Metropolitan Transportation Commission; ABAG Land Use Database; Hausrath Economics Group</p>				

land use pattern around the Bay with limited transportation connections from the bayside areas inland.

◆ **Inner Bay Area Cities with the Largest Amounts of Industrial Land**

The inner bay cities with the largest amounts of remaining industrial land include Richmond, Oakland, San Leandro, Hayward, and Fremont along the East Bay I-80/880 Corridor, and South San Francisco on the North Peninsula US 101 Corridor. (See Table 1.)

◆ **Industrial Land in Proximity to Air/Water/Rail Transportation Facilities**

Much of the remaining industrial land along the study corridors is located in proximity to the major airports and seaports. This is the case for the relatively large amounts of industrial land in Oakland, San Leandro, Hayward, Richmond, and South San Francisco. Some of these locations are also served by the major freight rail lines remaining in the region.

◆ **Industrial Land in Proximity to Business and Population Centers**

The industrial land supply along the study corridors offers proximity to the business and population centers in San Francisco, Oakland, and other cities of the Inner East Bay and Peninsula. Given the geography of the Bay Area, alternative industrial locations to those in the study corridors are much further from the growing central area markets, and are primarily to the east (I-580/I-5 in San Joaquin County and Tri-Valley areas) and somewhat to the north as well (I-80/780/680 in Solano County).

◆ **Inner East Bay Industrial Land Linked To the West Bay Via the Bridges**

Further reflecting the geography of the Bay Area, the industrial land supply along the East Bay I-80/880 corridor offers proximity to markets in the West Bay via the region's bridges. For example, as development has intensified in San Francisco and on the Peninsula, industrial land in the East Bay has provided locations for industrial businesses moving from the West Bay and/or serving those markets. Industrial land supply with such linkages includes land in Richmond (links to Marin County via the Richmond-San Rafael Bridge), and land in Hayward, Union City, Newark, and Fremont (linkages to the Peninsula and San Francisco via the San Mateo and Dumbarton Bridges). Oakland also offers such connections to some extent (linkages to San Francisco via the Bay Bridge although goods movement is limited on this route).

◆ **Residential and Commercial Land Uses Nearby**

Corridor study areas defined to include the industrial areas around San Francisco Bay also include other land uses nearby. As defined and mapped, the industrial, transportation, and mixed commercial/industrial land use categories represent 42 percent of total study area land supply, as shown in Table 2. Residential,

TABLE 2			
Existing Land Uses in Major Goods Movement Corridors in the Central Bay Area			
Existing Land Use	Acres of Land		
	East Bay I-80/880 Corridor	North Peninsula US 101 Corridor	Total
Industrial	17,350	1,633	18,983
Air / Water / Rail Transportation and Related	4,791	2,261	7,052
Mixed Commercial / Industrial	2,195	270	2,465
Commercial	2,622	593	3,215
Institutional / Governmental / Other Infrastructure	1,790	212	2,002
Residential and Mixed Residential / Commercial	7,722	192	7,914
Open Space / Recreation / Agriculture / Wetlands	25,485	645	26,130
TOTAL	61,955	5,806	67,761

NOTE: Maps of existing land use by corridor segment are included at the end of this report. The primary source of data for identifying existing land use is the Association of Bay Area Governments (ABAG). The methodology and definitions used are described in the Phase 1 Deliverable for Task 2.2: *Technical Memorandum Concerning the Identification and Mapping of Existing Industrial Land/Space in the Study Corridors*. Small differences between the data in this table and that in Table 1 are due to rounding.

Source: Metropolitan Transportation Commission; ABAG Land Use Database; Hausrath Economics Group

commercial, and institutional/government land uses also are located nearby in parts of the corridors, as depicted on the maps. Close proximity between industrial and residential and commercial land uses results in land use conflicts, adversely affects the operations of industrial uses, and can increase real estate market pressures on land values. The rest of the corridor study areas includes open space, recreation, and natural resource/agricultural/wetlands areas along the Bay.⁴

◆ Land Use Pattern Identifies Industrial Areas/Districts

Existing industrial land use patterns along the study corridors identify industrial areas or districts with multiple industrial uses in close proximity. Over the longer term, the continuing viability of industrial land uses in the inner Bay Area is enhanced where industrial operations are relatively isolated from nearby neighborhoods and commercial districts and are located in industrial districts that accommodate truck traffic and provide relatively direct access to the regional freeway network.

Existing Industrial Building Space

Real estate company reports (summarized in Figure 1 and Table 3) identify that there are approximately 188 million square feet of warehouse and manufacturing space occupying the industrial land along the central area corridors. These types of industrial space (warehouse and manufacturing) provide locations for goods movement businesses/industries and other industrial uses. The largest amounts of industrial building space are located in the central parts of the corridors, in proximity to the major airports and seaports, in Oakland, San Leandro, and Hayward in the Inner East Bay I-80/880 corridor and in South San Francisco and nearby cities on the North Peninsula US 101 corridor. There also are large amounts of industrial building space in Fremont, Union City, and Richmond, at the southern and northern ends of the Inner East Bay corridor.

The location patterns of industrial building space (shown by the data in Table 3 and the chart in Figure 1) are consistent with those for the industrial land supply (summarized in Table 1), except for Richmond where the land supply data include large acreages with petroleum tanks and pipelines that do not include industrial building space and that could not be separately identified with the available land supply data. Comparison of industrial building space and industrial land supply indicate an overall, average ratio of building space per land area of 0.35 for all corridor areas combined, except for Richmond. Within the corridors, the industrial use patterns are more dense in Berkeley, Emeryville, Oakland, and San Leandro, less dense in Newark, Fremont, and Brisbane, and similar to the overall average in the other central area cities.

⁴ Large resource/wetlands areas occur in the Fremont/Newark corridor segment, including wetlands and salt ponds.

FIGURE 1



TABLE 3
Industrial Space in Major Goods Movement Corridors in
Central Parts of the Bay Area, 2007

Study Corridors	Int'l Gateways	Warehouse Space (Bldg. Sq. Ft.)	Manufacturing Space (Bldg. Sq. Ft.)	Total Whs + Mfg Space (Bldg. Sq. Ft.)	R+D Space (Bldg. Sq. Ft.)	Total Whs+Mfg+R+D (Bldg. Sq. Ft.)
<u>East Bay I-80/880 Corridor</u>						
Richmond	S	4,775,817	6,560,996	11,336,813	-	11,336,813
Berkeley		2,109,176	5,257,517	7,366,693	383,286	7,749,979
Emeryville		1,599,234	1,706,309	3,305,543	1,820,177	5,125,720
Oakland	S A	13,561,203	24,147,264	37,708,467	-	37,708,467
San Leandro	S A	14,849,057	13,161,148	28,010,205	1,021,977	29,032,182
Hayward	S A	19,341,260	18,309,107	37,650,367	4,911,041	42,561,408
Union City		7,893,881	5,095,641	12,989,522	946,156	13,935,678
Newark		3,986,761	4,239,365	8,226,126	2,880,334	11,106,460
Fremont		8,302,022	8,991,296	17,293,318	20,901,818	38,195,136
Total I-80/880 Corridor		76,418,411	87,468,643	163,887,054	32,864,789	196,751,843
<u>North Peninsula U.S. 101 Corridor</u>						
Brisbane	A	4,148,497	-	4,148,497	183,329	4,331,826
SSF/San Bruno/Millbrae/Burlingame /a/	A	19,819,348	-	19,819,348	8,434,727	28,254,075
Total North Peninsula Corridor		23,967,845	-	23,967,845	8,618,056	32,585,901
TOTAL		100,386,256	87,468,643	187,854,899	41,482,845	229,337,744
KEY: S = proximity to major seaport facilities A = proximity to major airport air freight facilities						
/a/ Includes warehouse space of 16,163,730 for SSF/San Bruno and 3,655,618 for Millbrae/Burlingame. R+D space of 8,434,727 located exclusively in SSF and Burlingame.						
Source: NAI/BT Commercial Real Estate, Research Reports for First Quarter 2007; Hausrath Economics Group						

LAND USE PLANS AND POLICIES AFFECTING FUTURE SUPPLY OF INDUSTRIAL LAND IN CENTRAL AREAS

Work was done to identify and map land use designations from adopted local and regional plans for land within the key goods movement corridors. These planned land uses identify the intent of local and regional policy regarding permitted and desired land use for the study corridors in the future. The focus of the work was on identifying plans and policies for land use and development in areas with existing industrial and transportation land uses that currently provide location options for goods movement businesses and activities.

◆ Large Share of Existing Industrial Land Already Planned for New Uses in Local General Plans

The research found that local land use plans and policies allow and/or encourage new uses of existing industrial land in many parts of the corridors. When viewed cumulatively, a large share of the central area industrial land supply is identified as being at-risk of transition to higher-value, new uses.

◆ Land for Major Airport/Seaport Uses Preserved By Regional Plans

There are regional plans that regulate land use so as to preserve locations for Bay Area seaports and airports, and the land for these facilities is largely publicly owned and controlled. Thus, the land in existing air/water/rail transportation use is planned to be preserved along the study corridors. However, as described above, land use plans for surrounding communities show a declining supply of industrial land for business activities that support these facilities and those that handle, ship, and/or receive goods and other cargoes moving through these facilities.

The discussion below summarizes land use policies affecting the future supply of industrial land, addressing adopted local General Plan policies first, followed by consideration of the Regional Seaport and Airport Plans.

Adopted Local General Plans

Local General Plan land use elements identify the local communities' desires for use of existing industrial areas in the future. General Plan policies and related zoning ordinances and other regulations control the range of uses permitted and the intensity of development in existing industrial areas. Given market pressures supporting residential and commercial growth in the inner Bay Area, local land use policies focused on industrial activities and limiting other uses and higher-density development are important for retaining industrial land uses along the study corridors. Typically, residential, commercial, and R&D uses support higher land values than industrial uses because of higher densities of development (such as for R&D, office, housing, and mixed-use developments in the central areas) and/or higher intensity of business activity (such as for retail uses). Where allowed by land use policies and supported by the market, there are incentives for property owners to convert/redevelop industrial properties to new uses.

Research done to identify and map adopted, local General Plan land use designations along the study corridors and to overlay those designations with existing land uses is summarized in Table 4 and detailed in Table 5 with regard to implications for the existing industrial land supply. Maps included at the end of this report for the corridors overall and for each corridor segment (see maps in Part A and Part B) show General Plan land use (“Planned Land Use”) and the overlay of planned and existing land uses to identify “Industrial Land Supply At Risk” where land use policies allow/encourage transition from existing industrial land uses to new uses in the future. The mapping and related analysis focus on *adopted* General Plan policies.⁵ Subsequent work, described later in this report, identifies development proposals and General Plan revisions currently in process that could further affect the industrial land supply and increase the industrial land at risk of transition to new uses in the future.

Corridor / Segment	Industrial Not Changed	Industrial Changed to:		
		Business Mix	Comm'l, Resid, OS	Air/Sea & Inst.
Richmond to Emeryville	57%	8%	28%	7%
Oakland/Alameda	18%	23%	54%	5%
San Leandro/Hayward/Union City	90%	4%	5%	1%
Newark/Fremont	73%	20%	7%	sm
East Bay I-80/880 Corridor	62%	12%	23%	3%
North Peninsula US 101 Corridor	30%	53%	16%	1%
TOTAL	59%	16%	22%	3%

NOTE: More detailed data are provided in Table 5.

Source: Metropolitan Transportation Commission; ABAG Land Use Database; Hausrath Economics Group

⁵ The primary source of data for identifying and mapping local General Plan land use is the Association of Bay Area Governments (ABAG). The ABAG data were reviewed and updated/corrected as needed. The methodology and definitions used to identify and map planned land use and to compare existing and planned land uses are described in two Phase 1 deliverables: Deliverable for Tasks 2.3 and 2.4: Technical Memorandum Concerning the Identification and Mapping of Planned Land Use in the Study Corridors; and Deliverable for Task 2.5: Technical Memorandum for Comparing Existing and Planned Land Uses to Identify Industrial Land Uses At Risk of Conversion to New Uses.

TABLE 5
General Plan Land Uses for Existing Industrial Land
(Existing Industrial Acres By General Plan Land Use Designation)

Jurisdiction / Corridor	Existing Industrial Acres					TOTAL
	Industrial Not Changed		Ind'l at Risk: Bus. Mix /a/	Ind'l at Risk: Other Uses /b/	Ind'l to Air/Sea & Instit. /c/	
	Acres	% of Total				
East Bay I-80/880 Corridor						
Richmond /d/	1,978	54%	399	963	332	3,672
Berkeley	301	94%	0	19	0	320
Emeryville	104	72%	0	41	0	145
Rest of Richmond to Emeryville Corridor	443	53%	8	385	4	840
Richmond to Emeryville Segment	2,826	57%	407	1,408	336	4,977
Oakland	650	31%	874	355	198	2,077
Alameda	22	1%	0	1,650	0	1,672
Oakland/Alameda Segment	672	18%	874	2,005	198	3,749
San Leandro	1,486	91%	0	84	56	1,626
Hayward	2,542	97%	0	72	0	2,614
Union City	634	84%	105	14	6	759
Rest of San Leandro/Hayward/Union City Corridor	108	32%	117	111	2	338
San Leandro/Hayward/Union City Segment	4,770	90%	222	281	64	5,337
Newark	718	76%	130	92	3	943
Fremont	1,684	72%	510	144	3	2,341
Newark/Fremont Segment	2,402	73%	640	236	6	3,284
East Bay I-80/880 Corridor Subtotal	10,670	62%	2,143	3,930	604	17,347
North Peninsula US 101 Corridor						
Brisbane	0	0%	350	20	0	370
South San Francisco	406	45%	267	230	7	910
Burlingame	0	0%	233	15	0	248
Rest of Peninsula Corridor	77	75%	12	0	14	103
North Peninsula US 101 Corridor Subtotal	483	30%	862	265	21	1,631
TOTAL	11,153	59%	3,005	4,195	625	18,978
			16%	22%	3%	100%

NOTE: Maps of "Planned Land Use" and "Industrial Land Use At Risk" by corridor segment are included at the end of this report. The primary source of data for identifying General Plan land use is the Association of Bay Area Governments (ABAG). The methodology and definitions used are described in two Phase 1 Deliverables: Deliverable for Tasks 2.3 and 2.4, and Deliverable for Task 2.5. Small differences between the data in this table and other tables are due to rounding.

/a/ Business mix categories typically permit business uses including light industrial, R&D, business park/campus, and mixed commercial/industrial uses. Some types of industrial uses may be permitted although land uses in this group are typically higher-density and/or higher-value than most industrial uses involved in goods movement.

/b/ Other land use categories where local plans identify commercial, residential, mixed residential and commercial, and open space/park uses. Industrial uses are not permitted in these categories.

/c/ Includes situations where existing industrial areas are planned for airport/seaport or institutional/government/utility/other infrastructure uses.

/d/ Industrial acres not changed include large land areas with petroleum tanks and pipelines.

Source: Metropolitan Transportation Commission; ABAG Land Use Database; Hausrath Economics Group

◆ **East Bay I-80/880 Corridor: About 40 Percent of Industrial Land At-Risk**

– **Inner East Bay Corridor Overall**

Overall, about 40 percent of existing industrial land along the East Bay I-80/880 corridor is at-risk under local, General Plan policies. About 60 percent is designated for continued industrial use in adopted General Plans. As discussed later in this report, there are planning efforts under way that are likely to reduce the share/amount of existing industrial land designated for future industrial use, and increase the share/amount of industrial land that is designated for new, higher-value land uses. The pattern varies among cities of the Inner East Bay.

Of the overall 40 percent of existing industrial land at-risk, the majority is designated for residential, commercial, and mixed residential/commercial uses, in land use categories where industrial uses are not permitted. About one-third is shown in land use categories that permit a mix of business uses, including some types of light industrial uses as well as R&D, business park/campus, mixed commercial/industrial, and some commercial uses that are typically higher-density and/or higher-value than most types of goods movement businesses/industries. A small share of existing industrial land also is designated for future seaport/airport use or for future institutional/utility use. The General Plan designations for existing industrial land are summarized in Table 4 and presented in more detail in Table 5.

– **Oakland**

In the central part of the Inner East Bay corridor, only about 30 percent of the large amount of existing industrial land in Oakland is designated for traditional industrial uses in the future (see Table 5); approximately 70 percent is designated for other uses and is at risk of transition in the future. This is particularly significant given Oakland's location at the center of the region and interstate freeway system, and the close proximity of industrial areas to the major seaport and air-freight facilities in Oakland.

The situation in Oakland is further complicated by the fact that City policy has not carried through in implementing Oakland's General Plan Land Use Element (adopted in 1998). As a result, even more than 70 percent of Oakland's industrial land could be at risk because land use policies and local decision-making on a project-by-project basis allow or encourage new uses (as discussed later).

– **San Leandro, Hayward, and Union City**

Within the Inner East Bay, local General Plan policies are strongest in encouraging and retaining industrial land uses in San Leandro and Hayward, with over 90 percent of existing industrial land designated for industrial uses in the future, and less than 10 percent of industrial land at risk of transition to new uses. Similarly, in nearby Union City, over 80 percent of industrial land is designated to remain in industrial use, and less than 20 percent is at-risk. The large industrial land supply in these cities will become increasingly important in the future, given their central locations, relatively good proximity to the major airports and seaport, proximity to the San Mateo and Dumbarton Bridges with access across the Bay, and the declining industrial land supply in other cities along both the East Bay I-80/880 and Peninsula US 101 corridors.

– **Richmond and Nearby Unincorporated Areas**

At the northern end of the corridor in the City of Richmond and in the North Richmond unincorporated area nearby, about 50 percent of existing industrial land is designated for future industrial uses and about 50 percent for other uses, including business mix, residential, and mixed-use development, as well as open space.⁶ There is further uncertainty about the future for industrial uses in Richmond as the city is currently in the process of updating its General Plan, and is considering options that increase the extent of existing industrial land at-risk for transition to new uses in the future (discussed later in this report). Richmond's industrial land supply has become increasingly important given its central location, its accessibility to I-80, I-580, and the Richmond-San Rafael Bridge, and the declining industrial supply in nearby Berkeley, Emeryville, and Oakland as well as Marin County.

– **Fremont and Newark**

At the southern end of the corridor in Fremont and Newark, about 70 to 75 percent of industrial land is designated for industrial use and about 25 to 30 percent is at risk of transition to new uses in the future. In the at-risk areas, higher-density R&D/business parks and commercial uses are anticipated to replace more traditional industrial uses, as are residential and mixed-use developments.

⁶ The industrial land data for Richmond include large acreages of hillsides and bluffs including and surrounding petroleum tanks and pipelines, some portions of which are identified as open space under the General Plan. As a result, a share of existing industrial land at risk for other uses (about 830 of the 963 acres at risk to other uses in Table 5) is hillside land designated as open space. In this case, active industrial areas with industrial building space are not at-risk.

◆ **North Peninsula US 101 Corridor: About 70 Percent of Industrial Land At-Risk**

Overall, about 70 percent of existing industrial land along the North Peninsula corridor is designated for new uses in the future, while only about 30 percent remains designated for industrial uses. These changes are significant given the proximity of existing industrial areas on the North Peninsula to the international air-freight facilities at San Francisco Airport (SFO) and their proximity to the City of San Francisco which has limited industrial land remaining within its borders.

Along much of the corridor, local General Plans anticipate accommodating higher-density business park development for additional biotechnology uses, as well as waterfront and other commercial developments for offices and hotels, with some ground-floor retail/restaurant uses. The only future industrial areas designated in the local General Plans are in South San Francisco, where about 45 percent of that city's existing industrial land is designated to remain in industrial use while 55 percent is at-risk of transition to new uses. No industrial land is designated along the study corridor in Brisbane or Burlingame in the future, so that all existing industrial areas in these cities are at risk of transition to new uses.

Regional Seaport Plan and Airport Plan

There are regional plans that identify port priority and airport priority use areas within the study corridors, including:

- *The San Francisco Bay Area Seaport Plan*, San Francisco Bay Conservation and Development Commission (BCDC) and Metropolitan Transportation Commission (MTC); and
- *The Regional Airport System Plan for the San Francisco Bay Area*, Regional Airport Planning Committee (RAPC), an advisory committee of the Metropolitan Transportation Commission, the Association of Bay Area Governments, and the Bay Conservation and Development Commission.

These plans identify areas designated specifically for port and airport use, where other uses are not permitted. Local land use plans and policy must be consistent with these regional plan designations.

Comparisons with the existing land supply in air/water/rail use along the corridors show that the planned land supply for airports/seaports would preserve these locations for freight transportation facilities in the future. In addition, these areas are largely public- or utility-owned and operated specifically for these transportation purposes.

However, while the land for air/water/rail transportation facilities is planned to be preserved along the study corridors, the local land use plans for surrounding corridor areas (discussed above) show a declining supply of industrial land for business activities that support these

facilities and for businesses that handle, ship, and/or receive goods and other cargoes moving through these facilities.

NEW LAND USE POLICIES/PROGRAMS AND DEVELOPMENT PROPOSALS WITH FURTHER IMPLICATIONS FOR INDUSTRIAL LAND SUPPLY

In addition to approved local and regional land use plans and policies described above, there are current planning efforts and programs, and development projects and proposals that would involve General Plan changes and further increase the extent of central area industrial land supply that is “at-risk” of transition to new uses. These include new land use policies and programs and specific development projects and proposals, at both the regional and local levels.

Regional Smart Growth/FOCUS and Priority Development Areas

Regional policies and strategies and current initiatives to articulate and implement the Bay Area’s Smart Growth Vision and *FOCUS* program have emphasized housing and residential development in support of the regional goals of promoting a more compact development pattern and increasing connections between housing and transit. The emphasis has been on increasing the amount of housing built on infill locations near transit infrastructure, which is often in the central parts of the region and along the major goods movement corridors. This emphasis increases the competition for bayside lands currently in industrial and transportation uses, if not properly managed. Thus far, the regional initiatives have not focused on economic activity and jobs, and have not specifically addressed industrial land uses nor implications for the goods movement system that serves the region’s business and population centers.

As a part of the regional Smart Growth Vision and Strategy, the FOCUS Priority Development Area (PDA) program⁷ was begun in 2007. Cities were invited to apply for regional designation of areas within their communities as Priority Development Areas, or PDAs. To be eligible, an area has to be within an already developed community, have access to existing or proposed high-quality transit, and be planned for additional new housing. Once designated, PDAs are eligible for regional and state incentives to help facilitate new neighborhood development. The PDAs also are to be used to identify local and regional priorities for growth and development in the Bay Area.

As a part of this Task 2 effort to analyze the central area industrial land supply, MTC prepared maps that overlay the PDAs as identified by ABAG and the local communities with the existing and planned land uses along the study corridors. These comparison maps are included as the third set of maps at the end of this report (see overlay maps in Part C). The comparisons indicate situations where the PDAs occur in existing industrial areas as well as cases where the PDAs overlap with areas planned to remain in industrial use under adopted local General Plans.

⁷ As part of the San Francisco Bay Area Vision Project, the FOCUS program is designed to encourage future growth near transit and in the existing communities that surround the Bay, enhancing existing neighborhoods and providing housing and transportation choices for residents. The Priority Development Area program was set up in 2007 as part of the FOCUS program.

Depending on how these PDAs move forward, new developments in these areas could further increase the extent of existing industrial land supply at-risk of transition to new uses.

The specifics of where the industrial land supply along the study corridors could be affected by the PDAs are summarized below.

◆ **Major Implications for Industrial Land Supply in Oakland at the Center of the I-80/880 Corridor**

The PDA designations in Oakland are generalized and cover large areas of the city all along the I-880 corridor. The PDAs overlay most of the existing industrial areas of the city and all of the planned industrial areas as designated in the City's General Plan. As a result, all (100 percent) of the industrial land in Oakland is at-risk of transition to new uses when the PDA designations are included in the evaluation. This is significant from the perspective of economic and industrial activity and regional goods movement as Oakland currently has the largest amount of industrial space along the I-80/880 corridor (see Table 3), is located at the center of the Bay Area region and interstate freeway system, and provides industrial space in close proximity to the major seaport and airport facilities in Oakland.

◆ **Implications for Industrial Land Supply in Richmond and North Richmond (unincorporated) at the Northern End of the I-80/880 Corridor**

The PDA designations in these areas overlap with some existing industrial areas, with overlaps focused on unincorporated areas in North Richmond and on City of Richmond areas along the Inner Harbor and inland to I-580, to the east of the channel and the Port of Richmond. The PDA designations also overlap with planned industrial land use designations in these same areas, per the existing General Plans. As a result, larger than 50 percent shares of the existing industrial land in Richmond and North Richmond are at risk of transition to new uses when the PDA designations are included in the evaluation. Less than half of the existing industrial land supplies would remain designated for future industrial use.

◆ **Limited Implications for Industrial Land Supply Elsewhere in the Corridor**

The mapping indicates that there are small areas in several other cities along the study corridors where the PDA designations overlap with existing and planned industrial land uses. In these cases, the amounts of industrial land directly affected are relatively small. Thus, the PDAs do not have large effects on the extent of industrial land at-risk in other corridor communities (outside of Oakland and Richmond). In these more limited cases, the amounts and shares of industrial land at-risk for new uses are a little larger than shown earlier in Tables 4 and 5 as a result of the PDA designations, and the amounts/shares of land where industrial uses are not at-risk would be smaller than shown in the tables. The corridor cities

where the PDA designations have some limited overlap with the industrial land supply include the following:

- Along the East Bay I-80/880 Corridor:
 - o San Leandro, on the fringes of the downtown area;
 - o Unincorporated Alameda County, in the bayside area just north of Hayward; and
 - o Newark, along the bayside, in proximity to the Dumbarton Bridge.

- Along the North Peninsula US 101 Corridor:
 - o San Francisco/Daly City: small areas at the northernmost edges of the corridor; and
 - o San Bruno: small area on western edge of corridor inland near the US 101 and I-380 interchange.

Even if not directly overlapping with the industrial land supply along the corridors, new residential development around existing industrial uses can lead to increasing land use conflicts that adversely affect the viability of industrial areas nearby. This issue is particularly important for the industrial land supply along the East Bay I-80/880 corridor as the BART transit line is within the study corridor and in proximity to some industrial areas. As the PDAs are to designate new neighborhoods for development near transit, there is the potential for increasing land use conflicts in several areas along the corridor.

