

This section of the EA/EIR presents the results of an analysis of existing conditions, as well as forecasted air quality conditions following completion of the project. It is based on information from the project traffic study prepared by Crain & Associates. A complete copy of the air quality modeling data and traffic analysis prepared for this project by Crain & Associates (April 2003) is contained within Appendix 4.6 and 4.2 of this EA/EIR, respectively.

### 4.6.1 AFFECTED ENVIRONMENT

#### Climate and Meteorology

##### *Regional Air Quality*

The Southern California area has been divided into a number of geographical air basins for the purposes of air quality planning. The project site is located within the South Coast Air Basin (Basin), which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. Named because its geographical formation is that of a basin, with the surrounding mountains containing the air and its pollutants in the valleys and basins below, the Basin is affected by the pollutants generated by dense population centers, heavy vehicular traffic, and industry.

The air pollutants within the Basin are primarily generated by two categories of sources: stationary and mobile. Stationary sources are known as "point sources" which have one or more emission sources at a single facility, or "area sources" which are widely distributed and produce many small emissions. Point sources are usually associated with manufacturing and industrial uses and include sources such as refinery boilers or combustion equipment that produce electricity or process heat. Examples of area sources include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbecue lighter fluid or hair spray. "Mobile sources" refer to operational and evaporative emissions from motor vehicles. Mobile sources account for over 95 percent of the carbon monoxide (CO) emissions, approximately two-thirds of the oxides of sulfur (SO<sub>x</sub>) emissions, three-quarters of the oxides of nitrogen (NO<sub>x</sub>) emissions, and one-half of the volatile organic compounds (VOC) found within the Basin.<sup>1</sup> Smog is formed when VOC, NO<sub>x</sub>, and SO<sub>x</sub> undergo photochemical reactions in sunlight to form ozone (O<sub>3</sub>).

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<sup>1</sup> South Coast Air Quality Management District, CEQA *Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 3-5.

The criteria pollutants for which federal and state standards have been promulgated and that are most relevant to air quality planning and regulation in the Basin are ozone, carbon monoxide, fine suspended particulate matter, sulfur dioxide, and lead. Each of these is briefly described below.

- Carbon Monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and motor vehicles operating at slow speeds are the primary source of CO in the Basin, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Nitrogen Dioxide (NO<sub>2</sub>). NO<sub>2</sub> is a byproduct of fuel combustion. The principle form of NO<sub>2</sub> produced by combustion is nitric oxide (NO), but NO reacts quickly to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub>, commonly called NO<sub>x</sub>. NO<sub>x</sub> acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO<sub>x</sub> is only potentially irritating. NO<sub>x</sub> absorbs blue light; the result of which is a brownish-red cast to the atmosphere and reduced visibility. NO<sub>x</sub> also contributes to the formation of PM<sub>10</sub>.
- Volatile Organic Compounds (VOCs). VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to form secondary air pollutants, including ozone.
- Ozone is a gas that is formed when volatile organic compounds (VOCs) (also known as Reactive Organic Gases (ROGs)) and nitrogen oxides (NO<sub>x</sub>), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- Fine Suspended Particulate Matter (PM<sub>10</sub>) consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM<sub>10</sub>, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM<sub>10</sub> is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- Sulfur dioxide (SO<sub>2</sub>) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When sulfur dioxide oxidizes in the atmosphere, it forms sulfates (SO<sub>4</sub>). Together, these pollutants are referred to as sulfur oxides (SO<sub>x</sub>).

## Existing Air Quality

### *Local Air Quality*

The proposed project site is located in the Los Angeles downtown Civic Center area. The predominant sources of air pollutant emissions in the area surrounding the project are mobile sources (e.g., automobile and air traffic). Traffic traveling on the 101 Freeway (Hollywood Freeway) and adjacent roadways contribute the major portion of mobile source air emissions. Area sources, including heating and cooling units, also contribute to local air emissions.

Ambient air quality in the area surrounding the proposed project site is measured at the nearest SCAQMD pollutant monitoring station, which is Station 087, or otherwise identified as the Central Los Angeles Station, located in downtown Los Angeles. Table 4.6-1, Ambient Pollutant Concentrations Registered at Central Los Angeles Station, lists the air quality data from 2000 to 2003.

