

3. EVALUATION OF ENVIRONMENTAL IMPACTS

This section provides an evaluation of the potential environmental impacts of the project. There are 17 Environmental Issues evaluated in Section 3.0, including CEQA Mandatory Findings of Significance.

The **Checklist Discussion/Analysis** provides a detailed discussion of each of the environmental issue checklist questions. The level of significance for each topic is determined by considering the predicted magnitude of the impact. Four levels of impact significance are described in this initial study:

No Impact: No project-related impact to the environment would occur with project development.

Less Than Significant Impact: The impact would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.

Less Than Significant With Mitigation Incorporated: An impact that is “potentially significant” as described below; the incorporation of mitigation measure(s) would reduce the project related impact to a less than significant level.

Potentially Significant Impact: An impact that may have a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected.

Environmental Factors Potentially Affected:

The environmental factors checked below could be potentially affected by this project; however, with the incorporation of mitigation measures, potentially significant impacts are reduced to less than significant level by the project” (CEQA Guidelines Section 15382).

	Aesthetics		Agricultural Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Geology/Soils
X	Hazards	X	Hydrology/Water Quality		Land Use/Planning
	Mineral Resources		Noise		Population & Housing
	Public Services		Recreation		Transportation/ Traffic
X	Utilities/Service Systems	X	Mandatory Findings of Significance		

3.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Setting:

The location of the proposed project is an existing four-way intersection in a rural area south of central Butte County, California. There are several single-family residences on the parcels south of the project site. Butte Community College’s Main Campus is located north of the project site. The majority of the project site’s area is comprised of the existing alignments of Durham-Pentz Road (DPR), Butte Campus Drive (BCD) and Villa Vista Drive (VV). Roadway shoulders consist primarily of open drainage ditches and gravel shoulders. Existing overhead power lines are located along the southern boundary of the DPR of way. The entry to the Butte College Campus has been improved with signs and landscaping. Existing fencing demarcate the adjacent parcels. The surrounding landscape is dotted with buttes that are characteristic of foothill settings in the central part of the County. Clear Creek passes under DPR approximately 900 feet east of the subject intersection.

Discussion of Potential Impacts to Aesthetics:

a-b) No Impact. There are no significant scenic vistas, or other scenic resources within a state scenic highway in the area that will be affected by the proposed project. The project site is currently improved with signage, striping and overhead power lines. The proposed project would result in a change to the appearance of the existing roadway alignments. It would not eliminate access to scenic views or alter the landscapes surrounding the project site.

Mitigation: None Required

c-d) Less Than Significant. Visual impacts are anticipated only during the construction periods, when heavy equipment and construction materials will be present. As described above, the proposed project would result in a change to the appearance of the existing roadway alignments. The signalization of the intersection would introduce facilities that are consistent with major collector roads. No substantial long term visual impact is anticipated, as no significant change in the appearance of the existing site is proposed.

The proposed project would be implemented consistent with the Highway Design Manual and the California Building Code (CBC), as adopted by the County Code. Light “spillover” from the proposed signals and beacons would be reduced through adherence to the above-mentioned design standards. As such, the project would result in potential impacts that are considered less than significant.

Mitigation: None Required

Conclusion:

The project would be required to adhere to existing local, state and federal guidelines and design standards. Furthermore, the project would occur almost entirely within the existing alignments of the area's roadways. Potential impacts to aesthetics would be less than significant and no mitigation is required.

3.2 AGRICULTURE RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X

Setting:

The project site is located in a rural area of central Butte County. The area surrounding the project site is primarily designated as grazing land. A portion of the Butte College Campus is designated “Farmland” by the Farmland Mitigation and Monitoring Program (FMMP) (California Department of Conservation, 2002). The southern portion of the project site traverses an area identified as “Grazing” on the FMMP. While surrounding land uses are designated agricultural, the existing roadways preclude agricultural productivity within the project site.

Discussion of Potential Impacts to Agricultural Resources:

a) No Impact. The FMMP, developed by the California Department of Conservation, identifies the project site as Developed/Urban and Grazing lands. There are no areas of Prime Farmland, Farmland of Statewide Importance, Unique Farmland or Farmland of Local Importance within the project site identified in the FMMP data.

Mitigation: None Required

b) No Impact. There is no conflict with existing zoning for agricultural uses or Williamson Act contracts. It is not expected that this project will require a temporary construction easement on the land designated as Williamson Act Land. According to the FMMP, the site and surrounding parcels are not listed as Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance.

Mitigation: None Required

c) No Impact. The project will not change the existing environment so that farmland could be converted to non-agricultural use.

Mitigation: None Required

Conclusion:

There would be no impacts to agricultural resources. No mitigation is required.

3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

Setting:

California Air Resource Board listed the California designated status of Butte County for meeting the California Ambient Air Quality Standards (CAAQS) as:

Table 1: Attainment Status for Criteria Pollutants

Pollutant	Classification
Carbon monoxide	Attainment
Sulfates	Attainment
Ozone	Non-attainment
Suspended Particulate Matter (PM _{2.5} /PM ₁₀)	Non- attainment
Nitrogen dioxide	Attainment
Sulfur dioxide	Attainment
Lead	Attainment
Visibility Reducing Particles	Unclassified
Hydrogen sulfide	Unclassified

An evaluation of the project's potential impacts must consider the short-term increase in emissions generated by construction activities.

Construction-related activities would create a temporary increase in fugitive dust emissions on the project site and within the immediate vicinity of the project site. The County requires the inclusion of dust suppression measures in all grading plans and appropriate measures intended to reduce construction-related exhaust emissions. Butte County's General Plan and County Code, Chapter 13 (Grading and Minerals), identify the need to reduce fugitive dust and other air quality impacts generated by construction activities. The County utilizes the Butte County Air Quality Management District's (BCAQMD) Indirect Source Review (ISR) guidelines as a means of assessing potentially significant impacts and identifying appropriate mitigation measures in order to reduce the potential impacts to levels

that are less than significant. The ISRG identify indirect sources as “on-road” and “other” mobile sources. The project would not contribute “on-road” indirect sources, as project would not result in dwellings, businesses or other land uses that increase daily vehicle trips. Furthermore, the proposed project would not generate direct, or stationary, sources of criteria pollutants.

Discussion of Potential Impacts to Air Quality:

a) No Impact. This project will not conflict with or obstruct implementation of any air quality plans in Butte County.

Mitigation: None Required

b) Less Than Significant With Mitigation Incorporated. Roadways, intersections and sidewalks are simply conduits that enable vehicular and pedestrian traffic to move from one point to another. A project such as the one proposed does not generate traffic, thereby generating more emissions, as would new development (i.e., new businesses or apartment buildings).

Implementation of the proposed project would result in the generation of short-term construction-related air pollutant emissions. Exhaust emissions from construction equipment would contain reactive organic gases (ROG), nitrogen oxides (NOx), CO and PM₁₀. PM₁₀ emissions would also result from windblown dust (fugitive dust) generated during grading activities.

The County’s General Plan and Code (Chapter 13) require the contractor to minimize generation of dust and other air quality impacts, including development of an Erosion and Sediment Control Plan, where applicable. Furthermore, the Public Works Department requires contractors to implement all applicable BCAQMD Best Available Mitigation Measures (BAMM) to comply with the ISR guidelines.

The proposed project’s construction-generated emissions were estimated using the Sacramento Metropolitan Air Quality Management District’s program Road Construction Emissions Model (Version 5.2). Construction-related emissions would have the potential to exceed the County’s “Level B” threshold of 25 lbs/day for NOx. Projects that are likely to exceed the Level “B” threshold are required to implement all feasible BAMM.

While the implementation of BAMM and the development of an erosion and sediment control plan are standard conditions of grading permit acquisition, County Public Works projects are exempt from the grading permit process. In lieu thereof, the following mitigation measures shall be implemented to ensure compliance with applicable air quality standards:

MM 3.3.1 To comply with Chapter 13 of the County Code and BCAQMD Rules 200 and 205 (Air Quality Nuisances and Fugitive Dust respectively), the Public Works Department shall require implementation of all applicable BAMM in project plans and specifications. As part of this requirement, the contractor shall submit a Pollution Control Plan that shall include, at a minimum, all applicable dust mitigation measures below:

- Water all active construction areas at least twice daily. The frequency should be based on the type of operation, soil conditions and wind exposure.
- Apply chemical soil stabilizers to inactive construction areas (disturbed areas that are unused for at least four consecutive days, unless wind conditions dictate application in less than four days) to control dust emissions. Dust emissions should be controlled at the site for both active and inactive construction areas throughout the entire construction period (including holidays).
- Limit vehicle speeds to 15 mph on unpaved roads.

- Suspend land clearing, grading, earth moving, or excavation activities when wind speeds exceed 20 mph.
- If applicable, apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operation and hydro-seed the area.
- Cover inactive storage piles.
- Provide paved (or dust palliative treated) apron onto the project site.
- Following daily construction activities sweep or wash paved streets adjacent to the site where visible silt or mud deposits have accumulated due to construction activities.
- Upon completion of construction activities all exposed ground surfaces shall be treated sufficiently to minimize fugitive dust emissions (dust clouds caused by wind, traffic, or other disturbances to exposed ground surfaces).