Local Development Projects/Proposals and General Plan/Zoning Updates

There are development projects and proposals underway in communities along the study corridors that require changes in local General Plan designations from industrial land use to other, new uses. If approved, such changes would further increase the extent of central area industrial land supply that is “at-risk” of transition to new uses. There also are several jurisdictions in the process of updating their General Plans and other communities in the process of translating General Plan land use into new or revised zoning controls and other land use regulations. Those several planning efforts also could increase the industrial land supply “at-risk”.

The following highlights possible changes in local General Plan land use designations or in industrial zoning controls that could have further implications for the industrial land supply along the study corridors. The focus is on land use changes over and above those reflected in adopted General plans, as already mapped and described earlier in this report (see Tables 4 and 5 and related text).

◆ **East Bay I-80/880 Corridor: Additional Industrial Land Likely At Risk in Richmond, North Richmond, Berkeley, Emeryville, Oakland, San Leandro, and Fremont**

– **Richmond**

At the northern end of the corridor, Richmond is currently in the process of updating its General Plan. Consideration is being given to changing land use designations in the southern part of the City, in the area between I-580 and the Bay (Richmond Inner Harbor), to the east of Marina Way. This area, which now includes industrial uses, could be designated for mixed-use development in the future, including additional residential development. Changes in this part of the City would increase the extent of existing industrial land designated for other, new uses and that is “at-risk”. Other aspects of the updated General Plan are likely to encourage the modernization, consolidation, and beautification of older, industrial areas in Richmond to increase the intensity of industrial activity and jobs and to improve the desirability of industrial areas and their compatibility with nearby uses.

– **North Richmond** (unincorporated)

The County is now (early 2008) embarking on a General Plan Study and Specific Plan that will evaluate the possibility of re-designating a significant portion of North Richmond (in the area between Wildcat Creek and San Pablo Creek) from industrial to residential and commercial land uses. In recent years, there has been growing interest in residential development in North Richmond, extending into the industrial areas, which contain a mix of low-intensity industrial uses and vacant industrial sites. General Plan changes in favor of housing development would increase the industrial land supply “at-risk”.

– **Berkeley**

During 2007/2008, consideration is being given to changes in industrial zoning in West Berkeley. The intent of zoning amendments would be “increased flexibility” in the application of development regulations to ease obstacles to development, while retaining consistency with the broad intent of goals and policies of the West Berkeley Plan. As the review is still underway, it is unclear if and how changes might affect the amount of industrial land and space in West Berkeley. If more higher-value, new development were allowed, the supply of industrial land for more traditional production, distribution, and transportation uses could be reduced.

– **Emeryville**

Emeryville is in the process of updating its General Plan, with a new plan expected late 2008 or 2009. Based on input from stakeholders and city leaders, a *Draft Plan Framework* document was developed (March 2008) that envisions a decrease in land set aside for traditional industrial uses, with much of the existing industrial land being re-designated to mixed-use districts that would encourage a transition to higher-value uses. If the adopted General Plan ultimately reflects this *Framework*, the result will be a further reduction in industrial land supply, with only a small cluster of industrial land remaining at the northern edge of the city.

– **Oakland**

City policy in Oakland has not fully implemented Oakland's General Plan Land Use Element (adopted in 1998). The City's zoning ordinances and related policies and regulations have not been fully updated to implement General Plan land use. In addition, local decision-making on a project-by-project basis has allowed General Plan changes for residential and mixed-use development in areas designated for industrial use or for business uses more broadly, including light industrial uses. For example, a large residential development was approved in East Oakland in the area designated for industrial land use in the General Plan (at 98th Avenue and San Leandro Street). Other residential proposals in industrial areas are under review. The result has been uncertainty about the extent of local commitment to retaining industrial land, and ongoing real estate speculation in industrial areas.

Efforts underway in 2008 are focused on the city's industrial areas, with the intent of bringing zoning and other land regulations into closer conformance with General Plan land use. This process is including review of the General Plan designations for some industrial areas, and special area planning to refine land use designations in industrial areas along parts of the Estuary waterfront. While the outcomes should clarify industrial land use policies, they also could result in fewer locations designated for industrial land uses, and more existing industrial areas at-risk of transition in the future.

In addition, development planning for the Gateway development area of the former Oakland Army Base is underway in 2008 and includes proposals for a mix of possible new uses. Potentially, new industrial space could be developed in a part of the area, thereby increasing the future industrial land supply in Oakland and reducing the amount of industrial land at risk.

– **San Leandro**

While San Leandro has clear policy direction for encouraging and retaining industrial land uses, a large (63 acres) former distribution center was recently purchased for development to new uses and is likely to result in General Plan changes that reduce the industrial land supply. While plans are still in process, recent proposals show development of about half the site for a new hospital and medical offices and the other half for retail uses and possibly housing. Elsewhere in San Leandro there is new construction of industrial space occurring, and the City is encouraging future mixed-use developments in downtown, away from industrial areas.

– **Hayward, Union City, Newark**

There have been relocations of industrial uses from other East Bay and Peninsula locations to these areas as demand increases for existing industrial space. Some market interest for changing General Plan land use designations is coming from residential and commercial development in Hayward, but in general these cities are not experiencing intense market pressures for conversion from industrial to new uses. As the R&D space market tightens in the future, there will likely be greater pressures on the industrial land supply in these cities.

– **Fremont**

There are market pressures to rezone industrial land in Fremont, primarily for residential and commercial development as vacancies for R&D space are still high. Some industrial land has been rezoned, there are new proposals under consideration, and there have been purchases of industrial land by owners interested in developing new uses in the future. There also is new industrial construction underway for the large Transcontinental printing company project (330,000 square feet on 30 acres of vacant land), a modern, automated operation that will print the San Francisco Chronicle. Given the trends, Fremont is currently analyzing its industrial areas and sectors as the basis for further industrial area planning and protection strategies. That work is part of the process of updating Fremont's General Plan over the 2007 to 2009 time period.

◆ **North Peninsula US 101 Corridor: Real Estate Activity Implementing Land Use Changes Already Identified for Most Industrial Land**

As set out in local General Plans, most of the industrial land in North Peninsula cities is already identified for new uses in the future (about 70 percent of all industrial land is at-risk). The trends underway are implementing those plans. Examples include the purchase and/or development of lands for biotechnology and commercial uses. There are requests to increase development densities in

some areas that could further enhance pressures for new uses. A few industrial uses, such as air freight companies, are continuing to bid competitively for industrial sites, because of their need to locate near the airport.

INDIRECT EFFECTS ON NEARBY INDUSTRIAL ACTIVITY AND LAND SUPPLY

As described in the sections above, the effects of land use policies on industrial land supply along the key goods movement corridors focus on the direct effects of converting industrial land to other uses. However, such changes can also impact nearby industrial land uses and further increase the extent of industrial land supply that becomes at risk of conversion in the future.

New uses on formerly industrial sites can increase land use conflicts with existing industrial activities nearby and create difficulties as well as increased costs for industrial operations in surrounding areas. For example, as residential and/or commercial development intensifies nearby, truck travel to and from industrial uses can become more difficult and safety can become an issue. New residents can also raise concerns about noise, lights, or dust from industrial operations, as well as concerns about truck parking. Further, new development nearby can increase market interest in surrounding industrial properties and increase land values (depending on land use policies). Such changes can influence property owners' expectations for the reuse of their properties, and their willingness to invest in industrial uses. Together, these types of effects could lead to more land use transition in surrounding areas.

DECLINES IN INDUSTRIAL SPACE OCCURRING ALONG MAJOR GOODS MOVEMENT CORRIDORS

While a large share of industrial land along the study corridors is “at-risk” because land use policies allow or encourage transition to new uses, the timing and extent of that transition depends on market demand and growth trends for the new land uses. It also is influenced by the intensities and types of development allowable under local land use policies (*i.e.*, allowable uses, development densities, parking requirements, site coverage requirements, and other regulations that influence the feasibility of new development of various types).

Recent Declines in Central Area Industrial Space Supply

Real estate company reports detailing the industrial space markets identify a decline in industrial space along the study corridors over the past four years, since the time of the land use analysis for the earlier MTC Goods Movement Study.⁸ As summarized in Table 6, the supply of warehouse and manufacturing space along the study corridors has declined by almost 15 million square feet over the four years from 2003 to 2007.⁹ Of note are declines in industrial space in all of the cities along the corridors except for one (Newark in the East Bay), as shown by the city-

⁸ See Task 4 Report, *Existing Conditions and Trends Regarding Real Estate, Land Use, and Community Factors With Implications for Goods Movement Industries*, by Hausrath Economics Group, October 2003.

⁹ If the recent rate of decline were to continue, the existing industrial land supply along the central corridors would be gone in 13 more years.

level data in Table 7. The recent declines in industrial space represent about a seven percent overall decline for the East Bay I-80/880 corridor and an 11 percent decline in industrial space on the North Peninsula US 101 corridor. These recent changes identify that substantial declines in the supply of industrial space are already occurring along the study corridors in the central parts of the region.

**Higher Industrial Rents and Lower Vacancies
With Reduced Industrial Space Supply**

The loss of industrial land and building space in the central corridor areas does not reflect a lack of demand for industrial locations there from businesses involved in transportation-related,

TABLE 6					
Summary of Recent Changes in Industrial Space in Major Goods Movement Corridors (2003 - 2007)					
		<u>Warehouse Space</u> (mil. sq. ft.)		<u>Manufacturing Space</u> (mil. sq. ft.)	
East Bay I-80/880 Corridor	2003	81.6		94.1	
	2007	76.4		87.5	
	<i>Change</i>	-5.2 mil.	-6.3%	-6.6 mil.	-7.0%
North Peninsula US 101 Corridor	2003	26.9		-	
	2007	24.0		-	
	<i>Change</i>	-2.9 mil.	-10.9%	-	
		<u>Total Space</u>			
TOTAL	2003	202.6 mil.			
	2007	187.9 mil.			
	<i>Change</i>	-14.7 mil.		-7.3%	

NOTE: More detailed data are provided in Table 7.

Source: NAI/BT Commercial Real Estate, Research Reports for First Quarter, 2003 and 2007; Hausrath Economics Group

TABLE 7
Changes in Industrial Space in Major Goods Movement Corridors in Central Parts of the Bay Area, 2003-2007

Study Corridors	Warehouse Space				Manufacturing Space				R+D Space			
	Q1-2003 (Bldg. Sq. Ft.)	Q1-2007 (Bldg. Sq. Ft.)	Change (Bldg. Sq. Ft.)	% Change	Q1-2003 (Bldg. Sq. Ft.)	Q1-2007 (Bldg. Sq. Ft.)	Change (Bldg. Sq. Ft.)	% Change	Q1-2003 (Bldg. Sq. Ft.)	Q1-2007 (Bldg. Sq. Ft.)	Change (Bldg. Sq. Ft.)	% Change
East Bay I-80/880 Corridor												
Richmond	4,746,259	4,775,817	29,558	0.6%	6,992,301	6,560,996	(431,305)	-6.2%	-	-	-	0.0%
Berkeley	2,085,950	2,109,176	23,226	1.1%	5,478,956	5,257,517	(221,439)	-4.0%	297,031	383,286	86,255	29.0%
Emeryville	2,111,411	1,599,234	(512,177)	-24.3%	2,268,110	1,706,309	(561,801)	-24.8%	1,720,079	1,820,177	100,098	5.8%
Oakland	15,646,379	13,561,203	(2,085,176)	-13.3%	25,809,022	24,147,264	(1,661,758)	-6.4%	-	-	-	0.0%
San Leandro	16,193,677	14,849,057	(1,344,620)	-8.3%	14,875,806	13,161,148	(1,714,658)	-11.5%	952,929	1,021,977	69,048	7.2%
Hayward	20,159,811	19,341,260	(818,551)	-4.1%	18,922,560	18,309,107	(613,453)	-3.2%	5,421,818	4,911,041	(510,777)	-9.4%
Union City	8,333,335	7,893,881	(439,454)	-5.3%	6,371,588	5,095,641	(1,275,947)	-20.0%	933,446	946,156	12,710	1.4%
Newark	3,714,043	3,986,761	272,718	7.3%	4,160,393	4,239,365	78,972	1.9%	2,537,583	2,880,334	342,751	13.5%
Fremont	8,598,612	8,302,022	(296,590)	-3.4%	9,187,135	8,991,296	(195,839)	-2.1%	21,934,988	20,901,818	(1,033,170)	-4.7%
Total I-80/880 Corridor	81,589,477	76,418,411	(5,171,066)	-6.3%	94,065,871	87,468,643	(6,597,228)	-7.0%	33,797,874	32,864,789	(933,085)	-2.8%
No. Peninsula U.S. 101 Corridor												
Brisbane	4,336,936	4,148,497	(188,439)	-4.3%	-	-	-	0.0%	206,873	183,329	(23,544)	-11.4%
SSF/S.B./Mlbr/Brlgm	22,555,217	19,819,348	(2,735,869)	-12.1%	-	-	-	0.0%	6,084,224	8,434,727	2,350,503	38.6%
Total No. Peninsula Corridor	26,892,153	23,967,845	(2,924,308)	-10.9%	-	-	-	0.0%	6,291,097	8,618,056	2,326,959	37.0%
TOTAL	108,481,630	100,386,256	(8,095,374)	-7.5%	94,065,871	87,468,643	(6,597,228)	-7.0%	40,088,971	41,482,845	1,393,874	3.5%

Source: NAI/BT Commercial Real Estate, Research Reports for First Quarter, 2003 and 2007; Hausrath Economics Group

manufacturing, wholesale trade, and other industrial activities.¹⁰ Instead, it reflects *both* (a) real estate market pressures to redevelop industrial land for residential, commercial, and other higher-density/higher-value land uses, *and* (b) local land use policies that allow or encourage such redevelopment to occur.

As the supply of industrial space has declined in central areas, the competition for the remaining industrial space has increased, evidencing continuing demand for industrial locations in the inner Bay Area. Real estate market data for the past four years, 2003 to 2007, show that as the supply of industrial space has declined, rents for industrial space have increased and vacancy rates have declined. The changes have been substantial in just four years, as shown by the real estate market data in Table 8.

TABLE 8 Trends in Industrial Space Rents and Vacancy Rates for Major Goods Movement Corridors, 2003-2007						
	<u>Warehouse Space</u>			<u>Manufacturing Space</u>		
	<u>2003</u>	<u>2007</u>	<u>% Change</u>	<u>2003</u>	<u>2007</u>	<u>% Change</u>
<u>Average Rent Per Sq. Ft. (NNN)</u>						
East Bay I-80/880 Corridor	\$0.36	\$0.46	+28%	\$0.50	\$0.58	+16%
North Peninsula US 101 Corridor	\$0.64	\$0.79	+23%	-	-	-
<u>Vacancy Rate</u>						
East Bay I-80/880 Corridor	11.3%	6.2%	-45%	6.1%	5.0%	-18.0%
North Peninsula US 101 Corridor	9.2%	6.4%	-30%	-	-	-
Source: NAI/BT Commercial Real Estate, Research Reports for Fourth Quarter 2007; Hausrath Economics Group						

¹⁰ Other tasks (Task 3A and 3B) under this Goods Movement/Land Use Project are addressing the demand for industrial space by goods movement businesses/industries.

Trends and Policies Discouraging Investment in Central Area Industrial Districts

In addition to the declines in industrial land supply and building space, real estate market speculation in combination with permissive or uncertain land use policies continue to discourage investment in industrial real estate in parts of the central areas. In many cases, the older industrial space supply in central areas is in need of modernization, and the industrial areas overall are in need of infrastructure improvements. With investments by landowners and public agencies, existing industrial areas could be improved significantly, enhancing their attractiveness to businesses, increasing the usage of the industrial properties, and increasing returns to property owners. Industrial area improvements could also reduce conflicts with neighboring areas and improve industrial operations.

While the potentials exist to support improvements and expansion for industrial uses and new industrial development, such investments are not being made in many cases. Real estate market speculation along with permissive or unclear land use policies encourage landowners to hold industrial land and continue existing industrial facilities and uses there until such time as properties can be sold and redeveloped for higher-density/higher-value uses. As a result of this situation, there are numerous examples of industrial businesses that could not find suitable facilities in desired locations along the study corridors. There also are examples of industrial businesses that were unable to purchase desired properties in existing industrial areas, as landlords preferred to hold such properties in anticipation of their sale for higher-value uses in the future.

Given the market context in the Inner Bay Area, *land use policies are very important* in determining the future industrial land supply in central areas. Successful industrial areas will need land use policies that provide clear direction that industrial uses are desired and that other uses and higher-density developments are not permitted. Public investments in infrastructure improvements in older industrial areas would also improve the functioning and desirability of existing industrial areas and encourage further investments by the private sector.¹¹

TRENDS SHOW INCREASING PRESSURES ON CENTRAL AREA INDUSTRIAL LAND SUPPLY AND RAISE LAND USE POLICY ISSUES

Growth forecasts show continuing trends toward the intensification of residential and commercial development in the central bayside areas, providing competition for land currently in industrial use. At the same time, this growth will also increase the demand for production, distribution, and other goods movement activities to serve the growing business and population centers in the inner Bay Area. These trends in combination with land use policies in favor of new uses over industrial activities will continue to reduce the supply of affordable, close-in location options for goods movement businesses/industries, encouraging their growth and relocation to outlying parts of the region and beyond (to San Joaquin County outside the nine-

¹¹ The earlier MTC Goods Movement Study included a report that identifies and describes the components of a possible land use strategy for goods movement and industrial land uses. That report elaborates on the types of land use policies that could help protect the industrial land supply. See Task 11 Report: *A Land Use Strategy to Support Goods Movement in the Bay Area*.

county Bay Area region). Continued industrial dispersion is raising important economic, transportation, and environmental implications that are being addressed in other parts of this MTC project (see Tasks 4B and 4C).

The trends also raise land use policy issues and provide rationale for a regional strategy for preserving industrial land, in support of efficient goods movement. The following highlights the land use issues.

- The industrial land supply along the major transportation corridors represents a unique and valuable resource supporting the regional economy and efficient provision and distribution of goods. It deserves regional attention.
- Faced with pressures for land use transition and redevelopment, the many individual land use decisions occurring at the local level are determining the cumulative, regional industrial land supply, somewhat by default. There is no oversight of the regional implications of local land use decisions, for the economy, job generation, and the efficient provision and distribution of goods.
- Further, there is no ability to balance the local financial and fiscal incentives in favor of higher-value land uses with the regional economic, transportation, and environmental benefits of more efficient goods movement that accrue more broadly throughout the region and are somewhat “behind the scenes” and not well understood.
- A regional land use strategy for goods movement is lacking in the Bay Area. Such a strategy could seek to retain options for industrial uses along the central transportation corridors in locations that are of benefit to the overall regional goods movement system.¹²
- Broadening the focus of regional Smart Growth/*FOCUS* to include an industrial/goods movement component and initiatives to promote a *balance* of industrial/goods movement uses in proximity to the business and population centers that they serve could benefit the region. Such a strategy would further the benefits of regional Smart Growth and help to maintain a healthy and competitive regional economy.
- There is some urgency to address the issue of industrial land supply and elevate its priority, as continued redevelopment for new uses is resulting in a *permanent* loss of industrial land supply in the central Bay Area.

¹² As referenced in the previous footnote, the earlier MTC Goods Movement Study included a report that identifies the components of a possible land use strategy for goods movement and industrial land uses. This phase of the Bay Area Goods Movement/Land Use Project provides analysis to further understand regional goods movement/land use issues and implications, and provides a greater foundation from which to consider implementation strategies and efforts.

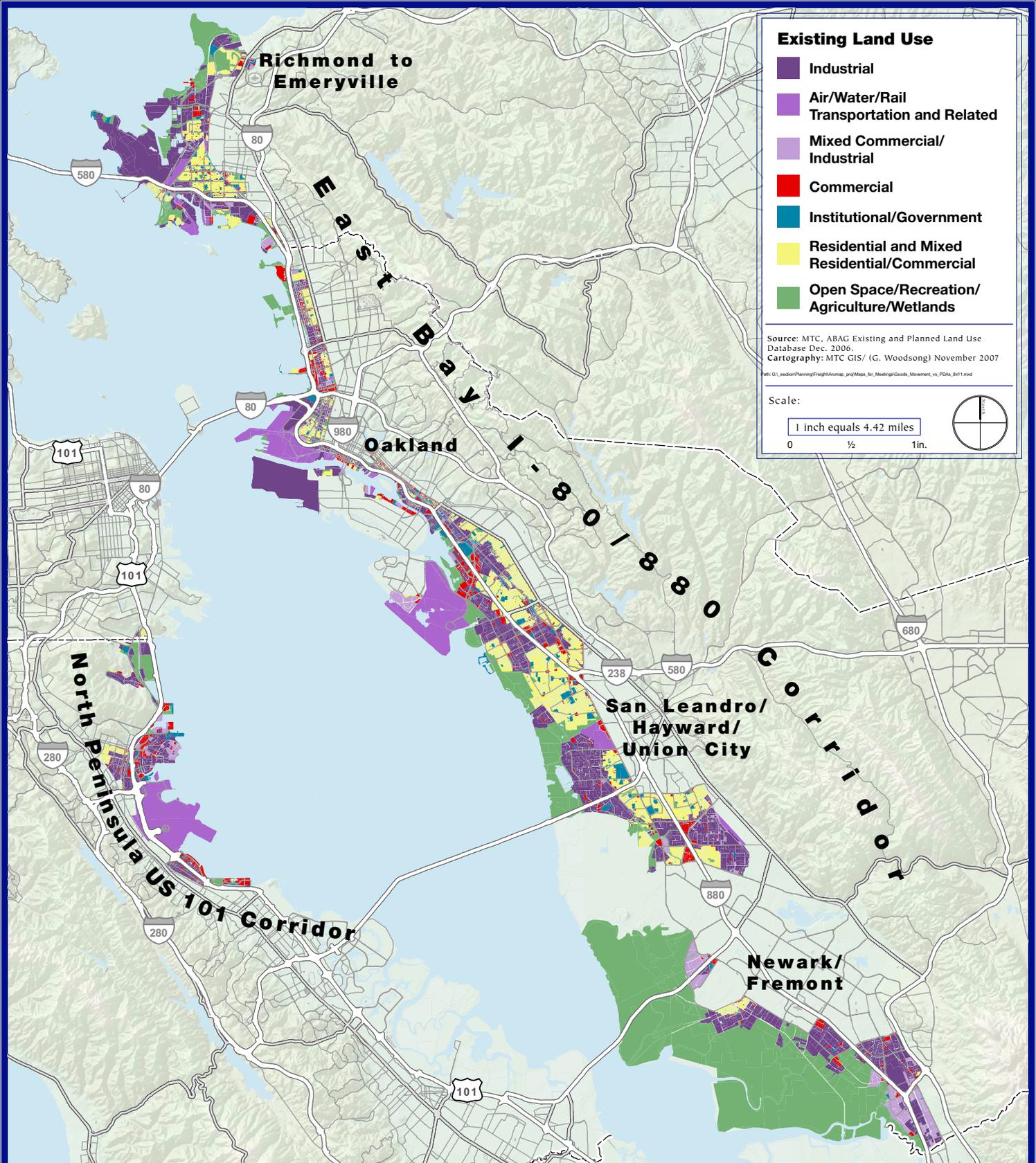
PART A

REGIONAL VIEW MAPS
FOR KEY GOODS MOVEMENT CORRIDORS

- ◆ Existing Land Use
- ◆ General Plan Land Use
- ◆ Industrial Land Uses At Risk

GOODS MOVEMENT LAND USE STUDY

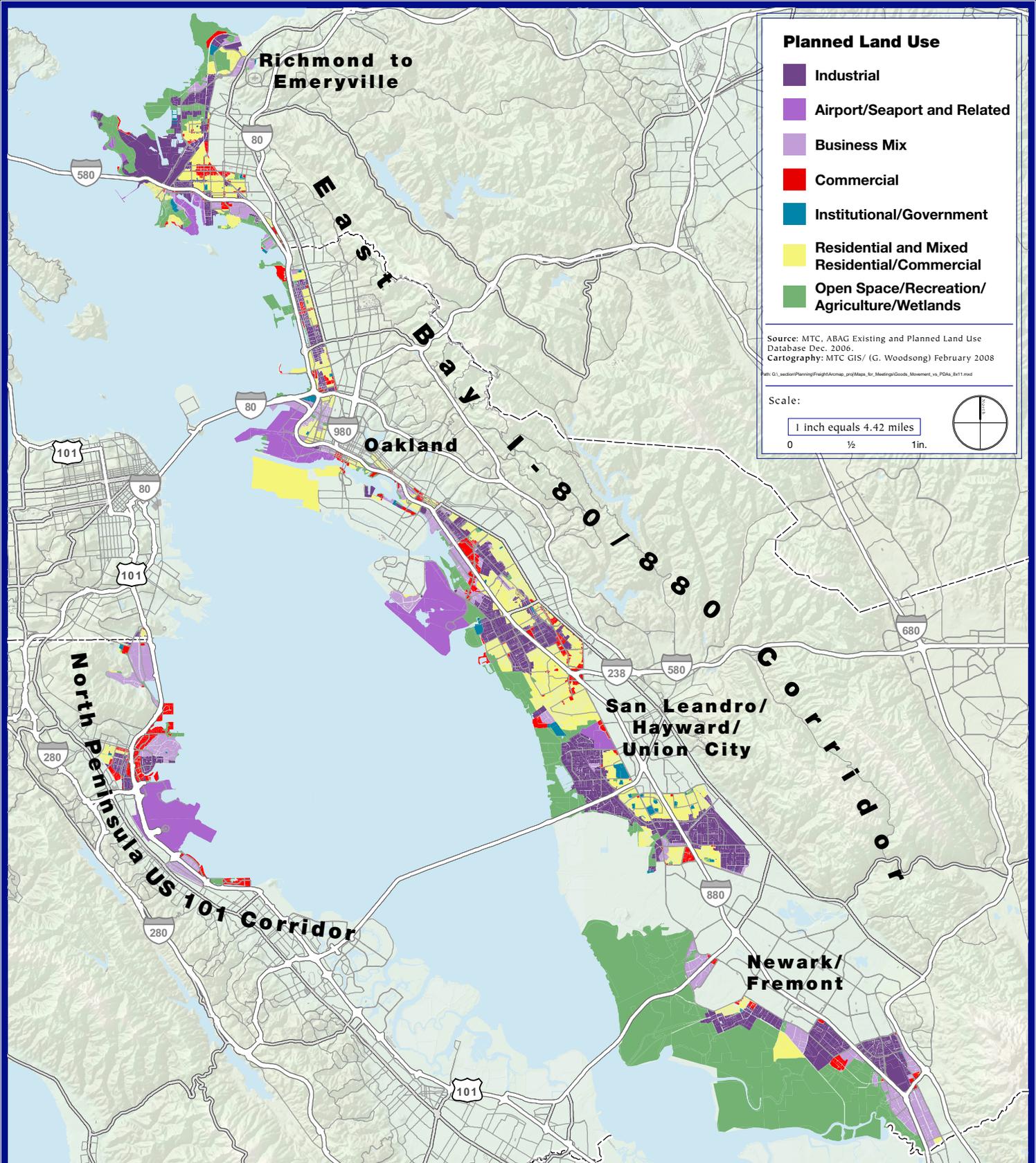
Regional View: Key Goods Movement Corridors



