5.5 - HAZARDS

5.5.1 - Introduction

Information in this section is based upon the following documents and correspondence received on the Notice of Preparation:

- Phase I Environmental Site Assessment, June 2003, RM Environmental. The complete report is contained in Appendix D of the Technical Appendices of the DEIR.
- Phase II Environmental Site Investigation, August 2003, RM Environmental. The complete report is contained in Appendix D of the Technical Appendices of the DEIR.
- Geotechnical Report, June 2004, Leighton Consulting, Inc. The complete report is contained in Appendix C of the Technical Appendices of the DEIR.
- NMC Final EIR, City of Ontario, October 1997. This document is incorporated by reference.
- 1992 General Plan, City of Ontario, September 1992. This document is incorporated by reference.
- Letter from the State of California, Department of Toxic Substances Control, June 2004. This letter is contained in Appendix A of the Technical Appendices.

The NMC Final EIR identified that hazardous materials and hazardous waste generation are primarily associated with fuels such as gasoline, diesel, and heating oil, and pesticides, and identified a number of recorded sites. The NMC Final EIR concluded that potential impacts regarding hazardous waste sites within the NMC would become fully known when individual subareas are developed through the preparation of Phase I Environmental Site Assessments and, if applicable, the preparation of Phase II Environmental Site Investigations.

In addition, the NMC Final EIR referenced the likelihood that buildings located within the NMC would contain asbestos and lead-based paints, if constructed prior to 1979 and concluded that lead-based paint and asbestos surveys would be required prior to demolition.

Preparation of this section of the DEIR conforms to the recommendations contained in the NMC Final EIR and evaluates additional information specific to the project site that may not have been included in the broad, program-level evaluation of the NMC Final EIR.

5.5.2 - Existing Conditions

The Phase I Environmental Site Assessment (ESA) and Phase II Environmental Site Investigation (ESI) focused on the western portion of the project site occupied by the dairy because this property offered the most potential for hazardous material and/or petroleum contamination, and because planned search of databases of varying radii up to 1 mile would include the remainder of the project site area to the east not developed with dairy-related uses. Conclusions and recommendations from the Phase I ESA and the Phase II ESI of the dairy property for the west half of the project site do not necessarily provide significant information regarding potential hazardous material contamination on the balance of the project site.

Hazardous Materials and Risk of Upset

The presence of suspected or known hazardous waste contamination sites within the project site and immediate vicinity was determined through the aforementioned Phase I ESA and the Phase II ESI performed by RM Environmental in 2003, and included a computerized database search of various governmental agency lists. The State CEQA Guidelines requires a lead agency to consult the lists of hazardous waste sites compiled by various state agencies (Cal EPA, the Department of Health Services, the State Water Resources Control Board, and the California Integrated Waste Management Board) pursuant to Governmental Code Section 65962.5 (California Public Resources Section 21092.6). The database search included review of all of the required state lists and a search of various federal (U.S. EPA) and local (San Bernardino County Fire Department) hazardous waste site lists.

RM Environmental observed the following environmental concerns during preparation of the Phase I ESA for the dairy property:

- In the area of the machine shop in the north central portion of the dairy property, there were: (1) One 6,000 gallon diesel above ground storage tank (AST); (2) One 500 gallon waste oil AST; (3) One 4,000 gallon mobile diesel AST; (4) One 500 gallon diesel AST; (5) One former 1,000 gallon gasoline/diesel underground storage tank (UST) location; and (6) Several 5 to 55 gallon waste oil containers. The UST was reportedly removed in 1983. Surficial hydrocarbon soil staining was observed in the area of the waste oil and diesel above ground storage tanks (ASTs).
- A manure pond, approximately 200 feet x 750 feet in size and 10 feet deep, exists in the south portion of the dairy property. This pond is used for collection of cow wash water and cow manure generated by dairy operations. The manure from the pond is periodically pumped onto the open space areas within the dairy property. Based on an aerial photo review of the dairy property, the pond was installed between 1978 and 1988.