Timing & Implementation: Contractor to prepare Pollution Control Plan for Public Works Department approval prior to notice to proceed. Implement plan actions during and post construction.

Enforcement & Monitoring: Butte County Department of Public Works and contractor through ongoing site inspections

MM 3.3.2 The following measures would reduce NOx emissions from construction equipment, and represent a level of reasonable control that would reduce these emissions to a less than significant level.

- Prior to commencement of any grading or construction, a NOx reduction plan shall be prepared and submitted for approval by the Public Works Department demonstrating that heavy-duty (> 50 horse-power) off-road vehicles to be used during construction, including owned, leased and subcontracted vehicles, will achieve a project-wide, fleet average 20 percent NOx reduction compared to the most recent CARB fleet average at the time of construction.
- Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
- The NOx reduction plan shall include a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that would be used an aggregate of 40 or more hours during any portion of the construction project. The inventory should include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment.

Timing & Implementation: Contractor to prepare NOx reduction plan prior to commencement of grading activities and implement plan actions during construction

Enforcement & Monitoring: Butte County Department of Public Works and contractor through ongoing site inspections

c) Less Than Significant. Since the project will not contribute to an increase in vehicle traffic, a cumulative increase in air emissions is not expected.

Mitigation: None Required

d) Less Than Significant. The project site is partly within the boundaries of the Butte College Campus. School sites are considered sensitive receptors. The Gymnasium and parking lot at the southern extent of the campus-proper are approximately 2,000 feet from the project intersection. Training facilities for the

College's Police Academy and the College's track and field stadium are approximately 1,500 feet northwest and northeast of the project intersection respectively. California Health and Safety Code Section 42301.6, requires the Air Pollution Control Officer (APCO), to prepare and issue a public notice prior to approving a permit to construct for new source of hazardous air emissions when the new source is within 1,000 feet of a school. Since there will be no new source of hazardous air emissions (construction related activities are not considered a new source of hazardous air emissions by the BCAQMD) noticing per Section 42301.6 does not need to take place. Furthermore, the project is not expected to generate substantial concentrations of criteria pollutants due to its limited spatial extent and temporary nature. In addition, the project would be required to adhere to applicable pollution control standards and implement all applicable BMM. Therefore, potential impacts to sensitive receptors would occur at levels considered less than significant.

Mitigation: None Required

e) **Less Than Significant.** No new odor producing activities are proposed, other than that associated with equipment exhaust during construction activities. Diesel fumes may be noticeable in the vicinity of the site. However, construction-related diesel fume generation will be short-term. Potential impacts resulting from the generation of odors would be less than significant.

Mitigation: None Required

Conclusion:

Impacts to air quality as a result of the project would be construction related and temporary in nature. Adherence to **Mitigation Measures 3.3.1 and 3.3.2**, which call for standard control of construction-related dust, nuances and emissions, will reduce these temporary impacts to a less than significant level.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Setting:

A (draft) Delineation of Waters of the United States (Delineation) was prepared for the proposed project in May of 2007. The purpose of the Delineation was to identify the location and jurisdictional status of water features located within the project area. In addition, a Biological Resource Assessment (BRA) was conducted for the proposed project in June of 2007.

The purpose of the BRA was to identify special status biological resources within the project site. Data from the California Native Plant Society (CNPS), National Fish and Wildlife Service (USFWS) and the state Department of Fish and Game (DFG) were consulted to ascertain the likelihood of special status biological resources occurring within the vicinity of the project site. Once a list of biological resources potentially occurring in the project area was established, field surveys were conducted to identify whether these resources were likely to occur within the project site. The following special-status biological resources have no potential for occurrence in the project site:

- Fish
- Invertebrates
- Plants
- Sensitive Natural Communities

According to project plans, the entire site is approximately 2.39 acres. As the majority of the site is existing roadways, the disturbed areas would occur primarily along the roadway shoulders where widening, facilities installation and drainage improvements would occur. The disturbed area would equal approximately 35,655 square feet (0.82 acres). The project site is located in a rural area of the County that has the potential to support a large number of sensitive biological resources. However, the physical conditions within the project site preclude nearly all the resources that have the potential to occur in the area. No special-status species were observed in the survey area during the field surveys conducted for the BRA. Pre-jurisdictional waters were identified on the project site during the Delineation that was conducted for the proposed project.

The Butte County General Plan, County Code, the BRA and the Delineation were consulted during the following evaluation of the proposed project’s potential impacts to biological resources.

Discussion of Potential Impacts to Biological Resources:

a) Less Than Significant With Mitigation Incorporated. No candidate, sensitive, or special-status wildlife species were observed during the field surveys of the project area. The potential for special status species to occur within a 5-mile radius of the project site was identified via the California Natural Diversity Database (CNDDDB). US Fish and Wildlife (USFWS) data were also consulted to identify the potential for federally-listed species to occur in the project area and to identify whether the project site occurs within designated critical habitat(s). The CNDDDB identified numerous documented special-status species occurrences in the surrounding area. However, as described above, the project site lacks the physical characteristics (habitat) necessary to support most of the special-status species that have the potential to occur in the area. The “Special-Status Species” table of the BRA (Table 1, pg 8) identifies special status species that have the potential to occur within the project area followed by the species’ potential for occurrence within the project site. According to the BRA, two special-status biological resources have a “low” potential and two have a “moderate” potential to occur:

Table 2: Potentially Occurring Biological Resources

Species	Status	Potential
Northwestern Pond Turtle	CA Species of Special Concern	Low
Silver-haired Bat	CA Species of Special Concern	Low
Swainson’s Hawk	State Threatened	Moderate
Raptors/Migratory Birds	MBTA, CA Fish and Game Code	Moderate

A low potential for occurrence indicates field surveys identified sub-marginal habitat for the species within the project site. Protocol-level surveys are not recommended under these circumstances.

Low Potential

The Northwestern pond turtle (*Emys marmorata marmorata*) and the silver-haired bat (*Lasionycteris noctivagans*) are listed as DFG Species of Special Concern. The BRA identifies potentially suitable habitat for the pond turtle and potential foraging habitat for the silver-haired bat in the riparian area approximately 300 feet east of the subject intersection. The riparian habitat is created by a small, unnamed tributary to Clear Creek, which flows under DPR approximately 650 feet further to the east. The proposed project would not impact the riparian habitat associated with the unnamed tributary. As such, potential impacts to the northwestern pond turtle and the silver-haired bat would be considered less than significant.

Moderate Potential

The Swainson’s hawk (*Buteo swainsoni*) is a state-listed threatened species. The BRA identifies potential Swainson’s hawk foraging habitat adjacent to the roadways in the project area. Finally, nesting migratory

birds and raptors (*Falconiformes* and *Strigiformes*) are protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (§3503.5) respectively. The BRA identifies the large trees in the riparian setting along Clear Creek as suitable breeding habitat for migratory birds and raptors. These large trees are approximately 300 feet east of the project intersection.

Migratory Birds/Raptors: Potential Impacts

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) prohibits the take, sale, and harassment of migratory birds, including raptors. Nesting raptors are protected from take by CA Fish and Game Code (§3500). Some of the large trees adjacent to the project site provide suitable nesting habitat for special status migratory birds and/or raptors. Project activities, such as clearing, grading and the operation of equipment could impact nesting special-status birds adjacent to the project site. This is a potentially significant impact that shall be mitigated through implementation of the following measure:

MM 3.4.1 If grading, construction or vegetation removal are proposed between March 1st and September 15th, a protocol-level, preconstruction field survey shall be conducted by a qualified biologist or ornithologist to identify whether special status birds are nesting in or adjacent to, the project site. The survey shall take place in April-May, or 30 days prior to construction activities, to determine the presence and location of nesting raptors/migratory birds in the project area. Should nesting special-status birds be observed and potentially impacted, appropriate mitigation or avoidance measures will be required in consultation with DFG. Direct take of active nests, eggs or birds is prohibited by the Fish and Game Code. Construction activities should not occur within 300 feet of active nests. If nesting special-status birds are not identified during the protocol-level field survey(s), no further action would be required relative to this mitigation measure. Relative to this mitigation measure, activities proposed between September 16th and February 29th do not require pre-construction surveys.

Timing & Implementation: Prior to construction activities, the Public Works Department shall ensure that all necessary field surveys are conducted. If no nesting raptors are identified during the field surveys, construction activities may proceed unconstrained, relative to this mitigation measure.

Enforcement & Monitoring: Public Works Department staff and a qualified biologist or ornithologist, if necessary, shall monitor construction activities to ensure implementation of the above measures.

Swainson's hawk: Potential Impacts

The BRA identifies the potential for Swainson's hawks (*Buteo swainsoni*) to occur within the project area as "moderate." This species is listed as "threatened" by the state Fish and Game Commission. The species tends to forage in grasslands and agricultural fields. Individuals may forage within a 10-mile radius of an occupied nest. Impacts to potential foraging habitat for this species are considered potentially significant. According to the BRA, the project site contains approximately .28 acres of potential Swainson's hawk foraging habitat. Most of this potential foraging habitat, while within the project boundary on site plans, is outside the anticipated disturbed areas along the roadway shoulders. The anticipated disturbed area identified in site plans coincides with approximately .04 acres of the potential foraging habitat identified in the BRA.

