

2.0 Introduction and Study Approach

Introduction

Part Two of the EIR contains the settings and analyses of environmental impacts of the proposed Plan, organized by issue area. Within each issue area, the environmental setting (both physical and regulatory) is established, significance criteria are presented, analysis methodology is described, and impact analysis is conducted and summarized. For each potentially significant impact, mitigation measures are identified. Impacts of project alternatives are presented and compared in Chapter 3.1.

General Methodology and Assumptions

In order to assess the effects of the proposed Plan, it is necessary to make assumptions about future environmental conditions at the time it is fully implemented. The horizon year of the proposed Plan is 2040.

Key assumptions in the impact analysis include the following:

- The base year for existing conditions for the analysis is 2010. For comparisons where 2010 data are not available, the closest available year is used. An exception to this appears in *Chapter 2.5: Climate Change and Greenhouse Gases*, which includes a 2005 baseline to satisfy statutory requirements of Senate Bill 375.
- This analysis does not consider phasing of improvements or interim stages of the proposed Plan between 2010 and 2040, as the purpose of the analysis is to evaluate the Plan as a whole. The one exception to this approach appears in *Chapter 2.5: Climate Change and Greenhouse Gases*, which includes an examination of impacts in 2020 and 2035 as compared to a 2005 baseline to satisfy statutory requirements of Senate Bill 375.
- As a program-level EIR, individual project impacts are not addressed in detail; the focus of this analysis is to address the impacts which, individually or in the aggregate, may be regionally significant.

Types of Impacts

In compliance with CEQA Guidelines, the following general types of environmental impacts are considered:

- **Direct or primary impacts**, which are caused by the proposed Plan and occur at the same time and place as the proposed Plan.
- **Indirect or secondary impacts**, which are caused by the proposed Plan and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary impacts may include growth-inducing impacts and other impacts related to induced changes in the pattern of land use, population density, or growth rate, and related impacts on air and water and other natural systems, including ecosystems. Indirect or secondary impacts may also include cumulative impacts.
- **Short-term impacts**, which are those of a limited duration, such as the impacts that would occur during the construction phase of a project.
- **Long-term impacts**, which are those of greater duration, including those that would endure for the life of the proposed Plan and beyond.
- **Significant unavoidable impacts**, which cannot be mitigated to a level that is less than significant.
- **Irreversible environmental changes**, which may include current or future irretrievable commitments to using non-renewable resources, or growth-inducing impacts that commit future generations to similar irretrievable commitments of resources. Irreversible change can also result from risks of accidents and injury associated with the proposed Plan.
- **Cumulative impacts that include two or more individual impacts which**, when considered together, are considerable or which compound or increase other environmental impacts. The individual impacts may be changes resulting from a single project or a number of separate projects. The cumulative effect from several projects is the change in the environment that results from the incremental effect of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time. The analysis of the proposed Plan is essentially a cumulative analysis throughout the EIR.

As a program-level EIR, individual transportation and development project impacts are not addressed in detail; rather the focus of this EIR is to address the impacts of a program of projects, which, individually or in the aggregate, may be regionally significant. For example, the physical impacts of major regional transportation expansion projects are addressed, while potential impacts on specific wetlands or a specific species habitat by an individual interchange reconstruction project would not be discussed, unless it can be surmised that the effect would be regionally significant. This approach does not relieve local jurisdictions of the responsibility for evaluating project-specific, locally significant impacts. All impacts of individual projects will be evaluated in future environmental review, as relevant, by the appropriate implementing agency as required under CEQA and/or NEPA prior to each project being considered for approval, as applicable.

Impact Significance

For each issue area, criteria of significance are established, based on normally accepted standards for environmental review and State CEQA Guidelines. Impacts are individually numbered within each issue area. For each impact, impacts are identified as being no adverse impact (NI), less than significant (LS), or potentially significant (PS). If potentially significant impacts are identified, mitigation measures to address the impacts are identified. The effectiveness of the recommended mitigation measures is then assessed and the residual impact after mitigation is identified. It is this residual impact that is reported in the *Executive Summary*. The impacts after mitigation are classified as follows:

- **Significant and Unavoidable (SU):** cannot be mitigated to a level that is less than significant;
- **Less than Significant with Mitigation (LS-M):** can be mitigated to a level that is less than significant;
- **Less than Significant (LS):** does not exceed the significance criteria or threshold; or
- **No Adverse Impact (NI):** no environmentally adverse impact is identified.

Mitigation

For some impacts, mitigation measures are commitments by MTC and ABAG. For other impacts, MTC and ABAG do not have regulatory or approval authority over the project. In those cases, MTC and ABAG suggest specific mitigation measures for consideration by project sponsors. Project sponsors shall commit to mitigation measures at the time of certification of their project environmental review document. These commitments obligate project sponsors to implement measures that would minimize or eliminate significant impacts pursuant to CEQA. The project sponsor or local jurisdiction shall be responsible for ensuring adherence to the mitigation measures prior to and during construction of the project. In accordance with “Environmental Guidelines of the Metropolitan Transportation Commission,” Resolution 1481 revised July 2008 pursuant to CA Public Resources Code Section 21081.7, MTC shall be provided with status reports of compliance with mitigation measures.

Throughout Part 2, it is noted where projects taking advantage of CEQA Streamlining provisions of SB 375 (Public Resources Code sections 21155.1, 21155.2, and 21159.28) must apply the mitigation measures, as feasible, to address site-specific conditions. MTC/ABAG cannot require local implementing agencies to adopt mitigation measures, and it is ultimately the responsibility of a lead agency to determine and adopt mitigation. Therefore if this EIR finds that it cannot be ensured that a mitigation measure would be implemented in all cases, impacts would remain significant. Where existing regulatory requirements (i.e., for hazards or water resources) or permitting requirements exist (i.e., for biological resources), it is assumed that since these regulations are law and binding on responsible agencies and project sponsors, it is reasonable to determine that they would be implemented, thereby reducing impacts to less than significant where relevant.

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