

2001 MENDOCINO COUNTY REGIONAL TRANSPORTATION PLAN

DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

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1.0 OVERVIEW CHAPTER

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

This Draft Program Environmental Impact Report (EIR) identifies and assesses the potential environmental impacts of adoption of the *Mendocino County 2001 Regional Transportation Plan* (hereafter called the RTP). The RTP is an update of the 1994 RTP and includes a range of proposed improvements to the circulation and transportation systems within Mendocino County that may be implemented or constructed over the next twenty years.

This EIR has been prepared in conformance with the provisions of the California Environmental Quality Act (CEQA) Guidelines as amended to date. CEQA requires that public agencies prepare and certify an EIR prior to carrying out projects that may have significant effects on the environment (Public Resources Code Section 21080). Preparation of an EIR is the responsibility of the "lead agency," the public agency which has the principal responsibility for carrying out or approving the project (Public Resources Code, Section 21067). Because the Mendocino Council of Governments (MCOG) is the agency that would approve the RTP, it is the lead agency for the project.

The EIR has been prepared under contract to MCOG. This EIR is an informational document which is intended to inform MCOG (the Lead Agency), other public agency decisionmakers, and the public of the significant environmental effects of the proposed RTP ("the project") and alternatives to the proposed project. MCOG will consider the information in this EIR along with other information presented during the decisionmaking process when making a decision whether to adopt or modify the proposed project or an alternative. Although the information contained in this EIR does not control MCOG's ultimate decision on the project, if MCOG decides to approve the project, then MCOG must respond to each significant and unavoidable effect identified in the EIR by making findings under Section 15091 of the *CEQA Guidelines* and, if necessary, make a Statement of Overriding Considerations under Section 15093.

1.2 SCOPE OF THE EIR

The purpose of this EIR is to provide MCOG, other Mendocino County decisionmakers, other Responsible and Trustee agencies, and the public with an objective analysis of the potential environmental impacts that would result from adoption and implementation of the RTP, including the subsequent construction of programmed improvements listed in the RTP. The EIR also recommends mitigation measures to avoid or reduce potentially significant impacts.

The *CEQA Guidelines* (Section 15168a) make special provisions for preparation of a "Program EIR" in situations where a series of actions can be characterized as one large project and are related in one of four ways:

- Geographically,
- As logical parts in the chain of contemplated actions,
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- As individual actions carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The policies and actions recommended in the RTP are related in most, if not all, of the ways identified above. The policies and actions are related geographically and are contained within a single plan which provides uniform guidance to MCOG and other pertinent agencies for development of the regional transportation system. Projects included in the RTP will be funded and developed in accordance with the priorities outlined in the RTP, and the project would involve similar construction activities and potential environmental impacts which can be treated with a relatively uniform set of mitigation measures.

This Program EIR is a "first-tier EIR." Tiered EIRs are used to cover general matters in a broad EIR, reserving detailed study of issues specific to later project approvals for subsequent EIRs or Negative Declarations that incorporate the first-tier EIR by reference. Later tiered EIRs or Negative Declarations concentrate on environmental effects that are capable of being mitigated or that were not analyzed as significant environmental impacts in this Program EIR.

When an agency or jurisdiction proposes to implement one of the actions included within the RTP, an Initial Study must be prepared to determine whether a new Negative Declaration, Mitigated Negative Declaration, or EIR (and when there is Federal involvement, a NEPA document) needs to be prepared. In some cases, the analysis of impacts and mitigation measures provided in this Program EIR may be sufficient to address the impacts and required mitigation measures for the future project. However, in most cases, a separate CEQA or a CEQA/NEPA document will need to be prepared. Only small projects with minimal environmental impacts may not require a separate environmental review. The discussion of impacts and the mitigation measures recommended in this EIR may be satisfactory to address the impacts of these smaller projects. For larger projects and all projects where it is determined that the potential environmental impacts of the project are not fully addressed in this EIR, a separate Initial Study will be prepared. Based on the findings of that Initial Study, the appropriate CEQA and/or NEPA document will be prepared.

