

CHAPTER 6: CEQA CONSIDERATIONS AND FINDINGS OF SIGNIFICANCE

This chapter describes those environmental effects identified in Chapters 4 and 5 that would be considered significant under the California Environmental Quality Act (CEQA) and considers the potential for the project to stimulate unplanned growth.

This combined environmental document complies with National Environmental Policy Act (NEPA) requirements for the preparation of a Supplemental Draft Environmental Impact Statement (SDEIS), and with CEQA requirements for a Subsequent Draft Environmental Impact Report (SDEIR). Use of the term “significant” differs under these two laws. While CEQA requires that a determination of significant impacts be stated in an EIR, the National Environmental Policy Act (NEPA) does not require such a determination in an EIS. Under NEPA, significance is used to determine whether an EIS or some other level of documentation is required, and once a decision to prepare an EIS is made, the EIS reports all impacts and proposes mitigation wherever it is feasible to do so. For this reason, CEQA significance criteria and the determination of significant impacts have not been included in every section of this combined NEPA/CEQA SDEIS/SDEIR. Instead, those criteria and determinations have been grouped in this chapter.

It should be noted that although the presence of mitigation creates a presumption of significant impacts under CEQA, NEPA anticipates that mitigation will be provided for the impacts of a project where it is feasible to do so. For this reason, some mitigation measures described in this document and in this section are wholly appropriate under NEPA, although the impacts they address may not be considered significant under CEQA.

6.1 SIGNIFICANCE CRITERIA

CEQA requires that an EIR identify the significant environmental effects of the project (CEQA Guidelines Section 15126), but does not promulgate specific thresholds for significance. Instead, CEQA Guidelines Section 15064(b) states that “the determination . . . calls for careful judgment on the part of the public agency involved . . .” and that “an ironclad definition of significant effect is not possible because the significance of an activity may vary with the setting.” CEQA encourages lead agencies to develop and publish their own thresholds of significance for the purpose of determining the significant effects of their projects. The fundamental definition of significant effect under CEQA is “a substantial adverse change in physical conditions.” This criterion underlies the evaluation of environmental impacts for most of the impact issues identified in the CEQA Environmental Checklist Form (Guidelines Appendix G).

Some impact categories lend themselves to scientific or mathematical analysis, and therefore to quantification. Some categories have significance thresholds established by regulatory agencies, such as the California Department of Conservation or the regional air quality management district. For other impact categories that are more qualitative or are entirely dependent on the immediate setting, a hard-and-fast threshold is not generally feasible, and the “substantial adverse change in physical conditions” is applied as the significance criterion. In the current analysis, RT has given careful consideration to the issue of significance and has applied the significance criteria shown in Table 6.1-1 to evaluate the significance of the effects of the South Sacramento Corridor Phase 2 Project under CEQA.

The types of improvements proposed under the TSM or LPAP2 Alternatives do not create new demand for water supplies, stormwater or wastewater transport or treatment, or solid waste disposal capacity or facilities. Therefore, there are no impacts that would exceed CEQA thresholds of significance as described in Table 6.1-1.

CEQA does not require a discussion of socioeconomic effects except where they would result in physical changes, and states that social or economic effects shall not be treated as significant effects (see CEQA Guidelines Sections 15064(f) and 15131). Given also that the project alternatives will not have socioeconomic effects that either cause or result from physical changes, socioeconomic impact categories are not included in Table 6.1-1.

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.1	Aesthetics	The project would have a significant effect on the environment if it would (a) have a substantial adverse effect on a scenic vista; (b) substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; (c) substantially degrade the existing visual character or quality of the site and its surroundings; or (d) create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	State CEQA Guidelines, Appendix G Checklist
4.2	Agriculture	A significant impact would occur if the project would (a) convert to nonagricultural use substantial amounts of farmland 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; (b) Convert to nonagricultural use substantial amounts of land zoned for agricultural use, or a Williamson Act contract; (c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use.	State CEQA Guidelines, Appendix G Checklist

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.3	Air Quality	A significant impact would occur if the project would result in the long-term violation of any ambient air quality standard (NAAQS or CAAQS); increase the number or frequency of violations; contribute substantially to an existing or projected air quality violation; conflict with or obstruct implementation of the applicable air quality plan; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.	State CEQA Guidelines, Appendix G Checklist; US EPA; SMAQMD
4.4	Biological Resources	A significant impact would occur if the project would (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 (CDFG) or the U.S. Fish and Wildlife Service (USFWS); b) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by CDFG or USFWS; (c) have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act; (d) interfere substantially with the movement of native resident or migratory fish or wildlife species, wildlife corridors, or wildlife nursery sites; (e) conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; (f) conflict with the provisions of an approved local, regional, or state habitat conservation plan.	State CEQA Guidelines, Appendix G Checklist

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.5	Cultural and Historic Resources	A significant impact would occur if the project would cause a substantial adverse change in the significance of a historical or archaeological resource as defined in Public Resources Code Section 16064.6; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries. No quantitative threshold exists.	State CEQA Guidelines, Appendix G Checklist, and CEQA Sec. 21084.1.
4.6	Electromagnetic Fields and Electromagnetic Interference	A significant impact would occur if the project would expose people to sustained high levels of (man-made) electromagnetic radiation.	Sacramento Regional Transit District
4.7	Geology/ Seismicity	A significant impact would occur if the project would (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; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; (iv) landslides; (b) result in substantial soil erosion or loss of topsoil; (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; or (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.	State CEQA Guidelines, Appendix G Checklist

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.8	Hazards and Hazardous Materials	A significant impact would occur if the project would (a) create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials; (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; (c) emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school; (d) be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 66962.6 and, as a result, created significant hazard to the public or the environment; (e) result in a safety hazard for people residing or working in the project vicinity; (f) impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; (g) expose people or structures to a significant risk of loss, injury or death involving wildland fires.	Derived from State CEQA Guidelines, Appendix G Checklist
4.9	Hydrology, Floodplain, Water Quality	A significant impact would (a) violate any water quality standards or waste discharge requirements; (b) substantially deplete groundwater supplies or interfere substantially with groundwater recharge; (c) substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site; (d) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site; (e) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (f) otherwise substantially degrade water quality.	State CEQA Guidelines, Appendix G Checklist

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.10	Land Use and Planning	A significant impact would occur if the project would (a) physically divide an established community; (b) conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project; or (c) conflict with any applicable habitat conservation plan or natural community conservation plan.	State CEQA Guidelines Appendix G Checklist
4.11	Mineral and Energy Resources	A significant impact would occur if the project would (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; or (b) result in the loss of availability of a locally-important mineral resource recover site delineated on a local general plan, specific plan, or other land use plan. A significant impact would occur if the project would result in a substantial increase in energy consumption to the extent that energy generation capacity is exceeded, based on currently available projections, or unacceptable demands are placed on energy supply and distribution systems.	State CEQA Guidelines, Appendix G Checklist
4.12	Noise and Vibration	A significant noise impact would occur if the project would result in (a) exposure of persons to or generation of noise levels in excess of standards established in local general plans or noise ordinances; (b) exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels (vibration of 76 VdB is generally considered intrusive for residential uses); (c) a substantial permanent increase in ambient noise in the project vicinity (an increase of 10 db, perceived as a doubling of noise, is generally considered substantial); (d) a substantial temporary or periodic increase in ambient noise levels in the project vicinity.	State CEQA Guidelines, Appendix G Checklist, FTA Noise and Vibration Criteria

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.13	Population and Housing	A significant impact would occur if the project would (a) induce substantial population growth in an area, either directly or indirectly; (b) displace substantial numbers of existing housing units or people, necessitating the construction of replacement housing elsewhere.	State CEQA Guidelines, Appendix G Checklist
4.14	Public Services and Facilities;	A significant impact would occur if the project would 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: fire protection, police protection, schools, parks, or other public facilities.	State CEQA Guidelines Appendix G Checklist
4.15	Recreation	A significant impact would occur if the project would (a) 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; (b) include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	State CEQA Guidelines Appendix G Checklist

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.16	Safety and Security	A significant impact would occur if the project were to result in any of the following: (a) in locations where pedestrian and/or bicycle safety is determined to be at risk and signals and gated crossings and safety barriers are not part of the project; (b) deviation from PUC safety design standards, such as clearances to boarding platforms, emergency walkways, crossings of public streets and railroads, installation of safety barriers, curbs, and fences; (c) park and ride lots are designed with features that are not amenable to crime deterrence, such as tall vegetation in outlying areas, inadequate lighting, secluded passageways, etc.; and (d) extension of facilities requiring police patrol and surveillance beyond the capacity of existing staffing and increased staffing is not included in project cost estimates.	RT and PUC Safety Design Standards and Practices
Chapter 3	Transportation/Traffic	A significant impact would occur if the project would (a) cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system; (b) exceed, either individually or cumulatively, a level of service standard established by the local county congestion management agency; (c) substantially increase hazards due to a design feature; (d) result in inadequate emergency access; (e) result in inadequate parking capacity; (f) conflict with adopted policies, plans, or programs supporting alternative transportation.	State CEQA Guidelines Appendix G Checklist.

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
4.17	Utilities and Service Systems	<p>A significant impact would occur if the project would</p> <ul style="list-style-type: none"> (a) exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, (b) require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, (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, (d) require new or expanded entitlements to have sufficient water supplies available to serve the project, (e) result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to existing commitments, (f) be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs, and (g) not comply with federal, state, and local statutes and regulations related to solid waste. 	State CEQA Guidelines Appendix G Checklist.

