Final
Supplemental Environmental Impact Report

2022 Regional Transportation Plan and Sustainable Communities Strategy for the Shasta Region

Shasta County, California

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SHASTA
Regional Transportation Agency

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EXECUTIVE SUMMARY

ES.1 Purpose and Scope of the Final EIR

This Supplemental Environmental Impact Report (SEIR) will provide an analysis of the potential environmental effects associated with the implementation of the 2022 RTP/SCS Project, pursuant to the California Environmental Quality Act (CEQA).

This SEIR analysis focuses on potentially significant environmental impacts arising from the Project. The SEIR adopts this approach in order to provide a credible worst-case scenario of the impacts resulting from Project implementation.

ES.2 Project Characteristics

The 2022 RTP/SCS is an update to the current 2018 RTP/SCS that was adopted in October 2018. The 2022 RTP/SCS reflects changes in legislative requirements, local land use policies, and resource constraints that have occurred since adoption of the current 2018 RTP/SCS. The 2022 update to the 2018 RTP/SCS is focused on continued implementation of the 2018 RTP/SCS, with minor updates to ensure consistency with federal, state, and local planning requirements.

The 2022 RTP/SCS illustrates how SRTA will meet the transportation needs of the region for the period from 2022 to 2042, considering existing and projected future land use patterns as well as forecasted population and job growth. The 2022 RTP/SCS identifies that a total of $3,694,397,000 is forecast to be available during the 2022-2042 period. The RTP/SCS identifies and prioritizes expenditures of anticipated funding for transportation projects that involve all transportation modes: highways, streets and roads, interchanges, public transit (rail, bicycle and pedestrian), recreation, aviation, as well as transportation demand management (TDM) and transportation system management (TSM).

The 2022 RTP/SCS transportation improvements project list includes 72 new minor transportation projects. None of the modified or new projects on the 2022 RTP/SCS list would be substantially different in terms of geographical location, type of project, or size of project then those on the 2015 and 2018 RTP/SCS lists. A list of new transportation improvement projects included in the proposed 2022 RTP/SCS is provided in Appendix B of the Draft SEIR. This SEIR only evaluates the new 2022 RTP/SCS projects for their potential to impact the environment as those 2015 and 2018 RTP/SCS projects continued in the 2022 RTP/SCS were evaluated previously. For a complete list of RTP/SCS projects, see the Draft 2022 RTP/SCS.

ES.3 Project Alternatives

CEQA requires an evaluation of the comparative effects of a reasonable range of alternatives to the proposed Project that would feasibly attain most of the Project's basic objectives and that would avoid or substantially lessen any of the significant impacts of the proposed Project. In this case, the majority of the significant impacts of the proposed Project would be mitigated to a less-than-significant level by the measures included in the proposed Project. Nonetheless, three alternatives were evaluated to determine their impacts as compared to those of the proposed Project: the No New Transportation Projects 2022

RTP/SCS Alternative (Alternative 1), the Increased Infill Alternative, (Alternative 2), and the No Project Alternative (Alternative 3). All alternatives were deemed feasible and reasonable alternatives to the proposed Project. However, Alternatives 1 and 2 meet all of the Project goals while Alternative 3 does not meet any of the Project goals.

Alternative 2 would result in a lesser degree of impact regarding the seven Project impacts (air quality, biological resources, cultural resources, greenhouse gas emissions, transportation, tribal cultural rescores, and wildland fire). However, only one of the significant and unavoidable impacts, greenhouse gas emissions, of the proposed Project would be reduced to a less than significant impact under Alternative 2. While the degree of impact of Alternative 2 would be less, other than greenhouse gas emissions, all other impact outcome levels would be the same as the Project, that of significant and unavoidable. Based on the evaluation contained in Section 5.4 and Tables 5-1 and 5-2 of the Draft SEIR, Alternative 2 would be the environmentally superior alternative, as it would result in fewer impacts to one resource category when compared to the proposed Project and still meet all the of Project objectives.

ES.4 Effects Found not to be Significant

CEQA Guidelines Section 15128 requires an EIR to briefly describe any possible significant effects that were determined not to be significant and were therefore not discussed in detail in the Draft SEIR. For purposes of this Final SEIR, the following topics were eliminated from further evaluation of the environmental analysis through the 2015 EIR and 2018 SEIR review process: mineral resources; population and housing; public services; recreation; transportation; and utilities. Agriculture and forestry resources were analyzed and mitigation measures were provided under the land use and planning category.

An Initial Study was prepared for the 2015 RTP/SCS and served as the preliminary review of the environmental impacts analyzed in the 2015 EIR to determine what issue areas require further review in this SEIR. The 2022 SEIR incorporates this Initial Study by reference. For any issue areas where impacts would be similar to or less than the impact level identified in the previous 2015 EIR or 2018 SEIR, no further analysis beyond the Initial Study was warranted. As such, this 2022 SEIR focuses on five analysis areas: Air Quality, Greenhouse Gas Emissions/Climate Change, Transportation, Tribal Cultural Resources and Wildfires. Those mitigation measures from the 2015 EIR or 2018 SEIR still apply and would reduce impacts to a less than significant level. These mitigation measures are listed in Table ES-1, with minor text updates referencing the 2022 RTP/SCS instead of a previous RTP/SCS and minor typo corrections, as necessary. No other revisions to these mitigations were made.

ES.5 Areas of Controversy

No known areas of controversy exist for the proposed Project.

ES.6 Summary of Impacts and Mitigation Measures

Table ES-1 presents a summary of environmental impacts analyzed and identified in the 2015 EIR, the 2018 SEIR, and the 2022 Draft SEIR, the mitigation measures proposed for those impacts (if required), and the level of significance after mitigation.

Table ES-1. Summary of Project Impacts and Mitigation Measures		
Environmental Impacts	**Mitigation Measures**	**Residual Impact (with Mitigation)**
Notes: NI = No Impact, LTS = Less than Significant, SU = Significant, Unavoidable, CC = Cumulatively Considerable, LTCC = Less than Cumulatively Considerable All impact and mitigation text referring to the 2015 RTP and/or the 2018 RTP have been updated to 2022 RTP/SCS,		
Aesthetics/Visual Resources		
Impact AES-1 Proposed transportation improvement projects under the 2022 RTP/SCS, as well as the land use patterns envisioned by the 2022 RTP/SCS, may affect public views along eligible scenic corridors, adjacent landscaping, and other scenic routes considered to have high scenic qualities.	**AES-1(a)** Where a particular 2022 RTP/SCS transportation improvement project affects adjacent landforms, the project sponsor shall ensure that recontouring provides a smooth and gradual transition between modified landforms and existing grade. **AES-1(b)** The project sponsor shall ensure that landscaping is installed to restore natural features along corridors after widening, interchange modifications, realignment, or construction of ancillary facilities. Associated landscape materials and design shall enhance landform variation, provide erosion control, and blend with the natural setting. To ensure compliance with approved landscape plans, the implementing agency shall provide a performance security equal to the value of the landscaping/irrigation installation. **AES-1(c)** The project sponsor shall ensure that a project in a scenic view corridor will have the minimum possible impact upon foliage, existing landscape architecture and natural scenic views, consistent with project goals. **AES-1(d)** Potential noise impacts arising from increased traffic volumes associated with adjacent land development shall be preferentially mitigated through the use of setbacks and the acoustical design of adjacent proposed structures. The use of sound walls, or any other architectural features that could block views from the scenic highways or other view corridors, shall be discouraged to the extent possible. Where use of sound walls is found to be necessary, walls shall incorporate offsets, accents, and landscaping to prevent monotony. In addition, sound walls should be complementary in color and texture to surrounding natural features.	LTS
Impact AES-2 Development of proposed transportation improvement projects under the 2022 RTP, as well as the land use patterns envisioned by the 2022	**AES-2(a)** Roadway extensions and widenings shall avoid the removal of existing mature trees to the extent possible. The loss of trees that are protected by local agencies shall be replaced at a minimum 2:1 basis and incorporated into the landscaping design for the roadway. The project sponsor of a particular 2022 RTP/SCS project shall ensure the continued vitality of replaced trees through periodic maintenance (see Mitigation Measure B-1(j)).	LTS

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RTP/SCS, would contribute to the alteration of Shasta County's character from primarily rural (or semirural) to a somewhat more small urban condition.	**AES-2(b)** Roadway lighting shall be minimized to the extent possible and shall not exceed the minimum height requirements of the local jurisdiction in which the project is proposed. This may be accomplished through the use of hoods, low intensity lighting, and using as few lights as necessary to achieve the goals of the project. **AES-2(c)** Bus shelters and other ancillary facilities constructed as part of roadway improvements under the 2022 RTP/SCS shall be designed in accordance with the architectural review requirements of the local jurisdiction in which the project is proposed.	
AIR QUALITY		
Impact AIR-2 Project implementation could result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.	**AQ-1: Control Measures for Construction Air Pollutant Emissions** The individual project lead agency shall ensure that all feasible and appropriate Shasta County AQMD Standard Mitigation Measures (SMMs) and Best Available Mitigation Measures (BAMMs) are implemented. The measures shall be noted on all construction plans and the lead agency shall perform periodic site inspections. Shasta County AQMD SMMs and BAMMs include, but are not limited to, the following: • Fugitive Dust Emissions o Implement all adequate dust control measures in a timely and effective manner during all phases of project development and construction. o Water all excavated, stockpiled, or graded material to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering shall occur at least twice daily with complete site coverage, preferably in the midmorning and after work is completed each day. o During initial grading, earth moving, or site preparation, construct a paved (or dust palliative treated) apron, at least 100 feet in length, onto the project site from the adjacent paved road(s).	LTS

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	o Sweep adjacent paved streets (recommend water sweeper with reclaimed water) at the end of each day if substantial volumes of soil materials have been carried onto adjacent public paved roads from the project site. o Install sandbags or other erosion control measures to prevent silt runoff to roadways. o Apply Department of Public Works approved non-toxic soil stabilizers in accordance with manufacturer's specifications to all inactive construction areas (i.e., previously graded areas which remain inactive for 96 hours). o Replant vegetation in disturbed areas as quickly as possible. o Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard. o Use wheel washers or wash off tires of all trucks exiting the construction site. o Mitigate fugitive dust emissions from wind erosion in areas disturbed by construction activities (including storage piles) by application of either water or chemical dust suppressant. • Exhaust emissions from diesel heavy equipment o Shut down equipment when not in use to limit engine idling time. Idling time shall be limited to no more than 3 minutes. This idling limit does not apply to circumstances as stated in the California Environmental Protection Agency Air Resources Board Advisory Number 377 (2008). o Provide regular equipment maintenance to prevent emission increases due to engine problems. o Use low sulfur and low aromatic fuels meeting California standards for motor vehicle diesel fuel. o Use low-emitting gas and diesel engines meeting state and federal emissions standards (Tier II, III, IV) for construction equipment. • Other emissions o Use low VOC coatings for the architectural coating phase of construction. All coatings must meet the VOC limits per Shasta County AQMD Rule 3-31.	

