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**CUMULATIVE IMPACTS AND
OTHER CEQA SECTIONS**

11.1 INTRODUCTION

The Cumulative Impacts and Other CEQA Sections chapter of the EIR includes discussions regarding those topics that are required to be included in an EIR, pursuant to the CEQA Guidelines Section 15126.2. The chapter includes an evaluation of the project’s contribution toward cumulative impacts for each environmental topic evaluated in Chapters 4 through 10 of this EIR, as well as discussions of energy conservation, the project’s significant irreversible environmental changes, growth-inducing impacts, and significant environmental effects which cannot be avoided.

11.2 CUMULATIVE IMPACTS

CEQA Guidelines Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that adversely affect the environment. “Cumulative impacts” are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355; see also Pub. Resources Code, Section 21083, subd. [b]). Stated another way, “[...] a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.” (CEQA Guidelines Section 15130, subd. [a][1])

“[I]ndividual effects may be changes resulting from a single project or a number of separate projects.” (CEQA Guidelines Section 15355, subd. [a]) “The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (CEQA Guidelines Section 15355, subd. [b])

The need for cumulative impact assessment reflects the fact that, although a project may cause an “individually limited” or “individually minor” incremental impact that, by itself, is not significant, the incremental effect may be “cumulatively considerable” and, thus, significant when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines Section 15064, subd. [h(1)], Section 15065, subd. [c], and Section 15355, subd. [b]). This formulation indicates that particular impacts may be less-than-significant on a project-specific basis, but significant on a cumulative basis, because their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable.

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]), and should then identify the universe of “past, present, and probable future projects producing related or cumulative impacts” relevant to the various categories, either through the preparation of a “list” of such projects or through the use of “a

summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact” (id., subd. [b][1]).

The possibility exists that the “cumulative impact” of multiple projects will be significant, but that the incremental contribution to that impact from a particular project may not itself be “cumulatively considerable.” Thus, CEQA Guidelines Section 15064, Subdivision (h)(5) states, “[...] the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.” Therefore, it is not necessarily true that, even where cumulative impacts are significant, any level of incremental contribution must be deemed cumulatively considerable.

In accordance with CEQA Guidelines section 15130(b), “the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone.”

Cumulative Setting

In accordance with Section 15130(b)(1)(B) of the CEQA Guidelines, the majority of the cumulative analysis in this section is based upon a summary of projections contained in the Horseshoe Bar/Penryn Community Plan; more specifically, buildout of the Horseshoe Bar/Penryn Community Plan area in accordance with the land use designations shown on the adopted Community Plan Land Use Diagram, as well as buildout of other reasonably foreseeable projects within the Horseshoe Bar/Penryn Community Plan and Town of Loomis, as determined by Placer County.

Limited situations exist where the geographic setting differs. For example, the geographic setting for the air quality analysis is the Sacramento Valley Air Basin (SVAB). Global climate change is, by nature, a cumulative impact. Emissions of GHG contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from a project in combination with other past, present, and future projects could contribute substantially to the world-wide phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA, and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this EIR is limited to the State of California.

In addition, as discussed in Chapter 9, Transportation and Circulation, of this EIR, the cumulative traffic analysis relied on the Loomis regional travel demand forecasting model created for *The Village at Loomis Draft Environmental Impact Report*. According to County staff, the regional traffic model reflects current land use assumptions for development in the Horseshoe Bar/Penryn Community Plan area as well as buildout of the Village at Loomis project and its internal circulation system network as envisioned in the Town of Loomis’ 2016 Circulation Element

Update. The traffic analysis also evaluates an alternative cumulative scenario wherein the Village at Loomis project and its associated roadway improvements are not included. It should be noted that the cumulative analysis presented herein includes assumptions for a commercial land use on the site where Costco has proposed a new store in the Town of Loomis. The Costco EIR was released by the Town while this EIR was being prepared. Because the buildout assumptions used for that location in this EIR are more conservative than what was assumed in the Costco EIR, the cumulative analysis performed for this EIR is similarly conservative, and, with respect to the UAIC School traffic analysis, adequately accounts for potential trips at the Costco site.

For environmental resource areas that have a different cumulative setting from that discussed above, the specific cumulative setting for that resource area is presented along with the cumulative impact discussion in the relevant section below.

Cumulative Impacts and Mitigation Measures

The technical chapters of this EIR (Chapters 4 through 10) describe the Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures, while the Cumulative Impacts and Other CEQA Sections chapter of the EIR includes cumulative analyses as shown below.

Air Quality

A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The geographic context for the cumulative air quality analysis includes Placer County and surrounding areas within the portion of the Sacramento Valley Air Basin (SVAB) that is designated nonattainment for ozone and respirable particulate matter (PM₁₀).

11-1 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

The proposed project is within a nonattainment area for ozone and PM₁₀. The vehicle usage and other emissions activity within the nonattainment area associated with construction and operation of the proposed project, in combination with other past, present, and reasonably foreseeable projects within Placer County and surrounding areas, could either delay attainment of AAQS or require the adoption of additional controls on existing and future air pollution sources to offset emission increases. Thus, the project's emissions of criteria air pollutants would contribute to cumulative regional air quality effects.

The PCAPCD directs lead agencies to use the region's existing attainment plans as a basis for analysis of cumulative emissions. If a project would interfere with an adopted attainment plan, the project would inhibit the future attainment of AAQS, and thus result in a cumulative impact. As discussed throughout Chapter 4, Air Quality, the PCAPCD's

recommended thresholds of significance for ozone precursors and PM₁₀ are based on attainment plans for the region. Thus, the PCAPCD concluded that if a project's ozone precursor and PM₁₀ emissions would be less than PCAPCD project-level thresholds, the project would not be expected to conflict with any relevant attainment plans, and would not result in a significant incremental contribution to a cumulatively considerable impact. As a result, the operational phase cumulative-level emissions thresholds established by PCAPCD are identical to the project-level operational emissions thresholds; the operational/cumulative thresholds are presented in Table 11-1.

Pollutant	Operational/Cumulative Threshold (lbs/day)
ROG	55
NO _x	55
PM ₁₀	82

Source: Placer County Air Pollution Control District. Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. August 2017.

Accordingly, if the proposed project would result in an increase of ROG, NO_x or PM₁₀ in excess of PCAPCD's operational phase cumulative-level emissions threshold, which are identical to PCAPCD's project-level operational emissions thresholds, the project could potentially result in a significant incremental contribution towards cumulative air quality impacts. The proposed project's cumulative contribution to regional emissions is presented in Table 11-2.

Pollutant	Project Emissions (lbs/day)	PCAPCD Cumulative Significance Threshold (lbs/day)
ROG	1.67	55
NO _x	3.68	55
PM ₁₀	1.66	82

Source: CalEEMod, May 2018 and EMFAC (see Appendix D).

As shown in Table 11-2, the proposed project's operational emissions of ROG, NO_x, and PM₁₀ would be below the PCAPCD's applicable thresholds of significance. Considering the above, the proposed project would not result in a significant incremental contribution to a cumulative violation of any air quality standards, contribute substantially to an existing or projected air quality violation, or conflict with and/or obstruct implementation of the PCAPCD's air quality planning efforts. As such, the proposed project's incremental contribution to regional air quality impacts would be *less than cumulatively considerable*.

Mitigation Measure(s)

None required.

Biological Resources

11-2 Cumulative loss of habitat for special-status species. Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

As discussed in Chapter 5, Biological Resources, of this EIR, the proposed project would impact approximately 0.97-acre of lacustrine habitat, 10.25 acres of annual grassland, 0.51-acre of Interior Live Oak habitat, 0.42-acre of Valley Foothill Riparian, and 0.11-acre of drainage ditches. All on-site riverine habitat would be preserved. The habitat loss resulting from the proposed project would combine with related impacts resulting from buildout of the Horseshoe Bar/Penryn Community Plan, as well as buildout of other reasonably foreseeable projects within the project region. Per the Horseshoe Bar/Penryn Community Plan Final Program EIR (Community Plan EIR), buildout of the Community Plan Area, including the proposed project site, would result in a significant and unavoidable impact related to loss of oak woodland and savanna habitats, loss of special-status plant species, and effects on special-status wildlife species.¹ Given that the proposed project would be consistent with the existing land use and zoning designations of the project site, habitat loss associated with buildout of the site has been previously considered per the Community Plan EIR. Considering that impacts related to the forgoing issues was previously considered in the Community Plan EIR, per Section 21083.3 of CEQA, this EIR may focus on potential impacts that would be unique to the proposed project that haven't previously been addressed in prior EIRs, such as the Community Plan EIR.

As noted in Impact 5-8 in this EIR, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant." (*Save Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 528, quoting *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1233.)

It should be noted that the draft Placer County Conservation Plan (PCCP), as currently proposed, is designed to ensure that lands within western Placer County would be managed to continue to support the survival and well-being of the species covered by the PCCP, as well as the survival of hundreds of other species that are dependent on the same habitat.

This EIR provides a wide range of mitigation to minimize potential adverse effects to all special-status plant and wildlife species with the potential to occur on-site. In addition, approximately 62 percent of the project site would remain undisturbed after project completion, as development would primarily occur on the northern third of the site. With the exception of a proposed unpaved sewer maintenance access road, the southern two-thirds of the proposed project site would remain vacant and undeveloped. Existing oak

¹ Placer County. *Horseshoe Bar/Penryn Community Plan, Findings of Fact and Statement of Overriding Considerations of the Final Program EIR*. September 2004.

woodland along the eastern and southern boundaries of the proposed project site would be retained.

Based on the above, buildout of the project site, in combination with the Community Plan Area and undeveloped areas within the Town of Loomis, would result in a significant cumulative impact related to loss of habitat for special-status species. However, with implementation of the mitigation measures provided in Chapter 5, Biological Resources, of this EIR, the proposed project's incremental contribution to the significant cumulative impact would be *less than cumulatively considerable*.

Mitigation Measure(s)

None required.

Cultural Resources

11-3 Cumulative loss of cultural resources. Based on the analysis below, the cumulative impact is *less than significant*.

Impacts to cultural resources related to implementation of the proposed project are analyzed in Chapter 6 of this EIR. Generally, while some cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface archeological find at one project site would not generally be made worse by impacts to a cultural resource at another site due to development of another project. Rather, the resources and the effects upon them are generally independent. A possible exception to the aforementioned general conditions would be where a cultural resource represents the last known example of its kind or is part of larger cultural resources such as a single building along an intact historic Main Street. For such a resource, cumulative impacts, and the contribution of a project to them, may be considered cumulatively significant.

As described in detail in Chapter 6 of this EIR, only one potential historic resource exists on-site; however, the resource is a house that does not represent the last known example of its kind, nor is the resource part of larger cultural resources. The resource was determined not to be eligible for inclusion on the NRHP and is not considered significant pursuant to CEQA.

Furthermore, implementation of the project-specific mitigation measures set forth in Chapter 6 of this EIR (Mitigation Measures 6-2(a), 6-2(b), and 6-4) would ensure that any impacts to previously unknown, subsurface resources that are discovered on the project site during construction activities are reduced to less than significant.

Similar to the proposed project, future development projects within the Horseshoe Bar/Penryn Community Plan area would be required to implement project-specific mitigation to ensure any potential impacts to identified cultural resources are reduced to a less-than-significant level. In addition to project-specific mitigation measures that may be required for future projects, the Community Plan EIR included Mitigation Measures 13-1

and 13-2 related to the evaluation of potentially historic structures and the protection of cultural resources discovered during construction. Both mitigation measures from the Community Plan EIR would serve to reduce the potential for buildout of the Horseshoe/Penryn Community Plan to result in cumulative losses of historic resources and damage to cultural resources. With implementation of such mitigation measures, the Community Plan EIR determined that impacts to cultural resources would be less than significant. Therefore, given that cultural resource impacts are generally site-specific and each future project within the Horseshoe Bar/Penryn Community Plan would be required to mitigate such impacts, any potential impacts associated with cumulative buildout of the Horseshoe Bar/Penryn Community Plan area would not combine to result in a significant cumulative impact.

Based on the above, cumulative impacts related to cultural resources associated with implementation of the proposed project, in conjunction with future buildout of the Horseshoe Bar/Penryn Community Plan and other reasonably foreseeable projects in the project area, would be *less-than-significant*.

Mitigation Measure(s)

None required.

Greenhouse Gas Emissions

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere due to human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated carbons. Other common GHGs include water vapor, ozone, and aerosols. Since the beginning of the Industrial Revolution, global atmospheric concentrations of GHGs have increased due to human activities such as the burning of fossil fuels, clearing of forests and other activities. The increase in atmospheric concentrations of GHG due to human activities has resulted in more heat being held within the atmosphere, which is the accepted explanation for global climate change.²

The primary GHG emitted by human activities is CO₂, with the next largest components being CH₄ and N₂O. The primary sources of CH₄ emissions include domestic livestock sources, decomposition of wastes in landfills, releases from natural gas systems, coal mine seepage, and manure management. The main human activities producing N₂O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion. Emissions of GHG by economic sector indicate that energy-related activities account for the majority of U.S. emissions. Electricity generation is the largest single-source of GHG emissions, and transportation is the second largest source, followed by industrial activities. The

² U.S. Environmental Protection Agency. *Climate Change Indicators: Atmospheric Concentrations of Greenhouse Gases*. Available at <https://www.epa.gov/climate-indicators/climate-change-indicators-atmospheric-concentrations-greenhouse-gases>. Accessed November 17, 2016.

agricultural, commercial, and residential sectors account for the remainder of GHG emission sources.³ Emissions of GHG are partially offset by uptake of carbon and sequestration in forests, trees in urban areas, agricultural soils, landfilled yard trimmings and food scraps, and absorption of CO₂ by the Earth’s oceans; however, the rate of emissions of GHGs currently outpaces the rate of uptake, thus causing global atmospheric concentrations to increase.⁴ Attainment concentration standards for GHGs have not been established by the federal or State governments.

Global Warming Potential

Global Warming Potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According to the U.S. Environmental Protection Agency (USEPA), the global warming potential of a gas, or aerosol, to trap heat in the atmosphere is the “cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas.” The reference gas for comparison is CO₂. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO₂, as well as the decay rate of each gas relative to that of CO₂. Each gas’s GWP is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO₂, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 25 times greater than that of CO₂, as shown in Table 11-3.

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide (CO ₂)	50-200 ¹	1
Methane (CH ₄)	12	25
Nitrous Oxide (N ₂ O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF ₄)	50,000	7,390
PFC: Hexafluoroethane (C ₂ F ₆)	10,000	12,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800
1. For a given amount of carbon dioxide emitted, some fraction of the atmospheric increase in concentration is quickly absorbed by the oceans and terrestrial vegetation, some fraction of the atmospheric increase will only slowly decrease over a number of years, and a small portion of the increase will remain for many centuries or more.		
<i>Source: USEPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015, April 15, 2017.</i>		

³ U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions*. Available at: <http://epa.gov/climatechange/ghgemissions/sources/industry.html>. Accessed August 2016.