Table 6.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
SDEIS/SDEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
Chapter 5	Temporary Construction Period Effects	Construction phase impacts on traffic, transit, noise, air quality, and the visual environment would generally not be considered significant since construction-related changes are by their nature temporary. A significant impact would occur only if temporary effects substantially affected accessibility to an area for a long period of time, caused the loss or relocation of substantial numbers of businesses or residences, or posed a severe health or safety threat.	Derived from State CEQA Guidelines, Section 16382
Source: Parsons and other sources as noted, September 2002.			

6.2 UNAVOIDABLE SIGNIFICANT ADVERSE EFFECTS UNDER CEQA

This section summarizes project impacts and identifies the unavoidable significant effects of each alternative. There would be no unavoidable long-term significant effects of the TSM or LPAP2 Alternatives after proposed mitigation is applied. The evaluation of impacts before and after mitigation took into account the potential impacts of the proposed mitigation measures themselves. There were no instances where proposed mitigation measures would result in impacts that would require mitigation.

Table 6.2-1 contains a summary of impacts, along with an explanation of which impacts are considered significant under CEQA before mitigation. When reviewing this table, it is important to remember that NEPA anticipates that mitigation to reduce project effects will be proposed where it is feasible. Therefore, the presence of mitigation does not create a presumption of significant effect under NEPA, as it would in a CEQA-only document. The mitigation measures proposed herein are consistent with the mitigation measures identified in the 1997 SEIS/SEIR for Phase 1 of the South Corridor project and with the actions proposed to address impacts of the project as set forth in the RT Board resolution certifying the 1995 EIR. For a more complete description of the impacts and mitigation measures summarized in Table 6.2-1, please refer to Chapters 3, 4 and 5.

Many impacts of the TSM or LPAP2 Alternatives would be addressed through design requirements and practices that are required by current standards and guidelines or are typically part of existing construction management procedures documented in contract specifications and special provisions. These design requirements/best management practices are described in Chapters 3, 4, and 5, and are summarized in Table S-1. They are not reiterated in Table 6.2-1.

With the mitigation measures identified in Chapters 3, 4 and 5 of this document, no unavoidable significant impact would result from the TSM Alternative and one unavoidable significant impact would result for the LPAP2. Due to physical constraints at the intersection, improvements are not feasible or practicable at the intersection of Bruceville Road and CRB, resulting in a LOS E in the AM Peak hour.

