
4.5 HAZARDOUS MATERIALS AND PUBLIC SAFETY

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Introduction

This section describes the potential adverse impacts on human health due to exposure to hazards that could result from the Proposed Project. Hazards evaluated in this section are: potential exposure to hazardous materials associated with construction and operation of the Proposed Project, potential hazards related to contamination of soil and groundwater from past site uses, and potential impacts associated with emergency access and/or evacuation routes during event conditions. Included in the discussion is a summary of applicable laws and regulations and agencies responsible for their implementation.

Sources of information to describe existing conditions and for the analysis are identified in the footnotes. These sources include a variety of City planning documents, including the City of Dixon General Plan, the Northeast Quadrant Specific Plan (NQSP), agency and provider correspondence, consultation with City staff, and published technical information available through various websites.

As discussed in the Initial Study, the Proposed Project site is not located within an airport land use plan area or within two miles of an airport or private airstrip (see Appendix A). Development of the project site would not expose people within the project area to aircraft safety hazards; therefore, this issue is not discussed in the EIR. Comments received in response to the NOP (see Appendix B) did not address issues relating to hazardous materials and public safety.

Environmental Setting

Proposed Project Area

The Proposed Project area is dominated by agricultural land uses. Agricultural land uses are associated with hazardous materials use and storage because of the use of pesticides, herbicides, fungicides, fertilizers, petroleum-related compounds, and other chemicals in farming. Phase I Environmental Site Assessments (ESAs) are used to assess whether potentially hazardous materials are located on a property. Standards for Phase I ESAs have been developed by the American Society for Testing and Materials (ASTM) and are used routinely to determine the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products, onto the surface or into the ground, groundwater or surface water of the property. If a Phase I ESA finds that hazardous materials found on the property may have been released, then a Phase II ESA is usually recommended. A Phase II investigation typically includes collection and analysis of soil and water samples. Based on the results, the Phase II ESA may recommend additional testing, remediation, or other controls to address contamination.

Environmental Site Assessment Results

A Phase I ESA was performed for all land contained within the NQSP, including the site of the Proposed Project on July 12, 1993 by Anderson Consulting Group.¹ At the time this report (referred to herein as the “1993 ESA”) was completed, the property was used for agriculture, a trucking business, and two residences. Groundwater within the property was measured at a depth between 20 to 35 feet below ground surface and flowing in a southeast direction. The ESA noted that the property included evidence of chemicals and hazardous materials related to agricultural and trucking uses on the site, as summarized below.

The northwestern corner of the project site housed a trucking facility and farmland, known as the Mistler Trucking/Mistler Farm property. Located on this 128-acre parcel were two partially enclosed barn structures, a house on stilts, an enclosed barn, a small shed, a residence, two mobile homes, farm machinery, inoperative trucks, and two pesticide trailers used to store and apply herbicides. An 8- to 10,000-gallon aboveground storage tank (AST) containing diesel fuel was located on the property. Evidence of soil staining was present near the dispenser lines connected to the AST. Three additional ASTs, labeled as containing “motor oil,” “tractor hydraulic fluid,” and “regular,” were located near the diesel tank. Nine empty 55-gallon drums were located near these tanks. Some of these unlabeled drums were stained with oil and staining was present on the soil beneath the drums. A trench along the property contained a large amount of garbage. The ESA suggested if hazardous materials were located in that trench (pesticide or motor oil containers), soil or groundwater contamination could have occurred. An area near the barn contained motor oil stained soil. Nearby were water hoses, and an air compressor, suggesting that the area was used to steam clean or pressure wash engines. If steam cleaning or pressure washing had been done, automotive fluids could have infiltrated the soil in this area, resulting in soil, or possibly groundwater contamination.²

The ESA noted that agricultural fields had been used for a variety of crops, including tomatoes, grains, orchards, and other row crops. A variety of pesticides may have been used on the crops. Specific details regarding application rates, locations, and period of pesticide use were not readily available to the 1993 ESA preparers.

A public records search included in the 1993 ESA found no documentation of leaking USTs, or sites of known contamination existing within the property at the time the ESA report was prepared.³

In 2001, two Phase I ESAs were completed for the project site. One Phase I covered the Mistler and Vaughan parcels, and the other investigated a 32-acre parcel in the northeast part of the project site (referred to as the “Jackson” parcel in that ESA). The Phase I ESA for the Mistler property identified three potential areas of concern related to possible soil contamination at the following locations: (1) a former 10,000-gallon diesel AST; (2) a group of six former ASTs; and (3) a small landfill that contained primarily construction debris and household-type wastes. These three locations are close to each other near the western project boundary in an area that is proposed to be developed under Phase 1 of the project with a parking lot (generally, North Area 1). The 2001 Phase I ESA for the Mistler property

1 Anderson Consulting Group, *Vaughn Road Property, Dixon, Solano County, California, Preliminary Site Assessment*, July 1993.

2 Anderson Consulting Group, *Vaughn Road Property, Dixon, Solano County, California, Preliminary Site Assessment*, July 1993, pages 5-6.

3 Anderson Consulting Group, *Vaughn Road Property, Dixon, Solano County, California, Preliminary Site Assessment*, July 1993, pages 12-16.

concluded there was a potential for soil contamination at the three locations and recommended further testing. At the time the Mistler property 2001 Phase I ESA was prepared, there were various storage buildings, miscellaneous items, and debris on the site. The Phase I ESA included recommendations for removing those features, which has occurred.

In March 2005, the recommendations for additional testing recommended in the 2001 Phase I ESA for the Mistler property were completed (referred to herein as the 2005 Phase II ESA). Testing consisted of excavating test pits at the three potential areas of concern and collecting soil samples where soil staining was apparent. No soil staining was observed at the location of the six former ASTs, and no soil samples were collected. The 2005 Phase II ESA concluded no further investigation of the group of six ASTs location was warranted.

Stained soil was observed in subsurface soils at the former diesel AST location. Laboratory analysis of soils collected from test trenches at the former AST location indicated the presence of diesel at concentrations of 15,000 milligrams per kilogram (mg/kg) at 10.5 feet depth and 7,100 mg/kg at 5 feet. These levels exceeded Regional Water Quality Control Board screening levels, and the Phase II recommended additional soil investigation to delineate the horizontal and vertical extent of soil contamination and limited groundwater testing to determine water quality impacts and direction of groundwater movement.

