4.8 HYDROLOGY AND WATER QUALITY

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 Regional Characteristics

The Altamont Motorsports Park (AMP) project is located in the eastern portion of Alameda County. The project region experiences a Mediterranean Climate, with almost all precipitation falling between the months of October and April. The temperature at the nearest monitoring station, Tracy Pumping Plant ranges from an average of 45 degrees during winter months and 72 degrees during summer months. The average annual precipitation is approximately 15 inches per year (Western Regional Climate Center 2007).

4.8.1.2 Surface Hydrology

Regionally, the project area is located within the San Francisco Bay and Sacramento-San Joaquin River Delta System. The Sacramento-San Joaquin Delta consists of the largest estuary on the west coast and drains more than 40 percent of the water in California. The Delta system, consisting of over 1,100 square miles, lies at the confluence of the southward-flowing Sacramento and northward-flowing San Joaquin rivers. The San Joaquin Valley Basin is comprised of the trough bounded by the Sierra Nevada on the east and the Coastal Ranges on the west.

According to the California Environmental Protection Agency (Cal/EPA), the project site is generally located in the San Joaquin River Basin, within the Carbona watershed and immediately south and east of the Mountain House Creek watershed. The creek flows in a general northeasterly direction towards drain pipes that pass over the California Aqueduct and the Delta Mendota Canal and eventually discharges into Old River (San Joaquin County 2003).

Under existing conditions, runoff from the project site is generally discharged towards a seasonal detention pond (approximately 200 feet by 75 feet in size) located on the northern portion of the project site. The pond is typically dry during summer months; however the subsurface water supports the presence of vegetation throughout the year. The pond contains a water outflow which drains to the north into a swale, which then drains to a culvert under Interstate 580. Based on the height of the water outflow, it is assumed that the pond reaches a maximum depth of approximately 3 to 4 feet. When the discharge exceeds the capacity of the detention pond, the drainage is conveyed to a swale located north of the detention pond, then beneath Interstate 580 to a drainage basin that eventually converges with a tributary of Mountain House Creek.

A small swale is located immediately to the southeast of the seasonal pond. This swale conveys surface runoff to the pond from upslope areas to the south.

Subsurface drainage systems are located along the pit/paddock area and racetrack areas. The drain along the approximately 9 acre pit/paddock area consists of four catch basins located north and west of the racetrack, and the outlet conveys water into the unpaved slope north of the racetrack. A drain along the racetrack area consists of five catch basins located in the unpaved areas, and leads into an outlet above the seasonal detention pond.

4.8.1.3 Groundwater

4.8.1.3.1 Tracy Subbasin

The California Department of Water Resources (DWR) defines state groundwater basins based on geologic and hydrogeologic conditions. The San Joaquin Valley comprises the southernmost portion of the Great Valley Geomorphic Province of California. The Great Valley is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. According to DWR, the project site is located within the approximately 540 square-mile Tracy Subbasin, which is bound by the Diablo Range on the west, the Mokelumne and San Joaquin Rivers on the north; the San Joaquin River to the east, and the Delta-Mendota Subbasin to the south. The Tracy Subbasin is drained by the San Joaquin River and one of its major westside tributaries; Corral Hollow Creek. The Tulare Formation, consisting of semi-consolidated deposits of clay, silt, and gravel, bears the groundwater supply for areas within the subbasin, including the project site. Corcoran clay occurs near the top of the Tulare Formation and confines the underlying fresh water deposits. Wells completed in this formation produce up to 3,000 gallons per minute. Small domestic wells often obtain their supply from above the Corcoran clay. However, groundwater above the Corcoran clay is often of poor quality. The total thickness of the Tulare Formation is about 1,400 feet (DWR 2006).