Existing Land Use

GOODS MOVEMENT LAND USE STUDY

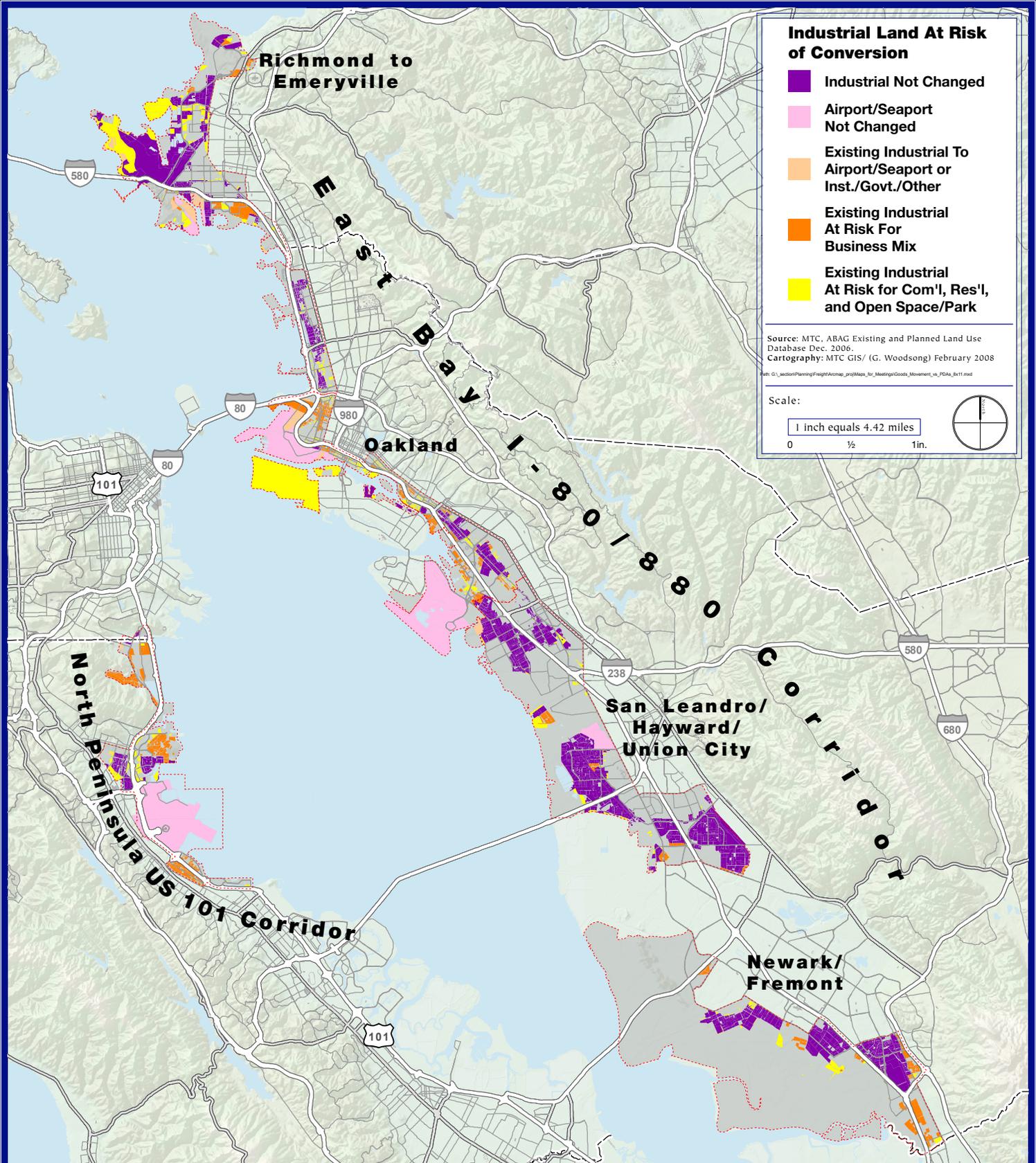
Regional View: Key Goods Movement Corridors



General Plan Land Use

GOODS MOVEMENT LAND USE STUDY

Regional View: Key Goods Movement Corridors



**Industrial Land Uses
At Risk of Conversion**



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PART B

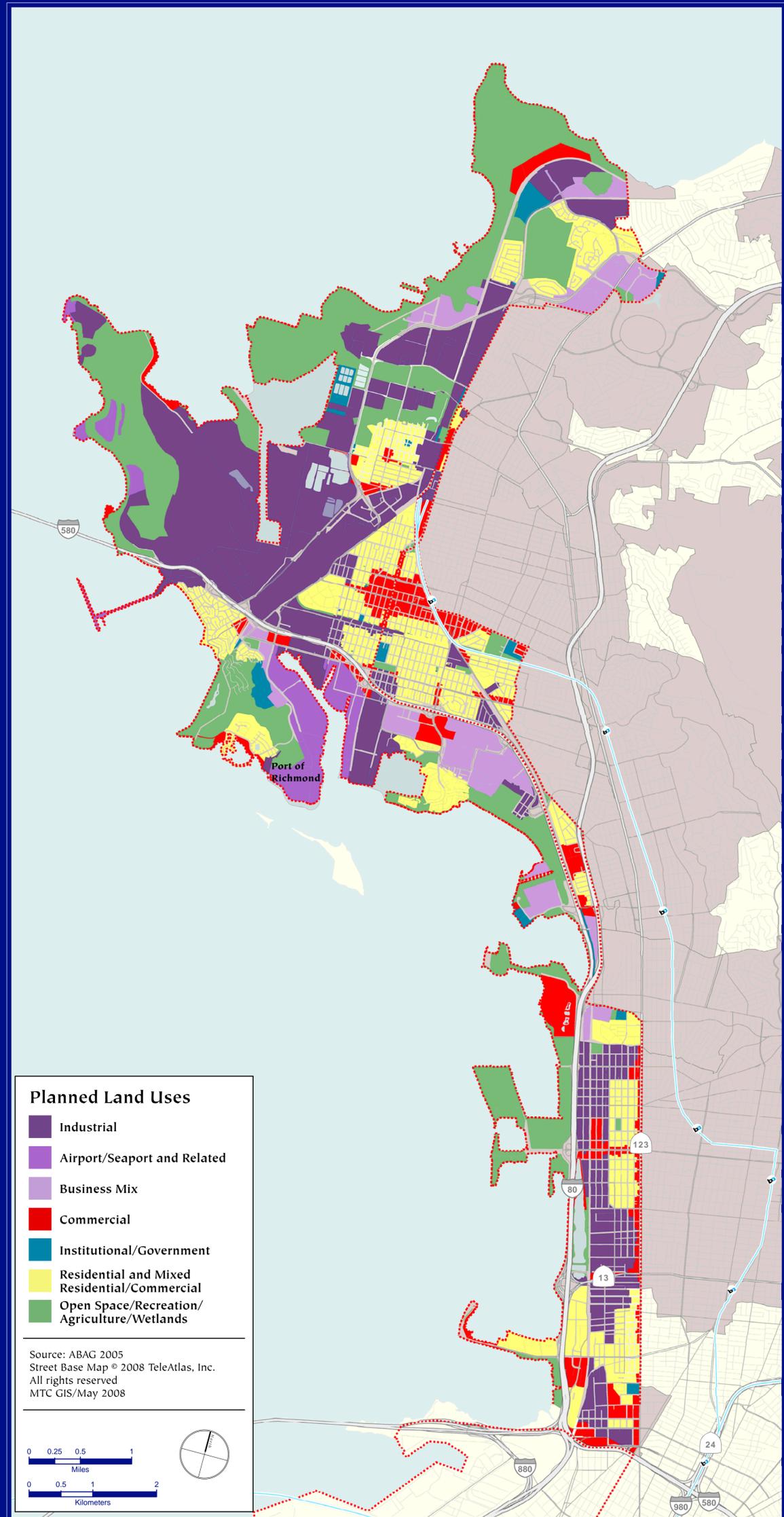
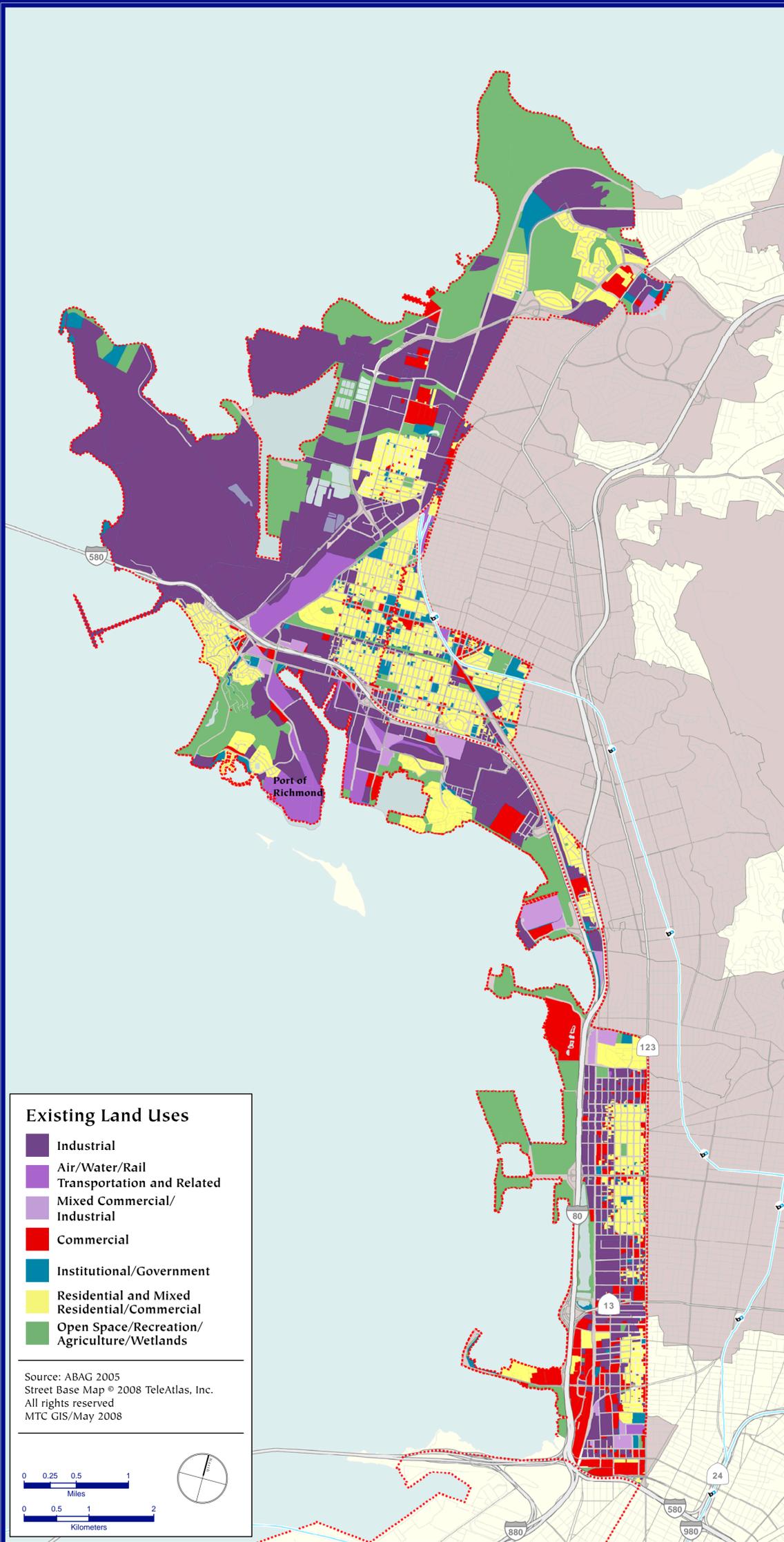
MAPS FOR GOODS MOVEMENT CORRIDOR SEGMENTS

- ◆ Existing Land Use
- ◆ General Plan Land Use
- ◆ Industrial Land Uses At Risk of Conversion

Presented by Corridor Segment, in the following order:

- ◆ East Bay I-80/880 Corridor
 - Richmond to Emeryville
 - Oakland
 - Alameda
 - San Leandro/Hayward/Union City
 - Fremont/Newark
- ◆ North Peninsula US 101 Corridor

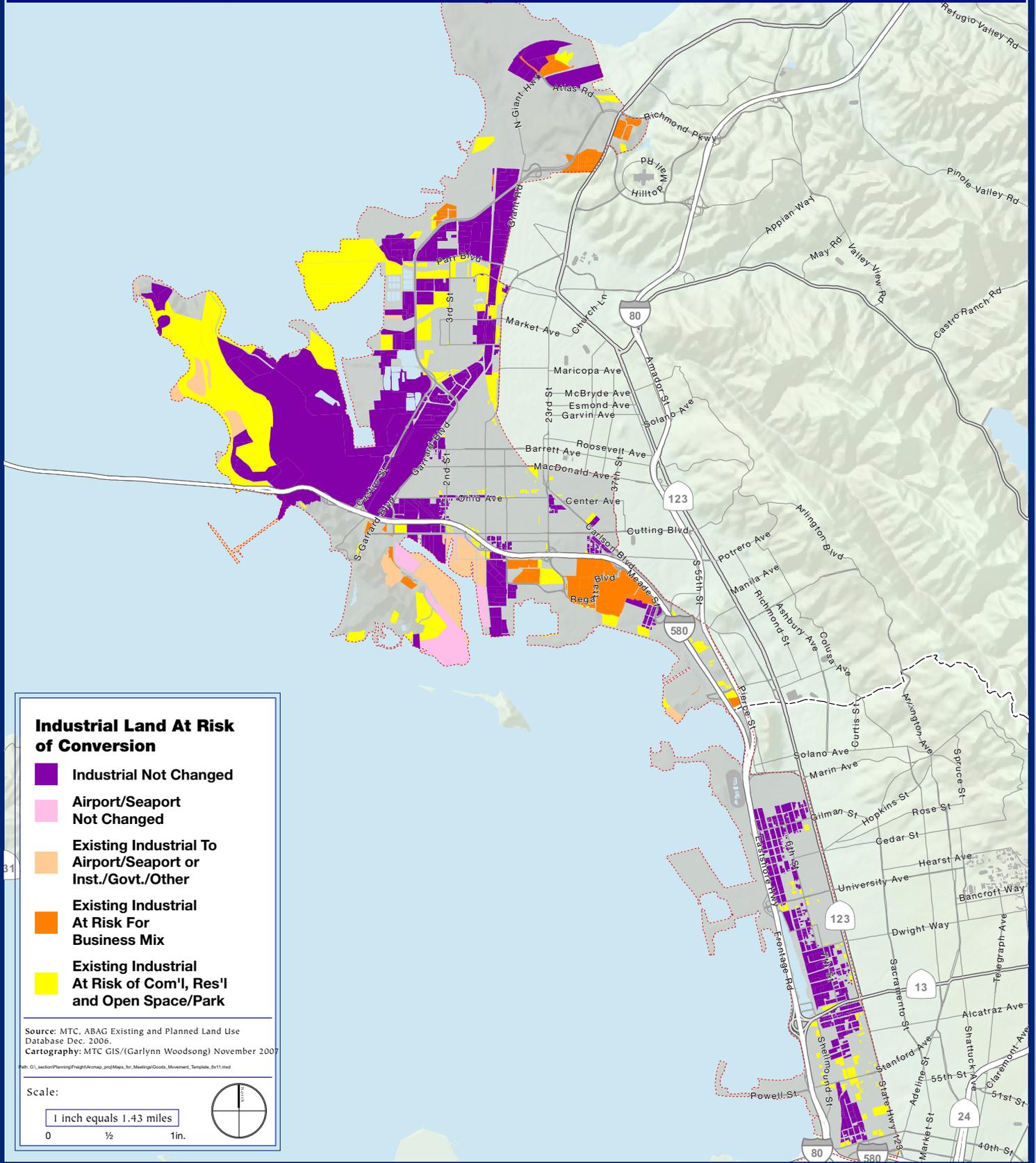
Richmond to Emeryville I-880 Goods Movement Study Corridor



Existing and General Plan Land Use Comparison

GOODS MOVEMENT LAND USE STUDY

Richmond to Emeryville Corridor



Industrial Land At Risk of Conversion

- Industrial Not Changed
- Airport/Seaport Not Changed
- Existing Industrial To Airport/Seaport or Inst./Govt./Other
- Existing Industrial At Risk For Business Mix
- Existing Industrial At Risk of Com'l, Res'l and Open Space/Park

Source: MTC, ABAG Existing and Planned Land Use Database Dec. 2006.
 Cartography: MTC GIS/(Garlynn Woodsong) November 2007

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Scale:
 1 inch equals 1.43 miles
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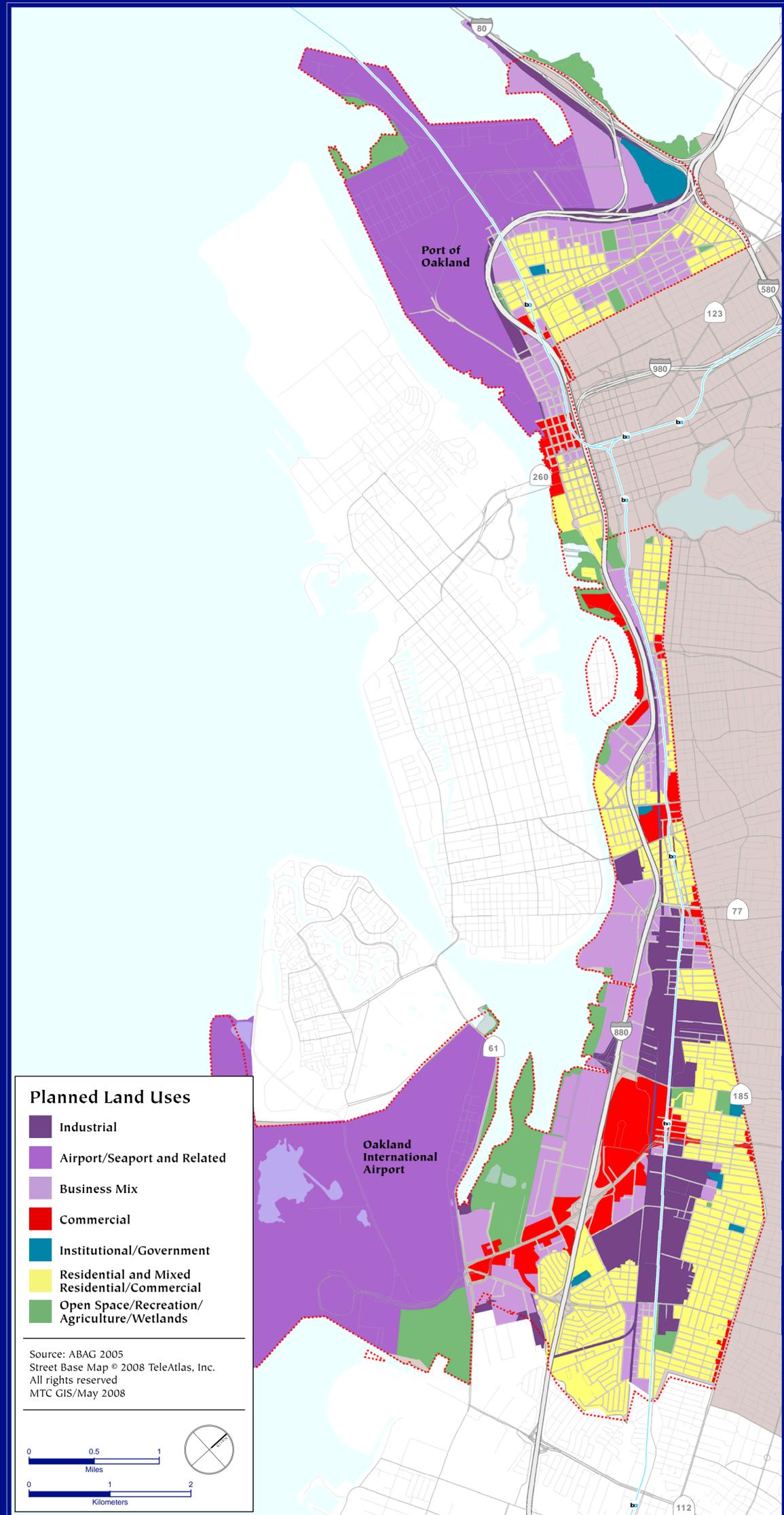
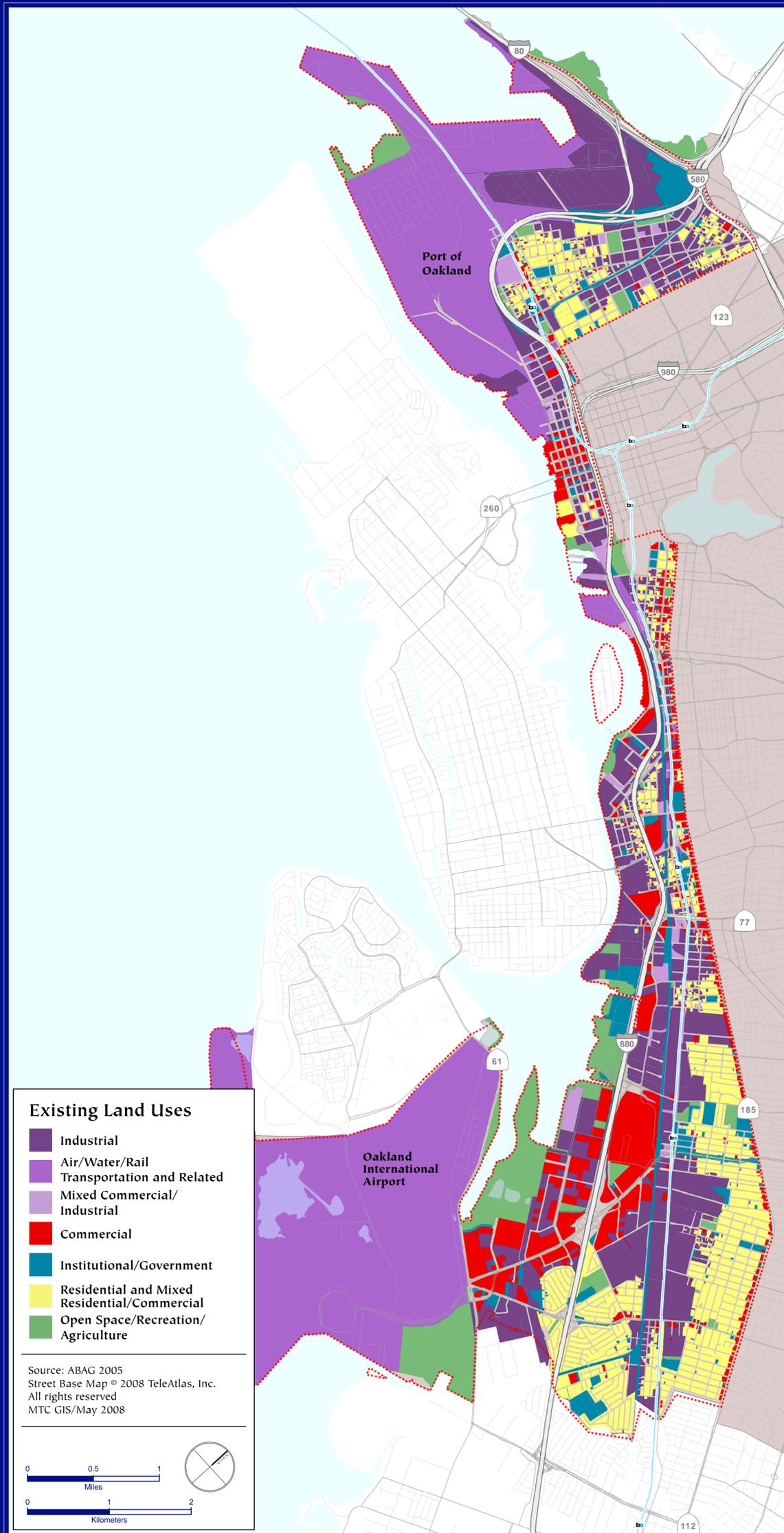