Prior to establishment of the dairy operation in 1978, the property was used for farming.

In preparation of the Phase I ESA, the following databases were searched:

- NPL - National Priority List;
- CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Information System;
- RCRIS-TSD - Resource Conservation and Recovery Information System;
- ERNS- Emergency Response Notification System;
- AWP - Annual Workplan Sites; Cal-Sites - Calsites Database;
- CHMIRS - California Hazardous Material Incident Reporting System;
- Notify 65 - Proposition 65 Records; LUST - Leaking Underground Storage Tank Information System;
- WMUDS/SWAT - Waste Management Unit Database;
- UST - Underground Storage Tank;
- AST- Aboveground Petroleum Storage Tank Facilities;
- VCP - Voluntary Cleanup Program Properties;
- CA FID UST - Facility Inventory Database;
- HIST UST - Hazardous Substance Storage Container Database;
- CA SLIC - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing; and
- DEHS Permit System - San Bernardino County Fire Department Hazardous Materials Division.

Information obtained by the data base search and RM Environmental's governmental agency review indicated the following results:

- The dairy property has never been cited or known to have been involved with hazardous waste and/or petroleum generation, storage, treatment, or disposal;
- No federal NPL, proposed NPL, CERCLIS, RCRIS-TSD, or ERNS facilities are located within 1 mile of the dairy property;
- There are no State/County landfill and/or solid waste disposal sites within ¼ mile of the dairy property;

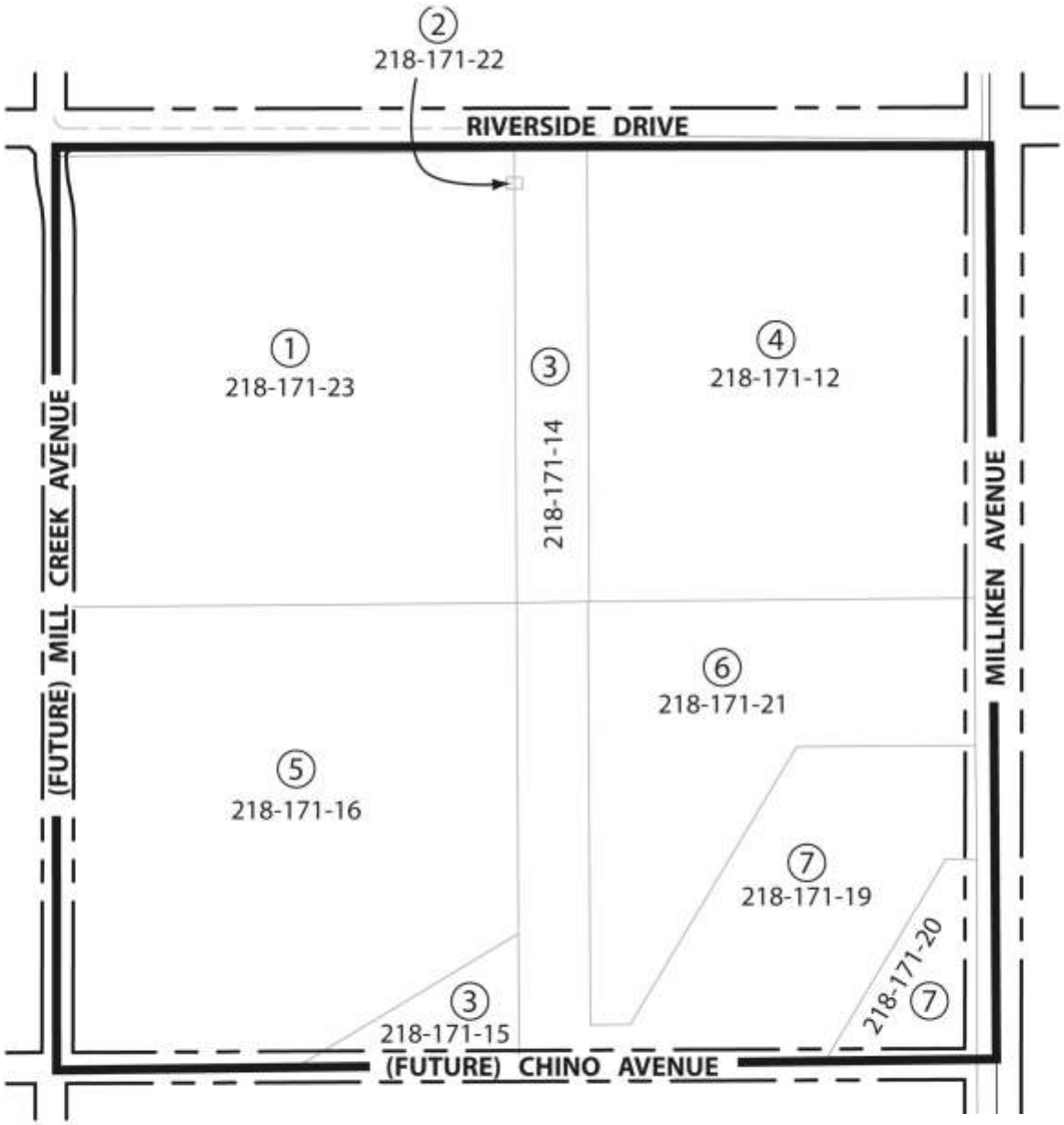
- No known AWP, Cal-sites, CHMIIRS, Notify 65, LUST, toxic pits, state landfills, WMUDS/SWAT, CA Bond Expenditure Plan, UST, AST, VCP, Indian UST, CA FID UST< HIST UST, and CA SLIC sites are within ½ mile of the dairy property;
- No known oil or gas wells are on record on or within 1 mile of the dairy property;
- There are no HAZNET sites within 1/8 mile of the dairy property;
- There is one DEHS hazmat handler permit site within ¼ mile of the dairy property. This was the west adjacent site located at 10601 Riverside Drive. The subject site address is 11011 Riverside Drive. The hazmat handler permit was for agricultural usage which expired in 1991. The west adjacent site is currently a public High School.