The DFG *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley* (Staff Report) identifies appropriate mitigation for potential impacts to Swainson's hawk foraging habitat:

- Projects within one mile of an active nest must mitigate lost foraging habitat at a ratio of 1:1.
- Projects located more than 1 mile, but less than 5 miles of an active nest must mitigate impacted foraging habitat at a ratio of 0.75 to 1.

- Projects located more than 5 miles, but less than 10 miles of an active nest must mitigate impacted foraging habitat at a ratio of 0.5 to 1.

These mitigation ratios reflect a basic premise of the Gravity Model: optimal foraging habitat is inversely related to the distance an individual must travel from the nest. The nearest recorded Swainson’s hawk nest was identified through the CNDDDB approximately 7.5 miles from the proposed project site.

The Staff Report includes a temporal standard, which is used to establish whether a recorded nest can be considered “active.” According to the Staff Report, an active nest is one that has been “used during one or more of the last 5 years.” The CNDDDB data that were consulted for this study were last updated in February of 2008. The most recent documented occurrence of an occupied Swainson’s hawk nest within 10 miles of the project site dates from 1998. Based on the standards established in the Staff Report, the proposed project would not result in potential impacts to this species through the conversion of potential foraging habitat, as there are no active nests documented within 10 miles of the project site.

The project site is located in an area of valley/foothill transition near the eastern extent of the Swainson’s hawk range, as identified in the DFG range map for the species (CA Wildlife Habitat Relationships System, 2002). This is further evidenced by the locations of the three recorded nesting sites relative to the project site. All three historic sites were recorded just west of the Midway alignment, which is over seven miles west of the project site. As would be expected, aerial photographs of the land between the Midway and the project site show a marked transition from agricultural to foothill landscapes.

The proposed project is not likely to generate potentially significant impacts to the state listed Swainson’s hawk. However, as the absence of documented occurrences is not necessarily indicative of the absence of a species, Swainson’s hawks may occur in the project area. Therefore, the following shall be implemented:

MM 3.4.2 The County shall consult with the DFG in order to verify the absence of active nesting sites within 10 miles of the project site. If the DFG concurs, no further mitigation is required relative to potential Swainson’s hawk foraging habitat.

If an active nest is identified within 10 miles of the project site by the DFG during consultation, the county shall mitigate potential impacts to Swainson’s hawk foraging habitat in a manner that is consistent with the DFG *Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley*. Mitigation may include the provision of habitat management lands, habitat enhancement or payment to an in-lieu fund, as determined appropriate by the DFG.

Timing & Implementation: Prior to construction activities, the Public Works Department shall ensure that the DFG is consulted relative to potential impacts to Swainson’s hawk foraging habitat. DFG approval will be contingent on project consistency with the *Staff Report*.

Enforcement & Monitoring: Public Works Department staff shall ensure that the requirements set forth in the *Staff Report*, as identified through consultation with the DFG, are incorporated in to the proposed project.

MM 3.4.3 Mitigation Measure 3.4.1, as listed above, requires protocol-level preconstruction raptor surveys to identify whether nesting special-status birds are present within the project area. If nesting Swainson’s hawks are identified during preconstruction raptor surveys, the county shall implement a non-disturbance setback that is consistent with DFG standards. Pursuant to DFG standards, no intensive new disturbances shall be initiated

within ¼ to ½ mile of an active nest. The non-disturbance buffer, established in consultation with the DFG, would be based on the area’s level of existing development. Grading, excavating and other intensive disturbances shall not occur within the non-disturbance buffer until the offspring have fledged, as identified by a qualified biologist/ornithologist. Relative to this mitigation measure, no further actions are required if nesting Swainson’s hawks are not identified during preconstruction surveys.

Timing & Implementation: If nesting Swainson’s hawks are identified during pre-construction survey(s), the Public Works Department shall ensure that the DFG is consulted relative to potential impacts to nesting Swainson’s hawks. DFG approval will be contingent on adequate mitigation of potential impacts to nesting Swainson’s hawks, pursuant to DFG standards.

Enforcement & Monitoring: Public Works Department staff shall ensure that the requirements set forth in the *Staff Report*, as identified through consultation with the DFG, are incorporated in to the proposed project.

The project would not result in direct impacts to special-status species. Potential indirect impacts, including habitat modification, would be mitigated through implementation of **Mitigation Measures 3.4.1, 3.4.2 and 3.4.3.**

b) Less Than Significant. Through an evaluation of the CNDDDB and site surveys, the BRA identified “no” potential for sensitive natural communities to occur within the BSA.

Mitigation: None Required

c) Less Than Significant With Mitigation Incorporated. A (draft) Delineation of Waters of the U.S. was conducted by Gallaway Consulting, Inc. for the proposed project. The linear pre-jurisdictional features identified in the Delineation include ephemeral, intermittent and roadside ditch types. In addition, one seasonal wetland is identified in the draft Delineation. Pending US Army Corps of Engineers (USACE) verification, the following jurisdictional features were delineated on the project site:

Table 3: Jurisdictional Waters in draft Delineation

Feature Type	Length	Area	
		Feet ²	Acres
Ephemeral (3)	139.3	--	--
Intermittent	10.9	--	--
Roadside Ditch	131.9	--	--
Subtotal	282.1	272.8	.006
Seasonal Wetland	--	257.9	.006
Total	282.1	530.7	.012

The USACE regulates discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act. “Waters of the U.S.” include a range of wet environments such as lakes, rivers, streams (including intermittent), mudflats, sandflats, wetlands (including vernal pools and swales), sloughs and wet meadows.

Furthermore, the Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. As a condition of

§404 permit acquisition, projects are required to obtain water quality certification from the Central Valley Regional Water Quality Control Board (RWQCB).

The DFG is a trustee agency that has jurisdiction under the California Fish and Game Code (§1600 et seq.). Section 1602 requires state and local government agencies, public utilities and private entities to notify the DFG if a proposed project will:

substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds... except when the department has been notified pursuant to Section 1601.

The acreages described in the draft Delineation should be considered preliminary, subject to review and modification by the USACE during the wetland delineation verification process. As a result of the potential impacts to Jurisdictional Waters of the State and Waters of the US, the county shall implement the following measure:

MM 3.4.4 All jurisdictional waters, which may be impacted by the project, shall be avoided during construction activities to the extent practicable through implementation of construction activity setbacks. Temporary impacts shall be mitigated through restoration of area and function of all impacted water features in the project site. To accomplish this, the following shall be required:

- The proponent shall enter into consultation with the USACE. If necessary, a Clean Water Act §404 permit will be obtained from the USACE before any filling, dredging, or modification of jurisdictional waters can occur. The permit will be conditional and will contain minimization and mitigation measures developed through consultation with the USACE.
- If a §404 permit will be required by the USACE, the county shall obtain necessary certification/approval from the RWQCB pursuant to §401 of the Clean Water Act.
- The applicant shall enter into consultation with the DFG. If necessary, a Streambed Alteration Agreement will be obtained before in-stream construction activities commence. If required, the agreement would contain site-specific minimization and mitigation measures identified through consultation with the DFG.

Timing & Implementation: Consultation agreements and permitting to occur prior to commencement of construction activities. Avoidance will occur during project construction. If identified through consultation with the regulatory agencies, mitigation will be conducted prior to project completion.

Enforcement & Monitoring: Butte County Department of Public Works, DFG, USACE and the RWQCB.

d) Less Than Significant With Mitigation Incorporated. The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) and Fish and Game Code (§3500) prohibit the take, sale, and harassment of migratory birds and/or raptors. No special-status species were observed during the course of field surveys for the preparation of the BRA. One active Swainson's hawk nest was identified within a 10 miles of the project site. There is potential Swainson's hawk foraging habitat within the project site. Furthermore, there is

potential nesting habitat for special status bird species, including Swainson's hawks, adjacent to the project site. As described in Section 3.4.a above, **Mitigation Measures 3.4.1** and **3.4.2** shall be implemented by the proposed project. To reduce the potential impacts to migratory birds, raptors, and potential Swainson's hawk foraging habitat, **Mitigation Measures 3.4.1** and **Mitigation Measure 3.4.2** shall be implemented. Relative to 4.d, no other potential impacts are anticipated. As such, potential impacts to migratory wildlife and nursery sites would occur at levels considered less than significant with mitigation incorporated.

e) No Impact. The County has no policies, ordinances or plans which explicitly protect specific biological resources. However, ordinances identified in the County Code and policies set forth in the General Plan do establish County standards pertaining to biological resources. For example, Chapter 13 of the County Code (Grading and Mining) identifies the purpose of the Grading Article:

...is noted for its scenic natural beauty, for its streams, creeks, and vernal pools ...vegetation including rare and endangered plant species...fish and other wildlife, and for its sources of water... The purpose of this article is the control of erosion and siltation, the enhancement of slope stability, the protection of said resources and the prevention of related environmental damage by establishing standards and requiring permits for grading.

Policies 6.5.a through 6.5.d (Biological Habitat) in the Land Use Element of the General Plan further identify the County's standards with regard to biological resources. The proposed project would not conflict with any local plans or policies that protect biological resources. The project would be required to adhere to the mitigation measures and standards/permitting requirements of regulatory agencies, as set forth in this study. With regard to local plans, policies and ordinances, the proposed project would result in no impact.