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	o Use asphalt mixtures appropriate for the time of year of application, while maintaining compliance with the lead agency's road design and construction standards. o Use alternatives to open burning of vegetative material on the project site, unless otherwise deemed infeasible by the Shasta County AQMD. Suitable alternatives include chipping, mulching, or conversion to biomass fuel. o Provide for temporary traffic control as appropriate during all phases of construction to improve traffic flow as deemed appropriate by the Department of Public Works and/or Caltrans. o Schedule construction activities that redirect traffic flow during off-peak hours as much as practicable.	
Impact AIR-3 Construction and/or operation of the Proposed Project could expose sensitive receptors to substantial pollutant concentrations.	**AQ-3: Air Toxics Health Risk Reduction Measures** Consistent with the provisions contained in the CARB Air Quality and Land Use Handbook (June 2005), lead agencies shall identify appropriate and feasible measures to be incorporated into project building design for residential, school and other sensitive uses located within 500 feet of freeways, heavily travelled arterials, railways and other sources of diesel particulate matter (DPM) and other known carcinogens. The appropriate measures shall include one or more of the following methods as applicable: • The lead agency shall retain a qualified air quality consultant to prepare a health risk assessment in accordance with CARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to stationary air quality polluters prior to issuance of a demolition, grading, or building permit. The health risk assessment shall be submitted to the lead agency for review and approval. The lead agency shall implement any approved health risk assessment recommendations to a level which would not result in exposure of sensitive receptors to substantial pollutant concentrations. Such measures may include: o Do not locate sensitive receptors near the entry and exit points of a distribution center. o Do not locate sensitive receptors in the same building as a perchloroethylene dry cleaning facility.	SU

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	○ Maintain a 50-foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year). ○ Install, operate, and maintain in good working order a central heating and ventilation system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the minimum efficiency reporting value 13. The heating and ventilation system should include the following features: Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building. Either high efficiency particulate absorption filters or American Society of Heating, Refrigeration, and Air-Conditioning Engineers 85% supply filters should be used. ○ Retain a qualified heating and ventilation consultant or high efficiency particulate absorption rate during the design phase of the project to locate the heating and ventilation system based on exposure modeling from the mobile and/or stationary pollutant sources. ○ Maintain positive pressure within the building. ○ Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air. ○ Achieve a performance standard of at least 4 air exchanges per hour of recirculation. ○ Achieve a performance standard of 0.25 air exchanges per hour in unfiltered infiltration if the building is not positively pressurized.	
BIOLOGICAL RESOURCES		
Impact B-1 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2022 RTP may result in impacts to special-status plant and animal species.	**B-1(a): Biological Screening and Assessment** Because of the programmatic nature of the 2022 RTP/SCS and specific impacts for a given project are unknown at this time, on a project-by project basis upon completion of final design, a preliminary biological resource screening shall be performed as part of the environmental review process to determine whether the project has any potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of	LTS

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	study to document the existing biological resources within the project footprint plus a buffer and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all biological resources including, but not limited to special-status species, nesting birds, wildlife movement corridors, potential for installation or retrofitting of existing structures for wildlife movement corridors, evaluation of culverts or other watercourse structures to remove barriers to fish passage, sensitive plant communities/critical habitat, and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be required. The following mitigation measures [B- 1(b) through B-1(j)] shall be incorporated, only as applicable, into the BRA for projects where specific resources are present or may be present and impacted by the project. Note that specific surveys described in the mitigation measures below may be completed as part of the BRA where suitable habitat is present. **B-1(b): Special Status Plant Species Surveys** If completion of the project-specific BRA determines that special-status plant species may occur on-site, surveys for special-status plants shall be completed prior to any vegetation removal, grubbing, or other construction activity of each segment (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species identified in the project specific BRA. All plant surveys shall be conducted by a qualified biologist approved by the implementing agency no more than two years before initial ground disturbance. All special-status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A report of the survey results shall be submitted to the implementing agency, and the CDFW and/or USFWS, as appropriate, for review and approval. **B-1(c): Special Status Plant Species Avoidance, Minimization, and Mitigation** If state listed or California Rare Plant List 1B species are found during special-status plant surveys [pursuant to mitigation measure B-1(b)], then the project shall be re-designed to avoid impacting these plant species. Rare plant occurrences that are not within the immediate disturbance footprint, but are located within 50 feet of disturbance limits	

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	shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm. **B-1(d): Restoration Monitoring** If special-status plants species cannot be avoided and will be impacted by a project implemented under the 2022 RTP/SCS, all impacts shall be mitigated at a minimum ratio of 2:1 (number of acres/individuals restored to number of acres/individuals impacted) for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted to the jurisdiction overseeing the project for approval. (Note: if a state listed plant species will be impacted, the restoration plan shall be submitted to the CDFW for approval). The restoration plan shall include, at a minimum, the following components: • Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type). • Goal(s) of the compensatory mitigation project [type(s) and area(s) enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved]. • Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values). • Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan). • Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule). • Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports). • Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type. • An adaptive management program and remedial measures to address any shortcomings in meeting success criteria.	

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	• Notification of completion of compensatory mitigation and agency confirmation. • Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism). **B-1(e): Endangered/Threatened Species Habitat Assessment and Protocol Surveys** Specific habitat assessment and survey protocol surveys are established for several federally and state endangered or threatened species. If the results of the BRA determine that suitable habitat may be present for any such species, protocol habitat assessments/surveys shall be completed in accordance with CDFW and/or USFWS protocols prior to issuance of any construction permits. If through consultation with the CDFW and/or USFWS it is determined that protocol habitat assessments/surveys are not required, said consultation shall be documented prior to issuance of any construction permits. Each protocol has different survey and timing requirements. The applicants for each project shall be responsible for ensuring they understand the protocol requirements. **B-1(f): Endangered/Threatened Species Avoidance and Minimization** The habitat requirements of endangered and threatened species throughout Shasta County are highly variable. The potential impacts from any given project implemented under the 2022 RTP/SCS are likewise highly variable. However, there are several avoidance and minimization measures that can be applied for a variety of species to reduce the potential for impact, with the final goal of no net loss of the species. The following measures may be applied to aquatic and/or terrestrial species. Project lead agencies shall select from these measures as appropriate. Additionally, projects with the potential to affect endangered or threatened state and federal species may require take authorization from CDFW and/or USFWS. • Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance. • All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed during the typical low flow period or when water is unlikely to be present (generally between June 1 and October 31) to avoid impacts to sensitive aquatic species. Additional timing	

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	restrictions shall be incorporated into the project schedule on a species by species basis in coordination with the resource agencies (e.g., National Marine Fisheries Service, CDFW, USFWS). • All projects occurring within or adjacent to sensitive habitats that may support federally and/or state endangered/threatened species shall have a CDFW and/or USFWS approved biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for endangered/threatened species. Alternatively, and upon approval of the CDFW and/or USFWS, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are being fully implemented. • No endangered/threatened species shall be captured and relocated without expressed permission from the CDFW and/or USFWS. • If at any time during construction of the project an endangered/threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and/or USFWS as appropriate. • For all projects occurring in areas where endangered/ threatened species may be present and are at risk of entering the project site during construction, exclusion fencing shall be placed along the project boundaries prior to start of construction (including staging and mobilization). The placement of the fence shall be at the discretion of the CDFW/USFWS-approved biologist. This fence shall consist of solid silt fencing placed at a minimum of 3 feet above grade and 2 feet below grade and shall be attached to wooden stakes placed at intervals of not more than 5 feet. The fence shall be inspected daily and following rain events and high wind events and shall be maintained in good working condition until all construction activities are complete. • All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies. • No equipment shall be permitted to enter wetted portions of any affected drainage channel.	

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	• All equipment operating within streams shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access. • If project activities could degrade water quality, water quality sampling shall be implemented to identify the pre-project baseline, and to monitor during construction for comparison to the baseline. • If water is to be diverted around work sites, a diversion plan shall be submitted (depending upon the species that may be present) to the CDFW, RWQCB, USFWS, and/or NMFS for their review and approval prior to the start of any construction activities (including staging and mobilization). If pumps are used, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system. • At the end of each workday, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment. • All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. • The CDFW/USFWS-approved biologist shall remove invasive aquatic species such as bullfrogs and crayfish from suitable aquatic habitat whenever observed and shall dispatch them in a humane manner and dispose of properly. • If any federally and/or state protected species are harmed, the CDFW/USFWS-approved biologist shall document the circumstances that led to harm and shall determine if project activities should cease or be altered in an effort to avoid additional harm to these species. Dead or injured special-status species shall be disposed of at the discretion of the CDFW and USFWS. All incidences of harm shall be reported to the CDFW and USFWS within 48 hours. • Considering the potential for projects to impact federal and state listed species and their habitat, SRTA and lead agencies shall contact the CDFW and USFWS to identify mitigation banks within Shasta County during development of the 2022 RTP/SCS. Upon implementation of projects included in the RTP/SCS, but on a project-by-project basis, if the results of the BRA determines that impacts to federal and state threatened or endangered species habitat are expected, lead agencies shall explore species appropriate	

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	mitigation bank(s) servicing the county for purchase of mitigation credits. If mitigation banks or credits are not available, mitigation options may include, but are not limited to, onsite or offsite habitat creation and restoration, land acquisitions, and conservation easements. **B-1(g): Non-listed Special Status Animal Species Avoidance and Minimization** Several State Species of Special Concern may be impacted by projects implemented under the 2022 RTP/SCS. The ecological requirements and potential for impacts are highly variable among these species. Depending on the species identified in the BRA, several of the measures identified under B-1(f) shall be applicable to the project. In addition, measures shall be selected from among the following to reduce the potential for impacts to non-listed special-status animal species: • For non-listed special-status terrestrial amphibians and reptiles, coverboard surveys shall be completed within three months of the start of construction. The coverboards shall be at least four feet by four feet and constructed of untreated plywood placed flat on the ground. The coverboards shall be checked by a qualified biologist once per week for each week after placement up until the start of vegetation removal. All non-listed special-status and common animals found under the coverboards shall be captured and placed in five gallon buckets for transportation to relocation sites. All relocation sites shall be reviewed by the project lead agency and shall consist of suitable habitat. Relocation sites shall be as close to the capture site as possible but far enough away to ensure the animal(s) is not harmed by construction of the project. Relocation shall occur on the same day as capture. If a relocation site immediately adjacent to the project site is unavailable, the CDFW shall be consulted to determine an appropriate relocation site. CNDDB Field Survey Forms shall be submitted to the CFDW for all special-status animal species observed. • Pre-construction clearance surveys shall be conducted within 14 days of the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 200-foot buffer and shall identify all special-status animal species that may occur on-site. All non-listed special-status species shall be relocated from the site either through direct capture or through passive exclusion (e.g., American badger). A report of the pre-construction survey shall be submitted to the lead agency for their review and approval prior to the start of construction.	

