

3.6 HAZARDS AND HAZARDOUS MATERIALS

3.6.1 Introduction

This section evaluates potential environmental impacts on human health and the environment due to exposure to hazards or hazardous materials that could be encountered as a result of implementation of the Rose Bowl Stadium Renovation Project (proposed project). Issues analyzed within this section include those associated with the routine transport, use, or disposal of hazardous materials; the potential release of hazardous materials into the environment; the potential to emit hazardous emissions or handle hazardous materials within one-quarter mile of a school; safety hazards within the vicinity of a private airstrip; interference with an emergency evacuation plan; and the potential exposure to wildland fires.

The project site is not located on a site listed as hazardous pursuant to Government Code Section 65962.5, nor is the project site located within two miles of a public airport. As discussed in the Initial Study (Appendix A), these issue areas were determined to result in ‘no impact’, and are not discussed further in this Draft SEIR.

Data used to prepare this section were taken from previous environmental documentation prepared for the project area, including the Arroyo Seco Master Plan Master EIR. In addition, other Pasadena data sources, such as the Safety and Noise Elements of the City’s General Plan, and the Rose Bowl Emergency Plan were used. The baseline condition in June 2007 does not differ from the baseline conditions identified in the FEIR.

3.6.2 Environmental Setting

Consistent with Pasadena’s Safety Element of the General Plan, this Draft SEIR uses three main sources of information on hazardous materials management as they pertain to the City, which include (1) the Environmental Protection Agency (EPA), (2) the California Department of Health Services (DHS), and (3) the City of Pasadena Fire Department.

The EPA defines a hazardous waste as a substance that (1) may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible illness and (2) that poses a substantial present or potential future hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed. Hazardous waste is also ignitable, corrosive, or reactive (explosive) (U.S. EPA 40 260.10). A material that contains defined amounts of toxic chemicals may also be classified as a hazardous material. The EPA has also developed a list of specific hazardous wastes that are in the form of solids, semi-solids, liquids, and gases.

California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive, and corrosive. California also defines an extremely hazardous material as a substance that shows high acute or chronic toxicity, carcinogenicity (causes cancer), bioaccumulative properties (accumulates in the body’s tissues), persistence in the environment, or is water active.

Hazardous materials are extensively regulated by federal, state, and City laws, and new regulations are constantly being developed as more is learned about the impact these substances have on human health and the environment. The Rose Bowl stadium maintains supplies that are listed in their hazardous materials inventories on file with the Pasadena Fire Department; no unauthorized releases of hazardous materials have been reported (Arroyo Seco Master Plan EIR 2002). The remainder of the setting text of the FEIR (pages 3.6-1 through 3.6-6) is incorporated by reference herein as though fully set forth.

3.6.3 Regulatory Context

The regulatory context with regard to handling, disposal, transport, and use of hazardous waste as well as other safety hazards remains essentially unchanged from that described on pages 3.6-6 through 3.6-13 of the FEIR. That text is incorporated by reference herein as though fully set forth.

3.6.4 Methodology

For purposes of this analysis, the typical use of hazardous materials and their effects were qualitatively assessed through review and evaluation of available documents that identified potential contaminants and hazardous materials uses within the project site, such as the Arroyo Seco Master Plan Mater EIR. In determining the level of significance, the analysis assumes that construction and operation of the proposed project would comply with relevant federal and state laws and regulations, as well as City General Plan policies and ordinances.

3.6.5 Thresholds of Significance

The FEIR indicated that a significant impact on hazards and hazardous materials would occur if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

3.6.6 Revised Project Impacts and Mitigation Measures

The Initial Study indicated that there are no airports within 2 miles of the project site, and the project site is not located on a site listed as hazardous pursuant to Government Code Section 65962.5. Thus, these are considered Effects Not Found to Be Significant, and are not further discussed in this Draft SEIR.

Threshold	Would the revised project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Threshold	Would the revised project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Impact 3.6-1 **The revised project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. This is a *less-than-significant* impact.**

Due to the age of the Rose Bowl, some components could contain hazardous materials that may require special handling. Such materials include, lead, asbestos, polychlorinated biphenyls (PCBs), or other hazardous substances.

Exposure of construction workers or Rose Bowl employees and visitors to hazardous materials could occur in the following manner: improper handling or use of hazardous materials or hazardous wastes during construction or operation of the project, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. Construction workers and attendees could be exposed to hazards associated with accidental releases of hazardous materials, which could result in adverse health effects. The types and amounts of hazardous materials would vary according to the nature of the activity. In some cases, it is the type of hazardous material that is potentially hazardous; in others, it is the amount of hazardous material that could present a hazard.

