

*The County shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of State law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by the County, before the resumption of ground-disturbing activities within 50-feet of where the remains were discovered.*

(DEIR, p. 6.5-12; FEIR p. 2-24.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.5-3:**      **The proposed project could directly or indirectly destroy a unique paleontological resource. This impact is *potentially significant*.** (DEIR, p. 6.5-12.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

As previously described, a literature survey of the study area indicated a potentially fossiliferous geological formation (the Riverbank Formation) underlying the entire study area. Future development of the study area has the potential to unearth undiscovered paleontological resources. No fossils and no evidence of exposed geomorphological features that typically contain fossils were observed during the pedestrian survey of the study area, but that does not preclude the possibility of their existence at greater depth below the ground surface. Because the proposed project could directly or indirectly destroy a unique paleontological resource, this is considered a *potentially significant impact*. (DEIR, p. 6.5-12.)

**Mitigation Measure:**

6.5-3 *Should paleontological resources be identified at a particular site, the project manager shall cease operation until a qualified professional can provide an evaluation. Mitigation shall be conducted as follows:*

1. *Identify and evaluate paleontological resources by intense field survey where impacts are considered high;*
2. *Assess effects on identified sites;*

3. *Consult with the institutional/academic paleontologists conducting research investigations within the geological formations that are slated to be impacted;*
4. *Obtain comments from the researchers; and*
5. *Comply with researchers' recommendations to address any significant adverse effects where determined by the County to be feasible.*

*In considering any suggested mitigation proposed by the consulting paleontologist, County Planning Department Staff shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, Specific Plan policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.*

(DEIR, p. 6.5-13.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.5-4:**      **The proposed project, in combination with other development in the Sacramento region, could adversely affect unique archaeological resources or historical resources as defined in section 21083.2 of CEQA and section 15064.5 of the State CEQA Guidelines. This impact is *potentially significant*.**  
(DEIR, pp. 6.5-13 to 6.5-14.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the potentially significant environmental effect associated with the adverse effect on unique archaeological resources or historical resources as defined in section 20183.2 of CEQA and section 15064.5 of the State CEQA Guidelines as a result of the proposed project, in combination with other development in the Sacramento region.

**Explanation:**

Based upon previous cultural resource surveys and research, the Sacramento region (which includes El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties) has been inhabited by prehistoric and historic peoples for thousands of years. The proposed project, in combination with other development in the Sacramento region, could

contribute to the loss of significant cultural resources. Because all significant cultural resources are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. The loss of any one archaeological site affects all others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The boundaries of an archaeologically important site extend beyond the site boundaries. As a result, a meaningful approach to preserving and managing cultural resources must focus on the likely distribution of cultural resources, rather than on project or parcel boundaries. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains in the region. Proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing our understanding of the past environmental conditions and cultures by recording data about sites discovered and preserving artifacts found. Federal, State, and local laws are also in place, as discussed above, that protect these resources in most instances. Even so, it is not always feasible to protect these resources, particularly when preservation in place would frustrate implementation of projects, and for this reason the cumulative effects of the RUSP and related projects in the region will be significant. Moreover, because the proposed project has the potential to adversely affect significant cultural resources that are unique and non-renewable members of finite classes, the project's incremental contribution to these cumulative effects would itself be potentially cumulatively considerable, and thus *potentially significant*. (DEIR, pp. 6.5-13 to 6.5-14.)

**Mitigation Measure:**

6.5-4            *Implement Mitigation Measure 6.5-1.*

**Significance After Mitigation:**

Significant and unavoidable.

**Impact 6.5-5:**            **The proposed project, in combination with other development in the Sacramento region, could adversely affect human remains, including those interred outside of formal cemeteries. This impact is *potentially significant*.** (DEIR, p. 6.5-14.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Based upon previous cultural resource surveys and research, the Sacramento region (which includes El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties) has

been inhabited by prehistoric and historic peoples for thousands of years. The proposed project, in combination with other development in the Sacramento region could contribute to the loss of significant cultural resources, which include Native American ancestral remains. Because all significant cultural resources are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base, the project's incremental contribution to these significant cumulative impacts would be potentially cumulatively considerable, and thus *potentially significant*. (DEIR, p. 6.5-14.)

**Mitigation Measure:**

6.5-5            *Implement Mitigation Measure 6.5-2.*

**Significance After Mitigation:**

Less than significant.

**Impact 6.5-6:**            **The proposed project, in combination with other development in Placer County, could adversely affect unique paleontological resources. This impact is *potentially significant*.** (DEIR, pp. 6.5-14 to 6.5-15.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Based upon previous fossil finds and paleontological research, Placer County has fossil-bearing sediments that date back hundreds of thousands of years. The proposed project, in combination with other development in the County could contribute to the loss of significant paleontological resources. Because all significant paleontological resources are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. The loss of any one paleontological site affects all others in a region because these resources are best understood in the context of the entirety of the ancient ecologic system of which they formed a part. The boundaries of paleontologically important sites are not limited by property boundaries. Consequently, a meaningful approach to preserving and managing paleontological resources must focus on the likely distribution of those resources, rather than on project or parcel boundaries. The ancient ecologic system is represented paleontologically by the total inventory of all sites and other fossil remains. In this case, development in Placer County potentially could disturb known or unknown paleontological resources. Proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing our understanding of the past environmental

conditions by recording data about sites discovered and preserving fossils found. Federal, State, and local laws are in place, as discussed above, that protect these resources. However, the project's incremental contribution to these significant cumulative impacts would itself be potentially cumulatively considerable, and thus *potentially significant*. (DEIR, pp. 6.5-14 to 6.5-15.)

**Mitigation Measure:**

6.5-6            *Implement Mitigation Measure 6.5-3.*

**Significance After Mitigation:**

Less than significant.

**F. GEOLOGY, SOILS, AND SEISMICITY**

**Standards of Significance**

Under criteria based on the State CEQA Guidelines, for purposes of this EIR, an impact would be considered significant if the proposed project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - Strong seismic groundshaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil, as defined in Table 18-1-A of the California Building Code (2001), creating substantial risks to life or property.

- Result in the loss of, or loss of access to, mineral resources identified in a Mineral Resource Zone by the California Geological Survey.

(DEIR, pp. 6.6-12 to 6.6-13.)

**Impact 6.6-1:**        **The proposed project could expose people or structures to fault rupture. The project would cause *no impact*.** (DEIR, p. 6.6-13.)

**Finding:**

Under CEQA, no mitigation measures are required for *impacts* that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

**Explanation:**

The study area is more than 40 miles from the nearest zoned fault (the Cleveland Hill fault); therefore, fault-line surface rupture would not be a hazard at the project site. Thus, the proposed project would have *no impact*.

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

No impact.

**Impact 6.6-2:**        **The proposed project could expose people or structures to strong seismic groundshaking. This impact is *less than significant*.** (DEIR, pp. 6.6-13 to 6.6-14.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

**Explanation:**

From a review of regional and local geo-seismic conditions, there is a possibility that the study area would be subject to at least one major earthquake during the useful life of the project. The most likely large-earthquake scenario in the 30-year timeframe projected by the USGS would be a MW 7.0 event on the Hayward-Rodgers Creek fault, which would produce groundshaking intensities of MMI IV to V at the project site.<sup>18</sup> The resulting

vibration could cause damage to some buildings, roads and infrastructure (primary effects). However, as reported in the Preliminary Geotechnical Engineering Report, the potential for liquefaction and seismic deformation beneath the site is not probable. In addition, the potential for ground lurching, differential settlement, or lateral spreading during or following seismic events is considered low, provided proper geotechnical engineering and design recommendations are followed. (DEIR, p. 6.6-13.)

To reduce the primary and secondary risks associated with seismically induced groundshaking, it is necessary to take the location and type of subsurface materials into consideration when designing foundations and structures at the project site. In Placer County, educational, residential, and commercial buildings and all associated infrastructure are required to reduce the exposure to potentially damaging seismic vibrations through seismic-resistant design, in conformance with Chapter 16, Structural Design Requirements, Division IV, Earthquake Design, of the *California Building Code*. Adherence to the Building Code, as required by state and County law, would ensure maximum practicable protection available for users of the building and associated infrastructure. Adherence would include:

- the use of CBC Seismic Zone 3 Standards, as the minimum seismic-resistant design for all proposed facilities;
- seismic-resistant earthwork and construction design criteria, as needed, based on the site-specific recommendations of a California Certified Engineering Geologist in cooperation with the project's California-registered geotechnical and structural engineers;
- an engineering analyses that demonstrates satisfactory performance of alluvium or fill where either forms part or all of the support, especially where the possible occurrence of liquefiable soils exists; and,
- an analysis of soil expansion potential and appropriate remediation (compaction, removal/replacement, etc.) prior to using any expansive soils for foundation support.

Based on an existing regulatory framework that addresses earthquake safety issues and adherence to the requirements of the Building Code, seismically induced groundshaking would not be a substantial hazard at the project site. In view of the above, the proposed project would have a *less-than-significant* impact regarding exposing people or structures to seismic groundshaking. (DEIR, p. 6.6-14.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.6-3:**        **The proposed project could expose people or structures to landslides. There would be *no impact*.** (DEIR, p. 6.6-14.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

**Explanation:**

The study area contains low slopes and gently undulating terrain. The Preliminary Geotechnical Report prepared for the proposed project did not identify landslide hazards at the site. Therefore, landslides would not be a hazard in the study area. There would be *no impact*. (DEIR, p. 6.6-14.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

No impact.