Industrial Land Uses At Risk of Conversion



METROPOLITAN
 TRANSPORTATION
 COMMISSION

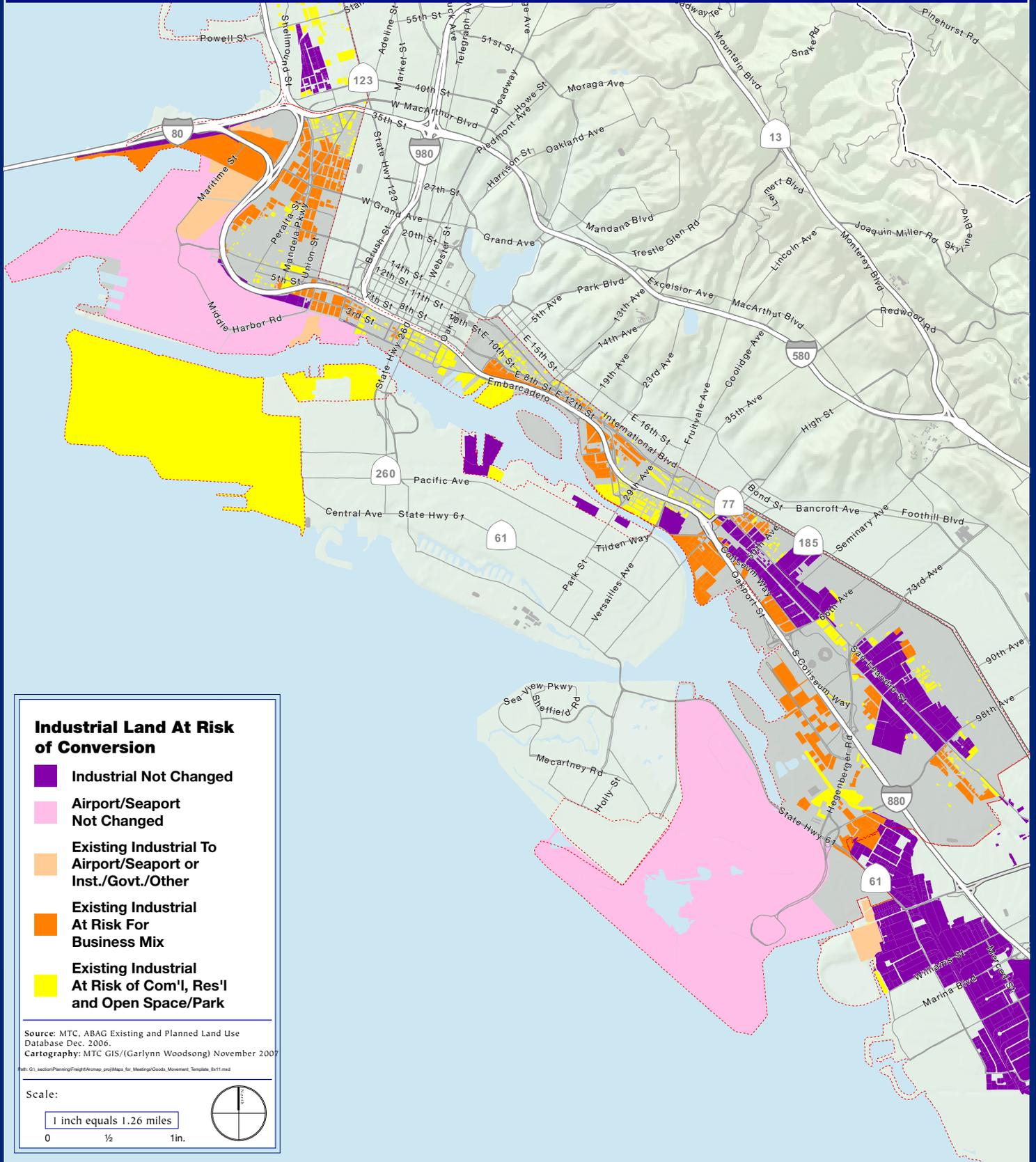
Oakland I-880 Goods Movement Study Corridor



Existing and General Plan Land Use Comparison

GOODS MOVEMENT LAND USE STUDY

Oakland Corridor



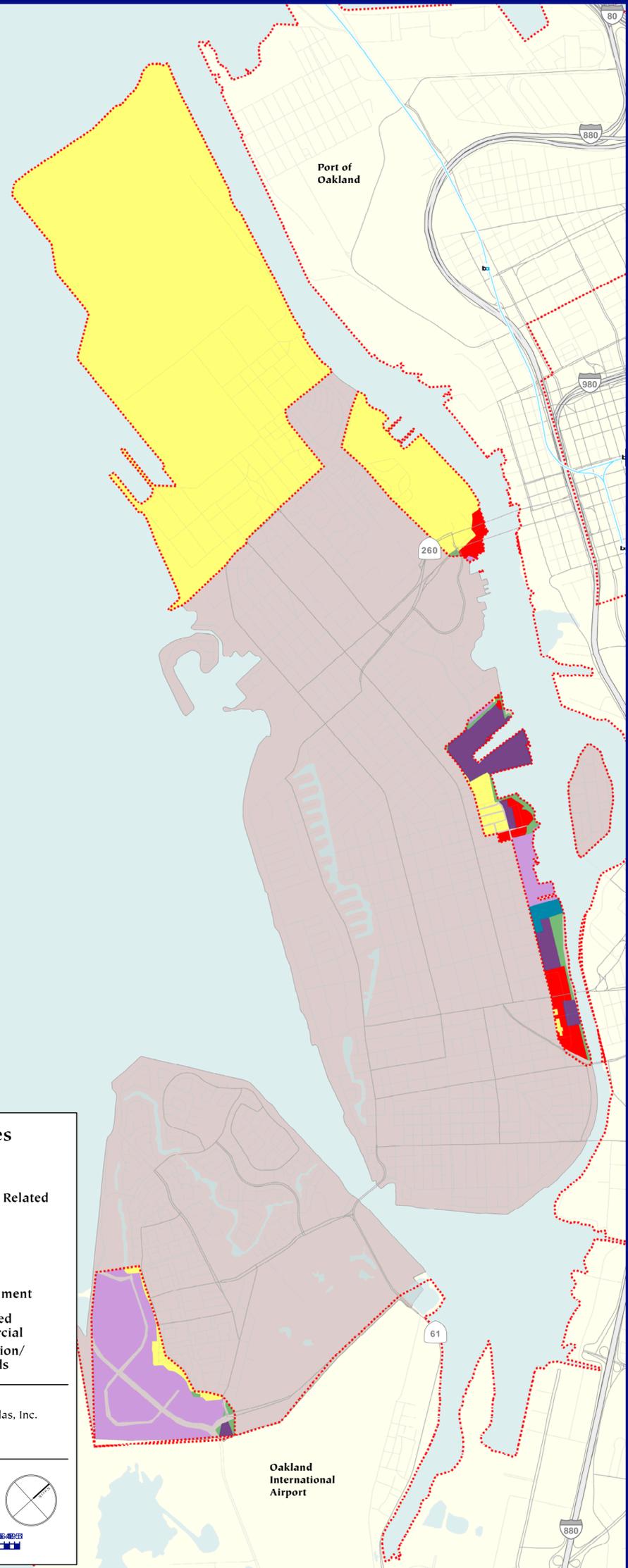
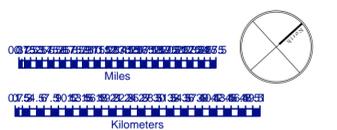
Industrial Land Uses At Risk of Conversion

Alameda I-880 Goods Movement Study Corridor



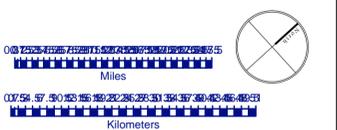
- Existing Land Uses**
- Industrial
 - Air/Water/Rail Transportation and Related
 - Mixed Commercial/Industrial
 - Commercial
 - Institutional/Government
 - Residential and Mixed Residential/Commercial
 - Open Space/Recreation/Agriculture/Wetlands

Source: ABAG 2005
 Street Base Map © 2008 TeleAtlas, Inc.
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 MTC GIS/May 2008



- Planned Land Uses**
- Industrial
 - Airport/Seaport and Related
 - Business Mix
 - Commercial
 - Institutional/Government
 - Residential and Mixed Residential/Commercial
 - Open Space/Recreation/Agriculture/Wetlands

Source: ABAG 2005
 Street Base Map © 2008 TeleAtlas, Inc.
 All rights reserved
 MTC GIS/May 2008

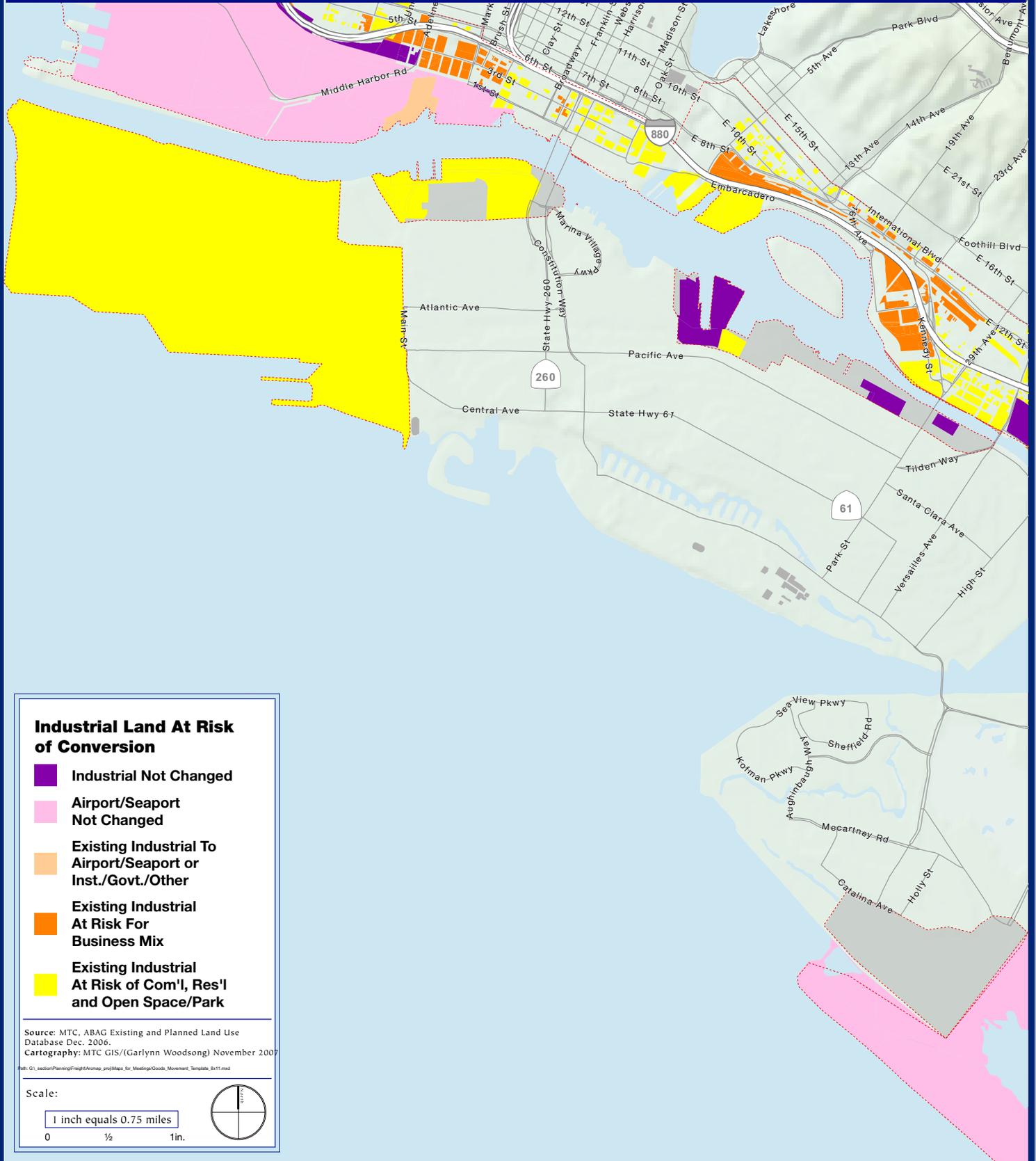


Existing and General Plan Land Use Comparison

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GOODS MOVEMENT LAND USE STUDY

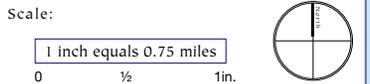
City of Alameda Corridor



Industrial Land At Risk of Conversion

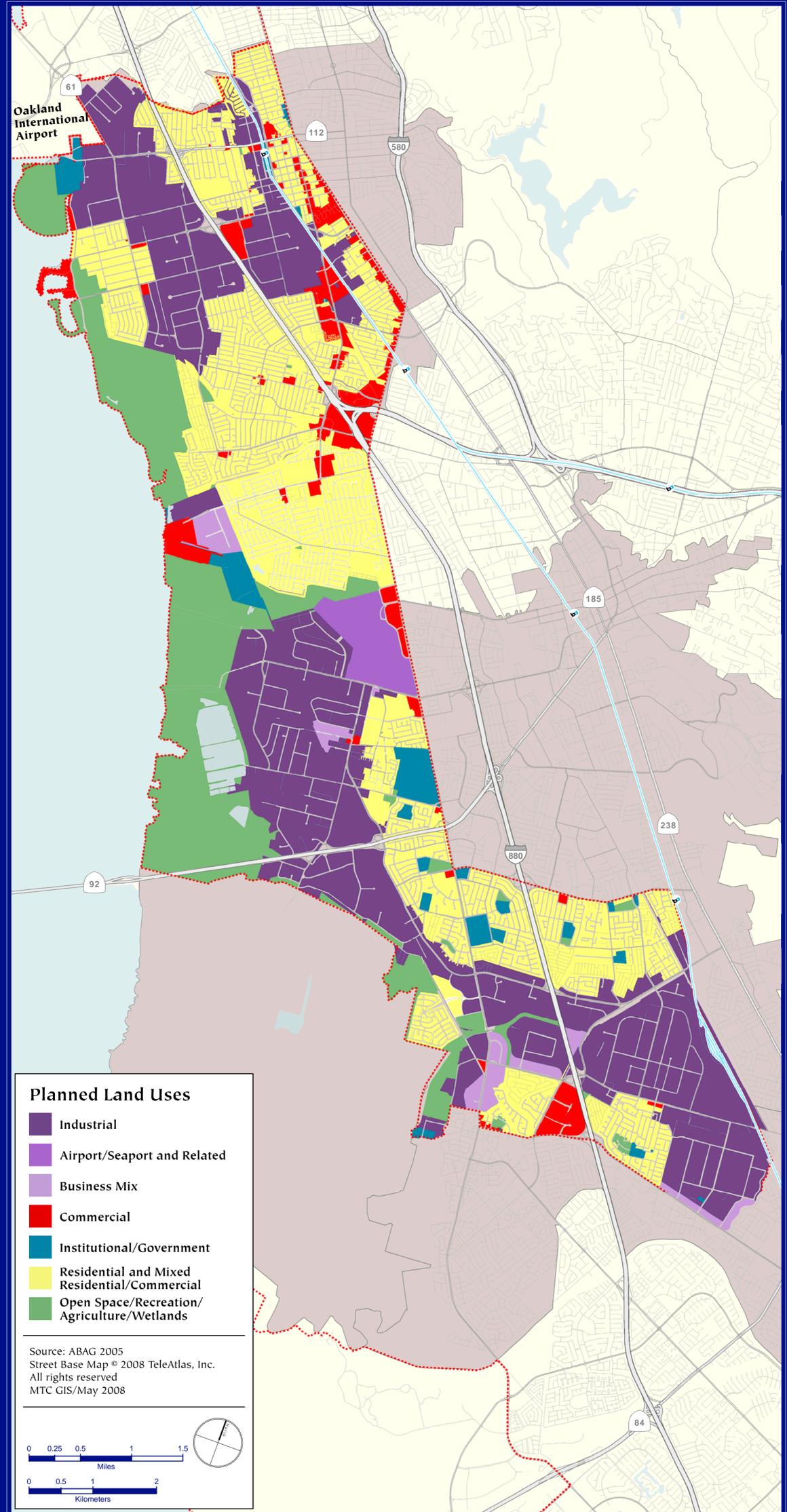
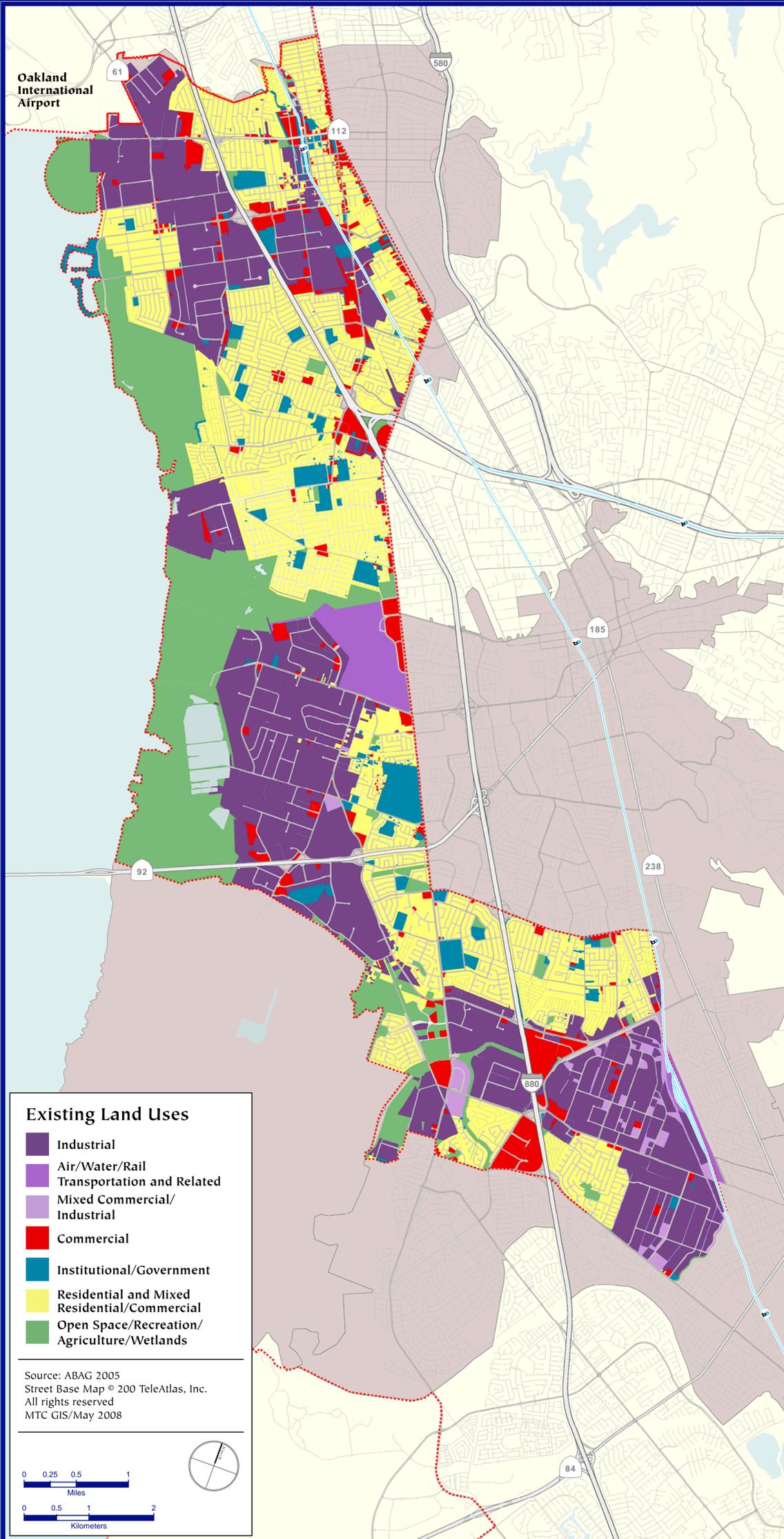
- Industrial Not Changed
- Airport/Seaport Not Changed
- Existing Industrial To Airport/Seaport or Inst./Govt./Other
- Existing Industrial At Risk For Business Mix
- Existing Industrial At Risk of Com'l, Res'l and Open Space/Park

Source: MTC, ABAG Existing and Planned Land Use Database Dec. 2006.
 Cartography: MTC GIS/(Garlynn Woodsong) November 2007
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Industrial Land Uses At Risk of Conversion

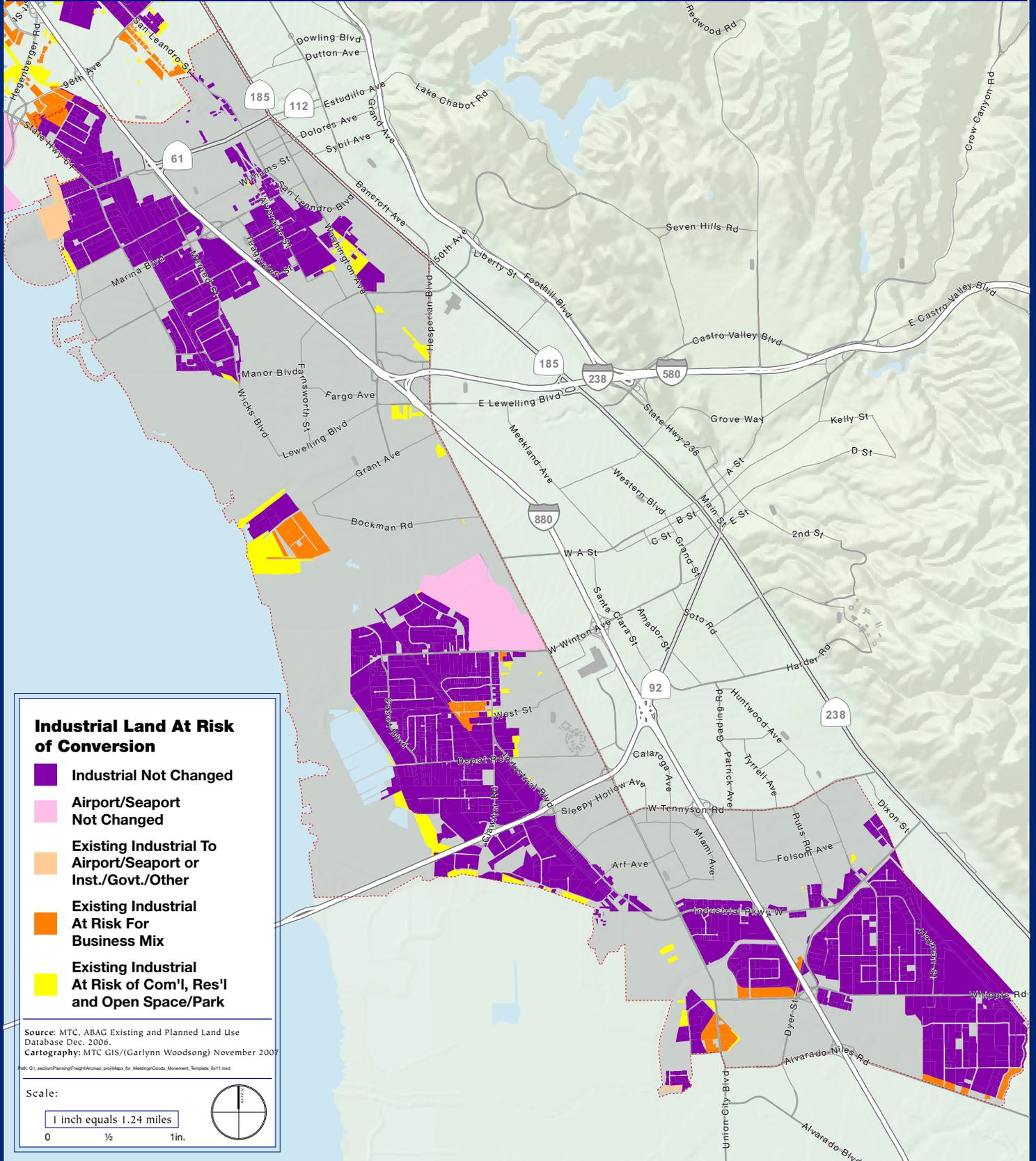
San Leandro/Hayward/Union City I-880 Goods Movement Study Corridor