Mitigation: None Required

f) No Impact. No habitat conservation plans, Natural Community Conservation Plans or similar plans apply to the project area.

Mitigation: None Required

Conclusion:

The project could have potentially significant impacts on a state listed bird species, special status migratory birds and raptors, potential Swainson's hawk foraging habitat and jurisdictional waters of the State and waters of the US. However, the mitigation measures presented in this Study would reduce these potential impacts to levels that are less than significant with mitigation incorporated.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Setting:

The location of the proposed project is in a rural area of central Butte County, CA. Ethnographic information indicates this area of the County was occupied by the Konkow-Maidu. Historic resources in this area of the County include evidence of early exploration and settlement activities by Spanish, Mexican and American citizens. These cultural resources may include artifacts associated with early settlement activities, the Gold Rush or the development of transportation facilities developed during the State's explosive growth in the wake of the Gold Rush.

Cultural Research Associates (CRA) conducted an archaeological evaluation of the proposed project in June of 2007. The evaluation included a records search, consultation with potentially-interested Native American parties and a pedestrian field survey. The purpose of the archaeological evaluation was to identify the proposed project's potential impacts to cultural resources.

Records Search: The archival records search, which was conducted at the Northeast Information Center of the California Historical Resources Inventory System, produced the following results:

- No prehistoric resources have been recorded on the project site or in its vicinity.
- No historic resources have been recorded on the project site or in its vicinity.
- The project area has not been previously surveyed by a professional archaeologist.

Consultation with Interested Parties: CRA contacted the Native American Heritage Commission (NAHC) in May of 2007 to identify whether the project site contained recorded sacred lands. The NAHC identified no sacred lands within the project area. Consultation with a variety of local tribal groups that may possess information regarding cultural resources within the project area was also conducted. None of the parties have raised concerns regarding the project's potential to impact specific cultural resources.

Field Survey: CRA conducted a field survey of the site in May of 2007. The field survey identified no cultural resources (prehistoric or historic).

The archaeological evaluation identified no cultural resources within the project site that would be impacted through project implementation. Thus, the project would generate potential impacts only to cultural resources that are currently unidentified.

Discussion of Potential Impacts to Cultural Resources:

a - d) Less than Significant with Mitigation Incorporated. As identified in the Archaeological Survey Report, there are no known historic resources within the project site. Furthermore, no evidence of prehistoric, archaeological, paleontological or protohistoric resources are located within or immediately adjacent to the project site. These findings are based on a records search, consultation with interested parties and a field survey, conducted by a professional archaeologist.

The proposed project is not expected to result in potentially significant impacts to cultural resources, including human remains. However, there is the potential for unknown/undocumented cultural resources, including human remains, to be uncovered during work activities. Pursuant to Health and Safety Code (§7050.5), the Coroner must be contacted if previously unidentified human remains are uncovered during construction activities. Previously unidentified human remains are subject to the regulations set forth in Public Resources Code (§5097.98).

Impacts to previously unidentified cultural resources, including human remains, would be potentially significant. Therefore, the following shall be implemented:

MM 3.5.1 A note shall be placed on the final construction plans stating: *“Should cultural resources be encountered, the supervising contractor will stop all work within 100-feet of the find. The supervising contractor shall be responsible for reporting any such findings to the Public Works Department, and a qualified archaeologist will be contacted to conduct meetings with on-site employee, determine appropriate mitigation measures, and monitor the referenced mitigation measures.”*

All mitigation measures determined by the Public Works Department to be appropriate for this project shall be implemented pursuant to the terms of the archaeologist’s report.

Timing & Implementation: Prior to final construction plan approval and during work on site.

Enforcement & Monitoring: Butte County Department of Public Works, supervising contractor

MM 3.5.2 A note shall be placed on final plans stating: *“If human remains are unearthed during construction, the construction contractor must cease work within 100-feet of the discovery and notify the County Coroner per Health and Safety Code §7050.5. No further disturbance may occur until the Coroner has made the necessary findings as to the origins and disposition pursuant to Public Resource Code section 5097.98.”*

Timing & Implementation: Prior to final construction plan approval and during work on site.

Enforcement & Monitoring: Butte County Department of Public Works, supervising contractor

Adherence to applicable regulations, including the Health and Safety and Public Resources Codes, as required by **Mitigation Measures 3.5.1** and **3.5.2**, would ensure potential impacts to previously unidentified cultural resources occur at levels that are less than significant with mitigation incorporated.

Conclusion:

There are no known cultural resources in the project area. State Public Resources and Health and Safety Codes establish standards for projects that uncover previously unidentified cultural resources or human remains. In the event that construction activities uncover previously unknown/undocumented cultural resources, **Mitigation Measures 3.5.1** and **3.5.2** will reduce potential impacts to less than significant levels.

3.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

Setting:

The proposed intersection improvements would not result in the construction of structures. As the project would not result in land use changes, the distribution of people in the project area would not be altered as a result of the proposed intersection improvements. Pursuant to §15382 of the CEQA Guidelines, a “Significant Effect on the Environment” is described as:

...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project...

The project area contains a series of buttes over 300 feet in elevation. However, the topography on the project site is relatively flat with an elevation of approximately 265 to 275 feet above sea level. The project area generally slopes from northeast to southwest. According to the Butte County General Plan’s Hazards and Safety Element, the site:

- has highly expansive soils
- has low liquefaction potential
- has moderate erosion potential
- has low landslide potential
- is not within a subsidence zone
- is within an earthquake aftershock epicenter region

Discussion of Potential Impacts to Geology and Soils:

a.i – a.iv) Less Than Significant.

i) The only designated Alquist-Priolo Earthquake Fault Zone in Butte County is the Cleveland Hills Fault, located southeast of the City of Oroville. The 1994 Fault Activity Map has classified the fault as inactive (Bryant, W. A., 2005). The site is in proximity to an inferred, but undocumented, fault zone. Potential impacts from known faults would not include rupture at the project site.

ii) The project site is subject to potential ground shaking, generated by earthquakes both within and outside of Butte County. Ground shaking has the potential to impact bridges and roadways. The project will be required to adhere to the relevant design standards of the California Building Code (CBC), as adopted by the County Code (Chapter 26). The design standards specifically address appropriate design features for facilities that may be subjected to seismic events. By adhering to the required design criteria of the CBC, as adopted by the County Code, there would be less than significant potential impacts resulting from seismic ground shaking.

iii) Soils containing a significant amount of clay tend to change in volume as moisture levels fluctuate. Structures built on this type of soil can suffer structural damage from differential movement of foundations and cracking of roadways and foundations. The Butte County General Plan's Expansive Soils Map identifies the project site as having expansive soils. As described above, the project would be required to adhere to appropriate county design standards. These standards include specific best management practices (BMPs) for projects that may be exposed to ground failure and/or liquefaction. As such, potential impacts would be less than significant.

iv) The project will not cause or contribute to landslides; it is not within a documented landslide area. As the project site is the existing alignments of the area's roadways, activities would not occur in the vicinity of steep slopes. There would be no landslide hazards within the project site beyond existing conditions. Therefore, there would be no impact.

Mitigation: None Required

b) Less Than Significant With Mitigation Incorporated. Since the ground surface will be disturbed by grading and use of construction equipment, there is an increased potential for erosion during the construction process. The erosion potential of the soils on the project site is identified as "moderate" in the County's General Plan. Potential erosion impacts arising from construction activities will be temporary, and will cease once work is completed. As the project would result in the disturbance of the ground surface, the following measure shall be implemented:

MM 3.6.1 As part of the construction plans for the project; the contractor shall prepare a Pollution Control Plan to include all applicable storm water pollution and erosion control BMPs required during construction. As part of project plans and specifications, the Public Works Department shall prepare final erosion control plans and specifications for post-construction conditions to be implemented by the construction contractor.

Timing & Implementation: Prior to, during, and after construction

Enforcement & Monitoring: Butte County Department of Public Works, Contractor

Implementation of **Mitigation Measure 3.6.1** and **Mitigation Measure 3.3.1**, which requires implementation of site-specific BMPs, would ensure potential soil erosion impacts occur at levels that are less than significant with mitigation incorporated.

c-d) Less Than Significant. The potential for liquefaction is generally low in the project area, as described on the Butte County Safety Element, Liquefaction Potential Map. The CBC identifies specific

standards for projects that may occur in areas subjected to landslides, lateral spreading, subsidence, liquefaction or collapse. The project would be required to adhere to the applicable standards of the CBC and County Code, including implementation of appropriate, site-specific BMPs. Therefore, the project would generate less than significant potential impacts resulting from landslides, lateral spreading, subsidence, liquefaction or collapse.

Mitigation: None Required

e) No Impact. No on-site wastewater disposal systems are proposed with this project.

Mitigation: None Required

Conclusion:

There is the potential for the project to result in impacts due to the presence of potentially expansive soils and the erosion potential on the project site. Adherence to the County's standard construction protocols, including CBC compliance, and implementation of the mitigation measures presented in this section, would ensure less than significant potential impacts.

3.7 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X		
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Setting:

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as: "...a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed" (California Code of Regulations, Title 22, Section 66260.10).