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
3. TRANSPORTATION			
3.3.5.1 TSM Alternative Freeway/ Arterial Impacts <ul style="list-style-type: none"> Some trips would be shifted from auto to transit; some lessening of congestion – but no substantial effect. 	B	<ul style="list-style-type: none"> No mitigation is indicated. 	B
3.3.5.2 TSM Alternative Intersection Impacts <ul style="list-style-type: none"> Bruceville Road/Cosumnes River College (City of Sacramento) -- 2025 PM peak hour level of service would deteriorate from LOS C to LOS D, and the average delay would increase by over 9 seconds. 	S	<ul style="list-style-type: none"> Adding dual eastbound and westbound turning lanes at the affected intersection would eliminate the impact. With this modification, the intersection would operate at LOS C. 	LS
3.3.6.1 LPAP2 Freeway/Arterial Impacts <ul style="list-style-type: none"> Measurable reduction of traffic on some roadways, marginal increases of traffic on others. 	B	<ul style="list-style-type: none"> No mitigation is indicated. 	B
3.3.6.2 LPAP2 Intersection Impacts 2025 impacts on the following City of Sacramento intersections: <ul style="list-style-type: none"> Center Parkway and CRB: 	S	<ul style="list-style-type: none"> Center Parkway and CRB: add a second southbound left turn lane (the cost of which is included in the project costs). With this modification, the intersection would operate at LOS C, and the impact would be reduced to below a level of significance. This mitigation would require widening the bridge over Union House Creek. Bruceville Road and Consumes River College: build dual eastbound left turn lanes, which would improve LOS at the intersection to C in the AM and PM peak hour. 	LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> • Bruceville Road and Consumes River College: • Bruceville Road and Old Calvine Road: • Old Calvine Road and CRC south access: • Bruceville Road and CRB 	<p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p>	<ul style="list-style-type: none"> • Bruceville Road and Consumes River College: build dual eastbound left turn lanes, which would improve LOS at the intersection to C in the AM and PM peak hour. • Bruceville Road and Old Calvine Road: on the eastbound approach stripe dual left turn lanes and provide overlap signal phasing on the right turn to improve LOS at the intersection to C in the AM and PM peak hour. • Old Calvine Road and CRC south access: Signalize the intersection. This would improve LOS at the intersection to C or better in the AM and PM peak hour. • Due to physical constraints at the intersection, improvements are not feasible or practicable at the intersection of Bruceville Road and CRB, resulting in an unavoidable adverse impact. 	<p style="text-align: center;">LS</p> <p style="text-align: center;">LS</p> <p style="text-align: center;">LS</p> <p style="text-align: center;">S</p>
<p>3.3.7 LPAP2 Traffic Delays at Grade Crossings</p> <ul style="list-style-type: none"> • At at-grade crossings, vehicular traffic on the cross streets would be delayed while crossing gates block the intersections. • Moderate queues are projected at LPAP2 LRT crossing locations along Meadowview Road and Cosumnes River Boulevard. • Intersection efficiency is reduced due to at-grade crossings at the following intersections: Franklin Boulevard/Cosumnes River Boulevard, Center and Parkway/Cosumnes River Boulevard. 	<p style="text-align: center;">PS</p> <p style="text-align: center;">PS</p> <p style="text-align: center;">PS</p>	<p>For at-grade crossings adjacent to LPAP2 LRT stations, RT will implement crossing signal control measures to minimize the amount of time gates are down when trains must stop to load and unload passengers before they cross the roadway. A timed delay mechanism will be installed that activates the crossing gates just prior to the train departing the station platform.</p> <p>Additionally, as discussed in Chapter 2, express trains not stopping at a near side station would have equipment to bypass the timed delay.</p>	<p style="text-align: center;">LS</p> <p style="text-align: center;">LS</p> <p style="text-align: center;">LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
3.3.8.2 TSM Alternative: Circulation Impacts at PNR Lot <ul style="list-style-type: none"> Local circulation would be adversely affected by increased auto traffic on station access roadways. 	PS	Impacts at one intersection (identified in Section 3.3.5.2) were addressed by mitigation in Section 3.3.9.1, above.	LS
3.3.8.3 Circulation Impacts at Stations: LPAP2 <ul style="list-style-type: none"> Local circulation would be affected by increased auto traffic on station access roadways. 	PS	Impacts at the two intersections (identified in Section 3.3.6.2) were addressed by mitigation in Section 3.3.9.2, above.	LS
3.4.2 Parking Impacts: TSM Alternative <ul style="list-style-type: none"> Transit improvements would include PNR lot with adequate spaces to match demands. Reduces parking demand in Downtown Sacramento. 	PS B	<ul style="list-style-type: none"> No mitigation is indicated. No mitigation is indicated. 	LS B
3.4.3 Parking Impacts: LPAP2 <ul style="list-style-type: none"> Because Center Parkway Station is designated for walk-in access and has no PNR lot, RT patrons may use on-street parking and adversely affect neighborhood parking. Transit improvements would include PNR lots with adequate spaces to match demands. Reduces parking demand in Downtown Sacramento. 	PS PS B	<ul style="list-style-type: none"> On-street parking along and in the vicinity of Center Parkway will be monitored to determine whether an adverse impact develops. If it does, an on-street parking permit program would be proposed. No mitigation is indicated. No mitigation is indicated. 	LS LS B
4.1 AESTHETIC IMPACTS <u>TSM Alternative</u> <ul style="list-style-type: none"> Cosumnes River College PNR lot. No substantial degradation of scenic views; no new visual elements substantially out of character with existing and proposed land uses. <u>LPAP2</u> <ul style="list-style-type: none"> LPAP2 LRT alignment: residents would have limited views of the corridor including the tops of catenary poles and overhead wires. Proposed noise barriers (Section 4.12.6) 	LS LS	<u>TSM:</u> <ul style="list-style-type: none"> RT will incorporate landscaping into the final design to soften views of PNR lots. RT will control potential light and glare by directing lighting associated with proposed PNR lots, onto the premises of each facility and away from surrounding land uses. <u>LPAP2:</u> <ul style="list-style-type: none"> RT will invite public participation regarding station and noise wall design during the final 	LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>and existing privacy walls would provide visual screening and block views from the LRT vehicles of residences and yards. Visual changes with proposed sound walls include added bulk on the elevated structures and increased shading of residential properties.</p> <ul style="list-style-type: none"> • Meadowview Road crossing options: For the flyover option fences and landscaping would generally block views of the structure. The depressed Meadowview Road option would eliminate long range views for motorists for a limited distance along Meadowview Road, while views from residences would be limited to the tops of catenary facilities. For the at-grade crossing option views from residences would be limited to the tops of catenary poles and wires. • UPRR/Union House Creek Bridge: Views from homes would be partially obscured by the backyard fences and landscaping, but some second story windows may have views of the LPAP2 LRT facilities. The planned Cosumnes River Boulevard extension (by others) would also cross over the UPRR corridor on a separation structure just to the south of the LRT/UPRR separation structure. • Morrison Creek LRT Station: Some residences would have long-range views of the LRT Station, PNR lot and rail alignment. These changes would not substantially degrade a scenic vista or be out of character with existing and planned land uses, including the proposed future extensions of Cosumnes River and Detroit Boulevards. These and other planned future land uses would also result in visual changes. 	<p>LS</p> <p>LS</p> <p>LS</p>	<p>design phase of the project.</p> <ul style="list-style-type: none"> • RT will incorporate landscaping into the final design to soften views of LPAP2 LRT stations, PNR lots, substations and the optional shuttle lot. • RT will control light and glare by directing lighting associated with LRT facilities onto the premises of each facility and away from surrounding land uses. 	<p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> Franklin Boulevard LRT Station: Except for residences with visual screening, views of the station and PNR lot (with lighting in foreground) would replace views of vacant land. This would not substantially degrade scenic views or introduce obtrusive visual elements substantially out of character with existing and proposed land uses. 	LS		LS
<ul style="list-style-type: none"> Franklin Boulevard crossing options: The flyover option structure would be viewed by Franklin and Cosumnes River boulevard motorists, and some residential areas to the north, but visual changes are not substantially inconsistent with the existing intersection and the proposed future Cosumnes River Boulevard extension. The at-grade crossing option LPAP2 LRT facilities would result in visual changes, but would not detract from the existing visual character of the intersection. 	LS		LS
<ul style="list-style-type: none"> Center Parkway Station and pedestrian overcrossing: Facilities would be visually consistent with the widened Cosumnes River Boulevard. Views from residences would be blocked by existing walls. The pedestrian overcrossing would be visible to Cosumnes River Boulevard motorists, but would not be substantially out of character with the roadway nor obscure scenic views. The pedestrian overcrossing and lighting facilities would be visible from some backyards or second-story windows. 	LS		LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
4.1 AESTHETIC IMPACTS (CONTINUED)			
<ul style="list-style-type: none"> Buceville Road flyover options: Although visually apparent to motorists on Cosumnes River Boulevard and Bruceville Road, the flyover structure would not be inconsistent with the existing roadway intersection, traffic signals and utility poles. The flyover option would be more visible from the residential area north of Cosumnes River Boulevard. Existing privacy walls partially block views of this intersection. The design will seek to accentuate the architectural character of the college gateway. 	LS		LS
<ul style="list-style-type: none"> Cosumnes River College Station: Station features and catenary poles would interrupt long-range views of vacant land from the college entrance and parking areas, but would be consistent with the existing and proposed land uses. No scenic views would be obscured. At night the immediate area would be lighter due to 24-hour security lighting. 	LS		LS
<ul style="list-style-type: none"> Optional Shuttle Lot at Calvine/Auberry: Most residential properties are walled-off from the existing roadway and are located a considerable distance away. Visual elements of the optional shuttle lot would include bus shelters and lighting associated with the new facility. At night the immediate area would be lighter due to 24-hour security lighting. 	LS		LS
4.2.2 Agricultural Impacts			
<ul style="list-style-type: none"> The TSM Alternative would require approximately 12.7 acres of farmland for construction of the Cosumnes River College PNR lot. 	LS		LS
<ul style="list-style-type: none"> The LPAP2 would require approximately 18.3 total acres of farmland. Approximately 3.6 acres of farmland would be 	LS	No mitigation is indicated.	LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>required for the LPAP2 LRT alignment, 2.0 acres for the Morrison Creek Station and PNR lot, and 12.7 acres if the Cosumnes River College PNR lot (east of Bruceville) is constructed. These areas of farmland are not under a Williamson Act contract and are located adjacent to urbanized areas and most of the total farmland area that would be taken for the project is zoned for uses other than agriculture.</p> <ul style="list-style-type: none"> Form NRCS-CPA-106 has been submitted to the NRCS. Following their review, a total site farmland assessment criteria score will be determined for the project. 			
<p>4.3.3.2 AIR QUALITY IMPACTS: TSM ALTERNATIVE</p> <ul style="list-style-type: none"> Regional criteria pollutant emissions are projected to decrease by 189.9 pounds per day (ppd) for CO, 6.6 ppd for ROG, 36.3 ppd for NO_x, 0.8 ppd for SO_x, and 4.7 ppd for PM₁₀, respectively, when compared to the No-Action Alternative. Small localized increases in CO would result, but are not anticipated to exceed the State one- and eight-hour standards, and no impacts to sensitive receptors are expected. The PNR lot CO hot spot analysis indicated that automobile use at the PNR lot would not produce emissions that exceed State or federal CO standards. The PM₁₀ hot spot analysis indicated that PM₁₀ emissions from the idling of TSM buses would not exceed State or federal PM₁₀ standards. 	<p>B</p> <p>LS</p> <p>LS</p> <p>LS</p>	<p>No mitigation is indicated.</p>	<p>B</p> <p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>4.3.3.3 AIR QUALITY IMPACTS: LPAP2</p> <ul style="list-style-type: none"> Regional criteria pollutant emissions would decrease by 227.0 ppd for CO, 7.8 ppd for ROG, 43.5 ppd for NO_x, 1.0 ppd for SO_x, and 5.6 ppd for PM₁₀, when compared to the No-Action Alternative. Small localized increases in CO would result, but are not anticipated to exceed the State one- and eight-hour standards, and no impacts to sensitive receptors are expected. The PNR Lot CO hot spot analysis indicated that automobile use at PNR lots would not produce emissions that would exceed State or federal CO standards. The PM₁₀ hot spot analysis indicated that emissions from the idling of buses at stations would not exceed State or federal PM₁₀ standards. 	<p>B</p> <p>LS</p> <p>LS</p> <p>LS</p>	<p>No mitigation is indicated</p>	<p>B</p> <p>LS</p> <p>LS</p> <p>LS</p>
<p>4.4 BIOLOGICAL RESOURCES <u>TSM Alternative</u></p> <ul style="list-style-type: none"> No impact to wetlands or other waters of the U.S. Loss of up to 2.0 acres of suitable habitat for western burrowing owl. 	<p>N</p> <p>LS</p>	<p><u>TSM:</u> Consultations with USFWS, CDFG, and ACOE to formulate mitigation measures to minimize harm to and ensure the continuation of special-status species. USFWS will develop a no-jeopardy Biological Opinion and Incidental Take Statement or will issue a Letter of Concurrence that will be reported in the SFEIS/SFEIR stipulating the project-specific mitigation measures and practices.</p> <p>Permanent impacts to western burrowing owl burrows and foraging habitat will be mitigated through purchase of credits at a CDFG-approved mitigation bank.</p>	<p>N</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p><u>LPAP2</u></p> <ul style="list-style-type: none"> • Loss of 0.34 acres of jurisdictional wetlands. • Loss of up to 0.14 acres of seasonal wetlands that provides suitable habitat for vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, and California linderiella. • Loss of up to 0.04 acre of habitat suitable for western pond turtle and giant garter snake. • Disturbance of between 0.70 to 63.34 acres of nesting and foraging habitat for 13 special-status bird species. 	<p>PS</p> <p>S</p> <p>S</p> <p>PS</p>	<p><u>LPAP2:</u> Consultations with USFWS, CDFG, and ACOE to formulate mitigation measures to minimize harm to and ensure the continuation of special-status species and jurisdictional areas. USFWS will develop a no-jeopardy Biological Opinion and Incidental Take Statement or will issue a Letter of Concurrence that will be reported in the SFEIS/SFEIR stipulating the project-specific mitigation measures and practices.</p> <p>Purchase mitigation credits in an existing USFWS-approved mitigation banks to compensate for impacts to giant garter snake and vernal pool crustaceans.</p> <p>Consult with SRCSD Bufferlands manager to explore opportunities to compensate for impacts to nesting and foraging habitat for special-status bird species.</p> <p>Permanent impacts to western burrowing owl burrows and foraging habitat and Swainson's hawk foraging habitat will be mitigated through the purchase of credits at a CDFG-approved mitigation bank.</p> <p>Purchase mitigation credits in an agency-approved wetland mitigation bank or an in lieu fee.</p>	<p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>4.5 IMPACT TO ARCHAEOLOGICAL RESOURCES LPAP2</p> <p>Pavement and other obstructions made it impossible to conclude with absolute certainty that no unrecorded cultural remains exist in:</p> <ul style="list-style-type: none"> • Areas of San Joaquin silt-loam soils that could not be surveyed because of pavement or other obstructions, including Cosumnes River Boulevard between Center Parkway and Bruceville Road, and the optional shuttle lot location at Calvine/Auberry; • Densely-vegetated natural stream crossings and stream-side terraces (areas of higher archaeological sensitivity) along Morrison, Union House, and Strawberry creeks; and • The anomalies within the densely-vegetated Bufferlands identified by Tremaine and Associates. <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> • No impact. 	<p>PS</p> <p>N</p>	<p><u>TSM and LPAP2:</u></p> <p>During construction in identified areas, monitoring will be conducted by a qualified professional archaeologist and/or a member of the local Native American community. The monitor(s) will have the ability to temporarily stop any work in an area where archaeological materials or human remains are uncovered long enough to assess the finds and, in the case of human remains, to follow the stipulations set out in the State Health and Safety Code (Section 7050.5.). Such provisions will be in the construction contracts.</p> <p>If unanticipated archaeological resources are encountered during construction, they would be addressed in consultation with the Office of Historic Preservation (OHP) or in accordance with an archaeological treatment plan to be developed in consultation with OHP. Such provisions will be in the construction contracts.</p>	<p>LS</p> <p>N</p>
<p>4.5.4.2 Impacts to Historic Architectural Resources</p> <ul style="list-style-type: none"> • No impact under either build alternative. 	<p>N</p>	<p>No mitigation is indicated.</p>	<p>N</p>
<p>4.6.1.2 ELECTRICAL AND MAGNETIC FIELD (EMF) IMPACTS</p> <ul style="list-style-type: none"> • No impacts under the TSM Alternative • At present, the evidence is that any increased health risks from EMF exposures attributable to light rail improvements would be very small. • 	<p>N</p> <p>LS</p>	<p>No mitigation is indicated.</p>	<p>N</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>4.6.2 ELECTRICAL AND MAGNETIC INTERFERENCE (EMI) IMPACTS</p> <ul style="list-style-type: none"> No impacts under the TSM Alternative. The LPAP2 would generate EMF, which could interfere with the effective performance of electronics and electrical equipment. EMI effects would be minimized as part of project design. This may be done by ensuring that all electronic equipment is operated with a good electrical ground and that proper shielding is provided for electronic system cords, cables, and peripherals. Specialized components, such as filters, capacitors and inductors, can also reduce EMI susceptibility of certain systems. The design of the system will consider and incorporate, where practicable, the latest standards relevant to (minimizing) EMI. 	<p>N</p> <p>LS</p>	<p>No mitigation is indicated.</p> <p>The potential for EMI effects can be minimized by ensuring that all electronic equipment is operated with a good electrical ground and that proper shielding is provided for electronic system cords, cables, and peripherals.</p> <p>Specialized components, such as filters, capacitors and inductors that can also reduce EMI susceptibility of certain systems will be installed, as appropriate.</p>	<p>N</p> <p>LS</p>
<p>4.7.2 GEOLOGICAL AND SOILS IMPACTS For either the TSM or LPAP2 Alternative:</p> <ul style="list-style-type: none"> The risk of an actual fault rupture in the project area appears very low. The proposed facilities would, however, be exposed to a risk of substantial ground shaking, which can impose loads on structures and earth embankments. Some soils (most likely those associated with basin deposits) may be susceptible to seismically induced liquefaction and settlement, which could affect design and service of the alternatives. 	<p>PS</p>	<p><u>TSM and LPAP 2:</u></p> <p>All geologic hazard impacts will be fully addressed by design requirements. Therefore no mitigation is indicated.</p>	<p>LS</p>
<p>4.8.2 Hazardous Waste Impacts Either the TSM or LPAP2 Alternative</p> <ul style="list-style-type: none"> Construction activities may be affected by releases of hazardous materials from known or previously unidentified hazardous waste sites. Construction activities such as 	<p>PS</p>	<p><u>LPAP2:</u></p> <p>All maintenance personnel who may be exposed to contaminated soils or water would be trained in accordance with the OSHA HAZWOPER standard,</p>	<p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>clearing and grubbing and excavation may expose or encounter hazardous materials.</p> <p><u>LPAP2 Only</u></p> <ul style="list-style-type: none"> Contaminated groundwater may be encountered and affect underground structures associated with the LPAP2 LRT corridor or maintenance yards – such as foundations, vaults or manholes. Dewatering during trenching or excavating may change or amplify local hydraulic gradients and draw groundwater contamination into the trench or excavation. <p>New tracks and passenger LRT service would be introduced into a segment of the existing UPRR corridor with existing</p>	<p></p> <p>PS</p> <p>PS</p> <p>LS</p>	<p>follow a site-specific health and safety plan, and use proper personal protective equipment. Untrained workers and members of the public would be excluded from the area.</p> <p>Test for lead along established traffic corridors. All buildings subject to demolition will be inspected (and tested as necessary) for asbestos containing materials and lead based paints.</p> <p>Contractors will incorporate procedures into a construction management plan describing how they will monitor for subsurface contamination. Prepare and implement a contingency plan for handling and disposing of contaminated soil and groundwater.</p> <p>Additional site specific information will be collected regarding hazardous material/waste for those properties that would be required.</p> <p>Perform Phase 2 site investigations where indicated. Remediation and/or disposal of all materials deemed to be hazardous.</p> <p><u>LPAP2:</u> All buildings subject to demolition will be inspected (and tested as necessary) for asbestos containing materials and lead based paints.</p>	<p></p> <p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>freight rail service. Safety issues associated with any hazardous materials transport on freight trains would not increase or decrease as a result of the LPAP2 and would remain the responsibility of the UPRR. Purchase agreements for property acquired along the alignment will address the characterization, remediation, and liability for existing hazardous environmental conditions.</p>		<p>Prepare and implement a contingency plan for handling/disposing of contaminated soil and groundwater.</p> <p>All contaminated materials encountered will be evaluated in the content of applicable local state, and federal regulations and/or guidelines governing hazardous wastes.</p>	
<p>4.9.2 HYDROLOGY/FLOODPLAIN/WATER QUALITY IMPACTS <u>TSM Alternative</u></p> <ul style="list-style-type: none"> No long-term groundwater impacts are anticipated. Runoff from the PNR lot would be directed to the storm water systems, and eventually to receiving waters. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> From Morrison Creek to Union House Creek, and from Franklin Boulevard to Center Parkway, a planned (2005) flood control project (by others) will eliminate 100-year flood hazards. From Union House Creek to Franklin Blvd., the LPAP2 LRT line would be constructed on a fill embankment above the 100-year flood elevation. Culverts through the embankment would convey runoff/flood flows. The Franklin PNR lot would be constructed above the 100-year floodplain. The south berm of a large detention basin at Franklin Sta. would be modified. Flood storage reduction would be avoided. 	<p>N</p> <p>LS</p> <p>N</p> <p>LS</p>	<p><u>TSM:</u> Parking lot pavement, catch basins, and storm drains will be cleaned regularly.</p> <p><u>LPAP2</u> Consult with ACOE and SAFCA regarding the need for temporary flood control measures from Meadowview to Morrison Creek and from Franklin Blvd to Center Parkway in the event the LPAP2 Project precedes completion of flood control project.</p> <p>Parking lot pavements, catch basins, and storm drains will be cleaned regularly. Solid waste will be collected from facilities on a regular basis.</p> <p>For fill in 100-year floodplain either (1) excavate compensating floodplain storage equal to the amount removed, or (2) pay a mitigation fee to SAFCA.</p>	<p>N</p> <p>LS</p> <p>N</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> On a regional basis, considering the urban area, the existing highway and local street network, and other paved surfaces such as structures and parking lots, runoff from the LPAP2 would be negligible. 	LS	Develop final floodplain mitigation plan in consultation with ACOE and SAFCA.	LS
<p>4.10 LAND USE AND PLANNING</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> Consistent with local and regional plan goals that promote transit use. Acquisition of approximately 16.7 acres of land to construct one bus PNR lot. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> Consistent with the land use and development objectives of local development plans and policy: to promote a transit system that influences growth into efficient and coherent patterns to improve the region's economy, land use, air, and quality of life. The South Sacramento Corridor Phase 2 Project is included in the California State Transportation Improvement Program, SACOG's Metropolitan Transportation Plan, Sacramento County General Plan, City of Sacramento General Plan, Airport-Meadowview Community Plan, and the South Sacramento Community Plan, all of which promote preservation of rights-of-way for future LRT use and land use policy decisions that support the extension of the light rail system. Supportive land use planning would encourage compact development around station locations and promote maximum compatibility and coordination with the light rail system and area land uses. An estimated 53.6 to 71.2 acres would be required for construction of the LPAP2 alignment, stations, and PNR lots. 	LS	No mitigation is indicated.	LS
<p><u>LPAP2</u></p> <ul style="list-style-type: none"> Consistent with the land use and development objectives of local development plans and policy: to promote a transit system that influences growth into efficient and coherent patterns to improve the region's economy, land use, air, and quality of life. The South Sacramento Corridor Phase 2 Project is included in the California State Transportation Improvement Program, SACOG's Metropolitan Transportation Plan, Sacramento County General Plan, City of Sacramento General Plan, Airport-Meadowview Community Plan, and the South Sacramento Community Plan, all of which promote preservation of rights-of-way for future LRT use and land use policy decisions that support the extension of the light rail system. Supportive land use planning would encourage compact development around station locations and promote maximum compatibility and coordination with the light rail system and area land uses. An estimated 53.6 to 71.2 acres would be required for construction of the LPAP2 alignment, stations, and PNR lots. 	B	No mitigation is indicated.	B