Existing and General Plan Land Use Comparison

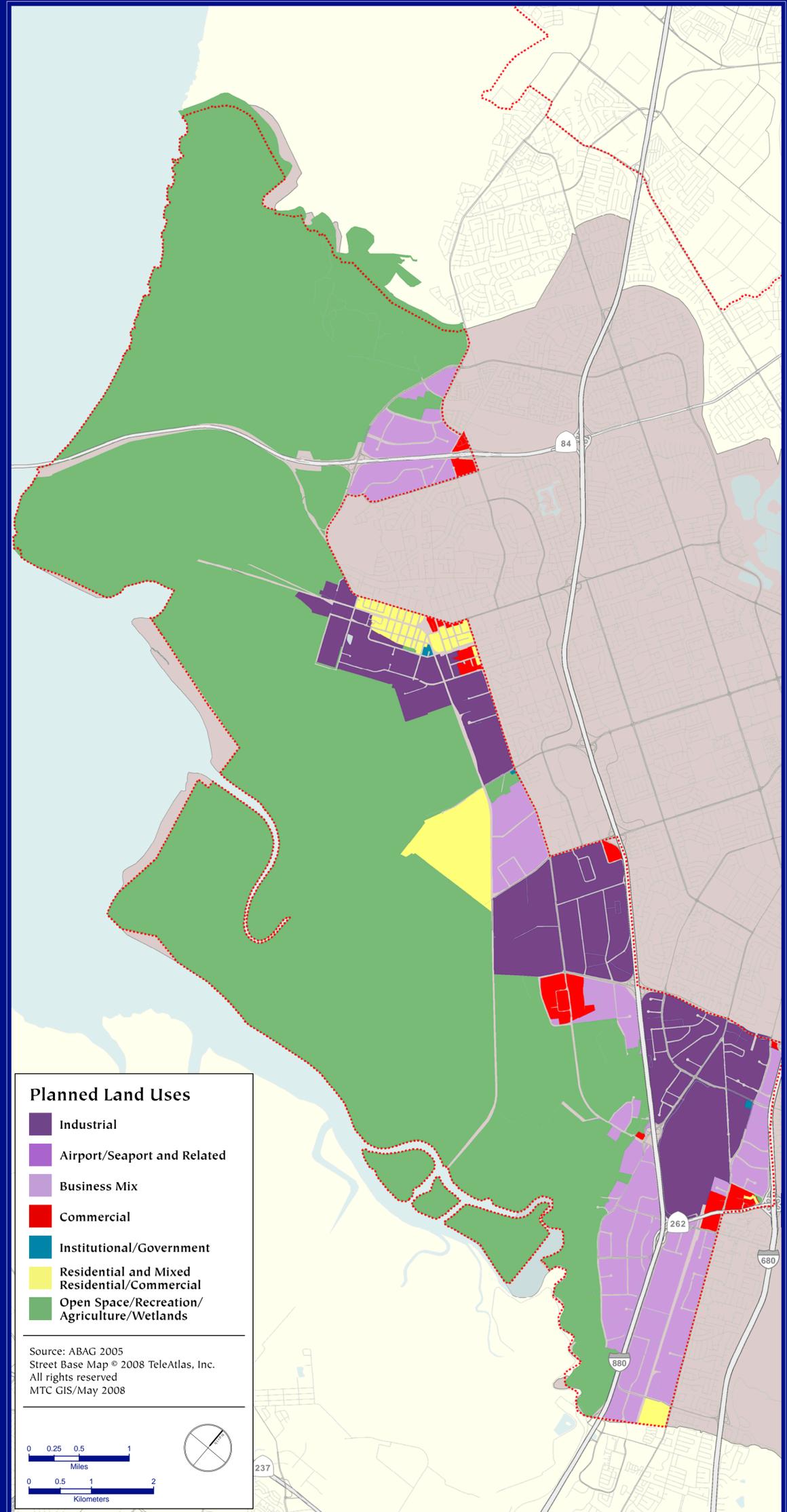
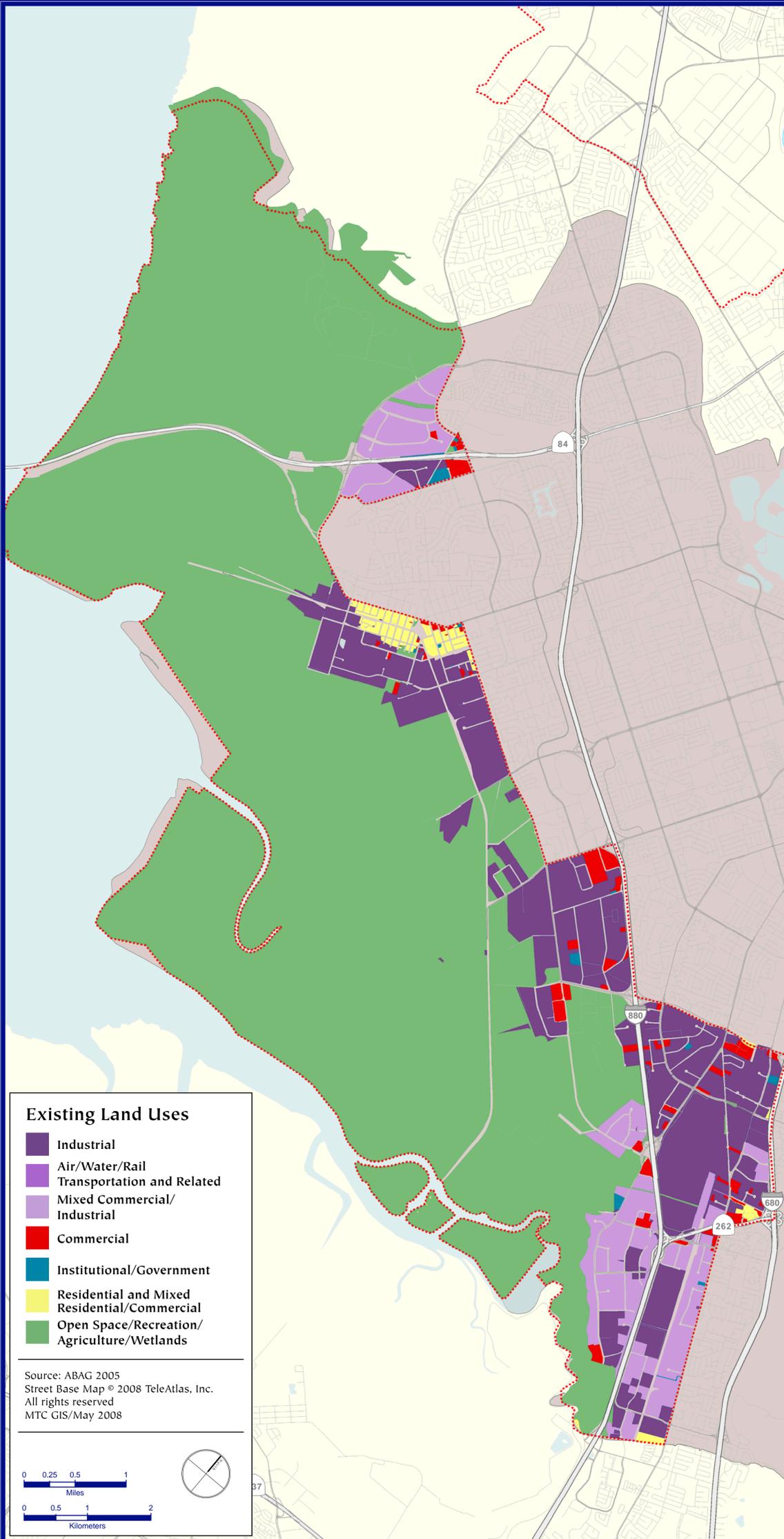
GOODS MOVEMENT LAND USE STUDY

San Leandro/Hayward/Union City Corridor



Industrial Land Uses At Risk of Conversion

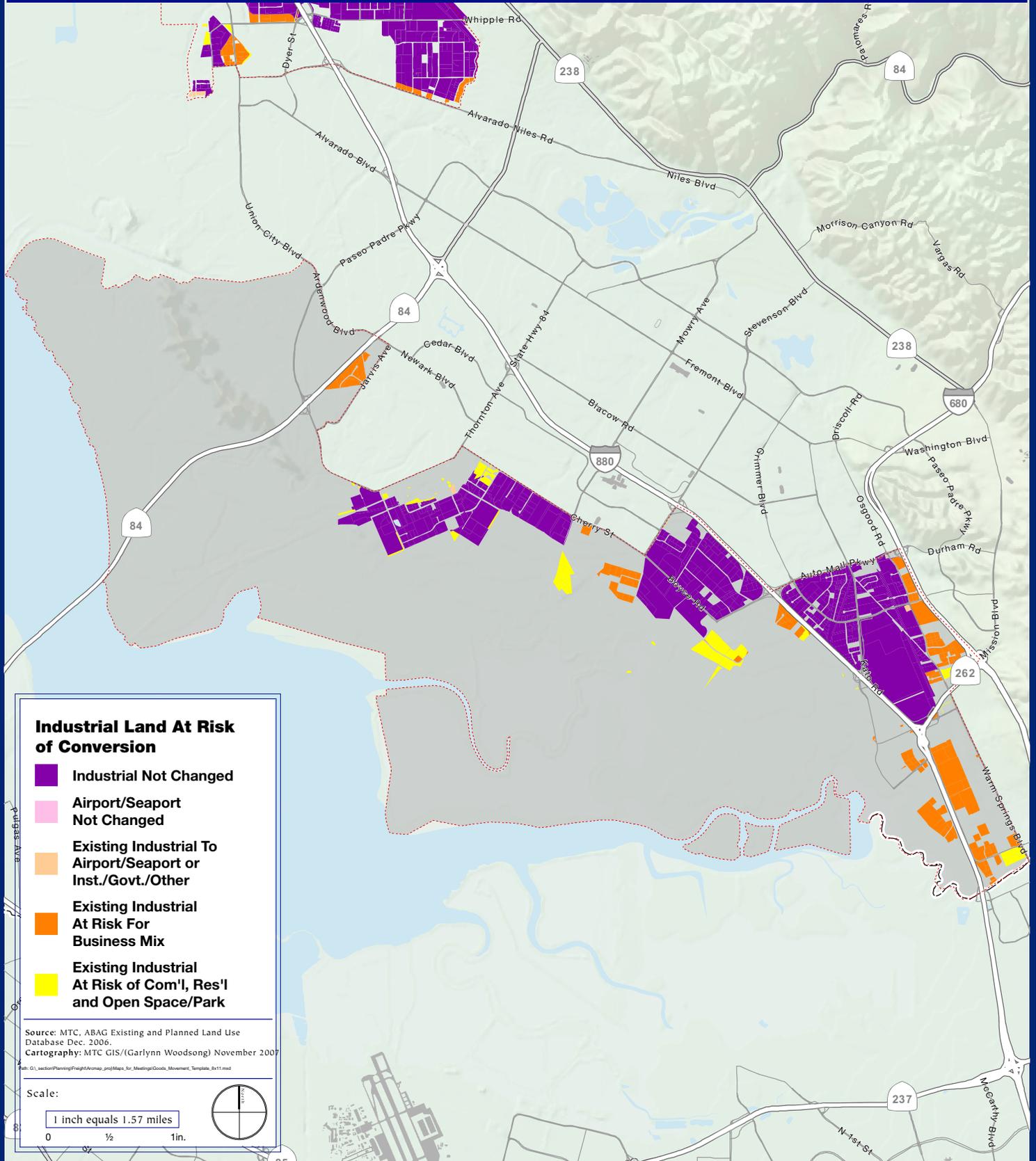
Fremont/Newark I-880 Goods Movement Study Corridor



Existing and General Plan Land Use Comparison

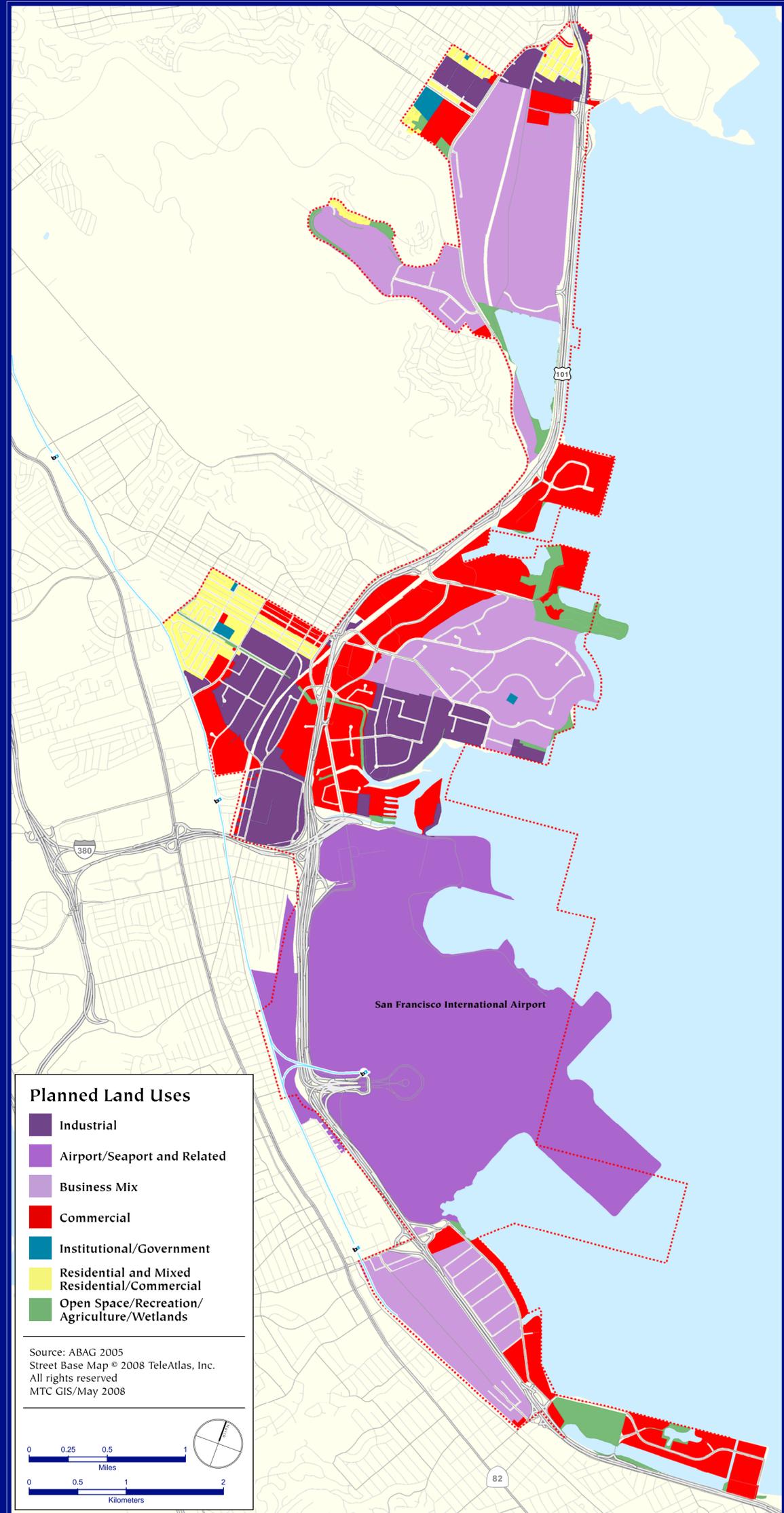
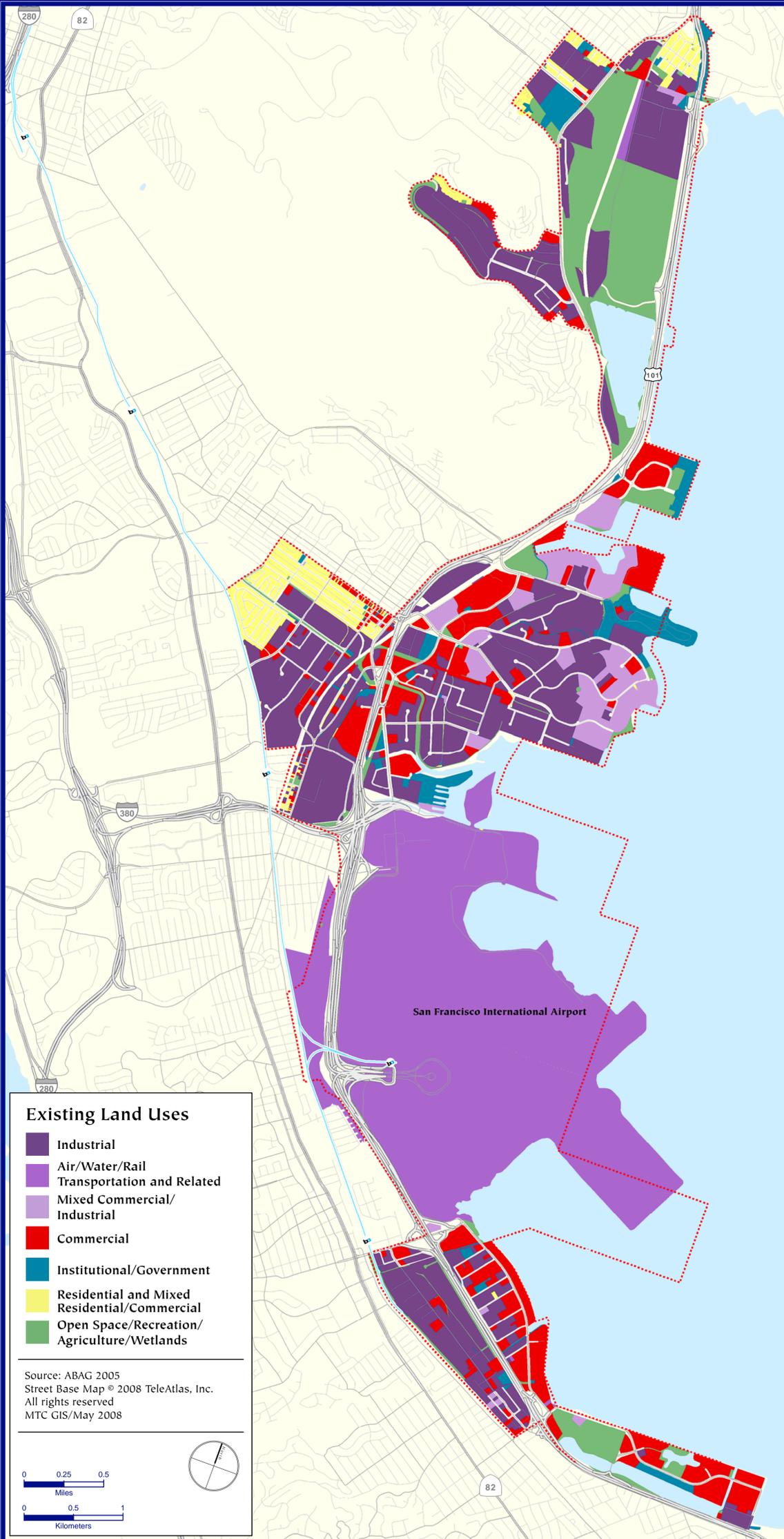
GOODS MOVEMENT LAND USE STUDY

Newark/Fremont Corridor



Industrial Land Uses At Risk of Conversion

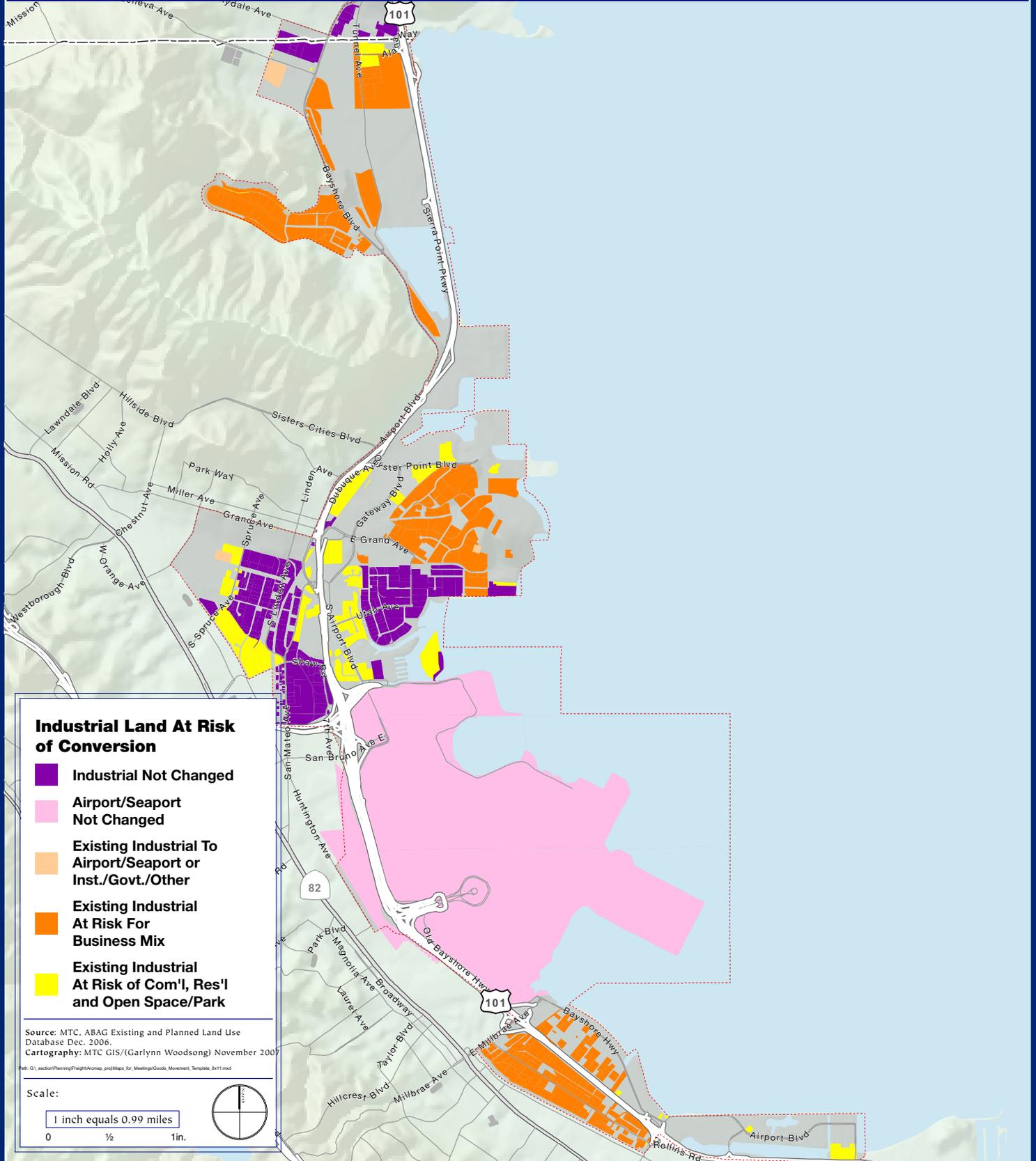
North Peninsula US 101 Goods Movement Study Corridor



Existing and General Plan Land Use Comparison

GOODS MOVEMENT LAND USE STUDY

North Peninsula Corridor



Industrial Land Uses At Risk of Conversion

PART C

**OVERLAY MAPS OF
PRIORITY DEVELOPMENT AREAS WITHIN
GOODS MOVEMENT CORRIDORS**

ABAG Priority Development Areas (PDAs) Overlaid on
Goods Movement Corridor Maps of:

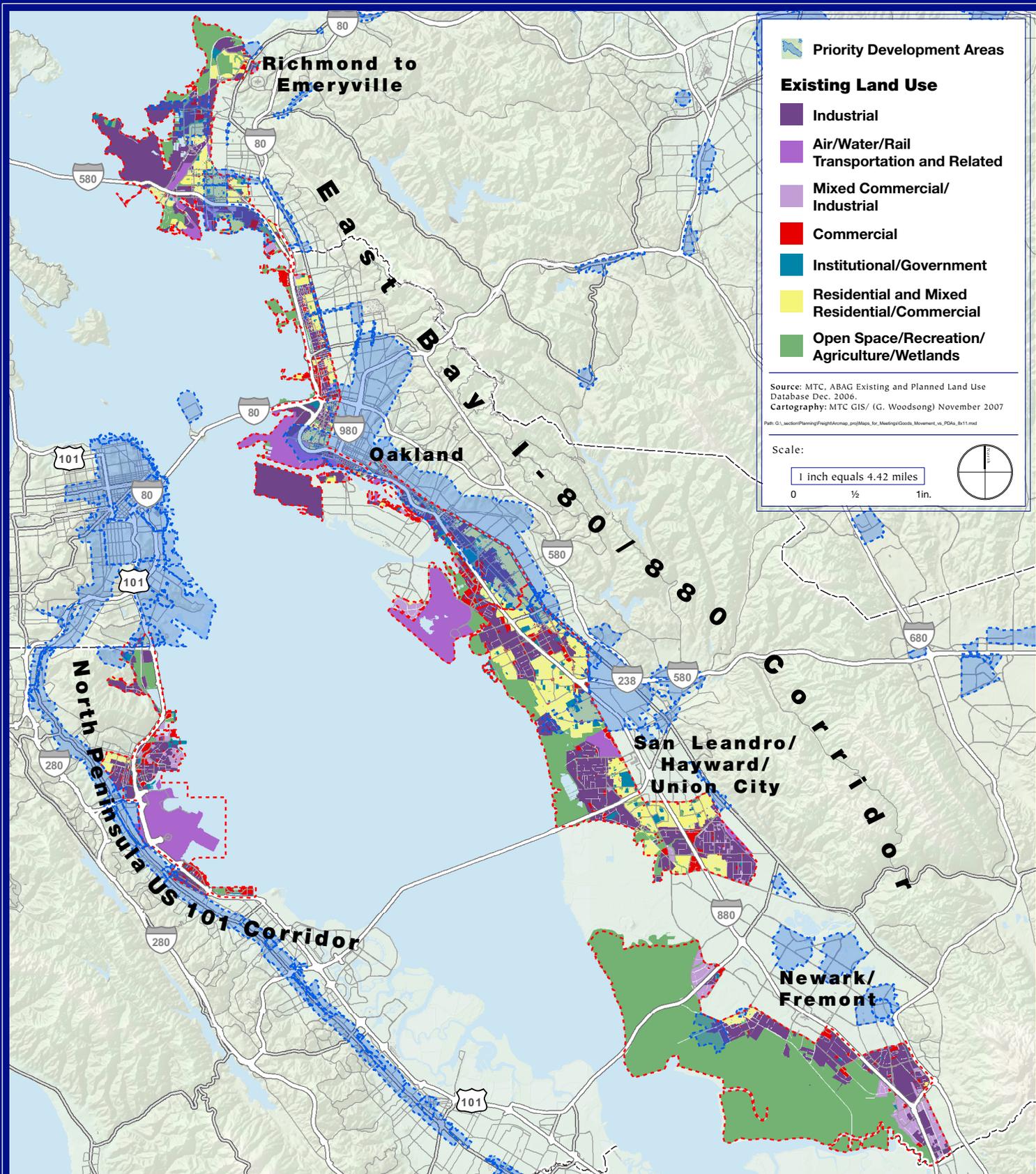
- ◆ Existing Land Use
- ◆ General Plan Land Use
- ◆ Industrial Land Uses At Risk

Presented for the Corridors Overall and by Corridor Segment:

- ◆ East Bay I-80/880 Corridor
 - Richmond to Emeryville
 - Oakland
 - Alameda
 - San Leandro/Hayward/Union City
 - Fremont/Newark
- ◆ North Peninsula US 101 Corridor

