6.0 FUTURE ENVIRONMENTAL ANALYSIS REQUIRED

The environmental analysis presented for the MTIS has been developed to the level needed to identify and compare potential environmental and socioeconomic effects of the alternatives. The federal MTIS process provides two "options" for environmental review. Option 1 requires an environmental scan of sufficient level to make informed decisions. Option 2 requires the completion of a Draft Environmental Impact Statement (DEIS). For this project, Option 1 was selected by the SCCRTC as the appropriate course of action. This is a screening-level document only and not a DEIS (or DEIR) - level document. This environmental scan will be a factor in the evaluation of alternatives and the selection of a preferred design concept and scope to be documented in the final MTIS report. Future development of the preferred investment strategy would require environmental review consistent with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

Information from the environmental scan and the MTIS public involvement program will be used to determine the type of environmental document required and the alternatives to be assessed in the environmental document. MTIS Investment strategies will be analyzed as alternatives in a National Environmental Policy Act (NEPA) / California Environmental Quality Act (CEQA) document. If environmental technical studies conclude that any potential impacts could be mitigated to a level of less-than-significant the project could be reviewed with a NEPA Environmental Assessment / CEQA Initial Study. If potentially significant environmental effects could result, it may be necessary to prepare a more detailed NEPA Environmental Impact Statement (EIS) / CEQA Environmental Impact Report (EIR).

Steps in processing the environmental document are presented in the flow chart in Appendix B of this report. This diagram, published in the *Caltrans Environmental Handbook*, *Volume I*, summarizes the typical process for environmental review of a transportation project.

A suggested outline for an environmental impact statement (EIS) for NEPA/environmental impact report (EIR) for CEQA is presented in Appendix C of this report. The outline provides a detailed listing of factors to be addressed in preparation of the NEPA document. These issues would also generally correspond to CEQA requirements for an EIR.

Environmental review of major transportation investments is generally accomplished through preparation of an EIS/EIR. This process begins with the publication of a Notice of Intent to prepare an EIS in the Federal Register and distribution of a companion Notice of Preparation of an EIR. A scoping process, designed to obtain early input from agencies and citizens follows. A Draft EIS/EIR is published with a CEQA Notice of Completion, distributed to agencies and the public, and public hearings conducted to take comments on the document. Written and verbal comments are responded to, a preferred investment decision is finalized, and a Final EIS/EIR is published. Following final offer of availability of the document to respondents, the CEQA EIR is certified, and a NEPA Record of Decision is published by the lead federal agency. On publication of these final notices, the environmental review process is complete, and site acquisition and construction activities can commence.

A discussion of further analyses required when the project advances to the next phase of project development follows.

6.1 LAND USE AND SOCIOECONOMIC

- Refine the analysis of potential residential and commercial displacements and conduct a relocation impact study to determine the availability of replacement properties.

- Update the demographic analysis and identify locations where the investment strategy may have a disproportionate effect on low-income minority neighborhoods (Presidential Order re: Environmental Justice).

- Define station areas and identify potential land use changes which would occur based on the construction of stations and park-and-ride lots.

- Estimate economic impacts based on loss/creation of temporary construction jobs and permanent employment.

- Identify impacts to the tax base.

6.2 CULTURAL RESOURCES

Cultural resource evaluations will be required to identify and assess effects of the investment strategy on archaeological and historic resources on or adjacent to the project alignment. Studies must satisfy state and federal requirements for consideration of cultural resources. The federal Section 106 Review process (36 CFR 800) requires identification of potential resources, preparation of a determination of eligibility for the properties which appear to be eligible for listing on the National Register of Historic Places, and assessment of the effects of the investment strategy on the potentially eligible resources. The Section 106 process requires consultation among local, state, and federal agencies and other interested parties (stakeholders) to locate resources, determine impacts, propose alternatives or mitigation measures, and to develop a memorandum of agreement (MOA) committing to measures to minimize harm to the resources.

The following tasks are required to complete the Section 106 process:

- Identify Area of Potential Effect (APE) for the investment strategy; assess need for “Historic Landscape” assessment.

- Update Clearinghouse search of known historic and archaeological sites.

- Conduct field survey within APE and prepare inventory forms for potential archaeological sites and structures constructed prior to 1945.

- Prepare a Determination of Eligibility Report.

- Consult with the State Historic Preservation Officer concerning eligibility of properties identified.

- Prepare a Finding of Effect/No Effect Report for eligible properties.

- Consult with the SHPO and National Advisory Council of Historic Preservation including development of a Memorandum of Agreement (MOA) if required.

- Prepare a Section 4(f) Evaluation addressing affected properties.

6.3 NOISE AND VIBRATION

A more detailed and site-specific noise and vibration analysis would need to be prepared using refined engineering designs, operating plans, and travel demand forecasts for the investment strategy. The noise analysis would project No-Build and Build noise impacts and propose abatement measures where noise impacts are projected to occur. Mitigation measures would typically include construction of noise barriers such as sound walls or earthen berms.

6.4 VISUAL IMPACTS

The visual impacts analysis would need to be expanded to address the positive and negative impacts of construction of the investment strategy. Preliminary designs of stations (if part of the preferred investment strategy) and alignments would be analyzed for potential to change the visual quality of the surrounding landscape using the Federal Highway Administration/American Society of Landscape Architects methodology for determining change in visual quality within identified landscape units.