⁴ U.S. Environmental Protection Agency. *Climate Change Indicators: Atmospheric Concentrations of Greenhouse Gases*. Available at <https://www.epa.gov/climate-indicators/climate-change-indicators-atmospheric-concentrations-greenhouse-gases>. Accessed November 17, 2016.

As shown in the table, at the extreme end of the scale, sulfur hexafluoride is estimated to have a comparative GWP 22,800 times that of CO₂. The “specified time horizon” is related to the atmospheric lifetimes of such GHGs, which are estimated by the USEPA to vary from 50 to 200 years for CO₂, to 50,000 years for tetrafluoromethane. Longer atmospheric lifetimes allow GHG to buildup in the atmosphere; therefore, longer lifetimes correlate with the global warming potential of a gas. The common indicator for GHG is expressed in terms of metric tons of CO₂ equivalents (MTCO_{2e}).

Effects of Global Climate Change

Uncertainties exist as to exactly what the climate changes will be in various local areas of the Earth. According to the Intergovernmental Panel on Climate Change’s Working Group II Report, *Climate Change 2014: Impacts, Adaptation and Vulnerability*,⁵ as well as the California Natural Resources Agency’s report *Safeguarding California: Reducing Climate Risk*,⁶ climate change impacts to California may include:

- Increasing evaporation;
- Rearrangement of ecosystems as species and ecosystems shift northward and to higher elevations.
- Increased frequency, duration, and intensity of conditions conducive to air pollution formation (particularly ozone);
- Reduced precipitation, changes to precipitation and runoff patterns, reduced snowfall (precipitation occurring as rain instead of snow), earlier snowmelt, decreased snowpack, and increased agricultural demand for water;
- Increased experiences of heat waves;
- Increased growing season and increased growth rates of weeds, insect pests and pathogens;
- Inundation by sea level rise, and exacerbated shoreline erosion; and
- Increased incidents and severity of wildfire events and expansion of the range and increased frequency of pest outbreaks.

Analysis of GHGs and Global Climate Change

Analysis of global climate change presents the challenge of analyzing the relationship between local and global activities. GHGs are not generally thought of as traditional air pollutants because GHGs, and their impacts, are global in nature, while air pollutants affect the health of people and other living things at ground level, in the general region of their release to the atmosphere. Accordingly, the issue of global climate change is different from any other areas of air quality impact analysis. A global climate change analysis must be conducted on a global level, rather than the typical local or regional setting, and requires consideration of not only emissions from the project under consideration, but also the extent of the displacement, translocation, and redistribution of emissions.

⁵ Intergovernmental Panel on Climate Change. *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. 2014.

⁶ California Natural Resources Agency. *Safeguarding California: Reducing Climate Risk*. July 2014.

In the usual context, where air quality is linked to a particular location or area, considering the creation of new emissions in that specific area to be an environmental impact whether or not the emissions are truly “new” emissions to the overall globe is appropriate. In fact, the approval of a new developmental plan or project does not necessarily create new automobile drivers – the primary source of a land use project’s emissions. Rather, a new land use project may simply be redistributing existing mobile emissions. For example, the UAIC currently operates a school facility at a separate site within Placer County. Operation of the existing facility results in GHG emissions related to student and teacher commutes to the school site. The proposed project would redistribute some of the existing mobile emissions as students and staff commute to the project site, rather than the existing school site, while some administrative staff may continue to commute to the existing school site. Considering that some student and staff trips would be redistributed to the project site from another location within Placer County, mobile emissions related to operation of the proposed project would not truly be “new” to Placer County or the world. Accordingly, the use of models that measure overall emissions increases without accounting for existing emissions may overstate the proposed project’s GHG emissions and, thus, the project’s impact on global climate change. Nevertheless, presenting all GHG emissions from the proposed project, including those emissions related to the existing UAIC school facility that already occur within the County and would be relocated to the project site, provides a conservative analysis, and allows decision makers and the public to consider the full scope of GHG emissions that would result from the proposed project. As such, in the interest of public disclosure, the GHG emissions analysis included in this chapter presents the full scope of potential GHG emissions from the proposed project, without differentiating redistributed emissions from the existing UAIC school facility.

Regulatory Context

Global climate change and energy are monitored through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve current conditions through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating global climate change and energy within the project area are discussed below.

Federal

The most prominent federal regulation is the Federal Clean Air Act (FCAA), which is implemented and enforced by the USEPA.

FCAA and USEPA

The FCAA requires the USEPA to set NAAQS and designate areas with air quality not meeting NAAQS as nonattainment. The USEPA is responsible for enforcement of NAAQS for atmospheric pollutants and regulates emission sources that are under the exclusive authority of the federal government including emissions of GHGs. The USEPA’s air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990. The USEPA has adopted policies consistent with FCAA requirements demanding states to prepare SIP that demonstrate attainment and maintenance of the NAAQS.

The USEPA has been directed to develop regulations to address the GHG emissions of cars and trucks. The Mandatory Reporting of Greenhouse Gases Rule requires reporting of GHG emissions from large sources and suppliers in the U.S., and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHG, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the USEPA. To track the national trend in emissions and removals of GHG since 1990, USEPA develops the official U.S. GHG inventory each year.

On December 7, 2009, USEPA issued findings under Section 202(a) of the CAA concluding that GHGs are pollutants that could endanger public health. Under the so-called Endangerment Finding, USEPA found that the current and projected concentrations of the six key well-mixed GHGs – CO₂, CH₄, N₂O, PFCs, SF₆, and HFCs – in the atmosphere threaten the public health and welfare of current and future generations. These findings do not, by themselves, impose any requirements on industry or other entities.

State Regulations

California has adopted a variety of regulations aimed at reducing GHG emissions. The adoption and implementation of the key State legislation described in further detail below demonstrates California's leadership in addressing global climate change. Only the most prominent and applicable California GHG-related legislation are included below; however, an exhaustive list and extensive details of California air quality legislation could be found at the California Air Resources Board (CARB) website.⁷

AB 1493

California AB 1493 (Stats. 2002, ch. 200) (Health & Safety Code, §§42823, 43018.5), known as Pavley I, was enacted on July 22, 2002. AB 1493 requires that the CARB develop and adopt regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the state.” On June 30, 2009, the USEPA granted a waiver of CAA preemption to California for the State's GHG emission standards for motor vehicles, beginning with the 2009 model year. Pursuant to the CAA, the waiver allows for the State to have special authority to enact stricter air pollution standards for motor vehicles than the federal government's. On September 24, 2009, the CARB adopted amendments to the Pavley regulations (Pavley I) that reduce GHG emissions in new passenger vehicles from 2009 through 2016. The second phase of the Pavley regulations (Pavley II) is expected to affect model year vehicles from 2016 through 2020. The CARB estimates that the regulation would reduce GHG emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.

⁷ California Air Resources Board. *Laws and Regulations*. Available at: <http://www.arb.ca.gov/html/lawsregs.htm>. Accessed February 2018.

Renewable Portfolio Standard (RPS)

Established in 2002 under Senate Bill (SB) 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. In 2015, SB 350 was signed into law by Governor Jerry Brown; SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030.

Executive Order S-03-05

On June 1, 2005, then-Governor Schwarzenegger signed Executive Order S-03-05, which established total GHG emission targets. Specifically, emissions are to be reduced to year 2000 levels by 2010, 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (Cal-EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is also directed to submit biannual reports to the governor and state legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts.

To comply with the Executive Order, the Secretary of the Cal-EPA created a Climate Act Team (CAT) made up of members from various State agencies and commissions. In March 2006, CAT released their first report. In addition, the CAT has released several "white papers" addressing issues pertaining to the potential impacts of climate change on California.

Assembly Bill 32

In September 2006, Assembly Bill (AB) 32, the California Climate Solutions Act of 2006, was enacted (Stats. 2006, ch. 488) (Health & Saf. Code, §38500 et seq.). AB 32 delegated the authority for its implementation to the CARB and directs CARB to enforce the State-wide cap. Among other requirements, AB 32 required CARB to (1) identify the State-wide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020, and (2) develop and implement a Scoping Plan. Accordingly, the CARB has prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008 and updated in 2014 and 2017.⁸ The following sections present further information regarding plans and programs that have been introduced in order to meet the statutory requirements of AB 32.

⁸ California Air Resources Board. *AB 32 Scoping Plan*. Available at: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed February 2018.

California Scoping Plan

The 2008 Scoping Plan identified GHG reduction measures that would be necessary to reduce statewide emissions as required by AB 32. Many of the GHG reduction measures identified in the 2008 Scoping Plan have been adopted, such as the Low Carbon Fuel Standard, Pavley, Advanced Clean Car standards, RPS, and the State's Cap-and-Trade system.

Building upon the 2008 Scoping Plan, the 2013 and 2017 Scoping Plan Updates introduced new strategies and recommendations to continue GHG emissions reductions. The 2013 Scoping Plan Update created a framework for achievement of 2020 GHG reduction goals and identified actions that may be built upon to continue GHG reductions past 2020, as required by AB 32. Following the 2013 Scoping Plan, the 2017 Scoping Plan sets a path for the achievement of California's year 2030 GHG reduction goals.

California GHG Cap-and-Trade Program

California's GHG Cap-and-Trade Program was originally envisioned in the 2008 Scoping Plan as a key strategy to achieve GHG emissions reductions mandated by AB 32. The Cap-and-Trade Program is intended to put California on the path to meet the GHG emission reduction goal of 1990 levels by the year 2020, and ultimately achieving an 80 percent reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors has been established and facilities or industries subject to the cap are able to trade permits (allowances) to emit GHGs. The CARB designed the California Cap-and-Trade Program to be enforceable and to meet the requirements of AB 32.⁹ The Program started on January 1, 2012, with an enforceable compliance obligation beginning with the 2013 GHG emissions. On January 1, 2014 California linked the state's cap-and-trade plan with Quebec's, and on January 1, 2015 the program expanded to include transportation and natural gas fuel suppliers.¹⁰ AB 398 was adopted by the State's legislature in July 2017, which reauthorized the Cap-and-Trade program through December 31, 2030. The reauthorization and continued operation of the Cap-and-Trade program represents a key strategy within the State's 2017 Scoping Plan Update for the achievement of California's year 2030 GHG reduction goals.

Executive Order S-01-07

On January 18, 2007, then-Governor Schwarzenegger signed Executive Order S-01-07, which mandates that a State-wide goal be established to reduce carbon intensity of California's transportation fuels by at least 10 percent by 2020. The Order also requires

⁹ California Air Resources Board. *Overview of ARB Emissions Trading Program*. Available at: https://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf. Accessed February 2018.

¹⁰ California Air Resources Board. *Overview of ARB Emissions Trading Program*. Available at: https://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf. Accessed February 2018.

that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California.

SB 97

As amended, SB 97, signed in August 2007, acknowledges that climate change is an important environmental issue that requires analysis under CEQA. The bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. As directed by SB 97, the OPR amended the CEQA Guidelines to provide guidance to public agencies regarding the analysis and mitigation of GHG emissions and the effects of GHG emissions in CEQA documents. The amendments included revisions to the *Appendix G Initial Study Checklist* that incorporated a new subdivision to address project-generated GHG emissions and contribution to climate change. The new subdivision emphasizes that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. Under the revised CEQA Appendix G checklist, an agency should consider whether a project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and whether a project conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing emission of GHGs.

Further guidance based on SB 97 suggests that the lead agency make a good-faith effort, based on available information, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. When assessing the significance of impacts from GHG emissions on the environment, lead agencies should consider the extent to which the project may increase or reduce GHG, as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance determined applicable to the project, and/or the extent to which the project complies with adopted regulations or requirements to implement a state wide, regional, or local plan for the reduction or mitigation of GHG emissions. Feasible mitigation under SB 97 includes on-site and off-site measures, such as GHG emission-reducing design features and GHG sequestration.

SB 375

In September 2008, SB 375, known as the Sustainable Communities and Climate Protection Act of 2008, was enacted, which is intended to build on AB 32 by attempting to control GHG emissions by curbing sprawl. SB 375 enhances CARB's ability to reach goals set by AB 32 by directing CARB to develop regional GHG emission reduction targets to be achieved by the State's 18 metropolitan planning organizations (MPOs), including the Sacramento Area Council of Governments (SACOG). Under SB 375, MPOs must align regional transportation, housing, and land-use plans and prepare a "Sustainable Communities Strategy" (SCS) to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its greenhouse gas reduction targets. SB 375 provides incentives for creating walkable and sustainable communities and revitalizing existing communities, and allows home builders to get relief

from certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Furthermore, SB 375 encourages the development of alternative transportation options, which will reduce traffic congestion.

Executive Order S-13-08

Then-Governor Arnold Schwarzenegger issued Executive Order S-13-08 on November 14, 2008. The Executive Order is intended to hasten California's response to the impacts of global climate change, particularly sea level rise, and directs state agencies to take specified actions to assess and plan for such impacts, including requesting the National Academy of Sciences to prepare a Sea Level Rise Assessment Report, directing the Business, Transportation, and Housing Agency to assess the vulnerability of the State's transportation systems to sea level rise, and requiring the Office of Planning and Research and the Natural Resources Agency to provide land use planning guidance related to sea level rise and other climate change impacts.

The order also required State agencies to develop adaptation strategies to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. The adaptation strategies report summarizes key climate change impacts to the State for the following areas: public health; ocean and coastal resources; water supply and flood protection; agriculture; forestry; biodiversity and habitat; and transportation and energy infrastructure. The report recommends strategies and specific responsibilities related to water supply, planning and land use, public health, fire protection, and energy conservation.

AB 197 and SB 32

On September 8, 2016, AB 197 and SB 32 were enacted with the goal of providing further control over GHG emissions in the State. SB 32 built on previous GHG reduction goals by requiring that the CARB ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by the year 2030. Additionally, SB 32 emphasized the critical role that reducing GHG emissions would play in protecting disadvantaged communities and the public health from adverse impacts of climate change. Enactment of SB 32 was predicated on the enactment of AB 197, which seeks to make the achievement of SB 32's mandated GHG emission reductions more transparent to the public and responsive to the Legislature. Transparency to the public is achieved by AB 197 through the publication of an online inventory of GHG and TAC emissions from facilities required to report such emissions pursuant to Section 38530 of California's Health and Safety Code. AB 197 further established a six-member Joint Legislative Committee on Climate Change Policies, which is intended to provide oversight and accountability of the CARB, while also adding two new legislatively-appointed, non-voting members to the CARB. Additionally, AB 197 directs the CARB to consider the "social costs" of emission reduction rules and regulations, with particular focus on how such measures may impact disadvantaged communities.