**Impact 6.6-4:**        **Construction activities resulting in ground disturbance have the potential to result in soil erosion or the loss of topsoil as well as topographic alterations. This impact is *potentially significant*.** (DEIR, pp. 6.6-14 to 6.6-15.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Natural forces, both chemical and physical, are continually at work breaking down soils. Erosion poses two hazards: (1) it removes soils, thereby undermining roads and buildings and producing unstable slopes, and (2) it deposits eroded soil in waterways through stormwater runoff. Human activities, such as site preparation for construction and alteration of topographical features, frequently accelerate natural erosion. The following analysis focuses on the potential geotechnical effects of erosion related to project development. For a discussion of potential effects on water quality due to erosion and

sedimentation caused by construction activities or urban runoff, please see Draft EIR Section 6.8, Hydrology and Water Quality. (DEIR, pp. 6.6-14 to 6.6-15.)

Future development within the Plan Area would require some grading and leveling of the site to accommodate new suburban uses. The alteration of topographic features can lead to increased erosion by creating unstable rock or soil surfaces, by changing the permeability or runoff characteristics of the soil, or by modifying or creating new pathways for drainage. (DEIR, p. 6.6-15.)

As noted in the Setting section of the Draft EIR, the project site is not considered a good source of topsoil. Upon completion of the project, structures, roadways, and landscaping or revegetated areas would eventually cover any soils exposed during construction; thus, no long term new erodible soils would be created as a result of the proposed project. (DEIR, p. 6.6-15.)

Therefore, because erosion is anticipated to occur in disturbed soil areas, these impacts are considered *potentially significant*.

**Mitigation Measure:**

6.6-4 a) *The applicant shall prepare and submit Improvement Plans, specifications, and cost estimates (per the requirements of Section II of the Land Development Manual [LDM] that are in effect at the time of submittal) to the ESD for review and approval of each new development project. The plans shall show all conditions for the project as well as pertinent topographical features both on- and off-site. All existing and proposed utilities and easements, on-site and adjacent to the project, which may be affected by planned construction, shall be shown on the plans. All landscaping and irrigation facilities within the public right-of-way (or public easements), or landscaping within sight distance areas at intersections, shall be included in the Improvement Plans. The applicant shall pay plan check and inspection fees. (Prior to plan approval, all applicable recording and reproduction costs shall be paid). The cost of the above-noted landscape and irrigation facilities shall be included in the estimates used to determine these fees. It is the applicant's responsibility to obtain all required agency signatures on the plans and to secure department approvals. If the Design/Site Review process and/or DRC review is required as a condition of approval for the project, said review process shall be completed prior to submittal of Improvement Plans. Record drawings shall be prepared and signed by a California Registered Civil Engineer at the applicant's expense and shall be submitted to the ESD prior to acceptance by the County of site improvements.*

- b) *All proposed grading, drainage improvements, vegetation and tree removal shall be shown on the Improvement Plans and all work shall conform to provisions of the County Grading Ordinance (Ref. Article 15.48, Placer County Code) that are in effect at the time of submittal. No grading, clearing, or tree disturbance shall occur until the Improvement Plans are approved and all temporary construction fencing has been installed and inspected by a member of the DRC. All cut/fill slopes shall be at 2:1 (horizontal:vertical) unless a soils report supports a steeper slope and the ESD concurs with said recommendation.*

*The applicant shall revegetate all disturbed areas. Revegetation undertaken from April 1 to October 1 shall include regular watering to ensure adequate growth. A winterization plan shall be provided with project Improvement Plans. It is the applicant's responsibility to assure proper installation and maintenance of erosion control/winterization during project construction. Where soil stockpiling or borrow areas are to remain for more than one construction season, proper erosion control measures shall be applied as specified in the Improvement Plans/Grading Plans. The applicant shall also provide for erosion control, implementing similar erosion control measures, where roadside drainage is off the pavement, to the satisfaction of the ESD.*

*The applicant shall submit to the ESD a letter of credit or cash deposit in the amount of 110% of an approved engineer's estimate for winterization and permanent erosion control work prior to Improvement Plan approval to guarantee protection against erosion and improper grading practices. Upon the County's acceptance of improvements, and satisfactory completion of a one-year maintenance period, unused portions of said deposit shall be refunded to the project applicant or authorized agent.*

*If, at any time during construction, a field review by County personnel indicates a significant deviation of from the proposed grading shown on the Improvement Plans, specifically with regard to slope heights, slope ratios, erosion control, winterization, tree disturbance, and/or pad elevations and configurations, the plans shall be reviewed by the DRC/ESD for a determination of substantial conformance to the project approvals prior to any further work proceeding. Failure of the DRC/ESD to make a determination of substantial conformance may serve as grounds for the revocation/modification of the project approval by the appropriate hearing body.*

- c) *Stockpiling and/or vehicle staging areas shall be identified on the Improvement Plans and located as far as practical from existing dwellings and protected resources in the area.*

- d) *Developers of projects within the Plan Area, including off-site improvements, with ground disturbance exceeding one-acre that are subject to construction stormwater quality permit requirements of the National Pollutant Discharge Elimination System (NPDES) program shall obtain such permit from the State Regional Water Quality Control Board, and shall provide to the ESD evidence of a State-issued WDID number or filing of a Notice of Intent and fees prior to start of construction.*

(DEIR, p. 6.6-15 to 6.6-16.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.6-5:** **Construction of the proposed project on expansive soils could result in potential impacts to foundations, structures, roadways, and other near surface improvements. This impact is potentially significant.** (DEIR, pp. 6.6-16 to 6.6-17.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

The Consolidated Preliminary Geotechnical Engineering Report noted that laboratory test results of near-surface soils indicate the native sandy and silty clays on-site exhibit moderate to high expansion (shrink-swell) potential. Such soils are capable of exerting substantial expansion pressures on structural foundations, interior floor slabs, and exterior flatwork. Soils with moderate to high expansion potential can also cause damage to hardscape, pavement, and other surface or near-surface improvements. Therefore, construction on expansive soils is considered a *potentially significant impact*. (DEIR, pp. 6.6-16 to 6.6-17.)

**Mitigation Measure:**

- 6.6-5 a) *The developer of any new project within the Plan Area, including off-site improvements, shall submit to the Engineering and Surveying Department (ESD), for review and approval, a geotechnical engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer. The report shall address and make recommendations on the following:*
- 1) *Road, pavement, and parking area design;*

- 2) *Structural foundations, including retaining wall design (if applicable);*
- 3) *Grading practices;*
- 4) *Erosion/winterization;*
- 5) *Special problems discovered on-site, (i.e., groundwater, expansive/unstable soils, etc.); and*
- 6) *Slope stability.*

*Once approved by the ESD, the project developer shall provide two copies of the final report to the ESD and one copy to the Building Department for their use. If the soils report indicates the presence of critically expansive or other soils problems which, if not corrected, could lead to structural defects, a certification of completion of the requirements of the soils report will be required for subdivisions and other entitlements, prior to issuance of Building Permits. This certification may be completed on a Lot by Lot basis or on a Tract basis, or other defined project basis. This shall be noted in the CC&Rs and on the Informational Sheet filed with the Final Map(s). It is the responsibility of the developer to provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the report.*

- b) *For non-pad graded lots, prior to Improvement Plan approval, the applicant shall submit to the ESD for review and approval, a soil investigation of each lot in the subdivision produced by a California Registered Civil or Geotechnical Engineer (Section 17953-17955 California Health and Safety Code). For pad graded lots, prior to Final Acceptance of project improvements or consideration of early Building Permits and after the completion of the pad grading for all lots, the applicant shall submit to the ESD for review and approval, a soil investigation of each lot produced by a California Registered Civil or Geotechnical Engineer (Section 17953-17955 California Health and Safety Code).*

(DEIR, p. 6.6-17.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.6-6:** New development on the project site could be exposed to unstable soil conditions. This impact is *potentially significant*. (DEIR, pp. 6.6-17 to 6.6-18.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

The project site is underlain by soils with physical characteristics that vary, which could affect the performance of foundations and excavations, concrete slabs, roadways, and the structural integrity of buildings and structures. Such characteristics include, but are not limited to, the sizes and relative proportions of fine- and coarse-grained soil particles (texture), the degree of cementation, plasticity index, liquid limit, and permeability. If these characteristics are not identified prior to design and construction and planned site features not engineered properly, foundations, buildings, roadways, and other project components could be subject to damage from underlying soil types. Because development of the proposed project may increase the potential for buildings, roadways, and structures to be exposed to unstable soil conditions, this would be a *potentially significant impact*. (DEIR, pp. 6.6-17 to 6.6-18.)

**Mitigation Measure:**

6.6-6 Implement Mitigation Measure 6.6-5(a) and (b).

**Significance After Mitigation:**

Less than significant.

**Impact 6.6-7:** The proposed project could result in the loss of, or loss of access to, mineral resources identified in a Mineral Resource Zone by the California Geological Survey. There would be *no impact*. (DEIR, p. 6.6-18.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

The study area contains no mineral extraction operations or known mineral resources. The loss of, or loss of access to, identified mineral resources would not be an anticipated effect of the proposed project. Therefore, there would be *no impact*. (DEIR, p. 6.6-18.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

No impact.

**Impact 6.6-8:** Cumulative development in Placer County, including the proposed project, could expose people and structures to hazards associated with seismic groundshaking. This impact is *less than significant*. (DEIR, pp. 6.6-18 to 6.6-19.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

Cumulative development in Placer County, including the proposed project, would increase the number of people and structures that could be exposed to hazards associated with seismic activity. As described in Impact 6.6-2, groundshaking intensities of MMI IV to V can be anticipated, and the resulting vibration could cause damage to some buildings, roads and infrastructure. (DEIR, p. 6.6-18.)