Table 4.6-1  
Ambient Pollutant Concentrations Registered at the Central Los Angeles Station

| Pollutant   | Standards <sup>1,2</sup> | Year   |        |        |        |
|---|--------------------------|--------|--------|--------|--------|
|   |                          | 2000   | 2001   | 2002   | 2003   |
| <b>OZONE (O<sub>3</sub>)</b>  |                          |        |        |        |        |
| Maximum 1-hour concentration monitored (ppm)                        |                          | 0.14   | 0.11   | 0.12   | 0.15   |
| Number of days exceeding Federal standard                           | >0.12 ppm                | 1      | 0      | 0      | 1      |
| Number of days exceeding State standard                             | >0.09 ppm                | 8      | 8      | 8      | 11     |
| <b>CARBON MONOXIDE (CO)</b>   |                          |        |        |        |        |
| Maximum 1-hour concentration monitored (ppm)                        |                          | 7      | 6      | 5      | 6      |
| Number of days exceeding Federal 1-hour standard                    | >35.0 ppm                | 0      | 0      | 0      | 0      |
| Number of days exceeding State 1-hour standard                      | >20.0 ppm                | 0      | 0      | 0      | 0      |
| Maximum 8-hour concentration monitored (ppm)                        |                          | 6.0    | 4.6    | 4.0    | 4.6    |
| Number of days exceeding Federal 8-hour standard                    | ≥9.5 ppm                 | 0      | 0      | 0      | 0      |
| Number of days exceeding State 8-hour standard                      | ≥9.1 ppm                 | 0      | 0      | 0      | 0      |
| <b>NITROGEN DIOXIDE (NO<sub>2</sub>)</b>                            |                          |        |        |        |        |
| Maximum 1-hour concentration monitored (ppm)                        |                          | 0.16   | 0.14   | 0.14   | 0.16   |
| Number of days exceeding 1-hour State standard                      | >0.25 ppm                | 0      | 0      | 0      | 0      |
| <b>SULFUR DIOXIDE (SO<sub>2</sub>)</b>                              |                          |        |        |        |        |
| Maximum 1-hour concentration monitored (ppm)                        |                          | 0.08   | 0.03   | 0.02   | 0.06   |
| Maximum 24-hour concentration monitored (ppm)                       |                          | 0.01   | 0.01   | 0.02   | 0.01   |
| Annual Average compared to Federal standard                         | >0.03 ppm                | <0.001 | <0.001 | <0.001 | <0.001 |
| Number of days exceeding State standard                             | >0.25 ppm                | 0      | 0      | 0      | 0      |
| <b>SUSPENDED PARTICULATE MATTER (PM<sub>10</sub>)</b>               |                          |        |        |        |        |
| Maximum 24-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> ) |                          | 80     | 97     | 65     | 81     |
| Percent of samples exceeding Federal standard                       | >150 µg/m <sup>3</sup>   | 0      | 0      | 0      | 0      |
| Percent of samples exceeding State standard                         | >50 µg/m <sup>3</sup>    | 15     | 20     | 8      | 5      |

<sup>1</sup> Parts by volume per million of air (ppm), micrograms per cubic meter of air (µg/m<sup>3</sup>), or annual arithmetic mean (aam).

<sup>2</sup> Pollutants shown are those for which the South Coast Air Basin has been designated as a federal non-attainment area.

Sources: South Coast Air Quality Management District, February 2004.

### Local Vicinity Emissions

The project vicinity is characterized as an urban environment with extensive government, office and commercial uses. Primary emission sources in the vicinity include vehicular emissions and stationary sources such as heating and cooling units.

As previously stated, traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations of CO exceed state and/or federal standards are termed CO "hotspots". To quantify these localized CO concentrations, the SCAQMD recommends the use of CALINE4, a dispersion air quality computer model developed by the California Department of Transportation (Caltrans) for predicting CO concentrations near roadways. CALINE4 adds roadway-specific CO emissions calculated from peak traffic volumes to ambient CO air concentrations. A simplified CALINE4 model is also available for use. The simplified CALINE4 model was developed by the Bay Area AQMD and assumes worst-case conditions such as wind speeds less than one meter per second and extreme atmospheric stability. In comparison, the simplified model provides a screening of maximum, worst-case, CO concentrations.

Section 9.4 of the SCAQMD CEQA *Air Quality Handbook* identifies CO as a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large. The SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.

