5.5 - HAZARDS

5.5.1 - Introduction

Information in this section is derived from the following site-specific technical studies, other reference documents, and correspondence received.

- Phase I Environmental Site Assessment, Approximate 77-Acre Property, Rich Haven Specific Plan Mixed Use District, RBF Consulting, October 3, 2005.
- Phase I Environmental Site Assessment, Approximate 106-Acre Property, Rich Haven Specific Plan Mixed Use District, RBF Consulting, October 3, 2005.
- Phase I Environmental Site Assessment, Visser Property, GeoKinetics, February 1, 2003.
- Phase I Environmental Site Assessment, Randall Property, GeoKinetics, January 17, 2005.
- Phase I Environmental Site Assessment, Di Tommaso Property, GeoKinetics, February 18, 2004.
- Preliminary Subsurface Methane Gas Investigation, Randall Property, GeoKinetics, January 31, 2005.
- Subsurface Methane Gas Investigation, Scritsmier Property, GeoKinetics, January 26, 2004.
- Subsurface Methane Gas Investigation, Visser Property, GeoKinetics, February 1, 2003.
- Subsurface Methane Gas Investigation, Di Tommaso Property, GeoKinetics, February 18, 2004.
- Subsurface Methane Gas Investigation, Van Der Eyk Property, GeoKinetics, November 25, 2002.
- Letter from the California Department of Toxic Substances Control, June 12, 2006.
- NMC Final EIR, City of Ontario, October 1997.
- 1992 General Plan, City of Ontario, September 1992.

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 Draft EIR 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

Phase I Environmental Site Assessments (ESA) and Subsurface Methane Gas Investigations were conducted for all properties on the site except for the following Assessor's Parcel Numbers, for which methane studies were not directly indicated:

- 0218-211-25
- 0218-211-12
- 0218-211-21
- 0218-211-15
- 0218-161-04
- 0218-161-05
- 0218-161-01
- 0218-161-11

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 various Phase I ESAs performed by RBF Consulting and GeoKinetics in 2002, 2003, 2004, and 2005. These analyses included a computerized database search of various governmental agency lists. The CEQA Guidelines require 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 searches included review of all of the required state lists and a search of various federal (EPA) and local (San Bernardino County Fire Department) hazardous waste site lists.

The following environmental issues were discussed within the Phase I ESAs for the project site:

- The potential for asbestos in onsite structures built before the early 1970s.
- The potential for lead-based paint on structures that were built before 1978.
- Miscellaneous debris (e.g. trash, 55 gallon drums, paint cans, agriculture-related debris) that had been abandoned onsite.

- Utilities such as petroleum lines found onsite.
- Pole-mounted transformers that may contain polychlorinated biphenyls (PCBs).
- The potential for onsite septic systems.
- The potential for methane gas onsite in excess of 55,000 parts per million (ppm), which poses an explosion hazard, due to the project site's past use for dairy and hog farming.
- Storage tanks were noted on and near the project site, which may have contained agricultural-related chemicals.
- The project site was evaluated for the potential presence of radon gas.
- The potential for hazardous wastes, such as petroleum waste.

Historically, the project site was comprised of vacant land, onsite structures, agricultural uses, dairy farms, residences, wells, unimproved roads, and power transmission lines. Numerous local, state, and federal databases were searched in preparation for the Phase I ESAs. Databases included the Records of Decision database maintained by the EPA (ROD), CAL-SITES maintained by the California Department of Toxic Substance Control, and the Listing of Underground Tank Cleanup Sites maintained by the County of Riverside. Appendix D, Phase I ESAs and Phase II ESAs, contains the hazardous materials technical reports.

Information obtained by the data base search and contact with relevant governmental agencies indicated the following results:

- The nearby Heritage Dairy (target property) had a cleanup and abatement order issued for it by the California Waste Discharge System database (CAWDS) regarding the discharge of wastes associated with dairy farming operations. The facility is required to allow no waste discharge and water runoff onto surrounding properties. All dairy wastewater and stormwater must be contained and managed onsite. There is no indication as to whether or not the target property has violated the waste discharge requirements.
- The Aspen Dairy at 10241 Edison Avenue had a cleanup and abatement order issued for it that was identical to that issued for Heritage Dairy, per the CAWDS database. There is no indication as to whether or not the target property has violated the waste discharge requirements.
- Crossroad Classic Mustang at 12421 Riverside Avenue, Unit B, Mira Loma, California, was also issued a cleanup and abatement order, per the CAWDS database. There is no indication as to whether or not the target property has violated the waste discharge requirements.