Impacts associated with potential geologic hazards related to soil or other conditions occur at individual building sites. Buildings and facilities in the County must be sited and designed in accordance with appropriate geotechnical and seismic guidelines and recommendations consistent with the requirements of the County Building Code. Adherence to all relevant plans, codes, and regulations with respect to project design and construction would provide adequate levels of safety, and the cumulative impact would be *less than significant*. Such adherence would ensure that the proposed project would not result in a cumulatively considerable contribution to cumulative impacts regarding seismic groundshaking and ground failure, and, therefore, the cumulative impact would be *less than significant*. (DEIR, pp. 6.6-18 to 6.6-19.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.6-9:** Cumulative development in Placer County, including the proposed project, could result in erosion and topsoil loss. This impact is *less than significant*. (DEIR, p. 6.6-19.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

Impacts from erosion and loss of topsoil from site development and operation can be cumulative in effect within a watershed. Development throughout Placer County is subject to State and local runoff, erosion, and sedimentation prevention requirements, including the applicable provisions of the general construction permit, BMPs, the NPDES permit process, as well as implementation of fugitive dust control measures in accordance with Air Quality Management District Rule 403 (see Section 6.3, Air Quality, of the Draft EIR). These requirements would be implemented as conditions of approval of project development and subject to continuing enforcement. (DEIR, p. 6.6-19.)

Implementation of the proposed project would modify soil and topographic conditions at the site to accommodate development and to provide a stable and safe physical environment. This modification during construction could expose areas of soil to erosion by wind or water. Development of other cumulative projects in the vicinity of the study area could expose soil surfaces, and further alter soil conditions, subjecting soils to erosional processes during construction. To reduce the potential for cumulative impacts that could cause erosion, the proposed project in the study area and cumulative projects in the adjacent area are required to be developed in conformance with the provisions of applicable federal, State and County laws and ordinances. The implementation of Mitigation Measures 6.6-4(a) through (d) and 6.6-5 would ensure that the proposed project's contribution to cumulative impacts on the watershed caused by runoff and erosion from cumulative development activity would be *less than significant*. No further mitigation is required. (DEIR, p. 6.6-19.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.6-10:** Cumulative development in Placer County, including the proposed project, could be constructed on expansive soils that could become unstable. This impact is *less than significant*. (DEIR, p. 6.6-19.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.  
(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

The geographic context for analysis of impacts on development from expansive soil or soils exhibiting characteristics that could make them unstable (e.g., re-use of soils for engineered fill) or depth to groundwater is generally site-specific. Prior to construction of any development requiring a soils/geotechnical report, the County would require that soils characteristics at a specific site are identified and that design and construction incorporate the recommendations suggested in the report. With adherence to these requirements and the implementation of Mitigation Measures 6.6-4 and 6.6-5, the cumulative impact would be considered *less than significant*. No further mitigation is required. (DEIR, p. 6.6-19.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**G. HAZARDS**

**Standards of Significance**

Under criteria based on State CEQA Guidelines, for the purposes of this EIR, impacts would be considered significant if the proposed project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Create a significant hazard to the public or the environment due to past uses on the project site;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment; or
- For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.

(DEIR, pp. 6.7-18 to 6.7-19.)

**Impact 6.7-1:**            **Construction of the proposed project could involve the use, storage, and transportation of hazardous materials, which could be a safety hazard for people living and working within the Plan Area. This impact is *potentially significant*.** (DEIR, p. 6.7-19.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Hazardous materials would be used in varying amounts during construction activities associated with implementation of the proposed project. Construction and maintenance activities would use hazardous materials, such as fuels (gasoline and diesel); oils and lubricants; paints and paint thinners; glues; cleaners (which could include solvents and corrosives in addition to soaps and detergents); and pesticides and herbicides. The RWQCB requires a Spill Prevention Countermeasure and Control (SPCC) plan in the case of a project with larger quantities of petroleum products. (DEIR, p. 6.7-19.)

The types and amounts of hazardous materials used during construction activities associated with implementation of the proposed project would vary according to the nature of the activity; therefore, the specific hazardous materials and amounts that would be on site or transported cannot be determined at this time. This impact is considered *potentially significant*. (DEIR, p. 6.7-19.)

**Mitigation Measure:**

- 6.7-1 a) *Comply with all federal, State, and local laws and regulations pertaining to the use, storage, and transportation of hazardous materials during project construction.*
- b) *All reserve fuel supplies and hazardous materials must be stored within the confines of a designated construction area.*
- c) *Equipment refueling and maintenance must take place only within the staging area.*
- d) *Construction vehicles shall be inspected daily for leaks.*

(DEIR, p. 6.7-19.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-2:** **Operations of the University campus and commercial land uses in the Plan Area could involve the use, storage, and transportation of hazardous materials, which could be a safety hazard for people living and working within the Plan Area. This impact is *potentially significant*. (DEIR, pp. 6.7-20 to 6.7-21.)**

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Nearly all of the potential land uses in the proposed project would involve some level of use or storage of hazardous materials. In each case, the potential hazards would depend on the types of materials used, where the materials would be used, how they would be

used, and who would use them. Households and certain businesses, such as office-based businesses, would use relatively small quantities of hazardous materials when compared to certain other businesses, such as those engaged in research and development or light manufacturing. Manufacturing, research and development businesses that handle larger quantities of hazardous materials would often use a wider variety of materials, which could include less common materials and acutely hazardous materials. However, businesses that handle larger quantities of hazardous materials and acutely hazardous materials would also be subject to more regulation and oversight than businesses that handle smaller quantities of more common materials. In addition, employees of businesses that handle large quantities of hazardous materials would also typically receive special training (often required by law under OSHA) to help them understand these potential hazards. (DEIR, p. 6.7-20.)

### Residential and Commercial Hazardous Material Use

Hazardous materials would be handled and stored routinely by households and most businesses within the project area. Typical household hazardous materials would include oils (e.g., motor oil and hydraulic oil), fuels (e.g., gasoline and diesel), paints (both latex and oil-based), solvents (e.g., degreasers, paint thinners, and aerosol propellants), acids and bases (e.g., automobile battery fluids, swimming pool chemicals, and many cleaners), disinfectants, metals (e.g., mercury in thermometers, batteries, and photography chemicals), and pesticides and herbicides. (DEIR, p. 6.7-20.)

Commercial businesses would use materials similar to households, and some (e.g., gas stations, dry cleaners, and photoprocessors) would use hazardous materials in larger quantities specifically related to their business activities. For example, supermarkets and gas stations stock hazardous materials for sale to consumers; service stations handle fuel, motor oil, antifreeze, and other fluids; and supermarkets handle automotive fluids, cleaners, pesticides, and batteries. In addition, dry cleaners handle perchloroethylene and photoprocessors handle fixer and developer chemicals. (DEIR, p. 6.7-20.)

Although individual households and many businesses use relatively small volumes of hazardous materials, the total volume of the hazardous materials managed by all of the households and businesses in the project area could be substantial, which would increase the opportunities for accidents and improper use, storage, and disposal. However, because many hazardous materials are consumed through their use (e.g., fuel, paint, aerosols), the quantity of hazardous materials handled is generally believed to be substantially greater than the volume of hazardous waste generated. In any case, the Placer County Facility Services has a household hazardous waste collection program that safely collects, transports, and disposes of residual hazardous wastes. (DEIR, p. 6.7-20.)

Commercial products are labeled to inform users of potential risks and to instruct users in appropriate handling procedures. Although households are relatively less regulated than businesses, the risks posed by hazardous materials use at project-related residences would be similar to those in similar residential areas already developed in the City of Roseville,

adjacent residential areas and western Placer County. Home use of common household hazardous materials is typically considered to pose an acceptable level of risk. (DEIR, p. 6.7-20.)

### University Campus

Laboratory-based research and development conducted at the proposed University could involve a broad spectrum of activities requiring the use of laboratory bench space, laboratory support space (e.g., tissue culture rooms, media preparation areas, cold rooms, glassware wash areas, and dark rooms), and other ancillary facilities (offices and work stations, storage areas, libraries, and meeting rooms). Typical laboratories contain workbenches, sinks, storage areas, fume hoods, biosafety cabinets, and a wide variety of instruments and equipment. Each instrument is generally associated with one or more basic techniques. Like the appliances in a typical household kitchen, the instruments range in size from as small as a blender to as large as a commercial restaurant refrigerator. The equipment housed in a laboratory depends on the technologies employed and the materials handled. Many laboratories also include space for computers that control instruments or are used to store and analyze data. Most of the work in laboratories is performed at room temperature or body temperature under normal atmospheric pressure. Other types of laboratories could use a greater range (lower and higher) of temperatures and pressures. Standard laboratory techniques include measuring weights and volumes, gently heating and cooling materials, and shaking and stirring solutions. Research and development laboratories typically use relatively small quantities of hazardous materials at any one time. (DEIR, p. 6.7-21.)

The quantities of hazardous materials that would be used, stored, and disposed of on the proposed University site cannot be quantified precisely because the specific future University uses are unknown. Even if the uses were known, institutions cannot reasonably be expected to predict in advance every possible chemical or combination of chemicals they could conceivably use. However, compliance with applicable laws and regulations pertaining to the use, storage, and disposal of hazardous materials is assumed. As required by the County's subsequent conformity review process, the applicant for the university would be required to prepare a Campus Master Plan. The County could determine at that time, based on the type and configuration of uses within the Campus portion of the project area, that additional environmental review would be required for any issue associated with the Campus, including but not limited to the generation or handling of hazardous materials. (DEIR, p. 6.7-21.)

The proposed project would involve the use of varying amounts and types of hazardous materials in the day-to-day activities and operations of the residential, commercial, and University uses. This would be a *potentially significant impact*. (DEIR, p. 6.7-21.)

### **Mitigation Measure:**

6.7-2            *The proposed project shall comply with all federal, State, and local laws and regulations pertaining to the use, storage, and transportation of hazardous materials within the University, residential, and commercial land uses.*

(DEIR, p. 6.7-21.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-3:**            **In the future, the project site could be included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or could pose a risk from other hazardous releases and, therefore, may pose a significant hazard to the public or the environment. This impact is potentially significant.** (DEIR, pp. 6.7-21 to 6.7-22.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

The project site and off-site improvement areas are not listed on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As described in the Environmental Setting, Phase 1 ESAs prepared for all locations within the study area indicated there is no obvious evidence of any hazardous materials contamination on or near the project site that would present a substantial risk to the public or the environment as a result of project development. The Phase 1 ESAs did note, however, that stained soil typically associated with old spills, leaking equipment, or improper disposal of petroleum products are present at some locations, along with various kinds of metal and wood debris. The Phase 1 ESAs recommended the debris and stained soils be removed and properly disposed of prior to site development. (DEIR, p. 6.7-22.)