Chemical and physical properties cause a substance to be considered hazardous, including the properties of toxicity, ignitability, corrosivity, and reactivity. Toxicity, ignitability, corrosivity, and reactivity are defined in the CCR, Title 22, Sections 66261.20-66261.24. Factors that influence the health effects of

exposure to hazardous material include the dose to which the person is exposed, the frequency of exposure, the exposure pathway, and individual susceptibility.

Transport of hazardous materials is regulated by both federal and state agencies. The U.S. Department of Transportation (DOT) has the regulatory responsibility for the safe transportation of hazardous materials between states. DOT regulations (Code of Federal Regulations Title 49 [49 CFR]) govern all means of transportation.

State regulations concerning the transport of hazardous materials are contained in California Code of Regulations, Title 22, Chapter 13. Two state agencies, the Highway Patrol and the Department of Transportation, are primarily responsible for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.

Discussion of Potential Impacts from Hazards and Hazardous Materials:

a) Less Than Significant. The hazardous materials typically used during the construction of a roadway and related facilities are hot mix asphalt that is composed of aggregate and asphalt cement, a viscous petroleum product. Hot mix asphalt cools rapidly and hardens once applied, and the low potential for fire hazard associated with this material is eliminated once it hardens. The only other potentially hazardous materials that would be used during project construction would be motor vehicle fuels and oils that would present a minor hazard, and only if spillage occurs.

Any potential for the release of hazardous materials into the environment is regulated through existing federal and state laws. These regulations require emergency response from local agencies to contain hazardous materials. The Butte County Interagency Hazardous Materials Team would respond to relevant emergencies or accidents in the area. Furthermore, the construction activities associated with the proposed project would be temporary. There would be no increased likelihood of the “routine” transport of toxic materials or substances once the project is completed. According to the Safety Element of the Butte County General Plan, “nearly all” of the hazardous waste that is transported in the county is carried by truck on the state highway system.

Mitigation: None Required

b) Less Than Significant With Mitigation Incorporated. Construction activities associated with the project would include refueling and minor onsite maintenance of construction equipment, which could lead to minor fuel and oil spills. The use and handling of hazardous materials during construction activities would occur in accordance with applicable federal, state, and local laws including California Occupational Health and Safety Administration (CalOSHA) requirements. If any fuel spills occur, they would take place in areas that are largely undeveloped, and spills would be minor. Nevertheless, such spills are considered potentially significant unless mitigation is incorporated. Mitigation Measure 3.6.1, as described in Section 3.6 above (Geology and Soils), requires development of an approved Pollution Control Plan. Implementation of **Mitigation Measure 3.6.1** would ensure less than significant potential impacts resulting from the accidental release of hazardous materials into the environment.

Mitigation: Mitigation Measure 3.6.1

c) Less Than Significant With Mitigation Incorporated. The project would not emit any hazardous substances other than the fumes generated by hot mix asphalt, as described above. Portions of the project site are located within the Butte Community College Campus. The College’s baseball field and track and field facilities are located over 1,000 feet north of the Durham-Pentz Road alignment. The Campus Center, Quad and Library are approximately 2,500 feet north of the Durham-Pentz Road alignment. The CEQA Guidelines (§15186: School Facilities) link PRC §21151.4 and §21151.8 to ensure projects do not impact schools through the emission of toxic substances. The Guidelines refer to the construction of facilities that would be expected to generate potentially significant emissions, not the construction

activities themselves. Any potential impacts that could be generated by the project would be temporary, as they would be the result of construction activities, not the long-term functioning of the proposed facilities. The proposed project would not generate the long-term likelihood of increased hazardous emissions. Potential air quality emission and/or the accidental release of toxic substances during construction of the proposed project would be avoided through implementation of **Mitigation Measures 3.3.1 and 3.6.1**. Therefore, with regard to hazardous emissions near a school, the project would generate less than significant impacts with mitigation incorporated.

Mitigation: Mitigation Measures 3.3.1 and 3.6.1

d) No Impact. There are no properties or sites listed on the Cortese list within or near the project location. The nearest listed site, as identified by the CA Department of Toxic Substances Control, is over 4,500 feet east of the proposed project site. The site is identified as a “Geotracker” underground leaking fuel tank site at the Durham-Pentz Road/Clark Road Intersection. Thus, the proposed project would result in no impacts.

Mitigation: None Required

e) No Impact. The project is not located near a public airport, public use airport, or airport land-use plan. Paradise Skypark, the nearest documented facility, is over 4 miles northeast of the proposed project site. Therefore, there would be no safety hazard for people residing or working in the project area.

Mitigation: None Required

f) No Impact. The project is not located near a private airstrip. Therefore, there would be no safety hazard for people residing or working in the project area that is associated with airstrips.

Mitigation: None Required

g) No Impact. The proposed project will not block or restrict a designated evacuation route or access to an emergency facility. Once completed the project would provide an intersection that promotes a more efficient flow of traffic. One of the desired outcomes of the potential project is to reduce the number of traffic related accidents and disruptions on the project site. Construction activities would result in temporary disruptions at the project site. The County Code establishes construction site standards through adoption of the CBC, which ensure construction site safety. The temporary activities associated with project construction would not result in potentially significant impacts, as the project would adhere to standard traffic control and safety measures identified in the CBC. The long-term functioning and safety conditions of the roadways and intersection in the project site are expected to improve upon project completion.

Mitigation: None Required

h) Less Than Significant Impact. The proposed project would not generate structures or dwelling units. There would not be an increase in human populations, either transient or resident, within the project site upon project completion. While fire hazards are generally high in the project area, the proposed project would not place individuals or structures at risk above current conditions. Through the improvements proposed, emergency response conditions will likely improve in the project area.

Mitigation: None Required

Conclusion:

There are no potentially significant impacts resulting from hazards or hazardous materials, with the exception of the potential for spillage of materials related to refueling of equipment and oil changing activities. **Mitigation Measures 3.3.1 and 3.6.1** will ensure that potential impacts are reduced to levels that are less than significant with mitigation incorporated.

3.8 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X		
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			X	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

Setting:

Butte County is part of the Sacramento River Basin Watershed. Numerous streams and rivers drain the western slopes of the Sierra Nevada and Cascades, emptying into the Sacramento River. Surface water quality is good to excellent, except for local degradation as streams pass through urbanized areas. Large quantities of high quality ground water exist in the recent alluvial and Tuscan Formation strata of the valley floor. In the foothill and mountain areas, ground water is generally not abundant and occurs mostly in fracture zones. Various areas of the Sacramento Valley have flooding potential, depending on elevation and proximity to streams and floodplains. Most streams and rivers of substantial flow have been controlled by the construction of levee and diversion systems.

In the vicinity of the proposed project, the lands adjacent to West Branch of Clear Creek (east of the project site) have been largely identified as flood zones by the Federal Emergency Management Agency (FEMA). The lands immediately west of Williams Road, which are adjacent to Little Dry Creek have also been identified as flood zones (Flood Insurance Rate Map Panel 06007C0550C). The Little Dry Creek/Durham-Pentz Intersection is approximately 4,000 feet west of the project site intersection. The Clear Creek/Durham-Pentz Intersection is nearly 1,000 feet east of the project site intersection.

As first described in the Biological Resources Section of this document (§3.4), the project will be required to adhere to the requirements of §404 and §401 of the Clean Water Act and §1600 of the State's Fish and Game Code. A §404 permit is contingent on sufficient evidence that a project would not pose a threat to water quality or quantity leaving the proposed project's site. Additionally, the County of Butte has adopted the CBC as part of the standards set forth in the County Code. Adherence to the building and grading standards of the County Code is indicative of adherence to the standards of the CBC.

Discussion of Potential Impacts to Hydrology and Water Quality:

a) Less Than Significant With Mitigation Incorporated. This project will require compliance with §401 of the Clean Water Act. Obtaining certification or an agreement from the RWQCB is indicative of potential water quality impacts would occur at less than significant levels. As identified in §3.4 of this document (Biological Resources), the project will be required to implement **Mitigation Measure 3.4.4**, which would ensure consultation with the RWQCB prior to construction activities. Additionally, **Mitigation Measure 3.6.1** would ensure the project implements all required storm water pollution control and erosion control BMPs. Implementation of **Mitigation Measures 3.4.4** and **3.6.1** would ensure potential impacts occur at levels that are considered less than significant with mitigation incorporated.
Mitigation: Mitigation Measures 3.4.4 and 3.6.1

b) No Impact. The project will not require connection to any existing or new water facilities. The project would not result in the construction of new structures, water extraction facilities or a substantial increase in impervious surfaces.
Mitigation: None Required

c) Less Than Significant With Mitigation Incorporated. This project will require grading, roadway improvements and the construction of related infrastructure, including sidewalks and curb/drainage facilities. These proposed activities have the potential to result in erosion and adverse impacts on water quality.

Because of the increased impermeable surface that results from the paved area, there may be an increase in the amount of water at peak flows. This increase is not substantial when compared to the size of the total watershed.

Metals, oils, greases, and other contaminants from construction activities may run off-site into surface waters. To limit any sediments and pollutants from impacting drainages in the project area, BMPs pursuant to CBC, County and RWQCB standards and standard specifications will be implemented.

Long term soil stability and erosion control will be obtained through mechanical and vegetational methods.