Based on local field visits as well as a review of a local vicinity aerial photograph, none of the roadway intersections studied in the project traffic report were intersections with sensitive receptors. All of the intersections in the project study area are adjacent to governmental, office, commercial, and utility uses which are not considered sensitive. Additionally, hotspots typically occur at traffic-congested intersections. Based on the traffic study prepared for the proposed project, none of the studied intersections currently, or under future conditions, were calculated to operate at an unacceptable level of service. Based on these results, none of the studied intersections would be considered to be a traffic-congested intersection. Therefore, as none of the studied roadway intersections are hotspots, nor are sensitive receptors located at these intersections, localized CO concentrations were not quantified.

## **Existing Air Pollution Sources**

### ***Existing On-Site Air Pollution Sources***

The 3.2-acre site currently contains the Hall of Justice building, which has 14 above-grade floors and one basement level. The building contains nine floors of offices and courtrooms with four floors of jail facilities above the office and courtroom floors. Overall, the Hall of Justice has a gross floor area of approximately 537,585 square feet.

The Hall of Justice remained in use by the County, until the January 1994 Northridge earthquake caused extensive structural damage to the building. The building was deemed to be unsafe for occupancy following the earthquake and was vacated.

As the Hall of Justice is presently vacant, there are no stationary on-site air emission sources. Given that the vacancy of the building was required due to safety concerns, as opposed to labor layoffs, the vehicular emissions associated with the employees' trips to and from the Hall of Justice were not removed from the regional air basin, as the employees still must drive to the new employment location. However, as no workers are employed at the Hall of Justice, the building no longer generates site-specific vehicular emissions.

It should be noted that the existing parking lot on the project site is used for parking by some of the adjacent uses, namely the Federal Courthouse across Spring Street. As these trips are a result of adjacent uses and not the Hall of Justice, vehicular emissions associated with these trips are not a result of on-site uses.

### ***Existing Off-Site Air Pollution Sources***

The project site is located in a heavily urbanized area. Uses within the downtown Los Angeles Civic Center area predominately include city, county, state, and federal buildings. In the immediate vicinity of the Hall of Justice, the Federal Courthouse is located to the east across Spring Street, the Criminal Courts building to the south across Temple Street, the County of Los Angeles Central Heating and Refrigeration Plant to the west across Broadway, and the 101 Freeway is to the north, across Aliso Street. All uses in the local vicinity are representative of urban land uses, none of which include a toxic emitter.

### **Air Quality Management Planning**

The SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the Air Quality Management Plan (AQMP) for the Basin. Since 1979, a number of AQMPs have been prepared. The most recent comprehensive plan fully approved by the EPA is the 2003 Air Quality Management Plan (2003 AQMP), which includes a variety of strategies and control measures. The 2003 AQMP replaces the 1997 attainment demonstration for the federal CO standard and provides for a maintenance plan for CO for future years. The 2003 AQMP also provides for a maintenance plan for the federal NO<sub>2</sub> standard that the Basin has met since 1992. In terms of working towards ozone attainment, the 2003 AQMP builds upon the 1997 AQMP and 1999 Amendments to the

Ozone State Implementation Plan (SIP). The PM<sub>10</sub> control strategy in the 1997 AQMP has been augmented by a number of additional PM<sub>10</sub> control measures.

Major changes included within the 2003 AQMP as compared to the 1997 AQMP that are relevant to this analysis include the following:

- For emissions inventory projects using 1997 as the base year, use of the CARB's EMFAC2002 vehicle emission rate model, and use of forecast assumptions from SCAG's 2001 Regional Transportation Plan (RTP);
- Changes in the control strategy for emissions which include updates of control measures from the 1997/1999 SIP as well as new control measures based on current technology; and
- Use of 1997 ozone episodes and updated modeling tools for attainment demonstration for ozone and PM<sub>10</sub>.

The 2003 AQMP has adopted control measures, which incorporate: (1) the District's Stationary and Mobile Source Control Measures; (2) State Control Measures proposed by the California Air Resources Board (CARB); and (3) Transportation Control Measures provided by SCAG. Overall, there are 28 stationary and 21 mobile source measures that are defined under the 2003 AQMP. These measures seek to create emissions reductions to meet the state and federal ambient air quality standards with a multilevel partnership of governmental agencies at the federal, state, regional, and local level. These agencies (i.e., the EPA, CARB, local governments, SCAG, and SCAQMD) implement the AQMP programs. The 2003 AQMP provides an attainment-planning framework that sets specific dates by which the SCAB will achieve the federal and state air quality standards. These dates are shown in **Table 4.6-2, Projected Attainment Dates For Federal and State Air Quality Standards For the South Coast Air Basin.**