As the debris and stained soil is removed, it is possible that soil contamination of a larger extent than identified in the Phase 1 ESA may be discovered. It is also possible that undiscovered contamination from past uses on the site could be encountered during construction. Unless properly identified and managed, the removal of contaminated soil could present a hazard to construction workers and may be inadvertently spread, which could result in more environmental contamination. This is considered a *potentially significant impact*. (DEIR, p. 6.7-22.)

**Mitigation Measure:**

- 6.7-3 a) *The applicant shall ensure the recommendations for removing all debris and stained soils identified in the existing Phase I ESAs prepared for the project site and off-site improvement areas [Wallace-Kuhl Associates, Consolidated Environmental Site Assessment Regional University Specific Plan, November 28, 2006] and any supplements or amendments thereto, are implemented prior to site preparation.*
- b) *If, during site preparation, visual or olfactory evidence of contamination is observed when soils are disturbed during construction, the applicant shall ensure the location is investigated and remediated to meet State and County regulations and any required remediation shall be completed prior to resuming construction.*
- c) *The applicant shall ensure Grading Notes include standard County provisions for the management of previously unidentified hazardous materials contamination or debris that may be encountered during construction.*
- d) *Prior to submittal of a small lot tentative subdivision map or plans for residential or other sensitive development, properties not previously evaluated with a current Phase I Environmental Site Assessment may be required to complete a Phase I Environmental Site Assessment, as determined by Environmental Health Services. A Phase I Environmental Site Assessment shall be conducted by a qualified professional. If past commercial agricultural uses are disclosed that could have resulted in persistent contamination, such as rice fields, soil sampling shall be conducted within former commercial agriculture areas. In these instances, prior to setting conditions for subdivision development, soil investigation shall be conducted according to guidelines developed by the California Department of Toxic Substances Control (DTSC) and contained in the DTSC August 2002 "Interim Guidance for Sampling Agricultural Fields for School Sites", or equivalent protocol. Sampling and site investigation shall be conducted by a California registered environmental professional, performed with oversight from Placer County Environmental Health Services, and with applicable permits.*

*As a result of soil investigation, a limited and confined area of contamination may be identified and found to be suitable for simple removal. If this is the case, remediation will be required to meet State and County regulations and be completed prior to recordation of the final small lot subdivision map or equivalent final Placer County approval for residential projects.*

*As a result of soil investigation, unconfined and/or widespread residual concentrations of agricultural chemicals may be identified at levels where they individually or in combination meet or exceed US EPA, CalEPA Preliminary Remediation Goals, or equivalent screening levels, thereby indicating the need for risk assessment. Any indicated risk assessment shall be completed prior to improvement plans or equivalent approval. Risk assessments shall include a DTSC Preliminary Endangerment Assessment or no further action determination, or equivalent.*

*Any remedial action indicated by a risk assessment shall be completed and certified prior to recordation of the small lot tentative subdivision final map or equivalent final Placer County approval. Remediation shall include a DTSC Remedial Action Workplan, or equivalent, and can include a range of activities, including restrictions on use, soil excavation and disposal off-site, or encapsulation in appropriate areas away from sensitive receptors in the Specific Plan area.*

(DEIR, pp. 6.7-22 to 6.7-23.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-4:**      **Recycled water from the PGWWTP could be used to irrigate publicly accessible areas such as landscaped parks and roadway medians. This impact is *less than significant*.** (DEIR, pp. 6.7-23 to 6.7-24.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

Recycled water from the PGWWTP would be conveyed to the project and used for irrigation in parks and for irrigation of landscaping in other places accessed by the public. Individuals using or maintaining the parks and landscaped facilities in areas accessible to the public would come in contact with the water when these features are actively irrigated, from water adhering to grass and other landscaping, or through any remaining water that has not yet infiltrated into the subsurface. Ponding would be minimized by controlling the rates and frequency of application. (DEIR, p. 6.7-23.) Approximately 650 afy of this irrigation demand could be served by recycled water from the PGWWTP. The City of Roseville has indicated that the amount of recycled water that would be

generally made available to the proposed project would be based upon the average dry weather flow of wastewater from the proposed project. The 650 afy figure, therefore, assumes the peak day irrigation demand served by recycled water would be limited by the average dry weather flow of wastewater from the proposed project which was determined to be 650 afy.

The PGWWTP has been designed and operated to produce effluent that meets or exceeds standards consistent with "Disinfected Tertiary Recycled Water" as defined by Title 22 of the California Code of Regulations (Division 4, Chapter 3, Section 60301.230). Water meeting these standards (referred to as "tertiary-2.2 criteria") may be used for unrestricted use, which includes (but is not limited to) body-contact for recreation (swimming), irrigation of food crops, and irrigation of parks, playgrounds, and schoolyards. The California Department of Public Health (CDPH) considers a properly filtered and disinfected water meeting the tertiary-2.2 standard to be essentially pathogen-free and adequately protective of public health. As the recycled water provider, the City is responsible for ensuring the application sites comply with the siting and use requirements established in Section 60310 of the CCR. The crossconnection requirements would ensure that the recycled water distribution infrastructure in the project site does not enter the potable water distribution system. (DEIR, p. 6.7-23.)

Because there is no evidence that use of tertiary-2.2 recycled water would result in any conditions that would unduly expose future project occupants to unmitigated risks, this is considered a *less-than-significant impact*. (DEIR, p. 6.7-24.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-5:**      **The project could include development where wildlands are adjacent to urbanized areas, which could present a safety hazard. This impact is *potentially significant*.** (DEIR, p. 6.7-24.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Wildland fires can be initiated by natural phenomena, such as lightning, or from extremely dry and hot conditions. However, wildland fires can also be started by human activities, such as smoking, use of flammable fuels, automobiles, and malfunctioning electrical equipment. (DEIR, p. 6.7-24.)

The proposed project would construct residences on a large portion of the existing grassland areas, thus reducing on-site natural fuel for fires. However, the areas surrounding the Specific Plan area would remain dry grasslands until those areas are developed. Because the area is located in a potential fire zone and there would be an increase in the population in this area, people and structures could be exposed to a significant risk of loss, injury, or death as a result of wildland fires. This would be a *potentially significant impact*. (DEIR, p. 6.7-24.)

**Mitigation Measure:**

- 6.7-5 a) *The proposed project shall comply with all federal, State, and local laws and regulations pertaining to wildland fires.*
- b) *Prior to construction, the County shall review project plans for conformance with the UBC and UFC to reduce risk of fires originating within the County.*
- c) *During construction activities, the applicant shall consult with the Placer County Fire Department in order to implement fire prevention measures at sites adjacent to natural areas.*
- d) *Construct a fire station as required by Mitigation Measure 6.10-7(a).*
- e) *A minimum 10-foot firebreak, which shall be maintained until such time that adjacent properties are developed, shall be required in all areas with wood fences that are adjacent to wild areas.*

(DEIR, p. 6.7-24.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-6:** **The proposed project could be located near a private airstrip and could cross a safety hazard for people residing or working within the Plan Area. There would be *no impact*.**

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

A private, non-paved airstrip is located immediately south of the western (University) portion of the project site, approximately 2,700 feet east of Brewer Road. The airstrip runs north/south with the north end of the airstrip located directly adjacent to the RUSP property. The Placer County General Plan includes Public Facility Buffer Zones, which are intended to separate residential, commercial, and other land uses continuously or frequently occupied by people from areas designated Public Facility, where nuisances and safety hazards, such as the operation of aircraft, would be incompatible with other land uses. The Placer County General Plan identifies the following minimum buffer zone widths between designated land uses and airports:

- Residential — 2,000 feet
- Commercial — 1,000 feet
- Industrial — 0 feet
- Recreation — 0 –500 feet.

(DEIR, pp. 6.7-24 to 6.7-25.)

Although the private airstrip adjacent to the project site is not designated as a public facility, the operation of the airstrip entails the same or similar potential incompatibilities with proposed project land uses and is treated as a public facility for the purposes of this analysis. (DEIR, p. 6.7-25.)

To comply with the General Plan, the Regional University Specific Plan includes a 2,000 foot buffer, measured from the end of the airstrip, for any residential use or structure, occupied office, classroom, administration building, athletic facilities, such as recreation center, stadium, gymnasium, performing arts center, maintenance building or other occupied university building. No buffer is required for maintenance buildings, corporation yards, or expansive, low-population outdoor recreation facilities, such as athletic fields, open space, parks, or parking lots. The buffer would remain in place until such time as the County determines the private airstrip is no longer a legally permissible use on the property or the property owner voluntarily relinquishes any right of use that would result in any overflight of the University portion of the RUSP. With the 2,000-foot buffer, residents or occupants of the Plan Area would not be subject to potential hazards from any flights from the airstrip. Because the Specific Plan specifies that no University buildings, residential buildings, recreational facilities, athletic facilities, or other occupied uses would be developed within aviation facility buffer zones without first obtaining

County certification that the aviation facilities have been permanently removed from operation, there would be *no impact* related to hazards associated with operation of the airstrip. (DEIR, p. 6.7-25.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-7:**            **The development of the Plan Area could physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact is *less than significant*.** (DEIR, p. 6.7-25.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

The proposed project would convert agricultural land to urban uses. Ingress and egress, including new roads and streets within and surrounding the project area would be constructed to Placer County Land Development standards. However, roadway improvements would not result in any changes to existing emergency access, nor would it prevent the implementation of future emergency plans. Such improvements (e.g., Watt Avenue extension) would, in fact, provide additional access, which would be considered a benefit of the proposed project. Therefore, implementation of the project would not interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be *less than significant*. (DEIR, p. 6.7-25.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-8:**            **The proposed project could include stormwater basins and open channels that could provide breeding opportunities for**

mosquitoes. This impact is *potentially significant*. (DEIR, p. 6.7-26.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

The project site contains small stream channels, canals, and irrigation/tailwater ditches, which could provide some habitat for mosquito populations. The proposed stormwater drainage system would consist of a combination of open space drainageways, retention and detention facilities, and an approximately 20-acre stormwater basin constructed west of Brewer Road. Standing water provides breeding opportunities for mosquitoes, provided temperatures are high enough, there are available nutrients, and if the water were present long enough for mosquitoes to complete their four life stages (egg, larval, pupal, and adult). (DEIR, p. 6.7-26.)