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives			
Impact	Significance	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> Approximately 14.6 acres of CRC property, 19.1 acres of SRCSD bufferlands, and 18.3 acres of agricultural land would be converted to public right-of-way. An additional 8.9 acres would come from the UPPR. 	LS		LS
<p>4.11 MINERALS AND ENERGY</p> <p><u>Minerals</u></p> <ul style="list-style-type: none"> No precious or scarce minerals would be mined or consumed in significant quantities to support the construction and operation of the alternatives under consideration. <p><u>Energy Impacts</u></p> <p>Although transit vehicle miles of travel (VMT) would increase with the TSM or LPAP2 Alternative, these increases are more than offset by a corresponding decrease in auto/truck VMT as travelers shift to transit and drive less. Net energy consumption for vehicle operations (i.e., direct energy consumption) is lowest for the LPAP2. The TSM Alternative is second lowest. Direct energy consumption would be highest for the No-Action Alternative.</p> <p>When total system energy is considered, both the TSM Alternative and the LPAP2 show lower energy consumption than the No-Action Alternative.</p>	LS	No mitigation is indicated.	LS
	B		B
	B		B
<p>4.12.4 NOISE IMPACTS</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> No noise impacts for the TSM Alternative. 	N	<p><u>TSM:</u></p> <p>No mitigation is indicated.</p>	N