California Building Standards Code

California's building codes (California Code of Regulations [CCR], Title 24) are published on a triennial basis, and contain standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Standards Commission (CBSC) is responsible for the administration and implementation of each code cycle, which includes the proposal, review, and adoption process. Supplements and errata are issued throughout the cycle to make necessary mid-term corrections. The 2016 code has been prepared and became effective January 1, 2017. The California building code standards apply State-wide; however, a local jurisdiction may amend a building code standard if the jurisdiction makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

California Green Building Standards Code

The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the CBSC, which became effective with the rest of the CBSC on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California.

The CALGreen Code encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction. Placer County has not adopted any voluntary provisions of the CALGreen Code to date.

Building Energy Efficiency Standards

The 2016 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2013 Building Energy Efficiency Standards resulting in a 28 percent reduction in energy consumption from the 2013 standards for residential structures. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Local Regulations

The PCAPCD is the principal agency involved with the regulation of GHG emissions within Placer County.

Placer County Air Pollution Control District

Various local, regional, State and federal agencies share the responsibility for air quality management in Placer County. The PCAPCD operates at the local level and is tasked with enforcing the implementation of federal and State programs and regulations. The PCAPCD works jointly with the USEPA, CARB, other air districts in the region, county and city transportation and planning departments, and various non-governmental organizations to work towards improving global climate change through a variety of programs. Programs include the adoption of regulations, policies and guidance, extensive education and public outreach programs, as well as emission reducing incentive programs.

Standards of Significance

Nearly all development projects in the region have the potential to generate air pollutants that may increase global climate change. On October 13, 2016, the PCAPCD adopted GHG emissions thresholds. The thresholds were designed to analyze a project's compliance with applicable state laws including AB 32 and SB 32.¹¹ The GHG thresholds include a bright-line threshold for the construction and operational phase of land use projects and stationary source projects, a screening level threshold for the operational phases of land use projects, and efficiency thresholds for the operational phase of land use projects that result in GHG emissions that fall between the bright-line threshold and the screening level threshold. The bright-line threshold of 10,000 MTCO_{2e}/yr represents the level at which a project's GHG emissions would be substantially large enough to contribute to cumulative impacts and mitigation to lessen the emissions would be mandatory. The PCAPCD further recommends use of the 10,000 MTCO_{2e}/yr for analysis of construction-related GHG emissions for land use projects. Any project with GHG emissions below the screening level threshold of 1,100 MTCO_{2e}/yr is judged by the PCAPCD as having a less-than-significant impact related to GHG emissions, and would not conflict with any State or regional GHG emissions reduction goals. Projects that would result in GHG emissions above the 1,100 MTCO_{2e}/yr screening level threshold, but below the bright-line threshold of 10,000 MTCO_{2e}/yr, must result in GHG emissions below the efficiency thresholds in order to be considered to result in a less-than-significant impact related to GHG emissions and not conflict with any State or regional GHG emissions reduction goals. The GHG efficiency thresholds, which are in units of MTCO_{2e}/yr per capita or per square-foot, are presented in Table 11-4.

¹¹ Placer County Air Pollution Control District. *California Environmental Quality Act Thresholds of Significance: Justification Report*. October 2016.

Table 11-4			
PCAPCD Operational GHG Efficiency Thresholds of Significance			
Residential (MTCO_{2e}/capita)		Non-Residential (MTCO_{2e}/1,000 sf)	
Urban	Rural	Urban	Rural
4.5	5.5	26.5	27.3
<i>Source: Placer County Air Pollution Control District. Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. October 13, 2016.</i>			

In accordance with CARB and PCAPCD recommendations, the County, as lead agency, uses the currently adopted PCAPCD GHG thresholds of significance as presented above. Therefore, if the proposed project results in construction GHG emissions in excess of 10,000 MTCO_{2e}/yr, and/or operational GHG emissions in excess of 1,100 MTCO_{2e}/yr and is unable to show that emissions would achieve the efficiency thresholds presented in Table 11-4, the project would be considered to result in a cumulatively considerable contribution to global climate change.

Methods and Assumptions

The proposed project’s GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 software - a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the ITE Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data was available, such data was input into the model.

Project Construction GHG Emissions

Construction-related GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. Because GHG emissions from construction are temporary in nature and result in only short-term impacts, the PCAPCD uses the bright-line threshold of 10,000 MTCO_{2e}/yr for the analysis of land use project construction GHG emissions. As discussed in Chapter 4, Air Quality, of this EIR, construction of the proposed project is anticipated to occur in one phase over 13 to 15 months. Construction activity would involve demolition activity and off-haul of material from the project site as well as off-site improvements to the intersection of Taylor Road and Penryn Road. Construction emissions were estimated using CalEEMod and all modeling results are included in Appendix D to this EIR.

Long-Term Operational GHG Emissions

As discussed in the Project Description chapter of this EIR, the proposed project includes construction and operation of a pre-K through 8th-grade school designed to serve up to 100 UAIC students with 35 staff members. In addition, the proposed project would include construction and operation of a Tribal Education Center for approximately 30 adult Tribal

members throughout the week. The proposed project is anticipated to be fully operational by 2020. The structures included in the proposed project would be designed to increase energy efficiency beyond the requirements of the 2016 California Building Energy Efficiency Standards Code; however, to provide a conservative emissions estimation, exceedance of 2016 California Building Energy Efficiency Standards Code was not included in the modeling for the proposed project. The project-specific trip generation rates provided by KD Anderson & Associates, Inc. were applied to the project modeling.¹² In addition, the proposed project has been designed to include water conservation measures that would reduce indoor water use by 20 percent and outdoor water use by 25 percent compared to the same project without such conservation measures. The CO₂ intensity factor within CalEEMod were adjusted in order to reflect PG&E's progress towards the State RPS goal by 2020.

In addition to GHG emissions related to normal school day operations, the proposed project would involve emissions related to special events held at the project site. As discussed in Chapter 3, Project Description, of this EIR, events at the project site would range from a maximum number of attendees of 200 people to a mid-range of approximately 100 attendees, and small events involving 35 additional attendees. The principal source of GHG emissions from events is anticipated to be mobile source emissions from attendees driving to the event. Attendees are anticipated to carpool to such events, with average vehicles trips transporting 2.5 attendees. Emissions from event-related vehicle trips have been quantified using the most recently USEPA-approved version of the CARB's Emission Factors (EMFAC) model.¹³

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod and EMFAC modeling results are included in Appendix D to this EIR.

Impacts and Mitigation Measures

The following discussion of GHG emissions impacts is based on implementation of the proposed project in comparison to the standards of significance presented above. As stated above, GHG emissions and global climate change is, by nature, a cumulative impact. Thus, the proposed project's impacts related to GHG emissions and global climate change are included in this chapter.

¹² KD Anderson & Associates, Inc. *Traffic Impact Study for the United Auburn Indian Community School Project, Placer County, CA*. June 25, 2018.

¹³ California Air Resources Board. EMFAC Web Database. Accessible at <https://www.arb.ca.gov/emfac/>. Accessed January 2018.

11-4 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Based on the analysis below, the project’s incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

Buildout of the proposed project would contribute to increases of GHG emissions that are associated with global climate change during construction and operations. Emissions from construction and operations of the proposed project and other existing and future projects within the County would contribute to a significant cumulative impact related to the generation of GHG and future impacts of climate change. The proposed project’s short-term construction-related and long-term operational GHG emissions are presented and further analyzed below.

Short-Term Construction GHG Emissions

The results of the CalEEMod construction GHG emissions analysis are presented below in Table 11-5.

Table 11-5		
Unmitigated Project Construction GHG Emissions		
Year	GHG Emissions (MTCO₂e/yr)	Threshold of Significance (MTCO₂e/yr)
2018	374.34	10,000
2019	327.02	10,000

Source: CalEEMod, May 2018 (see Appendix D).

As shown in the table above, the project’s maximum annual emissions are anticipated to occur in the year 2018. However, even in 2018, the construction-related GHG emissions would be well below the PCAPCD’s bright-line threshold of 10,000 MTCO₂e/yr. Because the proposed project’s construction-related GHG emissions would be below 10,000 MTCO₂e/yr, the proposed project would not be expected to have a cumulatively considerable contribution to a significant cumulative GHG impact during construction.

Long-Term Operational GHG Emissions

The modeling assumptions for the proposed project’s operational GHG emissions are discussed in the Methods and Assumptions section above. The proposed project’s estimated operational GHG emissions at buildout (2019) are presented in Table 11-6.

It should be noted that the proposed structures are anticipated to exceed the energy efficiency requirements of the 2016 California Building Energy Efficiency Standards Code by between five and 25 percent. However, as noted in the Methods and Assumptions section above, exceedance of 2016 California Building Energy Efficiency Standards Code was not included in project modeling; as a result, the actual GHG emissions related to project energy consumption during project operation would likely be reduced from the levels presented in Table 11-6. Regardless of the inclusion of energy conservation measures within the project modeling, as shown in the table above, the proposed project

would result in operational GHG emissions of 341.71 MT CO₂e/yr, which would be below the 1,100 MT CO₂e/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to operational GHG emissions.

Table 11-6	
Unmitigated Project Operational GHG Emissions	
Emission Source	GHG Emissions (MTCO₂e/yr)
Area	0.0051
Energy	76.89
Mobile	250.07
Stationary Sources	1.84
Solid Waste	11.93
Water	0.97
TOTAL ANNUAL GHG EMISSIONS	341.71
Note: Stationary Sources include operation of both proposed generators for testing and maintenance purposes only, as required by the California Building Code and PCAPCD.	
Source: CalEEMod, May 2018 (see Appendix D).	

In addition to the foregoing standard operational emissions, as discussed in Chapter 3, Project Description, of this EIR, the proposed project operations could involve large, mid-sized, and small events throughout the year. Based on the number of attendees anticipated at each event, and the total number of each type of event, events were estimated to result in the emission of an additional 0.004 MT CO₂e/yr (see EMFAC results presented in Appendix D). As such, events held within the project site are not considered a significant source of GHG emissions and, even when considering the operational emissions presented in Table 11-6 in conjunction with the special events discussed in Chapter 3 of this EIR, the proposed project would not exceed the PCAPCD’s 1,100 MT CO₂e/yr threshold of significance.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Consequently, the project would not result in a cumulatively considerable incremental contribution to impacts related to GHG emissions and the project’s impacts would be *less than cumulatively considerable*.

Mitigation Measure(s)

None required.

Hazards and Hazardous Materials

- 11-5 Cumulative increase in the number of people who could be exposed to potential hazards or hazardous materials through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment or the release of hazardous materials within one-quarter mile of an existing or proposed school. Based on the analysis below, the cumulative impact is *less than significant*.**

Impacts associated with hazards and hazardous materials related to implementation of the proposed project are analyzed in Chapter 7 of this EIR. All project-specific impacts related to hazards and hazardous materials were found to be less-than-significant with implementation of mitigation measures set forth in Chapter 7. Hazardous materials and other public health and safety issues are generally site-specific and/or project-specific, and would not be significantly affected by other development inside or outside of the County. Other cumulative development would be subject to the same federal, State, and local hazardous materials management requirements as would the proposed project, which would minimize potential risks associated with increased hazardous materials use in the community.

In conclusion, cumulative impacts associated with hazardous materials transport, storage, and use associated with implementation of the proposed project, in conjunction with future buildout of the Horseshoe Bar/Penryn Community Plan and other reasonably foreseeable projects in the project area, would be *less than significant*.

Mitigation Measure(s)

None required.

Noise

- 11-6 Result in exposure of persons to or generation of traffic noise levels in excess of standards established in the local General Plan, Community Plan or noise ordinance, or applicable standards of other agencies, or a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.**

Future development projects within the Horseshoe Bar/Penryn Community Plan area and the Town of Loomis, including the proposed project, would incrementally affect the future cumulative ambient noise environment leading to a cumulatively considerable impact related to the exposure of residents to transportation noise in excess of County Standards.

As discussed in Chapter 8 of this EIR, operation of the proposed project would include activities that would create noise, such as the operation of heating, ventilation, and air conditioning (HVAC) equipment, and the testing of generators. However, the area surrounding the project site is predominantly built-out and, thus, noise from the on-site operations of the project would not combine with non-transportation related noise from

other future development adjacent to the site to create cumulative impacts. As discussed in Chapter 8, non-transportation noise levels would likely remain constant through cumulative buildout of the project area because further development in close proximity to the project site is not anticipated to occur.

The project’s potential to contribute towards cumulative noise level increases would be primarily related to project-generated traffic noise. To assess noise impacts due to project-related traffic increases on the existing local roadway network, noise levels have been calculated for the Cumulative Plus Project Condition (see Table 11-7) using the assumptions and methodology presented in Chapter 8, Noise, of this EIR.

As shown in the table, the maximum traffic noise increase along Taylor Road attributable to the proposed project would be approximately 0.2 dB. For comparison, noise level increases are generally only perceptible above 1 dB. According to the Placer County Noise Ordinance, a project would result in a substantial increase in noise if the proposed project results in an increase in operational or traffic related noise by 5 dB. Therefore, operation of the proposed project would not result in a substantial incremental increase in ambient noise levels in the project vicinity due to project related traffic, and the proposed project’s incremental contribution to the cumulative exposure of residents to noise exceeding County standards would be *less than cumulatively considerable*.

Table 11-7 Cumulative AM Peak Hour Traffic Volumes and Noise Increase			
Roadway Segment	AM Peak Hour Traffic Volumes		Noise Level Increase (dB)
	Cumulative No Project	Cumulative with Project	
North of Taylor Road	1,063	1,106	+0.2
South of Taylor Road	1,063	1,082	+0.1
Notes: Noise Increase is based on 10*LOG (Traffic with project / Traffic without project)			
<i>Source: Environmental Science Associates, UAIC Tribal School Revised Noise Study Report, March 2018.</i>			

Mitigation Measure(s)

None required.

Transportation and Circulation

The information contained within this chapter is primarily based on the Traffic Impact Study prepared for the proposed project by KD Anderson & Associates, Inc. (KDA) (see Appendix M),¹⁴ as well as the Placer County General Plan,¹⁵ the Placer County General Plan EIR,¹⁶ and the

¹⁴ KD Anderson & Associates, Inc. *Traffic Impact Study for the United Auburn Indian Community School Project, Placer County, CA.* June 25, 2018.

¹⁵ Placer County. *Countywide General Plan Policy Document.* August 1994 (updated May 2013).

¹⁶ Placer County. *Countywide General Plan EIR.* July 1994.