- An unnamed facility located at 3176 Pony Drive reported a release of muratic acid on September 19, 2002. The release occurred as a result of a container being crushed inside a City trash truck. No other information regarding this site was identified in the listing.
- The Simon Koolhaas Dairy at 14717 Haven Avenue is permitted for Underground Storage Tanks (USTs) and as a Hazardous Material Handler, Underground Tank Only.
- The Martin Dairy at 10129 Edison Avenue is permitted as an Agricultural Hazardous Material Handler.
- The following sites appeared on the CORTESE database as having contaminated public drinking water wells, for which clean up and abatement orders were issued: Simon Koolhaas Dairy (14717 Haven Avenue), Martin Dairy (10129 Edison Avenue), Aspen Dairy (10241 Edison Avenue), Westra Dairy Farms (11009 Eucalyptus Avenue), Crossroad Classic Mustang (12421 Riverside Avenue, Unit B, Mira Loma, California).
- LUST: The Leaking Underground Storage Tank (LUST) Information System database listed the Westra Dairy Farms (11009 Eucalyptus Avenue) as a facility that had a known release from a UST.
- The Dykstra Bros. Dairy (11091 E. Edison Avenue) is known to have two historical USTs. This facility is also known to have obtained a San Bernardino County permit as a Hazardous Material Handler.
- The AG-J&J Cattle Co. (11250 E. Edison Avenue) has one reported UST location, and has a San Bernardino County permit as a Hazardous Material Handler.
- The Westra Dairy (11009 Eucalyptus Avenue) is reported as having a LUST, case closed April 24, 2000.
- The Department of Health Services conducted a California State Radon Survey, and found that radon gas is not an issue at the project site or in the project area.
- No federal National Priorities List (NPL), proposed NPL, Comprehensive Environmental Response and Cleanup Liability Information System (CERCLIS), Resource Conservation and Recovery (Act) Information System (RCRIS), or Emergency Response Notification System (ERNS) facilities are located within one mile of the dairy property.

The Phase I ESAs for the project site offered the following conclusions:

- Due to past use of the project site as a dairy farm and hog farm, the potential exists for elevated soil organic levels and the associated generation of subsurface methane gas.

- The potential for asbestos containing materials and lead-based paint on the project site exists because of some structures built before 1978.
- Based on the past and present agricultural usage of portions of the site, the potential exists for the presence of organic pesticides within the onsite soils. Soil samples should be collected and analyzed for organic pesticides in order to screen for their presence.
- Several homes present on the project site reportedly use onsite sewage disposal systems.
- The residences and other structures onsite may contain lead-based paint and asbestos-containing materials.
- Water supply wells were identified onsite, and it is necessary to verify that they have been properly abandoned.
- A 500-gallon diesel fuel aboveground storage tank (AST) is onsite, and should be deactivated and properly disposed of in conjunction with the site development activities.
- A debris pile with improperly disposed of waste oil was observed onsite.
- A concrete wastewater collection sump and associated underground water distribution piping, as well as an abandoned manufactured home are onsite.
- A Southern California Edison transmission line exists onsite with triple high-tension lines, which may impose some restrictions on development.

Based on the findings of the Phase I ESAs described previously, several methane studies were conducted for the properties that were used as dairies. Out of the 96 gas probes that were installed as a part of the methane studies, only 3 revealed elevated methane concentrations. These methane studies contained the following recommendations:

- Careful clearing, grubbing, segregation, and stockpiling or disposal of the near surface organic-rich soils at the site prior to the initiation of mass grading activities should occur.
- Identification and segregation/stockpiling or disposal of deeper soils which contain elevated levels of organic material should be conducted.
- Soils with organic contents in excess of 0.4 percent should not be placed as “deep” fill. Ideally, soils with significant levels of organic material should be placed in open areas within approximately two feet of the finished ground surface.
- Soils with organic contents in excess of 2 percent should typically not be placed as structural fill—even at shallow depths. The project geotechnical engineer should provide more specific recommendations in this regard.

No additional investigation of the project site 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 are 2 million tons of manure stockpiled within that area. As a result of manure stockpiling, 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 east of Mill Creek Avenue adjacent the project site. SCE high-voltage transmission line right-of-ways (SCE Corridor) appear at several locations onsite containing high Kv electrical transmission lines. 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 traverses the site diagonally between Planning Areas 17 (a, b) and 20, the SCE substation immediately east of Mill Creek Avenue, 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 (ONT), which is the criteria set forth in the CEQA Guidelines thresholds. This standard was used because an airport land use plan has not been adopted. Upon further investigation, the airport runways are more than two miles from the northern end of the project site along E. Riverside Drive. The 1992 General Plan discusses current and future operations at ONT. According to the 1992 General Plan, the project site does not directly lie within the flight path of ONT. Aircraft approach ONT from the east and depart to the west, and do not fly over the general project area. The Chino Airport is located approximately 4 miles southwest of the project site.