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	• A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal to recover special-status animal species unearthed by construction activities. • Upon completion of the project, a qualified biologist shall prepare a Final Compliance report documenting all compliance activities implemented for the project, including the preconstruction survey results. The report shall be submitted within 30 days of completion of the project to the project lead agency and CDFW. • If special-status bat species may be present and impacted by the project, a qualified bat biologist shall conduct within 30 days of the start of construction presence/absence surveys for special-status bats in consultation with the CDFW where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active roosts are located, exclusion devices such as netting shall be installed to discourage bats from occupying the site. If a roost is determined by a qualified bat biologist to be used by a large number of bats (large hibernaculum), bat boxes shall be installed near the project site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified bat biologist that the young have dispersed. If it is determined that a maternity colony would be removed, it would be done only if the roost is clear of bats. The decision on whether or not the maternity roost would be removed shall be made in consultation with CDFW. **B-1(h): Preconstruction Surveys for Nesting Birds for Construction Occurring within Nesting Season** For projects that may result in tree felling or removal of trees or vegetation that may contain a nesting bird, construction activities should occur generally between September 16 to January 31 (thus outside of the nesting season). However, if construction activities must occur during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a qualified biologist no more than 7 days prior to vegetation removal. The surveys shall include the entire segment disturbance area plus a 200-foot buffer around the site. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-	

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	raptor bird species and at least 150 feet for raptor species or as determined in consultation with CDFW and/or USFWS. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. A report of these preconstruction nesting bird surveys shall be submitted to the lead agency to document compliance and to the CDFW. **B-1(i): Worker Environmental Awareness Program (WEAP)** Prior to initiation of construction activities for applicable projects (including staging and mobilization), all personnel associated with project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special-status resources that may occur in the project area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting provided by the trainer indicating they have attended the WEAP and understand the information presented to them. The form shall be submitted to the lead agency to document compliance. **B-1(j): Tree Protection** If it is determined that construction may impact trees protected by local agencies, the project lead agency shall procure all necessary tree removal permits. A certified arborist shall develop a tree protection and replacement plan as appropriate. The plan shall include, but would not be limited to, an inventory of trees to within the construction site, setbacks from trees and protective fencing, restrictions regarding grading and paving near trees, direction regarding pruning and digging within root zone of trees, and requirements for replacement and maintenance of trees. If protected trees will be removed, replacement tree plantings of like species in accordance with local agency standards, but at a minimum ratio of 2:1 (trees planted to trees impacted), shall be installed onsite or at an approved off-site location and a restoration and monitoring program shall be developed in accordance with B-1(d) and shall be implemented for a minimum of seven years or until stasis has been determined by certified arborist. If a protected tree shall be	

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	encroached upon but not removed, a certified arborist shall be present to oversee all trimming of roots and branches.	
Impact B-2 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2022 RTP may result in impacts to sensitive habitats, including federally protected wetlands.	**B-2(a): Jurisdictional Delineation** If projects implemented under the 2022 RTP/SCS occur within or adjacent to wetland, drainages, riparian habitats, or other areas that may fall under the jurisdiction of the CDFW, USACE, and/or RWQCB, a qualified biologist shall complete a jurisdictional delineation. The jurisdictional delineation shall determine the extent of the jurisdiction for each of these agencies and shall be conducted in accordance with the requirement set forth by each agency. The result shall be a preliminary jurisdictional delineation report that shall be submitted to the implementing agency, USACE, RWQCB, and CDFW, as appropriate, for review and approval. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Waste Discharge Requirements (WDR) permit and/or Section 401 Water Quality Certification (depending upon whether or not the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 et seq. of the California Fish and Game Code would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the Clean Water Act would likely be required. **B-2(b): Wetland and Riparian Habitat** Restored Impacts to jurisdictional wetland and riparian habitat shall be mitigated at a minimum ratio of 2:1 (acres of habitat restored to acres impacted) and shall occur on-site or as close to the impacted habitat as possible. A mitigation and monitoring plan shall be developed by a qualified biologist in accordance with mitigation measure B-1(d) above and shall be implemented for no less than five years after construction of the segment, or until the lead agency and/or the permitting authority (e.g., CDFW or USACE) has determined that restoration has been successful. Alternatively, mitigation may occur through the purchase of credits at a USACE approved mitigation bank or contribution to the USACE in-lieu fee program within the USACE Sacramento District. If mitigation is required through a Lake or Streambed Alteration Agreement, the mitigation bank or purchase of credits in an in-lieu fee program shall be approved by CDFW. **B-2(c): Landscaping Plan** If landscaping is proposed for projects occurring within or adjacent to sensitive habitats, a qualified biologist/landscape architect shall prepare a landscape plan for that project. This plan	LTS

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	shall indicate the locations and species of plants to be installed. Drought tolerant, locally native plant species shall be used. Noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or California Invasive Plant Council Lists 1, 2, and 4 shall not be permitted. Species selected for planting shall be similar to those species found in adjacent native habitats and locally collected seeds and plants shall be used. **B-2(d): Invasive Weed Prevention and Management Program** Prior to start of construction for projects occurring within or adjacent to sensitive habitats, an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species. A list of target species shall be included, along with measures for early detection and eradication. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding shall occur where no construction activities have occurred within six (6) weeks since ground disturbing activities ceased. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan.	
Impact B-3 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2022 RTP/SCS may impact wildlife movement, including fish migration, and/or impede the use of a native wildlife nursery.	**B-3(a): Fence and Lighting Design** All projects including long segments of fencing and lighting shall be designed to minimize impacts to wildlife. Fencing shall not block wildlife movement through riparian or other natural habitat. Where fencing is required for public safety concerns, the fence shall be designed in consultation with CDFW and to permit wildlife movement by incorporating design features such as: • A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals; • A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled; and • If privacy fencing is required near open space areas, openings at the bottom of the fence measure at least 16 inches in diameter shall be installed at reasonable intervals to allow wildlife movement. If fencing must be designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate and in consultation with CDFW. Similarly, lighting installed as part of any project shall be designed to be minimally disruptive to	SU

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	wildlife. This may be accomplished through the use of hoods to direct light away from natural habitat, using low intensity lighting, and using as few lights as necessary to achieve the goals of the project. Lighting for trails and bridges that would overspill onto rivers and/or streams that are known to support anadromous fish shall be approved by CDFW. **B-3(b) Construction Best Management Practices** The following construction Best Management Practices (BMPs) shall be incorporated into all grading and construction plans: • Designation of a 20-mile-per-hour speed limit in all construction areas. • All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided. • The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the goal of the project. • Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from waters, wetlands, or other sensitive resources as identified by a qualified biologist. Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site. • Daily construction work schedules should be limited to daylight hours only, to the extent feasible. • Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition. • Drip pans shall be placed under all stationary vehicles and mechanical equipment. • All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week. • No pets are permitted on project site during construction.	

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CULTURAL RESOURCES		
Impact CR-1 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2022 RTP/SCS could disturb known and unknown cultural resources.	**CR-1(a)** The individual project lead agency of a 2022 RTP/SCS project involving earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures or roadways shall ensure that the following elements are included in the project's individual environmental review: 1. Prior to construction, a map defining the Area of Potential Effects (APE) shall be prepared on a project by project basis for 2022 RTP/SCS improvements which involve earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures. This map will indicate the areas of primary and secondary disturbance associated with construction and operation of the facility and will help in determining whether known archaeological, paleontological or historical resources are located within the impact zone. 2. A preliminary study of each project area, as defined in the APE, shall be completed to determine whether or not the project area has been studied under an earlier investigation, and to determine the impacts of the previous project. 3. If the results of the preliminary studies indicate additional studies are necessary, development of field studies and/or other documentary research shall be developed and completed (Phase I studies). Negative results would result in no additional studies for the project area. 4. Based on positive results of the Phase I studies, an evaluation of identified resources shall be completed to determine the potential eligibility/ significance of the resources (Phase II studies). 5. Based on the evaluations of the Phase II studies, if necessary, Phase III mitigation studies shall be coordinated with the Office of Historic Preservation, as the research design will require review and approval from the OHP. In the case of prehistoric or Native American related resources, the Native American Heritage Commission and/or local representatives of the Native American population shall be contacted and permitted to respond to the testing/mitigation programs. **CR-1(b)** If development of the proposed improvement requires the presence of an archaeological, Native American, or paleontological monitor, the individual project lead agency shall ensure that a Native American monitor, certified archaeologist, and/or certified paleontologist, as applicable, monitors the grading and/or	SU

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	other initial ground altering activities. The schedule and extent of the monitoring will depend on the grading schedule and/or extent of the ground alterations. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual environmental review. **CR-1(c)** The individual project lead agency shall ensure that materials recovered over the course of any given improvement are adequately cleaned, labeled, and curated at a recognized repository. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual environmental review. **CR-1(d)** The individual project lead agency shall ensure that mitigation for potential impacts to significant cultural resources includes one or more of the following: • Realign the project right-of-way (avoidance; the most preferable method). • Cap the site and leave it undisturbed. • Address structural remains with respect to NRHP guidelines (Phase III studies). • Relocate structures per NRHP guidelines. • Create interpretative facilities at the site. • Develop measures to prevent vandalism. These measures can be accomplished through placement of conditions on the project by the local jurisdiction during individual environmental review.	
ENERGY		
Impact E-1 Future transportation improvement projects and implementation of the land use scenario envisioned by the 2022 RTP/SCS would increase demand for energy	**E-1(a)** New facilities should be designed with energy efficient equipment and passive solar design (e.g., orientation of building to maximize natural heating and cooling, solar water heating, use of daylighting, and placement of trees to aid passive cooling, protection from prevailing winds, and maximum year-round solar access), provided that additional capital costs are offset by estimated energy savings during the first 5 years of operation. Additional improvements with longer payback periods, such as photovoltaic solar electric systems, should be considered where applicable.	LTS

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beyond existing conditions. However, the 2022 RTP/SCS would result in lower VMT and consume less energy than the 'No Project' scenario. The project would not increase energy use relative to future 'No Project' conditions, would not result in inefficient, wasteful, or unnecessary use of energy, and would be consistent with adopted plans and policies related to energy conservation.	**E-1(b)** All lighting should be energy efficient and designed to use the least amount of energy to serve the purpose of the lighting. Lighting should utilize solar energy wherever feasible. **E-1(c)** New landscaping design and irrigation systems should be water efficient. To the extent possible, reclaimed water should be used for roadside landscape irrigation.	
GEOLOGY and SOILS		
Impact G-1 Some proposed 2022 RTP/SCS projects could be at risk from seismic activity. Although fault rupture and seismically induced liquefaction do not pose a substantial threat in Shasta County, ground-shaking may affect 2022 RTP/SCS projects.	**G-1** The lead agency in which a particular 2022 RTP/SCS bridge project is located shall ensure that the structure is designed and constructed to the latest geotechnical standards. In most cases, this will necessitate site-specific geologic and soils engineering investigations to exceed the code for high groundshaking zones. This can be accomplished through the placement of conditions on the project by the lead agency during individual environmental review.	LTS