Horseshoe Bar/Penryn Community Plan.¹⁷ The Traffic Impact Study includes an analysis of traffic operations under the following conditions:

- **Cumulative No Project Conditions With the Village at Loomis:** Traffic volumes associated with cumulative (Year 2035) buildout of the project region without traffic generated by the proposed project. This scenario includes the Village at Loomis project and associated roadway improvements. The Cumulative No Project Conditions include reasonably certain projected changes to intersection geometry and roadway segments.
- **Cumulative No Project Without the Village at Loomis:** The scenario is the same as above but without the Village at Loomis project and its associated roadway improvements, as will be further described below.
- **Cumulative Plus Project Conditions With the Village at Loomis:** Traffic associated with Cumulative No Project Conditions with Village at Loomis plus traffic generated by the proposed project under full buildout.
- **Cumulative Plus Project Conditions Without the Village at Loomis:** Traffic associated with Cumulative No Project Conditions without Village at Loomis plus traffic generated by the proposed project under full buildout.

The following section describes operating conditions under long-term background scenarios that are representative of conditions occurring 20 years in the future. The Cumulative Conditions reflect development of future land uses and implementation of transportation improvement projects in the area as forecast by the Town of Loomis' regional travel demand forecasting model.

The Cumulative No Project Conditions scenario establishes a baseline condition for identifying long-term project-related impacts. While the project site was last used as a bed and breakfast facility/event center, Cumulative No Project Conditions assume that the proposed project is not constructed and that the site remains vacant/non-operational. The Cumulative Plus Project Conditions assume that the site is developed, as proposed.

Cumulative With Village at Loomis

Cumulative Traffic Volume Forecasts

Cumulative traffic volumes were created using the version of the Loomis regional travel demand forecasting model created for *The Village at Loomis Draft Environmental Impact Report*. As requested by Town staff, the model version selected includes buildout of the Village at Loomis project and its associated internal circulation system network as envisioned in the Town's Circulation Element Update.

The Town of Loomis' traffic model was originally created by DKS Associates as one of two models derived from the original Placer County regional traffic model. The model encompasses the multi-county SACOG area and reflects development inside and outside of the Town of Loomis. Recent and planned development in the communities adjoining Loomis is reflected in the model's long-term land use assumptions.

¹⁷ Placer County. *Horseshoe Bar/Penryn Community Plan*. Revised December 2005.

The modified model was used to create AM and PM peak hour segment volume forecasts for study area roadways under Cumulative Plus Project Conditions. Such forecasts were compared to the base model (Year 2008) forecasts, and the incremental change in daily and peak hour traffic was identified. The incremental change was added to baseline volumes to create adjusted future forecasts, as well as growth rates for individual roadway segments. The growth rates were then applied to the current AM, afternoon, and PM peak hour turning movement counts at each study intersection. The results were balanced using the techniques contained in Transportation Research Board's (TRB's) *National Cooperative Highway Research Program (NCHRP) report 255, Highway Data for Urbanized Area Project Planning and Design*. Figure 11-1 identifies the resulting long-term peak hour traffic volume projections for Cumulative No Project Conditions, while Figure 11-2 and Figure 11-3 illustrate volumes for the Cumulative Plus Project Conditions created by adding trips generated by the proposed project.

Such traffic volume forecasts reflect moderate growth on study area roads. The traffic model suggests that the volume on Taylor Road in the vicinity of the project may increase by roughly 3,675 vehicles per day under cumulative conditions.

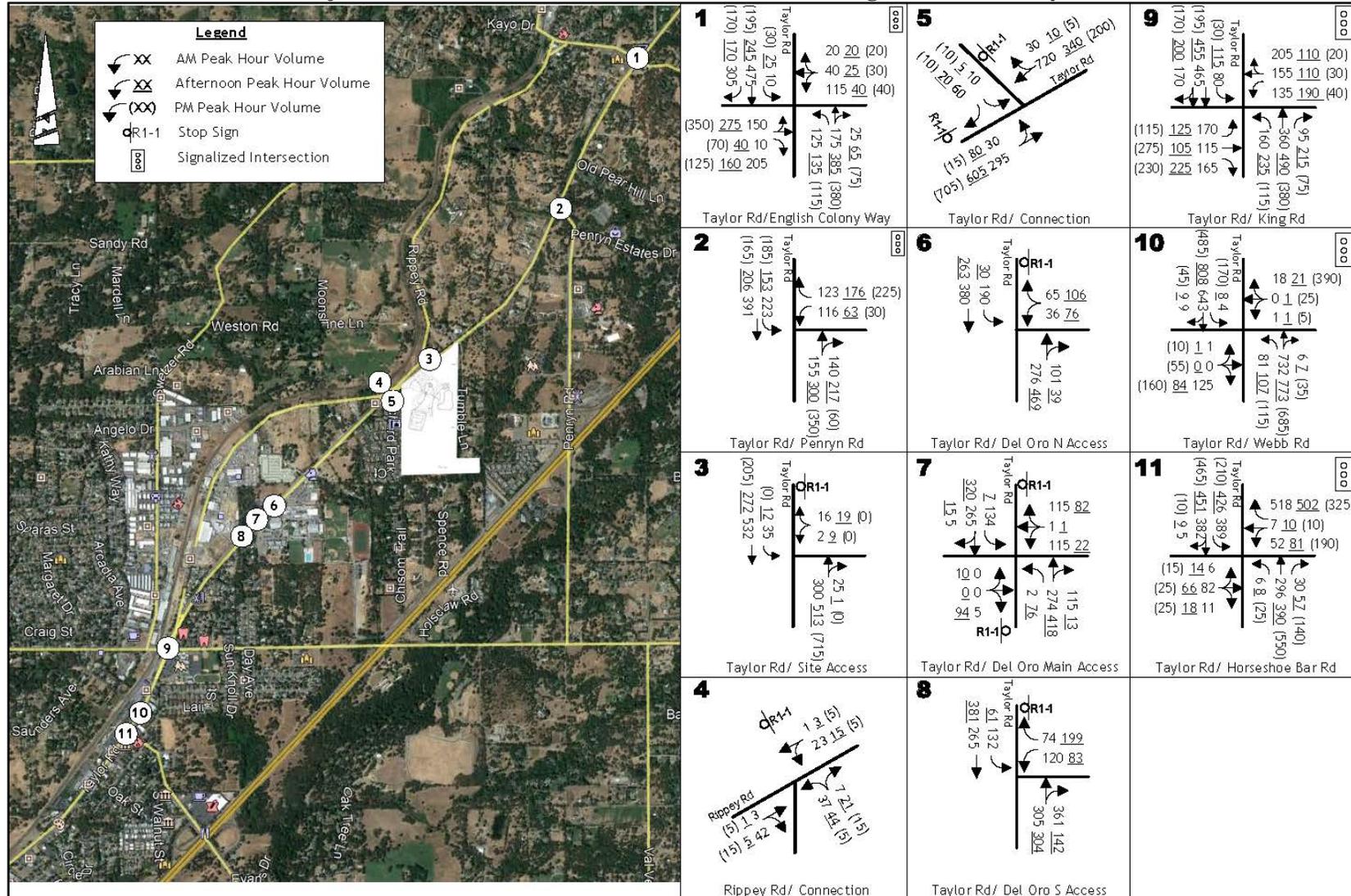
Cumulative Without Village at Loomis

Cumulative Traffic Forecasts

To create the Alternative Cumulative scenario that assumed the Village at Loomis is not approved and developed, Placer County staff considered development permitted under the Town of Loomis General Plan, as well as the land use assumed for the Village at Loomis site in the Town's traffic model. The traffic model's year 2030 land use set includes 433 single family residences and 211.6 ksf of retail on The Village at Loomis site. Review of the maximum buildout potential for the site derived from residential density and non-residential intensity indicates that development under these assumptions could be allowed based on General Plan land use designations. Based on this review the alternative cumulative background condition assumes future traffic model land uses.

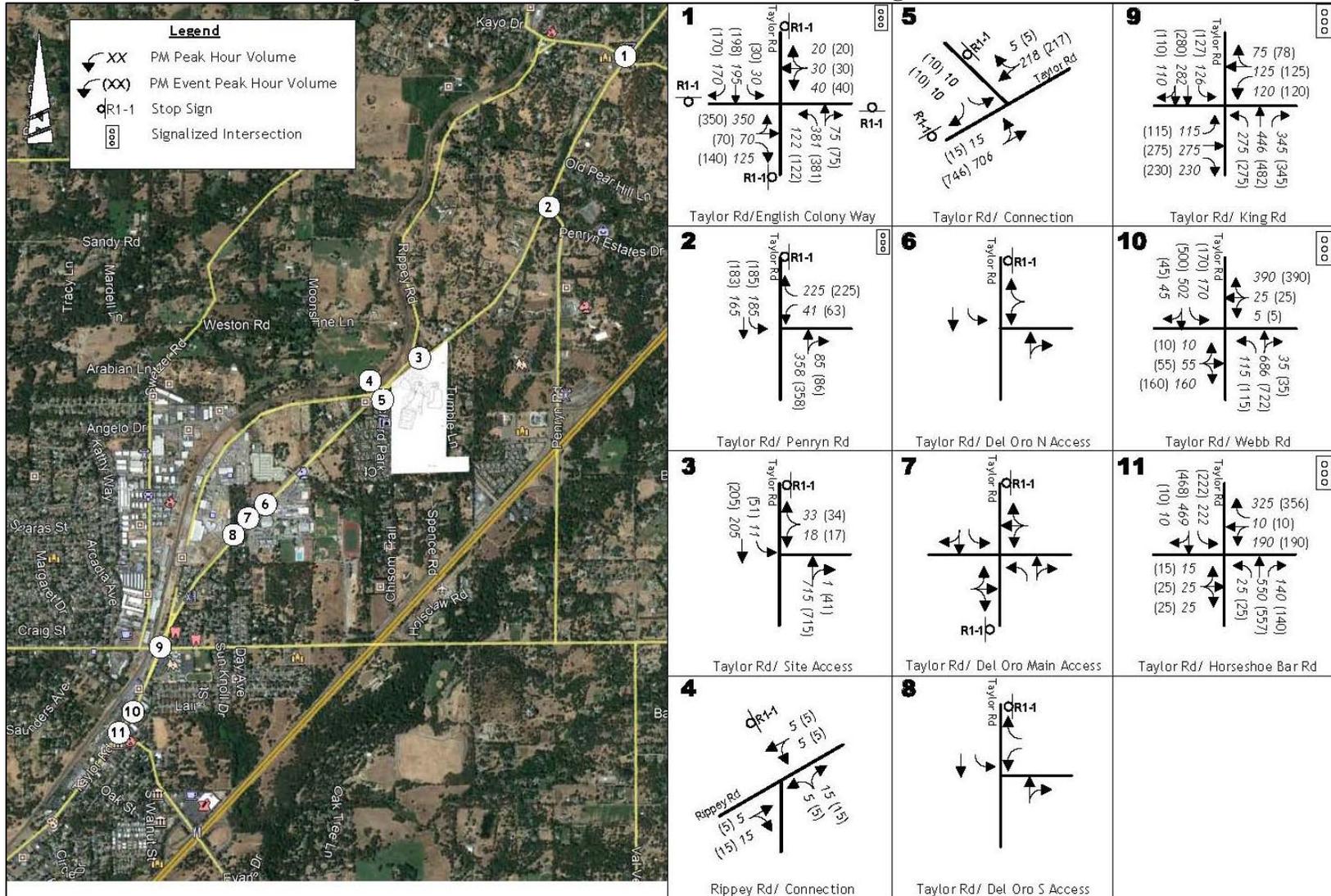
Development of this site without The Village at Loomis, but with land uses permitted under the General Plan, would not necessarily be accompanied by the streets contemplated in The Village proposal, and Placer County staff considered how access may be achieved given the status of the Town's CIP and traffic fee program. Without The Village at Loomis completion of the Doc Barnes Extension from Horseshoe Bar Road to King Road, the Webb Street Extension is not certain. Thus, while it is likely that the individual parcels within The Village site that are developed may be linked by local streets, there is no guarantee that these connecting streets would provide through routes for other public traffic. Thus, this analysis assumes development under the General Plan will be able to access King Road, Horseshoe Bar Road and Webb Street, but that no through traffic will occur across The Village at Loomis site.

**Figure 11-1
 Cumulative No Project Conditions Traffic Volumes and Lane Configurations – Study Intersections**



Source: KD Anderson & Associates, Inc., 2018.

Figure 11-3
Cumulative Plus Project Conditions Traffic Volumes and Lane Configurations: PM Peak Hour



Source: KD Anderson & Associates, Inc., 2018.

Figure 11-4 presents cumulative background traffic volumes assuming that The Village at Loomis project does not proceed and associated roadways are not constructed. Figure 11-5 and Figure 11-6 present Alternative Cumulative Plus Project traffic volumes at study area intersections.

Cumulative Roadway Improvements

Regional roadway improvements are anticipated under the Newcastle/Horseshoe Bar/Penryn Area Benefit District within the Placer County Traffic Impact Fee Program, as noted in Table 11-8. For the purposes of this analysis, such improvements are assumed to be installed under the cumulative scenarios.

Table 11-8 Newcastle/Horseshoe Bar/Penryn Area Benefit District Capital Improvements		
Street/Intersection	Segment	Description of Improvements
English Colony Way	Taylor Road intersection	Signalize
English Colony Way	Sierra College Blvd to Taylor Road	Widen for shoulders and bike lanes
Penryn Road	Taylor Road intersection	Signalize/intersection improvements
Taylor Road	Town of Loomis limits to Plan Boundary	Bike lanes and shoulders

Source: KD Anderson & Associates, Inc., 2018.

This analysis also assumes improvements in Loomis that are reasonably certain based on funding through the Town’s fee program or their inclusion in the proposed Village at Loomis DEIR project description. Such improvements include the following:

- Doc Barnes Extension from Horseshoe Bar Road to King Road
- Webb Street extension from Taylor Road to Library Drive
- Traffic signal at Taylor Road/Webb Street intersection
- Roundabout at Horseshoe Bar Road/Webb Street/Library Drive intersection

Under the “Without Village at Loomis” scenario, these improvements are not assumed.

As noted in Chapter 9, Transportation and Circulation, of this EIR, the Town of Loomis CIP identifies a traffic signal at Del Oro High School access; however, funding has not been identified for the signal. Because funding is uncertain, the improvement has not been included in the cumulative scenarios.