An additional investigation in May 2005 defined an area of approximately 600 square feet where diesel concentrations exceeded the remedial limit of 100 mg/kg for soils in California. In addition, immediately under the historical release point the groundwater table was affected. However, the extent of groundwater contamination is limited. At 15 feet from the contamination source, diesel concentration in groundwater was reported at 150 micrograms per liter ($\mu\text{g}/\text{l}$, or parts per billion [ppb]), and non-detect at 20 feet distance. This historical release must be reported, and the applicant is in the process of preparing a report to be submitted to the Central Valley Water Quality Control Board and the Solano County Environmental Health Department. In addition, the project applicant has identified a remediation plan to remove the impacted soil, which will remove the potential for additional leaching into the groundwater table. The project applicant is also proposing to install monitoring wells to monitor the long-term attenuation of localized petroleum in the groundwater.⁴

At the landfill, the investigation found refuse in an elongated area approximately 30 to 40 feet wide and approximately 160 feet long, which coincided with a broad berm slightly elevated over the area. Refuse consisted mostly of concrete roof tile, clay pipe, bottles, household items, and one crushed 55-gallon drum. Soil from the landfill area were tested for 17 metals. Four metals (barium, chromium, nickel, and lead) were detected in concentrations that exceeded the calculated designated levels established by the Regional Water Quality Control Board. The 2005 Phase II concluded that although some of the metals exceeded regulatory thresholds, they were not in a form that could easily migrate to groundwater based on TCLP analysis. The Phase II ESA did recommend, however, that the results be compared to human health-based risk criteria established by the federal Environmental Protection Agency to determine the need for a risk assessment. The refuse itself was not considered hazardous.

As noted above, the remaining part of the property (a 32-acre parcel) was also the subject of a Phase I ESA. That investigation concluded there were no recognizable hazards requiring further investigation.

4 Memorandum from Janet Haynes, Director, Global Environmental Services to Christine Kronenberg, EIP Associates, June 27, 2005.

Although the 1993 Phase I suggested the potential that routine pesticide use on agricultural crops could have affected soils, neither the subsequent 2001 Phase I ESAs nor the Phase II ESA noted this as a concern.

Site Visit

EIP Associates staff conducted a site visit of the Proposed Project site on May 25, 2004. At the time of the visit, a majority of the site was in agricultural use (corn, row crops and grain).

All structures on the land previously occupied by Mistler Trucking/Mistler Farms described in the 1993 ESA and 2001 ESA had been removed, except for concrete foundations and slabs.

Emergency Response Providers

Fire Protection

The Dixon Fire Department (DFD) operates out of a single station located at 205 Ford Way. Equipment includes four fire engines, one ladder truck, one rescue squad, two water tenders, one command vehicle, and two utility vehicles. The department operates with 19 sworn, three non-sworn, and 30 volunteer firefighters and 30 volunteer personnel.⁵ The response time from the Ford Way fire station to the project site is approximately four minutes. For the entire District, the DFD averages a response time of 10.8 minutes, due to the large coverage area. In 2003, 88 percent of the Department's responses were under 5 minutes, with only 2 percent of responses exceeding 8 minutes.⁶ The Department has proposed a new fire station on the southwest side of Dixon, to be constructed by 2007.⁷

Mutual Aid Agreements

In addition to 24-hour response, the City has also established Automatic and Mutual Aid Agreements. There is an Automatic Aid Agreement between the cities of Dixon and Vacaville to serve predefined areas within each jurisdiction. The Proposed Project site is not one of the predefined areas. An Automatic Mutual Aid Agreement between the cities of Dixon, Davis, West Sacramento, Woodland, and University of California, Davis provides additional resources for multiple and large emergency events. The City may also request specified equipment and personnel, if available, during emergency situations through a Mutual Aid Agreement with the Solano County Fire and Rescue Operational Area. The State of California Master Mutual Aid agreement in which the city may request aid through an Area Coordinator for strike teams is also available.⁸

Additional information regarding emergency service providers is presented in Section 4.9, Public Services.

5 Organizational Effectiveness Consulting, Draft Potential Impacts of the Proposed Dixon Downs Phases I & II Development on the City of Dixon Public Safety Services, September 9, 2004, page 4.

6 Organizational Effectiveness Consulting, Draft Potential Impacts of the Proposed Dixon Downs Phases I & II Development on the City of Dixon Public Safety Services, September 9, 2004, page 6.

7 Organizational Effectiveness Consulting, Draft Potential Impacts of the Proposed Dixon Downs Phases I & II Development on the City of Dixon Public Safety Services, September 9, 2004, page 14.

8 Organizational Effectiveness Consulting, Draft Potential Impacts of the Proposed Dixon Downs Phases I & II Development on the City of Dixon Public Safety Services, September 9, 2004, pages 8-9.

Emergency Medical Response

Emergency medical service is provided by the DFD, which functions within a Joint Powers Agreement (JPA) that comprises the cities of Benicia, Vallejo, Fairfield and Medic Ambulance Company. The JPA requires Fire Department response to arrive on scene within seven minutes of dispatch with paramedic and EMT personnel. There is also a response by private paramedic-staffed ambulance, which is required to arrive within 12 minutes.⁹

Law Enforcement

The Dixon Police Department (DPD) provides law enforcement for the project site and the City of Dixon. The DPD occupies a new station at the intersection of South Jackson and A Street. The DPD employs 23 sworn officers and four non-sworn employees. Patrol personnel are available on call 24 hours per day; the minimum staffing is one sergeant and two officers, although there are typically three or more officers on duty at any given time.¹⁰ Average response times to emergency calls by the DPD are less than five minutes. In 2002, the Department responded to 8,000 Calls for Service and handled 14,800 total incidents (including Calls for Service, officer initiated activities and other miscellaneous responses).

Regulatory Framework

The following discussion summarizes federal, State, and local regulations pertaining to hazardous materials management and public safety that are relevant to construction and operation of the Proposed Project.

Federal Regulations

Several federal agencies regulate hazardous materials. These include the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Federal regulations which regulate the handling (including transportation), storage, work-place safety, and disposal of hazardous materials and wastes are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR).

State Regulations

Hazardous Materials

The California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in the State. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

9 Organizational Effectiveness Consulting, Draft Potential Impacts of the Proposed Dixon Downs Phases I & II Development on the City of Dixon Public Safety Services, September 9, 2004, pages 7-8.

10 Organizational Effectiveness Consulting, Draft Potential Impacts of the Proposed Dixon Downs Phases I & II Development on the City of Dixon Public Safety Services, September 9, 2004, page 15.

Within Cal/EPA, the Department of Toxic Substance Control (DTSC) has primary regulatory responsibility for hazardous waste management. Under the authority of the Hazardous Waste Control Law, enforcement of regulations regarding the generation, transport, and disposal of hazardous materials has been delegated to local jurisdictions that enter into agreements with DTSC. State regulations applicable to hazardous materials are contained in Title 22 of the California Code of Regulations (CCR). Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials management.

In January 1996, Cal/EPA adopted regulations implementing a “Unified Hazardous Waste and Hazardous Materials Management Regulatory Program” (Unified Program). The six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency – the Certified Unified Program Agency (CUPA). The CUPA that serves the Proposed Project is the Solano County Department of Environmental Management (SCDEM). The SCDEM is responsible for consolidating the administration of the six program elements within its jurisdiction.

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises. The code contains specialized technical regulations related to fire and life safety.