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p><u>LPAP2</u></p> <ul style="list-style-type: none"> Noise impacts along the LPAP2 LRT alignment would vary depending on the design options selected. Noise impacts along the LPAP2 LRT alignment would vary from 196 (117 "Impact" and 79 "Severe") to 340 (61 "Impact" and 279 "Severe") 	S	<p><u>LPAP2:</u> Mitigation measures include noise barriers, sound insulation, and special trackwork. Noise barriers will be constructed to mitigate noise impacts in compliance with FTA criteria. RT will coordinate mitigation with SAFCA, ACOE, and City of Sacramento to address barrier needs of South Sacramento Corridor Phase 2, flood control, and CRB Widening and Extension projects.</p>	LS
<p>4.12.5 VIBRATION IMPACTS</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> No vibration impacts <p><u>LPAP2</u></p> <ul style="list-style-type: none"> Vibration impacts along the LPAP2 LRT alignment would vary depending on design options selected, with the number of homes affected ranging from 78 to 89. 	<p>N</p> <p>S</p>	<p><u>TSM:</u> No mitigation is indicated.</p> <p><u>LPAP2:</u> Ballast mats in all sensitive areas, as well as speed reductions in the vicinity of Franklin Blvd., Center Parkway, and Bruceville Road.</p>	<p>N</p> <p>LS</p>
<p>4.13 POPULATION, HOUSING, AND ENVIRONMENTAL JUSTICE</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> No displacements of residential Additional bus services would improve local and regional linkages among neighborhoods, businesses and community facilities. There would be no disproportionate distribution of improved bus service and the new bus PNR lot to low-income and minority populations. There would be no disproportionate distribution of adverse impacts to low-income or minority populations. 	<p>N</p> <p>B</p> <p>N</p> <p>N</p>	<p><u>TSM:</u> No mitigation is indicated.</p>	<p>N</p> <p>B</p> <p>N</p> <p>N</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p><u>LPAP2</u></p> <ul style="list-style-type: none"> • One residential property (unit) would require relocation for the LPAP2 if the optional Center Parkway Pedestrian Overcrossing Option were constructed. • Extended LRT service would improve local and regional linkages among neighborhoods, businesses and community facilities with improved travel times in comparison with the No-Action and TSM Alternatives. • Access to employment, education, medical, and retail centers would be improved. There would not be a disproportionate distribution of these benefits to low-income and minority populations • There would be no adverse impacts or disproportionate distribution of adverse impacts to low-income or minority groups. 	<p>LS</p> <p>B</p> <p>B</p> <p>N</p>	<p><u>LPAP2:</u> No mitigation is indicated.</p>	<p>LS</p> <p>B</p> <p>B</p> <p>N</p>
<p>4.14 PUBLIC SERVICES AND FACILITIES</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> • Ten community facilities (including recreation facilities) would realize direct benefits of improved bus service. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> • Ten community facilities (including recreation facilities) would realize direct benefits of improved transit access as a result of the LPAP2. Extending LRT service would also improve accessibility to community facilities in downtown Sacramento and other regional activity centers. 	<p>B</p> <p>B</p>	<p>No mitigation is indicated.</p>	<p>B</p> <p>B</p>
<p>4.15 PARKS AND RECREATION IMPACTS</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> • Four park and recreational facilities would realize direct benefits of improved bus service. 	<p>B</p>		<p>B</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p><u>LPAP2</u></p> <ul style="list-style-type: none"> • Four park and recreational facilities would realize direct benefits of improved transit access. Extending LRT service would also improve accessibility to park and recreational facilities in downtown Sacramento and other regional activity centers. • Design options for the Cosumnes River Boulevard-Bruceville Road transition would differ in their effects to the berm at the northeast corner of the Cosumnes River College stadium. The at-grade option would cut through a portion of the berm, and a new retaining wall would be required along the western portion of the trackway to support the stadium embankment. The flyover option would incorporate part of the berm in the flyover's abutment. There would be no adverse effect on access to or operations or use of the stadium under either the at-grade or flyover options. Visual effects are described in Section 4.1. 	<p>B</p> <p>LS</p>	<p>No mitigation is indicated.</p>	<p>B</p> <p>LS</p>
<p>4.16 SAFETY AND SECURITY</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> • Increased bus services would require increased security. • The alternative would not expose children to disproportionate environmental health or safety risk. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> • Stations, parking lot areas, and maintenance facility would require the same level of security services as existing facilities. 	<p>PS</p> <p>LS</p> <p>PS</p>	<p><u>TSM:</u> RT security services would be extended to the increased bus services.</p> <p><u>LPAP2:</u> During preliminary engineering for the LPAP2, RT has coordinated with security representatives from RT's internal security and the Sacramento City Fire Department to review appropriate security and emergency access provisions at the LRT stations.</p>	<p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> • New rail stations would create activity centers with increased pedestrian activity, auto/bus drop-offs/loadings, and PNR lot traffic, and would create the potential for safety and/or security incidents. • Large parking areas would increase the risk of vandalism to vehicles. • Circulation of autos and pedestrians in PNR lots would create the potential for auto-pedestrian conflicts, primarily during peak periods. • Safety and security of LRT passengers at station facilities would be a concern, with peak periods and late evenings typically requiring additional oversight. • The reduction of corridor auto traffic is expected to have a beneficial effect on motor vehicle accident rates and resulting injuries. • The LPAP2 LRT tracks and stations would be adjacent to an active freight railroad and would traverse high volume roadways that require crossings by pedestrians and vehicular traffic, increasing the potential for accidents. • The alternative would not expose children to disproportionate environmental health or safety risk. Short-term construction effects would be mitigated with the measures described in Section 5.2. At-grade rail crossings would be signalized and would comply with Public Utilities Commission regulations. 	PS	RT will also:	LS
	PS	Continue to coordinate during final design with security representatives from RT's internal security and the Sacramento City Fire Department to review appropriate security and emergency access provisions at the LRT stations.	LS
	PS	Increase security services and assigned law enforcement personnel for the LPAP2, consistent with its security practices.	LS
	PS	Expand fire safety and emergency response training to include fire districts in the South Sacramento Corridor that will be responsible for providing these services.	LS
	B	Expand fire safety and emergency response training to include fire districts in the South Sacramento Corridor that will be responsible for providing these services.	B
	PS	Invite public participation regarding station design details during the final design phase of the project to identify and address safety and security concerns.	LS
	LS		LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives			
Impact	Significance	Mitigation	Significance After Mitigation
<p>4.17 UTILITIES</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> The PNR lot may require minor utility relocations or new utility services, potentially affecting existing and planned utilities. Affected utilities would be relocated only following consultation with their owners. It is anticipated that any required utility relocations could be managed with only short-term disruptions to utility service. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> Construction could affect underground and above-ground utilities throughout the alignment. RT will continue to plan and coordinate with utility providers during the preliminary engineering and final design to minimize or eliminate interruption in utility service to customers. A set of detailed plans will be submitted to utility providers for review and comment prior to any relocation work. <p>Some utilities may be moved to the edges of the LPAP2 LRT right-of-way. Where space within the right-of-way is not available, some utilities would be relocated to easements in adjacent properties. Underground gas, water and sanitary sewer utilities crossing the trackway would be provided with additional protection including minimum depth of ground cover and possibly steel casings in accordance with state and federal pipeline safety laws.</p>	LS	<p><u>TSM:</u> No mitigation is indicated.</p>	LS
	PS	<p><u>LPAP2:</u> No mitigation is indicated.</p>	LS
	LS		LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>5.2.1 CONSTRUCTION PHASE AESTHETICS IMPACTS <u>TSM or LPAP2 Alternative</u></p> <ul style="list-style-type: none"> Construction activities and equipment would introduce visual signs of construction to the area, including stockpiling of soils and materials and the use of heavy equipment. 	<p>LS</p>	<p><u>TSM or LPAP2:</u> RT will require the contractor to maintain the site in an orderly manner, removing trash, waste, and securing equipment and vehicles at the close of each day's operation.</p> <p>To reduce glare from lighting used during nighttime construction activities, RT will require the contractor to direct lighting onto the immediate area under construction only, and to avoid shining lights toward residences and traffic lanes. Nighttime construction would possibly occur only for those activities involving street closures for mitigating impacts to the traveling public such as grading and installation of tracks across roadway, installing of grade crossing safety devices and utility relocations.</p> <p>To reduce dust the contractor would be required to use water trucks during grading to keep the ground moist.</p>	<p>LS</p>
<p>5.2.2 CONSTRUCTION PHASE AGRICULTURE IMPACTS <u>TSM or LPAP2 Alternative</u></p> <ul style="list-style-type: none"> It is not anticipated that construction activities would disturb agricultural land, crops or soils. Construction access roads, staging and equipment laydown areas would be delimited to avoid agricultural property. Provisions will be incorporated into the construction contracts to avoid parking impacts to agricultural land. Construction-phase mitigation measures for air and water quality, traffic and 	<p>N</p>	<p><u>TSM or LPAP2:</u> Construction access roads, staging and equipment laydown areas would be delineated to avoid agricultural property. Provisions will be incorporated into the construction contracts to designate areas for construction worker parking to avoid impacts to agricultural land. No mitigation is</p>	<p>N</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
hazardous materials, as described in their respective sections, would also minimize temporary effects on agricultural land.		required.	
<p>5.2.3 Construction Phase Air Quality Impacts <u>TSM or LPAP2 Alternative</u></p> <ul style="list-style-type: none"> Construction activities would generate short-term emissions of dust, fumes, equipment exhaust, pollutants, and other air contaminants. Construction impacts were evaluated based on a “worst-case” scenario in which all project facilities would be constructed at the same time—which is unlikely. Under this assumption, NO_x emissions are anticipated to exceed the SMAQMD and federal thresholds. 	PS	<p><u>Fugitive Dust/PM10 Mitigation</u> <u>Mitigation Measures for NO_x (either build alternative)</u></p> <p>All construction contracts shall require that the contractor warrantee that construction equipment has been properly tuned and shall implement best management practices to minimize idling, avoid sensitive receptor locations, and maximize the use of low emission fuel.</p> <p>Submit to SMAQMD for approval a plan to achieve a project-wide fleet-average reduction of roughly 20% for NO_x and approximately 45% for PM₁₀ (compared to the most recent CARB fleet average at time of construction).</p> <p>Submit to SMAQMD an inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that would be used 40 or more hours during any part of construction phase. Update and submit the inventory monthly.</p> <p>Off-road diesel-powered equipment emissions will not exceed 40% opacity for more than three minutes in any one hour, or else it will be repaired immediately and the SMAQMD will be notified</p>	PS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
		within 48 hours. A visual survey of all in-operation equipment will be made at least weekly, and a monthly summary will be submitted.	
<p>5.2.4 CONSTRUCTION IMPACTS ON BIOLOGICAL RESOURCES</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> • Construction of PNR lots may disturb non-native grassland that provide suitable habitat for the western burrowing owl. • No wetland areas would be affected. • Natural resources may be adversely affected by construction dust, construction equipment emissions, increased runoff and soil erosion, and construction noise. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> • Approximately 0.15 acre of wetlands/waters would be temporarily disturbed at Morrison Creek and 0.05 acre of wetlands/waters at Morrison Creek/Union House Creek. • Construction activities and related impacts may disturb vernal pool, riparian and non-native grassland natural communities that provide suitable habitat for up to 19 special-status species including four invertebrates, two reptiles and 13 bird species. • There is no confirmed evidence that any or all of these species are present in the project area or would be present at the time of construction. All sensitive habitat and wetland areas would be identified for avoidance during project design. 	<p>PS</p> <p>N</p> <p>LS</p> <p>LS</p> <p>PS</p> <p>PS</p>	<p><u>TSM or LPAP2:</u></p> <p>Pre-construction survey for western burrowing owls and burrows within 330 feet no more than two weeks before construction. If active burrows are located, a no-disturbance buffer will be established around each active burrow. The size of the buffer will be determined through CDFG. If adverse effects to occupied burrows are unavoidable, the owls shall be passively relocated using techniques approved by CDFG.</p> <p>Best management practices for water quality shall be implemented.</p> <p>Where possible, protect by a 50-foot buffer zone (ESA) with exclusionary fencing habitat for vernal pool fairy shrimp, Midvalley fairy shrimp, vernal pool tadpole shrimp, and California linderiella.</p> <p>Pre-construction survey of all project affected aquatic habitat no more than 24 hours prior to instream construction or disturbance of riparian vegetation. If western pond turtles are found, on-site monitoring and possible relocation shall be implemented.</p>	<p>LS</p> <p>N</p> <p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
		<p>Use water quality best management practices. Where possible, protect giant garter snake (GGS) habitat by a 200-foot buffer zone (ESA) with exclusionary fencing.</p> <p>Construction in GGS habitat is preferably from May 1 to October 1. If between October 2 and April 30 USFWS may require additional measures.</p> <p>Survey for GGS 24 hours prior to construction.</p> <p>A qualified, USFWS-approved biological monitor shall be present during construction within suitable habitat. If a snake is encountered, all construction activities in the immediate area shall be halted until appropriate corrective measures are implemented.</p>	
		<p><u>LPAP2 Only:</u></p> <p>Any dewatered GGS habitat shall remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling.</p> <p>Post-construction, remove all temporary fill/ debris. Restore disturbed areas to pre-project conditions, using native grass seed mixes.</p> <p>If construction or tree removal will occur between February and August, preconstruction surveys for migratory bird, raptor, or special-status birds nests will be conducted within 0.25 mile of the project</p>	