4.8.1.3.2 Groundwater Storage Capacity

The Tracy-Patterson Storage Unit includes the southern portion of the currently defined Tracy Subbasin from approximately 1 mile north of Tracy to the San Joaquin-Stanislaus County line. Although there are no published groundwater storage values for the entire basin (Hotchkiss and Balding 1971); it is estimated the groundwater storage capacity for the Tracy-Patterson Storage Unit is approximately 4,040,000 acre feet (af). Since the Tracy Subbasin comprises roughly one third of the Tracy-Patterson Storage Unit, the California DWR infers that the approximate storage capacity of the southern portion of the Tracy Subbasin is on the order of 1,300,00 af. However, according to DWR, there are no published data available on the amount of groundwater in storage for this subbasin (DWR 2006).

4.8.1.3.3 Well Capacity

A geotechnical investigation of the project site indicated that groundwater is present at depths varying from 17.5 to 19 feet below the ground surface, in a topographically low area on the northeastern portion of the project site and at a depth of 37 feet below ground surface of the northeastern portion of the racetrack oval. Furthermore, given the local topography, groundwater flow is likely to the northeast.

There are currently two wells in place on the project site that draw from local groundwater. One report prepared for the Alameda County Department of Environmental Health (ACDEH) indicates that one of the wells produces approximately 7 gallons per minute. According to the ACDEH, there are currently nine toilet facilities and five urinals (combined for men's and women's restroom facilities) which are augmented by additional chemical toilets provided during the racing season. There are no other uses of on-site groundwater under existing conditions.

4.8.1.4 Flood Hazards

The project site is not designated by the Federal Emergency Management Agency (FEMA) as a flood hazard zone.

4.8.1.5 Water Quality

The Phase I Environmental Site Assessment indicates that groundwater from the wells is not suitable for drinking water due to high mineral content. The ACDEH indicates that since both wells on the project site produce poor quality water, neither well can be used as a potable water supply unless a water treatment system for these wells can be shown to produce water which meets Title 22 drinking water quality standards (California Health and Safety Code).

4.8.1.6 Septic System

There are currently two septic systems on the project site. One system is located behind the grandstands and serves the kitchen and restroom facilities. A second system, which formerly served a caretaker residence is located near the site's western boundary and is capped and not in use. The one septic system currently in use is serviced on an as-needed basis, which historically has been one to two times per year.

4.8.2 REGULATORY ENVIRONMENT

4.8.2.1 State and Federal

The California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB or Regional Board) have the authority to protect and enhance water quality in California, both through their designation as the lead agencies in implementing the Section 319 nonpoint source program of the federal Clean Water Act, and from the state's primary water-pollution control legislation, the Porter-Cologne Act. The RWQCB Region 5 office guides and regulates water quality in streams and aquifers of the Central Valley Area through designation of beneficial uses, establishment of water quality objectives, administration of the National Pollution Discharge Elimination System (NPDES) permit program for stormwater and construction site runoff, and Section 401 water quality certification where development results in fill of jurisdictional wetlands or "waters of the US" under Section 404 of the Clean Water Act.

4.8.2.1.1 EPA California Toxics Rule

The U.S. EPA has developed water quality criteria for priority toxic pollutants and other provisions for water quality standards to be applied to inland surface waters, enclosed bays, and estuaries in the state of California. This rule was developed to address a gap in California's water quality standards that was created when the state's water quality control plans containing water quality criteria for priority toxic pollutants was overturned in 1994. The established numerical standards were deemed necessary to protect human health and the environment. The rule includes ambient aquatic life criteria for 23 priority toxic pollutants, ambient human health criteria for 57 priority toxics, and a compliance schedule.

4.8.2.1.2 Water Quality Control Plan for the Sacramento River and San Joaquin River Basins

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) presents beneficial uses that the Regional Board has designated for local aquifers, streams, marshes and rivers, as well as the water-quality objectives and criteria that must be met to protect these uses. Existing beneficial uses for the surface water bodies and groundwater in the Central Valley include: municipal, agricultural, and industrial supply; water contact recreation (where activities involve body contact with water) and non-contact recreation (where body does not contact water and ingestion of water is not reasonably possible); aquatic organisms; fish spawning and wildlife habitat and navigation.