Contaminated Sites

The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB) are the two primary State agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at contaminated sites are also subject to federal and State laws and regulations that are administered at the local level.

California Horse Racing Board Rule and Regulations Pertaining to Facility Workers and Public Safety

Rules and regulation of the California Horse Racing Board (CHRB) are codified in Title 4 of the California Code of Regulations (CCR). Various sections of the CHRB Rules and Regulations include requirements that address safety at race tracks. Article 17, Section 1920 requires that security controls be in place. Article 17, Sections 1927 and 1928 require that fire prevention, protection against fire, fire suppression systems, and emergency evacuation plans be in place for each building, barn, or structure used for human habitation or stabling of horses. The fire prevention system must be approved by the local fire authority (in this case, the Dixon Fire Department). Article 28 of the Rules and Regulations specifies various safety and sanitation requirements for backstretch worker housing.

The CHRB Rules and Regulations do not contain any specific requirements pertaining to handling of horse wastes and worker safety around horses to minimize risk of human exposure to equine parasitic organisms, nor is there a specific requirement for the preparation and implementation of a site-specific manure management plan or similar protocol. According to CHRB staff, regulations established in Title 8 of the CCR pertaining to workplace safety under the Cal-OSHA program would be implemented at the work site.¹¹

Local Regulations

Solano County

The SCDEM is the CUPA for all cities and unincorporated areas within Solano County. The SCDEM issues permits to and conducts inspections of businesses that use, store, or handle quantities of hazardous materials and/or waste greater than or equal to 55 gallons, 500 pounds, or 200 cubic feet of a compressed gas at any time. The SCDEM also implements the Hazardous Material Management Plans (Business Plans) that include an inventory of hazardous materials used, handled, or stored at any business in the County. The SCDEM also permits and inspects businesses that handle acutely hazardous materials, such as those used in R&D facilities. The SCDEM also helps local fire departments respond to emergencies involving hazardous materials.

Furthermore, regulated activities (e.g., businesses) are managed by the SCDEM in accordance with applicable regulations such as Hazardous Materials Release Response Plans and Inventories (Business Plans), the California Accidental Release Prevention (CalARP) Program, and the California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.

Solano County Mosquito Abatement District

Catch basins, slow-moving streams, standing water (in irrigated fields, for example) and open flood control/storm drain channels can create a favorable condition or habitat for vectors¹² such as mosquitoes, other aquatic organisms, and some rodents. Water resources that could provide suitable habitat for mosquitoes do not currently exist on the project site; however, mosquitoes, in general, are common in the region. The Solano County Mosquito Abatement District (SCMAD) provides monitoring and abatement services to control mosquito and vector populations in the project area. Control technicians routinely inspect sources within the SCMAD on a 7- to 10-day cycle from April to October.¹³

City of Dixon

The City regulates hazardous materials in coordination with other State and local agencies (e.g. DTSC and SCDEM). The City enforces Title 26, Division 6, of the CCR to reduce impacts associated with accidental release from transportation of hazardous materials on roads in the City and the potential for an increased demand for incident emergency response.

11 Roy Minami, California Horse Racing Board, personal communication, December 21, 2004.

12 A vector is any insect or animal capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury including, but not limited to, mosquitoes, flies, other insects, ticks, mites, and rodents.

13 Solano County Mosquito Abatement District, information brochure, undated.

In addition, pursuant to Title 8 of the CCR, the DFD, in coordination with the SCDEM, enforces workplace regulations applicable to businesses and public facilities addressing the use, storage, and disposal of flammable and hazardous materials. The DFD is also responsible for oversight on all fire safety regulations as they pertain to fire safety hazards to people and structures in the City, including fire sprinkler installation, flammable materials storage, emergency response and evacuation procedures, and other fire prevention measures.

City of Dixon General Plan

The following policy from the City of Dixon General Plan (General Plan) Public Services and Facilities Element addresses emergency access:

28. The City shall ensure new development incorporates street layouts which provide adequate emergency access, distinct street names, and visible address markings.

There are no General Plan policies specifically related to contamination or hazardous materials use.

Northeast Quadrant Specific Plan (NQSP)

The NQSP policies add detail to the City of Dixon General Plan policies or establish policies applicable only to the plan area.¹⁴ The following NQSP Public Facilities and Services Element Fire Protection Policy is applicable to emergency access:

6.11.6 Fire Protection

1. All development projects in the plan area should be reviewed by the City of Dixon Fire Department for the inclusion of fire prevention measures and access requirements. Coordination with the fire department early in the project design stage is encouraged.

There are no NQSP policies specifically related to contamination or hazardous materials use. However, the NQSP EIR included the following two mitigation measures to address potential safety impacts related to the disturbance of soil that may contain hazardous substances as a result of historic use of the project site:

- PH-B Perform soil sampling in areas identified in the Preliminary Site Assessment completed by Anderson Consulting Group. These areas include locations where pesticides were stored, mixed and applied.
- PH-C The entire site occupied by Mistler Trucking/ Mistler Farm operations shall be excavated and surveyed for contaminants. A Level One Toxics Analysis shall be prepared by a qualified geotechnical engineer to define the level of contamination and any required remediation techniques. This analysis shall be performed prior to grading or construction activities to reduce potential exposure of construction workers and the general public to hazardous materials.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if the Proposed Project would:

14 City of Dixon, Northeast Quadrant Specific Plan, April 3, 1995, page 1-4.

- 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;
- Create an increased risk of adverse health effects to the public or cause increased environmental hazard resulting from known or unidentified soil or groundwater contamination that could be encountered during construction or be present during occupancy of the project;
- Create a public safety hazard due to inadequate access/egress to disperse a large number of people during event(s); or
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Methods of Analysis

The analysis of the potential hazardous materials-related impacts is based on the following information: *Preliminary Site Assessment, Vaughn Road PSA*, Anderson Consulting Group (July 12, 1993), a site visit conducted on May 25, 2004; and documents and information provided by the City of Dixon. The information obtained from these sources was reviewed and summarized to establish existing conditions and to identify potential environmental effects at a qualitative level, based on the standards of significance presented in this section.

In determining the level of significance, the analysis assumes that development associated with the Proposed Project would comply with relevant federal, State, and local ordinances and regulations. In most cases, the laws and regulations pertaining to hazardous materials management and public safety are sufficient to ensure worker, public, and environmental health and safety. The discussion below identifies areas where impacts related to hazardous materials could, nonetheless, be significant or potentially significant because the enforcement of existing laws and regulations alone does not necessarily ensure that health and safety would be adequately protected.

The NQSP EIR (1994) was reviewed during preparation of this section. Based on this review, where applicable, mitigation measures from the NQSP EIR are identified in this document. However, in some instances the mitigation included in the NQSP EIR is revised and/or updated to either reflect current conditions or provide more specificity.