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
		<p>area. If active nests are found, consult with USFWS and CDFG to develop avoidance/minimization measures. Raptor or migratory bird nest trees shall be removed outside of the nesting season (February through August), or after nest is empty and adult and young birds leave the tree.</p> <p>Annual survey for Swainson's hawk nests from March-August 15. If nests are discovered, consult with CDFG.</p>	
<p>5.2.5 CONSTRUCTION EFFECTS ON CULTURAL RESOURCES <u>TSM or LPAP2 Alternative</u></p> <ul style="list-style-type: none"> Although not anticipated, construction activities could result in the loss or degradation of previously undiscovered cultural resources. 	<p>PS</p>	<p><u>TSM or LPAP2:</u></p> <p>If unanticipated cultural materials are unearthed during construction, work in the vicinity of the find would be halted until a qualified archaeologist can assess their significance. If human remains are unearthed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.88. In either instance, RT shall be immediately notified.</p> <p>If unanticipated archaeological resources are encountered during construction, they would be addressed in consultation with the Office of Historic Preservation (OHP)/or in accordance with an archaeological treatment plan to be developed in consultation with OHP.</p>	<p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>5.2.6 CONSTRUCTION EMPLOYMENT <u>TSM Alternative</u></p> <ul style="list-style-type: none"> 120 on-site full-time construction positions (PYE) and 190 total positions (PYE) would be generated. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> 1,100 on-site full-time construction positions (PYE) and from 1,700 total positions (PYE) would be generated. 	<p>B</p> <p>B</p>	<p>No mitigation is required.</p>	<p>B</p> <p>B</p>
<p>5.2.7 CONSTRUCTION-PERIOD GEOLOGICAL AND SOILS IMPACTS AND MITIGATION <u>TSM or LPAP2 Alternative</u> (except as indicated)</p> <p>Additional loads may be imposed on existing slopes, potentially resulting in slope instability. Slope instability could adversely affect constructed facilities on or adjacent to slopes and off-site properties. Weak and/or compressible soils may be present, particularly at shallow depth in or along creek channels and possibly in areas of existing fill. Such soils are a potential source of excessive settlement for structures and areas of fill, and in some cases their presence can also adversely affect construction operations.</p> <ul style="list-style-type: none"> Some soils at and near ground surface are expected to exhibit medium to high expansion potential. For such soils, changes in soil volume and strength are associated with changes in moisture content. The presence of expansive soils can adversely affect the service of pavements and slabs on grade. Where exposed in slopes, such cyclic changes in soil volume and strength are commonly associated with the down-slope creep of near-surface soils and shallow slumping. 	<p>PS</p> <p>PS</p> <p>PS</p>	<p><u>TSM or LPAP2:</u> Design requirements that would likely be implemented for either build alternative include: excavation and replacement or lime-treatment of weak or expansive soils, and/or the use of synthetic materials to reinforce or partly replace weak soils and deep foundations.</p> <p><u>LPAP2:</u> Design requirements specific to the LPAP2 are likely to include: modification or re-grading of slopes, increased set-backs and clearance from slopes, vegetation of slopes, lining channels, excavation and replacement or lime-treatment of weak or expansive soils, and/or the use of synthetic materials to reinforce or partly replace weak soils and deep foundations.</p>	<p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives			
Impact	Significance	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> In some locations shallow groundwater would be present and could affect earthwork, construction, and the service of floor slabs and roadbed/hardscape subjected to traffic load. Dewatering that is extensive in depth, volume and/or duration is not likely to be required, and dewatering activities are not expected to modify groundwater levels sufficiently to induce settlement. 	<p>PS</p> <p>PS</p>		<p>LS</p> <p>LS</p>
<p>5.2.8 TEMPORARY EFFECTS DUE TO HAZARDOUS MATERIALS <u>TSM or LPAP2 Alternative</u></p> <ul style="list-style-type: none"> There is likelihood that hazardous waste may be encountered at the locations identified in Table 4.8-1. Contaminants at these sites may include but are not limited to aerially deposited lead, lead-based paint, MTBE and ACMs. 	<p>PS</p>	<p><u>TSM or LPAP2:</u> Walk-through site reconnaissance will be conducted for each of the site areas to identify any additional evidence of contamination.</p> <p>A review will be conducted of the remediation status of the sites listed in Table 4.8-1. If remediation activities will be complete before construction of the project, then no further mitigation will be necessary. If remediation would not be completed prior to project construction, then an alternate mitigation plan will be prepared and implemented.</p> <p>A site specific evaluation will be made of any known and suspected contaminated sites that would be distributed by construction operations before any soil is removed from affected areas for construction, using the following procedure:</p> <ol style="list-style-type: none"> 1) implementation of a Worker Health and Safety Plan; 2) preparation of a site specific work plan 	<p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
		<p>specifying the proposed location for surface samples or soil borings or trenches; 3) soil boring or trenching and sample collection; 4) laboratory analysis of samples; and 5) preparation of a findings and recommendations report. If the site-specific evaluations determine that contaminants are present, RT will determine the type and extent of contamination and will prepare and implement a remediation plan to avoid risks to public health and safety.</p> <p>To avoid health effects on construction personnel, all personnel who may come in contact with contaminated soil or groundwater would be trained in accordance with the OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (29 CFR 1910.120). A site-specific worker health and safety plan defining potential contaminants and, where appropriate, proper personnel protective equipment would be employed. Proper decontamination procedures for workers and equipment would be followed. When such measures are in place to protect those in closest contact with hazardous substances, impacts to surrounding populations would be avoided.</p> <p>RT will notify the State Department of Toxic Substances Control, Sacramento County Environmental Health Department and the local fire</p>	