The beneficial use that is most sensitive to potential impacts from development of the project site is aquatic habitat in the San Joaquin River Basin. Pollution from driveways, roads, and parking lots could contribute petroleum products and heavy metals to storm runoff and degrade water quality downstream.

Litter in storm runoff could potentially affect aquatic and terrestrial wildlife species. Pesticides and fertilizers applied to residential and commercial landscaping could also be mobilized by rainfall and be transported to the San Joaquin River (and ultimately San Francisco Bay) via the municipal storm drain system.

4.8.2.1.3 NPDES Municipal Storm Water Permit

The 1987 amendments to the Clean Water Act [Section 402(p)] provided for U.S. EPA regulation of several new categories of nonpoint pollution sources within the existing NPDES. In Phase 1, NPDES permits were issued for urban runoff discharges from municipalities of over 100,000 people, from plants in industries recognized by the EPA as being likely sources of storm water pollutants, and from construction activities that disturb more than 5 acres. The EPA has delegated management of California's NPDES Municipal Storm Water Permit program to the State and Regional Boards. Phase 2 implementation, effective March 10, 2003, extended NPDES urban runoff discharge permitting to cities of 50,000 to 100,000 people, and to construction sites that disturb between 1–5 acres.

Control of storm water runoff is a major current focus of the San Francisco RWQCB. In Phase 2, urbanized counties and cities that implement a comprehensive control program for urban runoff management meeting Regional Board standards can apply to the RWQCB for a joint city-county NPDES permit. Upon acceptance, the authority to regulate storm runoff discharges from municipal storm drain systems is transferred to the permit holders, allowing them to more effectively integrate the stormwater control program with other nonpoint source control programs.

In Alameda County, stormwater discharge from 17 participating agencies and cities is regulated by the Alameda Countywide Clean Water Program (ACCWP) under an NPDES permit issued by the San Francisco Bay RWQCB. The ACCWP has prepared and issued a 2001-2008 Stormwater Management Plan intended to reduce the discharge of pollutants in stormwater to the maximum extent possible and to effectively prohibit non-stormwater discharges into municipal storm drain systems and waterways. The Stormwater Management Plan includes a number of management practices and control techniques to reduce the discharge of pollutants in stormwater in Alameda County and addresses municipal government activities, new development controls, and stormwater treatment. The San Francisco Bay RWQCB renewed ACCWP's NPDES Permit on February 19, 2003 (SFBRWQCB, 2003). This permit renewal included revising Provision C.3 to require on-site treatment and storage of stormwater runoff for development projects that fall under certain use and size characteristics. SFBRWQCB encourages all projects regardless of size to consider incorporating appropriate source control and site design measures that minimize stormwater pollutant discharges to the maximum extent practicable. The proposed project would not be subject to the requirements under Provision C.3.

4.8.2.1.4 NPDES General Permit for Discharges of Storm Water Associated with Construction Activity

The U.S. EPA has delegated management of California's NPDES program to the State Board and the nine Regional Board offices. The NPDES program was established in 1972 to regulate the quality of effluent discharged from easily detected point sources of pollution such as wastewater treatment plants and industrial discharges. The 1987 amendments to the Clean Water Act [Section 402(p)] recognized the need to address nonpoint source stormwater runoff pollution and expanded the NPDES program to operators of municipal separate storm sewer systems (MS4s), construction projects, and industrial facilities.

New development and significant redevelopment projects that are subject to requirements under the NPDES Construction General Permit based on project size. All projects regardless of size are encouraged to incorporate appropriate source control and site design measures that minimize stormwater pollutant discharges to the maximum extent practicable. Since the project would disturb 0.2 acres of land (less than one acre) and would not larger plan of development or sale, the project, the project applicant would not be required to file a Notice of Intent to the State Board in order to apply for coverage under the NPDES Construction General Permit.