Mosquitoes are common in the region. 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. Development of the project would increase the number of people who could be exposed to mosquito populations that could increase through the creation of additional water features, as described above. (DEIR, p. 6.7-26.)

As described in the Stormwater Management Plan prepared for the proposed project, the basins would be designed so that standing water would not accumulate within the basins, and complete discharge of the basin treatment volumes would occur within 72-hours of the completion of storm drain discharges. However, if not managed properly, the wetland, park, and open space corridor areas within the Plan Area could have the potential to become locations for mosquito breeding, thus exposing people to diseases transmitted by mosquitoes. This is considered a *potentially significant impact*. (DEIR, p. 6.7-26.)

**Mitigation Measure:**

- 6.7-8 a) *During construction, all grading shall be performed in a manner to prevent the occurrence of standing water or other areas suitable for breeding of mosquitoes and other vectors.*
- b) *The Placer Mosquito Abatement District shall be granted access to perform vector control in all common areas including drainage, open*

*space corridor and park areas in perpetuity. Such access shall be a condition of approval of all tentative maps approved within the Plan Area.*

- c) *Prior to grading, the applicant shall prepare a Preserve Management Plan which shall include information on compatible mosquito and vector control methods that are appropriate for the various habitat types within the natural open space areas.*

(DEIR, p. 6.7-26.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-9:** **Cumulative development, including the proposed project, could expose people and the environment to hazards and hazardous materials through reasonable foreseeable upset and accident conditions. This impact is less than significant.**  
(DEIR, p. 6.7-27.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

The project, in conjunction with cumulative development in south Placer County, would include areas designated for commercial and research uses. Cumulative development would also include construction and continued operation or development of new light-industrial uses and/or public/quasi-public facilities (e.g., PGWWTP and the Roseville Energy Park). These types of development would increase the use of hazardous materials within the area, resulting in potential health and safety effects related to hazardous materials use. For the most part, potential impacts associated with project development would be confined to the University and commercial areas. Hazardous materials incidents would typically be site-specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials. Thus, the project's contribution to increased use of hazardous materials, and associated exposure risks, would not be cumulatively considerable. Airborne toxic air contaminant emissions from commercial and University sources are addressed in the cumulative analysis for air quality. Implementation of Mitigation Measures 6.7-1(a) through (d) and 6.7-2 would ensure cumulative impacts related to hazardous materials use would be *less than significant*. (DEIR, p. 6.7-27.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-10:** Cumulative development, including the proposed project, could expose people to hazards associated with soil or groundwater contamination. This impact is *less than significant*. (DEIR, p. 6.7-27.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

For any projects in south Placer County 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. There is also potential for existing wells, if not properly destroyed, to allow surface contamination to reach groundwater. Placer County Environmental Health Services has oversight of these wells and any abandoned wells must be properly destroyed under permit from Environmental Health Services. In addition, the California Department of Water Resources Bulletin 74-90, Section 23, contains standards for the abandonment of water wells no longer in use; those standards would apply to all development in the County, including the proposed project. For individuals not involved in construction activities, the greatest potential source of exposure to contaminants would be airborne emissions, primarily through construction-generated dust. 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. Moreover, an individual who is near the construction zone of one source would not likely be exposed to maximum levels off-site from another source. Therefore, the cumulative impact would be *less than significant*. (DEIR, p. 6.7-27.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-11:**      **The proposed project, in combination with other development in south Placer County, could increase the use of recycled water for irrigation in publicly accessible areas. This impact is less than significant. (DEIR, p. 6.7-28.)**

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

As development continues in south Placer County, it is anticipated that new areas accessible to the public (e.g., parks, recreation fields, landscape medians) would continue to be irrigated with recycled water from the wastewater treatments plants (e.g., PGWWTP) as part of the overall water supply strategy for the area. Recycled water used for areas accessible to the public must be treated to adopted standards and applied in accordance with adopted regulations. Development of the project, in combination with development in south Placer County and potential future projects in the region would increase the number of people who could use areas irrigated with recycled water. Recycled water used for irrigation in the Plan Area would be obtained from the same sources, and all treatment methods would continue to comply with adopted standards established by laws and regulations. Although new areas would be irrigated, there would be no direct correlation between the use of recycled water and the number of people working, residing, or visiting areas irrigated with recycled water. Therefore, the project's contribution to impacts associated with the use of recycled water would not be cumulatively considerable. This would be a *less-than-significant cumulative impact*. (DEIR, p. 6.7-28.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-12:**      **Cumulative development, including the proposed project, could result in a cumulative increase in the number of people**

**and structures that could be exposed to wildland fire hazards. This impact is *less than significant*.** (DEIR, p. 6.7-28.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

Development in south Placer County, including the proposed project, would result in an increase in the number of people and structures that could be exposed to wildland fires where urban land interfaces with rural land. Placer County General Plan policies 8.C.1 through 8.C.10 have been established to provide a safe environment for residents in the County, decrease the risk from fires (including wildland fires), and to provide a level of service sufficient for emergency response times. The County enforces the CBC and UFC through the issuance of building permits and conditions of approval. As stated in Draft EIR Section 6.10, Public Services, the County ensures that fire and emergency services are at levels that can provide sufficient services to reduce the risk of loss, injury, or death from wildland fires. Therefore, the cumulative impact would be *less than significant*. (DEIR, p. 6.7-28.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-13:** Cumulative development, including the proposed project, could result in a cumulative increase in the number of people and structures that could be exposed to aircraft hazards. This impact is *less than significant*. (DEIR, pp. 6.7-28 to 6.7-29.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

There are several permitted airports, airstrips, and helicopter facilities in the greater Sacramento metropolitan area, which includes south Placer County. With few exceptions, each facility must be permitted by Caltrans Division of Aeronautics, which enforces and monitors compliance with federal aviation regulations. Any new facility must secure all required land use approvals. Approach and departure paths are established for each facility, and the use of airspace over the greater Sacramento region is governed by federal and State regulations. (DEIR, pp. 6.7-28 to 6.7-29.)

Development of the proposed project, in combination with cumulative development, would increase the number of people in the region who could be exposed to aircraft crash hazards on the ground. However, the frequency, location, and severity of aircraft accidents (which are extremely rare) at any one location would be site-specific and would be limited to the immediate vicinity. Therefore, the cumulative impact would be considered a *less than significant*. (DEIR, p. 6.7-29.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-14:** Cumulative development, including the proposed project, could temporarily affect local roadway emergency access routes during construction activities, but there could be no long-term or permanent changes in emergency routes or access. This impact is *less than significant*. (DEIR, p. 6.7-29.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

Construction-related activities and developments within south Placer County that alter, close, or in other ways affect traffic on area roadways could interfere with emergency response access or response times or affect evacuation routes by lane narrowings to accommodate underground utility installations or roadway improvements (e.g., road widenings). If project restrictions coincide with other closures from adjacent projects, emergency response access or response times could be adversely affected. However, the County requires all project applicants to prepare and implement a Construction Traffic Management Plan for projects that would obstruct vehicle traffic. This would allow the

County to manage affected roadways so that effects would not be cumulatively considerable. As noted in the discussion of Impact 6.7-8, the proposed extension of Watt Avenue would provide new access to the area, which would be considered a benefit of the proposed project. The impact is considered a *less-than-significant cumulative impact*. (DEIR, p. 6.7-29.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.7-15:**      **The proposed project, in combination with other development in south Placer County, could result in an increase in the extent of new or improved stormwater basins that could temporarily store water. The basins could provide breeding opportunities for mosquitoes. Cumulative development could also increase the number of people who could be exposed to mosquito hazards. This impact is *less than significant*. (DEIR, pp. 6.7-29 to 6.7-30.)**

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant.

(Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3).)

**Explanation:**

Mosquitoes are common in the region. Development of the project, in combination with development in south Placer County and potential future projects in the region would result in the construction of additional stormwater drainage improvements, such as detention or retention basins or improvements to natural waterways to temporarily store stormwater runoff. New areas would be developed in south Placer County, resulting in an increase in the population who could be exposed to mosquito hazards. As discussed in connection with Impact 6.7-9, health and safety risks associated with mosquito breeding would be reduced with the implementation of Mitigation Measures 6.7-9(a) through (c). Further, mosquito abatement services are currently performed routinely by the Placer Mosquito Abatement District, which would protect the population. This would be *less-than-significant cumulative impact*. (DEIR, pp. 6.7-29 to 6.7-30.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

## **H. HYDROLOGY AND WATER QUALITY**

### **Standards of Significance**

The following thresholds of significance are based on Appendix G of the CEQA Guidelines, the Placer County General Plan, and the Placer County Municipal Code. For the purpose of this EIR, impacts to hydrology and water quality are considered significant if the proposed project would:

- Substantially increase the rate of runoff in a manner that would result in localized flooding on- or off-site;
- Substantially increase the amount of runoff in a manner that would result in localized flooding on- or off-site;
- Substantially increase exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood;
- Violate any water quality standards or waste discharge standards;
- Cause increases in sediment and other contaminants generated during construction or operation that would result in degraded surface water quality in violation of existing ambient water quality standards of the Sacramento-San Joaquin River Basin Plan adopted by the Regional Water Quality Control Board;
- 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 that would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map; or
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

**Impact 6.8-1:**        **The proposed project could increase peak runoff rates and volumes which could exceed the capacity of local drainages and result in on- and off-site flooding hazards. This impact is potentially significant.** (DEIR, pp. 6.8-18 to 6.8-22.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Development of the proposed project would increase the amount of impervious surface coverage over that which currently exists by converting approximately 1,157.5 acres of undeveloped agricultural land to urban uses, approximately 316 acres of which would be dedicated to open space, parks, and landscape setbacks. The increase in the amount of impervious urban land use surfaces such as roofs, parking lots, sidewalks, hardscape, and roads would increase the rate of surface runoff entering Curry Creek by limiting ground infiltration. In addition, development and grading would alter the existing runoff patterns and conveyance capacities on the project site. Figures 2-8 and 2-9 in Chapter 2 of the Draft EIR show the proposed project drainage improvements. Increased flows and altered drainage patterns could increase the potential for localized and downstream flooding. (DEIR, pp. 6.8-18 to 6.8-19.)