GOODS MOVEMENT LAND USE STUDY

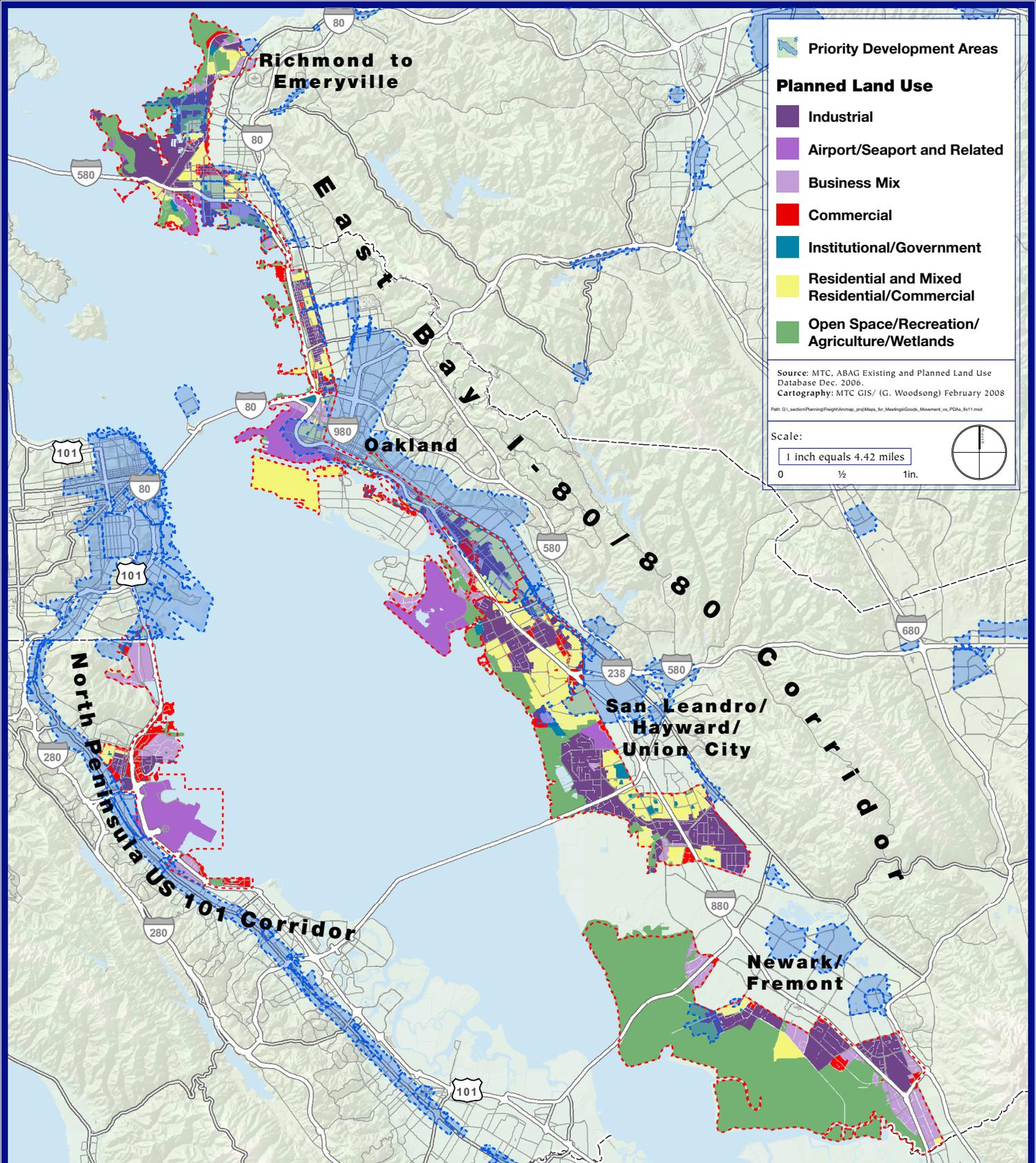
Regional View: Key Goods Movement Corridors



Existing Land Use

GOODS MOVEMENT LAND USE STUDY

Regional View: Key Goods Movement Corridors



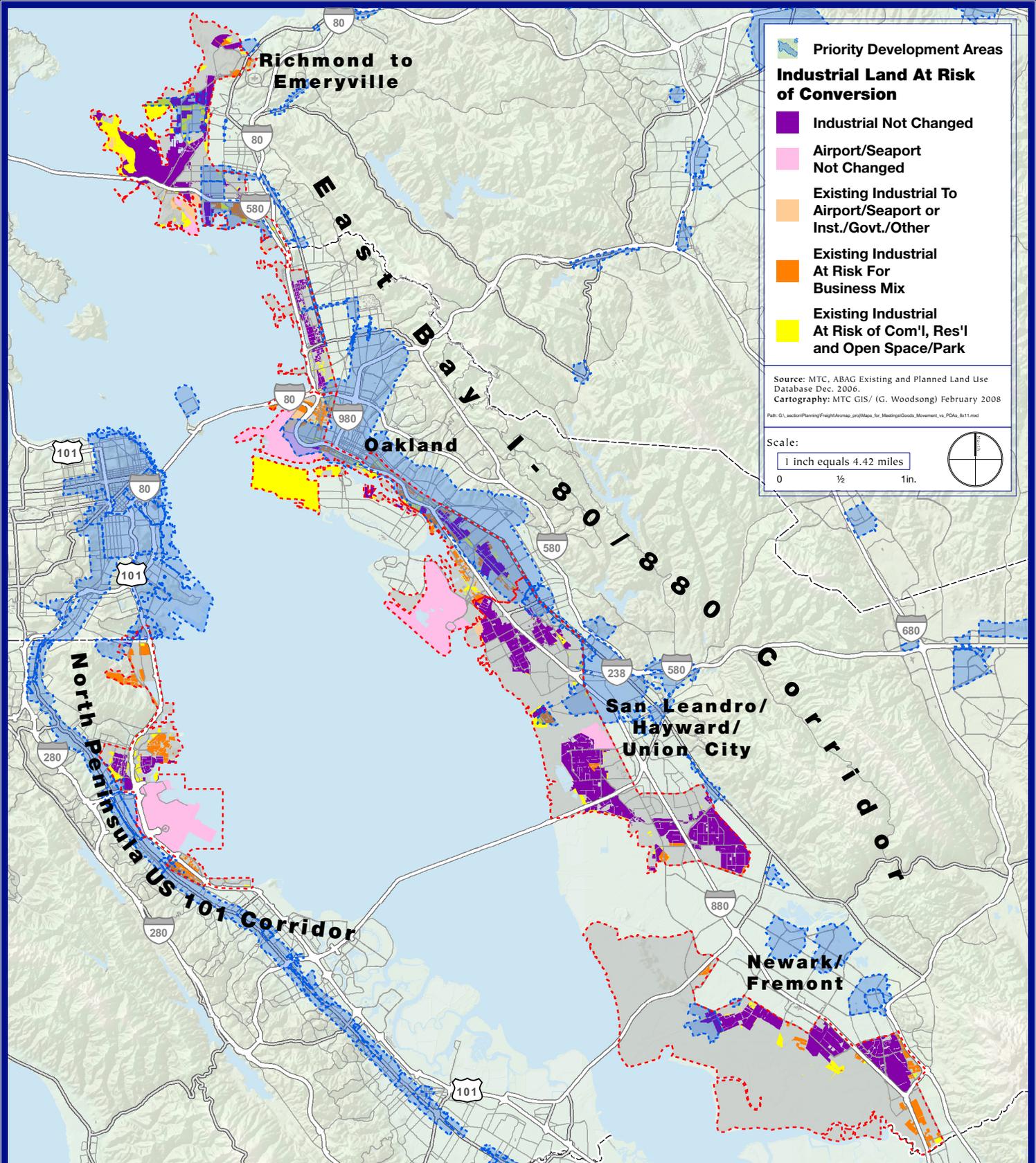
General Plan Land Use



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GOODS MOVEMENT LAND USE STUDY

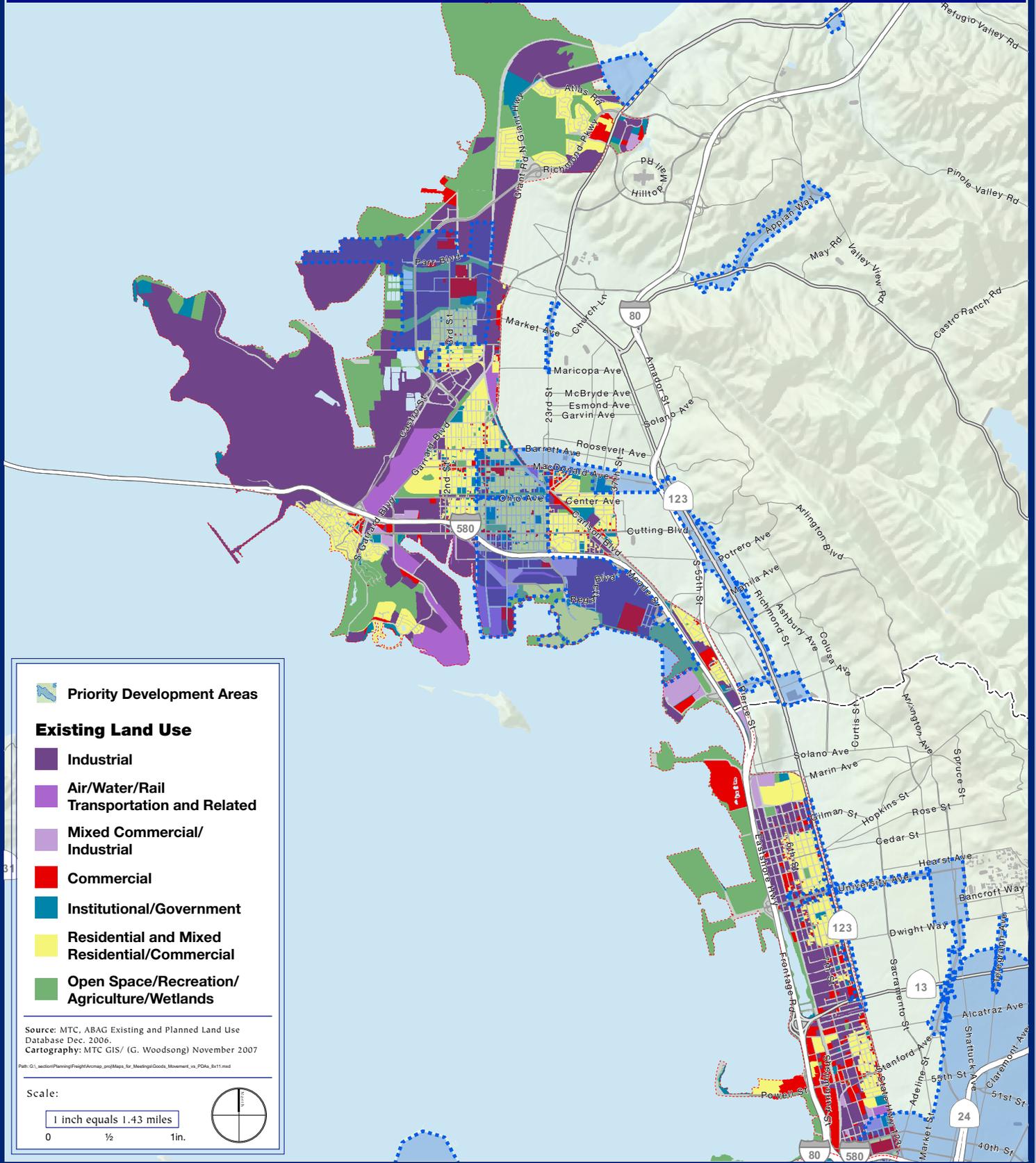
Regional View: Key Goods Movement Corridors



**Industrial Land Uses
At Risk of Conversion**

GOODS MOVEMENT LAND USE STUDY

Richmond to Emeryville Corridor



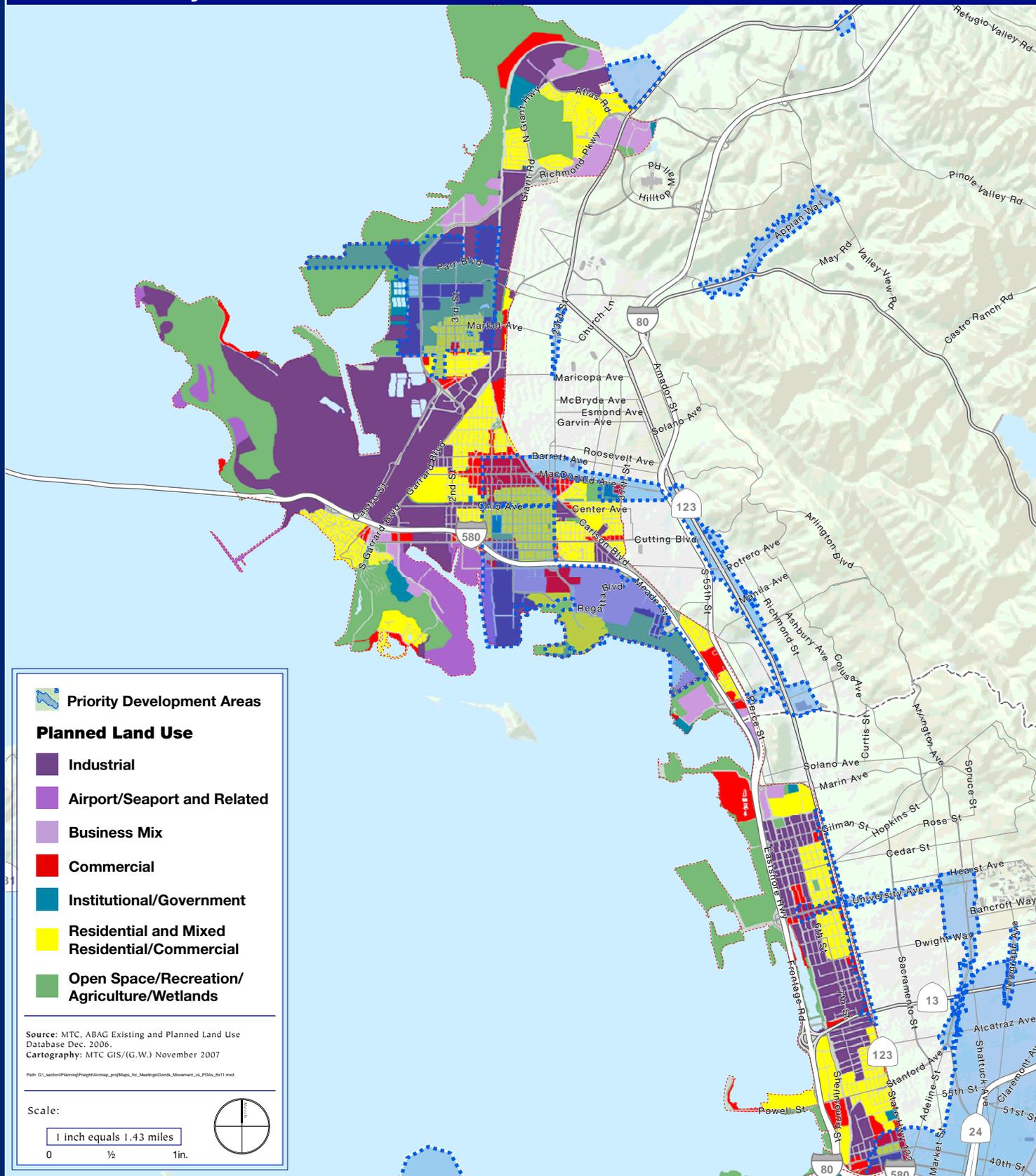
Existing Land Use



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GOODS MOVEMENT LAND USE STUDY

Richmond to Emeryville Corridor



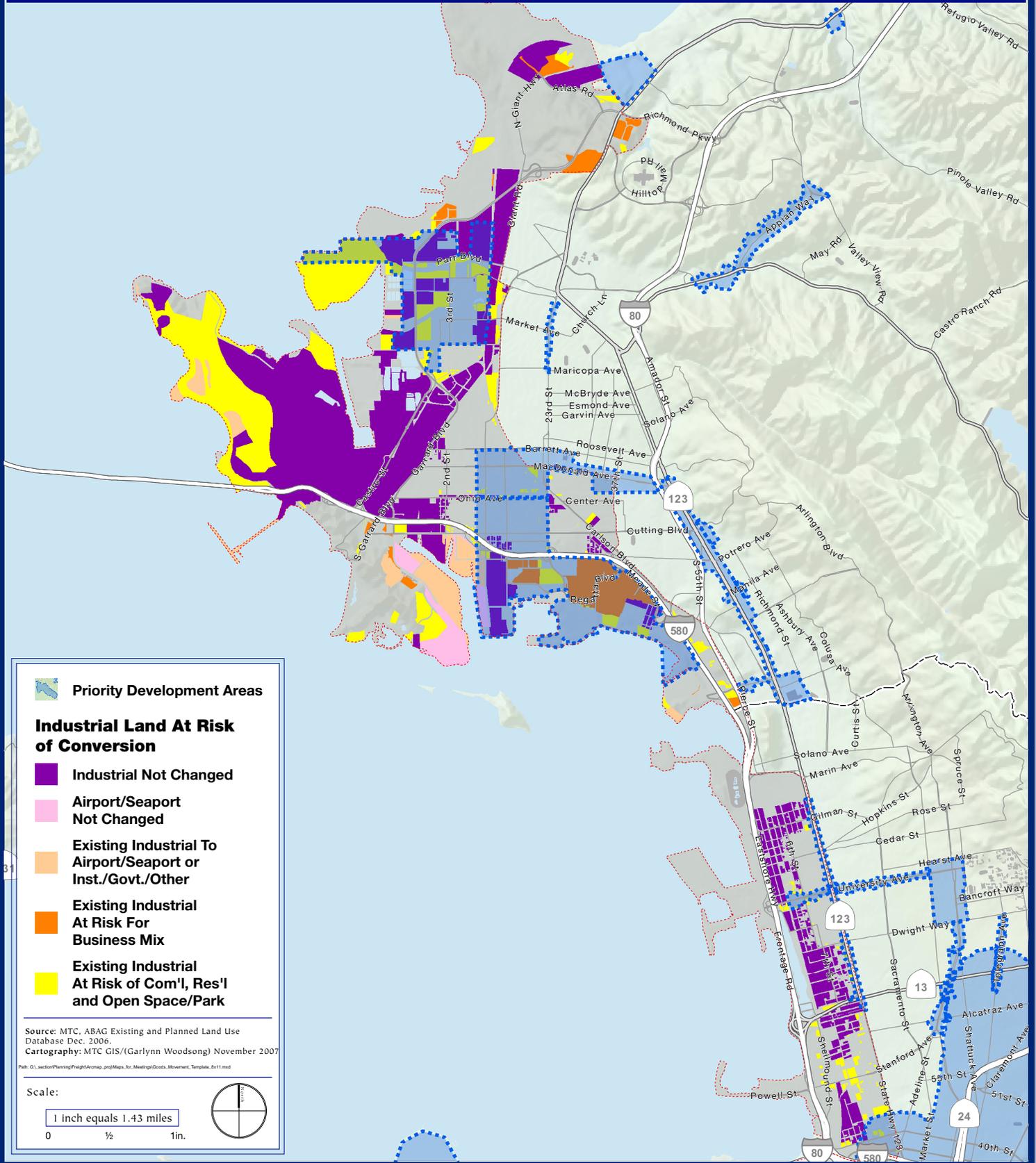
General Plan Land Use



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GOODS MOVEMENT LAND USE STUDY

Richmond to Emeryville Corridor



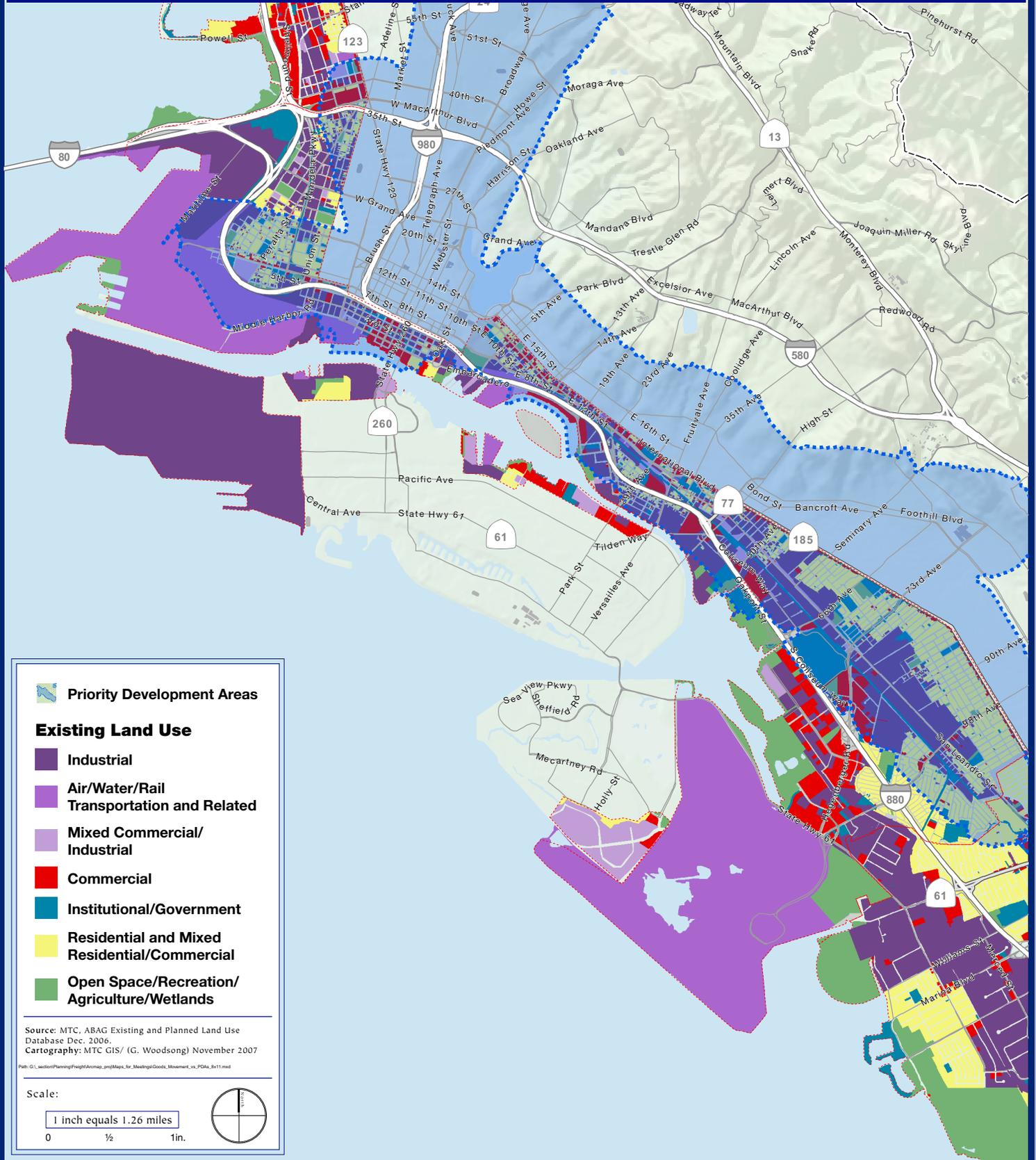
Industrial Land Uses At Risk of Conversion



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GOODS MOVEMENT LAND USE STUDY