Figure 11-4

Cumulative No Project Without Village at Loomis Conditions Traffic Volumes and Lane Configurations – Study Intersections

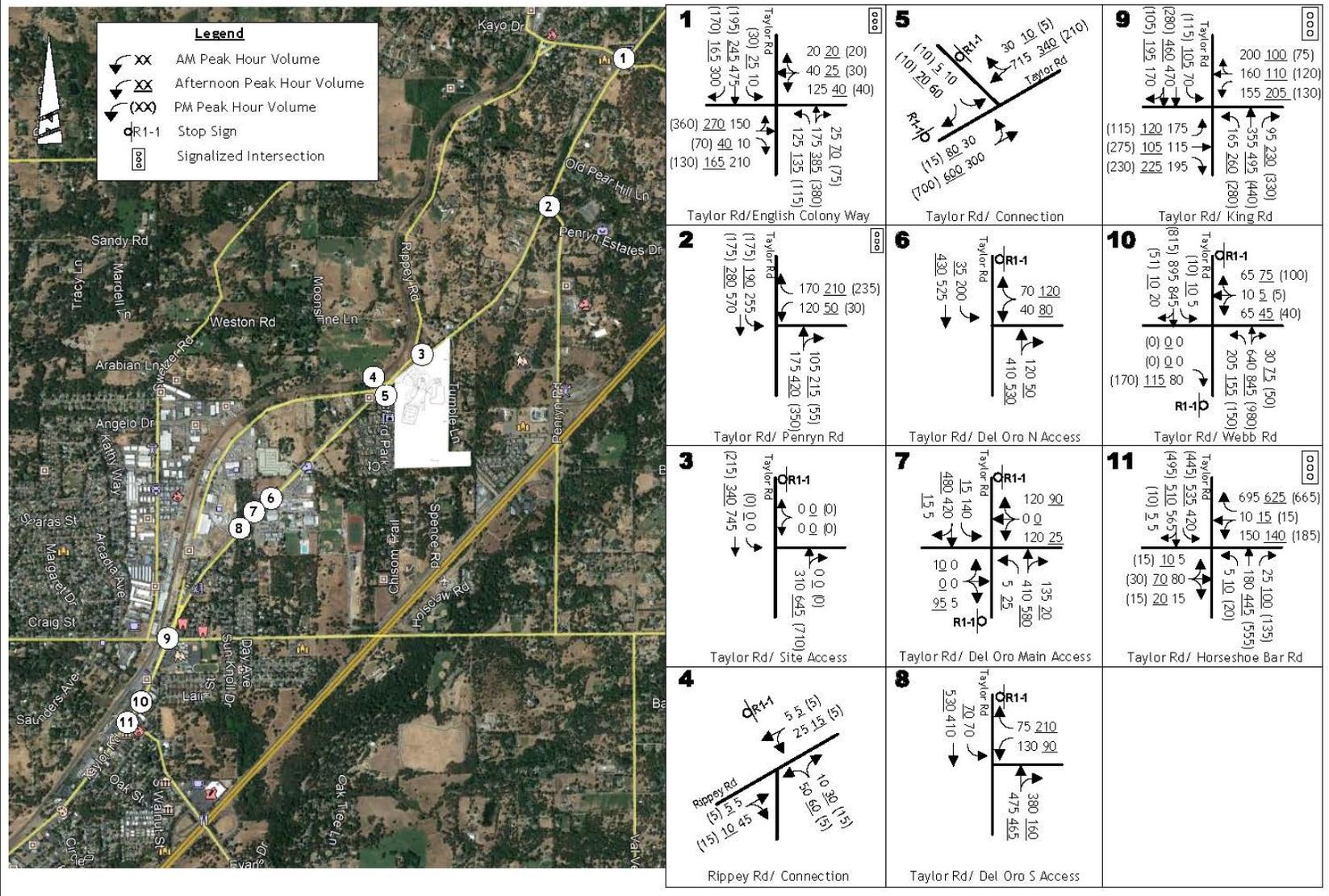


Figure 11-5
Cumulative Plus Project Without Village at Loomis Conditions Traffic Volumes and Lane Configurations: AM and Afternoon Peak Hours

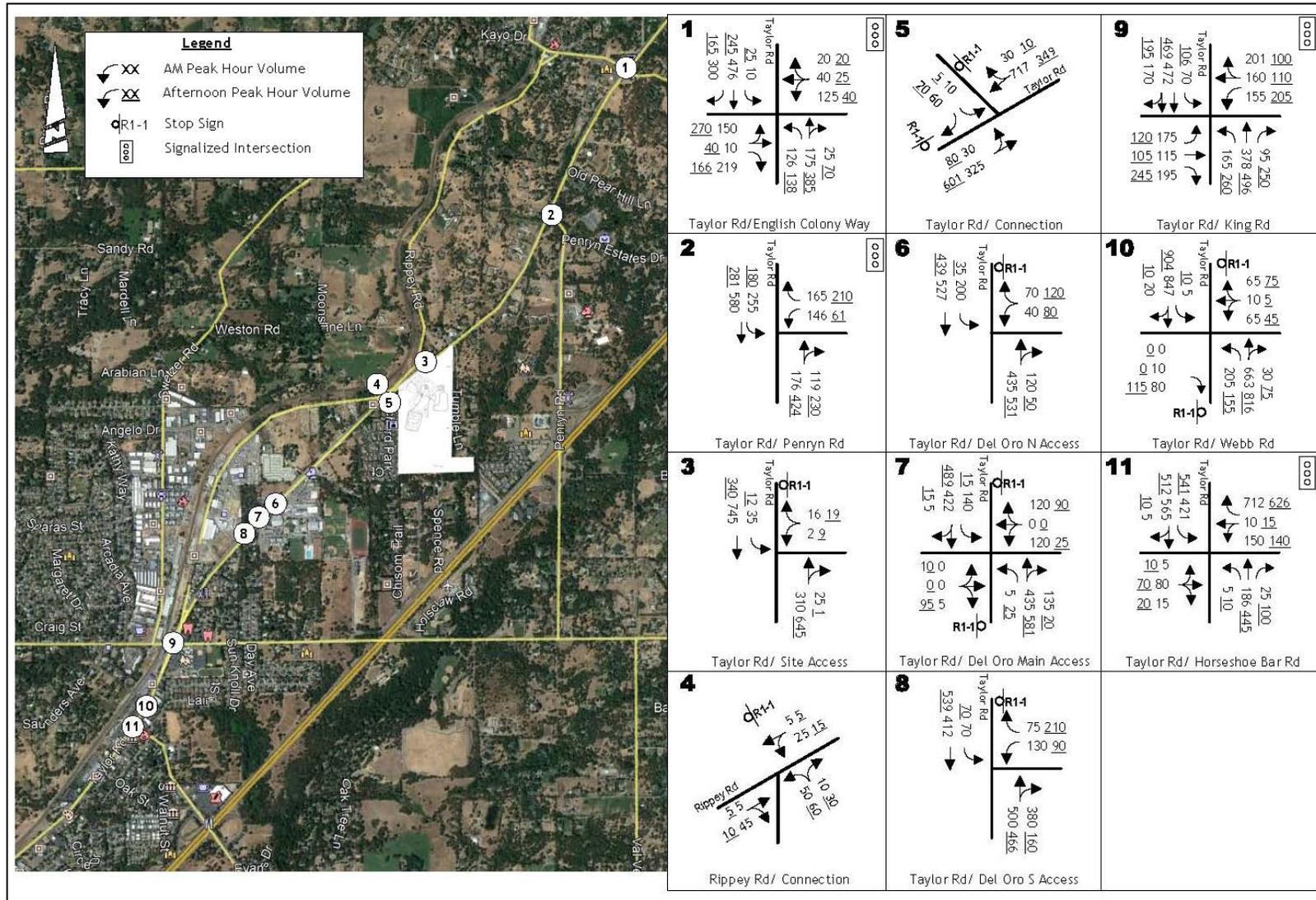
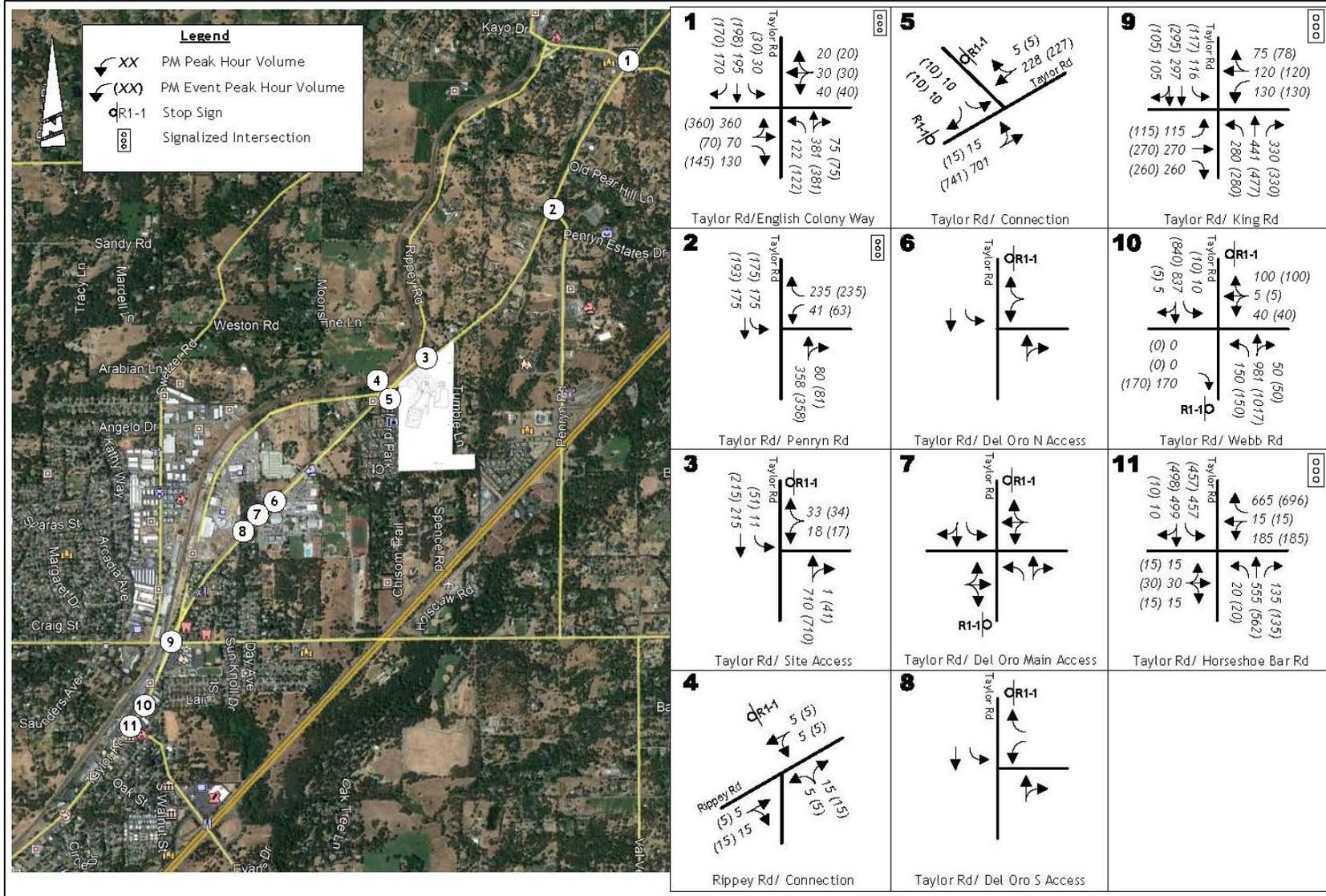


Figure 11-6
Cumulative Plus Project Without Village at Loomis Conditions Traffic Volumes and Lane Configurations: PM Peak Hour



Cumulative Impacts and Mitigation Measures

Cumulative impacts on the transportation system are evaluated in this section based on the thresholds of significance, presented in Chapter 9, Transportation and Circulation, of this EIR, and the methodology described above. Each cumulative impact is followed by recommended mitigation to reduce the identified impacts, if needed. It should be noted that a detailed overview of the applicable level of service (LOS) thresholds for study intersections and roadways is provided in Chapter 9 of this EIR.

As discussed therein, while the Town of Loomis' LOS policy permits acceptance of LOS D conditions under certain circumstances for a subset of Town intersections, this analysis assumes that the Town will not elect to accept conditions in excess of LOS C for the proposed project. Rather, this analysis conservatively relies on LOS C as the minimum LOS standard for all study intersections.

11-7 Study intersections under Cumulative Plus Project With Village at Loomis Conditions. Based on the analysis below, impacts to all study intersections under Cumulative Plus Project Conditions would be less than significant, with the exception of the Taylor Road/Rippey Road, Taylor Road/Webb Road, and Taylor Road/Horseshoe Bar Road intersections. Given the lack of feasible mitigation, the project's incremental contribution to the significant cumulative impacts at the Taylor Road/Rippey Road, Taylor Road/Webb Road, and Taylor Road/Horseshoe Bar Road intersections would be *cumulatively considerable and significant and unavoidable*.

Table 11-9 below summarizes operations at the study intersections under the Cumulative No Project and Cumulative Plus Project Conditions during AM, afternoon, and PM peak hours. For the PM peak hour, a worst-case scenario is provided that includes both regular project traffic, as well as traffic associated with a special event. As shown in the table, under Cumulative No Project and Cumulative Plus Project Conditions, the following intersections would operate unacceptably:

- Taylor Road/Rippey Road (Town of Loomis);
- Taylor Road/King Road (Town of Loomis);
- Taylor Road/Webb Street (Town of Loomis);
- Taylor Road/East Del Oro High School Access (Town of Loomis);
- Taylor Road/Central Del Oro High School Access (Town of Loomis); and
- Taylor Road/West Del Oro High School Access (Town of Loomis).

The addition of project traffic would not result in any new intersections being degraded to an unacceptable LOS. Therefore, the relevant significance criteria pertain to whether the project would cause currently deficient intersections to experience increases in delay, V/C, or other parameters set forth in Chapter 9, Transportation and Circulation, of this EIR.

