

4.5 HUMAN HEALTH/RISK OF UPSET

Hazardous Materials are defined as those that are a potential threat to human health, having the capacity to cause serious illness or death. The term "hazardous materials" includes radioactive waste and explosives, as well as substances such as gasoline, pesticides, and household cleaning products. (City of Citrus Heights, 2000)

4.5.1 ENVIRONMENTAL ISSUE

This section discusses the potential for contamination by hazardous materials and the risk of upset in the transportation and storage of potentially hazardous materials.

4.5.2 METHODOLOGY

This section was prepared based on a review of the existing and past land uses on the project site. In addition, the City's Draft General Plan EIR was used to determine possible hazardous materials impacts.

4.5.3 SIGNIFICANCE CRITERIA

For the purposes of this EIR, hazardous materials impacts are considered to be significant if the following would result from implementation of the proposed project:

- 1) Use, production or disposal of materials that pose a hazard to people or animal or plant populations in the area affected.
- 2) Creation of a substantial potential public health or safety hazard due to the risk of upset (accidents).
- 3) Violation of applicable laws intended to protect human health and safety, exposure of employees to working situations that do not meet health standards.

4.5.4 EXISTING SETTING

The project site is currently undeveloped and contains fallow orchard, oak woodland, grassland, riparian, and aquatic habitats (portions of San Juan Creek, Arcade Creek and associated tributary drainages run through the site). Grasslands are the predominant habitat type on the project site. Grasslands were introduced over time in association with past grazing activities. A portion of the site is an old almond orchard that is not in commercial production. Most of the almond trees are in poor health. Oak trees are scattered throughout the project site.

Portions of San Juan Creek, Arcade Creek and associated tributary drainages traverse the site. Arcade Creek is the primary east-west waterway that separates land uses in the northern portion of the site from those in the south. The Arcade Creek floodplain varies in width from 120 to 200 feet with fingers of floodplain extending to the north and south.

The riparian habitat of the creek corridor includes Valley oak, willow, walnut and cottonwoods. A concentration of blue elderberry shrubs occurs within the Arcade Creek riparian corridor on the site. Several dirt roads and paths are located throughout the northern half of the property. Some areas on the site have been altered due to past land use activities.

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Hazardous Wastes

Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. Many man-made substances can be hazardous to health. Hazardous wastes generated by residents and businesses contribute to environmental and human health hazards that have become an increasing public concern in recent years. The increased use of such materials has increased potential hazards and actual damage. Toxicity and contamination of soils, water, air, and organisms present hazards of varying severity that can be controlled and minimized by proper waste management and disposal.

The City of Citrus Heights is not aware of any known contamination of soils within the study area. However, for the purposes of this EIR, it is assumed that some localized contamination may have occurred in the past, most likely due to chemical or petroleum spillage associated with historic agricultural uses or with illegal dumping.

Transport of Hazardous Materials and Hazardous Waste

Federal and state agencies, primarily the California Highway Patrol and the California Department of Transportation regulate transport of hazardous waste and hazardous materials. The City of Citrus Heights has no ordinances that address transport of hazardous materials. The California Highway Patrol only designates state and federal roadways as hazardous materials truck routes. Interstate 80 is designated as a truck route for explosives and radioactive materials only. Regional access to the City is provided by Interstate 80 (I-80) via Greenback Lane and Auburn Boulevard.

4.5.5 PROJECT IMPACTS AND MITIGATION MEASURES

Potential for On-site Contamination

Impact 4.5.1 Hazardous materials may be present on the project site in association with past activities (i.e. dumping, abandoned vehicles) as well as the existing almond orchard. This is a potentially significant impact. *Note: This impact can be mitigated to an acceptable level. See mitigation measure below.*

As development occurs on the project site, contaminated soil could be encountered in association with past activities on the project site (dumping, possible motor vehicle fluids from abandoned cars) as well as the presence of the existing almond orchard (pesticides). Previously unknown contaminants in the soil (e.g. pesticides) could threaten the health and safety of site workers. Soil contamination or other hazards are typically detected by inspecting and searching public records for a subject property. The type of investigation is termed an environmental assessment or audit, and is performed independently by a California Registered Environmental Assessor (REA). When evidence of site contamination is found, additional data can be gathered by actually sampling and testing the soil. Cleanup procedures can be specified based on the type and extent of contamination.

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MM 4.5.1a The project applicant shall have the site inspected by a Registered Environmental Assessor (i.e. a professional environmental scientist or engineer registered as an REA in California) for the presence of hazardous materials and wastes.