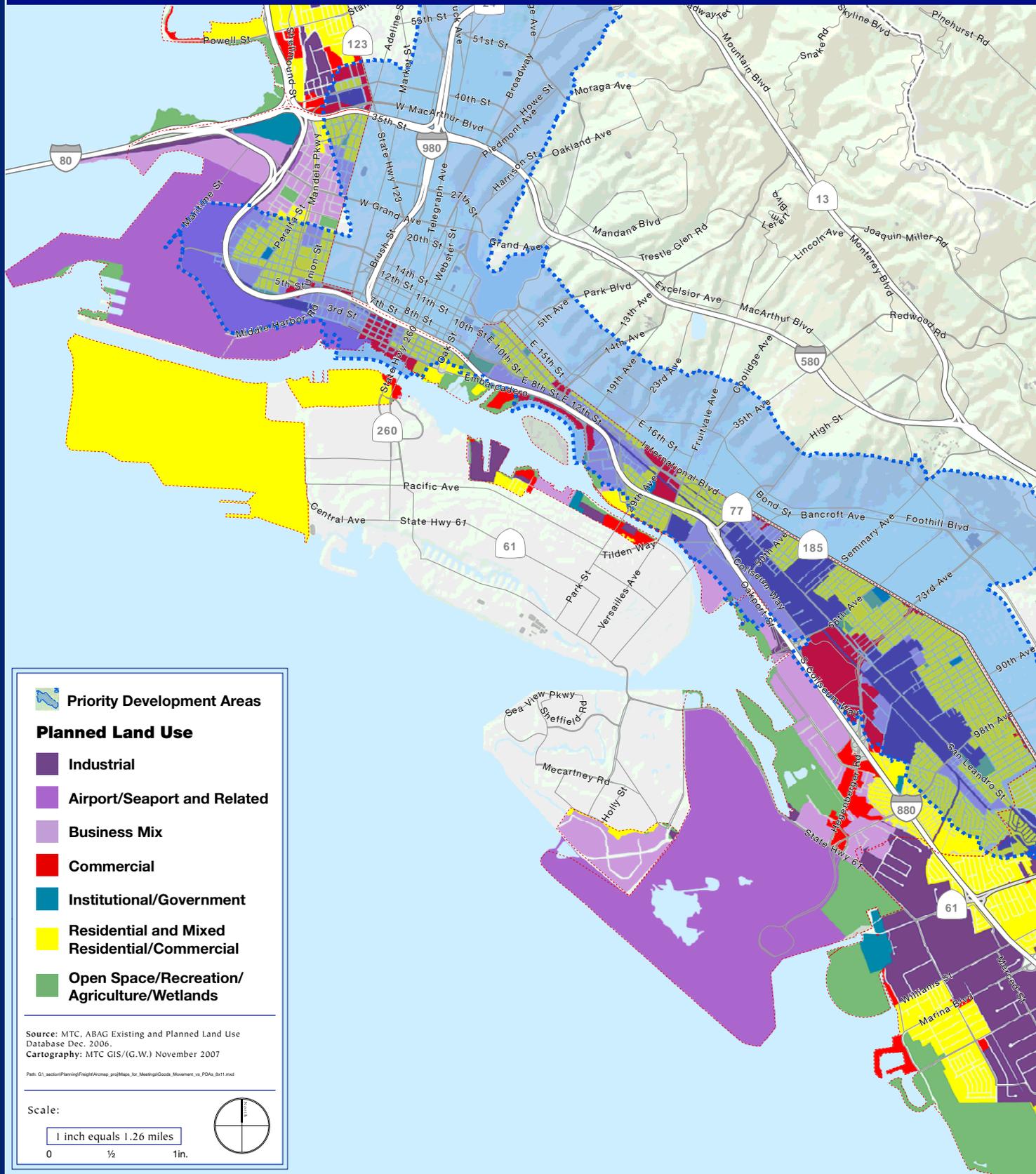
Oakland Corridor



Existing Land Use

GOODS MOVEMENT LAND USE STUDY

Oakland Corridor



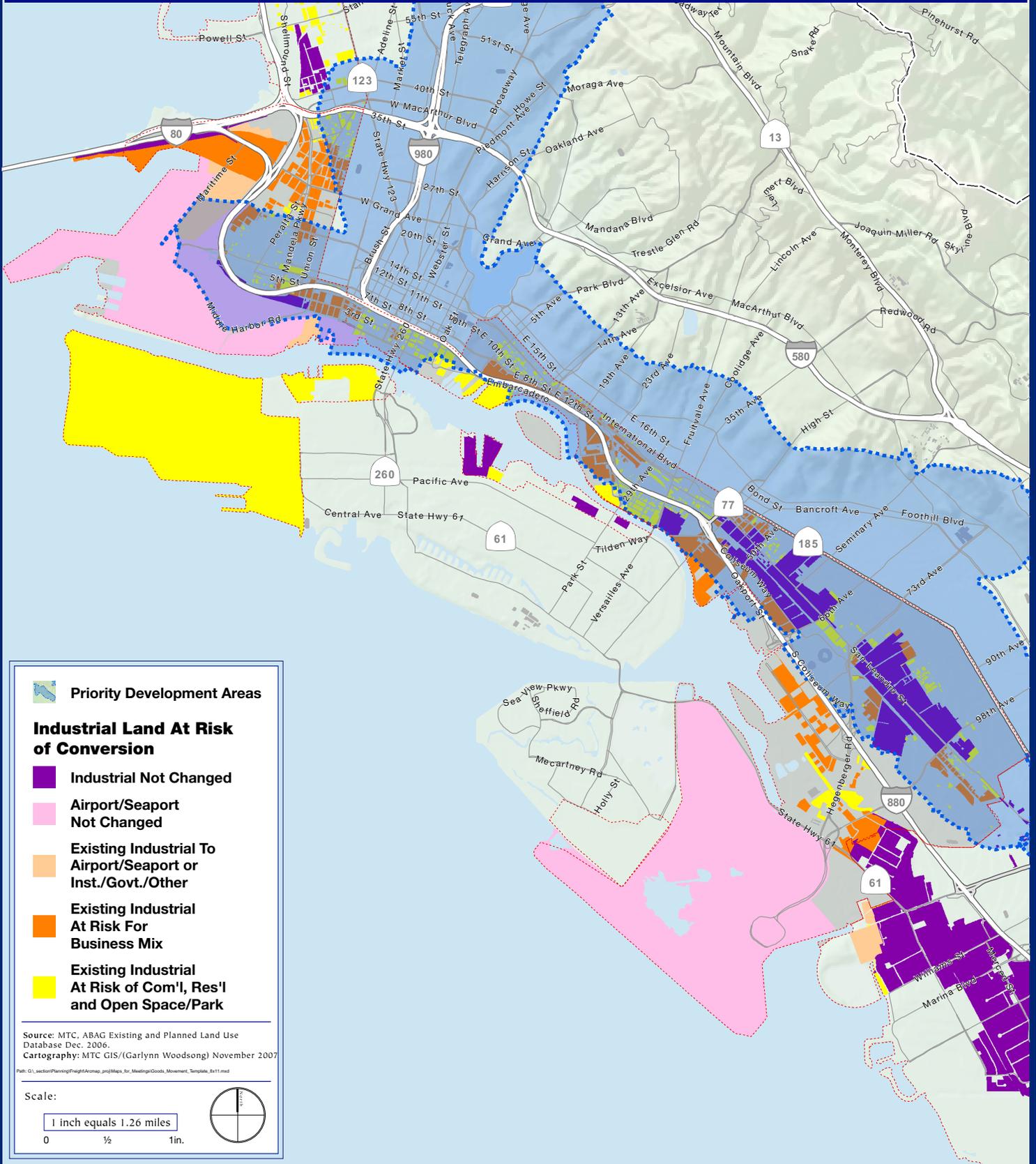
General Plan Land Use



METROPOLITAN
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GOODS MOVEMENT LAND USE STUDY

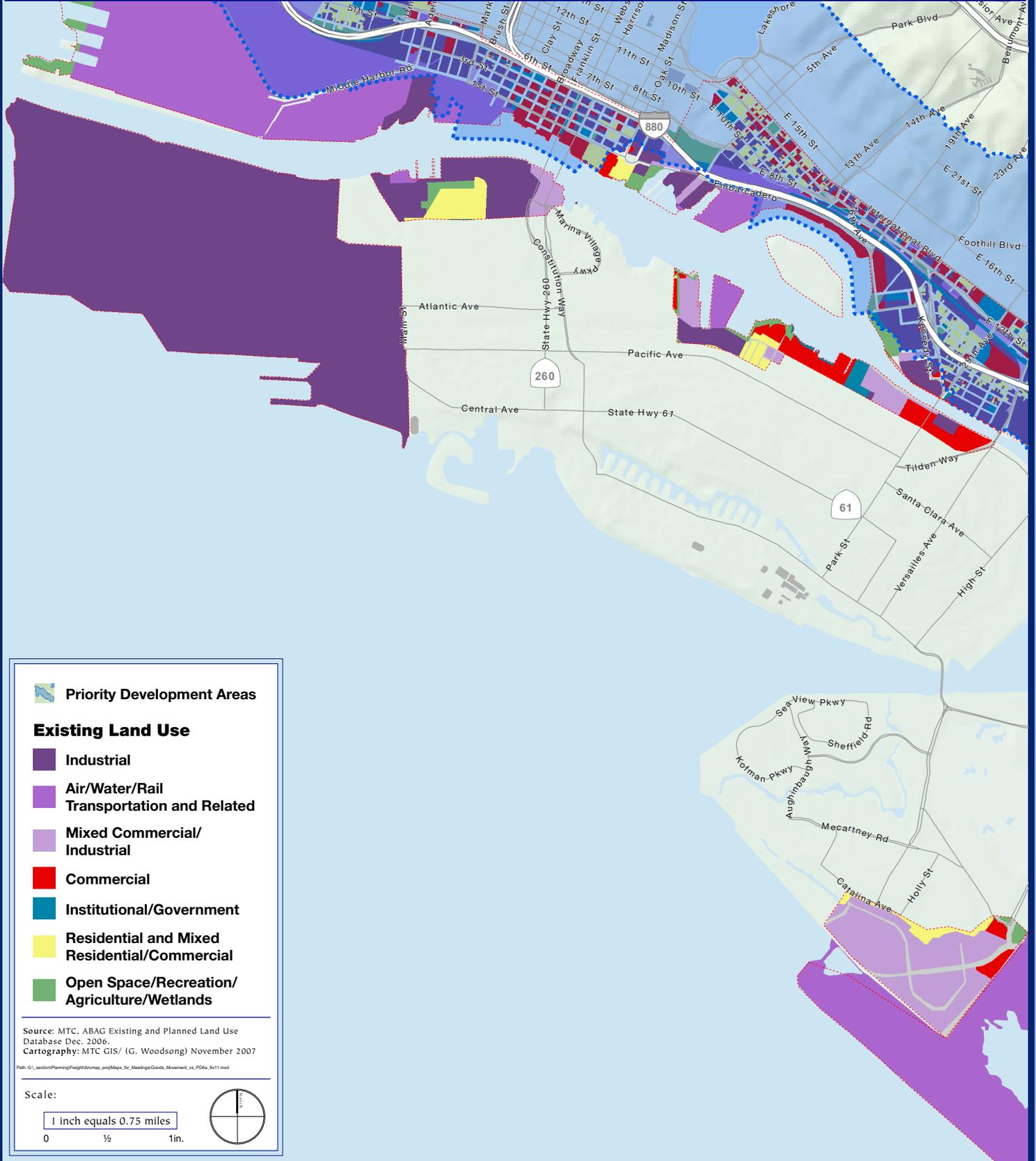
Oakland Corridor



Industrial Land Uses At Risk of Conversion

GOODS MOVEMENT LAND USE STUDY

City of Alameda Corridor



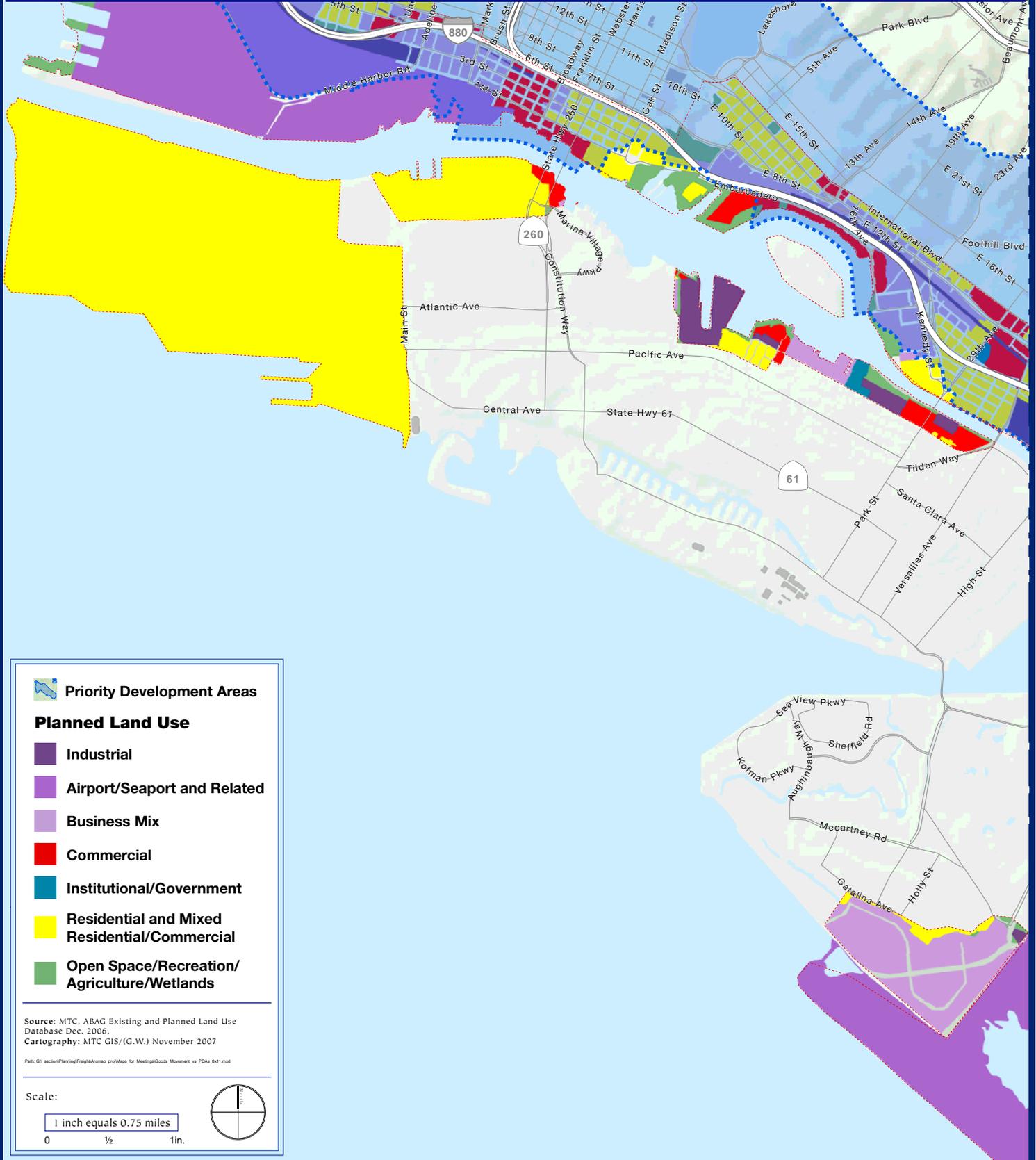
Existing Land Use



METROPOLITAN
 TRANSPORTATION
 COMMISSION

GOODS MOVEMENT LAND USE STUDY

City of Alameda Corridor



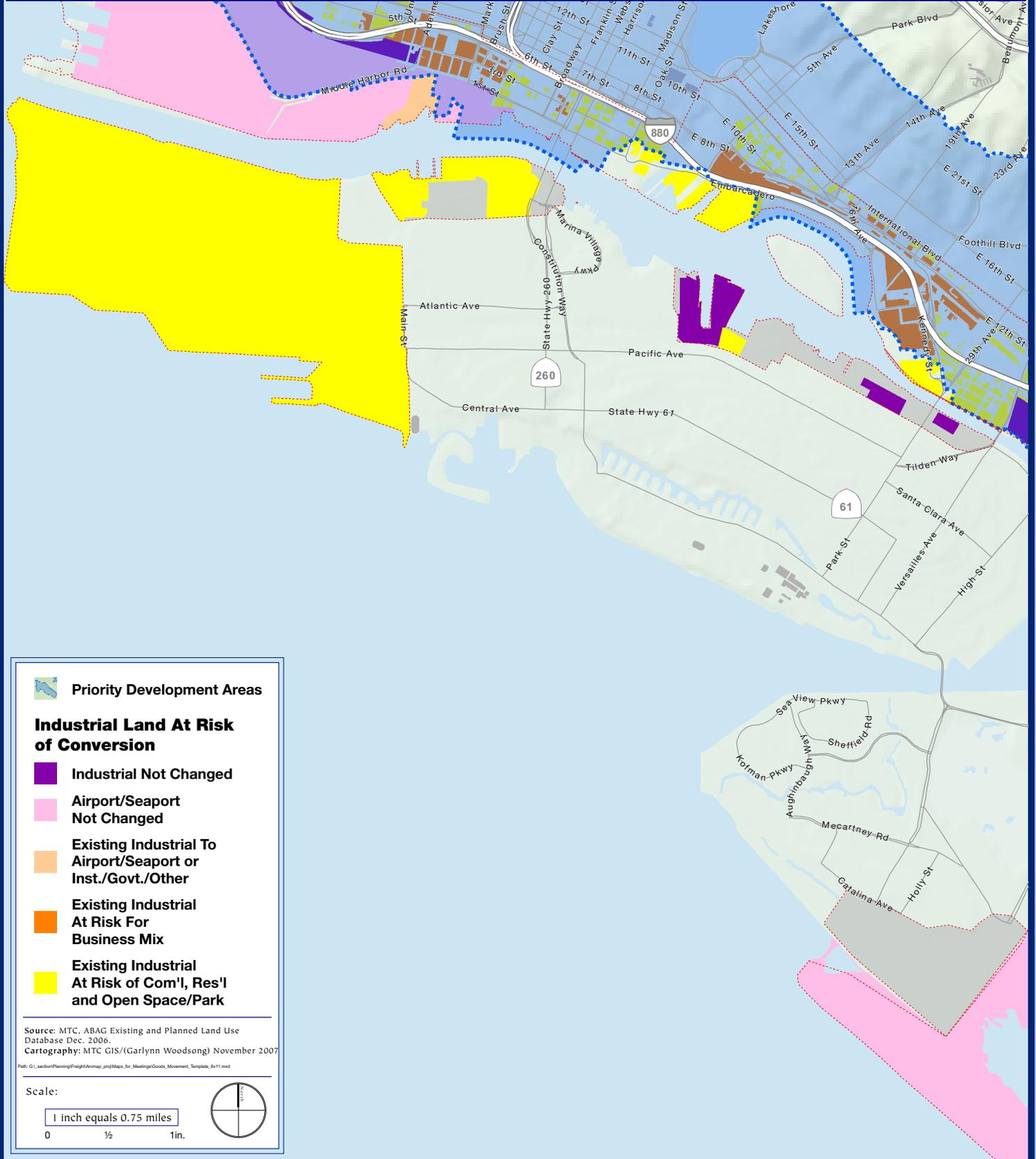
General Plan Land Use



METROPOLITAN
 TRANSPORTATION
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GOODS MOVEMENT LAND USE STUDY

City of Alameda Corridor



 Priority Development Areas

Industrial Land At Risk of Conversion

-  Industrial Not Changed
-  Airport/Seaport Not Changed
-  Existing Industrial To Airport/Seaport or Inst./Govt./Other
-  Existing Industrial At Risk For Business Mix
-  Existing Industrial At Risk of Com'l, Res'l and Open Space/Park

Source: MTC, ABAG Existing and Planned Land Use Database Dec. 2006.
 Cartography: MTC GIS/(Garlynn Woodsong) November 2007

Path: G:\section\Planning\Flight\Acomap_pnj\Maps_for_Meeting\Goods_Movement_Template_Sr11.mxd

Scale:

1 inch equals 0.75 miles

0 1/2 1in.



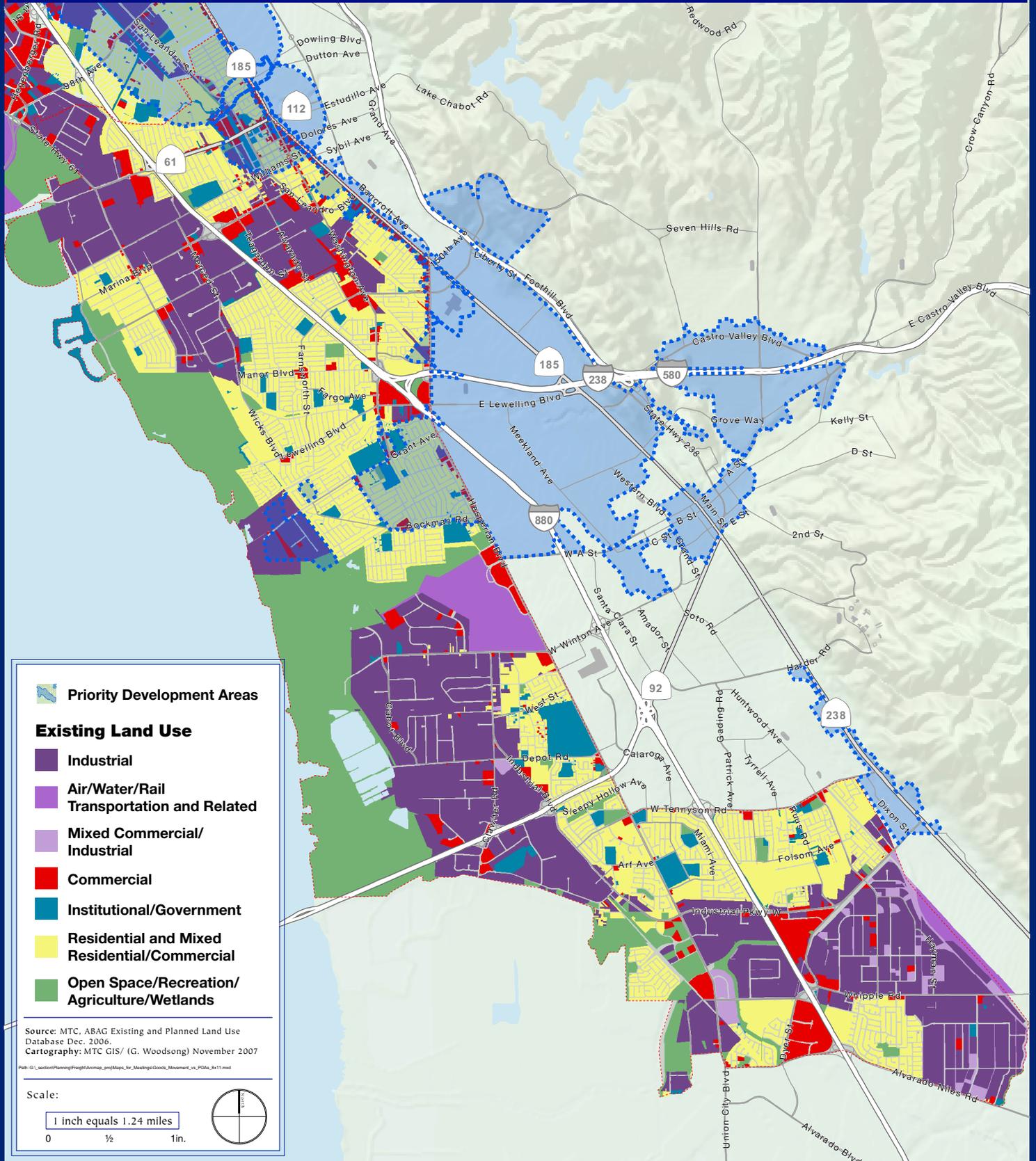
Industrial Land Uses At Risk of Conversion