**Table 4.6-2  
Projected Attainment Dates for Federal and State Air  
Quality Standards for the South Coast Air Basin**

| Air Pollutant                          | State       | Federal           |
|--|-------------|-------------------|
| Nitrogen Oxides (NO <sub>x</sub> )     | Attained    | Attained          |
| Carbon Monoxide (CO)                   | Attained    | Attained          |
| Ozone (O <sub>3</sub> )                | Beyond 2010 | December 31, 2009 |
| Particulate Matter (PM <sub>10</sub> ) | Beyond 2010 | December 31, 2005 |

*Source: 2003 Air Quality Management Plan.*

## 4.6.2 THRESHOLDS OF SIGNIFICANCE

### Construction Thresholds

The SCAQMD recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered significant:

- 75 pounds per day of ROG (VOC);
- 100 pounds per day of NO<sub>x</sub>;
- 550 pounds per day of CO;
- 150 pounds per day of PM<sub>10</sub>; and
- 150 pounds per day of SO<sub>x</sub>.

### Operational Thresholds

The SCAQMD has recommended two sets of air pollution thresholds to assist lead agencies in determining whether or not the operational phase of a project's development would be significant. These are identified in the following discussion under Primary Effects and Additional Indicators of Potential Air Quality Impacts. The SCAQMD recommends that a project's impacts be considered significant if any threshold within the two operational sub-categories is exceeded.

#### *Primary Effects*

The SCAQMD has established these thresholds, in part, based on Section 182(e) of the Federal CAA, which identifies 10 tons a year of volatile organic gases as the significance level for stationary sources of emissions in extreme non-attainment areas for ozone. As discussed earlier, ROG, NO<sub>x</sub>, and SO<sub>x</sub> undergo photochemical reactions in sunlight to form ozone and the Air Basin is the only extreme non-attainment area for ozone in the United States. This emission threshold has been converted to a pound per day threshold for the operational phase of a project. Thresholds for other emissions have been identified based on their levels in the Air Basin in comparison with ozone levels. Because they are converted from a CAA threshold, the SCAQMD believes that these thresholds are based on scientific and factual data. Therefore the District recommends that the following thresholds be used by lead agencies in making a determination of operation-related project significance:

- 55 pounds per day of ROG (VOC);
- 55 pounds per day of NO<sub>x</sub>;

- 550 pounds per day of CO;
- 150 pounds per day of PM<sub>10</sub>; and
- 150 pounds per day of SO<sub>x</sub>.

### ***Additional Indicators of Potential Air Quality Impacts***

The SCAQMD recommends that projects meeting any of the following criteria also be considered to have significant air quality impacts.

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation;
- Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's build-out year;
- Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot;
- Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors;
- Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;
- Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;
- Project could be occupied by sensitive receptors within one-quarter mile of an existing facility that emits air toxins identified in SCAQMD Rule 1401; and/or
- Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of one in one million.

## **4.6.3 POTENTIAL IMPACTS OF ALTERNATIVES**

### **Alternative 1 – No Project Alternative**

Under this alternative, the Hall of Justice building would remain vacant and would not generate construction or operational air quality emissions. Impacts under this alternative would be less than significant.



## **Alternative 2 – Repair and Reuse Alternative (Proposed Alternative)**

### ***Construction***

Alternative 2 would include repair/restoration of the Hall of Justice by seismically retrofitting the earthquake-damaged building, while preserving and restoring the primary historic features. Alternative 2 would include the repair/restoration of the interior of the Hall of Justice building to provide 325,000 square feet of useable office space, the development of a new multi-level garage with 1,000 parking spaces on the site, landscape and hardscape improvements, architectural and security lighting, and necessary upgrades to utility systems. In addition, Alternative 2 would include the cleaning, refurbishing, and repair of the historic exterior wall materials and certain historically significant interior areas. The construction discussion associated with this alternative provides a detailed discussion of the planned construction activities then quantifies the construction air quality emissions.

### **Building Modifications and Improvements**

There are three primary phases associated with the construction schedule for the Hall of Justice under this alternative consisting of exterior work, interior work and construction of an on-site parking structure. Each of these three construction activities is discussed in greater detail below.

#### ***Exterior***

The exterior surfaces of the Hall of Justice will be cleaned with methods complying with recommendations of the Department of the Interior. Pre-washing will be utilized at areas of distinct staining. General cleaning will follow, using a restoration-type cleaner. Rinsing will be performed so as to ensure no cleaner remains on surfaces and to bring the pH back to the ambient level.