There is the potential for erosion of soils and siltation of waterways as a result of the construction activities and the nature of the proposed project. Construction activities will be performed in accordance with CBC standards. These standards are adopted in Chapters 13 and 26 of the County Code, which establish County regulations relative to grading and construction activities respectively. These County

regulations ensure projects incorporate appropriate design provisions and site-specific BMPs to protect waterways and reduce erosion.

As identified in the Biological Resources and Geology and Soils sections of this document, the proposed project would be required to implement **Mitigation Measures 3.4.4 and 3.6.1**. Through implementation of **Mitigation Measures 3.4.4 and 3.6.1**, the project would generate potential erosion or siltation impacts on and off-site that would be less than significant with mitigation incorporated.

Mitigation: Mitigation Measures 3.4.4 and 3.6.1

d) Less Than Significant With Mitigation Incorporated. Drainage patterns and surface runoff amounts are the result of a number of factors including slope, soil permeability, vegetation, and surface type. Changes to these factors that occur as the result of new development can result in a substantial increase in runoff amounts. Substantial increases in runoff can cause flooding or contribute to flooding in a flood-prone area, exceed the capacity of existing or planned storm water or create new sources of polluted runoff. Pursuant to Chapter 13 of the County Code (Grading and Mining), all projects that propose earth moving activities, which would significantly alter drainage patterns, are required to obtain a grading permit and/or submit a grading and drainage plan. As Public Works projects are exempt from the grading permit process, **Mitigation Measures 3.3.1, 3.3.4 and 3.6.1** would ensure that proper design, grading, and wetland mitigation practices be implemented. These mitigation measures would ensure consultation with the RWQCB pursuant to §401 of the Clean Water Act and the Board's anti-degradation policy. The project contractor would be required to develop a Pollution Control Plan, with site-specific BMPs identified. Therefore, potential impacts resulting from flooding and polluted runoff would be considered less than significant with mitigation incorporated.

Mitigation: Mitigation Measures 3.3.1, 3.4.4 and 3.6.1

e) Less Than Significant With Mitigation Incorporated. **Mitigation Measures 3.3.1, 3.4.4, and 3.6.1** would ensure that sediment generated by project construction does not result in potentially significant impacts. **Mitigation Measure 3.3.1** requires development of a Pollution Control Plan, subject to County review, to ensure compliance with the CBC and County Code. Consultation and water quality certification from the RWQCB, if required through adherence to **Mitigation Measure 3.4.4**, would ensure that proper design, grading and water quality mitigation practices are implemented pursuant to §401 of the Clean Water Act. **Mitigation Measure 3.6.1** requires development of an approved, site-specific Pollution Control Plan with applicable storm water pollution and erosion control BMPs. As such, there will be a less than significant impact resulting from flooding and polluted runoff. Thus, the standard conditions of approval and the mitigation measures identified in this section would ensure less than significant potential impacts.

Mitigation: Mitigation Measures 3.3.1, 3.4.4, and 3.6.1

f) Less Than Significant Impact. Please see the above discussion of permits and requirements related to water quality. The permitting requirements of the USACE and the RWQCB are intended to ensure projects do not generate impacts to water quality or quantity. Adherence to the additional standards set forth by Caltrans, the CBC and the County Code would further ensure the project does not generate potentially significant impacts.

Mitigation: None Required

g) No Impact. The proposed project includes roadway and intersection improvements. It would not place any housing within a 100- year floodplain.

Mitigation: None Required

h) Less Than Significant Impact. The proposed facilities include roadway, sidewalk, and intersection improvements and related infrastructure. The proposed intersection improvements are not expected to

result in flood hazards within the project area that exceed current levels. Acquisition of the necessary permits, certifications and agreements, as described in this Initial Study, would ensure less than significant impacts by impeding or redirecting floodwaters.

Mitigation: None Required

i) No Impact. The proposed project includes improvements to the existing roadway, intersection and related facilities. It would not expose people or structures to a significant risk of loss of property, injury or death from flooding, including flooding as a result of the failure of a levee or dam.

Mitigation: None Required

j) No Impact. Seiche, tsunami and mudflow effects have not been recorded in any Butte County reservoirs within the jurisdiction of the State of California Division of Safety of Dams. Additionally there are no reservoirs or other large bodies of water in the project vicinity. Lime Saddle Marina is over 5 miles east of the project site. There would be no impact.

Mitigation: None Required

Conclusion:

The project has the potential to impact hydrology and water quality. Mitigation measures set forth in this document (**3.3.1, 3.4.4 and 3.6.1**) would ensure that impacts to hydrology and water quality are less than significant.

3.9 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Setting:

The project is proposed in Butte County, California, in an area of county jurisdiction. The lands north of the project site are designated Public and Grazing/Open Land in the General Plan. The lands to the south of the project site are designated Grazing/Open Land and Agriculture/Residential. The County Code identifies the zoning district north of the project site as PQ (Public, Quasi-Public) and the district to the south as A5 (Agriculture, 5-acre Minimum). The project would occur along the existing alignments of Durham-Pentz Road, Butte Campus Drive and Villa Vista Drive. As the project proposes improvements to the existing roadways and intersection, it would not change the current land uses in the area.

The Circulation Element of the county General Plan is the primary, long-term guiding document relative to transportation planning in the project area. The Circulation Element is consulted by the Butte County Association of Governments (BCAG) during the preparation of the Butte County Regional Transportation Plan (RTP). The RTP subsequently guides BCAG's annual preparation of the Transportation Improvement Programs. There are no adopted habitat conservation plans or natural community conservation plans that apply to the project site. The proposed project was evaluated for consistency with applicable plans, regulations and policies of agencies potentially having jurisdiction.

Discussion of Potential Impacts to Land Use and Planning:

a-c) No Impact. The proposed intersection and roadway improvements would not divide an established community. The project proposes improvements to the existing intersection and roadways in order to improve flow and safety conditions currently experienced. The proposed project would also bring the intersection up to current ADA standards.

The project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project is consistent with the county General Plan, relative to avoiding or mitigating potential environmental impacts, and it would not conflict with other applicable land-use plans, policies or regulations. There would be no impact to pertinent land-use plans, policies and regulations. Similarly, there are no applicable/adopted habitat conservation plans or natural community conservation plans that would be impacted by the project. As such, there would be no impact.

Mitigation: None Required

Conclusion:

The proposed project is consistent with applicable land use policies, plans and regulations. The project would not generate potential impacts relative to land use and planning.

3.10 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Setting:

There are no mineral resource sites within the project area. The project proposes improvements to existing transportation facilities. It would not result in changes to the current land uses in the project area. As such, it would not result in lost availability to mineral resources.

Discussion of Potential Impacts to Mineral Resources:

a-b) No Impact. No mineral resources or resource recovery sites are known to exist on the project site. The proposed project would result in no impact.

Mitigation: None Required

Conclusion:

The project would not result in potential impacts to mineral resources.

3.11 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Setting:

Noise is traditionally defined as “unwanted” sound. The magnitude of sound, whether wanted or unwanted, is usually described by sound pressure (a dynamic variation in atmospheric pressure). The human auditory system is sensitive to fluctuations in air pressure above and below the barometric static pressure. These fluctuations are defined as sound when the human ear is able to detect pressure changes within the audible frequency range.

The sound level at a particular instant is not likely to be a good measure of noise levels that vary in both time and space, such as noise generated by a mobile source. To better accommodate and assess the time varying noise levels typically associated with traffic patterns, a time-averaged, single-number descriptor known as the “Level equivalent” (L_{eq}) is frequently employed. The L_{eq} is expressed in decibels (dBA) and represents the average energy content of sounds over a specified time period. It includes both steady background sounds and transient, short-term sounds. It represents the level of a steady sound which, when averaged over the sampling period, is equivalent in energy to the time-varying (fluctuating) sound level over the same period of time. The ambient noise in the project area is generated primarily by traffic on Durham-Pentz Road.

Discussion of Potential Impacts related to Noise:

a-d) Less Than Significant. During the construction phases of the project, noise from construction activities would temporarily and intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by state and county regulations, which include CBC standards for construction noise attenuation. Noise levels generated during construction must comply

with applicable local, state, and federal regulations. All equipment is required to be fitted with adequate mufflers according to the manufacturer's specifications.

Table 3 summarizes typical noise levels produced by construction equipment commonly used on roadway construction projects. As indicated, equipment involved in construction is expected to generate noise levels ranging from 70 to 90dBA at a distance of 15 meters (50 feet). Noise produced by construction equipment would be reduced over distance at a rate of 6dBA per doubling of distance.

Table 4: Maximum Decibels at 50 feet

Equipment	Maximum dBA at 15m (50 ft)
Scrapers	89 dBA
Bulldozers	85 dBA
Heavy Trucks	88 dBA
Backhoes	80 dBA
Pneumatic tools	85 dBA
Concrete pump	82 dBA

Source: Federal Transit Administration, 1995

The proposed project would likely require surface grading and leveling. Activities such as pile driving, which can generate excessive groundborne noise or vibrations, are not anticipated.

Substantial permanent increases in ambient noise levels in the project vicinity above levels existing without the project are not expected to occur. Noise impacts from construction related activities will end once the project is complete. The project proposes improvements to existing facilities, not the creation of new roadways or intersections. The proposed project would result in less than significant potential impacts stemming from permanent increases in the area's ambient noise levels.