Existing Regulations and Standard Conditions:

The City of Ontario Municipal Code Section 9-1.3330 includes Environmental Performance Standards that require: "The use, handling, storage, and transportation of combustibles and explosives shall comply with applicable provisions of the Uniform Fire Code, the City of Ontario Hazardous Waste Ordinance and all other local, state and federal regulations."

5.5.3 - Thresholds of Significance

According to the Initial Study, the project could 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.

- 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.

As previously referenced, the NMC Final EIR referenced distance setbacks developed by the State Department of Education for educational facilities from high-voltage transmission lines. Although these requirements apply only to educational facilities, the NMC Final EIR suggested that they could be 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. However, the State Department of Education revised policy in 2003 allows school districts to encroach within these setbacks based upon specific findings made in an EMF Management Plan.

5.5.4 - Project Impacts

The proposed project would have the potential to pose various hazards. 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 onsite 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 and lead-based paint exist, due to the existence of older residences and structures onsite. 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 some

structures were constructed prior to 1979, given the historic use of the property, it is assumed for the purposes of this analysis that all structures located on the project site were constructed prior to 1978.

Long-Term Operational Impacts

The proposed project introduces new land uses within the project area: residential, commercial, 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 regional commercial 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, 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 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.

Colony High School is adjacent to proposed single-family residential uses within Planning Areas 2, 3, 5 and 6 on the project site. Hazardous emissions or hazardous or acutely hazardous materials, substances, or waste will not intentionally be emitted. Use and storage of hazardous materials on the project site will adhere to all applicable regulations, as previously cited.

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.

Methane in Manure and Organic Soils

Surface organic residue (e.g., manure and other organic deposition) within the soils may remain after discontinuation of dairy operations 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 ESAs and methane studies. While

the incidence of methane gas was low, this is a potentially significant impact due to the explosion hazard in a soon-to-be highly populated area.

Vector Control

Development of the proposed project will systemically reduce the volume of standing water and other sources associated with the dairies, where mosquitoes can breed.

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 ESAs for the project site addressed the possible presence of chemical residues in the soil and concluded that future uses of the project site would 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 that could be 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 locates residential areas in Planning Areas 17 (a, b) and 20 adjacent to the major high-voltage line easement that diagonally traverses the project site. Because 1) the setback standards previously identified apply to educational facilities and are not required to be applied to residential development, 2) no definitive standards have been established by a federal agency, and 3) neither the City nor SCE have established setback requirements, potential impacts resulting from the proximity to the high-voltage transmission lines are considered less than significant.

Hazardous Materials

According to the Phase I ESAs prepared for the project, the various databases indicate that only one site lying near or within the project site boundaries exhibits the presence of hazardous materials. This

is the Martin Dairy at 10129 Edison Avenue that has a San Bernardino County Permit as an Agricultural Hazardous Material Handler. The site experienced an isolated spill event in July 1999. The Phase I ESAs concluded that the conditions associated with this individual site did not present a hazard for the project site.

No evidence of any significant soil and/or groundwater contamination has been identified within the overall project site, and the site is not identified as within the Border Zone of a Contaminated Property.

Ontario Airport Operations

As previously stated, ONT is not within 2 miles of the project site. The 1992 General Plan discusses current and future operations at ONT 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 ONT and that no impacts are anticipated related to penetrations of air space, safety zones, or other protection areas. The only anticipated impact from ONT would be sporadic occurrences of 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, 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 ONT 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 ONT 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 ESAs 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 Post-grading methane gas investigation should take place near the former Scritsmier Hog Ranch (13571 Haven Avenue) where subsurface methane levels exceed 5,000 ppm. A passive vent system and gas membrane beneath the floor slab should be installed, along with utility trench dams and conduit seals.

HM-4 Careful clearing, grubbing, segregation, and stockpiling or proper disposal of the near surface organic-rich soils at the site prior to the initiation of mass grading activities should occur.

HM-5 Identification and segregation/stockpiling or proper disposal of deeper soils which contain elevated levels of organic material should be conducted.

HM-6 Prior to approval of a discretionary permit or approval for development of proposed residential uses on the Hillardis property, 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 measure HM-1 requires 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. Therefore, the effects will be less than significant.

Mitigation measures HM-2 through HM-5 should 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. The effects would be less than significant.

Mitigation measure HM-6 would require the preparation of a Phase 1 ESA on the Hillardis property 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. Because all necessary Phase I ESAs have been prepared, and mitigation measures developed, the effects would be less than significant.

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