**Table 11-9
 Study Intersection LOS – Cumulative Plus Project With Village at Loomis Conditions**

#	Intersection	Control	AM Peak Hour (7:15 to 8:30 AM)				Afternoon Peak Hour (2:30 to 3:30 PM)				PM Peak Hour (4:30 to 5:30 PM)					
			Cumulative No Project		Cumulative Plus Project		Cumulative No Project		Cumulative Plus Project		Cumulative No Project		Cumulative Plus Project			
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Taylor Rd/English Colony Way	Signal	22.5	C	23.3	C	24.1	C	24.2	C	28.5	C	28.8	C	28.8	C
2	Taylor Rd/Penryn Rd	Signal	19.1	B	20.7	C	26.9	C	29.0	C	17.7	C	20.1	C	19.9	C
3	Taylor Rd/Access • (overall) • Northbound approach • Westbound left turn	NB Stop	-	-	(9.4) 12.0	(A) B	-	-	(16.5) 19.5	(C) C	-	-	(19.4) 21.5	(B) C	(17.5) 24.5	(C) C
4	Taylor Rd/Rippey Rd • Southbound approach	SB Stop	39.3	E	40.3	E	25.7	D	26.4	D	16.4	C	16.8	C	17.6	C
5	Taylor Rd/East Del Oro • Northbound approach	NB Stop	>999	F	>999	F	287.6	F	301.4	F						
6	Taylor Rd/Central Del Oro • Northbound Approach • Southbound Approach	NB/SB Stop	>999 12.6	F B	>999 12.6	F B	231.8 54.3	F F	253.5 57.3	F F						
7	Taylor Rd/West Del Oro • Northbound approach	NB Stop	250.2	F	285.4	F	130.6	F	135.8	F						
8	Taylor Rd/King Rd*	Signal	53.9	D	54.4	D	34.8	C	35.2	D	39.9	D	40.3	D	40.2	D
9	Taylor Rd/Webb St* • Northbound approach • Southbound approach	Signal	29.3	C	29.3	C	34.8	C	35.0	D	40.8	D	40.7	D	44.7	D
10	Taylor Rd/Horseshoe Bar Rd	Signal	27.0	C	27.8	C	28.3	C	28.5	C	29.2	C	29.9	C	30.5	C

- Notes:
- **Bold** values are conditions at public road intersections in excess of applicable minimum LOS thresholds.
 - **Highlighted** values are significant impacts.
 - Conditions at Del Oro HS driveways are provided for informational purposes only and are not significance criteria.
 - (*) Town of Loomis Circulation Element allows the Town to accept LOS D at this intersection.
 - The overall average intersection control delay is reported in seconds per vehicle for signalized and all-way stop-controlled locations. For side street stop-controlled intersections, Placer County uses the overall weighted average control delay for movements yielding the right-of-way. For side-street stop-controlled intersections in the Town of Loomis, the average control delay for the movement with the greatest delay is reported.

Source: KD Anderson & Associates, Inc., 2018.

Taylor Road/Rippey Road

The project would add traffic to the un-signalized Taylor Road/Rippey Road intersection, which would operate at LOS E in the AM peak hour and LOS D in the afternoon peak hour with and without the project. Project related traffic would increase the delay at the Taylor Road/Rippey Road intersection by a maximum of 1.0 second during the AM and afternoon peak hours, which is considered a relatively minor increase. The Town of Loomis has not adopted significance criteria for situations at intersections where background traffic conditions already exceed their minimum standard. However, any change in delay has been judged a significant impact in other Loomis traffic studies. Therefore, while the delay at the Taylor Road/Rippey Road intersection would increase by only up to 1.0 second during the AM and afternoon peak hours with implementation of the proposed project, based on Town of Loomis precedent, the project could result in a cumulatively considerable contribution to the cumulative impact.

Taylor Road/King Road

In Loomis, the signalized Taylor Road/King Road intersection would continue to operate at LOS D in the AM and PM peak hours with and without the project, and the project would cause the intersection to operate at LOS D in the afternoon peak hour. Because the project's incremental traffic would increase delay by 0.5-second at this intersection during the AM peak hour, when the intersection would operate at LOS D without the project, and the addition of project traffic would degrade intersection operations during the afternoon peak hour from an acceptable LOS C to an unacceptable LOS D, the project could result in a cumulatively considerable contribution to the cumulative impact.

Taylor Road/Webb Street

The project would add traffic to the signalized Taylor Road/Webb Street intersection, which is projected to operate at LOS D in the PM peak hour with and without the project. Because the project would increase delay by up to four seconds during the PM peak hour, when conditions would be unacceptable (LOS D) without the project, the project's incremental traffic would be cumulatively considerable. Furthermore, the addition of project traffic would degrade intersection operations during the afternoon peak hour from an acceptable LOS C to an unacceptable LOS D and, thus, the project could result in a cumulatively considerable contribution to the cumulative impact.

Taylor Road/Del Oro High School Access

The un-signalized Taylor Road/Del Oro High School access intersections would operate at LOS F with and without the project. The addition of project related traffic to area roadways would increase delay at access points to Del Oro High School by a maximum of 21.7 seconds. However, impacts to private driveways are not significance criteria under Town of Loomis policy, nor have the intersections been addressed in other studies prepared for the Town. Therefore, the cumulative impact would be less than significant.

Conclusion

Based on the above, the proposed project would result in a ***cumulatively considerable contribution*** to cumulative impacts at the following study intersections under Cumulative Plus Project Conditions:

- Taylor Road/Rippey Road (Town of Loomis);
- Taylor Road/King Road (Town of Loomis); and
- Taylor Road/Webb Street (Town of Loomis).

Mitigation Measure(s)

The following sections provide a discussion of potential circulation system improvements available to address impacts to the three study intersections listed above.

Taylor Road/Rippey Road

Two potential measures would improve the LOS at the Taylor Road/Rippey Road intersection: elimination of left-turn access from the connection onto Taylor Road; or installation of a traffic signal or roundabout intersection. While the feasibility of the improvements has not been established, either improvement would cause the Taylor Road/Rippey Road intersection to operate at LOS C or better during the AM, afternoon, and PM peak hours. Alternatively, relocating the connection from Rippey Road onto Taylor Road to a different location could improve safety, but would not necessarily reduce the average length of delays. However, such improvements are not funded and are not included in the Town's impact fee program. In addition, other development projects in Loomis have not been required to participate in the costs of improvements at the location.

Taylor Road/King Road

Measures to improve operations at the Taylor Road/King Road intersection would include installation of additional community-wide improvements that are described in the Town of Loomis Circulation Element Update but are not funded. For example, the Swetzer Road extension, from Sierra College Blvd across Webb Street to King Road, would alter local travel patterns, and with the foregoing improvement the Village at Loomis DEIR indicates that long term conditions at the Taylor Road/King Road intersection would meet the Town's LOS C standard in the PM peak hour, although LOS D would remain in the AM peak hour.

Taylor Road/Webb Street

Measures to improve operations at the Taylor Road/Webb Street intersection would include widening the Webb Street approaches to provide separate right-turn lanes. Such improvements are included as a mitigation measure in the Village at Loomis DEIR. However, the improvements are not included in the Town's impact fee program, and it

cannot be guaranteed that the Village at Loomis project will install the necessary improvements.

Conclusion

None of the above improvement measures are funded through the Town's impact fee program. Furthermore, all three intersections are located outside of the County's jurisdiction and, thus, completion of the improvements cannot be guaranteed. Therefore, even with payment of applicable traffic impact fees, the project's incremental contribution to this cumulatively considerable cumulative impact to the intersections would remain *cumulatively considerable and significant and unavoidable*.

11-7 *The proposed project shall be subject to the payment of traffic impact fees that are in effect in the project area (Newcastle/Horseshoe Bar/Penryn District), pursuant to applicable Ordinances and Resolutions. The applicant is notified that the following traffic mitigation fee(s) shall be required and shall be paid to Placer County DPW prior to issuance of any building permits for the project:*

- A. *County Wide Traffic Limitation Zone: Article 15.28.010, Placer County Code*
- B. *South Placer Regional Transportation Authority (SPRTA)*

The current estimated fee is \$6,695 per dwelling unit equivalent. The fees were calculated using the information supplied. If either the use or the square footage changes, then the fees shall change. The actual fees paid shall be those in effect at the time the payment occurs.

11-8 Study intersections under Cumulative Plus Project Without Village at Loomis Conditions. Based on the analysis below, impacts to all study intersections under Cumulative Plus Project Conditions would be less than significant, with the exception of the Taylor Road/Ripsey Road, Taylor Road/Webb Road, Taylor Road/Horseshoe Bar Road, and Taylor Road/King Road intersections. Given the lack of feasible mitigation, the project's incremental contribution to the significant cumulative impacts at these intersections would be *cumulatively considerable and significant and unavoidable*.

Table 11-10 below summarizes operations at the study intersections under the Cumulative No Project and Cumulative Plus Project Without Village at Loomis Conditions during AM, afternoon, and PM peak hours. For the PM peak hour, a worst-case scenario is provided that includes both regular project traffic, as well as traffic associated with a special event. As shown in the table, the alternative cumulative scenario, plus the project's incremental contribution of traffic, would result in significant impacts to the following intersections.

Table 11-10 Study Intersection LOS – Cumulative Plus Project Without Village at Loomis Conditions																
#	Intersection	Control	AM Peak Hour (7:15 to 8:30 AM)				Afternoon Peak Hour (2:30 to 3:30 PM)				PM Peak Hour (4:30 to 5:30 PM)					
			Cumulative No Project		Cumulative Plus Project		Cumulative No Project		Cumulative Plus Project		Cumulative No Project		Cumulative Plus Project			
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Regular		Special Event	
1	Taylor Rd/English Colony Way	Signal	20.7	C	21.4	C	24.2	C	24.1	C	30.0	C	30.3	C	30.3	C
2	Taylor Rd/Penryn Rd	Signal	19.9	C	33.0	C	18.7	C	27.7	C	19.6	C	21.2	C	21.2	C
3	Taylor Rd/Access • (overall) • Northbound approach • Westbound left turn	NB Stop	-	-	(10.9) 17.1	(B) C	-	-	(16.5) 19.5	(C) C	-	-	(19.4) 21.5	(C) C	(17.5) 24.5	(C) C
4	Taylor Rd/Rippey Rd • Southbound approach	SB Stop	39.3	E	40.3	E	25.7	D	26.4	D	16.4	C	16.8	C	17.6	C
5	Taylor Rd/East Del Oro • Northbound approach	NB Stop	>999	F	>999	F	287.6	F	301.4	F						
6	Taylor Rd/Central Del Oro • Northbound Approach • Southbound Approach	NB/SB Stop	>999 12.6	F B	>999 12.6	F B	231.8 54.3	F F	253.5 57.3	F F						
7	Taylor Rd/West Del Oro • Northbound approach	NB Stop	260.2	F	285.4	F	130.6	F	135.8	F						
8	Taylor Rd/King Rd*	Signal	60.3	E	60.6	E	40.1	D	40.5	D	38.8	D	39.3	D	39.0	D
9	Taylor Rd/Webb St* • Northbound approach • Southbound approach	NB/SB Stop	>999 16.7	F C	>999 16.7	F C	>999 25.3	F D	>999 25.7	F D	>999 28.3	F D	>999 30.0	F D	>999 30.2	F D
10	Taylor Rd/Horseshoe Bar Rd*	Signal	39.0	D	41.0	D	46.4	D	46.5	D	51.3	E	51.9	E	68.7	E

- Notes:
- **Bold** values are conditions at public road intersections in excess of applicable minimum LOS thresholds.
 - **Highlighted** values are significant impacts.
 - Conditions at Del Oro HS driveways are provided for informational purposes only and are not significance criteria.
 - (*) Town of Loomis Circulation Element allows the Town to accept LOS D at this intersection.
 - The overall average intersection control delay is reported in seconds per vehicle for signalized and all-way stop-controlled locations. For side street stop-controlled intersections, Placer County uses the overall weighted average control delay for movements yielding the right-of-way. For side-street stop-controlled intersections in the Town of Loomis, the average control delay for the movement with the greatest delay is reported.

Source: KD Anderson & Associates, Inc., 2018.

Taylor Road/Rippey Road

The project would add traffic to the un-signalized Taylor Road/Rippey Road intersection, which would operate at LOS E in the AM peak hour and LOS D in the afternoon peak hour with and without the project. Project related traffic would increase the delay at the Taylor Road/Rippey Road intersection by a maximum of 1 second, which is considered a relatively minor increase. The Town of Loomis has not adopted significance criteria for situations at intersections where background traffic conditions already exceed their minimum standard. However, any change in delay has been judged a significant impact in other Loomis traffic studies. Therefore, while the delay at the Taylor Road/Rippey Road intersection would increase by only 1 second with implementation of the proposed project, based on Town of Loomis precedent, the project could result in a cumulatively considerable contribution to the cumulative impact.

Taylor Road/King Road

In Loomis, the signalized Taylor Road/King Road intersection would continue to operate at LOS E in the AM peak hour and LOS D in the afternoon and PM peak hours with and without the project. While the minimum LOS C standard is exceeded, LOS D can be accepted under the policies contained in the Loomis Circulation Element. However, because AM peak hour conditions reach LOS E and the length of delays are increased by project traffic, the project's cumulative impact at this location is cumulatively considerable.

Taylor Road/Webb Street

The project would add traffic to the signalized Taylor Road/Webb Street intersection, which is projected to operate at LOS F. Because the project would increase delay, the project's incremental traffic would be cumulatively considerable.

Taylor Road/Horseshoe Bar Road

The project will add traffic and lengthen delays at the Taylor Road/Horseshoe Bar Road intersection, which is projected to operate at LOS D in the AM and afternoon peak hour, and LOS E in the PM peak hour. Both of these conditions exceed the minimum LOS C threshold, although LOS D can be accepted by the Town. Because the project would increase delay, the project's incremental traffic would be cumulatively considerable.

Taylor Road/Del Oro High School Access

The un-signalized Taylor Road/Del Oro High School access intersections would operate at LOS F with and without the project. The addition of project related traffic to area roadways would increase delay at access points to Del Oro High School. However, impacts to private driveways are not significance criteria under Town of Loomis policy, nor have the intersections been addressed in other studies prepared for the Town. Therefore, the cumulative impact would be less than significant.

Conclusion

Based on the above, the proposed project would result in a ***cumulatively considerable contribution*** to cumulative impacts at the following study intersections under Cumulative Plus Project Without Village at Loomis Conditions:

- Taylor Road/Rippee Road (Town of Loomis);
- Taylor Road/King Road (Town of Loomis);
- Taylor Road/Webb Street (Town of Loomis); and
- Taylor Road/Horseshoe Bar Road (Town of Loomis).

Mitigation Measure(s)

The following sections provide a discussion of potential circulation system improvements available to address impacts to the four study intersections listed above.

Taylor Road/Rippee Road

Two potential measures would improve the LOS at the Taylor Road/Rippee Road intersection: elimination of left-turn access from the connection onto Taylor Road; or installation of a traffic signal or roundabout intersection. While the feasibility of the improvements has not been established, either improvement would cause the Taylor Road/Rippee Road intersection to operate at LOS C or better during the AM, afternoon, and PM peak hours. Alternatively, relocating the connection from Rippee Road onto Taylor Road to a different location could improve safety, but would not necessarily reduce the average length of delays. However, such improvements are not funded and are not included in the Town's impact fee program. In addition, other development projects in Loomis with the potential to increase delay at the intersection have not been required to participate in the costs of improvements at the location.

Taylor Road/King Road

Additional intersection improvements are not planned at this location by the Town, and improving conditions at this location would require implementation of unfunded Town Circulation Element improvements.