Hazardous materials regulations, which are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the *Health and Safety Code*, were established at the state level to ensure compliance with federal regulations to reduce the risk to the human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the State (e.g., OSHA in the workplace or

DTSC for hazardous waste) and/or local jurisdictions (e.g., the Pasadena Fire Department). For example, commercial uses handling or storing certain amounts of hazardous materials would prepare a Hazardous Materials Business Plan (HMBP) consistent with the *Hazardous Materials Management Act* (HMMA), which includes an inventory of hazardous materials stored on-site, an emergency response plan, and an employee training program. Compliance with applicable federal and state laws and regulations that are administered and enforced by the Pasadena Fire Department standards would reduce impacts associated with the routine use, storage, and transportation of hazardous materials at the proposed project to a less-than-significant level.

As noted in the FEIR, there are no sites in or adjacent to the project area listed as handling or using hazardous materials. Construction workers involved in demolition activities could also come into contact with fixtures containing PCBs or other hazardous materials. In addition to human contact, improper removal of these substances could result in accidental releases that could contaminate soil or result in improper disposal. Various state and federal regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities. These requirements include SCAQMD Rules and Regulations pertaining to asbestos abatement, Title 8 of the *California Code of Regulations* pertaining to lead and asbestos, the *Code of Federal Regulations* pertaining to asbestos, and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development (HUD). PCBs are regulated under the federal *Toxic Substances Control Act*, and any PCB-containing materials must be disposed of as hazardous waste. In California, asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, the California Occupational Safety and Health Administration (Cal/OSHA) has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

The rules and regulations noted above would be followed during construction activities. Compliance with these regulations and would ensure that construction workers and the general public would not be exposed to any unusual or excessive risks related to hazardous materials during construction activities. As such, impacts associated with the exposure of construction workers and the public to hazardous materials during demolition activities would be less than significant. Because less construction would occur under the revised project than under the original project, the impact of the revised project would similarly be less than significant. Under Option B, the widening of the tunnels and construction of an internal concourse would not expose construction workers to any greater health risks than the original project, because greater excavation under the revised project would be balanced by less overall construction. Compliance with all applicable codes and regulations would ensure this impact would be *less than significant*.

Threshold	Would the revised project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?
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Impact 3.6-2 **The revised project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. This impact is *less than significant*.**

Currently, the project site is used as a recreational stadium for large events, which does not entail the use of hazardous materials, aside from those general maintenance products as described above in Impact 3.6-1. Chandler School, which is an independent kindergarten through eighth grade school, is located within ¼ mile of the project site. However, the Rose Bowl stadium has operated on the project site, within ¼ mile of the Chandler School, since the school was founded in 1950, and the proposed project would generally represent the continuation of an existing condition. Renovation of the Rose Bowl stadium to include additional square footage, reduced seating capacity, and reinforcement of the exterior structure would not introduce new hazardous materials not previously identified and analyzed in the FEIR. No significant hazardous materials (e.g., paints, solvents, cleaning products, pesticides, and herbicides) are used on the site and no significant increase in the use of these materials would occur with implementation of the proposed project; the renovation would not introduce additional types of hazardous materials that are not currently used on the project site.

No hazardous emissions would result from implementation of the proposed project. Compliance with applicable regulations and policies would minimize any potential risk associated with the increased use of hazardous materials under the construction and operation of the proposed project. This would ensure that implementation of the proposed project would not significantly increase the possibility of exposure to persons on or off site to hazardous materials or emissions, and no significant new hazard would be posed to the students and faculty of nearby school facilities. This impact would, therefore, be considered *less than significant*.

Threshold	Would the revised project result in a safety hazard for people residing or working in the project area?
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Impact 3.6-3 **Construction and operation of the revised project would not expose workers and visitors to a safety hazard from helipad operations. This impact is *less than significant*.**

As discussed previously, both the Los Angeles County Fire Department and Pasadena Police Department operate a helipad near the Hahamongna Watershed Park, which is located north of the Rose Bowl. During construction activities, workers could be exposed to a safety hazard from helipad operations. In addition, during project operation, the increase in event attendees would place additional people at risk to this existing safety hazard. However, any potential safety hazard to existing area residents from helipad operations would otherwise remain unchanged from current conditions, as the proposed project would not increase the frequency of or alter helipad operations.