Consistent with PCFCWCD standards, peak flow runoff rates were determined for the proposed project to identify drainage features that would be necessary to mitigate post-development flows to acceptable levels, to the extent that such features would not exacerbate downstream peak flows. Draft EIR Table 6.8-2 summarizes the estimated pre-project peak flow rates in cubic feet per second (cfs) from modeled scenarios presented in the Preliminary Drainage Master Plan at points where Curry Creek sub-watersheds drain through the project site. (DEIR, p. 6.8-19.)

As illustrated by the data in Draft EIR Table 6.8-3, the proposed project would result in peak flows increasing with greater storm events from each sub-watershed node modeled in the Preliminary Drainage Master Plan. Tables 6.8-3 and 6.8-4 show peak flow rates

would be reduced through project design and through proposed drainage improvements, including designed channels, culverts, and detention features or lakes. (DEIR, p. 6.8-19.)

The proposed project would use several types of drainage facilities to reduce peak flow discharges from the project site. The principle method of attenuating peak flows would be through the use of excavated and channelized detention basins adjacent to existing channels, and a lake storage area. Other types of attenuation facilities proposed include constructed wetland areas, water quality basins, and channelized detention areas upstream of peak flow regulating culverts. (DEIR, p. 6.8-21.)

Draft EIR Table 6.8-5 shows the difference between the pre-project unmitigated flows and the post-project mitigated runoff peak flows for the same sub-watershed nodes. The modeling results show that there would be localized increases in peak flows for the two-through 500-year storm events in a variety of post-project sub-watersheds. The data presented in Draft EIR Table 6.8-5 show that with the proposed project, peak flow rates would be reduced in Curry Creek for all storm events from the two through 100-year storm events exiting the project site at Brewer Road, as required by the PCFCWCD. These decreases would also result in a measurable decrease in the peak flows at the confluence of Curry Creek and the Pleasant Grove Creek Canal, or at downstream locations exiting Placer County, such that increased flood risk would not occur downstream of the proposed project. (DEIR, p. 6.8-21.)

These proposed detention and volumetric drainage facilities, located within the boundaries of the project site and just west of Brewer Road, would not increase peak flow rates and flooding depths downstream of the project site, and would not increase water surface elevations at the upstream boundary of the project site. Further, the lake storage area provides conveyance and storage mitigation volumes necessary to contain the post-project peak flow rates for the two-, 10-, and 100-year events per PCFCWD standards. A dual detention/retention basin constructed on the western side of Brewer Road would receive flows directly from the lake storage area in the project site and operate at the same elevation and storage of the lake, thus extending the amount of storage for project site runoff before flowing downstream. Although the proposed project Preliminary Drainage Master Plan would meet the PCFCWCD SWMM criteria for peak discharge rates and included conveyance of fully developed off-site unmitigated flows, a comprehensive operation and maintenance plan and fee program for the proposed stormwater facilities has not been prepared or approved by Placer County. Therefore, the proposed project could result in a *potentially significant impact*. (DEIR, pp. 6.8-21 to 6.8-22.)

#### **Mitigation Measure:**

- 6.8-1 a) *Prior to recordation of the first Large Lot, Final Map, or any improvement plan approval, a Final Project Drainage Master Plan shall be prepared and submitted to the Placer County Engineering and Surveying Department*

(ESD) for review and approval. Similarly, drainage plans for any off-site improvement areas shall be prepared and submitted for review. The Final Drainage Master Plan and other drainage plans (Drainage Plans) shall ensure that peak flows from developed areas do not exceed pre-development conditions and shall be in conformance with the requirements of Section 5 of the Land Development Manual and the Placer County Storm Water Management Manual that are in effect at the time of submittal. The drainage facilities shall be designed for future, fully developed, unmitigated flows from upstream development. Regional detention and retention basins, regional water quality basins, as well as regional drainage channel improvements, shall be incorporated with appropriate design information along with appropriate phasing information. The Drainage Plans shall include specific operation and maintenance responsibilities, inspection schedules, and reporting requirements. The Drainage Plans shall be prepared by a Registered Civil Engineer and shall include all drainage elements outlined in the Preliminary Drainage Master Plan used for analysis in this EIR or other elements determined by Placer County ESD to be equally effective.

- b) New development applications (including backbone infrastructure) within the Plan Area shall be accompanied by site-specific project drainage reports consistent with the approved Final Project Drainage Master Plan. The project drainage reports shall be reviewed and approved by the ESD during the Subsequent Conformity Review Process and prior to improvement plan approval for new development. The drainage report shall be prepared by a Registered Civil Engineer and shall be in conformance with the Placer County Storm Water Management Manual and Placer County Code. The project applicant shall be financially responsible for all stormwater drainage facility maintenance requirements. The project drainage report shall include, at a minimum, written text addressing existing conditions, the effects of project improvements, all appropriate calculations, a watershed map, potential increases in downstream flows and volumes, proposed on-site improvements, and drainage easements, if necessary, to accommodate flows from the site. The drainage report shall demonstrate compliance with all mitigation measures included in this EIR.
- c) Drainage facilities, for purposes of collecting runoff, shall be designed in accordance with the requirements of the Placer County Storm Water Management Manual that are in effect at the time of submittal, to the satisfaction of the ESD. These facilities shall be constructed with proposed project improvements, and easements provided as required by the ESD. Maintenance of these facilities shall be provided by a Master Homeowners Association, Community Services District, or other responsible entity to be determined by Placer County prior to any development approval.

- d) *New development applications within the Plan Area shall describe the location, size, and ownership of any stormwater conveyance facility in the Final Project Drainage Master Plan and shown on improvement plans. The developer shall submit a letter to the ESD from the entity controlling the canal describing any restrictions, requirements, easements, etc. relative to project construction. Said letter shall be provided to the ESD prior to the approval of improvement plans.*
- e) *A County Service Area (CSA), Community Facilities District (CFD), or other entity for operation and maintenance of the stormwater facilities shall be formed for the Plan Area prior to recordation of the first Large Lot Final Map. This entity would have the ability to participate in design, inspect and accept facilities, and determine appropriate funding levels necessary to operate and maintain these facilities. A drainage facility operation and maintenance special tax or special assessment, with a provision for increases, indexed to the Consumer Price Index (CPI), shall be approved by the landowners (voters) of the Plan Area prior to recordation of the first Large Lot Final Map in the Plan Area. An indexing formula for operations and maintenance of drainage facilities shall also be in place prior to recordation of the first Large Lot Final Map.*
- f) *New development shall not alter the post-development mitigated drainage shed boundaries identified in the Final Drainage Master Plan in any way that would increase the peak flow runoff or runoff volumes.*
- g) *New development shall reduce post-development storm water run-off peak flows and volumes to pre-development levels through the installation of retention/detention facilities. Retention/detention facilities shall be designed in accordance with the requirements of the Placer County Storm Water Management Manual that are in effect at the time of submittal, and to the satisfaction of the ESD. Retention/detention facilities shall be designed to be consistent with the approved Master Drainage Plan. Construction of regional retention/detention facilities shall occur prior to or concurrent with the initial development of the Specific Plan. No retention/detention facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by project approvals.*

(DEIR, pp. 6.8-23 to 6.8-24.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-2:**      **The proposed project could increase the amount (volume) of stormwater which could exceed the capacity of Curry Creek, exacerbating on- or off-site flooding. This impact is *potentially significant*.** (DEIR, pp. 6.8-24 to 6.8-25.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Increases in stormwater runoff flows generated by the proposed project, as described in Impact 6.8-1, would also increase the amount (volume) of stormwater runoff from the project site that would enter Curry Creek. Results of the hydrologic and hydraulic modeling for the proposed project indicate that the project site would generate a volume increase of approximately 168.7 acre-feet of runoff to Curry Creek during the 8-day 100-year design storm (the PCFCWCD SWMM required storm event for modeling post-project runoff volumes). The increase in stormwater volume, if not mitigated, could increase downstream and upstream water surface elevations and, in turn, exacerbate on- and off-site flooding. Accordingly, the proposed project would include drainage system improvements that would retain this increase in runoff volume in the lake storage area, in unmodified floodplain areas, in excess storage in the basin to the west of Brewer Road, and through a series of weirs to regulate the timing of volume releases from the storage areas beyond the 100-year design event as required by the PCFCWCD. The proposed project could use off-site volumetric storage at the Reason Farms retention facility if it was operational in time for use by the proposed project and if the City of Roseville codified a formal fair-share fee system. Although these proposed facilities have been designed to reduce post-project increases in stormwater volume to pre-project conditions and convey flows from off-site developed and unmitigated areas upstream, an operation and maintenance plan for these facilities has not been prepared. Therefore, the proposed project could result in volumetric increases in Curry Creek and on- or off-site flooding. This is considered a *potentially significant impact*. (DEIR, pp. 6.8-24 to 6.8-25.)