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Impact G-2 Some projects proposed in the 2022 RTP/SCS may be located on unstable soils.	**G-2** If a 2022 RTP/SCS project involves cut slopes over 15 feet in height, the lead agency in which the project is located shall ensure that specific slope stabilization studies are conducted. Possible stabilization methods include buttresses, retaining walls and soldier piles.	LTS
GREENHOUSE GAS EMISSIONS		
Impact GHG-1 Project implementation could, either directly or indirectly, generate greenhouse gas emissions that may have a significant impact on the environment.	**GHG-1: Control Measures for Construction GHG Emissions** The individual project lead agency shall ensure that applicable GHG-reducing emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the lead agency shall perform periodic site inspections. Applicable GHG-reducing measures include the following: • Use of diesel construction equipment meeting CARB's Tier 2 standards or cleaner (i.e., Tier 3 or 4) off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation. • Use of on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation. • All on and off-road diesel equipment shall not idle for more than 3 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 3-minute idling limit. • Use of electric equipment in place of diesel-powered equipment, where feasible. • Substitute gasoline-powered in place of diesel-powered equipment, where feasible. • Use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, in place of diesel-powered equipment for 15 percent of the fleet. • Use of materials sources from local suppliers • Recycling or reuse of at least 65 percent of construction waste materials.	LTS

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HYDROLOGY AND WATER QUALITY		
Impact W-1 Implementation of proposed transportation improvements and future projects envisioned in the 2022 RTP/SCS would incrementally increase countywide water demand.	**W-1(a)** The individual lead agency of a 2022 RTP/SCS project shall ensure that, where economically feasible, reclaimed water is used for dust suppression during construction activities. This measure shall be noted on construction plans and shall be spot checked by the lead agency. **W-1(b)** The individual lead agency of a 2022 RTP/SCS project shall ensure that low water use landscaping (i.e., drought tolerant plants and drip irrigation) is installed. When feasible, native plant species shall be used. **W-1(c)** The individual lead agency of a 2022 RTP/SCS project shall ensure that, if feasible, landscaping associated with proposed improvements is maintained using reclaimed water. **W-1(d)** The individual lead agency of a 2022 RTP/SCS project shall ensure that porous pavement materials are utilized, where feasible, to allow for groundwater percolation. **W-1(e)** The individual lead agency of a 2022 RTP/SCS project that requires potable water service should coordinate with water supply system operators to ensure that the existing water supply systems have the capacity to handle the increase. If the current infrastructure servicing the project site is found to be inadequate, infrastructure improvements for the appropriate public service or utility should be provided by the individual project lead agency. In addition, wherever feasible, reclaimed water should be used for landscaping purposes instead of potable water.	LTS
Impact W-2 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2022 RTP/SCS could result in soil erosion and contaminants in runoff, which could degrade	**W-2(a)** The individual lead agency of a 2022 RTP/SCS project shall ensure that fertilizer/pesticide application plans for any new right-of-way landscaping are prepared to minimize deep percolation of contaminants. The plans shall specify the use of products that are safe for use in and around aquatic environments. **W-2(b) T**he individual lead agency of a 2022 RTP/SCS widening or roadway extension project shall ensure that the improvement directs runoff into subsurface percolation basins and traps which would allow for the removal of urban pollutants, fertilizers, pesticides, and other chemicals. **W-2(c)** For a 2022 RTP/SCS project that would disturb at least one acre, a Stormwater Pollution Prevention Plan (SWPPP) shall be developed prior to the initiation of grading and implemented for all construction activity on the project site. The SWPPP shall include specific BMPs to control the discharge of material from	LTS

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surface and ground water quality.	the site and into the creeks and local storm drains. BMP methods may include, but would not be limited to, the use of temporary retention basins, straw bales, sand bagging, mulching, erosion control blankets and soil stabilizers.	
Impact W-3 Implementation of proposed transportation improvements and future projects facilitated by the 2022 RTP/SCS could be subject to flood hazards due to storm events and/or dam failure. Impacts	**W-3(a)** If a 2022 RTP/SCS project is located in an area with high flooding potential due a storm event or dam inundation, the individual project lead agency shall ensure that the structure is elevated at least one foot above the 100-year flood zone elevation and that bank stabilization and erosion control measures are implemented along creek crossings. **W-3(b)** For 2022 RTP/SCS projects within a dam failure inundation hazard zone, the project's lead agency shall ensure that a comprehensive flood risk communication strategy is developed, which would include an evacuation plan and/or an Emergency Action Plan and promote dam failure risk awareness and safety.	
LAND USE AND PLANNING		
Impact LU-2 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2022 RTP/SCS could temporarily and/or permanently displace or disrupt existing residences and businesses.	**LU-2(a)** The individual project lead agency of 2022 RTP/SCS projects with the potential to displace residences or businesses should assure that project-specific environmental reviews consider alternative alignments and developments that avoid or minimize impacts to nearby residences and businesses. **LU-2(b)** Where project-specific reviews identify displacement or relocation impacts that are unavoidable, the individual project lead agency should ensure that all applicable local, state, and federal relocation programs are used to assist eligible persons to relocate. In addition, the lead agency shall review the proposed construction schedules to ensure that adequate time is provided to allow affected businesses to find and relocate to other sites. **LU-2(c)** For all 2022 RTP/SCS projects that could result in temporary lane closures or access blockage during construction, a temporary access plan should be implemented by the lead agency to ensure continued access to affected cyclists, businesses, and homes. Appropriate signs and safe access shall be guaranteed during project construction to ensure that businesses remain open.	LTS

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Impact LU-5 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2022 RTP/SCS could result in the conversion of agricultural lands including Prime Farmland and lands under Williamson Act contract to non-agricultural uses.	**LU-5(a)** When new roadway extensions or widenings are planned, the individual project lead agency should assure that project-specific environmental reviews consider alternative alignments that reduce or avoid impacts to Prime Farmlands. **LU-5(b)** Rural roadway alignments shall follow property lines to the extent feasible, to minimize impacts to the agricultural production value of any specific property. Farmers should be compensated for the loss of agricultural production at the margins of lost property, based on the amount of land deeded as road right-of-way, as a function of the total amount of production on the property. **LU-5(c)** Individual project lead agencies should consider corridor realignment, buffer zones, setbacks, and fencing to reduce conflict between agricultural lands and neighboring uses. **LU-5(d)** Quantify potential for direct conversion of Important Farmland using the Land Evaluation and Site Assessment (LESA) model or a similar quantitative tool. **LU-5(f)** Individual project lead agencies should conduct an analysis of potential conflicts with Williamson Act contracts at the project level, consistent with the State CEQA Guidelines. If the impacts of the proposed roadway projects on Williamson Act contract lands are determined to be significant, implement the following measures to reduce the impacts to a less-than-significant level: • Design the proposed roadway projects to avoid or minimize the displacement of current and reasonably foreseeable agricultural operations from affected Williamson Act contract lands. • Where it has been determined that cancellation of a Williamson Act contract for a parcel, or a portion of a parcel, may result in impacts to Prime or Important Farmland, Mitigation Measure LU-5(a) shall be implemented.	SU
NOISE		
Impact N-1 Construction activity associated with transportation improvement projects and development envisioned by the	**N-1(a)** Lead agencies of 2022 RTP/SCS projects shall ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites, appropriate measures shall be implemented to ensure consistency with local noise ordinance requirements relating to construction. Specific techniques may	LTS

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2022 RTP/SCS would create temporary noise level increases in discrete locations throughout the County.	include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise. **N-1(b)** For any project that requires pilings and is located within 800 feet of sensitive, lead agencies shall require caisson drilling or sonic pile driving as opposed to impact pile driving, where feasible. This shall be accomplished through the placement of conditions on the project during its individual environmental review. **N-1(c)** Lead agencies shall ensure that equipment and trucks used for project construction utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds). **N-1(d)** Lead agencies shall ensure that impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrically powered, wherever feasible, to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where the use of pneumatically powered tools is unavoidable, use of an exhaust muffler (reduces noise by up to 10 dBA) or external jackets (reduces noise by up to 5 dBA.) is encouraged. Whenever feasible, use of quieter procedures, such as drilling is encouraged. **N-1(e)** Locate stationary noise sources as far from sensitive receptors as possible. Stationary noise sources that must be located near existing receptors will be adequately muffled.	
Impact N-2 Implementation of the 2022 RTP/SCS would increase traffic generated noise levels on highways and roadways which could expose sensitive receptors to noise in excess of normally acceptable levels.	**N-2(a)** Lead agencies of 2022 RTP/SCS projects that would result in noise exceeding normally acceptable levels shall complete detailed noise assessments using applicable guidelines (e.g., FTA Transit Noise and Vibration Impact Assessment for rail and bus projects and the Caltrans Traffic Noise Analysis Protocol for roadway projects). The project lead agency shall ensure that a noise survey is conducted to determine potential alternate alignments which allow greater distance from, or greater buffering of, noise-sensitive areas. The noise survey shall be sufficient to indicate existing and projected noise levels, to determine the amount of attenuation needed to reduce potential noise impacts to applicable state and local standards. This shall be accomplished during the project's individual environmental review as necessary. **N-2(b)** Where new or expanded roadways or transit are found to expose receptors to noise exceeding normally acceptable levels, the individual project lead agency shall consider various sound attenuation	LTS

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	techniques. The preferred methods for mitigating noise impacts will be the use of appropriate setbacks and sound attenuating building design, including retrofit of existing structures with sound attenuating building materials where feasible. In instances where use of these techniques is not feasible, the use of sound barriers (earthen berms, sound walls, or some combination of the two) will be considered. Long expanses of walls or fences should be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls should be provided. Whenever possible, a combination of elements should be used, including open grade paving, solid fences, walls, and, landscaped berms. Determination of appropriate noise attenuation measures will be assessed on a case-by-case basis during a project's individual environmental review pursuant to the regulations of the applicable lead agency.	
Impact N-3 The proposed 2022 RTP/SCS land use scenario would encourage infill development, which may place sensitive receptors in areas with unacceptable noise levels.	**N-3** If a 2022 RTP/SCS project is located in an area with exterior ambient noise levels above local noise standards or in an area with potential cumulative noise levels above local noise standards (based on traffic volumes from regionally adopted travel demand model), the project lead agency shall ensure that a noise study is conducted to determine existing and projected noise levels and feasible attenuation measures needed to reduce potential noise impacts to such uses to an exterior and interior noise level below local standards. Such measures may include, but are not limited to: dual-paned windows, solid core exterior doors away from roads. This shall be accomplished during the project's individual environmental review.	LTS
TRANSPORTATION		
TR-2: Project implementation could conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Section 15064.3(b)requires an analysis of Vehicle Miles Traveled (VMT) instead of Level of Service (LOS)	No feasible mitigation. The 2022 RTP/SCS includes policies, alternative transportation projects, and transportation demand management projects that would encourage the use of transportation modes other than passenger vehicles. Nonetheless, implementation of the 2022 RTP/SCS would result in greater total VMT when compared to the 2015 baseline. No feasible additional mitigation measures have been identified that would further reduce total VMT. Refer to Section 5.0, Alternatives, for a discussion of 2022 RTP/SCS alternatives that examine land use and transportation scenarios that incorporate different assumptions regarding the combinations of future land uses and transportation system improvements.	CC and SU