The Phase I ESA for the dairy property offered the following conclusions (see Exhibit 5.5-1):

- There is a potential for hydrocarbon contamination in the area of a machine shop in APN 218-171-023;
- There is a potential for residual pesticide contamination due to past farming activities in APNs 218-171-016 and 218-171-023;
- There is a potential for heavy metal contamination and methane gas accumulation in the manure pond area located in APN 218-171-016;
- The potential for asbestos containing materials on the dairy property is low because the existing buildings were constructed following 1978;
- No known polychlorinated biphenyl (PCB)-containing transformers are located on the site; and
- The dairy property is located within Federal EPA Radon Zone 2, a mid-level ranking equivalent to average indoor radon levels between 2 pCi/L (pico curies per liter) and 4 pCi/L.

Based on the findings of the Phase I ESA described previously, a Phase II ESI was recommended for the dairy property, to include the following recommended investigations:

- The area of the former and existing hydrocarbon storage tanks on the dairy property should be investigated to evaluate the presence of hydrocarbon impacted soils and potential groundwater contamination;
- The cow manure pond area in the south portion of the dairy property should be investigated for potential heavy metals and methane accumulation; and
- The potential for residual pesticide contamination should be evaluated due to the past farming activities within the dairy property.



NORTH

NOT TO SCALE

Michael Brandman Associates

Exhibit 5.5-1
Existing Property Ownership

A Phase II ESI, subsequently conducted by RM Environmental for the dairy property in 2003, involving exploratory borings and soil sampling and yielded the following results:

- The potential is low for significant hydrocarbon contamination in the area of the petroleum ASTs, former UST, and waste oil containers in the machine shop area of APN 218-171-023;
- No toxic chemical contamination was identified for the cow manure pond located in APN 218-171-016; and
- No detected residual pesticide and/or PCB contamination were identified for the dairy property.