**Mitigation Measure:**

- 6.8-2 a)      *Implement Mitigation Measures 6.8-1(a) through (d).*
- b)      *As an option to on-site mitigation for volumetric increases resulting from the proposed project, the proposed project could mitigate for volumetric impacts through the purchase of volumetric storage capacity at a facility approved by PCFCWCD and ESD. The Reason Farms Facility is an approved facility that is planned to be constructed within the Pleasant Grove Creek watershed. If the proposed project were to use this facility for volumetric mitigation, construction of the Reason Farms Facility must*

*be complete and the facility in operation before the proposed project is constructed.*

(DEIR, p. 6.8-25.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-3:**      **The proposed off-site infrastructure improvement areas could increase impervious surfaces which could affect stormwater runoff rates and volumes. This impact is *potentially significant*.**  
(DEIR, p. 6.8-25.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Construction of off-site infrastructure would result in an increase in impervious surfaces and stormwater runoff rates and volumes. Because the final design for off-site improvements are not available, the Preliminary Drainage Master Plan did not include the off-site improvements in the stormwater runoff models. Without adequate design for off-site infrastructure stormwater runoff, impacts would be *potentially significant*. (DEIR, p. 6.8-25.)

**Mitigation Measure:**

6.8-3 a)      *Prior to approval of plans for off-site infrastructure areas or the recordation of the first Large Lot Final Map, the applicant shall prepare an addendum to the Preliminary Drainage Master Plan or include in the Final Project Drainage Master Plan modeling of runoff rates and volumes from off-site infrastructure areas. The modeling shall be used to adequately reduce post-project stormwater runoff flows and volumes.*

b)      *Implement Mitigation Measures 6.8-1(a) through (g).*

(DEIR, p. 6.8-25.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-4:** The proposed project could increase the amount (volume) of treated wastewater discharged into Pleasant Grove Creek which could exceed the capacity of the creek, exacerbating on- or off-site flooding during the 100-year storm event. This impact is *less than significant*. (DEIR, pp. 6.8-25 to 6.8-26.)

**Finding:**

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

**Explanation:**

The proposed project would result in an increase in the local population and, thus, an increase in wastewater treatment and discharge at the Pleasant Grove Wastewater Treatment Plant (PGWWTP), if project wastewater is treated at PGWWTP. A discussion of the proposed project's impacts on capacity at the PGWWTP is discussed in detail in Section 6.11, Utilities. The proposed project would generate 1.2 million gallons per day (mgd) of wastewater that could be treated at the PGWWTP. At this time, the PGWWTP uses 6.5 mgd of its permitted 12 mgd of average daily dry weather flow (ADWF) capacity. Combined with the proposed project flows, the demand for treatment and discharge would increase to 1.2mgd. Although the project site is currently outside the 1996 Wastewater Master Plan boundary, there is adequate capacity to serve the project. Further, the PGWWTP is permitted through a NPDES permit issued by the CVRWQCB (NPDES No. CA0084573, Order No. 5-00-075) to discharge treated wastewater up to the 12 mgd treatment and discharge capacity. (DEIR, pp. 6.8-25 to 6.8-26, FEIR p. 2-25.)

On January 15, 2006 a technical memorandum analyzing the impacts of increased future wastewater flows to and discharges from the PGWWTP was completed by Merritt Smith Consulting. The overall increase in flow to the PGWWTP analyzed was for a number of planned projects outside the current PGWWTP service area, including the proposed project. The projected increase of 1.2 mgd would result in increases in discharge volumes into Pleasant Grove Creek. Results of modeling of the increase in flows to Pleasant Grove Creek during the 100-year storm event showed that water surface elevations in downstream areas would rise approximately 0.01 foot approximately one mile upstream of the Sutter/Placer County line, but would not result in any increase downstream of this point to the Pleasant Grove Canal.

Expansion of treatment capacity of the PGWWTP beyond that planned for in the 1996 Wastewater Master Plan EIR would require modification to the PGWWTP's NPDES permit to accommodate additional effluent discharges to Pleasant Grove Creek. Such modification would require approval by the Central Valley Regional Water Quality Control Board. If any modifications to the National Pollutant Discharge Elimination System (NPDES) Permit are required, the WWTP operator would address modifying the

allowable discharge amounts. Additional environmental review may be required as part of the approval process. The ability to treat wastewater flow from the Plan Area is contingent upon receiving this discharge permit from the RWQCB. (FEIR p. 2-1.)

Therefore, increases in discharges of treated wastewater to Pleasant Grove Creek from the proposed project would result in a *less-than-significant impact* to downstream flooding during the 100-year storm event. (DEIR, p. 6.8-26.)

**Mitigation Measure:**

None required.

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-5:**      **The proposed project could construct residences and other structures within the pre-construction 100-year FEMA floodplain, potentially exposing people and structures to flooding. This impact is *potentially significant*.** (DEIR, pp. 6.8-26 to 6.8-27.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

As shown in Draft EIR Figure 6.8-3, major portions of the project site (pre-construction) are within an area subject to 100-year flood hazards as defined by FEMA. Development of the proposed project under these conditions would place residential and institutional land uses in areas subject to the existing (pre-construction) 100-year floodplain. (DEIR, p. 6.8-26.)

The County requires that house pad elevations be two feet above the 100-year floodplain water surface elevation (or finish floors at three feet above the same elevation) to protect structures and occupants from flood hazards. To accommodate development in those areas and to provide required freeboard, the proposed project would construct stormwater drainage facilities that would prevent 100-year flows in Curry Creek from overtopping the banks of the channels, culverts, and lake storage areas and prevent flooding of occupied structures. The Preliminary Drainage Master Plan provides detailed HEC-RAS output tables showing that post-project drainage facilities would reduce all upstream and most on-site water surface elevations such that flooding limits would be confined within

channels and generally provide three feet of freeboard to finish floor of adjacent proposed structures. The modeling results can be seen in the post-project floodplain shown in Draft EIR Figure 6.8-4. Although the proposed project drainage improvements would reduce or maintain the 100-year water surface elevations and peak flows and would not increase on- or off-site flooding, an operation and maintenance plan for these facilities has not been prepared. Therefore, the proposed project could result in increases in water surface elevations resulting in on- or off-site flooding. This is considered a *potentially significant impact*. (DEIR, pp. 6.8-26 to 6.8-27.)

**Mitigation Measure:**

- 6.8-5 a) *Implement Mitigation Measures 6.8-1(a) through (g).*
- b) *No grading activities of any kind may take place within the post project 100-year floodplain as identified in the Final Drainage Master Plan, except as necessary to construct and maintain drainage improvements. The post-project 100-year floodplain shall be designated as a development setback line on improvement plans and final subdivision maps, unless greater setbacks are required by other mitigation measures or conditions of approval.*
- c) *The Final Drainage Master Plan shall show the limits of the future unmitigated fully-developed 100-year floodplain (after development) for the North and South channel tributaries to Curry Creek on the Improvement Plans and Informational Sheet(s) filed with the appropriate Final Map(s) and designate same as a building setback line unless greater setbacks are required by other conditions contained herein. Channel construction and/or improvements with new development shall provide sufficient freeboard for the 100-year modeled storm event and shall be identified with floodplain delineations. Subsequent site specific developments shall identify the 100-year floodplain in the site specific drainage report and Improvement Plans.*
- d) *The Final Drainage Master Plan shall demonstrate that the proposed project would not increase the 100-year floodplain water surface elevation upstream or downstream of the project area.*
- e) *New development applications within the Plan Area shall identify the limits of existing and proposed floodplains in the Final Drainage Master Plan. Channel/swale construction and/or improvements with new development shall be designed in accordance with the PCFCWCD Storm Water Management Manual, shall provide sufficient freeboard for the 100-year event and shall be identified with floodplain delineations.*

- f) *New development shall show finished house pad elevations two feet above the 100-year floodplain water surface elevation (or finished floor at three feet above same elevation) for lots near 100-year floodplain identified in the proposed channels for the North and South tributaries to Curry Creek on the Improvement Plans and Informational Sheet filed with the appropriate Final Map. Pad elevations shall be certified by the project engineer on "As-Built" plans submitted to the ESD following project construction. Benchmark elevation and location shall be shown on the Improvement Plans and Informational Sheet(s) to the satisfaction of DRC.*

(DEIR, p. 6.8-27.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-6:** **Construction activities for the proposed project could result in sediment and other construction-related pollutants entering local drainages. This impact is *potentially significant*.** (DEIR, p. 6.8-29.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Construction of the proposed project would involve earth-disturbing and building activities that could result in the discharge of sediment or other pollutants (e.g., petroleum products or building materials such as paints and cement) to Curry Creek and, ultimately, the Sacramento River via runoff from the construction site. Because activities associated with project development would disturb more than one acre of land, contractors would be required to obtain and comply with the State General Construction Activity Stormwater Permit. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 99-08-DWQ. The General Permit is intended to ensure compliance with state water quality objectives and water protection laws and regulations, including those related to waste discharges. (DEIR, p. 6.8-29.)

General Permit applicants are required to prepare a SWPPP and retain it at the construction site. The County requires that contractors obtain and comply with the State General Construction Activity Stormwater Permit. The SWPPP must specify BMPs designed to minimize sedimentation and release of construction-related constituents into

Curry Creek. Examples of BMPs that could be used during construction of the proposed project, which can be found in the California Stormwater Quality Association's (CASQA) *Stormwater Best Management Practices Handbook for Construction*, include, but are not limited to, geotextiles, silt fences, hydroseeding, hydraulic mulch, soil binders, straw mulch, fiber rolls, earthen dikes and drainage swales, velocity dissipation devices, streambank stabilization measures, sediment traps, inlet filters, and tire washes. The General Permit was modified in April 2001 (SWRCB Resolution No. 2001-046) to require permittees to implement specific sampling and analytical procedures to determine whether the BMPs used at construction sites are effective. Although implementation of these State requirements would reduce project-related construction impacts, Placer County administers the oversight of implementation of construction BMPs. Therefore, the timing of construction BMPs could result in *potentially significant impacts*. (DEIR, p. 6.8-29.)