Taylor Road/Webb Street

To improve the Level of Service it would be necessary to limit both of the Webb Street approaches to right turn only or to implement unfunded improvements included in Circulation Element, including signalization of the intersection. However, without other improvements to reduce the volume of Taylor Road traffic, the operation of closely spaced signals at Horseshoe Bar Road and Webb Street could be problematic due to queueing.

Taylor Road/Horseshoe Bar Road

Local intersection improvements are not anticipated, and improving the Level of Service at this intersection would require implementing unfunded Circulation Element improvements such as the Webb Street extension and the Doc Barnes extension.

Conclusion

The above improvement measures are not funded through the Town’s impact fee program. Furthermore, all four intersections are located outside of the County’s jurisdiction and, thus, completion of the improvements cannot be guaranteed. Therefore, even with payment of applicable traffic impact fees, the project’s incremental contribution to this cumulatively considerable cumulative impact to the intersections would remain *cumulatively considerable and significant and unavoidable*.

11-8 Implement Mitigation Measures 11-7.

11-9 Study roadway segments under Cumulative Plus Project Conditions. Based on the analysis below, the cumulative impact is *less than significant*.

Table 11-11 below summarizes average daily volumes and LOS for segments of Taylor Road to the west and east of the project site under Cumulative Plus Project With and Without Village at Loomis Conditions. As shown in the table, development of the proposed project would increase the volume of traffic along the roadway segments. However, both roadway segments would continue to operate within accepted Placer County minimum LOS thresholds. Therefore, the project’s traffic, in combination with traffic from other cumulative development, would result in a *less than significant* impact on cumulative roadway conditions.

Table 11-11 Taylor Road LOS – Cumulative Plus Project Conditions								
Location	Lanes	Minimum LOS	Volume Threshold	Cumulative No Project		Cumulative Plus Project		
				Daily Volume	LOS	Daily Volume		LOS
						Project Only	Total	
Cumulative With Village at Loomis								
West of Access	2	C	14,400	11,055	B	70	11,125	B
East of Access	2	C	14,400	11,055	B	184	11,239	B
Cumulative Without Village at Loomis								
West of Access	2	C	14,400	10,955	B	70	11,025	B
East of Access	2	C	14,400	10,955	B	184	11,139	B

Source: KD Anderson & Associates, Inc., 2018.

Mitigation Measure(s)

None required.

11-10 Hazards or barriers for pedestrians or bicyclists or conflict with adopted policies, plans, or programs supporting alternative transportation (i.e. bus turnouts, bicycle lanes, bicycle racks, public transit, pedestrian facilities, etc.) or otherwise decrease the performance or safety of such facilities under the Cumulative Plus Project Conditions. Based on the analysis below, the cumulative impact is *less than significant*.

The Community Plan EIR determined that development consistent with the Horseshoe Bar/Penryn Community Plan would not result in impacts related to alternative modes of transportation, as the Community Plan includes policies and funding mechanisms to expand and improve alternative transportation.

The proposed project would include provision of a private shuttle system of passenger vans to provide transportation for approximately 90 percent of the anticipated UAIC students. Therefore, the proposed project would not substantially increase use of Placer Transit's existing shuttle system. While the transit system could be used by future project employees, the increased demand created by such employees would not be sufficient to justify a designated transit stop or improvements that would accompany a stop, such as a covered shelter. Therefore, the proposed project, in combination with future buildout of the Horseshoe Bar/Penryn Community Plan, would not conflict with public transit planning efforts or decrease the performance of the public transit systems.

Considering the location of the project site and the lack of pedestrian, transit, and bicycle infrastructure in the immediate project vicinity, the predominant mode of transportation for the remaining students and all staff is anticipated to be by private passenger vehicles; appreciable bicycle use by students and staff of the project would be unlikely. In addition, due to the rural location of the project site and the distances between the proposed project site and employee and student residences, which are closer to Auburn, the project would be unlikely to attract pedestrians as part of the day-to-day travel associated with the project. Furthermore, the proposed project would widen the existing shoulder of Taylor Road along the project frontage, which would improve pedestrian accessibility. Given that the proposed project would not add demand to the foregoing transportation modes, the proposed project would not have the potential to result in a significant cumulative impact related to increased demand for pedestrian or bicycle infrastructure and services.

Because the cumulative traffic due to implementation of the proposed project would be relatively minor, the demand for alternative transportation to the site would not be substantial due to the project's shuttle system, and the project would include improvements to Taylor Road, implementation of the proposed project would not result in transportation mode conflicts or decreases in safety. It should be noted that future development projects within the Horseshoe Bar/Penryn Community Plan area would be required to comply with all applicable policies regarding the expansion and improvement of alternative transportation within the Community Plan Area. Therefore, while cumulative development within the Community Plan Area may result in increased demand on alternative

transportation infrastructure, such infrastructure would be improved in-step with future development.

Considering the above, cumulative impacts related to alternative transportation due to buildout of the proposed project, in conjunction with future buildout of the Horseshoe Bar/Penryn Community Plan and other reasonably foreseeable projects in the project area, would be *less than significant*.

Mitigation Measure(s)

None required.

Utilities and Service Systems

11-11 Development of the proposed project, in combination with future buildout in the Horseshoe Bar/Penryn Community Plan area, would increase demand for utilities and service systems. Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

The proposed project includes redevelopment of the project site for use as a pre-K through 8th-grade school designed to serve up to 100 UAIC students with up to 35 staff members. In addition, the project would include construction of a Tribal Education Center and a Tribal Cultural Center. Up to six staff members would be employed at the Tribal Education Center, and two staff members would serve the Tribal Cultural Center. Development and operation of the proposed project would increase demand on water supply, wastewater treatment and conveyance, and solid waste services.

Water Supply

Water supplies for the proposed project would be provided by Zone 1 of the PCWA. PCWA's Zone 1 includes the Horseshoe Bar/Penry Community Plan area as well as the Town of Loomis and other developments, as shown in Table 10-1 in Chapter 10, Utilities and Service Systems, of this EIR. Per the PCWA's 2015 UWMP, the PCWA has sufficient water supplies through projected buildout conditions during average years, single dry year, and multiple dry year conditions. Any potential shortfall in supply that may occur in Zone 1 under build-out conditions in a dry year may be addressed through groundwater production. In addition, to accommodate potential additional demand created by future development not accounted for within the 2015 UWMP, the PCWA has established a placeholder of 2,000 acre-feet (af) of annual demand beginning in 2040, expanding to 4,000 af by build-out conditions.

As discussed in Chapter 10, Utilities and Service Systems, of this EIR, the increase in water demand associated with the proposed project would be within the range that has been previously anticipated by the County and accounted for in the 2015 UWMP for buildout of the project site. Therefore, adequate water supplies exist to accommodate cumulative

growth of the Zone 1 service area, which includes growth within the Horseshoe Bar/Penryn Community Plan and increased demand due to operation of the proposed project.

Wastewater

The project's potential to impact wastewater treatment and wastewater conveyance are discussed in further depth below.

Wastewater Treatment

The proposed project would require annexation into the South Placer Municipal Utility District (SPMUD) for the provision of sewer services, subject to approval by Placer County LAFCo. Wastewater from the project site would be treated at the Dry Creek WWTP, which is located within the City of Roseville and treats runoff from the City as well as surrounding areas within unincorporated Placer County. The geographic setting for cumulative wastewater impacts is the Dry Creek WWTP service area, which includes approximately half of the City of Roseville, as well as the Dry Creek-West Placer Community Plan area, and unincorporated areas within Placer County near I-80. As discussed in Chapter 10, Utilities and Service Systems, of this EIR, the WWTP's permitted average dry weather capacity (ADWF) of 18 million gallons per day (mgd) would not be sufficient to accommodate buildout of the WWTP service area, which is estimated to reach approximately 21 mgd. Thus, improvements to the Dry Creek WWTP are likely to be needed prior to buildout of the Dry Creek WWTP's service area, and the combined impact of cumulative development within the service area would be significant.

As further discussed on pages 10-18 and 10-19 of Chapter 10, the Dry Creek WWTP currently has capacity to accommodate increased dry weather and peak wet weather wastewater flows from the Dry Creek WWTP service area. The Sanitary Sewer study prepared for the proposed project by RSC Engineering, Inc. determined that the project would contribute an ADWF of approximately 0.006 mgd of wastewater to the Dry Creek WWTP. As of 2016, the Dry Creek WWTP maintained capacity to treat an additional 9 mgd of dry weather flow and 20 mgd of wet weather flows.¹⁸ Thus, while the Dry Creek WWTP is not considered to have sufficient capacity to treat buildout of the service area, the Dry Creek WWTP does have sufficient capacity to accommodate increased wastewater flows from the project site and other cumulative development within the region up to an additional 9 mgd of dry weather flow and 20 mgd of wet weather flows. Furthermore, the proposed project would be subject to payment of the County's sewer connection fees, the majority of which would be distributed to the City of Roseville for ongoing and future upgrades to the Dry Creek WWTP.

Payment of sewer connection fees would allow for capacity expansion of the Dry Creek WWTP as necessary to serve cumulative buildout of the WWTP's service area, including the proposed project site. Therefore, the proposed project's incremental contribution to the

¹⁸ City of Roseville. *City of Roseville General Plan 2035*. August 17, 2016.

significant cumulative impact related to wastewater treatment facilities would be less than cumulatively considerable.

Wastewater Conveyance

Upon development of the proposed project, wastewater from the project site shed (Shed 1), as well as the other three sheds (Shed 2: existing Lemos Ranch subdivision, Shed 3: existing residential south of the project site, and Shed 4: Existing lot west of Lemos Ranch subdivision) would be routed through a single six-inch sewer line. Generally, SPMUD's allowable capacity for six-inch sanitary sewer pipes is 0.220 mgd. Per the Sanitary Sewer Study prepared for the proposed project, accounting for existing development within Sheds 2, 3, and 4, as well as the future development of an additional 22 single-family homes within Shed 3 to account for buildout per Shed 3's current zoning designation, the combined peak flow from Sheds 1 through 4 would be approximately 0.173 mgd, which would be below the allowable/remaining capacity within the downstream six-inch sewer pipe of 0.220 mgd. Thus, the existing six-inch sanitary sewer line downstream of the proposed project site has adequate capacity to serve the proposed project, as well as cumulative development within the other three sheds without upsizing of downstream infrastructure. Because the existing sewer line downstream of the proposed project has adequate capacity to serve the project site and cumulative development within the applicable sewer sheds, the proposed project in combination with future buildout in the sewer shed would not have the potential to result in cumulative impacts to wastewater conveyance infrastructure in the project area.

Solid Waste

Solid waste collection services would be provided by Recology and the Western Regional Sanitary Landfill (WRSL) and Material Recovery Facility (MRF). With the current space available and the recovery efforts by the MRF, the WRSL is anticipated to operate through 2058.¹⁹ Development of the project site, along with associated increases in solid waste generation, was anticipated per the Horseshoe Bar/Penryn Community Plan and the Placer County General Plan. The proposed project would be consistent with the land use designations for the site per the Horseshoe Bar/Penryn Community Plan; thus, buildout of the project site has already been anticipated to result in solid waste generation. The proposed project would not be anticipated to result in more solid waste generation than what would have been contemplated in the Horseshoe Bar/Penryn Community Plan. Recology has issued a will-serve letter indicating that the firm would provide weekly solid waste collection service for the project.²⁰

As such, any incremental increase in demand for solid waste collection and disposal services that would result from implementation of the proposed project has generally been anticipated by regional solid waste providers. In addition, the project's anticipated daily

¹⁹ Western Placer Waste Management Authority. *About WPWMA*. Available at <http://www.wpwma.com/about-wpwma/>. Accessed March 2017.

²⁰ Recology Auburn Placer. *RE: 3141 Taylor Road*. February 8, 2017.

and annual waste production would represent approximately 0.1 percent of the WRSL's daily and annual permitted capacity. Therefore, the project would not be considered to contribute significant amounts of waste to the WRSL, and the WRSL would have sufficient capacity to handle waste generated by the project. Accordingly, the proposed project's incremental contribution to cumulative solid waste generation associated with future buildout in the region would not result in a significant cumulative impact.

Conclusion

Based on the above, given that improvements to the Dry Creek WWTP are likely to be needed prior to buildout of the Dry Creek WWTP's service area, the combined impact of cumulative development within the service area would be significant. However, utility providers employ various programs and mechanisms to support provision of services to new development; for example, Placer County has adopted development fees consistent with State law to facilitate the provision of public services for projects consistent with the buildout of the General Plan, and various utility providers charge connection fees and recoup costs of new infrastructure, including wastewater treatment infrastructure, through standard billings for services.

Furthermore, the proposed project would be consistent with the site's current Horseshoe Bar/Penryn Community Plan land use designation of Rural Residential. Therefore, the Community Plan EIR has previously anticipated buildout of the project site, including associated demand on water supply, wastewater, and solid waste services and infrastructure. The Community Plan EIR concluded that buildout of the Horseshoe Bar/Penryn Community Plan, including the project site, would result in less-than-significant impacts to the utilities in the plan area. Because the proposed project would be consistent with the Horseshoe Bar/Penryn Community Plan and would not result in significant increases in demand for utilities in the project area, the project's incremental contribution to the significant cumulative impact would be *less than cumulatively considerable*.

Mitigation Measure(s)

None required.

11.3 ENERGY CONSERVATION

Appendix F of the CEQA Guidelines requires that EIRs include a discussion of the potential energy impacts of a proposed project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

- (1) Decreasing overall per capita energy consumption;
- (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- (3) Increasing reliance on renewable energy sources.

The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2016 California Green Building Standards Code, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to each form of energy supply during construction and operations is provided below.

California Green Building Standards Code

The CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC). The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 sf to ensure that all are working at their maximum capacity according to their design efficiencies; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

Building Energy Efficiency Standards

The 2016 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2013 Building Energy Efficiency Standards resulting in a 28 percent reduction in energy consumption from the 2013 standards for residential structures. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Construction Energy Use

Appendix F of the CEQA Guidelines identifies several potential sources of energy conservation impacts, including the project's construction energy requirements and energy use efficiencies by amount and fuel type. Construction of the proposed project would result in a temporary increase in energy consumption in the area.

For analysis purposes, construction of the proposed project would occur over approximately 13 to 15 months. All construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation, which includes measures to reduce emissions from

vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. Project construction would also be required to comply with all applicable PCAPCD rules and regulations, such as Rule 218 related to architectural coatings and Rule 228 related to fugitive dust. As a result, construction equipment operating at the project site would occur over a relatively short duration in comparison to the operational lifetime of the proposed project, and would be subject to relevant CARB and PCAPCD regulations.

The CARB has recently prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),²¹ which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulations described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Nonetheless, construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction is not anticipated to involve the use of natural gas appliances or equipment. Construction activities would be limited to the hours of 6:00 AM and 8:00 PM on Mondays through Fridays, and between the hours of 8:00 AM and 8:00 PM on Saturdays per Article 9.36.030 of the Placer County Noise Ordinance and Placer County Board of Supervisors Minute Order 90-08.