Flight operations present a risk of accident to construction workers and stadium visitors from crash or emergency landings. As discussed previously, helipad operations at both facilities occur intermittently throughout the day and night, averaging between four and ten. For over thirty-five years, the optimum level of aviation safety and security has been assured over major sporting events held at the Rose Bowl. The Pasadena Police Department Air Operations Section and the Federal Aviation Administration (FAA) work together to create a management plan for the airspace that accommodates the needs of most of the people involved in these major Rose Bowl events (Pasadena Police Department 2005).

Meetings are held with the various users of the airspace, including media, and commercial operators to work out operational concerns and noise sensitivity issues. Typically, the Police Department assigns altitudes to the aircraft involved; law enforcement at 2,000 feet, and news media at 2,500 feet. This allows for a safe separation of aircraft that have a different mission and lowers the impact on the surrounding neighborhoods. Once appropriate restrictions are agreed upon and a management plan is implemented, the Pasadena Police Air Operations Section assumes the responsibility of safety, security, and enforcement for the event.

The likelihood of an accident occurring at the same time as a Rose Bowl event is considered remote. Given that the helicopter operations currently exist and would not increase with implementation of the proposed project, it is anticipated that the helipads would not pose safety hazards to construction workers or visitors. In addition, both the County Fire Department and Pasadena Police Department will continue to comply with all regulations promulgated by the Federal Aviation Administration (FAA) for aircraft safety, which will further reduce potential safety hazards from emergency helicopter operations by using the flight path least impacting substantial concentrations of people, whenever feasible.

While the proposed project could result in an increase in event attendees, thus exposing more persons to potential safety risks posed by helipad operations, the infrequency of helicopter arrivals and departures, along with the low rate of helicopter accidents nationwide and compliance with all FAA regulations related to aircraft and pilot safety, such as pilot training, aircraft inspection and certification, and air traffic control, would ensure that this impact is *less than significant*.

Threshold	Would the revised project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
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Impact 3.6-4 Implementation of the revised project would not interfere with response and/or evacuation requirements in the case of an emergency. This impact is *less than significant*.

As required by law, the proposed project would continue to provide adequate access for emergency vehicles and appropriate evacuation routes, as well as regulate the storage of flammable and explosive materials and their transport within the project area. Additionally, the proposed project would comply with applicable *Uniform Fire Code* regulations for issues including fire protection systems and equipment, general safety precautions, water supplies and distances from structures to fire hydrants. Further, the proposed project would be required to provide sufficient water pressure and fire flows for the project area, as described in Section 3.10 (Public Services).

If a large accident or natural disaster were to occur during an event, up to 75,000 event attendees could be present. Similar to existing conditions, the substantial concentration of people would result in a risk of accidents or conditions requiring police, fire, and/or medical emergency response services, as compared to times when there are no events. Such a situation could result in the need to methodically and expeditiously evacuate people from the premises and/or provide emergency medical care. Any evacuation process would need to occur in an orderly departure onto the nearby pedestrian and roadway network. If on-site emergency personnel require additional support from off-site emergency personnel, congestion on the surrounding roadway network could cause delays in emergency response or other logistical problems. This would be of particular concern immediately prior to and after event(s) when vehicles are queued on local streets. The pedestrian circulation system could be overwhelmed. Event-related congestion on local roadways could also impede emergency response to other locations not associated with the proposed project.

However, the City has prepared an Emergency Plan for the Rose Bowl (1998), which is designed to provide specific guidelines in the event of a major emergency at the stadium during which it is occupied. It is designed to be general in content to allow operational flexibility by command personnel in the various scenarios, which could present themselves. The plan identifies the key responsibilities of various departments and agencies and the location of key operational areas. The Emergency Plan identifies a range of issues including operational procedures such as staging areas, medical operations, and access routes; pre-evacuation procedures and associated responsibilities; mass casualty incident procedures; bomb threats; dam failures; and emergency traffic management.

During construction of the proposed project, temporary road or lane closures, which could potentially block emergency access and/or evacuation routes, are not anticipated to occur. The proposed project site is located within an urbanized area in the Central Arroyo Seco in the City of Pasadena and multiple access points are available. Major access to the site includes Orange Grove Boulevard, Rosemont Avenue, Seco Street, and Interstate 210. The presence of multiple alternative routes around the project site minimizes the potential for interference with emergency routes during construction. It should be noted that a part of Rose Bowl Drive (a dead-end street) will be modified on its west side and will be used for construction staging. However, because construction staging and improvements would occur off-street, this would not result in alteration to existing access roads.