Table ES-1. Summary of Project Impacts and Mitigation Measures		
Environmental Impacts	**Mitigation Measures**	**Residual Impact (with Mitigation)**
Notes: NI = No Impact, LTS = Less than Significant, SU = Significant, Unavoidable, CC = Cumulatively Considerable, LTCC = Less than Cumulatively Considerable All impact and mitigation text referring to the 2015 RTP and/or the 2018 RTP have been updated to 2022 RTP/SCS,		
for projects. LOS is no longer required by CEQA.		
TRIBAL CULTURAL RESOURCES		
TCR-1: Project implementation could cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	**TCR-1a: Identified Tribal Cultural Resources Impact Minimization** Implementing agencies shall comply with AB 52, which may require formal tribal consultation. If the implementing agency determines that a project may cause a substantial adverse change to a tribal cultural resource, they shall implement mitigation measures identified in the consultation process required under PRC Section 21080.3.2, or shall implement the following measures where feasible to avoid or minimize the project-specific significant adverse impacts: • Avoidance and preservation of the resources in place, including, but not limited to: designing and building the project to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria. • Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following: • Protecting the cultural character and integrity of the resource o Protecting the traditional use of the resource o Protecting the confidentiality of the resource o Establishment of permanent conservation easements or other culturally appropriate property management criteria for the purposes of preserving of utilizing the resources or places. • Native American monitoring by the appropriate tribe during soil disturbance for all projects in areas identified as sensitive for potential tribal cultural resources and/or in the vicinity (within 100 feet) of known tribal cultural resources. **TCR-1b: Unanticipated Tribal Cultural Resources Impact Minimization** If potential tribal cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and the	LTS

Table ES-1. Summary of Project Impacts and Mitigation Measures		
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	appropriate tribal representative(s), the implementing agency, and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service [NPS] 1983) shall be contacted immediately to evaluate the find. If, in consultation with the implementing agency, the archaeologist and/or tribal representative determines the discovery to be a tribal cultural resource and thus, significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with tribal representatives. If the resource cannot be avoided, a mitigation plan shall be developed to address tribal concerns.	
WILDLAND FIRE		
WILD-1: Proposed Project implementation could expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	**HAZ-1 Wildland Fire Risk Reduction** If an individual transportation or land use project included in the 2022 RTP/SCS is located within the wildland-urban interface or areas favorable for wildland fires such that project specific CEQA analysis finds a significant risk of loss, injury or death from fire, the implementing agency shall require appropriate mitigation to reduce the risk. Examples of mitigation to reduce risk of loss, injury or death from wildlife include, but are not limited to: • Require adherence to the local hazards mitigation plan, as well as the local general plan policies and programs aimed at reducing the risk of wildland fires through land use compatibility, training, sustainable development, brush management, public outreach and service standards for fire departments. • Encourage the use of fire-resistant vegetation native to the SRTA region and/or the local microclimate of the project site, and discourage the use of fire-prone species especially nonnative, invasive species such as pampas grass or giant reed. • Require a fire safety plan be submitted to and approved by the local fire protection agency. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. The local fire protection agency may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase of the project.	SU

Table ES-1. Summary of Project Impacts and Mitigation Measures		
Environmental Impacts	**Mitigation Measures**	**Residual Impact (with Mitigation)**
Notes: NI = No Impact, LTS = Less than Significant, SU = Significant, Unavoidable, CC = Cumulatively Considerable, LTCC = Less than Cumulatively Considerable All impact and mitigation text referring to the 2015 RTP and/or the 2018 RTP have been updated to 2022 RTP/SCS,		
	• Prohibit certain project construction activities with potential to ignite wildland fires during red-flag warnings issued by the National Weather Service for the project site location. Example activities that should be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings. • Require fire extinguishers to be onsite during construction of projects. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher.	
WILD-2: If the Proposed Project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, Proposed Project implementation could substantially impair an adopted emergency response plan or emergency evacuation plan.	Implement mitigation measure HAZ-1	LTS
WILD-3: If the Proposed Project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, Proposed Project implementation could, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, exposing Project occupants to, pollutant concentrations from	Implement mitigation measure HAZ-1	LTS

Table ES-1. Summary of Project Impacts and Mitigation Measures		
Environmental Impacts	**Mitigation Measures**	**Residual Impact (with Mitigation)**
Notes: NI = No Impact, LTS = Less than Significant, SU = Significant, Unavoidable, CC = Cumulatively Considerable, LTCC = Less than Cumulatively Considerable All impact and mitigation text referring to the 2015 RTP and/or the 2018 RTP have been updated to 2022 RTP/SCS,		
a wildfire or the uncontrolled spread of a wildfire.		
WILD-4: If the Proposed Project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, Proposed Project implementation could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Implement mitigation measure HAZ-1	LTS
WILD-5: If the Proposed Project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, Proposed Project implementation could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Implement mitigation measure HAZ-1	LTS

Table ES-1. Summary of Project Impacts and Mitigation Measures		
Environmental Impacts	**Mitigation Measures**	**Residual Impact (with Mitigation)**
Notes: NI = No Impact, LTS = Less than Significant, SU = Significant, Unavoidable, CC = Cumulatively Considerable, LTCC = Less than Cumulatively Considerable All impact and mitigation text referring to the 2015 RTP and/or the 2018 RTP have been updated to 2022 RTP/SCS,		
WILD-6: Implementation of the Proposed Project, along with any foreseeable development in the project vicinity, could result in cumulative impacts to wildfire.	Implement mitigation measure HAZ-1	CC and SU

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1.0 INTRODUCTION

This Final Supplemental Environmental Impact Report (Final SEIR) was prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Section 15132). The Shasta Regional Transportation Agency (SRTA) is the lead agency for the environmental review of the proposed 2022 Reginal Transportation Plan/Sustainable Communities Strategy (2022 RTP/SCS, Project). The SRTA has the principal responsibility for approving the Project. This Final SEIR assesses the expected environmental impacts resulting from approval and implementation of the proposed Project, as well as responds to comments received on the Draft SEIR.

1.1 Background and Purpose of the SEIR

1.1.1 Overview of CEQA Requirements For Preparation of an SEIR

The SRTA, serving as the lead agency, has prepared this SEIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Project. As set forth in the provisions of CEQA and implementing regulations, public agencies are charged with the duty to consider the environmental impacts of proposed development and to minimize these impacts where feasible while carrying out an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

State CEQA Guidelines Section 15121(a) states that an EIR is an informational document for decision-makers and the general public that analyzes the significant environmental effects of a project, identifies possible ways to minimize significant effects, and describes reasonable alternatives to the project that could reduce or avoid its adverse environmental impacts. Public agencies with discretionary authority are required to consider the information in the EIR, along with any other relevant information, in making decisions on the project.

CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term *project* refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed Project, the SRTA has determined that the proposed 2022 RTP/SCS is a project within the definition of CEQA.

1.1.2 Background of Environmental Review Process of the Project

This Supplemental Environmental Impact Report identifies and evaluates the potential environmental impacts associated with the implementation of the Shasta Regional Transportation Agency's 2022 Regional Transportation Plan and Sustainable Communities Strategy for the Shasta Region. The 2022 RTP/SCS is the second update of the 2015 RTP/SCS, with the 2018 RTP/SCS being the first update. This 2022 SEIR augments the previously certified 2015 Environmental Impact Report (2015 EIR) for the 2015 RTP/SCS as well as the 2018 SEIR for the 2018 RTP/SCS (State Clearinghouse # 2014022018). The SRTA Board of Directors certified the 2015 EIR on June 30, 2015, at which time it also adopted the 2015

RTP/SCS. The Board of Directors certified the 2018 SEIR on October 9, 2018, at which time it also adopted the 2018 RTP/SCS.

The following is an overview of the environmental review process for the proposed 2022 RTP/SCS that has led to the preparation of this Final SEIR.

Initial Study

An Initial Study was prepared for the 2015 RTP/SCS and served as the preliminary review of the environmental impacts analyzed in the 2015 EIR to determine what issue areas require further review in this SEIR. The 2022 SEIR incorporates this Initial Study by reference. For any issue areas where impacts would be similar to or less than the impact level identified in the previous 2015 EIR or 2018 SEIR, no further analysis beyond the Initial Study was warranted. All mitigation measures identified in the 2015 EIR and the 2018 SEIR, as shown in the Executive Summary (Table ES-1), are included as mitigation in this SEIR and in the 2022 Mitigation Monitoring and Reporting Program (MMRP). No new mitigation measures were required for the 2022 SEIR because the existing mitigations from the 2015 EIR and 2018 SEIR were adequate to reduce most potential impacts to a less than significant level except for those that were identified as significant and unavoidable. These impacts remain significant and unavoidable in this SEIR with the exception of greenhouse gas emissions. Greenhouse gas emissions was reduced to a less than significant level because of new projects and programs in the 2022 RTP/SCS which, after analysis, resulted in a reduction in greenhouse gas emissions.

Notice of Preparation

In accordance with CEQA Guidelines § 15082, SRTA prepared a Notice of Preparation (NOP) of an SEIR for the Project that was distributed to responsible agencies and the public for a 30-day comment period, beginning on October 11, 2022, and concluding on November 9, 2022.

Draft SEIR

The Draft SEIR was released for public and agency review on August 17, 2023, and the review period ended on October 2, 2023. The Draft SEIR contains a description of the Project, description of the environmental setting, identification of Project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of Project alternatives. The Draft SEIR was provided to interested public agencies and the public and was made available for review at the SRTA office and on the SRTA's website.

Final SEIR

The SRTA received one (1) comment letter from interest groups, government agencies, and the public regarding the Draft SEIR. This document responds to the written comments received as required by CEQA. As explained in Section 3.0, Minor Revisions to the SEIR, one of these comments resulted in minor revisions to mitigation measure B-1(c), B-1(f), B-1(g), B-1(h), B-2(c), and B-3(b) in order to provide more specificity regarding the mitigation procedures. This document constitutes the Final SEIR.

Certification of the Final EIR/Project Consideration

SRTA will review and consider the Final SEIR. If the SRTA finds that the Final SEIR is "adequate and complete," SRTA may certify the Final SEIR. The rule of adequacy generally holds that the EIR can be certified if (1) it shows a good faith effort at full disclosure of environmental information, and (2) it provides sufficient analysis to allow decisions to be made regarding the Project in contemplation of its environmental consequences.

Upon review and consideration of the Final SEIR, t SRTA may take action to adopt, revise, or reject the proposed Project. A decision to approve the proposed Project would be accompanied by written findings in accordance with State CEQA Guidelines Section 15091 and Section 15093. Public Resources Code Section 21081.6 also requires lead agencies to adopt a Mitigation Monitoring and Reporting Program (MMRP) to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The MMRP for the proposed Project is located under separate cover.

1.2 Intended Use of the SEIR

This SEIR is intended to evaluate the environmental impacts of the 2022 RTP/SCS. This SEIR in its final form will be used by the SRTA in considering approval of the proposed Project. In accordance with CEQA Guidelines § 15126, the SEIR will be used as the primary environmental document in consideration of all subsequent planning and permitting actions associated with the Project, to the extent such actions require CEQA compliance and as otherwise permitted under applicable law.