No additional investigation of the dairy property was recommended.

Other Risk Management Issues

Additional hazards that potentially affect the project site include vector control issues associated with existing dairy operations, and electromagnetic fields associated with electrical lines crossing the project site. These conditions are discussed below.

Vector Control. The project site is contained within the historic San Bernardino Agricultural Preserve, which has been home to one of the largest dairy cattle populations in the world. The combined dairy operations in this area have resulted in the generation of millions of tons of manure each year. It is estimated that there is 2 million tons of manure stockpiled within that area (Santa Ana River Watershed Group 1999). As a result of the stockpiling of manure, there has been an increase in the fly population. To control the increasing fly population, chemical treatments are typically used. The West Valley Mosquito and Vector Control District promotes the practice of routine application of adulticiding chemicals, in the absence of the ability to practice proper composting. However, the continued use of these chemicals has resulted in minor to severe resistance in the adult fly populations.

Activities that would increase the potential for standing water, especially during the summer months, have the potential to increase the mosquito population. As pesticides are used to control the increasing fly population, herbicides are also used by dairies to control plant and algae population in the numerous dairy manure ponds and water ponds.

Electrical Power Facilities/Transmission Lines and Electromagnetic Fields. Southern California Edison (SCE) provides electrical services to the City and the surrounding areas. The SCE Mira Loma substation is located immediately south of the project site. An SCE high-voltage transmission line right-of-way (SCE Corridor) bisects the central portion of the project site (north-south alignment) containing 550-Kv electrical transmission lines. In addition, 220-Kv electrical transmission lines cross the southeast corner of the project site.

Long-term direct exposure to electric and magnetic fields (electromagnetic fields [EMF]) has been identified as a possible risk to human health.

Electric fields are produced in electrical lines as a result of voltage applied to wiring, and are measured in volts per meter (V/m) or kilovolts per meter (Kv/m). Electric field strengths greatly diminish with distance from the source and many structures including trees and houses shield these fields. Most exposure to residential electric fields is the result of internal household appliance use. Magnetic fields are the result of the movement (current) of electricity. These fields are measured in Gauss, however this measure is extremely large, and fields from electrical lines are generally referred to in milligaus (mg). As with electric fields, magnetic field strengths decrease dramatically with distance from the source; however, structures such as trees or houses, unlike electrical fields, do not shield magnetic fields. Exposure to EMFs from power lines or electrical substations is typically in the extremely low frequency (ELF) range of the electromagnetic spectrum.

Within the project site, possible concern with EMFs resides with the major SCE power line corridor that bisects the site, the SCE substation immediately south of the site, and the types of uses planned within or directly adjacent to the corridor and/or substation. No U.S. federal agency has yet set ELF EMF standards. Presently, neither the State nor the County of San Bernardino has provisions or codes regulating development near major transmission lines or substations. The NMC Final EIR identifies setback requirements for educational facilities from high-voltage lines.

Ontario Airport Operations

The project site was originally estimated to be within two miles of Ontario International Airport (OIA) in the Notice of Preparation/Initial Study (IS/NOP), which is defined as the area of influence for public airports such as OIA. This standard was used because an airport land use plan has not been adopted. Upon further investigation and closer measurement, OIA is approximately 2.5 miles north of the project site, and hence is not contained within the area of influence as defined under the State CEQA Guidelines. The 1992 General Plan discusses current and future operations at OIA. According to the 1992 General Plan, the project site does not directly lie within the flight path of OIA. Aircraft from OIA fly over the general project area in a southeasterly direction away from the Airport.

The Chino Airport is located approximately 5 miles southwest of the project site.