Potential hazards and associated impacts related to toxic air contaminant emissions are discussed in Section 4.2, Air Quality, of this EIR. For information regarding potential exposure of on-site visitors and staff to pesticide use on adjoining fields in the surrounding agricultural community, please see Section 4.7, Land Use, Planning and Agricultural Resources.

Impacts and Mitigation Measures

Impact 4.5-1	The Proposed Project would involve the use of products containing hazardous materials during construction and operation, which could increase the risk of accidental release of chemicals that could affect people or the environment.	
Applicable Policies and Regulations	Code of Federal Regulations Title 49, California Health and Safety Code Chapter 6.95, California Code of Regulations Titles 8, 22, and 26, Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Solano County), Uniform Building Code, Uniform Fire Code	
Significance before Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant
Applicable NQSP Mitigation Measures	None	
Mitigation Measures	Phase 1:	None required
	Phases 1 and 2	None required
Significance after Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant

Phase 1

Products such as cleaning agents, paints, solvents, and fuels may contain hazardous materials that would be used in varying amounts during construction and operation of the Proposed Project. In some cases, it is the type of hazardous material that is potentially hazardous; in others, it is the amount of hazardous material that would present a hazard. Exposure of construction workers or racetrack personnel to hazardous materials would 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 accidents; environmentally unsound disposal methods; or fire, explosion or other emergencies.

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 California Health and Safety Code, were established at the State level to ensure compliance with federal regulations to reduce the risk to 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., Cal OSHA in the workplace or DTSC for hazardous waste) and/or local jurisdictions (e.g., the Dixon Fire Department or Solano County CUPA). By ensuring that operations at the Dixon Downs racetrack comply with the Unified Program (UP), the City would reduce impacts associated with the potential for accidental release of hazardous materials during occupancy of the project that would result in increased risk of exposure to accidental release of hazardous materials, and the potential for an increased demand for incident emergency response.

Workplace regulations addressing the use, storage, and disposal of hazardous materials in Title 8 of the CCR would apply to operations within the project. Compliance with these regulations would be monitored, in part, by Solano County when it performs hazardous materials inspections. Other mechanisms in place to enforce the Title 8 regulations include compliance audits and reporting to local

and State agencies. Implementation of the workplace regulations would further reduce the potential for hazardous materials releases.

Implementation of Title 49, Parts 171-180, of the Code of Federal Regulations would reduce any impacts associated with the potential for accidental release during construction or occupancy of the project, if implemented, by transporters delivering hazardous materials to the project site or picking up hazardous waste. These regulations establish standards by which hazardous materials would be transported, within and adjacent to the project site.

Collectively, implementation of existing regulations would reduce impacts associated with the routine use, storage, and transportation of hazardous materials and the potential for accidental release of hazardous materials to a *less-than-significant level*.

Phases 1 and 2

Phase 2 construction would involve the same types of products containing hazardous materials as Phase 1 (e.g., paints, solvents, fuels). After construction, commercial, office, and retail activities would use products containing hazardous materials for routine cleaning and maintenance. The types and amounts of materials would not be substantial and would not present unusual hazards when used in the normal course of business. As discussed for Phase 1, there are regulatory mechanisms in place at the State and local level to minimize potential hazards; therefore, impacts would be considered *less than significant*.

Mitigation Measures

None required.

Impact 4.5-2	The Proposed Project could result in the exposure of people and the environment to potential disease hazards associated with horse wastes and bedding materials and vectors.	
Applicable Policies and Regulations	Cal/OSHA (Title 8, California Code of Regulations), Federal and State Concentrated Animal Feeding Operation (CAFO) NPDES permit, City of Dixon Stormwater Quality Management Plan, Dixon Downs Manure Management Plan, Dixon Downs Storm Water Quality Management Plan	
Significance before Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant
Applicable NQSP Mitigation Measures	None	
Mitigation Measures	Phase 1:	None required
	Phases 1 and 2:	None required
Level of Significance after Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant

Phase 1

Up to 1,440 horses could be housed in 40 barns with 36 stalls each that would be constructed as part of the Proposed Project. The animals would generate feces, urine, and soiled bedding materials. Equine

feces may contain various parasitic organisms such as bloodworms, pinworms, tapeworms, ascarids, and botfly larvae among others.¹⁵ Diseases, such as *Clostridium tetani* (tetanus) may also occur in equine feces.¹⁶ The primary hazard associated with urine would be volatilization, which would generate ammonia odors.

Contact with equine wastes would only be a human health hazard if wastes were ingested or introduced into the body through a wound. Because the public would typically be excluded from areas frequented by horses, the amount of equine waste exposure to the public would be minimal. People most likely to be exposed to the equine wastes are horse handlers and stable cleaning personnel. While these people may be exposed to wastes on a regular basis, it is not expected that ingestion or contact with an open wound would occur, except accidentally, because personnel would be trained in proper handling of animal waste, as required by State regulations (Cal-OSHA). Further, the horses that would be housed in the proposed facility would receive regular veterinary care, thus limiting the possibility that fecal matter within the Proposed Project would contain parasitic organisms.

For areas that are publicly accessible (e.g., parking areas and infield [during events, for example], stormwater runoff contaminated with horse fecal material would be the most likely exposure pathway. However, the project Storm Water Quality Management Plan (SWQMP) includes several Best Management Practices (BMPs) that are designed to ensure stormwater from areas where horses are housed and washed is conveyed and disposed of in accordance with applicable laws and regulations pertaining to Concentrated Animal Feeding Operation (CAFO) requirements enforced and monitored by the Regional Water Quality Control Board (RWQCB). The project includes a separate “process wastewater” system that would direct from the stable interior and horse walk paths to the sewer. Stormwater from the remaining areas of the site would be conveyed to a conventional piped drainage system that includes water quality swales and detention facilities. Additional detail on the CAFO requirements and site drainage is presented in Section 4.6, Hydrology and Water Quality, and the SWQMP in its entirety is included in Appendix F. While the purpose of the separate “process wastewater” system is to minimize stormwater runoff water quality impacts on the environment, this BMP would also help minimize the potential for the public to be exposed to horse fecal material and other vectors¹⁷ that could be in runoff from the stable area. Operational components of the project that would reduce the risk for the public to be exposed to horse fecal material in runoff and vectors are described below.

The floors of the stable stalls would be covered with an absorptive bedding material typically consisting of straw and wood shavings. When the bedding material is soiled, it would be removed from the stalls, deposited in enclosed containers and moved to an on-site Manure Transfer Building for daily off-site transport to a permitted composting facility, the landfill, or some other disposal site. Jepson Organics, a subsidiary of Norcal Waste Systems, Inc., is a permitted facility located approximately 10 miles south of the City of Dixon that accepts horse waste (manure and soiled bedding) for composting. There are also numerous other facilities that accept horse manure and bedding material including Monterey Mushroom, Royal Oaks Facility, Morgan Hill Facility, and South Valley Mushroom Farm, to note a few places. The

15 American Veterinary Medical Association, “What You Should Know About Internal Parasites in Horses,” October 2003, Website: http://www.avma.org/communications/brochures/parasites/parasites_faq.asp, viewed on 6/14/04.