Mitigation for visual impacts would be addressed through development of visual quality guidelines. The guidelines would establish design concepts for system components (e.g., bus or rail transit station designs, streetscape design integration concepts for in-street rail alignments, and unified design treatments of systemwide components for bus or rail transit facilities). Visual quality guidelines would also include commitments to landscaping and station site/public art programs that may be incorporated into system planning.

6.5 PARKS, RECREATION, AND OPEN SPACE

Use of public parklands by the investment strategy would require the preparation of a Section 4(f) Statement (see Section 4.5.2 for explanation of regulatory requirements). The 4(f) evaluation would require identification of alternatives to the investment strategy that would avoid impact to the park, recreational facility, or wildlife refuge.

If alternatives are not feasible, the Section 4(f) evaluation must identify measures to minimize harm to the resource. Analyses required to support the Section 4(f) evaluation for a transit project typically include noise, air quality, traffic circulation, visual, and construction period impact assessments.

The Section 4(f) is prepared as a draft for circulation to agencies and stakeholders, typically as a component of a Draft EIS. The final Section 4(f) Statement is generally published with the Final EIS.

6.6 PUBLIC SAFETY

Public safety issues identified in engineering systems safety analysis, environmental review, and the public involvement process are addressed in the preliminary design of the investment strategy. The EIR/EIS would include discussion of potential safety issues related to patron safety, transit system safety, and Highway 1 HOV Facility safety. Alignment and station safety features of the investment strategy would be described in the EIS/EIR.

6.7 AIR QUALITY

Air quality analysis for the investment strategy would consist of a quantitative analysis of the influence of the project on regionwide air quality. The analysis would be required to show that the project is part of the regional transportation improvement program and, as such, meets air quality conformity requirements for the region.

In addition to regionwide analysis, air quality dispersion modeling would be required to evaluate the potential for the investment strategy to result in localized "hot spot" exceedences of federal or state air quality standards. Carbon monoxide (CO) dispersion modeling may be required to assess impacts at point sources including park-and-ride lots and critical intersections where traffic levels would be influenced by the project.

The analysis would be presented in the Draft EIS/EIR and would be the basis for the lead (sponsoring) federal agency to determine that the project is in "conformity" with the State Implementation Plan for achieving federal air quality improvement mandates.

6.8 BIOLOGICAL AND NATURAL RESOURCES

Further analysis of biological resources for the investment strategy will require the following information to be obtained.

- Consult with the USFWS, NMFS and CDFG regarding the occurrence of rare or endangered species along the proposed corridor.

- Perform biological surveys as necessary to determine if rare or endangered species occur within the project corridors in areas identified as suitable habitat, e.g., determine if monarchs use potentially suitable Eucalyptus groves.

- Delineate wetlands that may be impacted by the project

- Obtain a Section 404 permit from the U.S. Army Corps of Engineers. As part of the NEPA environmental review, the pre-mitigation impacts of each investment strategy carried forward for environmental analysis should be analyzed to make a determination of the least environmentally damaging most practicable alternative. This designation for an alternative will need to be presented in the Section 404 [404 (b)(1) guidelines]. This will require refinement of investment strategies to reduce potential impacts to wetlands and other waters as much as possible.

- Obtain a Section 401 permit from Regional Water Quality Control Board (RWQCB).

- Obtain a CDFG Streambed Alteration Agreement (1601-03) for creeks and rivers where construction will occur.

- Determine if the project meets buffers required under the county and city Riparian Corridor Protection Ordinances.

- Determine if required tree removal meets terms of various city tree ordinances.

- Determine appropriate mitigation measures where needed to reduce impacts to rare or endangered species, wetlands, riparian habitats, and heritage trees.

Ecosystems analyses would also address water quality issues. The impacts of the investment strategy on surface and groundwater quality would be investigated and commitments to coordinate with the RWQCB in developing a Storm Water Pollution Prevention Plan identified. Use of 100-year floodplains would be documented pursuant to Executive Order 11990. This requires an evaluation of the impacts of the project on the beneficial values of the floodplain. The results of these analyses would be presented in the EIS/EIR.

6.9 POTENTIAL CONTAMINANTS

The investigation of existing hazardous materials sites to the investment strategy would continue based on the initial records search prepared during environmental screening. The records search would be updated and field verification conducted to focus on sites potentially affecting the alignment. More detailed search at a site specific level (Phase I Assessment) would be conducted for the identified sites to determine type of materials and potential for presence on the alignment. The Phase I Assessment would include recommendations for additional research, including site testing where necessary (Phase II Assessment).

Results of the investigations and testing would be used to determine the need to modify alignments to avoid sites or estimate remediation strategies and costs to acquire the sites.

6.10 ENERGY

Potential energy usage of the investment strategy would be considered in terms of expenditure of energy during construction, energy required to operate the investment strategy, and possible overall changes in auto operating energy expenditure. The energy analysis may also be customized to address issues such as alternative fuels comparison.

6.11 CONSTRUCTION PERIOD IMPACTS

The EIR/EIS would need to include an assessment of the temporary impacts resulting from construction of the investment strategy. Impact categories to be investigated would include

construction period traffic (vehicular, pedestrian, and non-motorized), noise, air quality, water quality, and ecosystems. The EIR/EIS would need to identify best management practices to be required of contractors to minimize disruption and commit to development of a mitigation monitoring program to ensure that mitigation measures included in the environmental document are implemented.