5.5.3 - Thresholds of Significance

According to the State CEQA Guidelines, a project would normally have a significant effect on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
- Create a hazard to the public or 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;
- If the area was located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport, result in a safety hazard for people that reside or work in the project area;
- If the area was located in the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Expose people or structures to a significant loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

As previously referenced, the NMC Final EIR referenced distance setbacks for educational facilities from high-voltage transmission lines, which were developed by the State Department of Education. Although these requirements apply only to educational facilities, the NMC Final EIR referenced that they could be optionally applied to residential development. These setback distances are as follows: 100 feet from a 50-133 Kv line; 150 feet from a 220-230 Kv line; and 350 feet from a 500-550 Kv line. The State Department of Education revised this policy in 2003 that would allow school districts to encroach within these setbacks based upon findings made in an EMF Management Plan.

5.5.4 - Project Impacts

The proposed project would have the potential to expose people to electromagnetic fields, vectors, and airport operations. Following is a discussion of the project impacts that correspond to the thresholds of significance previously identified in Section 5.5.3.

Hazardous Materials

Short-Term Construction Impacts

In the short term, the proposed project will involve storing limited quantities of petroleum products on-site during construction-related activities. With the mandatory compliance of the City's Environmental Performance Standards (City of Ontario 2000), the proposed project will not create a health hazard or use, produce, or dispose of materials that pose a hazard to human, animal, or plant populations within the project area. The Environmental Performance Standards are contained in the City's Municipal Code, Article 33, Section 9-1.3300. No impact from the temporary storage of hazardous materials during the construction phase is anticipated.

As previously referenced, potential impacts from exposure to lead-based paints and asbestos from demolition activities has the potential to occur. The Phase I ESA concluded that potential impacts related to asbestos exposure was low because the dairy-related structures were constructed after 1978; no findings related to lead-based paint were presented. Because the construction dates for the dairy related structures are estimated and are close to the cut-off date as referenced in the NMC Final EIR, and because it is highly likely that the structures associated with the nursery were constructed prior to 1979, it is assumed for the purposes of this analysis that all structures located on the project site were constructed prior to 1979.

Long-Term Operational Impacts

The proposed project introduces new land uses within the project area: residential, commercial, light industrial, and recreation. Hazardous materials commonly associated with residential use include household cleaning and janitorial products, herbicides, insecticides, and solvents. Residential handling and disposal of hazardous materials is regulated at the federal, state, and local levels.

The proposed project provides for the development of commercial and light industrial uses. Commercial uses that could be developed include large-scale retail commercial uses such as garden supply, furniture warehouses, discount centers, retailers, and other similar uses. Commercial development could also include professional offices, entertainment, dining, hotel, and conference facilities. Land uses that could be developed within the area designated for light industrial uses include research and development, light manufacturing, technology development, medical, entertainment facilities and production as well as supporting retail sales, product exhibition, art galleries, financial institutions, restaurants, health clubs, personal services, day-care, and professional offices. Use and storage of hazardous materials associated with allowed commercial and light industrial uses will occur as a result of project implementation. In order to minimize risks to life and property, the proposed project will be required to demonstrate compliance with all applicable federal, state and local laws and regulations governing the handling, transport, treatment, generation and storage of hazardous materials.

The property adjacent to the project site on the west, across Mill Creek Avenue, is occupied by Colony High School, within one-quarter mile of the project site. Colony High School is adjacent to the proposed residential uses on the project site. Use and storage of hazardous materials on the project site will adhere to all applicable regulations, as previously cited. Hazardous emissions or hazardous or acutely hazardous materials, substances, or waste will not intentionally be emitted.

Generation and use of hazardous materials by residential, commercial, and light industrial usage within the project site is considered to have a less than significant impact due to the mandatory compliance with the City's Environmental Performance Standards (City of Ontario 2000). The Environmental Performance Standards are contained in the City's Municipal Code, Article 33, Section 9-1.3300.

Emergency Access and Evacuation Routes

The project will introduce a new on-site population that would be subject to emergency evacuation or response in the event of a major disaster. However, the proposed project will not result in the impairment or interference with the implementation of the City's emergency evacuation and support services procedures in the event of a natural disaster or war emergency. Both the residential component and commercial component provide adequate emergency vehicular access to and through the project site. Project impacts regarding an adopted emergency response plan or emergency evacuation plan are considered less than significant.