Consequently, because no major streets with through traffic road closures are anticipated during construction activities, coupled with adherence to the existing Emergency Plan for the Rose Bowl, implementation of the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. This impact is considered less than significant, and no mitigation is required. In fact, the proposed renovations to the Rose Bowl would improve emergency evacuation and response capabilities. The existing structure would be brought to current Building Code standards for access, exit, and disability requirements. The proposed revised project would result in a beneficial impact on evacuation and response capabilities by improving circulation inside the bowl and ingress/egress, which is currently operating at only 54 percent capacity. These improvements represent a *beneficial* impact of the project.

Threshold	Would the revised project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
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Impact 3.6-5 Operation of the revised project would not expose people to a significant risk of loss, injury, or death involving wildland fires. This impact is *less than significant*.

The Rose Bowl is located in an urbanized area within the central portion of the Arroyo Seco. No wildlands are located in the immediate project vicinity, and the entire Central Arroyo is located within a low wildland fire hazard area (Safety Element TBR 2002). However, the San Rafael Hills surround the Central Arroyo to the south and west, which contain large areas of native chaparral and other vegetation. Therefore, the surrounding areas are considered a high-risk fire zone.

As the project site is currently developed and wildlands are not directly adjacent to the project site, construction-related impacts associated with wildland fires are considered minimal. Specifically, overgrown and untended vegetation would not be present in or near the construction areas and would not be ignited by a spark or heat-related incident due to the operation of construction equipment.

Implementation of the revised project would reduce the number of seats by up to 10,000. Therefore, implementation of the project would not place additional people at risk of loss, injury, or death as a result of wildland fires. However, although the Rose Bowl is within a low fire hazard severity zone, the proposed project would be subject to existing fuel modification guidelines, which would substantially minimize the potential for both on-site and off-site fires to impact the project property. Continued compliance with these guidelines greatly reduces the movement of a potential fire to the project site. Thus, considering the project site is located in a low wildfire hazard zone, coupled with the fact that renovation activities would not materially increase the risk of wildland fire and would improve evacuation capabilities in the event of such a fire, impacts are considered *less than significant*.

3.6.7 Cumulative Impacts

A cumulative impact analysis is only provided for those thresholds that result in a less-than-significant or significant and unavoidable impact. A cumulative impact analysis is not provided for those thresholds where there are no project-related impacts.

This cumulative impact analysis considers development of the proposed project, in conjunction with other development within the vicinity of the project in the City of Pasadena. Risks associated with hazardous materials are largely site specific and localized, and are thus limited to the project site. Additionally, site-specific investigations would be conducted at sites where contaminated soils or groundwater could occur to minimize the exposure of workers to hazardous substances. As such, the potential for cumulative impacts to occur is limited. The cumulative analysis that follows is based on the related projects list contained in Table 2-2 in Chapter 2 (Description of the Revised Project). The geographic context for the discussion of cumulative impacts includes the City of Pasadena

Cumulative project development in the City of Pasadena includes a variety of uses, such as office, retail, and residential. Future development could result in the use, storage, and transport of hazardous materials. Development of related projects could also result in the exposure of construction workers to potentially hazardous materials, due to the previous use of the site. If demolition of existing buildings is required, short-term increases in hazardous materials generation, due to the presence of lead-based paints and asbestos-containing materials in existing facilities could also occur. However, compliance with applicable federal, state, and local regulations would occur, which would ensure that the routine transport, use, or disposal of hazardous materials would not result in adverse impacts. All demolition activities that would involve asbestos or lead-based paint would occur in compliance with SCAQMD Rule 1403 and OSHA Construction Safety Orders that would ensure hazardous materials impacts would be less than significant. Additionally, site-specific investigations would be conducted at sites where contaminated soils or groundwater could occur to minimize the exposure of workers to hazardous substances. With adherence to applicable federal, state, and local regulations governing hazards and hazardous materials, and since project implementation would not result in any significant impacts, cumulative impacts would be less than significant. Further, although future development could bring additional persons to the area, the risk of accident presented by flight operations at the helipad would remain as under current conditions and have been identified as less than significant. Consequently, because the risk of accident presented by flight operations at the helipad would be extremely remote, this is considered to be a less-than-significant cumulative impact.

3.6.8 Conclusion

The hazards and hazardous materials impact of the revised project would not result in new or significant impacts or a substantial increase in the severity of previously identified significant impacts. The revised project would result in new development that would improve the emergency exit capability of the stadium and result in a beneficial impact. There were no mitigation measures required under the FEIR and no additional mitigation measures would be required for the revised project plan.