4.8.2.1.5 Alameda County On-site Wastewater Treatment Ordinance

Legislation (AB 885) was passed in 2000 requiring SWRCB to adopt regulations for the permitting and operation of septic systems. It stipulates that each regional water quality control board must incorporate SWRCB regulations or standards into the appropriate regional water quality control plans. The Alameda County Board of Supervisors adopted the On-site Wastewater Treatment Ordinance in April 2007 in order to provide for the safe and sanitary treatment and disposal of private sewage to prevent environmental degradation including pollution of surface water and groundwater and to protect public safety and health and safety. The ordinance mandates property owners to maintain safe and sanitary construction, operation, use, repair, or maintenance of such septic systems, and designates specific site criteria. The ordinance mandates regular inspection of the septic system every six months, payment of department inspection of the septic system, and submittal of a written report that details the functionality of the system every 2 years.

4.8.2.1.6 Alameda County General Ordinance Code

4.8.2.1.6.1 Chapter 13.08 Stormwater Management and Discharge Control

The Alameda County stormwater management and discharge control ordinance is intended to reduce or eliminate the pollution of receiving waters, including creeks and the San Francisco Bay, and to protect

and enhance the water quality in county water bodies, including watercourses, wetlands, creeks, and flood control facilities, in a manner pursuant to and consistent with the federal Clean Water Act, the state Porter/Cologne Act, and the County NPDES permit, by:

- Reducing and eliminating illegal or illicit non-storm discharges to the waters of the U.S., the county stormdrain system, the creeks, and the bay from construction activities, county maintenance operations, industrial and commercial activities, new development, redevelopment, and other activities, through inspection, monitoring, and complaint response;
- Controlling the discharge to the county stormdrain system, the creeks, and the bay from spills, dumping or disposal of materials other than stormwater or other legal discharges;
- Reducing pollutants in stormwater discharges to the maximum extent practicable;
- Regulating the design and construction of permanent post-development stormwater quality measures and controls, including the application of site design, source control, stormwater treatment, and hydromodification management, through the provisions of this chapter and of other County ordinances, rules, regulations, and procedures;
- Inspecting, monitoring, and regulating pollution prevention measures during construction; and
- Establishing legal authority to perform all reviewing, inspection, surveillance, and monitoring activities necessary to ensure compliance with this chapter (Ord. 2005-61 § 1 (part)).

4.8.2.1.6.2 Chapter 6.88 Water Wells

Alameda County General Ordinance Code regulations pertaining to the construction, repair, reconstruction, and destruction of wells, including cathodic protection wells and exploratory holes are described in Chapter 6.88, Water Wells. The purpose of the code is to prevent pollution or contamination of groundwater such that water obtained from water wells will be suitable for the beneficial uses intended and shall not jeopardize the health, safety, or welfare of the people of the county. The county also regulates the destruction of abandoned wells or wells found to be public nuisances, including cathodic protection wells and exploratory holes, to the end that such wells will not cause pollution or contamination of groundwater or otherwise jeopardize the health, safety or welfare of the people of the County (Prior gen. code § 3-160.0).

4.8.3 ENVIRONMENTAL ANALYSIS

4.8.3.1 Thresholds of Significance

The proposed project would result in a significant impact if it would:

- Violate any water quality standards or waste discharge requirements;

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site;
- Create or contribute runoff water which would exceed the capacity of storm water drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Expose people or structures to inundation by seiche, tsunami, or mudflow.

4.8.3.2 Methodology

Published reports prepared by the DWR, in addition to information presented in the Phase I Environmental Site Assessment (Northgate Environmental Management Inc), the Alameda East County Area Plan (ECAP), and the Alameda County Zoning Ordinance was used in determining whether impacts to hydrology and water quality would be significant environmental effects.

4.8.3.3 Impacts and Mitigation Measures

Potential Impact 4.8-1: Would the project violate any water quality standards or waste discharge requirements?