All alterations added to the exterior skin of the Hall of Justice, such as air conditioning units, security grilles, pipes and conduit, will be removed and attachment holes patched. Windows will have lead-based paint abated or encapsulated and repairs made. All window frame exteriors and other exterior metal will be painted. Masonry will be repointed, as required.

#### ***Interior***

Some existing building materials would be removed, primarily from the interior of the structure. This would include the removal of both non-hazardous and hazardous materials. Prior to removal activities,

asbestos-containing materials (ACM), lead-based paint materials (LBP), polychlorinated biphenyl (PCB) materials and other potentially hazardous materials would be abated or removed in accordance with applicable local, state, and federal regulations.

#### *Parking Structure*

Grading for the parking structure area would include the removal of earth materials down to 48 feet below the existing ground surface, which is approximately the same depth as the existing basement floor level. The amount of earth materials anticipated to be exported from the Hall of Justice site would be approximately 60,000 cubic yards. The haul route to export materials would be developed in cooperation with City and County personnel, and is anticipated to run directly to the 101 Freeway. Approximately 65 truck trips per day are anticipated over a three-month period to export these materials. Grading would involve the use of standard earth moving equipment such as loaders, dozers and other related equipment. The work would be contained on site over the duration of the construction activities to prevent disruption to the surrounding land uses.

The typical hours of construction are anticipated to be from 7:00 AM to 7:00 PM Monday through Friday, except holidays.

#### **Construction Emissions**

Impact Sciences utilized the most current version of the URBEMIS air quality model (URBEMIS 2002 ) in order to forecast construction related air quality emissions under this alternative. Project specific construction information was utilized, where appropriate, into the URBEMIS air quality model in order to more accurately calculate the emissions associated with this alternative. The results of the air quality modeling are provided below in **Table 4.6-3, Estimated Construction Emissions**. As shown, emissions associated with three criteria pollutants, CO, PM<sub>10</sub> and SO<sub>2</sub>, would all be below the adopted threshold levels throughout the duration of construction activities. However, ROG and NO<sub>x</sub> emissions would exceed the adopted threshold established by the SCAQMD. As a result, construction air quality impacts would be significant.

It should be noted that this is a short-term impact that would no longer remain significant once all construction activities have been completed. While this short-term impact is considered significant under CEQA, it is not considered a significant regional impact under NEPA. According to NEPA Law and Litigation Section 8:49, temporary environmental effects, are not significant effects.

**Table 4.6-3  
Estimated Construction Emissions**

| Emissions Source      | Emissions in Pounds per Day |                 |        |                 |                  |
|-----------------------|-----------------------------|-----------------|--------|-----------------|------------------|
|                       | VOC                         | NO <sub>x</sub> | CO     | SO <sub>2</sub> | PM <sub>10</sub> |
| <b>2004</b>           |                             |                 |        |                 |                  |
| Demolition            | 16.97                       | 289.47          | 92.55  | 3.22            | 66.22            |
| Site Grading          | 0.00                        | 0.00            | 0.00   | 0.00            | 0.00             |
| Building Construction | 0.00                        | 0.00            | 0.00   | 0.00            | 0.00             |
| Net Emission Totals:  | 16.22                       | 289.47          | 92.55  | 3.22            | 66.22            |
| SCAQMD Threshold:     | 75.0                        | 100.0           | 550.0  | 150.0           | 150.0            |
| Exceeds Threshold?    | NO                          | YES             | NO     | NO              | NO               |
| <b>2005</b>           |                             |                 |        |                 |                  |
| Demolition            | 0.00                        | 0.00            | 0.00   | 0.00            | 0.00             |
| Site Grading          | 14.99                       | 128.35          | 109.65 | 0.38            | 37.05            |
| Building Construction | 20.70                       | 139.73          | 157.89 | 0.05            | 38.32            |
| Net Emission Totals:  | 35.69                       | 268.08          |        | 0.43            | 75.37            |
| SCAQMD Threshold:     | 75.0                        | 100.0           | 550.0  | 150.0           | 150.0            |
| Exceeds Threshold?    | NO                          | YES             | NO     | NO              | NO               |
| <b>2006</b>           |                             |                 |        |                 |                  |
| Demolition            | 0.00                        | 0.00            | 0.00   | 0.00            | 0.00             |
| Site Grading          | 0.00                        | 0.00            | 0.00   | 0.00            | 0.00             |
| Building Construction | 145.23                      | 77.68           | 97.28  | 0.00            | 3.72             |
| Net Emission Totals:  | 145.23                      | 77.68           | 97.28  | 0.00            | 3.72             |
| SCAQMD Threshold:     | 75.0                        | 100.0           | 550.0  | 150.0           | 150.0            |
| Exceeds Threshold?    | NO                          | NO              | NO     | NO              | NO               |