The investigations shall take the form of environmental audits, and shall include, at a minimum, site inspections for hazardous materials, examination of historic records, and review of public agency records. Reports detailing the results of the inspections shall be submitted to the City for review. The report preparer shall either certify that the site is free of hazards or recommend preparation of a site mitigation plan.

Responsibility for Implementation: Applicant/Developer
Responsibility for Monitoring: City of Citrus Heights
Timing: Prior to issuance of grading permits

MM 4.5.1b In the event that a site inspection done for MM 4.5.1a uncovers chemical contamination or other hazardous materials or wastes at a parcel, the inspection report preparer shall notify the City and other agencies, as applicable, potentially including the state Environmental Protection Agency, the Regional Water Quality Control Board, and/or the County Environmental Management Department.

Responsibility for Implementation: Applicant/Developer
Responsibility for Monitoring: City of Citrus Heights
Timing: Prior to issuance of grading permits

Hazardous Wastes associated with Commercial Development

Impact 4.5.2 The project could potentially be developed with up to 570,000 sq. ft. of commercial uses. These uses could generate increased handling of hazardous materials and wastes. This is considered a potentially significant impact. *Note: This impact can be mitigated to an acceptable level. See mitigation measure below.*

Development of commercial uses on the north side of Arcade Creek (up to 450,000) as well as a maximum of 120,000 sq. ft. under the "Sylvan Commerce District" Zone would indirectly allow for the potential increased handling and generation of hazardous materials. Commercial businesses such as print shops, photo developers, dry cleaners and auto repair shops use hazardous materials and generate hazardous wastes. The number of potentially hazardous chemicals used in commerce is very large. With the types of business activity anticipated, hazardous materials and wastes typically encountered can be identified and discussed in a generic manner to describe, via example, the range of hazards that might be encountered. Examples of typical hazardous substances potentially used in the project area include sulfuric acid (toxic, corrosive and reactive); solvents such as acetone (ignitable), benzene (toxic and ignitable), and chlorinated hydrocarbons (toxic); and solid waste containing lead compounds (toxic), sodium hydroxide (toxic, corrosive and reactive), and pose chlorinated phenols (toxic). Within the hazard categories, many chemicals pose special dangers due to tendencies to bioaccumulate in living tissue, or to generate toxic fumes when exposed to fire, or to cause cancer and birth defects.

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MM 4.5.2a Use storage and handling of hazardous materials by commercial uses within the project area shall be done in compliance with applicable City polices as well State and local laws, guidelines, and regulations.

Responsibility for Implementation: Applicant/Developer and Individual Businesses
Responsibility for Monitoring: City of Citrus Heights
Timing: Ongoing; confirm at Building Permit review

MM 4.5.2b As required by federal, state, and local regulations, new commercial uses in the project area shall be required to install temporary hazardous waste storage areas on paved, impermeable surfaces with drainage controls and spill containment features.

Responsibility for Implementation: Applicant/Developer and Individual Businesses
Responsibility for Monitoring: City of Citrus Heights
Timing: Ongoing; confirm at Building Permit review

Generation, Storage and Disposal of Household Hazardous Wastes

Impact 4.5.3 Residential uses proposed on the project site would result in an increase the generation, storage and disposal of household hazardous wastes. This impact is considered less than significant and does not require mitigation.

A potential impact related to the introduction of both multi-family and single-family residential uses proposed on the project site is the increase in the generation, storage, and disposal requirements of household hazardous wastes. A household hazardous waste is any waste generated by households that can cause illness or death, or pose a threat to health or the environment when improperly stored, disposed, or otherwise managed. Household hazardous wastes typically include paints, solvents, pesticides, used motor oil, and car batteries among other items. Establishment of permanent collection centers or periodic collection events at temporary locations are the most common methods for gathering household hazardous waste for disposal other than through the municipal garbage collection system. The City of Citrus Heights actively encourages proper disposal of household hazardous waste. For these reasons, this impact would be less than significant (City of Citrus Heights, 2000).

4.5.6 CUMULATIVE IMPACTS

Performance of the environmental investigations as specified, remediation of hazardous materials or wastes, if any, identified during the audits, and conformance with the policies and actions referenced would protect health and safety of site workers, the public, and the environment, and reduce hazardous materials impacts to a less-than-significant level. The recommended mitigation measures would render the proposed project less than cumulatively significant.

REFERENCES

City of Citrus Heights. *Draft General Plan Citrus Heights, California* (August 2000a).

City of Citrus Heights. *City of Citrus Heights General Plan: Draft Environmental Impact Report* (August 2000b)