Methane in Manure and Organic Soils

Surface organic residue (e.g., manure and other organic deposition) within the soils may remain after discontinuation of the dairy operation and, in some instances, after clearing and grading. The potential for possible exposure of new development and human populations to explosive concentrations of methane released from such soils was investigated in the Phase I ESA and II ESI, and addressed in the Geotechnical Report. The Phase I and Phase II investigations did not find evidence of methane gas accumulation in the manure pond area. Similarly, the Geotechnical Report did not indicate the presence of methane gas, but stated that if it were present, it could be a potentially significant impact.

Vector Control

Implementation of the proposed project will, over time, systemically reduce the volume of standing water and other sources associated with the dairies where breeding by mosquitoes can occur.

With the abundance of manure and the presence of stagnant water, these populations may continue to breed during the dairy transition to urban uses, and buildout of the Chino/Ontario areas. Control of these populations can be achieved with non-chemical methods (i.e. mechanical methods) and the use

of pesticides. With proper vector control practices, health and safety impacts are not expected to be significant. Past and present uses of pesticides and herbicides in agricultural operations can leave measurable residues in soils. The Phase 1 ESA and Phase II ESI for the dairy property addressed the possible presence of chemical residues in the soil. Soil sampling on the dairy property detected no residual pesticide contamination within project soils. Future uses of the project site should not be adversely affected by past agricultural use. Hazard impacts on the project site from vectors and past agricultural use are considered less than significant.

Electromagnetic Fields

Within the project site, possible concerns with EMFs are associated with the high-voltage electrical transmission lines that cross the project site. The NMC Final EIR identifies setbacks for educational facilities from high-voltage lines and indicates they could be optionally applied to residential development. No U.S. federal agency has yet set Extremely Low Frequency EMF standards. Presently, no state, county, or City has provisions or codes regulating development near major transmission lines or substations. In addition, SCE does not have published standards regulating development adjacent to high-voltage transmission line rights-of-way (Southern California Edison 2005).

The proposed land use plan has located residential adjacent to the high-voltage line right-of-way that bisects the central portion of the project site; no residential uses are proposed adjacent to the high-voltage transmission lines in the southeast portion of the project site. Because the setback standards previously identified apply to educational facilities and are not required to be applied to residential development, and because no definitive standards have been established by a federal agency, and because the City and SCE has not established setback requirements, potential impacts resulting from the proximity to the high-voltage transmission lines are considered less than significant.

Hazardous Materials

The State Department of Toxic Substances Control (DTSC) responded to the NOP/IS. The DTSC comment letter recommends that appropriate precautions be taken prior to the commencement of construction activities if the project site is located within a Border Zone of a Contaminated Property, defined as within 2,000 feet from a contaminated site, and also during construction activities if soil and/or groundwater contamination is suspected. According to the Phase I ESA prepared for the project, one site is contained within the various databases lying within 2,000 feet of the project site boundaries. The single site is a dairy, holding a San Bernardino County Permit as a Hazmat Handler - Agricultural, and experienced an isolated spill event in July 1999. The Phase I ESA concluded that the conditions associated with this individual site did not present a hazard for the project site.

Further, soil and/or groundwater contamination is not suspected within the overall project site based on the Phase II ESI of the dairy property. The project site is, therefore, not identified as within the Border Zone of a Contaminated Property.

Ontario Airport Operations

As previously stated, OIA is approximately 2.5 miles north of the project site. The 1992 General Plan discusses current and future operations at OIA and describes impacts associated with those operations. Examination of this information reveals that the project site does not directly lie within the flight path of OIA and that no impacts are anticipated related to penetrations of air space, safety zones, or other protection areas. The only anticipated impact from OIA would be aircraft flying over the general area in a southeasterly direction away from the Airport. At this distance, the maximum heights of the proposed structures would not penetrate any of the building height restrictions contained in the Federal Aviations Administration's Part 77 regulations.