*Source: Impact Sciences, Inc., Emission calculations are provided in Appendix 4.6 Where project specific information was not available, default values incorporated into the model, and approved by the SCAQMD, were utilized.*

## **Operational**

Operational air quality impacts are divided into two sub-categories, Primary Effects and Additional Indicators of Potential Air Quality Impacts. Each is discussed in greater detail below.

### **Primary Effects**

As discussed earlier, the Hall of Justice currently occupies the project site. In 1994 there was approximately 537,585 gross square feet with 1,343 employees and 527 inmates on 14 above-grade floors and one basement level. After renovation under Alternative 2, the Hall of Justice will be 467,743 gross square feet with 325,000 usable square feet on 12 above-grade floors and one basement level, with two of the original interior floors removed. Since the time the building was deemed unsafe, the employee

vehicle trips that otherwise would arrive at and depart from the Hall of Justice, were rerouted to other usable office space in the region. Consequently, trips associated with the original Hall of Justice tenant mix were never removed from the circulation network. As a result, the project traffic study accounted for traffic generation discounts that were applied for the previous occupancy of the building for Alternative 2. Once renovated and fully occupied, Alternative 2 would generate approximately 1,052 net new daily trips.

As was done to forecast construction emissions, Impact Sciences utilized the URBEMIS 2002 air quality computer model to forecast operational air quality emissions. Project specific information such as the project trip generation rate, the renovated square footage and the environment in which the project is located, was utilized, where appropriate, into the URBEMIS air quality model to accurately calculate emissions associated with this alternative. The results of the air quality modeling are provided below in **Table 4.6-4, Operational Emissions**. As shown, none of the five criteria pollutants would exceed the adopted SCAQMD operational thresholds under this alternative. Therefore, under this alternative, primary effects would be less than significant.

**Table 4.6-4  
Operational Emissions**

| <b>Emissions Source</b>      | <b>ROG</b> | <b>NO<sub>x</sub></b> | <b>CO</b> | <b>PM<sub>10</sub></b> | <b>SO<sub>x</sub></b> |
|------------------------------|------------|-----------------------|-----------|------------------------|-----------------------|
| Calculated Emissions         |            |                       |           |                        |                       |
| Vehicular Sources            | 15.24      | 12.19                 | 133.65    | 9.55                   | 0.10                  |
| Stationary Area Sources      | 0.24       | 2.12                  | 1.43      | 0.01                   | 0.00                  |
| Total Operational Emissions: | 15/48      | 14.31                 | 135.65    | 9.56                   | 0.10                  |
| SCAQMD Threshold:            | 75.00      | 100.00                | 550.00    | 150.00                 | 150.00                |
| Exceeds Threshold?           | NO         | NO                    | NO        | NO                     | NO                    |

*The URBEMIS 2002 air quality model developed by the California Air Resources Board was used to calculate mobile emissions. Where project specific information was not available, default values incorporated into the model, and approved by the SCAQMD, were utilized.*

#### **Additional Indicators of Potential Air Quality Impacts**

As previously discussed, if this alternative meets any one of the following SCAQMD indicators of potential air quality impacts, project air quality impacts would be significant relative to that indicator.

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

Upon completion, this alternative would not generate air emissions that exceed the SCAQMD thresholds of significance. As a result, this alternative would not interfere with federal or state ambient air quality

goals, nor would it contribute to an existing or projected air quality violation. The project would not result in a significant impact relative to this criterion.

- Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

This alternative would not result in any population increases, either directly or indirectly. This alternative would not result in a significant impact relative to this criterion.

- Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot.

As discussed earlier in this section, intersection level of service at each of the studied intersections is at acceptable levels. Therefore, traffic volumes at the intersections are such that none would result in a carbon monoxide hotspot. Additionally, this alternative would not introduce any sensitive receptors to a hotspot. As a result, this alternative would not result in a significant air quality impact relative to this criterion.

- Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Development and operation under this alternative would not produce objectionable odors that could impact on-site or nearby sensitive receptors. Operations and maintenance of the building would require various chemicals for cleaning and maintaining the building and surrounding areas within the site. However, the chemicals would be stored and used in accordance with the manufacturers' specifications as well as federal, state, and local requirements and do not represent a significant source of odors. Therefore, this alternative would not result in a significant impact relative to this criterion.

- Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;
- Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;
- Project could be occupied by sensitive receptors within one-quarter mile of an existing facility that emits air toxins identified in SCAQMD Rule 1401.

Operations and maintenance of the building would require various chemicals for cleaning and maintaining the building and surrounding areas within the site. Chemicals would be used in accordance with Best Management Practices (BMPs) to minimize use and waste. Additionally, all chemicals used for operational and maintenance purposes would be similar to those used for other buildings that exhibit

similar characteristics. Given that the Hall of Justice is planned for use as leaseable office space, the future use would not warrant the use or storage of hazardous chemicals. Therefore, this alternative would not result in a significant impact relative to these criteria.

- Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of one in one million.

Diesel particulate has been identified by the California Air Resources Board as a toxic air contaminant. Diesel particulate emissions related to project construction would be primarily related to heavy-duty vehicle operations and other construction equipment during the grading, earthmoving and excavation phases. The health effects of diesel particulate on residential receptors are typically assessed over a 70-year period (SCAQMD Rules 1401 and 211, and Proposition 65). Given that the construction period would occur over an approximately 2-year period and the lack of sensitive receptor in the project vicinity, diesel particulate emissions associated with heavy-duty vehicle operations would not pose a significant health risk. Impacts are considered to be less than significant.

### **Alternative 3 – Adaptive Reuse of Existing Building to Secretary of Interior Standards**

#### ***Construction***

This alternative would include rehabilitation of the Hall of Justice per the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. In other words, all historic features and elements of the building would remain entirely intact under this alternative. Alternative 3 would include the rehabilitation of the interior of the Hall of Justice building to provide approximately 325,000 square feet of useable "Class A" office space, Alternative 3 would also include development of a new multi-level garage with 1,000 parking spaces; landscape and hardscape improvements, architectural and security lighting; and necessary upgrades to utility system.

#### **Building Modifications and Improvements**

There are three primary phases associated with the construction schedule for the Hall of Justice under this alternative including exterior work, interior work, as well as construction of an on-site parking structure.

*Exterior*

Exterior construction and cleaning activities under this alternative would be the same as described under Alternative 2.

*Interior*

Some existing building materials would be removed, primarily from the interior of the structure. This would include the removal of both non-hazardous and hazardous materials. Prior to the removal activities, all asbestos-containing materials (ACM), lead-based paint (LBP), polychlorinated biphenyl (PCB) materials and other potentially hazardous materials would be abated or removed in accordance with applicable local, state, and federal regulations.

*Parking Structure*

Parking structure construction under this alternative would be the same as described for Alternative 2.

**Construction Emissions**

Construction emissions associated with this alternative would be the same as described under Alternative 2 on a daily basis but would be less on an overall basis. This is due to the shorter construction schedule associated with this alternative. Nonetheless, the amount of construction emissions associated with this alternative would remain significant with respect to ROG and NO<sub>x</sub> emissions.

It should be noted that this is a short-term impact that would no longer remain significant once all construction activities have been completed. While this short-term impact is considered significant under CEQA, it is not considered a significant regional impact under NEPA. According to NEPA Law and Litigation Section 8:49, temporary environmental effects, including disruption due to construction activities, are not significant effects.

*Operational*

**Primary Effects**

As discussed earlier, the Hall of Justice currently occupies the project site. In 1994 there was approximately 537,585 gross square feet with 1,343 employees and 527 inmates on 14 above-grade floors

and one basement level. After renovation under Alternative 3, the Hall of Justice will be 537,585 gross square feet with approximately 199,132 usable square feet on 14 above-grade floors and one basement level. Under Alternative 3, the Hall of Justice would be occupied with approximately the same amount of full-time employees (1,350), as under the 1994 conditions. Because Alternative 3 would be occupied with the same amount of employees this alternative would not result in a net increase in daily traffic. As this alternative would not result in a net increase in vehicle trips, air quality emissions associated with this alternative would be negligible. It should be noted that, as stated earlier, the vehicular air quality emissions associated with the 1,350 employees already exists in the region and to quantify those emissions as a result of this alternative would be double counting. Therefore, under this alternative, primary effects would be less than significant.