Shasta Regional Transportation Agency

The SEIR is intended to be used by SRTA as a tool in evaluating the proposed Project's environmental impacts and can be further used to modify, approve, or deny approval of the proposed Project based on the analysis provided in the SEIR. A description of any requested entitlements and subsequent approvals associated with approval and implementation of the proposed Project are described in Section 2.0, Project Description, of the Draft SEIR.

Known Trustee And Responsible Agencies

For the purpose of CEQA, the term *trustee agency* means a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. In CEQA, the term *responsible agency* includes all public agencies other than the lead agency that may have approval authority in some regard associated with the proposed Project. Interested agencies may have a general interest in the proposal with respect to issues germane to their organization. The following agencies have been identified as potential responsible, trustee, or interested agencies with direct or indirect interest in the Project:

- California Department of Fish and Wildlife (CDFW);
- California Department of Transportation (Caltrans);
- California Transportation Commission (CTC);

- California Public Utilities Commission's Rail Crossings Engineering Section (RCES);
- Regional Water Quality Control Board(RWQCB);
- Cities of Redding, Anderson, and Shasta Lake;
- County of Shasta;
- Federal Land Management Agencies (FLMA) - Bureau of Land Management (BLM), the Fish and Wildlife Service (FWS), the National Park Service (NPS) and the Forest Service (USFS);
- Federal Railroad Administration (FRA);
- U.S. Army Corps of Engineers (ACOE);
- US Bureau of Reclamation (BOR);
- Redding Area Bus Authority (RABA);
- Nor-Rel-Muk Nation;
- Redding Rancheria;
- Winnemem Wintu Tribe;
- Wintu Tribe of Northern California; and
- Local transit providers and airport operators.

This SEIR may also be used by other public agencies to issue approvals and permits related to the proposed Project.

1.3 Organization and Scope of the Final SEIR

This document is organized in the following manner:

Section ES – Executive Summary

Section ES includes an updated Executive Summary that provides a brief project description and presents a summary table of probable environmental effects of the project.

Section 1.0 – Introduction

Section 1.0 provides an overview of the SEIR process to date and what the Final SEIR is required to contain.

Section 2.0 – Comments and Responses to Comments on the Draft SEIR

Section 2.0 provides a list of commenters, copies of written comments (coded for reference), and the responses to those written comments made on the Draft SEIR.

Section 3.0 – Minor Revisions to the Draft SEIR

Section 3.0 provides a list of minor edits, if necessary, made to the Draft SEIR as a result of comments received and other staff-initiated changes.

Comments and Responses to Comments on the Draft SEIR

2.1 Introduction

This Final SEIR was prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000, et seq.) and State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). The SRTA is the lead agency for the environmental review of the proposed Project and has the principal responsibility for approving the Project. This Final SEIR assesses the expected environmental impacts resulting from the approval and implementation of the proposed Project and responds to comments received on the Draft SEIR.

2.2 List of Commenters

The following individuals and representatives of organizations and agencies submitted written comments on the Draft EIR. To assist in referencing comments and responses, the following coding system is used:

- Comment letters are coded by letters and each issue raised in the comment letter is assigned a number (e.g., Comment Letter A, comment 1 is referred to as A-1).

Table 2-1. List of Comment Letters

Letter	Agency, Organization, or Individual	Date
A	California Department of Fish and Wildlife, Tina Bartlett	9/25/2023

2.3 Requirements for Responding to Comments on the Draft SEIR

State CEQA Guidelines Section 15088 requires that lead agencies evaluate all comments on environmental issues received on the Draft SEIR and prepare a written response. The written response must address the significant environmental issue raised and must be detailed, especially when specific comments or suggestions (e.g., additional mitigation measures) are not accepted. In addition, there must be a good faith and reasoned analysis in the written response. However, lead agencies need only respond to significant environmental issues associated with the project and do not need to provide all the information requested by commenters, as long as a good faith effort at full disclosure is made in the SEIR (State CEQA Guidelines 15204).

State CEQA Guidelines Section 15204 recommends that commenters provide detailed comments that focus on the sufficiency of the Draft SEIR in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. State CEQA Guidelines Section 15204 also notes that commenters should provide an explanation and evidence supporting their comments. Pursuant to State CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence supporting such a conclusion.

State CEQA Guidelines Section 15088 also recommends that where a response to comments results in revisions to the Draft SEIR, those revisions be incorporated as a revision to the Draft SEIR or as a separate section of the Final SEIR.

2.4 Responses to Comments

Each comment letter received for the Project and the individual responses to each comment are included in this document. One comment letter was received from the California Department of Fish and Wildlife (CDFW). The comments included in this letter are individually addressed below. Minor revisions to the document were necessary based on the content of the comment letter received. These revisions are shown in Section 3.0 of this Final SEIR. These revisions do not result in an increase or decrease in environmental impacts for the Project.

Letter A: California Department of Fish and Wildlife

Letter A

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

September 25, 2023

Jennifer Pollom
Shasta Regional Transportation Agency
1255 East Street, Suite 202
Redding, CA 96001

SUBJECT: REVIEW OF THE SUPPLEMENTAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT FOR THE 2022 REGIONAL TRANSPORTATION PLAN, STATE CLEARINGHOUSE NUMBER 2014022018, SHASTA COUNTY

Dear Jennifer Pollom:

The California Department of Fish and Wildlife (CDFW) has reviewed the Draft Supplemental Programmatic Environmental Impact Report (SEIR) dated August 2023, for the above-referenced project (Project). CDFW appreciates this opportunity to comment on the Project, pursuant to the California Environmental Quality Act (CEQA) Guidelines[1].

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish and Game Code, §§ 711.7, subd. (a) & 1802; Public Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. **A-1**

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by state law, of any species protected under the

[1]CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Conserving California's Wildlife Since 1870

California Endangered Species Act (CESA) (Fish and Game Code, § 2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish and Game Code § 1900 et seq.) authorization as provided by the applicable Fish and Game Code will be required. **A-1 cont.**

Project Description

"The 2022 [Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS)] illustrates how [Shasta Regional Transportation Agency (SRTA)] will meet the transportation needs of the region for the period from 2022 to 2042, considering existing and projected future land use patterns as well as forecasted population and job growth…The RTP/SCS identifies and prioritizes expenditures of anticipated funding for transportation projects that involve all transportation modes: highways, streets and roads, transit, rail, bicycle and pedestrian; aviation, as well as transportation demand management (TDM) and transportation system management (TSM)….The 2022 RTP/SCS transportation improvements project list includes 72 new minor transportation projects." **A-2**

Project Comments and Recommendations

Since 2014, CDFW has commented on SRTA DEIR's for the RTP and SCS, as the plans and environmental documents are continuously updated to meet the needs of the region during a specific timeframe. In 2018, CDFW commended the SRTA for the attention to detail provided with each avoidance and minimization measure (AMM) pertaining to biological resources. Such measures remain in the 2022 SEIR. CDFW recognizes that the 2022 RTP and SEIR are programmatic, and that the AMM's do not specify specific projects. With that in mind, CDFW finds that the majority of the listed AMM's are adequate in generally avoiding and minimizing impacts to biological resources, however, CDFW offers the following comments and recommendations below to further assist SRTA in adequately identifying and/or mitigating significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. **A-3**

<u>Connectivity</u>
Connectivity refers to the degree that organisms or natural processes can move unimpeded across habitats – both terrestrial and aquatic. Natural and semi-natural components of the landscape must be large enough and connected enough to meet the needs of all species that use them. A functional network of connected habitats is essential to the continued existence of California's diverse species and natural communities, in the face of both human land use and climate change. Climate change may impact both the quality and distribution of habitat and shift the known and historical ranges of species. Thus, connectivity is important to allow for wildlife to adapt, adjust, and move in response to **A-4**

climate change. Habitat connectivity is also necessary to reduce wildlife-vehicle collisions, which put people and wildlife at risk of injury or death.

On October 8, 2021, Governor Gavin Newson approved Senate Bill 790[2], which summarizes the need for habitat connectivity and wildlife corridors to mitigate climate change impacts as well as reduce human impacts on species. On September 30, 2022, Governor Gavin Newsom approved Assembly Bill 2344[3] which requires Caltrans, CDFW, and other appropriate agencies to establish an inventory of barriers to wildlife movement and prioritize crossing structures when building or improving roadways. Fish and Game Code 1930.5 (c) (1) calls for the protection of wildlife corridors, following for migration and movement of species by providing connectivity between habitats, installation of wildlife fence, and provision of roadway crossings to allow movement of wildlife. The planned projects in the RTP will likely result in increased traffic volume, wider roadways or other features that will increase vulnerability of wildlife to vehicle mortality and increase habitat fragmentation.

A-4 cont.

CDFW recommends including habitat connectivity in the updated RTP and SEIR, to ensure wildlife corridors and migration routes are identified, mapped and preserved, large natural habitat blocks are not divided, but rather link existing natural habitat blocks across landscapes, and to strive for improved regional connectivity for the safety of those that utilize California's transportation systems, and for California's wildlife. CDFW also encourages the incorporation of wildlife connectivity structures, including but not limited to underpasses, upsized culverts, exclusionary deer fence and/or jump-out features into suitable projects of the 72 new projects listed.

A-5

For more information regarding the importance of habitat connectivity, framework for local analyses and implementation, the California Essential Habitat Connectivity Project may be a useful resource: https://wildlife.ca.gov/Conservation/Planning/Connectivity/CEHC.

Avoidance and Minimization Measures

Some AMM's included in the SEIR use vague phrases such as *"if feasible," "where feasible"* or *"where economically feasible."* CDFW encourages the SRTA to remove vague and unenforceable language and instead incorporate more determinate language into the AMM's.

Measure B-1(f): Endangered/Threatened Species Avoidance and Minimization

Measure B-1(f), that specifically addresses listed species, should be revised to state "All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed during the typical low flow period or when water is unlikely to be present (generally between **June 1** and October 31), ~~if feasible,~~ to avoid impacts to sensitive aquatic species. Additional

A-6

[2] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB790
[3] https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB2344

timing restrictions shall be incorporated into the project schedule on a species by species basis in coordination with the resource agencies (e.g. National Marine Fisheries Service, CDFW, USFWS)".

A-6 cont.

CDFW appreciates the opportunity to offer comments and recommendations that may assist the SRTA in adequately analyzing and minimizing impacts to biological resources. If you have any questions, please contact Erika Iacona, Senior Environmental Scientist (Specialist), by email at R1CEQARedding@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Tina Bartlett
1D82ADE7303A474...

Tina Bartlett, Regional Manager
Northern Region

ec: State Clearinghouse
State.Clearinghouse@opr.ca.gov

Erika Iacona
R1CEQARedding@wildlife.ca.gov

Letter A – Tina Bartlett, California Department of Fish and Wildlife

Comment A-1: This comment provides the responsibilities of the California Department of fish and wildlife (CDFW) as a Trustee Agency and Responsible Agency under CEQA.

