

7.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

7.1 METHODOLOGY

The discussion of irreversible and irretrievable commitments of resources that would be required by the project alternatives is a required topic in a DEIR/EIS under both CEQA and NEPA. This section should tell what important resources would be used or removed by the project. These could include:

- The materials, labor, and energy needed to build the project
- Materials, labor, and energy consumed in maintenance and operation of the project
- Land, and present uses of that land, directly taken to make way for the project (e.g., agricultural land, housing, wildlife habitat)
- Environmental conditions degraded or destroyed by the project (e.g., polluted waters, reduced wildlife populations, noisier communities)
- Properties indirectly used by the project (e.g., fill disposal sites, borrow sites, sediment basins)
- Public service capacities used up by the project (e.g., available water supply, storm sewer capacity, or police patrol time committed)

In addition, this section should also discuss significant cumulative resource use due to other projects that are interrelated to the one being proposed (e.g., induced growth, new mining, new recreation uses). If building the project would prevent any planned or expected uses of land, property, or resources that should also be described.

In the following sections, short-term, construction-related impacts are not discussed, because these impacts are not irreversible or irretrievable commitments to resources.

7.2 ANALYSIS

7.2.1 No Build Alternative

Since the No Build Alternative would not include additional construction, except that analyzed in other environmental documents, no additional or incremental increase in irreversible or irretrievable commitment of resources would be required.

7.2.2 TSM/Expanded Bus Service Alternative

A. RESOURCES USED DURING CONSTRUCTION

The TSM/Expanded Bus Service Alternative would include a limited amount of construction. The estimated construction cost for the TSM/Expanded Bus Service Alternative would be \$68 million.

A minimal amount of labor would be required for the TSM/Expanded Bus Service Alternative. Construction energy used under the TSM/Expanded Bus Service Alternative would be approximately 10,577 billion BTUs or about 379 million liters (1.82 million barrels) of crude oil.

B. RESOURCES USED FOR MAINTENANCE/OPERATION

A minimal amount of additional labor and materials would be required to maintain the improvements associated with TSM/Expanded Bus Service Alternative. This alternative includes additional buses (approximately 50), which would require additional labor to operate, maintain, and manage. The additional energy consumption during operation would be approximately 25,020 billion BTUs or about 897 million liters (4.31 million barrels) of oil annually.

C. LAND AND LAND USES TAKEN

There would be no land taken for the TSM/Expanded Bus Service Alternative.

D. ENVIRONMENTAL CONDITIONS DEGRADED OR DESTROYED

Because of the minimal amount of construction proposed under the TSM/Expanded Bus Service Alternative, impacts to the environment are also limited. The pollution burden for nitrogen oxides would exceed the SCAQMD thresholds.

E. OFF-SITE PROPERTIES INDIRECTLY USED

Because of the limited amount of construction associated with the TSM/Expanded Bus Service Alternative, borrow sites, disposal sites, sediment basins, or similar off-site properties would not be affected.

F. PUBLIC SERVICE CAPACITIES AFFECTED

Because of the limited amount of construction associated with the TSM/Expanded Bus Service Alternative, public service capacities would not be substantially affected. The exception would be the additional labor hours required for security and law enforcement for the additional buses. For the most part, however, this service is provided by the transit operators, so public services would be largely unaffected.

G. CUMULATIVE IMPACTS DUE TO RELATED PROJECTS/GROWTH INDUCEMENT

The TSM/Expanded Bus Service Alternative would not be growth-inducing and there are no related projects that would result in cumulative impacts to resources.

7.2.3 Full Build Alternative

A. RESOURCES USED DURING CONSTRUCTION

The estimated construction cost for the Full Build Alternative would be \$763 million. An estimated 28,754 short-term construction jobs would be required for this alternative. Construction energy used under the Full Build Alternative would be approximately 10,369 billion BTUs or about 1,787,785 barrels of crude oil. See C, LAND AND LAND USES TAKEN, below, for a discussion of right-of-way takes.

B. RESOURCES USED FOR MAINTENANCE/OPERATION

An undetermined amount of additional labor and materials would be required to maintain the additional lanes, widened interchanges, and the additional arterial that are included in the Full Build Alternative. This alternative includes the same additional buses (approximately 50) proposed under the TSM/Expanded Bus Service Alternative, and additional labor to operate, maintain, and manage these buses would be required. (See also F, PUBLIC SERVICE CAPACITIES AFFECTED, below.) The additional energy consumption during operation would be approximately 24,680 billion BTUs or about 885 million liters (4.26 million barrels) of oil annually.

C. LAND AND LAND USES TAKEN

Additional right-of-way would be required for the improvements proposed under the Full Build Alternative. A total of 189 residential units and 35 non-residential units would be taken by the project. Although relocation of the residents and businesses affected would be possible within the local area, the conversion of this land from residential and commercial land uses would be an irreversible commitment.

The Full Build Alternative, specifically the Pacific Electric Arterial, would convert land currently used as open space and agriculture (but not prime farmland) to a transportation use. This open space in Santa Ana has been designated as a future class I bicycle trail. The arterial would preclude this use. The use of the former Pacific Electric Arterial would be an irreversible commitment.

At the City Gardens Apartment complex in Santa Ana, the Full Build would remove existing parking and some residential units. The site is a legal non-conforming use because it does not have sufficient parking and because it is zoned for agriculture, not multi-family residential. Because the Full Build Alternative would make alterations to the site, it would lose its legal non-conforming use status, and can legally be forced by the City of Santa Ana to comply with the zoning and/or parking ordinances. This would lead to conversion to agriculture (and removal of all multi-family residences) and/or the creation of additional parking. Because there is not sufficient land available to add parking, at the least, additional units would have to be removed to create sufficient parking to meet the requirements. How the city would enforce the ordinances cannot be determined at this time.