In its existing condition, surface water from the project site is generally discharged towards the detention pond located on the northern portion of the project site, while some surface waters pond during and shortly after rainfall events in numerous locations in the racetrack area. The ground surface in these locations is flat or improperly sloped and does not carry all of the surface water to the drainage facilities. All stormwaters draining into the detention pond discharge into a drain beneath Interstate 580, and eventually drain into the San Joaquin River watershed. As indicated by boring samples from the Phase I Report, these waters carry traces of petroleum hydrocarbons, and other contaminants related to automobile fluids, but in quantities that do not exceed existing water quality standards.

Implementation of the project would not include development or redevelopment activities. The addition of up to two caretaker residences would increase the amount of impervious surface above existing conditions by approximately 5,600 square feet, or less than 1 acre. Therefore, the project would not be

subject to the requirements of the ACCWP NPDES Municipal Stormwater Permit. Nevertheless, as described under **Potential Impact 4.8-3** below, the project would implement stormwater treatment measures and hydromodification measures required by the ACCWP NPDES Municipal Stormwater Permit. In addition, the project is subject to Chapters 13.08 and 6.88 of the Alameda County Code. Chapter 13.08, Storm Water Management and Discharge Controls, regulates non-storm water discharges to municipal storm drains, controls discharge from spills or disposal of materials other than storm water, and regulates pollutants in storm water discharges. Chapter 6.88 regulates construction, repair, reconstruction, and destruction of wells, in order to prevent pollution or contamination of groundwater. This is considered a potentially significant impact, prior to mitigation.

The two caretaker residences would be connected to one or more new septic system(s). Construction of the septic system(s) is not expected to result in impacts during or after construction inasmuch as their design, construction, and operation would be required to comply with applicable regulations and standards, the purpose of which is to avoid such impacts. The property owner would be required to comply with the regulations of the Alameda County On-site Wastewater Treatment Ordinance (Alameda County Code Chapter 15.18.040.B). Routine inspections of the functionality of the existing and proposed septic systems, and its compliance with the regulations described would reduce potential impacts associated with the septic systems on groundwater quality.

Conclusion: Potentially significant

HYDRO-1: The project applicant shall be encouraged to comply with the ACCWP that maintains compliance with the NPDES Storm Water Discharge Permit. Responsibilities include, but are not limited to, designing BMPs into the project features and operation to reduce potential impacts to surface water quality associated with operation of the project. These features shall be included in the project drainage plan and final development drawings. Specifically, the final design shall include measures designed to mitigate potential water quality degradation of runoff from all portions of the completed development. The Alameda County Public Works Agency (ACDPWA) shall review and approve these measures prior to implementation of the caretaker residences and signage.

The project applicant shall review and incorporate as many concepts as practicable from the *Start at the Source, Design Guidance Manual for Stormwater Quality Protection* (Bay Area Stormwater Management Agencies Association 1999). Passive, low-maintenance BMPs (e.g., grassy swales, porous pavements) are preferred in all areas. Higher-maintenance BMPs may only be used if the development of at-grade treatment systems is not possible, or would not adequately treat runoff. The project applicant must fund long-term

maintenance of all BMPs (as the County will not assume maintenance responsibilities for these features). The project applicant shall establish a self-perpetuating drainage system maintenance program that includes annual inspections of any stormwater detention devices (if any), and drainage inlets. Any accumulation of sediment or other debris shall be promptly removed. In addition, an annual report documenting the inspection and any remedial action conducted shall be submitted to the Alameda County Public Works Agency for review.

The ACDPWA shall ensure that the drainage plan is prepared and is constructed within six months of approval of the proposed project.

Significance After Mitigation: Less than significant

Potential Impact 4.8-2: Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge?