Response A-1: This comment does not contain specific comments on the content or adequacy of the Draft SEIR. Comment noted.

Comment A-2: This comment provides a description of the Project as indicated in the Draft EIR.

Response A-2: This comment does not contain specific comments on the content or adequacy of the Draft SEIR. Comment noted.

Comment A-3: This comment provides a background discussion on CDFW's involvement in previous SRTA RTP/SCS environmental reviews.

Response A-3: This comment does not contain specific comments on the content or adequacy of the Draft SEIR. Comment noted.

Comment A-4: This comment discusses the importance of connectivity for terrestrial and aquatic habitats. The comment discusses Senate Bill 7902, which summarizes the need for habitat connectivity and wildlife corridors to mitigate climate change impacts as well as reduce human impacts on species. The comment also discusses Assembly Bill 23443 which requires Caltrans, CDFW, and other appropriate agencies to establish an inventory of barriers to wildlife movement and prioritize crossing structures when building or improving roadways. Additionally, the comment discusses Fish and Game Code 1930.5 (c) (1) which calls for the protection of wildlife corridors, following for migration and movement of species by providing connectivity between habitats, installation of wildlife fence, and provision of roadway crossings to allow movement of wildlife. Finally, the comment states that the planned projects in the RTP will likely result in increased traffic volume, wider roadways or other features that will increase vulnerability of wildlife to vehicle mortality and increase habitat fragmentation.

Response A-4: This comment does not contain specific comments on the content or adequacy of the Draft SEIR. Comment noted.

Comment A-5: This comment recommends that SRTA include habitat connectivity in the 2022 RTP/SCS and the SEIR. The comment also encourages the incorporation of wildlife connectivity structures, including but not limited to underpasses, upsized culverts, exclusionary deer fence and/or jump-out features into suitable projects of the 72 new projects listed.

Response A-5: This comment does not contain specific comments on the content or adequacy of the Draft SEIR. Comment noted. However, as a point of clarification, the 72 new projects listed in the 2022 RTP/SCS (included as Appendix B in the 2022 SEIR) are mostly maintenance improvements to existing facilities such as repaving, new signs, bike paths, Complete Streets elements, etc.

Comment A-6: This comment states that some Avoidance and Minimization Measures (AMM) included in the SEIR use vague phrases such as *"if feasible," "where feasible"* or *"where economically feasible."* and

CDFW encourages SRTA to remove vague and unenforceable language and instead incorporate more determinate language into the AMM's.

The comment continues and states that mitigation measure B-1(f) should be revised to state "All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed during the typical low flow period or when water is unlikely to be present (generally between June 1 and October 31), ~~if feasible~~, to avoid impacts to sensitive aquatic species. Additional timing restrictions shall be incorporated into the project schedule on a species by species basis in coordination with the resource agencies (e.g., National Marine Fisheries Service, CDFW, USFWS)".

Response A-6: Mitigation measures for biological resources have been revised to remove the phrases allowing ambiguous enforcement of the mitigation measure. These revision include mitigation measures B-1(c), B-1(f), B-1(g), B-1(h), B-2(c), and B-3(b). Mitigation measure B-1(f) has also been revised to include the June 1 to October 31 construction period as suggested CDFW. See Section 3.0 for these revisions.

3.0 MINOR REVISIONS TO THE DRAFT SEIR

This section typically includes minor revisions made to the Draft SEIR. These modifications typically result from comments received during the Draft SEIR public review period as well as staff-initiated changes.

Revisions herein may not result in new significant environmental impacts, may not constitute significant new information, and may not alter the conclusions of the environmental analysis.

In referring to preparing responses to comments on a Draft EIR, Section 15088 (d) of the State CEQA Guidelines states:

> The response to comments may take the form of a revision to the draft EIR or may be a separate section in the final EIR. Where responses to comments makes important changes in the information contained in the text of the draft EIR, the Lead Agency should either:
>
> (1) Revise the text in the body of the EIR, or
> (2) Include marginal notes showing that the information is revised in the response to comments.

In accordance with Section 15088 (d) above, this Chapter of the Final SEIR presents revisions to the Draft SEIR that are hereby made in response to comments received on the Draft SEIR and at the discretion of the Lead Agency. The following lists the section number of the Draft SEIR in which the change is made and the location of the revision within the section. Original Draft SEIR text that is hereby deleted is shown in ~~strike-through~~ format. New text that is added to the Draft SEIR is shown in <u>double-underlined</u> format.

The changes clarify and amplify the information and analysis presented in the Draft SEIR and do not alter the SEIR in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect or a feasible way to mitigate or avoid such an effect. No new significant environmental effects and no increase in the severity of an environmental impact are identified in this Final SEIR.

3.1 Minor Changes to the EIR

Section 1.0 Introduction , Table 1.0-1, page 1-2, is hereby revised to read:

Biological Resources
B-1(c): Special Status Plan Species Avoidance, Minimization, and Mitigation If state listed or California Rare Plant List 1B species are found during special-status plant surveys [pursuant to mitigation measure B-1(b)], then the project shall be re-designed to avoid impacting these plant species~~, if feasible.~~ Rare plant occurrences that are not within the immediate disturbance footprint, but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm.
B-1(f): Endangered/Threatened Species Avoidance and Minimization The habitat requirements of endangered and threatened species throughout Shasta County are highly variable. The potential impacts from any given project implemented under the 2022 RTP/SCS are likewise highly variable. However, there are several avoidance and minimization measures that can be applied for a variety of species to reduce the potential for impact, with the final goal of no net loss of the species. The following measures may be applied to aquatic and/or terrestrial species. Project lead agencies shall select from these measures as appropriate. Additionally, projects with the potential to affect endangered or threatened state and federal species may require take authorization from CDFW and/or USFWS. • Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance. • All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed during the typical low flow period or when water is unlikely to be present (generally between ~~April 1~~ June 1 and October 31)~~, if feasible,~~ to avoid impacts to sensitive aquatic species. Additional timing restrictions shall be incorporated into the project schedule on a species by species basis in coordination with the resource agencies (e.g. National Marine Fisheries Service, CDFW, USFWS). • All projects occurring within or adjacent to sensitive habitats that may support federally and/or state endangered/threatened species shall have a CDFW and/or USFWS approved biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for endangered/threatened species. Alternatively, and upon approval of the CDFW and/or USFWS, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are being fully implemented. • No endangered/threatened species shall be captured and relocated without expressed permission from the CDFW and/or USFWS. • If at any time during construction of the project an endangered/threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and/or USFWS as appropriate. • For all projects occurring in areas where endangered/ threatened species may be present and are at risk of entering the project site during construction, exclusion fencing shall be placed along the project boundaries prior to start of construction (including staging and mobilization). The placement of the fence shall be at the discretion of the CDFW/USFWS-approved biologist. This fence shall consist of solid silt fencing placed at a minimum of 3 feet above grade and 2 feet below grade and shall be attached to wooden stakes placed at intervals of not more than 5 feet. The fence

shall be inspected daily and following rain events and high wind events and shall be maintained in good working condition until all construction activities are complete.

- All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies.
- No equipment shall be permitted to enter wetted portions of any affected drainage channel.
- All equipment operating within streams shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access.
- If project activities could degrade water quality, water quality sampling shall be implemented to identify the pre-project baseline, and to monitor during construction for comparison to the baseline.
- If water is to be diverted around work sites, a diversion plan shall be submitted (depending upon the species that may be present) to the CDFW, RWQCB, USFWS, and/or NMFS for their review and approval prior to the start of any construction activities (including staging and mobilization). If pumps are used, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system.
- At the end of each workday, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment.
- All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.
- The CDFW/USFWS-approved biologist shall remove invasive aquatic species such as bullfrogs and crayfish from suitable aquatic habitat whenever observed and shall dispatch them in a humane manner and dispose of properly.
- If any federally and/or state protected species are harmed, the CDFW/USFWS-approved biologist shall document the circumstances that led to harm and shall determine if project activities should cease or be altered in an effort to avoid additional harm to these species. Dead or injured special-status species shall be disposed of at the discretion of the CDFW and USFWS. All incidences of harm shall be reported to the CDFW and USFWS within 48 hours.
- Considering the potential for projects to impact federal and state listed species and their habitat, SRTA and lead agencies shall contact the CDFW and USFWS to identify mitigation banks within Shasta County during development of the RTP. Upon implementation of projects included in the RTP, but on a project-by-project basis, if the results of the BRA determines that impacts to federal and state threatened or endangered species habitat are expected, lead agencies shall explore species appropriate mitigation bank(s) servicing the county for purchase of mitigation credits. If mitigation banks or credits are not available, mitigation options may include, but are not limited to, onsite or offsite habitat creation and restoration, land acquisitions, and conservation easements.

B-1(g): Non-listed Special Status Animal Species Avoidance and Minimization Several State Species of Special Concern may be impacted by projects implemented under the 2022 RTP/SCS. The ecological requirements and potential for impacts are highly variable among these species. Depending on the species identified in the BRA, several of the measures identified under B-1(f) shall be applicable to the project. In addition, measures shall be selected from among the following to reduce the potential for impacts to non-listed special status animal species:

- For non-listed special-status terrestrial amphibians and reptiles, coverboard surveys shall be completed within three months of the start of construction. The coverboards shall be at least four feet by four feet and constructed of untreated plywood placed flat on the ground. The coverboards shall be checked by a qualified biologist once per week for each week after placement up until the start of vegetation removal. All non-listed special-status and common animals found under the coverboards shall be captured and placed in five gallon buckets for transportation to relocation sites. All relocation

sites shall be reviewed by the project lead agency and shall consist of suitable habitat. Relocation sites shall be as close to the capture site as possible but far enough away to ensure the animal(s) is not harmed by construction of the project. Relocation shall occur on the same day as capture. If a relocation site immediately adjacent to the project site is unavailable, the CDFW shall be consulted to determine an appropriate relocation site. CNDDB Field Survey Forms shall be submitted to the CFDW for all special-status animal species observed.

- Pre-construction clearance surveys shall be conducted within 14 days of the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 200-foot buffer~~, if feasible,~~ and shall identify all special-status animal species that may occur on-site. All non-listed special-status species shall be relocated from the site either through direct capture or through passive exclusion (e.g., American badger). A report of the pre-construction survey shall be submitted to the lead agency for their review and approval prior to the start of construction.
- A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal to recover special-status animal species unearthed by construction activities.
- Upon completion of the project, a qualified biologist shall prepare a Final Compliance report documenting all compliance activities implemented for the project, including the preconstruction survey results. The report shall be submitted within 30 days of completion of the project to the project lead agency and CDFW.
- If special-status bat species may be present and impacted by the project, a qualified bat biologist shall conduct within 30 days of the start of construction presence/absence surveys for special-status bats in consultation with the CDFW where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active roosts are located, exclusion devices such as netting shall be installed to discourage bats from occupying the site. If a roost is determined by a qualified bat biologist to be used by a large number of bats (large hibernaculum), bat boxes shall be installed near the project site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified bat biologist that the young have dispersed. If it is determined that a maternity colony would be removed, it would be done only if the roost is clear of bats. The decision on whether or not the maternity roost would be removed shall be made in consultation with CDFW.