D. ENVIRONMENTAL CONDITIONS DEGRADED OR DESTROYED

The Full Build Alternative has a number of impacts that represent a degradation or destruction of existing environmental conditions, thereby resulting in an irretrievable loss of resources. The Pacific Electric Santa Ana River Bridge, which is eligible for the National Register of Historic Places, would be taken by the project. This bridge is the last remnant of the Pacific Electric Railroad in the area. There are potentially difficult relocation issues with a number of properties that would be taken by the Full Build Alternative including impacts to community cohesion, creation of non-conforming uses, and problems with relocating high-visibility service stations. There would be traffic impacts related to limited HOV capacity on the connecting SR-55 that cannot be mitigated. The pollution burden for nitrogen oxides would exceed the SCAQMD thresholds. The visual envi-

ronment would be substantially affected. Approximately 66 percent of the freeway landscaping would be removed, and substantial visual impacts that cannot be fully mitigated would occur at three recreational areas, as well as at several residential neighborhoods and to viewers on the freeways. In addition, new light sources would be introduced in relatively dark areas and business signage would be blocked from view.

E. OFF-SITE PROPERTIES INDIRECTLY USED

The Full Build Alternative would not require substantial amounts of fill or result in large amounts of excess material. There would be demolition resulting from the acquisition of 189 residential units and 35 business units, which would require disposal. In addition, several freeway structures would be replaced. Much of this material would be recycled, but large quantities would require disposal. (See F, PUBLIC SERVICE CAPACITIES AFFECTED, below).

F. PUBLIC SERVICE CAPACITIES AFFECTED

The Full Build Alternative would require disposal of materials associated with demolition that cannot be recycled. In some cases, hazardous materials are included in these materials, including asbestos, lead-based paint, contaminated soil, and hazardous materials storage tanks, pipes, etc. Adequate capacity exists in the local area for such disposal.

The HOV lanes that would be added to SR-22 would require additional CHP manpower to patrol.

G. CUMULATIVE IMPACTS DUE TO RELATED PROJECTS/GROWTH INDUCEMENT

Because the Full Build Alternative is located in an area that is nearly built out, and since the project includes only one new interchange, this alternative would not be substantially growth inducing. There are no other related projects. Thus, it would not result in cumulative impacts to resources. (See also, Section 9.0.)

7.2.4 Reduced Build Alternative

A. RESOURCES USED DURING CONSTRUCTION

The estimated construction cost for the Reduced Build Alternative would be \$511 million. An estimated 19,703 short-term construction jobs would be required for this alternative. Construction energy used under the Reduced Build Alternative would be approximately 8,768 billion BTUs or about 1,511,756 barrels of crude oil. See C, LAND AND LAND USES TAKEN, below, for a discussion of right-of-way takes.

B. RESOURCES USED FOR MAINTENANCE/OPERATION

An undetermined amount of additional labor and materials would be required to maintain the additional lanes and widened interchanges that are included in the Reduced Build Alternative. This alternative includes the same additional buses (approximately 50) proposed under the TSM/Expanded Bus Service Alternative, and additional labor to operate, maintain, and manage these buses would be required. (See also F, PUBLIC SERVICE CAPACITIES AFFECTED, below.) The additional energy consumption during operation would be approximately 25,500 billion BTUs or about 915 million liters (4.40 million barrels) of oil annually.

C. LAND AND LAND USES TAKEN

Additional right-of-way would be required for the improvements proposed under the Reduced Build Alternative. A total of 10 residential units and 24 non-residential units would be taken by the project. Although relocation of the residents and businesses affected would be possible within the local area, the conversion of this land from residential and commercial land uses would be an irreversible commitment.

D. ENVIRONMENTAL CONDITIONS DEGRADED OR DESTROYED

The Reduced Build Alternative has a number of impacts that represent a degradation or destruction of existing environmental conditions, thereby resulting in an irretrievable loss of resources. The pollution burden for nitrogen oxides would exceed SCAQMD thresholds. The visual environment would be substantially affected by the removal of approximately 60 percent of the freeway landscaping. This would affect both views of the freeways and views from them.

E. OFF-SITE PROPERTIES INDIRECTLY USED

The Full Build Alternative would not require substantial amounts of fill or result in large amounts of excess material. There would be demolition resulting from the acquisition of 189 residential units and 35 business units, which would require disposal. In addition, several freeway structures would be replaced. Much of this material would be recycled, but large quantities would require disposal. (See F, PUBLIC SERVICE CAPACITIES AFFECTED, below).

F. PUBLIC SERVICE CAPACITIES AFFECTED

The Reduced Build Alternative would require disposal of materials associated with demolition that cannot be recycled. In some cases, hazardous materials are included in these materials, including asbestos, lead-based paint, contaminated soil, and hazardous materials storage tanks, pipes, etc. Adequate capacity exists in the local area for such disposal.

The HOV lanes that would be added to SR-22 would require additional CHP manpower to patrol.

G. CUMULATIVE IMPACTS DUE TO RELATED PROJECTS/GROWTH INDUCEMENT

Because the Reduced Build Alternative is located in an area that is nearly built out, and because the project includes only one new interchange, this alternative would not be substantially growth inducing. There are no other related projects. Thus, it would not result in cumulative impacts to resources. (See also, Section 9.0.)

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