**Mitigation Measure:**

- 6.8-6 a) *Any project within the Plan Area with ground disturbance exceeding one-acre that is subject to the State NPDES General Construction Permit shall obtain such permit from the CVRWQCB and shall provide to the ESD evidence of a State-issued NPDES General Construction Permit number or filing of a Notice of Intent and fees prior to start of construction.*
- b) *During the Subsequent Conformity Review process and prior to Improvement Plan approval, new development shall submit to the ESD, for review and approval, an erosion control plan consistent with the County's Grading Ordinance. The erosion control plan shall indicate that proper control of siltation, sedimentation and other pollutants will be implemented per NPDES General Construction Permit requirements and County ordinance standards. The plan shall propose BMPs to reduce erosion and water quality degradation during construction to the maximum extent practicable.*

(DEIR, p. 6.8-29.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-7:** **Implementation of the proposed project could result in urban pollutants entering local drainages, which could result in degradation of water quality from stormwater runoff. This impact is *potentially significant*.** (DEIR, p. 6.8-30.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

As discussed in Impacts 6.8-1 and 6.8-2, the increase in impervious surfaces resulting from the construction of buildings and paved areas would increase the rate and amount of stormwater runoff. Activities that could increase the types or quantities of non-naturally occurring pollutants in stormwater runoff due to project development could include motor vehicle operations, littering, careless material storage and handling, landscaping, and pavement wear. Pollutants typically associated with urban uses, such as those that could be developed as a result of the proposed project, include oil and grease, coliform bacteria, petroleum hydrocarbons (gas and diesel fuels), nitrogen, phosphorus, and heavy metals such as lead, copper, and zinc. Pesticides, herbicides, and other landscape maintenance products typically used in landscaping activities could also be present. (DEIR, p. 6.8-30.)

The proposed water quality features described in the Preliminary Drainage Master Plan include the following treatment measures (see Figure 6.8-5 for a map of water quality basins):

- Directing some flows to sheet discharge across grassy or open spaces;
- The placement of water quality interceptor devices;
- The placement of water quality sediment basing within detention facilities and channels; and
- Use of rock-line ditches below pipe outlets.

Other BMPs would include prompt re-vegetation of disturbed areas and sizing stormwater quality basins per the criteria developed by the Regional Stormwater Coordination Group, which incorporated flow-based volumetric treatment control BMPs from the CASQA Handbook. Although implementation of the Preliminary Drainage Master Plan would include structural water quality BMPs, the absence of an operation and maintenance plan for these facilities could have a *potentially significant impact* on stormwater quality in Curry Creek or the Sacramento River. (DEIR, p. 6. 8-30.)

**Mitigation Measure:**

- 6.8-7 a) *Implement Mitigation Measures 6.8-1(a) through (g).*
- b) *The proposed water quality facilities shall be identified and designed in the Final Drainage Master Plan and submitted to Placer County for*

*review and approval. All water quality facilities identified in the Final Drainage Master Plan shall be constructed with the installation of the backbone infrastructure. The Final Drainage Master Plan shall also include the method or methods for funding the long-term maintenance of the proposed water quality facilities.*

- c) *New development projects within the Plan Area shall submit a site-specific BMP plan to the County, for review and approval, showing the on-site locations and effectiveness of the BMP facilities proposed for long-term water quality impact reduction during the Subsequent Conformity Review process and prior to Improvement Plan approval. The plan shall include a method or methods for financing the long-term maintenance of the proposed site-specific facilities.*
- d) *All BMPs for water quality protection, source control, and treatment control shall be developed in accordance with the California Stormwater Quality Association Stormwater Best Management Practice Handbook for Construction and New Development/Redevelopment (or other similar source approved by the ESD) for the applicable type of development and/or improvement. The BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) stormwater runoff. Flow or volume based post-construction BMPs shall be designed at a minimum in accordance with the Placer County Guidance Document for Volume and Flow-Based Sizing of Permanent Post-Construction Best Management Practices for Stormwater Quality Protection. Provisions shall be included for long-term maintenance of BMPs. All BMPs shall reflect the Best Available Technologies (BAT) available at the time of implementation and shall reflect site-specific limitations. The County shall make the final determinations as to the appropriateness of the BMPs proposed for each project.*
- e) *Stormwater runoff from the proposed project's on- and off-site impervious surfaces (including roads) shall be collected and routed through specially designed water quality treatment facilities (BMPs) for removal of pollutants of concern (i.e. sediment, oil/grease, etc.), as approved by the ESD. With the Improvement Plans, the applicant shall verify that proposed BMPs are appropriate to treat the pollutants of concern from this project. The applicant shall provide for the establishment of vegetation, where specified, by means of proper irrigation, for effective performance of BMPs. Maintenance of these facilities shall be provided by the project owners/permittees unless, and until, a County Service Area is created and said facilities are accepted by the County for maintenance. Prior to Improvement Plan or Final Map approval, easements shall be created and offered for dedication to the County for maintenance and access to these facilities in anticipation of possible County maintenance. No water quality*

*facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by project approvals.*

- f) *This project is located within the area covered by Placer County's municipal stormwater quality permit, pursuant to the National Pollutant Discharge Elimination System (NPDES) Phase II program under the jurisdiction of the Central Valley RWQCB. Project-related stormwater discharges are subject to all applicable requirements of said permit. BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) stormwater runoff in accordance with Attachment 4 of Placer County's NPDES Municipal Stormwater Permit (State Water Resources Control Board NPDES General Permit No. CAS000004).*

(DEIR, pp. 6.8-30, 6.8-32.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-8:**      **The proposed project, in combination with the buildout in the Curry Creek watershed, could result in stormwater peak flows that could result in on- or off-site flooding. This impact is potentially significant.** (DEIR, p. 6.8-33.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Cumulative development in Placer County and the City of Roseville, which includes the Curry Creek watershed, would increase the amount of impervious surface cover, which would, in turn, generate stormwater runoff peak flows. The increased runoff to the streams in the watershed would also increase the amount of stormwater runoff. This would result in a cumulatively significant impact. As noted previously in this section, several modifications to existing channels and structures are planned, and would be designed to convey the future increase in stormwater volume due to upstream developments. (DEIR, p. 6.8-33.)

As discussed above in Draft EIR Impact 6.8-1, the proposed project would result in a net decrease in peak flow rates for the two- through 100-year storm events, modeled pursuant to the PCFCWCD's SWMM, after the site is developed and with drainage improvements.

As further described in Impact 6.8-1, the proposed project currently does not include an operation and maintenance plan to prevent future degradation of the planned drainage features and the Preliminary Drainage Master Plan does not account of the off-site improvement areas. Therefore, the proposed project could result in a considerable contribution to flow increases in Curry Creek and downstream reaches, which would be considered *significant*. (DEIR, p. 6.8-33.)

**Mitigation Measure:**

- 6.8-8 a) *Implement Mitigation Measures 6.8-1(a) through (g).*
- b) *Implement Mitigation Measures 6.8-5(b) through (e).*

(DEIR, p. 6.8-33.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-9:**      **The proposed project, in combination with the buildout of the Placer County and City of Roseville General Plan, could result in stormwater volumes that could result in on- or off-site flooding. This impact is *potentially significant*.** (DEIR, p. 6.8-33.)

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the Final EIR.

**Explanation:**

Cumulative development in Placer County and the City of Roseville, which includes the Curry Creek watershed, would also generate an increase in the amount (volume) of stormwater runoff. This is considered a significant cumulative impact. Results of the hydrologic and hydraulic modeling for the proposed project indicate that the proposed project would generate an increase of approximately 168.7 acre-feet of runoff for the 8-day 100-year design storm event that would be mitigated through designed retention and detention facilities on the project site. However, without a comprehensive operation and maintenance plan, the proposed project could result in volumetric increases in Curry Creek and on- or off-site flooding resulting in a considerable contribution to cumulative increases in runoff volumes in the watershed and downstream areas of Sutter County. This would be considered a *significant impact*. (DEIR, p. 6.8-33.)

**Mitigation Measure:**

- 6.8-9 a) *Implement Mitigation Measures 6.8-1(a) through (g).*  
b) *Implement Mitigation Measures 6.8-5(b) through (e).*

(DEIR, p. 6.8-34.)

**Significance After Mitigation:**

Less than significant.

**Impact 6.8-10:** **The proposed project, in combination with the buildout of Placer County and the City of Roseville General Plans, could result in degradation of water quality from stormwater runoff. This impact is *potentially significant*.**

**Finding:**

Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the potentially significant environmental effect associated with the degradation of water quality from stormwater runoff as a result of the proposed project, in combination with the buildout of Placer County and the City of Roseville General Plan. No mitigation is available to render the effects less than significant. The effects (or some of the effects) therefore remain significant and unavoidable.

**Explanation:**

The proposed project would drain to Curry Creek and its tributaries, which is part of a larger watershed. The changes in water quality that could occur as a result of construction activities and urban runoff in the proposed Plan Area would not be expected to differ substantially from other urban development that contribute flows to the Curry and Pleasant Grove Creeks and the Cross Canal watersheds. (DEIR, p. 6.8-34.)

Urban development results in increased impervious surfaces, which increase the rate and amount of runoff and can alter existing surface water quality. The primary sources of water pollution include runoff from roadways, parking lots, landscaped areas, industrial activities (including wastewater treatment plants), non-storm water connections to the drainage system, accidental spills and illegal dumping. Runoff from roadway and parking lots could contain levels of oil, grease, and heavy metals. Runoff from landscaped areas could contain concentrations of nutrients, i.e. fertilizers and pesticides. (DEIR, p. 6.8-34.)

As stated previously in this section, the County has developed the *Placer County Stormwater Management Plan 2003-2008 (SWMP)* in compliance with NPDES Phase II regulations. The Placer County SWMP is a comprehensive program designed to reduce