16 Canada, Office of Laboratory Security, “Material Safety Data Sheet-Infectious Substances, *Clostridium tetani*,” Website: [Http://www.hc-sc.gc.ca/pphb-dgspsp/msds-ftss/msds38e.html](http://www.hc-sc.gc.ca/pphb-dgspsp/msds-ftss/msds38e.html), Viewed on 6/18/04.

17 A vector is an insect or animal capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury including, but not limited to, mosquitoes, flies, other insects, ticks, mites, and rodents.

disposal and/or reuse of this material would be required to comply with all applicable state laws that oversee the disposal of animal waste. Because the manure and soiled bedding material would be deposited in enclosed containers and removed from the site on a daily basis, in accordance with the “Dixon Downs Manure Management Plan” (see Appendix E), problems with flies often associated with other agricultural operations involving horses and livestock would not occur. A vegetated swale with a forebay would capture any stormwater runoff from this area to contain any accidental spills before discharging to the piped drainage system.

Bacteria such as *E. coli*, and fecal coliform are naturally present in fecal material. Horse fecal matter that is defecated in locations outside of the stalls may be washed into on-site drainage swales during storms or be left in areas exposed to jockeys, workers or the public if not properly managed. One of the operational elements of the Dixon Downs SWQMP is routine “street sweeping” in the stable and service areas to remove and dispose of fecal material. This would also minimize the potential for fecal material to be tracked outside the stable area by horses or vehicles entering and leaving the stable area. This would reduce the potential for bacterial contamination in stormwater runoff conveyed through the site piped drainage system. Even for larger storm events, where water could pond in the infield (see below), contaminants, if any, would be substantially diluted by the volume of runoff.

Water resources that could provide suitable habitat for mosquitoes do not currently exist on the project site; however, mosquitoes, in general, are common in the region. Equine fecal material contains a relatively high amount of nutrients necessary for plant and algae growth. Increased algae and plant growth could create an ideal habitat for mosquito eggs, and food for mosquito larvae. Mosquitoes (vectors) can carry diseases that afflict humans, and they also transmit several diseases and parasites that can affect dogs and horses. These include dog heartworm, West Nile virus, Eastern equine encephalitis, malaria, dengue, and yellow fever, among others.¹⁸ As discussed above, the proper management and consolidation of horse feces into closed containers within an on-site Manure Transfer Station and the on-site stormwater quality control measures that would separate stormwater from the stable areas for discharge to the sewer would minimize the amount of nutrients entering the storm drainage system. Consequently, the risk for increased mosquito populations resulting from nutrients in stormwater runoff discharged within open areas within the project site would be minimal.

Standing water also provides breeding opportunities for mosquitoes, provided temperatures are high enough and there are available nutrients. The race track infield would provide temporary storage (detention) for stormwater runoff conveyed through the on-site piped drainage system. For the frequent 2-year storm (i.e., a storm that has a 50 percent chance of occurring in any year), the volume of stormwater and rate of flow would not be large enough to drain to the infield detention basin, so the potential for standing water is negligible. For the 10-year storm (a storm that has a 10 percent chance of occurring in a given year) or larger, stormwater could be discharged to the infield detention basin either through a “bubble-up” system under the infield, or in the event of larger storms, through overland flow if the capacity of the piped drainage system is exceeded. This could result in temporary ponding. For the reasons noted above, fecal contaminants and nutrients in stormwater conveyed to the infield under these larger storms is not anticipated, but the ponded water could provide breeding opportunities for mosquitoes if the water were present long enough for mosquitoes to complete their four life stages (egg, larval, pupal, and adult). The amount of standing water would not be significant during a 10-year storm, and the infield is anticipated to drain within 3.5 days, which would not provide sufficient time for

18 Floore, Tom, Public Health Entomology Research & Education Center, Florida Agricultural & Mechanical University, Mosquito Information, updated 6/16/04.

mosquitoes to become adult mosquitoes capable of flight. For a more intense, but less frequent storm (e.g., a 100-year, or 1 percent, event), ponded water could remain for up to 10 days. However, this would be most likely to occur during the late winter months when temperatures are cool, and would occur so infrequently as to not present a significant environmental risk.

With the site controls and environmental conditions described above, the potential creating a significant health hazard to humans or nearby animals, including horses, as a result of animal waste management practices and vectors would be minimal. Therefore, this impact is considered *less than significant*.

Phases 1 and 2

During Phase 2 of the Proposed Project, commercial, retail, hotel, and office space would be created, which would increase the number of people who could be exposed to horse manure hazards. However, the occupancy of Phase 2 would not include any uses that would increase the potential for mosquitoes, as compared to the race track stables. For the reasons discussed above, this impact is considered *less than significant*.

Mitigation Measures

None required.

Impact 4.5-3	Construction and occupancy of the Proposed Project could create a health hazard to people and the environment due to soil contamination.	
Applicable Policies and Regulations	California Code of Regulations Titles 26 and 27 Code of Federal Regulations Title 40	
Significance before Mitigation	Phase 1:	Potentially Significant
	Phases 1 and 2:	Potentially Significant
Applicable NQSP Mitigation Measures	None	
Mitigation Measures	Phase 1:	4.5-3 (a) through (c)
	Phases 1 and 2:	4.5-3 (a) through (c)
Significance after Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant

Phase 1

The Proposed Project area has historically been used for agricultural purposes, a trucking shop, rural residences, and barns. Based on a Phase I ESA prepared in 1993, when there were still buildings and structures on the site, the NQSP EIR concluded there was the potential that soil in the Proposed Project area could have been contaminated by past site uses, including the on-site storage of fuels, the ongoing application of pesticides, herbicides and other agricultural chemicals, or illicit debris disposal. The NQSP EIR identified Mitigation Measures PH-B and PH-C to address the potential for contaminated soil to be present at the site. Mitigation Measure PH-B required soil sampling in locations where pesticides were

stored, mixed, and applied. Mitigation Measure PH-C required excavation and analysis of soils in the Mistler Trucking/Mistler Farm area.

The project site was subsequently evaluated for hazardous materials contamination in 2001 and 2005, as described in the Environmental Setting, and is currently vacant (all structures had been removed by 2001). In 2005, a Phase II ESA completed as recommended in the 2001 Phase I ESA for the Mistler property determined that soil in the area of a former 10,000-gallon AST had been contaminated by a diesel leak. The contaminated soil area is approximately 20 feet across and at least 10.5 feet deep. Shallow groundwater contamination may also have occurred, but groundwater testing has not been performed to date. The Phase II ESA recommended additional soil and groundwater investigation. In the area of the six former ASTs, the Phase II ESA concluded there was no evidence of contamination requiring further investigation. Concentrations of metals in landfill soils exceeded regulatory standards for waste disposal, but were not considered to pose a threat to groundwater, according to the Phase II ESA. However, the Phase II ESA noted that results should be compared to federal human health risk-based standards to determine whether the levels pose a health risk. Based on the information presented in the Phase I and Phase II ESAs, these are the only locations within the project site that are known to be contaminated. Under Phase 1 of the Proposed Project, this area, generally in the North Area 1, would be developed with a parking lot. There is no evidence that former pesticide use on agricultural land within the project site has resulted in any contamination, including areas that would be publicly accessible and not covered with impervious surfaces, such as the track or infield.