Temporary or periodic noise levels may be increased in the area as a result of activities, which would be required to adhere to construction activity noise attenuation standards, such as proper equipment maintenance and limiting the hours of noise-generating activities. Therefore, there would be less than significant potential impacts resulting from construction related noise.

Mitigation: None Required

e, f) No Impact. The site is not located within two (2) miles of an airport or a private airstrip. People working on the project site will not be exposed to excessive noise impacts from airport/airstrip activities.

Mitigation: None Required

Conclusion:

Impacts resulting from noise will be limited to the construction phase, and will be temporary and intermittent in nature. The project would not result in permanent increases in noise levels, nor would it create structures or residences subject to indoor and outdoor decibel thresholds. Adherence to standard specifications set forth in the CBC and County Code would ensure potential impacts related to construction noise are maintained at a level that is less than significant.

3.12 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Setting:

The project proposes improvements to an intersection and adjacent roadways in a rural area of central Butte County. The purpose of the project is to alleviate automobile flow and safety issues and to improve drainage and pedestrian conditions on the project site. This project would not increase the residential carrying capacity, which would result in increased growth patterns. As the project would improve existing facilities, it would not grant access to undeveloped areas that are currently inaccessible.

Discussion of Potential Impacts to Populations and Housing:

a) No Impact. The project would involve intersection, sidewalk, curb/gutter and roadway improvements. There are no new homes, structures, or extensions of roadways associated with this project. Therefore there will be no impact by inducing population growth.

Mitigation: None Required

b) No Impact. The proposed project will not displace any homes.

Mitigation: None Required

c) No Impact. The proposed project will not displace any people, or necessitate the construction of replacement housing.

Mitigation: None Required

Conclusion:

There would be no impacts to population and housing as a result of the project.

3.13 PUBLIC SERVICES

Would the project: result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?			X	
d) Parks?				X
e) Other public facilities?			X	

Setting:

The project is located on in a rural area of central Butte County, California. Construction activities will be conducted pursuant to CBC and county standards, as adopted by County Code. Chapter 10 of the County Code (Highways and Streets), identifies emergency vehicle access standards for construction sites. Once completed, the project is expected to improve level of service, safety and general traffic/pedestrian conditions within the project area.

The proposed project would not construct dwelling units, buildings, businesses, or other similar facilities that would result in an increased human population in the project area. Thus, the project is not expected to result in increased demand on public, solid waste, stormwater, wastewater or other similar services.

Discussion of Potential Impacts to Public Services:

a) Less Than Significant Impact. Temporary delays to roadway traffic from construction may occur, however emergency vehicles will be given the right of way in the event of their presence at the project site. No changes in fire protection are proposed as part of this project. When completed, the project is expected to improve the safety of the intersection and emergency response conditions. As a result, potential impacts would be less than significant.

Mitigation: None Required

b) Less Than Significant Impact. Temporary delays to roadway traffic from construction may occur, however emergency vehicles will be given the right of way in the event of their presence at the project site. No changes in police protection are proposed as part of this project. When completed, the project is expected to improve the safety of the intersection and emergency response conditions. Potential impacts would be less than significant.

Mitigation: None Required

c) Less Than Significant Impact. To the extent that the intersection may be used by school buses, the proposed project will improve the safety and reliability of this intersection. Currently, eastbound vehicles enter the Butte College Campus from Durham-Pentz Road via the uncontrolled intersection. The proposed signalization and re-striping would provide safer conditions than currently exist at the project site. The proposed project was designed to reduce conflicts between westbound through traffic and eastbound vehicles turning left onto Butte Campus Drive. The proposed improvements would also improve safety conditions for vehicles turning onto Durham-Pentz Road from Butte Campus Drive and Villa Vista Drive. The project would not result in the need to expand existing schools or construct new

schools. The project will not result in any new population or otherwise affect schools. Therefore, the project's potential impacts would be less than significant.

Mitigation: None Required

d) No Impact. The proposed project would not add to the population in the region, nor would it result in the construction of recreational facilities. Similarly, it would not affect the need for parks in the area. The proposed project would have no impact.

Mitigation: None Required

e) Less Than Significant Impact. The utilities necessary to support the proposed project are already present on the site or are identified in project plans. The project would likely relocate some facilities and install additional underground utilities necessary for the proposed signalization and warning beacons. The project also proposes improvements to the site's drainage facilities. Again, these improvements, which are necessary to implement the proposed project, are identified in project's plans. The proposed project would result in potential impacts that are less than significant.

Mitigation: None Required

Conclusion:

Modifications and improvements to the roadways and the intersection at the project site would require acquisition of the appropriate permits and agreements, pursuant to §404 and §401 of the Clean Water Act and §1600 of the CA Fish and Game Code, as required by **Mitigation Measure 3.4.4**. There may be the need to relocate utilities, however impacts on these facilities, and any potential environmental effects for relocating them, will be less than significant. Prior to the commencement of construction activities, the project would have to demonstrate compliance with the regulatory agencies listed in **Mitigation Measure 3.4.4**. The project would be required to adhere to the relevant standards and BMPs of the CBC and County Code, subject to review by the Department of Public Works. As a result, the project would generate potential impacts to public services that are considered less than significant.

3.14 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Setting:

The project is located on in a rural area of central Butte County, California. The project does not propose dwelling units, businesses or other structures that might increase the area’s human population. The project would improve traffic conditions in the vicinity of a community college, which may be used recreationally during non-school hours. However, the demand for recreational facilities in the area would not change upon project completion. Furthermore, the College’s location was selected as a central point relative to the County’s urban centers. The project site is nearly 10 miles from Paradise, Oroville, Chico and Durham. The proposed intersection improvements are not likely to increase unsanctioned recreational use of the College’s facilities. The project does not propose the construction or expansion of recreation facilities.

Discussion of Potential Impacts to Recreation:

a) No Impact. The project does not involve the construction of residences or other structures that would be inhabited, occupied or used by people. Therefore, it would not generate an additional demand for parks and recreational facilities. The project would have no impact.

Mitigation: None Required

b) No Impact. The project does not include the development of recreational facilities, or other structures that would necessitate the development or expansion of recreational facilities. The proposed project would generate no impact.

Mitigation: None Required

Conclusion:

The proposed project would not increase demand on existing recreation facilities. The project would not result in the construction of recreation facilities or the expansion of existing facilities. The project would have no impact relative to recreation issues.

3.15 TRAFFIC AND TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Setting:

The project is proposed in a rural area of central Butte County, California. The approaches to the intersection are bi-directional two-lane roadways.

Traffic volume has steadily increased in the project area in recent years. Weekday traffic volumes tend to be notably influenced by the presence of Butte College. Caltrans data for traffic volumes on SR191, less than one mile east of the project site, are indicative of increased peak hour and daily traffic volumes in the project area. According to Caltrans figures from 2003 and 2006, peak traffic volumes increased between 8% and 15% for the segment of SR191 east of the project site over the three-year period. According to 2006 BCAG data, the segment of Durham-Pentz Road between SR99 and SR191 is experiencing peak hour volumes in excess of 1,000 vehicles. The County Public Works Department has developed a GIS map of reported traffic collisions within Butte County. Currently, data are available through 2005. The following table was recreated from the County's GIS of reported collisions at the Durham-Pentz Road/Butte Campus Drive Intersection:

Durham-Pentz/	Date	Time	Type	Factor	Movement
Butte Campus	8/24/05	07:55AM	Head-On	R/W Violation	Left Turn
Butte Campus	5/12/04	07:50AM	Rear-End	Unsafe Speed	Proceed Straight
Butte Campus	3/9/04	10:55AM	Rear-End	Following Close	Stopped in Road
Circle 4	4/1/04	01:40PM	Hit Object	Unsafe Speed	Ran Off Road
Butte Campus	8/31/04	07:00AM	Sideswipe	R/W Violation	Left Turn
Butte Campus	11/16/04	12:30PM	Broadside	R/W Violation	Left Turn

Durham-Pentz/	Date	Time	Type	Factor	Movement
Butte Campus	9/6/02	01:55PM	Broadside	R/W Violation	Proceed Straight
Butte Campus	9/23/02	06:20AM	Hit Object	Fell Asleep	Ran Off Road
Butte Campus	2/25/02	07:50AM	Rear-End	Improper Turning	Proceed Straight
Butte Campus	9/25/01	02:20PM	Broadside	Improper Turning	U Turn

The County's collision data show 10 recorded vehicular collisions at the project site over a period of four years. Of the 10 recorded collisions, five occurred between the hours of 6:00AM and 8:00AM, while four occurred between 12:30PM and 2:30PM. The single accident occurring outside these two hour ranges was a rear-ending at 10:55AM. Of the 10 recorded collisions, six were either right-of-way violations or improper turns.