As discussed above, according to DWR, the project site is located within the San Joaquin Valley hydrological region, within the Tracy subbasin. The wells on the project site, which are currently used to supply water for flushing toilet facilities only, can produce at a rate of up to 7 gallons per minute. There are currently nine toilets and five urinals on the project site, which are augmented by portable restrooms provided by a private company. Review of hydrographs for the Tracy Subbasin indicate that except for seasonal variation resulting from recharge and pumping, the majority of water levels in wells have remained relatively stable over at least the last 10 years (DWR unpublished data; San Joaquin County Flood Control unpublished data; as stated in DWR 2007). Furthermore, DWR reports that there are no published groundwater storage values for the entire basin; however, Hotchkiss and Balding (1971) estimated the groundwater storage capacity for the Tracy-Patterson Storage Unit to be 4,040,000 acre feet (af). Since consumption of well water during an event is not known, the impact to groundwater supplies is considered potentially significant, prior to mitigation.

Potable water for the two caretaker residences would be provided by one or more new domestic wells to be constructed on site. Construction of the new domestic well(s) is not expected to result in impacts during or after construction inasmuch as their design, construction, and operation would be required to comply with applicable regulations and standards, the purpose of which is to avoid such impacts. Potable water supply for all other project facilities is supplemented by trucked-in supplies. Therefore, potable water is not expected to substantially deplete groundwater supplies on the project site. Impacts to off-site water supply are addressed in **Section 4.16, Utilities and Service Systems**.

An increase in impermeable surfaces could also lead to groundwater depletion by reducing recharge capabilities on the site. Implementation of the project would not result in any increase in impermeable surfaces, with the exception of the two caretaker residences. Therefore, because the addition of two caretaker residences would create a negligible increase in impermeable surfaces, the project would not substantially change recharge capabilities of the project site and the impact to groundwater recharge is considered less than significant.

Conclusion: Potentially significant

HYDRO-2: Within 2 months of the approval of the rezoning, a qualified professional hydrologist shall perform a complete assessment of the water and wastewater systems and shall determine the adequacy of the well water supply for the existing toilet/restroom facilities and the proposed well(s) for the caretaker residences. Based on the results of the assessment, the project applicant shall augment the existing toilet/restroom facilities with additional chemical toilets for large events, based on the recommendations of the hydrologist and subject to the approval of Alameda County.

Significance After Mitigation: Less than significant

Potential Impact 4.8-3: Would the project create or contribute runoff water which would exceed the capacity of storm water drainage systems or provide substantial additional sources of polluted runoff?

Under existing conditions, as shown in **Figure 4.8-1, Altamont Motorsports Park Existing Drainage**, runoff from the project site is generally discharged towards a seasonal detention pond (approximately 200 feet by 75 feet in size) located on the northern portion of the project site. The pond is typically dry during summer months; however, the subsurface water supports the presence of vegetation throughout the year. The pond contains a water outflow which drains to the north into a swale, which then drains to a culvert under Interstate 580. Based on the height of the water outflow, it is assumed that the pond reaches a maximum depth of approximately 3 to 4 feet. When the discharge exceeds the capacity of the detention pond, the drainage is conveyed to a swale located north of the detention pond, then beneath Interstate 580 to a drainage basin that eventually converges with a tributary of Mountain House Creek

4.8.3.3.1 Drainage System

The geotechnical report prepared for the project indicated that surface water ponds in various locations in the racetrack area, and site grading do not provide complete positive flow (i.e., not all of the water is conveyed in the manner intended by the existing stormwater system). Based on a recent site

investigation, asphalt in the pit area contains cracks and is uneven such that surface water is not properly conveyed into the drainage system. Therefore, implementation of the proposed project would contribute stormwater to a drainage system that is considered inadequate. Prior to mitigation, this is considered a potentially significant impact.

4.8.3.3.2 Contaminated Runoff

Although the project allows the same maximum capacity on site as granted by the 1996 conditional use permit (CUP), attendance levels could increase from levels in the last three years, which could contribute higher concentrations of pollutants associated with automobile fluids to the drainage system. As discussed in **Section 4.4, Biological Resources**, the existing detention pond on the northeastern portion of the project site has been identified as potential habitat for several protected species. A Phase I Environmental Site Assessment prepared for the project site, indicated the presence of petroleum hydrocarbons in the project site soils near the detention pond. Further, bromomethane, a known carcinogen, was detected in a surface water sample collected from the detention pond. Although the measured concentration is below the Preliminary Remediation Goal (PRG) for tap water established by the US EPA, Region 9, there is no Maximum Contaminant Level established for bromomethane. When dissolved in water, bromomethane has relatively low affinity for soils and therefore, has a potential to bioconcentrate.[1]