For those areas where contamination has been identified, soil containing elevated levels of contaminants, left unmanaged, could pose a health risk to site workers and occupants if contaminated soil is disturbed. Generally, the greatest risk of exposure would occur during grading and construction when dust (potentially containing contaminants) becomes airborne. Increasing airborne levels would be considered a potential health hazard for construction contractors. During construction, uncontrolled runoff containing contaminated soil could also present environmental hazards by providing additional pathways for contaminants to spread. Groundwater within a few feet of the surface could also be contaminated by the downward migration of soil contaminants via rainwater infiltration through disturbed soils. The installation of underground utility infrastructure could create conduits for lateral migration of groundwater contaminants. No groundwater wells for potable use would be installed to serve the project, so there would be no direct impact on future occupants from using contaminated groundwater. However, if the source(s) of contamination is not controlled, there is the potential for groundwater quality degradation, which would be of environmental concern.

Even though all reasonable efforts have been made to determine the likelihood of contaminant sources, it is possible that not all septic tanks, wells, or other underground storage devices or conveyance systems have been identified, because these could have been installed prior to permitting requirements. Soil or groundwater contaminated with hazardous substances from these unknown items could be present and may not be readily apparent until grading or construction. If such materials or wastes were discovered during grading or construction and not properly managed, there could be an accidental or inadvertent release of hazardous materials that could result in spread of contamination or affect site workers.

Disturbance of areas known to be contaminated, and/or the discovery of previously unidentified hazardous debris or contamination could result in upset and accident conditions involving the release of hazardous materials into the environment. This is considered *potentially significant*.

Phases 1 and 2

Known contamination is limited to the two locations within the Mistler property, which would be developed during Phase 1 with a parking lot. Construction of Phase 2 of the Proposed Project would only present a hazard if hazards were not managed during Phase 1 when the parking lot is converted to retail uses and the ground is disturbed, or if previously unknown hazards were encountered elsewhere during Phase 2 development. Impacts associated with contamination that is not properly managed would be similar to those described for Phase 1 and would be considered ***potentially significant***.

Mitigation Measures

Implementation of Mitigation Measure 4.5-3 would ensure that soil and/or groundwater contamination is managed according to established protocols under regulatory oversight. This would also provide a mechanism to safely manage previously unidentified contamination that could be encountered during site work, which would reduce the risk to construction workers and future site users. This would reduce the impacts of soil and groundwater contamination to a *less-than-significant level*.

4.5-3(a) (Phases 1 and 2)

Prior to issuance of a grading permit, contaminated soil at the former 10,000-gallon diesel AST location shall be removed and disposed off at an off-site disposal facility permitted to accept such waste. Confirmatory soil sampling shall be performed after soil removal to verify and document no contaminated soil remains on-site. Results of soil testing shall be submitted to the Solano County Environmental Health Department. Site development at that location shall not occur until a closure letter for the soil contamination has been obtained from the Solano County Environmental Health Department.

After contaminated soil removal, a groundwater detection monitoring program shall be implemented to demonstrate to the satisfaction of the Solano County Environmental Health Department that groundwater quality has not been adversely affected by past diesel releases from the AST and the source of diesel contamination has been effectively removed. There shall be a minimum of three groundwater monitoring wells, and the duration of the quarterly monitoring program shall be a minimum of one year. Quarterly monitoring shall continue until the Solano County Environmental Management Department determines testing is no longer required and/or issues a site closure letter. If the Solano County Environmental Management Department determines in-situ groundwater remediation is required, the developer or successors in interest shall work with County staff to determine agreed-upon cleanup levels and implement a cleanup program.

The locations of all groundwater monitoring wells on-site (and off-site, if necessary) shall be noted on preliminary grading maps, design plans, and/or as-builts, depending on the timing of installation relative to site improvements. Facility operations and maintenance manuals shall include procedures to protect the integrity of the groundwater monitoring network.

4.5-3(b) (Phases 1 and 2)

Prior to issuance of a grading permit, metals results for the four metals exceeding designated waste levels at the former landfill shall be evaluated by a qualified professional as described in the Phase II ESA for the Mistler property (Conestoga-Rovers and Associates, March 17, 2005). Prior to the first grading activity at that location, if it is determined levels could present a human health risk during construction (e.g.,

fugitive dust containing elevated metals levels or soil re-use elsewhere on-site), soils shall be removed and disposed of at an off-site location permitted to accept such waste, or remediated to levels where there would be no adverse health risk. Prior to grading, the results of any testing and cleanup actions shall be submitted to the Solano County Department of Environmental Management to obtain regulatory closure, if such reporting is required under federal, State, or local laws and regulations.

4.5-3(c) (Phases 1 and 2)

Construction contract solicitations and specifications shall summarize the results of the 2001 Phase I ESAs, 2005 Phase II ESA, and any subsequent reports to inform construction workers of the potential for encountering previously unidentified contamination. Contract specifications and site development plans (e.g., grading plans) shall include wording that during site preparation and construction activities, if evidence of hazardous materials contamination is observed or suspected (i.e., stained or odorous soil, or oily or discolored water) beyond that identified in the Phase I and Phase II ESAs, construction activities shall cease and an environmental professional shall assess the situation. The environmental professional shall determine whether additional investigation is needed and specify control measures for the affected site to reduce the potential for exposing construction personnel to hazards. If the investigator determines soil samples should be collected, results of the investigation and a plan to manage the hazard to minimize risks to construction personnel shall be submitted to the Solano County Environmental Management Department if the release is subject to reporting.

Impact 4.5-4	Large events at the project site would result in a substantial concentration of people immediately before, during, and after events, which could affect emergency response and/or evacuation conditions.	
Applicable Policies and Regulations	Dixon General Plan Public Services and Facilities Policy 28 NQSP Public Facilities and Services Element Fire Protection Policy 1 California Horse Racing Board CCR Title 4, Article 17 (Fire Prevention and Security)	
Significance before Mitigation	Phase 1:	Potentially Significant
	Phases 1 and 2:	Potentially Significant
Applicable NQSP Mitigation Measures	None	
Mitigation Measures	Phase 1:	4.5-4 (a) and (b)
	Phases 1 and 2:	4.5-4 (a) and (b)
Significance after Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant

Phase 1

The Proposed Project includes horse and non-horse racing events involving an attendance of up to 6,800 patrons (capacity of the Finish Line Pavilion and Grandstand combined excluding employees). This is defined as a “Tier 1” event. “Tier 2” events, consisting of events involving an attendance of between 6,800 patrons (capacity of the Finish Line Pavilion and Grandstand combined) and 15,000 patrons, are also proposed. Tier 2 events could include concerts, large horse events or other events. It is anticipated Tier 2 events would occur periodically throughout the year. A Tier 3 event would occur up to one time

per year and would have an attendance of between 15,000 up to 50,000 patrons. A Tier 3 event would be limited to a horse racing event such as a Breeders Cup.