METROPOLITAN
 TRANSPORTATION
 COMMISSION

GOODS MOVEMENT LAND USE STUDY

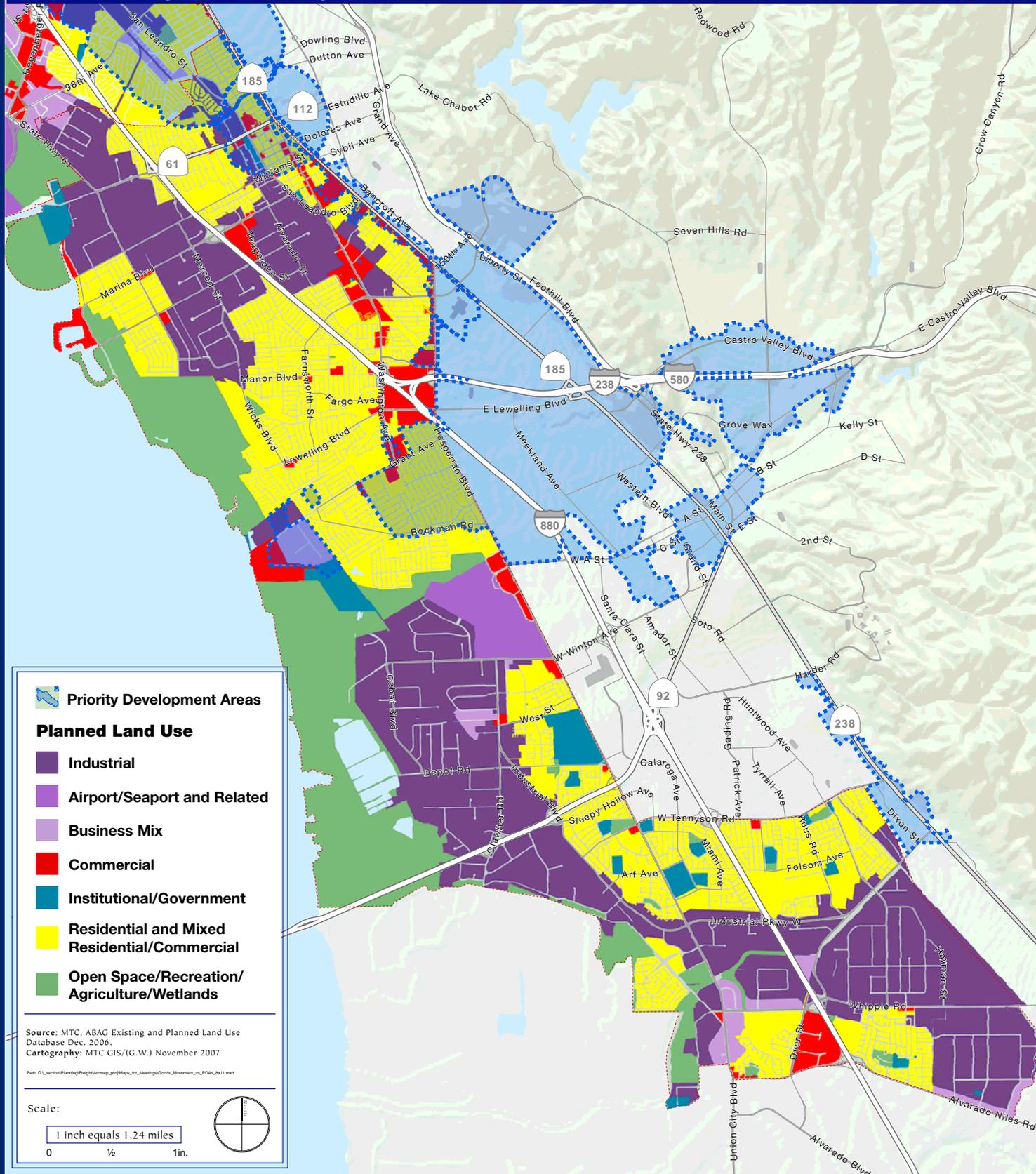
San Leandro/Hayward/Union City Corridor



Existing Land Use

GOODS MOVEMENT LAND USE STUDY

San Leandro/Hayward/Union City Corridor



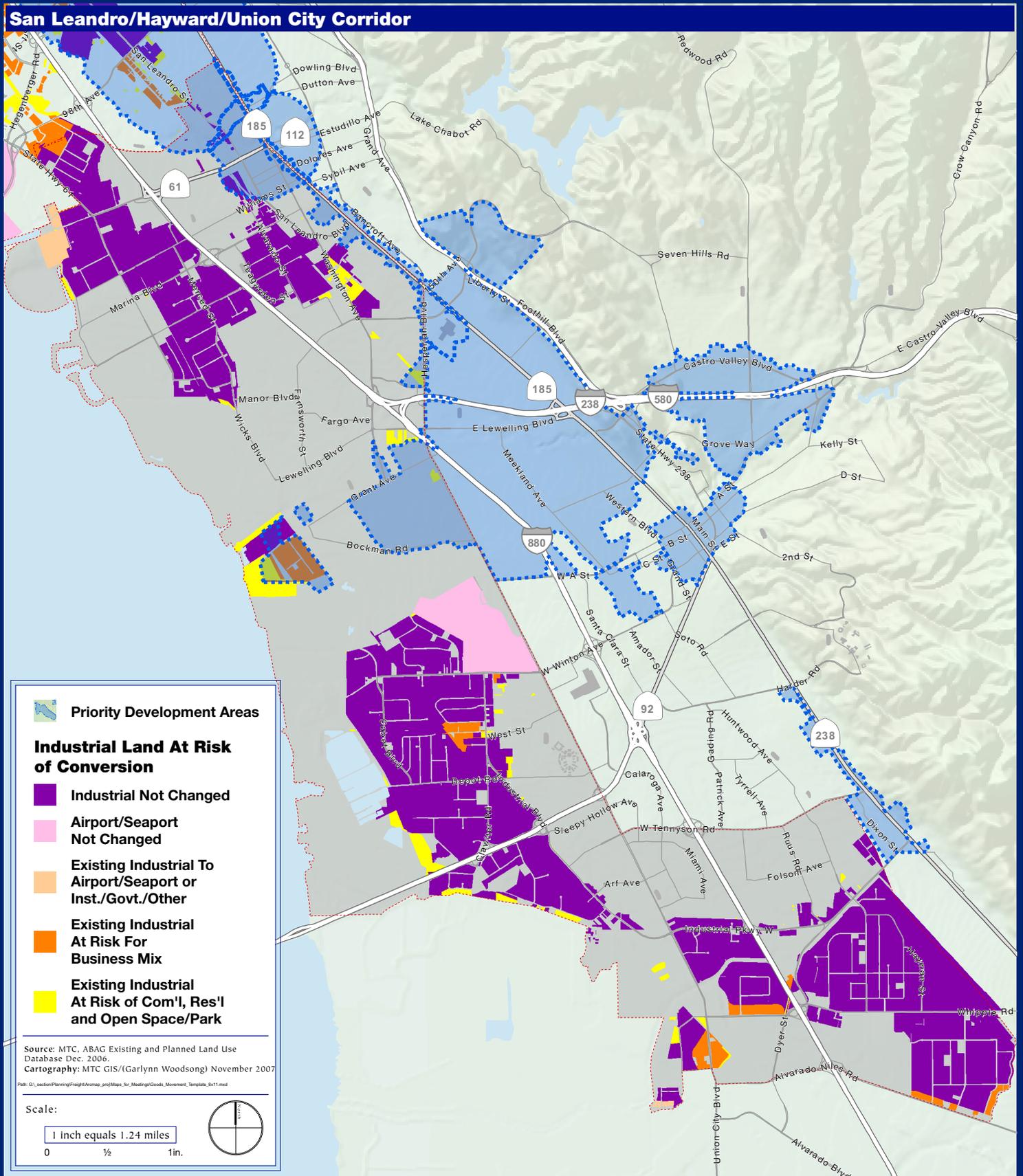
General Plan Land Use



METROPOLITAN
 TRANSPORTATION
 COMMISSION

GOODS MOVEMENT LAND USE STUDY

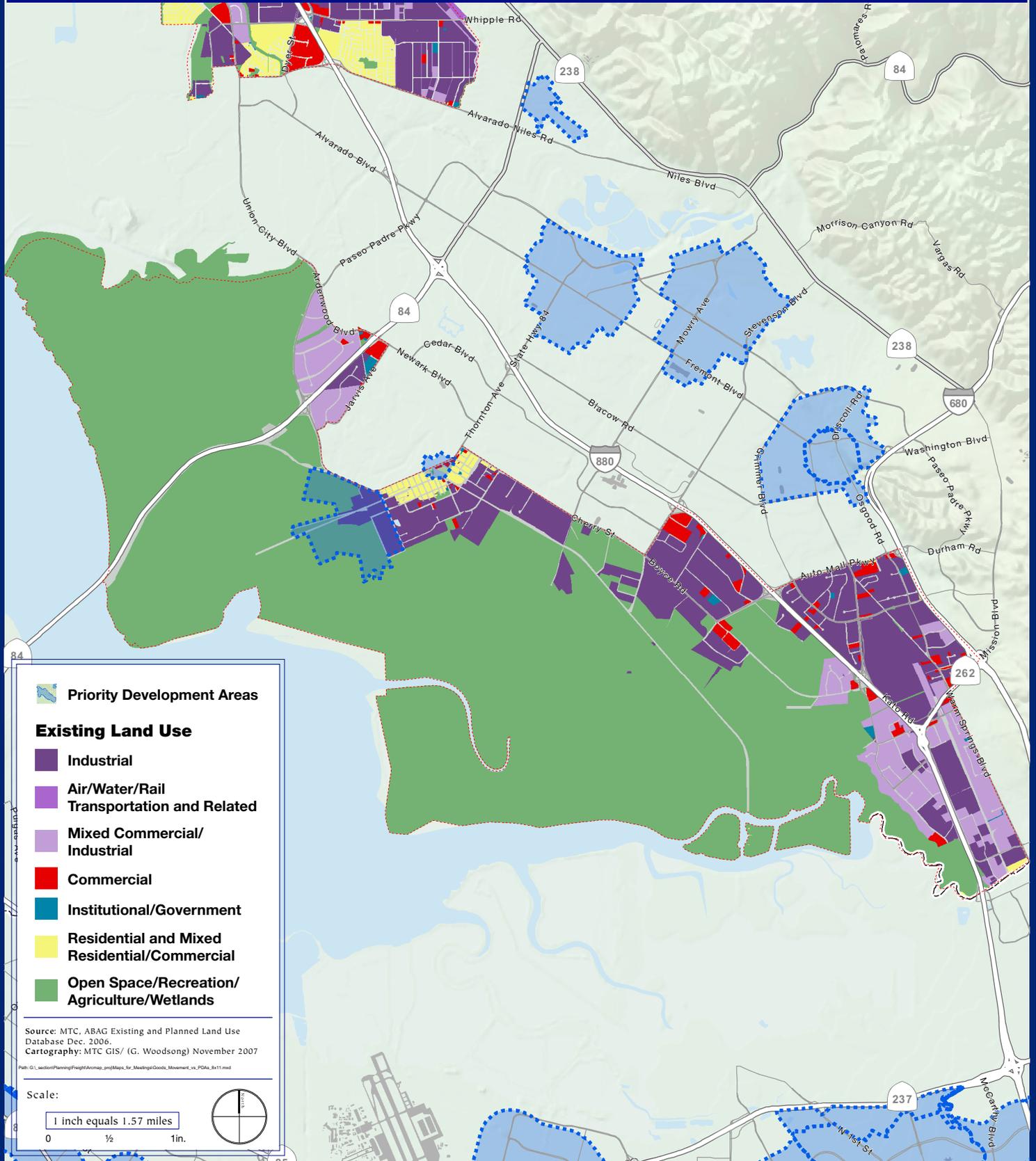
San Leandro/Hayward/Union City Corridor



Industrial Land Uses At Risk of Conversion

GOODS MOVEMENT LAND USE STUDY

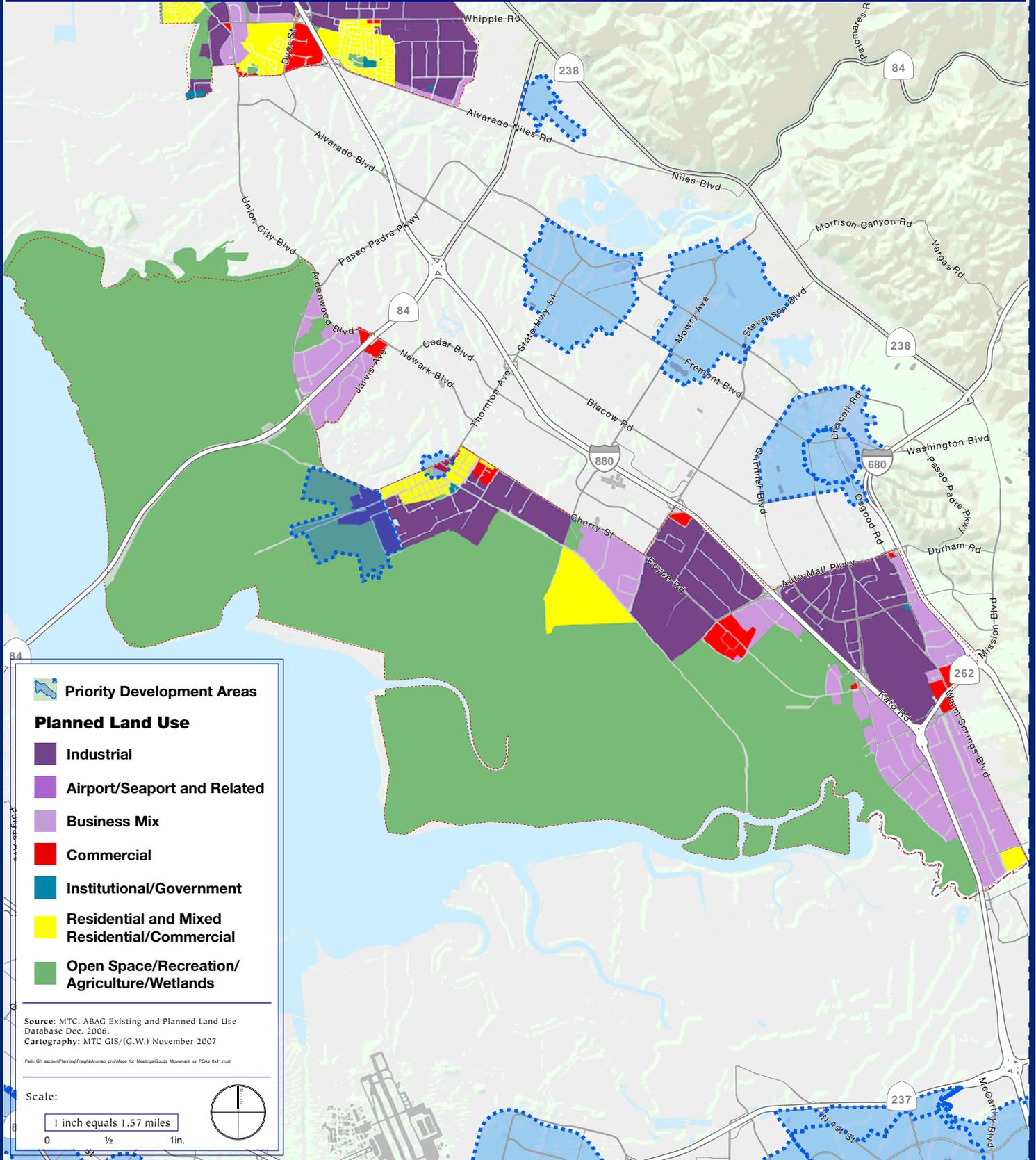
Newark/Fremont Corridor



Existing Land Use

GOODS MOVEMENT LAND USE STUDY

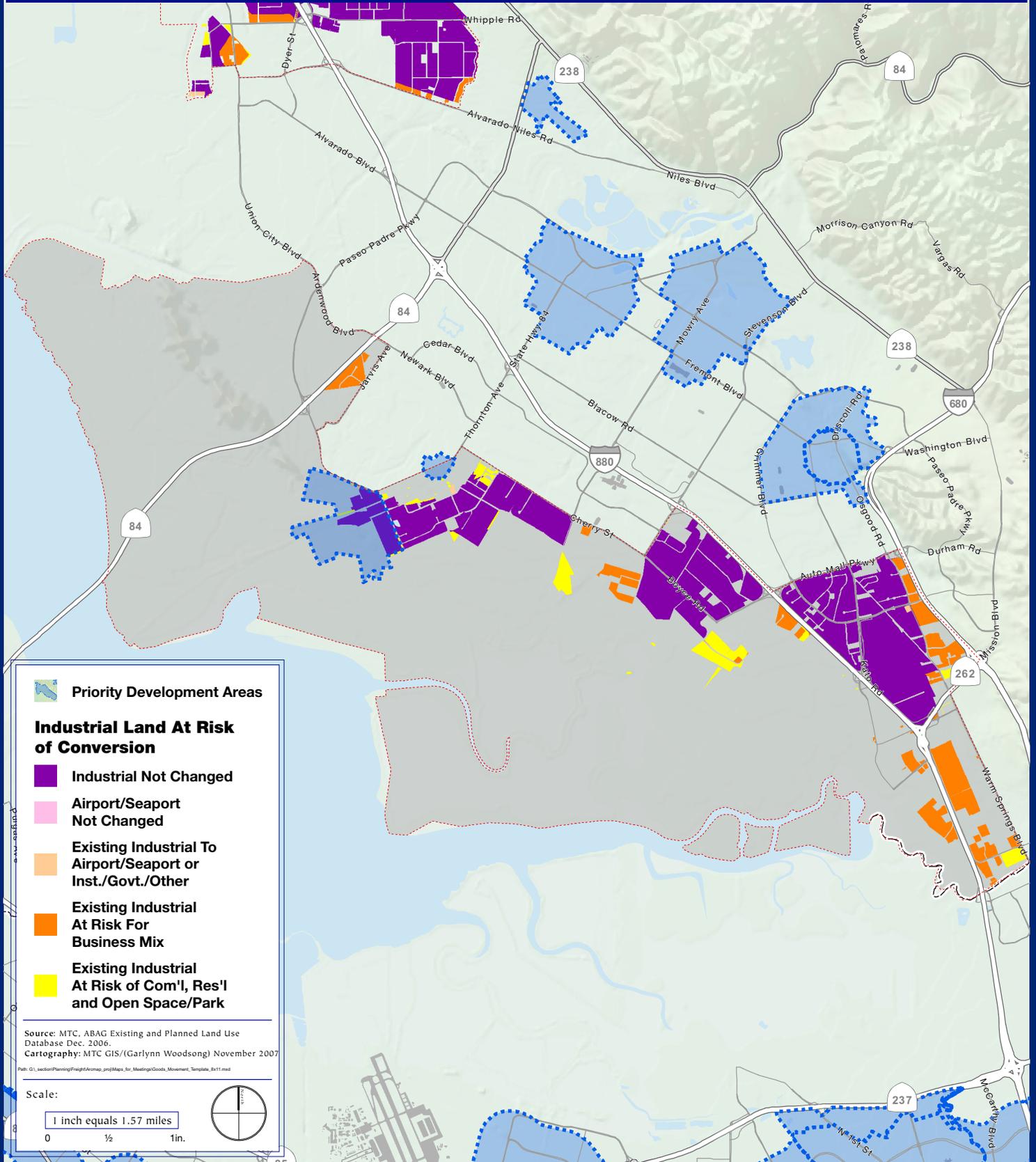
Newark/Fremont Corridor



General Plan Land Use

GOODS MOVEMENT LAND USE STUDY

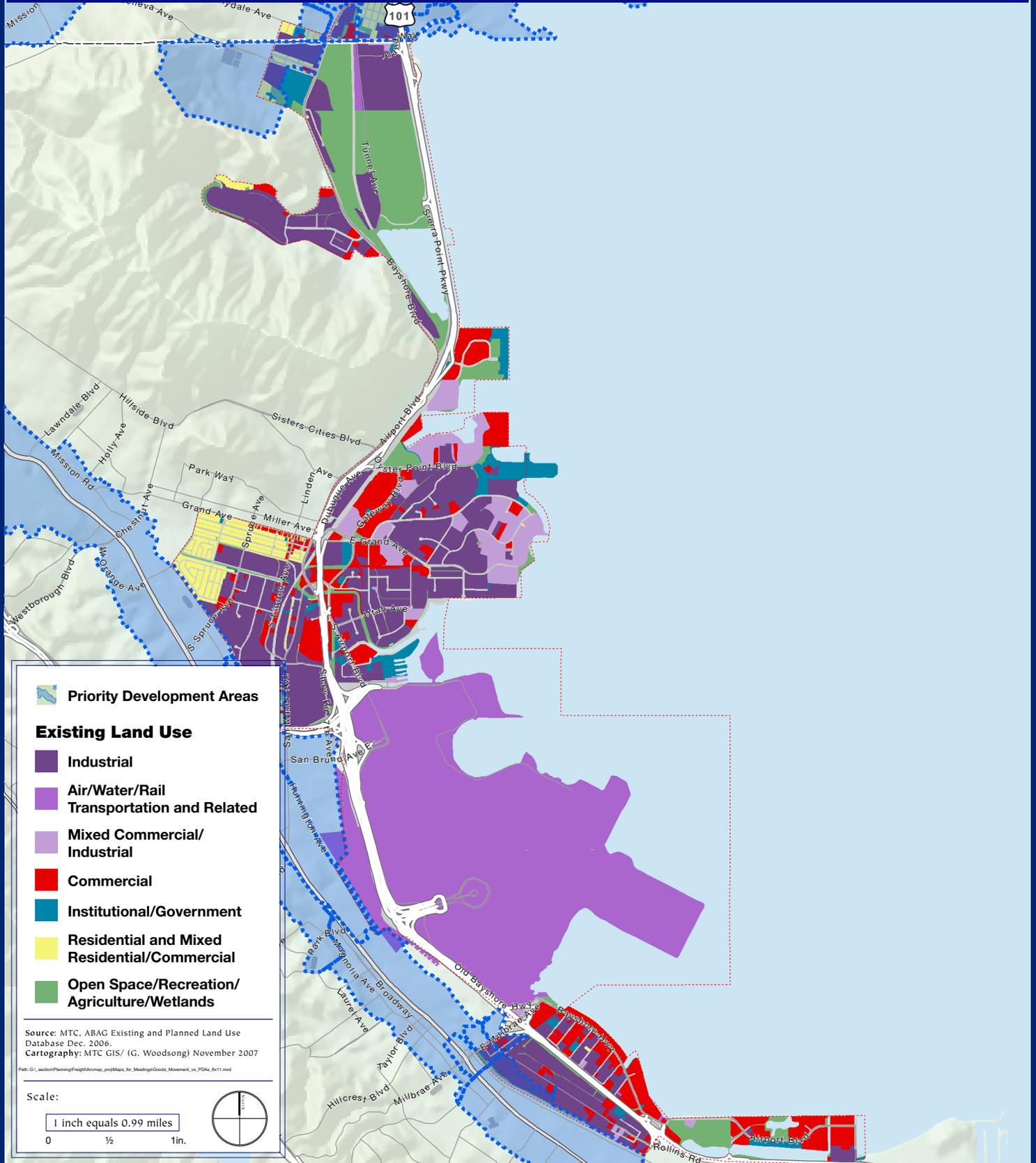
Newark/Fremont Corridor



Industrial Land Uses At Risk of Conversion

GOODS MOVEMENT LAND USE STUDY

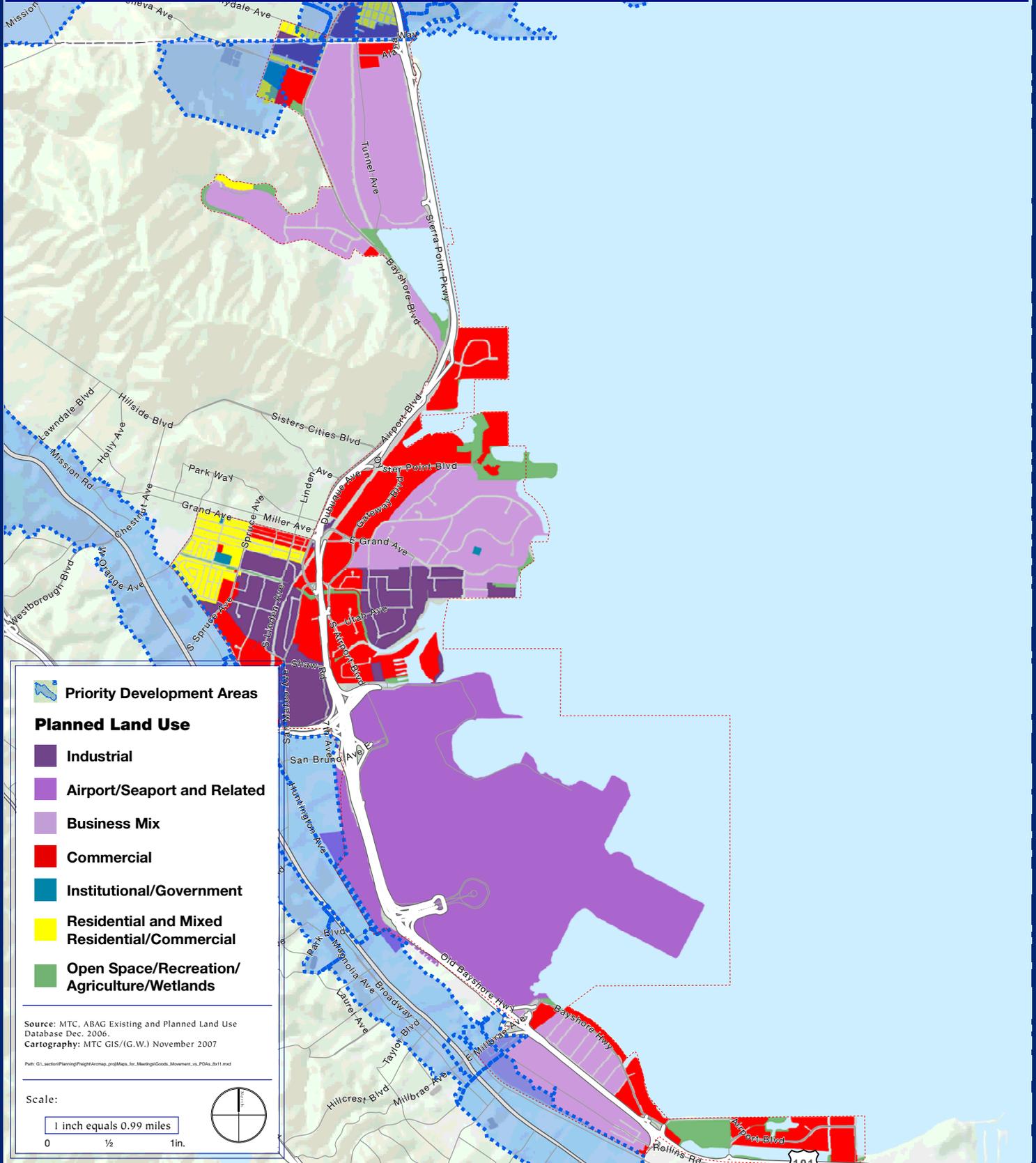
North Peninsula Corridor



Existing Land Use

GOODS MOVEMENT LAND USE STUDY

North Peninsula Corridor



 Priority Development Areas

Planned Land Use

-  Industrial
-  Airport/Seaport and Related
-  Business Mix
-  Commercial
-  Institutional/Government
-  Residential and Mixed Residential/Commercial
-  Open Space/Recreation/Agriculture/Wetlands

Source: MTC, ABAG Existing and Planned Land Use Database Dec. 2006
 Cartography: MTC GIS/(G.W.) November 2007

Path: G:\section\Planning\Flight\Acomp_proj\Maps_for_Metro\GIS\Goods_Movement_v2_PDA_8x11.mxd

Scale:

1 inch equals 0.99 miles
 0 1/2 1in.



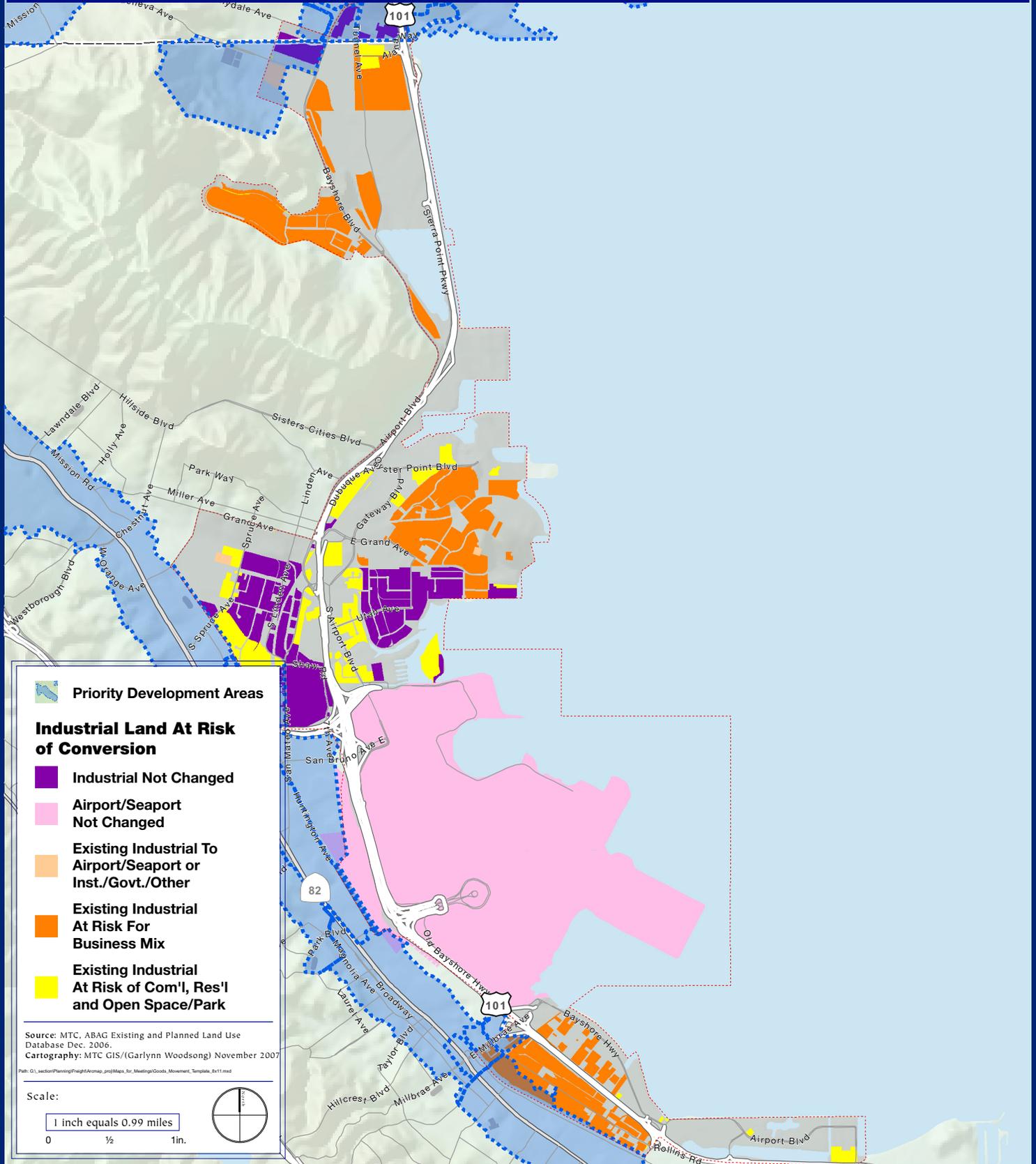
General Plan Land Use



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Industrial Land Uses At Risk of Conversion