In a large storm event, water from the detention basin ultimately flows through a culvert beneath Interstate 580, into a drainage system containing additional potential riparian habitat, including Mountain House Creek. Therefore, implementation of the proposed project could increase the concentration of polluted stormwater that would affect these areas. This would be a potentially significant impact. Implementation of **Mitigation Measure HYDRO-1**, which includes implementation of BMPs and bioswales, in addition to the following mitigation measures, would reduce this impact to a less than significant level.

Conclusion: Potentially significant

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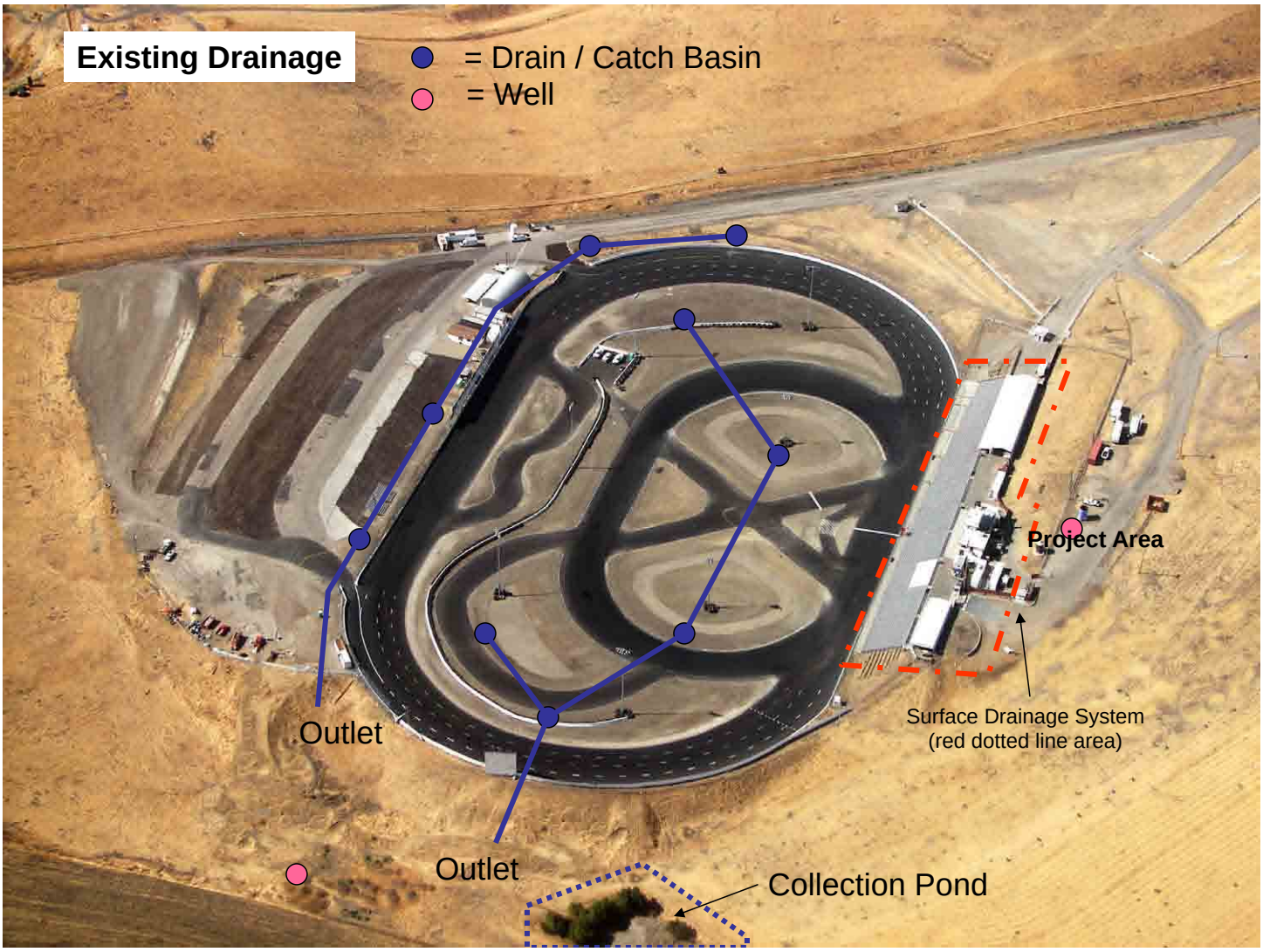
1 Bioconcentration is the accumulation of a chemical in tissues of a fish or other organism to levels greater than that in the surrounding medium (environment). Since bromomethane is soluble in water, there is a potential that organisms could ingest it from the groundwater, leading to bioconcentration.