A situation involving a large-scale accident, security incident, or natural disaster during events where up to 15,000 to people are present during a Tier 2 event, along with up to 1,440 horses housed in the on-site stables, could result in the need to methodically and expeditiously evacuate people and horses from the premises and/or provide emergency medical or veterinary care to minimize the risk of injury, death, or property damage. This could be of particular concern during a Tier 3 event, where up to 50,000 people could be present, but this is anticipated to occur only once a year.

The proposed site plan indicates one main public access/egress roadway from the proposed Dixon Downs Parkway into the finish line pavilion area. Emergency fire access from Pedrick Road is proposed in the southeast corner of the facility. There would be two access/egress points across the infield and grandstand area (across the track itself). Security fencing would be installed along the Pedrick Road side of the race track complex. Public thoroughfares (Pedrick Road and Vaughan Road) and a major highway (I-80) borders the site on three sides.

As currently designed, the limited number of access/egress locations accessible to the public and race track employees, combined with the proximity to major roadways, could create a public safety hazard as large numbers of people try to exit the facility in the event of an emergency. The evacuation of horses would contribute to potential congestion. In addition, during Tier 2 and Tier 3 events, although relatively infrequent, several thousand people could require evacuation from the infield to the outer areas of the complex to evacuate the site.

It is assumed the evacuation process to protect humans and horses would occur in an orderly manner onto the nearby pedestrian and roadway network. The project's Master Fire, Safety, and Security Plan would identify employee and emergency responder responsibilities. However, should on-site emergency personnel require additional support from off-site emergency personnel, congestion on the surrounding roadway network due to large congregations of people and horse trailers could cause delays in emergency response or other logistical problems. It would also increase the potential for vehicle/pedestrian accidents. This would be of particular concern immediately prior to and after event(s) when vehicles are queued on local streets or ramps to I-80. Event-related congestion on local roadways could also impede emergency response to other locations not associated with the proposed project. In addition, large congregations of people and horse trailers in the vicinity of the Pedrick Road/I-80 interchange could distract motorists on I-80, increasing the potential for vehicle accidents on that roadway, which could also impede emergency response. If the evacuation was not coordinated by response personnel, this would exacerbate the problem.

The substantial concentration of people could also result in the need for significant police, fire, and/or medical emergency response services, as compared to times when there are no or lightly attended events. Depending on the type of a larger event and the nature of the incident, there may or may not be emergency response personnel in sufficient number at the event(s) to respond. On-site personnel may be able to be deployed as a first response unit, but additional responders could be required. Various mutual aid agreements are in place, as discussed in the Regulatory Setting, above, that can be called upon as needed. However, emergency response could be delayed for the reasons noted above.

Because implementation of the Proposed Project could increase the risk of injury, death, or property damage due to limited access/egress or impair or overwhelm existing emergency response services, this is considered a *potentially significant impact*.

Phases 1 and 2

Hotel/conference center, retail, and office uses within Phase 2 would add an additional approximately 10,400 people who would be present at the race track/retail complex. The total is a conservative estimate based on the parking analysis (see Section 4.10, Transportation and Circulation), which assumes all proposed land uses are occupied simultaneously. On weekends and evenings, this number may be slightly lower, as offices would not likely be occupied. Depending on the day of the week and time of the event, during maximum event conditions at the race track (e.g., a concert with 15,000 people in attendance), this could increase the number of people who may need to be evacuated or who would require treatment in the event of a large-scale emergency at Dixon Downs to over 25,000 with simultaneous use/occupancy of Phase 1 and Phase 2 facilities during a Tier 2 event. During a Tier 3 event, under worst-case conditions, there could be approximately 70,000 people who may need to be evacuated. Horses in the stables would also need to be moved. Under the worst-case scenario, this could represent a substantial safety hazard for the reasons described for Phase 1. This is considered a *potentially significant impact*.

Mitigation Measures

Implementation of the following mitigation measure would reduce this impact to a *less-than-significant level* by ensuring that an emergency response and evacuation plan for project facilities is developed by the project sponsor that is consistent with and integrated into the City of Dixon's emergency response plan and is consistent with security and fire prevention standards established in Article 17 of the CHRB Rules and Regulations.

4.5-4(a) *(Phases 1 and 2)*

Prior to issuance of building permits, the project applicant shall prepare a Master Fire, Safety and Security Plan in coordination with the City of Dixon. The plan shall be reviewed and approved by the City of Dixon Fire Department and Police Department. The plan shall be prepared by a qualified consultant with experience in race track emergency preparedness and response planning. The plan shall address individually and collectively each type of event that could occur in project facilities and credible accident scenarios.

In addition to identifying facility design features that meet all applicable code requirements, the plan shall also include event emergency response and evacuation planning for event attendees, racetrack personnel, and horses and off-site traffic and pedestrian congestion management. The emergency equipment and operations component of the plan shall, at a minimum, address the following issues: fire protection/suppression systems; procedures for emergency response and warning systems; documentation (as a condition of project approval) that adequate trained staff resources and equipment can be made available (including veterinarians) through mutual aid agreements, if necessary; and emergency access routes for any necessary additional equipment and/or personnel to the project site.

The event emergency (evacuation) element shall be developed for use in the event of an emergency situation that necessitated partial or complete evacuation of the facility, including the horse stalls. Such emergencies

could include, but would not be limited to, fires, earthquake, explosions, flooding, security incidents, hazardous materials release on I-80 or UPRR adjacent to the site, or other incidents of a similar nature. The plan shall identify evacuation routes and routes to nearby medical facilities and horse boarding facilities/veterinary care and contingency measures to deal with anticipated traffic and/or pedestrian congestion, including movement of large horse trailers. This component of the plan, which shall be completed to the satisfaction of the City of Dixon Fire Department, shall be incorporated into facility employees' operations and procedure manuals and updated regularly. The plan shall be coordinated by trained supervisory personnel and shall be integrated with the City's emergency response plan. The consultant shall ensure event and/or facility administrators are trained in the elements of the Master Fire, Safety and Security Plan and methods required to maintain and execute response actions at events.