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
		department of any contaminants encountered during construction.	
<p>5.2.8 Construction Activity Effects on Hydrology, Floodplain and Water Quality TSM or LPAP2 Alternative (except as indicated)</p> <ul style="list-style-type: none"> • Construction activities would increase the sediment load in stormwater during rainfall events. Sediment sources created during construction include soil stockpiles, soil tracked across construction areas, and soil transported by wind. • One or more acres of land would be disturbed, and therefore a Stormwater Pollution Prevention Plan (SWPPP) will be required, in accordance with Section 402 of the federal Clean Water Act. The purpose of a SWPPP is to reduce the amount of construction-related pollutants that are transported by stormwater runoff to surface waters. • Groundwater is generally 15 feet below ground surface or deeper. Construction excavation is generally expected to be limited and very localized. It is not anticipated that groundwater would be encountered, however, it cannot be ruled out, particularly in localized areas where deeper excavation is required, such as Meadowview Road under the depressed roadway design option. • The LPAP2 would require modification of the berm of a detention basin in the vicinity of the proposed Franklin Station. This could result in the temporary loss of flood storage during this phase of construction. 	<p>LS</p> <p>LS</p> <p>LS</p> <p>PS</p>	<p><u>TSM or LPAP2:</u> The contractor will prepare a SWPPP and will identify construction-period Best Management Practices to reduce water quality impacts. The SWPPP will emphasize standard temporary erosion control measures to reduce sedimentation and turbidity of surface runoff from disturbed areas, and will be submitted to the Regional Water Quality Control Board.</p> <p>For the LPAP2, RT will coordinate with SRCSD and the City of Sacramento regarding construction-period impacts to the bufferlands detention basin. RT will work with these agencies to ensure that adequate flood storage is maintained during the construction period.</p> <p>In the event groundwater is encountered during construction, dewatering would be conducted locally. Dewatering effluent would be tested for contamination. Contaminated effluent would be disposed of in accordance with applicable federal, state and local regulations.</p>	<p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>
<p>5.2.10 Construction Impacts on Land Use</p> <ul style="list-style-type: none"> • No impacts would result under either the TSM or LPAP2 Alternative. 	<p>N</p>	<p>No mitigation is indicated.</p>	<p>N</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
5.2.11.1 Construction Impacts on Mineral Resources <ul style="list-style-type: none"> No significant minerals have been identified in the project area. Construction activity is not anticipated, therefore, to adversely affect mineral resources. 	N	No mitigation is indicated.	N
5.2.11.2 Construction Impacts on Energy Resources <ul style="list-style-type: none"> Construction energy requirements are not considered significant for either the TSM or LPAP2 Alternative. Energy use would represent a small portion of the total energy consumed in the region for the construction of other facilities and for the ongoing operation of commercial, industrial, and residential activities. 	LS	No mitigation is indicated.	LS
5.2.12 Temporary Effects on Neighborhoods and Businesses <u>TSM Alternative</u> <ul style="list-style-type: none"> Construction equipment and vehicles could disrupt traffic near the PNR lot. Grading and paving would also result in intrusions of construction noise and vibration, air emissions, and visual changes. These impacts are expected to be very localized and would not have substantial impacts on neighborhoods or businesses. <u>LPAP2</u> <ul style="list-style-type: none"> Construction of the LPAP2 LRT alignment, station facilities, PNR lots and optional shuttle lot would temporarily affect study area neighborhoods due to street closures, rerouting of transit and vehicular traffic, and movements of construction equipment, materials and vehicles. None would be anticipated to have substantial impacts on the neighborhoods or businesses There would be temporary intrusions of construction noise and vibration, air emissions, and visual changes. These 	LS LS LS	<u>TSM or LPAP2:</u> <ul style="list-style-type: none"> A variety of mitigation measures are proposed to address the direct effects of construction activities – air, noise and vibration emissions, traffic disruptions and visual changes; see their respective subsections of this chapter. Since no substantial adverse impacts to neighborhoods and businesses are anticipated, no additional mitigation is proposed. 	LS LS LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>impacts would also be localized, temporary and intermittent; none would be anticipated to substantially affect neighborhoods or local businesses.</p>			
<p>5.2.13 Construction-Period Noise and Vibration <u>TSM or LPAP2 Alternative</u> (except as indicated)</p> <ul style="list-style-type: none"> • Temporary noise during construction of park-and-ride (PNR) lots has the potential to intrude on residents near the three PNR sites. Most of the construction would consist of site preparation and paving, and would only occur during daytime hours. • Temporary noise during construction of new tracks and stations associated with the LPAP2 also has the potential to intrude on residents near the construction sites. Most of the construction would consist of site preparation and laying new track, and would only occur during daytime hours. • Construction activities that could cause intrusive vibration under either build alternative include vibratory compaction, jackhammers, and use of tracked vehicles such as bulldozers. The most serious sources of construction vibration are blasting and pile driving. There will be no blasting for either alternative and only limited, if any, pile driving under the LPAP2. • The build alternatives are subject to the noise ordinance of the County of Sacramento (Chapter 6.68, Noise Control). The ordinance has specific property line noise limits; however, construction from 6 am to 8 pm on weekdays and 7 am to 8 pm on Saturday and Sunday is specifically exempted from these limits. 	<p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>	<p><u>TSM or LPAP2:</u></p> <p>In addition to the restrictions in the City and County noise ordinances, the mitigation measures would be applicable to construction of either the TSM or LPA Alternative:</p> <p>Include specific residential property line noise limits in construction specifications for this project, and</p> <p>Perform noise monitoring during construction to verify compliance with the limits. This approach allows the contractor flexibility to meet the noise limits in the most efficient and cost effective manner.</p> <p>Assure that a complaint resolution procedure is in place to rapidly address any problems that may develop.</p> <p>Vibration impacts will be mitigated by including numeric limits in the construction specifications, monitoring vibration, and requiring the contractor to follow the specified limits.</p>	<p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
<p>5.2.14 Construction Effects on Parks and Recreation <u>TSM Alternative</u> <ul style="list-style-type: none"> No impact on parks or recreation facilities in the area. <u>LPAP2</u> <ul style="list-style-type: none"> Construction could involve temporary detours or street closures in the vicinity of the project. These are expected to have little or no effect on the ability of the public to access local parks and recreational facilities within the study area. Construction of the LPAP2 LRT facilities at the berm of the northeast corner of the Cosumnes River College Stadium would not affect access to or operations of the recreational facility. Construction detours and road closures are described in Section 5.2.17, Transportation/Traffic. </p>	<p>N LS</p>	<p><u>TSM:</u> No mitigation is indicated. <u>LPAP2:</u> No mitigation is indicated.</p>	<p>N LS</p>
<p>5.2.15 Construction Effects on Public Services and Facilities <u>TSM Alternative</u> <ul style="list-style-type: none"> No impact on public services and facilities in the area. <u>LPAP2</u> <ul style="list-style-type: none"> Construction could involve temporary detours or street closures in the vicinity of the project, which are expected to have little or no effect on the ability to access public services and facilities within the study area. The primary effect would be the need for emergency vehicles to observe any short-term road closures and temporary construction detours. </p>	<p>N LS</p>	<p><u>TSM:</u> No mitigation is indicated. <u>LPAP2:</u> RT will coordinate with local emergency service providers in developing detour plans. Emergency service providers would be provided advance notice of road closures and detour routes.</p>	<p>N LS</p>
<p>5.2.16 Construction Period Safety and Security <u>TSM or LPAP2 Alternative</u> <ul style="list-style-type: none"> Construction activities could expose construction workers, local residents, and employees to potential hazards. </p>	<p>LS</p>	<p><u>TSM or LPAP2:</u> RT will require the contractor submit a safety plan in advance of construction to ensure procedures</p>	<p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
		<p>for the safety of construction workers, local residents, and employees during construction of either the TSM or LPAP2 Alternative.</p> <p>Fencing and lighting of construction and staging areas, and recognized safety practice requirements for the utilization of heavy equipment and the movement of construction materials would be implemented to contain construction activities and avoid accidents.</p>	
<p>5.2.17 Construction Effects on Transportation and Traffic</p> <p><u>TSM Alternative</u></p> <ul style="list-style-type: none"> No construction impacts on rail and bus transit services are anticipated Traffic in the vicinity of the proposed PNR lots could be disrupted by construction equipment and traffic. Construction activities are not expected to have any substantial impact on availability of parking. Construction workers would be expected to park on-site. <p><u>LPAP2</u></p> <ul style="list-style-type: none"> Construction of the connections of existing LRT tracks with new LPAP2 LRT tracks could affect on-going revenue LRT service. Construction at grade crossings would involve closure of individual cross streets for periods of 24 to 48 hours and would disrupt bus services. Affected bus services would need to be temporarily rerouted. Shorter periods of street closures could be done at night. 	<p>N</p> <p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>	<p><u>TSM:</u></p> <p>Contractors will prepare and implement traffic handling plans. RT will coordinate with the City and County to provide advance notice of traffic detours. Provisions will be incorporated into the construction contracts to avoid parking impacts to residential areas or businesses requiring on-street parking.</p> <p><u>LPAP2:</u></p> <p>RT will coordinate construction with other major public or private construction projects within a one-mile radius of its project and schedule its construction contracts to minimize combined project impacts to the surrounding community while at the same time trying to reduce the combined schedule for construction activities.</p>	<p>N</p> <p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives			
Impact	Significance	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> Traffic in the vicinity of the proposed PNR lots could be disrupted by construction equipment and traffic. Construction of LPAP2 LRT improvements would require street closures for 24 to 48 hours at several locations and rerouting of vehicular traffic. Construction activities are not expected to have any substantial impact on availability of parking. Construction workers lots would be expected to park on-site. 	LS	Grade-crossing construction that requires street closure will be scheduled so only one crossing in an area is affected at one time; crossings serving as alternate bus travel routes will remain open.	LS
	LS	<p>RT will provide the public and transit users advance notice of proposed transit reroutes and any other changes in stops and service; Bus route detours will minimize the number of bus stop changes.</p> <p>Construction of at-grade crossings will take place during non-peak periods whenever possible, including at night. In residential areas, major activity will be limited to normal work hours whenever practicable, to avoid noise and related impacts to the local population.</p> <p>RT will notify local residents and businesses in advance of proposed construction activity using a variety of techniques including signage, electronic media, community newspapers, and other techniques identified in the project's public involvement program.</p> <p>The same mitigation measures for bus transit impacts are proposed to address vehicular traffic impacts with two additions:</p> <p>As part of their contracts, contractors will be required to prepare and implement traffic handling plans approved by the City of Sacramento, the City</p>	LS