NOT TO SCALE

SOURCE: Alameda County Planning Department - May 2007, Association of Bay Area Governments - 2003

FIGURE **4.8-1**

Altamont Motorsports Park Existing Drainage

HYDRO-3: Within 30 days of approval of the proposed rezoning, the project applicant shall submit a plan to ACDEH that identifies how all fuel and other automotive fluids utilized and stored on site will be contained to ensure that the accidental spill of any such fluids is contained and does not contact bare soil. Upon approval by ACDEH, the plan shall be immediately implemented.

HYDRO-4: Prior to construction of caretaker residences and signage, site drainage shall be improved and treatment of surface water shall be implemented to current clean water standards set forth in the NPDES Municipal Storm Water Permit. Drainage and treatment shall reduce the potential for ponding of water and infiltration of surface water into the existing valley fill. This includes the repair of cracks and other vertical pathways within all paved surfaces.

HYDRO-5: All recommendations outlined in the project geotechnical report shall be implemented immediately, including:

The existing catch basin west of the track shall be cleaned to unplug the catch basin and an outlet shall be identified and constructed;

A bioswale shall be placed uphill from the existing detention basin to collect and filter all surface water from the project site prior to release into the detention basin below; and

Additional catch basins should be installed in the areas surrounding the racetrack and pit area to convey water towards the site drainage system. Areas between catch basins should be sloped to drain to the catch basins or if appropriate to sheet flow away from the fill located on the southern corner of the project site.

Significance After Mitigation: Less than significant

Potential Impact 4.8-4: Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

The project site is not located within the FEMA's Flood Zone A (100-year flood zone). Given the elevation of the project site and its position in Diablo Range, it is not likely to experience floods. Therefore, implementation of the proposed project would not place structures within a 100-year flood hazard area that would impede or redirect flows. As a result, this is considered a less than significant impact and no mitigation is necessary.

Conclusion: Less than significant

Mitigation Measure: None required

Potential Impact 4.8-5: Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

A review of area maps shows that the proposed project site is not located near a dam or levee. Thus, the project would not expose people or structures to a significant risk of loss, injury, or death involving flooding. This is considered a less than significant impact and no mitigation is required.

Conclusion: Less than significant

Mitigation Measure: None required

Potential Impact 4.8-6: Would the project expose people or structures to inundation by seiche, tsunami, or mudflow?

Active faults within the San Francisco Bay Area have largely horizontal movement and are not expected to generate significant water waves in the San Francisco Bay. Given the elevation and distance of the project site from the bay's edge, the potential for flooding from a seiche would be negligible. The project site location on the Diablo Valley hills of the San Francisco Bay Area effectively shields the site from tsunamis. Moreover, given the topography of the project site, there would be minimal impacts from mudflows. Therefore, implementation of the project would result in no impact related to the risk of inundation from seiche, tsunami, or mudflow and no mitigation is required.

Conclusion: Less than significant

Mitigation Measure: None required