4.5-4(b) (Phases 1 and 2)

In conjunction with the above and as part of the project's traffic congestion mitigation that addresses traffic control before and after large events (see Mitigation Measure 4.10-5), separate emergency response protocols and/or access routes, designated solely for emergency vehicles to respond on-site and off-site during peak periods of event-generated on- and off-site traffic congestion, shall be established and incorporated into City emergency response planning.

Cumulative Impacts and Mitigation Measures

The cumulative context for hazards includes all development in the NQSP and the City of Dixon.

Impact 4.5-5	Cumulative development, including the Proposed Project, could expose people and the environment to hazards and hazardous materials through reasonable foreseeable upset and accident conditions.
Applicable Policies and Regulations	Code of Federal Regulations Title 49, California Health and Safety Code Chapter 6.95, California Code of Regulations Titles 8, 22, and 26, Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Solano County), Uniform Building Code, Uniform Fire Code
Significance before Mitigation	Phase 1: Less than Significant Phases 1 and 2: Less than Significant
Applicable NQSP Mitigation Measures	None
Mitigation Measures	Phase 1: None required Phases 1 and 2: None required
Significance after Mitigation	Phase 1: Less than Significant Phases 1 and 2: Less than Significant

Phases 1 and 2

Development elsewhere in the NQSP and City of Dixon would include some industrial uses, which could involve the use of greater quantities and variety of hazardous products. Commercial, office, retail, and residential development in Dixon, along with the Proposed Project, would increase the use of

household-type hazardous materials within the area. Hazardous materials use, storage, disposal, and transport would result in a foreseeable number of spills and accidents.

Potential impacts associated with the Proposed Project would be largely confined to the horse racing track and the office and commercial areas in Phase 1 and Phase 2. Such incidents would typically be site-specific and would involve accidental spills or inadvertent releases of small amounts of chemicals or products that would be contained on-site. Associated health and safety risks of chemical spills would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere within the city. Therefore, hazardous materials impacts would not be cumulatively considerable and there would be no cumulative effect.

As noted in the Environmental Setting, water resources that could provide suitable habitat for mosquitoes do not currently exist on the project site; however, mosquitoes, in general, are common in the region. As discussed in Impact 4.5-2, health and safety risks associated with mosquito breeding are not anticipated to be substantial. Further, mosquito abatement services are currently performed routinely by the Solano County Mosquito Abatement District. Impacts would not be cumulatively considerable, resulting in a *less-than-significant impact*.

Mitigation Measures

None required.

Impact 4.5-6	Cumulative development, including the Proposed Project, could expose people to hazards associated with soil or groundwater contamination.	
Applicable Policies and Regulations	California Code of Regulations Titles 26 and 27, Code of Federal Regulations Title 40	
Significance before Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant
Applicable NQSP Mitigation Measures	None	
Mitigation Measures	Phase 1:	None required
	Phases 1 and 2:	None required
Significance after Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant

Phases 1 and 2

For any projects in the NQSP and City of Dixon that would involve development or redevelopment of an existing site in which soil or groundwater contamination may have occurred, the potential exists for release of hazardous materials during construction and/or remediation of those sites. For individuals not involved in construction activities, the greatest potential source of exposure to contaminants would be airborne emissions, primarily through construction-generated dust (see Section 4.6, Air Quality). Other potential pathways, such as direct contact with contaminated soils or groundwater, would not pose as great a risk to the public because such exposure scenarios would typically be confined to the construction zones.

The project’s contribution to exposure to unidentified contaminants in soil or ground water, in combination with other remediation projects in Dixon, would not be cumulatively considerable, and there would be no cumulative effect. This conclusion is based on implementation of site-specific risk management controls and compliance with applicable laws and regulations pertaining to site cleanup and hazardous materials management at the other locations. Moreover, an individual who is directly outside the construction zone of one source would be unlikely to be exposed to maximum levels from another source. Such exposure would typically be site-specific and would involve accidental or inadvertent releases of soil or groundwater. Associated health and safety risks would generally be limited to those individuals working with soil or groundwater or to persons in the Proposed Project area and would not combine with similar effects elsewhere in the City’s General Plan boundaries. This would be a *less-than-significant cumulative impact*.

Mitigation Measures

None required.

Impact 4.5-7	Cumulative development, including the Proposed Project, could overwhelm emergency response services or affect evacuation routes under a worst-case, simultaneous events scenario.	
Applicable Policies and Regulations	Dixon General Plan Public Services and Facilities Policy 28 NQSP Public Facilities and Services Element Fire Protection Policy 1	
Significance before Mitigation	Phase 1:	Potentially Significant
	Phases 1 and 2:	Potentially Significant
Applicable NQSP Mitigation Measures	None	
Mitigation Measures	Phase 1:	4.5-7
	Phases 1 and 2:	4.5-7
Significance after Mitigation	Phase 1:	Less than Significant
	Phases 1 and 2:	Less than Significant

Phases 1 and 2

During events, large numbers of people would be present at the project site. As discussed in Impact 4.5-4, an emergency at the race track complex could result in the need to evacuate people safely and quickly. As currently proposed, the locations and numbers of access/egress points may be insufficient to accommodate the evacuation of over 25,000 people under buildout conditions for a Tier 2 event, and substantially more people under an infrequent (annual) Tier 3 event. Development and implementation of a project-specific Master Fire, Safety, and Security Plan (Mitigation Measure 4.5-4) would ensure that the project design is revised to include an adequate number of emergency exits for pedestrians and vehicles (including horses and horse trailers) to reduce this safety hazard. From a cumulative perspective, a situation requiring an immediate and controlled evacuation of the entire project, in and of itself, would be a site-specific occurrence and would not combine with similar effects elsewhere. Therefore, this condition would not be cumulatively considerable. However, the Proposed Project would incrementally contribute to the demand for police, fire, and/or medical emergency response services during large events, which could combine with other emergency response demands in the region, as discussed below.

Simultaneous events at nearby locations in Dixon, Davis, or other nearby communities along the I-80 corridor between Vallejo and Sacramento would further increase the demand on emergency response services. As indicated in Impacts 4.9-3 and 4.9-6 in Section 4.9, Public Services, by paying a fair share of expanded law enforcement services and fire protection facilities, the project's impact on fire and safety services would not be cumulatively considerable. The Proposed Project would also include all required on-site fire suppression design features. However, depending on the type of events and the nature of the incident(s), there may or may not be emergency response personnel in sufficient number at simultaneous event(s) to respond. It is unlikely that there would be numerous large events occurring simultaneously within the neighboring jurisdictions. In addition, Mitigation Measure 4.5-4 (Master Fire, Safety, and Security Plan) would reduce the project's contribution to the demand on emergency response services, resulting in a *significant* cumulative contribution.

Mitigation Measure

Implementation of Mitigation Measure 4.5-7 would help to reduce the severity of the impact resulting in a *less-than-significant cumulative impact*.

4.5-7 *(Phases 1 and 2)*

Implement Mitigation Measure 4.5-4(a) (Master Fire, Safety, and Security Plan).