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives

Impact	Significance	Mitigation	Significance After Mitigation
		<p>of Elk Grove, or Sacramento County, as appropriate. Plans will identify detour routes, signing and barricade locations, turnarounds at street closures, and other traffic control elements.</p> <p>As part of their regular project planning meetings with neighboring jurisdictions, RT will coordinate with the City of Sacramento, the City of Elk Grove, and Sacramento County to provide the public advance notice of proposed traffic detours and their duration.</p> <p>Provisions will be incorporated into the construction contracts to avoid parking impacts to residential areas or businesses requiring on-street parking.</p>	
<p>5.2.18 Temporary Effects on Utilities</p> <p><u>TSM or LPAP2 Alternative</u></p> <ul style="list-style-type: none"> The potential exists for construction activities to encounter unexpected utilities within the project right-of-way. Relocations of affected utilities in the corridor or at LPAP2 LRT stations or PNR lots will be the responsibility of RT and may require short-term, limited interruptions of service. No interference with existing utility service is anticipated during installations of connections to existing high-voltage power transmission facilities because the utility will put customer loads on alternate feeders during the connection activity. 	<p>PS</p>	<p><u>TSM or LPAP2:</u></p> <p>RT will continue close coordination with all utility providers during the construction stages of the project to identify any potential conflicts and formulate strategies to overcome potential problems.</p> <p>A set of detailed plans will be submitted to utility providers for their review and comment prior to the onset of any relocation work.</p> <p>Any short-term, limited service interruptions would be scheduled well in advance and appropriate notification provided to users. These interruptions</p>	<p>LS</p>

Table 6.2-1: Summary of Impacts and Proposed Mitigation for the TSM and LPAP2 Alternatives			
Impact	Significance	Mitigation	Significance After Mitigation
		would be discussed and planned at the regular planning meetings between RT and neighboring jurisdictions.	
B=Benefit, N=Neutral, LS=Less than Significant, PS=Potentially Significant, S=Significant, SU=Significant Unmitigable			
Source: Parsons, 2002			

6.2.1 Impacts with CEQA Baseline (Current) Conditions

CEQA requires that impacts of the alternatives be evaluated against CEQA baseline conditions, i.e., current conditions (as of the time of the CEQA Notice of Preparation). For nearly all analysis subject areas, the impact evaluation in Chapters 3, 4, and 5 uses existing conditions as the baseline for comparison. The following discussion – organized by impact evaluation subject area – notes where current conditions (the CEQA baseline) for the basis for the impact evaluations. Additional information is also provided below for those subject areas where impacts from the existence and operation of a TSM or LPAP2 in operation today would be different than the impacts evaluation provided in Chapters 3, 4, or 5.

- **Aesthetics** – The evaluation in Chapter 4, Section 4.1 makes use of the current visual settings and conditions for review of impacts that would occur for both the TSM and the LPAP2. Visual simulations are presented using existing conditions.
- **Agriculture** – Current conditions are used as the basis for determining the possible loss of agricultural land from the TSM and LPA as described in Chapter 4, Section 4.2.
- **Air Quality** – The transportation model used to produce ridership projections and to generate other transportation statistics and analyses was not run for the LPAP2 assuming current conditions, given that the LRT extension (the LPAP2) would not be in operation until approximately 2010. In addition, the FTA requires that a consistent and uniform set of demographics – specifically those developed for the region by SACOG -- be used to evaluate the impacts for all alternatives.

It is clear, however, that if the TSM or the LRT extension in the South Sacramento Corridor were in operation today, the ridership for these alternatives would be lower than the levels projected for the horizon year of 2025 (as presented in Chapter 3, Section 3.2.4.1), given that the employment and housing would not have grown to the anticipated 2025 future levels. Moreover, congestion levels on the roadways are not as severe today as is project for 2025.

Thus the level of air quality benefits for the TSM and LPAP2, if they were in operation today, would be lower than the levels projected for the future 2025 horizon year, as presented in Chapter 4, Section 4.3.

In addition, localized air emissions (e.g., CO emissions) would be more severe, given that individual vehicular emission rates would not be as improved as is assumed in the horizon year of 2025.

- **Biological impacts** – Current reference materials and recent field reviews were used as the basis for determining possible impacts to biological resources from the TSM and LPAP2 as presented in Chapter 4, Section 4.4.
- **Historical and Cultural Resources** – A review of current reference materials and recent field reviews were used as the basis for determining possible impacts to historic and cultural resources, as presented in Chapter 4, Section 4.5.
- **EMF/EMI** – Current data sources and recently measured interference and field levels were used to determine possible EMF/EMI impacts of the alternatives in Chapter 4, Section 4.6.
- **Geology, Soils, and Seismicity** – Current geologic and soil conditions and current reference materials regarding historic earthquake activities were used to evaluate possible geologic, soils, and seismicity impacts of the TSM and LPA, as presented in Chapter 4, Section 4.7.
- **Hydrology, Floodplain, and Water Quality** – Chapter 4, Section 4.9 notes that the *South Sacramento County Streams (SSCS) Project* would provide additional flood projection and mitigation in the LPAP2 corridor area as compared to current conditions. Without these improvements, portions of the LRT alignment would be located below the 100 year flood levels.

Thus, if the LRT extension were in operation today, portions of the alignment, as currently designed, would be below the 100-year flood levels. These areas include the LRT alignment as it leaves the UPRR corridor leading to the Morrison Creek Station, the Morrison Creek Station itself (including the parking area and platforms), and the alignment immediately to the south of the Morrison Creek Station leading to the bridge structure over the UPRR, Morrison Creek, and Union House Creek.

- **Land Use and Planning** – Chapter 4, Section 4.10 evaluates land use impacts on the basis of the effects that the TSM and LPAP2 would have on both current and future conditions. Maps are provided for current and future land uses, and current planning and zoning documents are reviewed.
- **Mineral and Energy Sources** – The document evaluates mineral and energy on the basis of current conditions, e.g., current energy suppliers and sources, as presented in Chapter 4, Section 4.11.
- **Noise and Vibration** – Chapter 4, Section 4.12 evaluated noise and vibration impacts using current field measurements and current noise and vibration projection techniques, e.g., measurements of current LRT equipment noise levels. Current land uses are identified to determine sensitive receptor locations for both noise and vibration.
- **Population, Housing, and Environmental Justice** – Chapter 4, Section 4.13, identifies both current and projected demographics for the region, sub-regional areas, and the corridor. The environmental justice evaluation makes use of Year 2000 census statistics.
- **Public Services and Facilities** – Chapter 4, Section 4.14) includes an analysis of impacts on existing public service and facilities and notes anticipated future facilities.
- **Recreational Facilities** – Chapter 4, Section 4.15 includes an analysis of impacts on existing recreational facilities and makes note of anticipated future facilities.
- **Safety and Security** – Chapter 4, Section 4.16 evaluates the safety and security impacts on the basis of anticipated services to be provided, noting that current safety and security techniques (fire, life, safety, policing) would be applied for the TSM or LPAP2.
- **Utilities** – Chapter 4, Section 4.17 identifies impacts to existing utilities and references anticipated future utility work.
- **Transportation** – If the TSM or LPAP2 were if operation today, the traffic associated impacts would be different than those described in Chapter 3. Access to the Morrison Creek Station would not be available from the CRB Extension, traffic impacts at intersections near the Center Parkway Station would be more severe given that CRB is not at this point widened to two lanes in each direction, and traffic impacts at the CRB/Bruceville road intersection would be more severe given that the complete set of intersection improvements is still under construction, and traffic impacts at the College Entrance would be more severe given that the planned ultimate widening of Bruceville Road has yet to occur.
- **Construction Impacts** – Construction impacts for the TSM and LPAP2 reviewed in Chapter 5 make use of existing conditions as the basis for the impact evaluation.

6.2.2 CEQA Mandatory Findings of Significance

CEQA identifies types of project impacts as mandatory findings of significance, thereby requiring preparation of an EIR, as follows:

- a) The project has 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.

b) The project has potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.

c) The project has possible environmental impacts that are individually limited, but cumulatively considerable.

d) The project has environmental effects that will cause substantially adverse effects on human beings, either directly or indirectly.

Based on a preliminary assessment that project alternatives evaluated herein could have the potential to generate significant traffic, parking, noise and vibration, wetland/waters, and vernal pool habitat impacts, RT determined to prepare and circulate an EIR for the project. With mitigation measures applied as detailed in Chapters 3, 4, and 5, and summarized in Table 6.2-1, all of the potentially significant impacts of the TSM and LPAP2 alternatives would be reduced to a less than significant level.

6.3 GROWTH INDUCEMENT

CEQA requires a consideration of a project's capacity to induce growth. Growth inducement would occur if the amount of population or employment growth projected to occur as a result of the project would exceed planned levels. Increased development and growth in an area are dependent on a variety of factors, including employment and other opportunities, availability of developable land, and availability of infrastructure, water, and power resources.

A growth inducement evaluation was conducted for the project alternatives, as described in Section 4.13.6. It was determined that none of the proposed project alternatives would induce unplanned growth in the South Sacramento Corridor. The LPAP2 would provide transit facilities that would be supportive of planned growth by influencing development into efficient and coherent patterns. For example, transit oriented development is currently under review by RT and the City of Sacramento for the Morrison Creek Station, and development near the CRC station has been revised to be more transit related. See Section 4.10.2, Local Development Plans and Policies, for supporting discussion.