Chapter 400 of the Caltrans *Highway Design Manual* identifies the department's intersection standards. According to §402 of the Manual (Operational Features Affecting Design), capacity and accidents are the primary features affecting intersection design. A series of remedies are available to transportation engineers to alleviate conflicts arising from these two, basic operation features. Assuming an intersection is consistent with basic design standards, such as approach angles and sight distance, channelization and signalization are identified as effective tools to reduce vehicular conflicts. The proposed improvements are intended to reduce conflicts at the intersection. Striping, signalization, signage and other related improvements would be installed pursuant to applicable guidelines and regulations, including the *Manual on Uniform Traffic Control Devices* (MUTCD). The MUTCD is published by the Federal Highway Administration (FHWA) under Title 23 of the Code of Federal Regulations.

Discussion of Potential Impacts to Traffic and Transportation:

a) Less Than Significant. The project would not generate additional traffic as it does not include the development of any residential, commercial or other buildings, nor would it generate land use activities that generate traffic. The project is designed to alleviate flow and safety deficiencies that have been identified at the project site. The project is not expected to result in additional vehicular trips or impacts to the area's levels of service. Congestion and safety conditions are expected to improve upon project completion. Thus, these potential traffic impacts would be less than significant.

Mitigation: None Required

b) Less Than Significant. As previously described, the project would have a negligible influence on traffic volumes. Therefore, the level of service (LOS) on the segment would remain essentially the same as the existing LOS. The two approaches to Durham-Pentz Road would likely experience improved LOS during peak hours, as through traffic would be halted. The result would be a slight decrease in the flow of through traffic, offset by the dramatic decrease in conflicting movements. The disruption of flow would be most notable during peak hours when a larger number of vehicles would be entering from the two approaches to Durham-Pentz. The project would not result in additional vehicles operating on the area's roadways. The proposed improvements would not result in significant reductions to the current LOS. The potential impacts would occur at less than significant levels.

Mitigation: None Required

c) No Impact. The proposed project is an intersection and roadway improvement, with no impact on the air traffic system in the County. There are no airports or private airstrips in the vicinity of the project area.

Mitigation: None Required

d) Less Than Significant. The purpose of the project is to improve the safety and traffic flow of an intersection and the adjacent roadways. When completed the project would allow for safer passage and smoother flow for vehicles. Additionally, the project is being proposed as a response to an existing

deficiency. Upon completion, access to the Butte College Campus and the adjacent residences, intersection safety and traffic flow are expected to be improved over pre-project conditions. The proposed project would result in potential impacts that would be considered less than significant.
Mitigation: None Required

e) Less Than Significant. Emergency vehicles using the intersection may be slowed at the project area during the construction phase. However, passage for emergency vehicles, as well as other vehicles, will be available. As described in Section 3.13 of this document (Public Services), the project will be required to adhere to pertinent construction site standards. Temporary traffic control activities during the construction phase of the proposed project would not prevent emergency vehicle movement throughout the area. Upon completion, the project will allow for safer passage, loading and smoother flow for emergency vehicles.

Mitigation: None Required

f) No Impact. The project would not create the need for onsite or offsite parking.

Mitigation: None Required

g) No Impact. The project site is in a rural area of Butte County, and a large number of students utilize the Butte College bus system to attend classes at the adjacent campus. The project proposes facilities and intersection improvements that would make the project site safer for use by bicyclists and pedestrians. The improvements to the intersection would result in safer campus access for busses and other public transit vehicles that may use the intersection. The project would not conflict with alternative transportation plans or policies. There would be no impact.

Mitigation: None Required

Conclusion:

The project would have no significant adverse impacts on transportation. By upgrading the roadway to current design and safety standards, the project would improve traffic flow and make travel safer for motor vehicles, bicyclists and pedestrians in the project area. The project site would be improved to bring conditions up to current design and safety standards.

3.16 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		X		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

Setting:

The utilities necessary for project implementation are currently present at the site. The proposed project would result in the relocation, extension and/or improvement of some of the site's utilities. For example, storm drainage improvements are proposed in the northern portion of the project site. Similarly, the proposed beacons would be connected via underground utilities, which are currently not present at the project site. The project will not generate wastewater or solid waste products. The project would not generate structures, such as dwellings or businesses, which would create additional demand on the area's water supplies.

Discussion of Potential Impacts to Utilities and Service Systems:

a,b,d-g) No Impact. The project does not include any uses that would require increased wastewater treatment or solid waste disposal. Landfill capacity, wastewater treatment and solid waste generation are not potential impacts that would be generated by the proposed roadway/intersection improvements.

Mitigation: None Required

c) Less than Significant with Mitigation Incorporated. The project does not include any uses, which would require expansion of the stormwater facilities outside the project site. Roadside drainages located in the project area will be temporarily disturbed during construction activities. The project would be required to adhere to the necessary permitting and agreement requirements of the USACE, RWQCB and the DFG (pursuant to §404 and §401 of the Clean Water Act and §1600 of the Fish and Game Code).

This is identified in **Mitigation Measure 3.4.4** of the Biological Resources section of this document. As a standard condition of approval from the agencies listed in **Mitigation Measure 3.4.4**, the project would not be permitted to affect the quantity or quality of the stormwater leaving the project site. Thus, the project would not create the need for additional stormwater facilities offsite. Onsite drainage is expected to be improved upon completion of the proposed project. Stormwater facility impacts would be less than significant with mitigation incorporated.

Mitigation: Mitigation Measure 3.4.4

Conclusion:

Impacts to public utilities as a result of the project would be less than significant.

3.17 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Mandatory Findings of Significance Discussion of Potential Impacts:

a) Less Than Significant With Mitigation Incorporated:

Construction activities could contribute to fugitive dust and air quality degradation. **Mitigation Measures 3.3.1** and **3.3.2**, which require development of approved Pollution Control and NOx Reduction Plans, would reduce potential fugitive dust and NOx impacts to levels that are less than significant with mitigation incorporated.

The project’s potential impacts generated due to the proximity of sensitive receptors (Butte College) would be reduced to less than significant levels through implementation of **Mitigation Measures 3.3.1** and **3.3.2** including adherence to the appropriate BAMMs identified in BCAQMD Rules 200 and 205.

Project-related activities could negatively impact special status species, habitat, and water features. **Mitigation Measure 3.4.1**, which requires pre-construction raptor surveys, would ensure less than significant potential impacts to migratory birds and raptors. **Mitigation Measure 3.4.2** would reduce potential impacts to Swainson’s hawk foraging habitat to less than significant levels, as DFG approval would be required prior to commencement of construction activities. If nesting Swainson’s hawks are identified during the pre-construction raptor survey(s), **Mitigation Measure 3.4.3** would reduce potential impacts to less than significant levels. The project could generate potentially significant impacts to jurisdictional Waters of the State and Waters of the US. However, through implementation of **Mitigation Measure 3.4.4** these potential impacts would be reduced to a level considered less than significant. **Mitigation Measures 3.4.1, 3.4.2** and **3.4.3** would ensure less than significant impacts to migratory corridors and nursery sites.

Construction activities have the potential to disturb undocumented cultural resources and/or human remains. **Mitigation Measures 3.5.1** and **3.5.2** would ensure potential impacts occur at levels that are less than significant with mitigation incorporated.

Construction activities have the potential to contribute to, or induce soil erosion, storm water pollution and the loss of topsoil. **Mitigation Measure 3.6.1** would ensure potential impacts stemming from erosion, storm water pollution or siltation occur at levels that are less than significant with mitigation incorporated.

Construction-related activities have the potential to cause significant impacts resulting from the accidental release of hazardous materials into the environment. Implementation of **Mitigation Measure 3.6.1**, which addresses spill prevention, would reduce potential accidental release impacts to a level of less than significant.

Project related activities have the potential to violate water quality, drainage, erosion and/or siltation standards. **Mitigation Measures 3.3.1, 3.4.4 and 3.6.1** are provided to ensure these potential impacts are maintained at less than significant levels. These measures would ensure adherence to §404 and §401 of the Clean Water Act and §1600 of the CA Fish and Game Code. The project will also be required to implement appropriate, site-specific BMPs, as approved by the Public Works Department. Thus, these potential impacts would be reduced to levels that are less than significant with mitigation incorporated.

b) Less Than Significant. Cumulative effects from the project will be primarily beneficial in nature, including decreased traffic accidents, smoother traffic flow, safer passage, and smoother flow for emergency vehicles. Access to the area's public schools will be more direct and safer in nature. The project would not contribute to population increase or increased demand for public facilities and services.
Mitigation: None Required

c) Less Than Significant with Mitigation Incorporated. The project is proposed in close proximity to Butte Community College. **Mitigation Measures 3.3.1 and 3.6.1** would ensure the potential impacts are less than significant relative to hazardous materials or air contaminants being generated in the vicinity of area schools.

The project would be required to adhere to the construction activity standards set forth by the CBC and the County Code, including the construction and grading ordinances. Appropriate signage and traffic control actions for construction sites would be ensured through adherence to applicable standards. The project would be required to adhere to the design and safety standards of the CBC. The project would to bring the site up to American with Disabilities Act compliance as it pertains to proposed sidewalk, curb, tie-in and similar facilities.

Mitigation: Mitigation Measures 3.3.1 and 3.6.1

Conclusion:

The project will be required to adhere to the relevant standards, regulations and policies of all local, regional, state and federal agencies, as described in this document. Through observation of the standard conditions of approval, adherence to existing design and construction standards and the implementation of the mitigation measures identified in this document, potentially significant impacts related to the project would be reduced to a level that is less than significant.