B-1(h): Preconstruction Surveys for Nesting Birds for Construction Occurring within Nesting Season For projects that may result in tree felling or removal of trees or vegetation that may contain a nesting bird~~, if feasible,~~ construction activities should occur generally between September 16 to January 31 (thus outside of the nesting season). However, if construction activities must occur during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a qualified biologist no more than 7 days prior to vegetation removal. The surveys shall include the entire segment disturbance area plus a 200-foot buffer around the site. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-raptor bird species and at least 150 feet for raptor species or as determined in consultation with CDFW and/or USFWS. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. A report of these preconstruction nesting bird surveys shall be submitted to the lead agency to document compliance and to the CDFW.

B-2(c): Landscaping Plan If landscaping is proposed for projects occurring within or adjacent to sensitive habitats, a qualified biologist/landscape architect shall prepare a landscape plan for that project. This plan shall indicate the locations and species of plants to be installed. Drought tolerant, locally native plant species shall be used. Noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or

California Invasive Plant Council Lists 1, 2, and 4 shall not be permitted. Species selected for planting shall be similar to those species found in adjacent native habitats and ~~if feasible,~~ locally collected seeds and plants shall be used.

B-3(b) Construction Best Management Practices The following construction Best Management Practices (BMPs) shall be incorporated into all grading and construction plans:

- Designation of a 20-mile-per-hour speed limit in all construction areas.
- All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided~~ to the greatest extent feasible~~.
- The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the goal of the project.
- Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from waters, wetlands, or other sensitive resources as identified by a qualified biologist. Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site.
- Daily construction work schedules should be limited to daylight hours only, to the extent feasible.
- Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition.
- Drip pans shall be placed under all stationary vehicles and mechanical equipment.
- All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week.
- No pets are permitted on project site during construction.

GHG-1: Control Measures for Construction GHG Emissions The individual project lead agency shall ensure that applicable GHG-reducing emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the lead agency shall perform periodic site inspections. Applicable GHG-reducing measures include the following:

- Use of diesel construction equipment meeting CARB's Tier 2 standards or cleaner (i.e., Tier 3 or 4) off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation.
- Use of on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation.
- All on and off-road diesel equipment shall not idle for more than ~~5~~3 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the ~~5~~3-minute idling limit.
- Use of electric equipment in place of diesel-powered equipment, where feasible.
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible.
- Use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, in place of diesel-powered equipment for 15 percent of the fleet.
- Use of materials sources from local suppliers

Recycling or reuse of at least 65 percent of construction waste materials.

Section 3.2.6.3 Project Impacts and Mitigation Measures, Table 3.2-5, page 3.2-19, is hereby revised to read:

Table 3.2-5. Regional Air Pollutant Emissions (tons/day)

Scenario	PM_{10}	NO_x	ROG
2015 Baseline	0.38	6.99	2.86
2042 Project	~~0.28~~ 0.38	~~1.27~~ 1.91	~~0.55~~ 0.60
2042 No Project	0.38	1.42	0.76

Source: EMFAC 2014 (see Appendix C)
Note: Emissions were modeled in EMFAC 2014 for three scenarios: 2015 baseline conditions, 2042 growth and development with the 2022 RTP/SCS road network and land use scenario (i.e., 2042 Project), and 2042 growth and development with the road network and land use scenario envisioned in the 2018 RTP/SCS for its planning horizon (i.e., 2042 No Project).

Section 3.2.6.3 Project Impacts and Mitigation Measures, First Paragraph, page 3.2-19, is hereby revised to read:

As shown above in Table 3.2-5, transportation improvements associated with the 2022 RTP/SCS would result in an overall reduction of all on-road vehicle emissions when compared to 2015 Baseline ~~and the 2042 No Project Scenario~~. As such, operations associated with the 2022 RTP/SCS would result in the ~~lowest~~ lower pollutant concentrations when compared to the baseline ~~and no project scenarios~~, and therefore would not introduce any new regional or localized impacts than those described in the 2018 RTP/SCS EIR.

Section 3.2.6.3 Project Impacts and Mitigation Measures, Table 3.2-6, page 3.2-22, is hereby revised to read:

Table 3.2-6. Diesel Toxics Emissions (tons/day)

Scenario	$PM_{2.5}$	NO_x
2015 Baseline	0.10	6.99
2042 Project	~~0.0003~~ 0.01	~~1.27~~ 1.91
2042 No Project	0.04	1.42

Source: EMFAC 2014 (see Appendix C)
Note: Emissions were modeled in EMFAC 2014 for three scenarios: 2015 baseline conditions, 2042 growth and development with the 2022 RTP/SCS road network and land use scenario (i.e., 2042 Project), and 2042 growth and development with the road network and land use scenario envisioned in the 2018 RTP/SCS for its planning horizon (i.e., 2042 No Project).

Section 3.2.6.3 Project Impacts and Mitigation Measures, Last Paragraph, page 3.2-22, is hereby revised to read:

As shown above in Table 3.2-6, toxic diesel air contaminant concentrations due to mobile sources in the county would decrease compared to the baseline ~~and 2042 No Project scenarios~~. Nevertheless, because the 2022 RTP/SCS includes additional projects that may occur in proximity to existing sensitive receptors, the build out of these projects has the potential to result in the exposure of sensitive receptors to hazardous air pollutant that may cause health risks. However, with the application of existing mitigation measure AQ-3, the implementation of the 2022 RTP/SCS would not introduce any new regional impacts or localized impacts than those described in the 2018 RTP/SCS EIR.

Section 3.2.6.3 Project Impacts and Mitigation Measures, Table 3.2-7, page 3.2-23, is hereby revised to read:

Table 3.2-7. VMT Summary (miles/day)

Scenario	Total Daily VMT
2015 Baseline	5,955,776
2042 Project	~~6,198,874~~ 6,206,623
2042 No Project	7,806,135

Source: SRTA Travel Model

Note: SRTA Travel model for three scenarios: 2015 baseline conditions, 2042 growth and development with the 2022 RTP/SCS road network and land use scenario (i.e., 2042 Project), and 2042 growth and development with the road network and land use scenario envisioned in the 2018 RTP/SCS for its planning horizon (i.e., 2042 No Project).

Section 3.3.4.3 Project Impacts and Mitigation Measures, Table 3.3-1, page 3.3-7, is hereby revised to read:

Table 3.3-1. GHG Emission Comparison

Scenario	GHG Emissions (MT/year)	Percent Change Relative to Baseline
2015 Baseline[1]	1,085,399	-
2042 Project[2]	~~659,482~~ 644,752	~~-39.2~~ -40.6%
2042 No Project[2]	746,204	-31.3%

Sources: [1]2018 RTP/SCS SEIR; [2]EMFAC 2014

Section 3.3.4.3 Project Impacts and Mitigation Measures, Mitigation Measure GHG-1, page 3.3-8, is hereby revised to read:

GHG-1: Control Measures for Construction GHG Emissions.

The individual project lead agency shall ensure that applicable GHG-reducing emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the lead agency shall perform periodic site inspections. Applicable GHG-reducing measures include the following:

- Use of diesel construction equipment meeting CARB's Tier 2 standards or cleaner (i.e., Tier 3 or 4) off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation.
- Use of on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation.
- All on and off-road diesel equipment shall not idle for more than ~~5~~3 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the ~~5~~3-minute idling limit.
- Use of electric equipment in place of diesel-powered equipment, where feasible.
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible.
- Use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, in place of diesel-powered equipment for 15 percent of the fleet.
- Use of materials sources from local suppliers
- Recycling or reuse of at least 65 percent of construction waste materials.

Section 3.3.4.3 Project Impacts and Mitigation Measures, Table 3.3-2, page 3.3-10, is hereby revised to read:

~~**Table 3.3-2. SB 375 Emissions and Targets**~~

~~Scenario~~	~~Per Capita CO_2 Emissions (lbs CO_2/person/day)~~	~~Per Capita CO_2 Emissions with Off-Model Adjustment (lbs CO2/ person/day)~~	~~Preliminary % Change Relative to Baseline, Prior to EMFAC Adjustment~~	~~EMFAC Adjustment to % Change~~	~~% Change Relative to Baseline with EMFAC Adjustment~~	~~Target Emissions Decrease from Baseline~~	~~Meets Target?~~
~~2005 Baseline[1]~~	~~21.31~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
~~2020~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-4.3%~~	~~*4%*~~	~~Yes~~
~~2035 Project~~	~~19.08~~	~~19.03~~	~~-10.46~~	~~-2.71%~~	~~-13.42~~	~~*4%*~~	~~Yes~~

~~Notes: [1] Per CARB guidance, the 2005 baseline is based on EMFAC2011 modeling conducted for the 2015 RTP/SCS. The 2020 target assessment used observed data over models. SRTA utilized multiple sources, including StreetLight, HPMS, and SB 150 data. An estimation derived from SB 150 data revealed a 4.3% reduction in total GHG emissions per capita in 2020 when compared to the levels in 2005.~~
~~The 2035 data produced using EMFAC2014 has been normalized to EMFAC 2011 results; therefore, the finding in the previous RTP/SCS remains correct (that SRTA meets its SB 375 targets).~~
~~Source: EMFAC 2014. Refer to Appendix C for Model Data Outputs.~~

Table 3.3-2. SB 375 Emissions and Targets

Scenario	Vehicle Miles Traveled per Capita[1]	Percent Change from 2005	SB 375 Emissions (Lbs CO_2 per Capita)	Percent Change from 2005	Meets Target?
2005 Baseline	26.81	N/A	21.31	N/A	-
2020[2]	25.16	-6.15%	N/A	*-4.3%*	Yes
2035	25.01	-6.71%	19.19[3]	*-12.94%*[4]	Yes

Notes: [1]Generated by draft ShastaSIM v2.0 regional travel demand model (excluding through trips that do not originate or terminate in Shasta County).
[2]Based on actual observed data, rather than modeled and estimations, SRTA utilized multiple sources, including StreetLight, HPMS, and SB 150 data. An estimation derived from the SB 150 data revealed a 4.3% reduction in total GHG emissions per capita in 2020 when compared to the levels in 2005.
[3]Generated by EMissions FACtors (EMFAC) 2014 model including a CARB-directed adjustment for long term induced travel.
[4]Percent reduction in emissions for 2035 includes a – 0.28% off-model strategies effect and a 2.71% CARB-directed straight adjustment factor for an apples-to-apples comparison to baseline data generated by the prior version (2011) of EMFAC.

Section 3.4.2.3 Project Impacts and Mitigation Measures, Table 3.4-1, page 3.4-12, is hereby revised to read:

Table 3.4-1. Project Annual Vehicle Miles Traveled		
2015 Annual VMT	**2042 No Project VMT**	**2042 with Project VMT**
~~1,631,787,301~~ 2,066,654,272	~~2,239,387,732~~ 2,708,728,845	~~1,681,697,420~~ 2,153,698,181

Notes: Annual VMT calculated by multiplying daily VMT from the regional travel demand model by 347.

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