Electricity Demand

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. However, the base demand for electricity in the area would increase. Overall, construction of the project would be over a relatively short duration in comparison to the operational lifetime of the proposed project and electricity demand from the site would occur intermittently throughout the buildout period of the project. As the site develops, operational electricity demand would become the dominant demand source. Operational electricity demand would be much greater than construction and is discussed further below. It should be noted that standards or regulations specific to construction-related electricity usage do not currently exist.

²¹ California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

Pacific Gas and Electric (PG&E) currently supplies electricity to the project site and would continue to serve the site during construction of the proposed project. Electricity is provided from a variety of PG&E-owned sources including hydropower, natural-gas-fired generators, and renewable energy sources.²² Construction of the proposed project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed PG&E's demand projections, and the temporary increase in electricity demand would not exceed the ability of PG&E's existing infrastructure to handle such an increase. Therefore, project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. As such, the temporary increase in electricity due to project construction activities would not be considered an inefficient, wasteful, and unnecessary consumption of energy, and significant adverse impacts on electricity resources would not occur.

Oil Demand

Construction of the proposed project would involve vehicle trips to and from the project site by workers, delivery vehicles, and hauling trucks. Worker vehicle trips are assumed to utilize gasoline, and delivery and hauling trucks are assumed to utilize diesel fuel. Diesel fuel would also be used to power the construction and off-road equipment necessary for construction activities, including rubber-tired dozers, tractors, excavators, cranes, and other types of equipment. In addition, diesel-fueled portable generators may be used where electricity from the grid cannot be provided or where more immediate electricity is needed, such as for welding or other hand tools. Overall, operation of construction equipment at the project site would occur over a relatively short duration in comparison to the operational lifetime of the proposed project and would be intermittent over the period of construction for the project. Operational oil demand would be much greater than construction and is discussed further below.

A number of federal, State, and local standards and regulations exist that require improvements in vehicle efficiency, fuel economy, cleaner-burning engines, and emissions reductions. For example, as noted above, CARB has adopted the In-Use Off-Road Diesel Vehicle Regulation, which is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce fuel consumption. Any licensed contractor for the project and equipment would have to be in compliance with all applicable regulations, such as the in-use, off-road, heavy-duty vehicle regulation. Thus, the proposed project would comply with existing standards related to construction fuel efficiency. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

²² California Energy Commission. *Power Source Disclosure*. Accessible at <http://www.energy.ca.gov/pcl/>. Accessed January 2018.

Therefore, the temporary increase in gasoline and diesel consumption due to project construction activities would not be an inefficient, wasteful, and unnecessary consumption of energy, and a significant adverse impact on oil resources would not occur.

Conclusion

Construction of the proposed project would result in a temporary increase in demand for energy resources. However, the temporary increase would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand. As such, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy. Therefore, the proposed project would result in a less-than-significant impact on energy resources during construction.

Operational Energy Use

In order to ensure energy implications are considered in project decisions, Appendix F of the CEQA Guidelines requires a discussion of the potential energy impacts of a project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Appendix F identifies several potential methods of evaluating a project's energy use, which are listed as follows and discussed in further detail below, with the exception of the project's construction-related energy requirements and energy use efficiencies, which are discussed above:

- The project's energy requirements and energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Building Energy

Currently, the project site is developed with five structures, an associated water supply well, 65 parking spaces, and an irrigation stock pond. At the time of issuance of the Notice of Preparation, the five structures were not being used.

Electricity and natural gas in the project area is provided by PG&E. PG&E relies on a variety of electricity sources including hydropower, natural-gas-fired generators, and renewable energy

sources to provide electricity to customers.²³ Following implementation of the proposed project, PG&E would continue to provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of school uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, food preparation activities, security systems, and more. In addition, maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment.

The potential project demand for electricity and natural gas was estimated using CalEEMod and is presented in Table 11-12.

Table 11-12		
Estimated Electricity and Natural Gas Consumption		
	Electricity (kWh/yr)	Natural Gas (kBTU/yr)
Proposed Project	289,646	460,716
<i>Source: CalEEMod March 2018 (Appendix E).</i>		

The proposed project would increase the intensity of development within the project site and result in energy demands as shown in Table 11-12. In 2016, development within Placer County consumed a total of 2,938.51 GWh of electricity and 84.07 million therms of natural gas. The project’s energy demands presented in Table 11-12 would represent 0.0099 percent of Placer County’s total electricity consumption and 0.000006 percent of the County’s total natural gas consumption. Such energy demands are likely higher than the energy demand of the formerly operating uses within the project site; however, as shown above, such energy demands would represent a small proportion of total energy demand within the County. Furthermore, increased energy and natural gas demand does not necessarily mean that a project would have an impact related to energy resources. Based on Appendix F of the CEQA Guidelines, a proposed project would result in an impact related to energy resources if a project would result in the inefficient use or waste of energy.

Structures included in the proposed project would be subject to all relevant provisions of the 2016 update of the CBSC, including the 2016 Building Energy Efficiency Standards. Adherence to the most recent CALGreen and the 2016 Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. Furthermore, as discussed in the Greenhouse Gas Emissions section of this chapter, structures included in the proposed project would be designed to exceed energy efficiency standards by between five and 25 percent. Such exceedance was not included in the emissions modeling for the proposed project, thus, the energy consumption rates presented in Table 11-12 represent a conservative estimation of energy consumption, and operation of the proposed project would be anticipated to result in energy consumption below the amount presented in Table 11-12.

²³ California Energy Commission. *Power Source Disclosure*. Accessible at <http://www.energy.ca.gov/pcl/>. Accessed January 2018.

Moreover, future updates to the CBSC will likely provide increasingly stringent efficiency standards, and structures built in compliance with future CBSC would be increasingly more energy efficient. As such, the proposed project would not result in the inefficient or wasteful consumption of electricity or natural gas.

Transportation Energy

The annual VMT from operation of the proposed school facility is anticipated to be approximately 542,341, based on CalEEMod outputs for the project (see Appendix D). The average fuel economy for the U.S. passenger vehicle fleet was 23.9 miles per gallon (mpg) in 2015, the most recent year such data is available.²⁴ An average of 23.9 mpg, and an annual VMT of 542,341 would result in the consumption of 540.29 barrels of gasoline a year. California is estimated to consume approximately 558 million barrels of petroleum per year²⁵ Based on the annual consumption within the State, the proposed project would result in a 0.000097 percent increase in the State's current consumption of gasoline. However, as discussed in Chapter 3, Project Description, of this EIR, a smaller UAIC school is currently operated within Placer County, and the proposed project would replace the existing school facility with a larger facility. Therefore, the energy consumption and project VMT associated with operation of the proposed project would not represent all new sources of energy consumption, and would instead be considered a partial relocation of existing energy consumption as well as an increase in energy consumption.

California leads the nation in registered alternatively-fueled and hybrid vehicles. In addition, State-specific regulations encourage fuel efficiency and reduction of dependence on oil. Improvements in vehicle efficiency and fuel economy standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. Thus, the proposed project would not be considered to result in the inefficient or wasteful consumption of transportation energy.

Conclusion

As discussed above, the proposed project operations would involve an increase in energy consumption. However, the proposed project would comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Accordingly, the proposed project would not be considered to result in a wasteful, inefficient, or unnecessary usage of energy, and impacts related to operational energy would be considered less than significant.

²⁴ U.S. Energy Information Administration. *Total Energy, Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy*. Available at: <https://www.eia.gov/totalenergy/data/browser/?tbl=T01.08#/?f=A&start=200001>. Accessed on January 2018.

²⁵ U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA. Accessed January 2018.

11.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Per CEQA Guidelines Section 15126.2(c), this EIR is required to include consideration of significant irreversible environmental changes that would be caused by the proposed project, should the project be implemented. An impact would be determined to be a significant and irreversible change in the environment if:

- Buildout of the project area could involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of development could generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- Development of the proposed project could involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing and eventual development of the project could result in an unjustified consumption of resources (e.g., the wasteful use of energy).

The proposed project would likely result in or contribute to the following irreversible environmental changes:

- Irreversible consumption of goods and services associated with the future consumers; and
- Irreversible consumption of energy and natural resources associated with the future employees and consumers.

Implementation of the proposed project would result in the long-term commitment of resources to development of the site into a school and cultural center. The most notable significant irreversible impacts would be increased generation of pollutants, and the commitment of non-renewable and/or slowly renewable natural and energy resources, such as lumber and other forest products, mineral resources, and water resources during construction activities. Operations associated with future uses would also consume natural gas and electrical energy. Such irreversible impacts, which are consequences of urban growth, are described in detail in the appropriate technical sections (Chapters 4 through 10) of this EIR.

11.5 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

An EIR must discuss the ways in which a proposed project could foster economic or population growth in the vicinity of the project and how that growth would, in turn, affect the surrounding environment (CEQA Guidelines Section 15126.2[d]). In addition, an EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth could be induced in a number of ways, including through the elimination of obstacles to growth, the stimulation of economic activity within the region, or the establishment of policies or other precedents that directly or indirectly encourage additional growth. Under CEQA, this growth is not to be considered necessarily detrimental, beneficial, or of significant consequence. Induced growth would be considered a significant impact if it can be demonstrated that the potential growth, directly or indirectly, significantly affects the environment. The discussion of the removal of

obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval.

In general, a project could foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, or a change in zoning or General Plan amendment approval), or economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion). A number of issues must be considered when assessing the growth-inducing effects of development plans, such as the proposed project, including the following:

Elimination of Obstacles to Growth: The extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval; and

Economic Effects: The extent to which development of the proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the “multiplier effect.” A “multiplier” is an economic term used to describe interrelationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

Elimination of Obstacles to Growth

Growth-inducing impacts associated with the proposed project would be considered to be any effects of the project allowing for additional growth or an increase in population beyond what was anticipated in the Horseshoe Bar/Penryn Community Plan. The Horseshoe Bar/Penryn Community Plan established and previously analyzed the population growth patterns in the area and, thus, is an appropriate standard to evaluate the impacts of the proposed project on population growth. The proposed project would be consistent with the County’s land use and zoning designation for the site of Rural Residential and Residential-Agriculture, Minimum Lot Area 100,000 square feet, respectively. The proposed project would include demolition of existing structures before redevelopment of the site with a school, Tribal Cultural Center, Education Center, parking areas, and play fields. A school is a use allowed within the zoning designation with approval of a minor Use Permit.

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services, would be expected to support new development. As discussed in Chapter 10, Utilities and Service Systems, the proposed project would be connected to existing infrastructure within the project area. Such connections would not include any upsizing of infrastructure or other improvements that would eliminate obstacles to further growth in the project area. Furthermore, the proposed project would

not include any improvements to the circulation system of the surrounding area that would significantly enhance the capacity of the circulation system, allowing for future growth in the area. As such, the project would not be considered to eliminate any obstacles to growth.

Therefore, because the proposed project is consistent with current County land use and zoning designations for the site, and the infrastructure required for the proposed project would be sized to meet the demands created solely by the project, the proposed project would not be expected to result in growth-inducing impacts.

Economic Effects

Implementation of the project would increase economic activity through the short-term creation of jobs during construction. While the construction industry in California is currently experiencing heightened labor demands, the proposed project is relatively small and would be completed within an approximately two-year construction window. Considering the size of the proposed project, length of the construction period, and size of the existing labor pool within the County and nearby areas, the existing labor pool of construction workers within the County and region would likely be sufficient to meet the demand for construction workers that would be generated by the project. Furthermore, the relatively short construction period of two years reduces the likelihood that any construction workers would relocate to the project area, resulting in direct population growth. Because construction workers can be expected to come from the construction labor pool in Placer County and nearby communities, and the short construction period reduces the likelihood of construction workers relocating to the project area, population growth or increases in housing demand in the region as a result of these jobs is not anticipated.

In addition to construction workers, during operation, the project would employ 35 full-time staff members at the proposed school facilities, up to six staff members at the proposed Tribal Education Center, and two staff members at the Tribal Cultural Center. The majority of such staff would likely be transferred from the existing UAIC facilities in Auburn and, thus, the number of net new full-time jobs created by the project would be relatively minor. Any new staff members employed by the project would likely be UAIC Tribe members currently living in the Placer County region.

As discussed in the Project Description Chapter of this EIR, the UAIC currently operates a smaller school within Placer County, and the proposed project would be used to replace the existing school facility with a larger facility. Thus, the proposed project would be anticipated to primarily serve existing students, and be staffed by current residents of the County, and nearby area, with some expansion in student enrollees and staff. As such, the proposed project would not be expected to result in a level of growth inducement that would create adverse effects on public services and infrastructure systems within the Horseshoe Bar/Penryn Community Plan area. However, considering that the proposed project would result in operation of a larger school facility that would include a tribal cultural center and adult school, neither of which are included in the existing school facility, implementation of the proposed project may result in a greater level of attendance or require additional staff at the project site as compared to the UAIC's existing school facility. Nonetheless, such increased activity is anticipated to be relatively small, and would not result in substantial population, economic growth, and/or construction of housing in the area

11.6 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

According to the CEQA Guidelines Section 15126.2(b), an EIR must include a description of impacts identified as significant and unavoidable, should the proposed action be implemented. When the determination is made that either mitigation is not feasible or only partial mitigation is feasible, such that the impact is not reduced to a less-than-significant level, such impacts would be considered significant and unavoidable. This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigation measures imposed by the County. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the County Board of Supervisors as part of the County's certification action.

The significant and unavoidable impact of the proposed project is listed below.

- 9-2 Study intersections under Existing Plus Project Conditions. Impacts to all study intersections under Existing Plus Project Conditions would be less than significant, with the exception of the Taylor Road/Penryn Road, Taylor Road/Webb Road, and Taylor Road/Horseshoe Bar Road intersections. With implementation of mitigation, the impact to the Taylor Road/Penryn Road intersection is *less than significant*; however, given the lack of feasible mitigation, impacts to the Taylor Road/Webb Road and Taylor Road/Horseshoe Bar Road intersections are *significant and unavoidable*.**
- 11-7 Study intersections under Cumulative Plus Project Conditions. Impacts to all study intersections under Cumulative Plus Project Conditions would be less than significant, with the exception of the Taylor Road/Rippey Road, Taylor Road/Webb Road, and Taylor Road/Horseshoe Bar Road intersections. Given the lack of feasible mitigation, the project's incremental contribution to the significant cumulative impacts at the Taylor Road/Rippey Road, Taylor Road/Webb Road, and Taylor Road/Horseshoe Bar Road intersections would be *cumulatively considerable and significant and unavoidable*.**