5.5.5 - Cumulative Impacts

Implementation of the proposed plan will provide for a variety of residential, commercial, light industrial, and open space related uses. In general, the types of uses allowed do not include those that would result in the generation of substantial quantities of hazardous wastes or toxic materials. Compliance with federal, state, and local regulations concerning the handling, transport, and disposal of hazardous materials and wastes would reduce impacts to less than significant levels. As related projects in the project vicinity will be required to mitigate their own hazardous materials impacts, no significant cumulative impacts related to hazardous materials are anticipated.

With cumulative development within the OIA vicinity, additional populations could be exposed to some level of risk associated with aircraft activities and hazards. However, safety zones have been established to protect future uses and reduce hazards to an acceptable level of risk, and future development could be subject to review by the Airport Comprehensive Land Use Plan (ACLUP) to assure compatibility, should an ACLUP for OIA be developed. No significant cumulative impact is anticipated.

5.5.6 - Mitigation Measures

The Risk of Upset Section of the NMC Final EIR identified mitigation measures related to hazardous materials (Mitigation Measures HM-1 through HM-3) and a mitigation measure (EMF-1) related to electromagnetic fields. Mitigation Measure HM-1 required the preparation of Phase 1 Environmental Site Assessments on all future developments in conformance with the American Society for Testing and Materials. Mitigation Measure HM-2 required documentation that structures on the project site subject to renovation or demolition from a proposed project did not contain lead-based paints or

asbestos or that if these materials were present, appropriate remedial actions for lead-based paints and asbestos would be used. Mitigation Measure HM-3 required projects that proposed to handle, transport, process, or store hazardous materials to comply with the policies related to hazardous materials contained in the NMC General Plan. Mitigation Measure EMF-1 required residential units and education facilities to be setback from high-voltage electrical transmission lines in accordance with the California Department of Education guidelines.

Implementation of the NMC Final EIR mitigation measures and the following recommended mitigation measures would reduce potentially significant impacts to a less than significant level.

HM-1 Prior to the issuance of permits by the City of Ontario for any structural demolition activities on the project site, the project developer will be required to submit documentation to the City of Ontario Building Department that asbestos and lead-based paint issues are not applicable to their property or that appropriate remediation actions will be undertaken to correct any lead-based paint or asbestos issues, in conformance with the regulations of the South Coast Air Quality Management District and the State of California, Division of Occupational Health and Safety.

HM-2 Subsequent to grading activities, testing for the presence of methane in the soil shall be performed. This testing shall conform to applicable City of Ontario standards. If methane is detected, mitigation would include the installation of under-slab methane vents, methane barrier, and sealing utilities in locations where they enter a structure and penetrate the methane barrier.

HM-3 Prior to approval of a discretionary permit or approval for development of uses on the eastern half of the project site, such as a parcel map or tentative tract map, a Phase 1 Environmental Site Assessment (ESA) shall be conducted and the results of that ESA implemented. The Phase 1 ESA shall be provided to the City of Ontario and shall be included in any CEQA analysis prepared in connection with the consideration of a discretionary approval for development of the eastern half of the project site.

5.5.7 - Level of Significance After Mitigation

Mitigation Measures HM-1 would require implementation prior to permit issuance. This eliminates the potential for construction-related activities to commence without the benefit of the recommended mitigation measure and would prevent any building materials that may contain lead and/or asbestos from being released into the environment.

Mitigation Measure HM-2 would be implemented between the site preparation phase and the building construction phase and would prevent methane gas if present in the soil, from penetrating any of the structures built on the project site.

Mitigation Measure HM-3 would require the preparation of a Phase 1 ESA on the eastern portion of the project site that would determine the presence or absence of any hazardous materials on that portion of the project site prior to the approvals of any development permits.

With the incorporation of the recommended mitigation measures, implementation of the proposed project would result in less than significant impacts related to hazardous materials.