#### **Additional Indicators of Potential Air Quality Impacts**

As previously discussed, if this alternative meets any one of the following SCAQMD indicators of potential air quality impacts, project air quality impacts would be significant relative to that indicator.

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

Upon completion, this alternative would not generate air emissions that exceed the SCAQMD thresholds of significance. As a result, this alternative would not interfere with federal or state ambient air quality goals, nor would it contribute to an existing or projected air quality violation. The project would not result in a significant impact relative to this criterion.

- Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

This alternative would not result in any population increases, either directly or indirectly. This alternative would not result in a significant impact relative to this criterion.

- Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot.

As discussed earlier in this section, intersection level of service at each of the studied intersections is at acceptable levels. Therefore, traffic volumes at the intersections are such that none would result in a carbon monoxide hotspot. Additionally, this alternative would not introduce any sensitive receptors to a



hotspot. As a result, this alternative would not result in a significant air quality impact relative to this criterion.

- Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Development and operation under this alternative would not produce objectionable odors that could impact on-site or nearby sensitive receptors. Operations and maintenance of the building would require various chemicals for cleaning and maintaining the building and surrounding areas within the site. However, the chemicals would be stored and used in accordance with the manufacturers' specifications as well as federal, state, and local requirements and do not represent a significant source of odors. Therefore, this alternative would not result in a significant impact relative to this criterion.

- Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;
- Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list;
- Project could be occupied by sensitive receptors within one-quarter mile of an existing facility that emits air toxins identified in SCAQMD Rule 1401.

Operations and maintenance of the building would require various chemicals for cleaning and maintaining the building and surrounding areas within the site. Chemicals would be used in accordance with Best Management Practices (BMPs) to minimize use and waste. Additionally, all chemicals used for operational and maintenance purposes would be similar to those used for other buildings that exhibit similar characteristics. Given that the Hall of Justice is planned for use as leaseable office space, the future use would not warrant the use or storage of hazardous chemicals. Therefore, this alternative would not result in a significant impact relative to these criteria.

- Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of one in one million.

Diesel particulate has been identified by the California Air Resources Board as a toxic air contaminant. Diesel particulate emissions related to project construction would be primarily related to heavy-duty vehicle operations and other construction equipment during the grading, earthmoving and excavation phases. The health effects of diesel particulate on residential receptors are typically assessed over a 70-year period (SCAQMD Rules 1401 and 211, and Proposition 65). Given that the construction period would occur over an approximately 2-year period and the lack of sensitive receptor in the project vicinity,

diesel particulate emissions associated with heavy-duty vehicle operations would not pose a significant health risk. Impacts are considered to be less than significant.

#### 4.6.4 MITIGATION MEASURES (ALTERNATIVES 2 AND 3)

In order to ensure that construction emissions are reduced to the greatest extent feasible, the following measures are required for both Alternative 2 and 3:

**AQ-1** The project will implement dust control measures consistent with SCAQMD Rule 403 - Fugitive Dust during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation:

- Apply water and/or approved nontoxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas that have been inactive for 10 or more days).
- Replace ground cover in disturbed areas as quickly as possible.
- Enclose, cover, water twice daily, or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content.
- Water active grading sites at least twice daily during construction activities.
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.
- Sweep streets at the end of the day if visible soil material is carried over to adjacent roads.
- Install wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.

- Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads.

AQ-2 The project contractor shall require, by contract specifications, that construction equipment engines will be maintained in good condition and in proper tune per manufacturer's specification for the duration of construction.

AQ-3 The project contractor shall require, by contract specifications, that construction operations where feasible rely on the project site's existing electricity infrastructure rather than electrical generators powered by internal combustion engines.

AQ-4 The project contractor shall require, by contract specifications, that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, be turned off when not in use for more than five minutes.

AQ-5 The project contractor shall encourage contractors to utilize alternative-fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) and low-emission diesel construction equipment, to the extent that such equipment is reasonably available and cost effective.

#### **4.6.5 ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 AND 3)**

Emissions associated with ROG and NO<sub>x</sub> emissions under both Alternatives 2 and 3, even after the implementation of mitigation measures, would exceed the adopted threshold established by the SCAQMD. Short-term construction air quality impacts would be unavoidably significant under CEQA. However, while this short-term impact is considered significant under CEQA regulations, it is not considered a significant regional impact under NEPA. According to NEPA Law and Litigation Section 8:49, temporary environmental effects. Long-term operational emission impacts would be less than significant.