Future environmental documents will use this Program EIR to focus the environmental assessment on those areas not fully addressed in this Program EIR. The general mitigation measures included in this Program EIR may be amended, revised, or supplemented by additional mitigation measures that apply to the specific project.

In some cases, CEQA documents have already been prepared for some of the projects included in the Draft RTP. Where these CEQA documents have been approved or certified, they are incorporated herein by reference (see subsequent discussion of the projects in Section 1.7). Projects that have had CEQA documents prepared are not further assessed in this Program EIR except as far as they contribute to the cumulative impacts of all the proposed projects.

1.3 CONTENTS OF THE ENVIRONMENTAL IMPACT REPORT

This section of the EIR includes a description of aspects of the CEQA process. While this information is not required in an EIR, the authors believe it aids the public in understanding what an EIR is meant to be and what information it must contain. In the past, EIRs varied considerably in scope and substance. A growing body of legal decisions has clarified what impacts are to be examined and how these impacts are to be judged. The discussion here outlines certain basic CEQA concepts. The *CEQA Guidelines* provide much more detailed descriptions of the specific requirements for an EIR.

A. Environmental Setting

An EIR assesses the environmental changes that would occur if the proposed project were approved and constructed. The EIR then determines whether these changes would be "significant" impacts on the environment. The "environment" is the existing physical conditions on the site and in the surrounding area. These existing conditions provide the baseline for assessing impacts. The baseline is defined as the conditions existing on the site and in the surrounding area at the time the Notice of Preparation for the EIR is published. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant (Section 15125 of the *CEQA Guidelines*).

B. Significant Impact

In accordance with Section 15143 of the *CEQA Guidelines*, this EIR focuses on the significant impacts on the environment. Discussion of each major topic includes criteria for evaluating whether an environmental impact is significant or insignificant. As explained in Section 15002(g) of the *CEQA Guidelines*, a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.

The determination whether an impact is significant or not is based on whether it exceeds various "significance criteria or thresholds." The significance criteria are defined by each lead agency (i.e., the agency making the decision on project approval). They are generally based on the criteria listed in Appendix G (Environmental Checklist Form) of the *CEQA Guidelines*, but may be modified based on the local conditions or direction by the lead agency. This EIR lists the thresholds of significance for each area of impact and assesses whether the project's impacts exceed these thresholds. If the impact does

not exceed the threshold or if the recommended mitigation measures reduce the impact below the thresholds, then the impact is considered to be less than significant.

C. Mitigation Measures

When the EIR determines that a potentially significant impact could result from project implementation, it identifies mitigation measures to eliminate or reduce the significance of that impact. If the mitigation measure(s) do not reduce the significance of the impact below the significance thresholds, then the EIR will find that the impact is a "significant adverse environmental impact."

In the case of a Program EIR, many mitigation measures are framed as additional project-level supplementary studies which must be completed to confirm that future project-specific impacts are reduced to the level predicted in this EIR. The Program EIR mitigation measures establish levels of acceptable impact, or performance standards, to which these future analyses and mitigation measures must conform. Reviewers of EIRs sometimes confuse these requirements for additional analyses as "future studies" which the court determined was an insufficient mitigation measure in the landmark case of *Sundstrom v. County of Mendocino*. However, the mitigation measures included in this Program EIR are not "future studies" since they identify the predicted level of future impact and establish performance standards which must be met in those project-level analyses.

The prohibited "future studies" found in the *Sundstrom* case were for studies to identify what the impact would be and then to identify appropriate mitigation measures given that impact. In addition, the *Sundstrom* case was for a proposed Negative Declaration and not an EIR. The court found that the proposed Negative Declaration could not postpone identification of possible project impacts to "future studies" since reviewers would not know what the future impact might be and what if any mitigation measures were proposed for that impact. This is not the case with the studies and analyses required in several of the mitigation measures recommended in this Draft EIR. This Draft EIR does identify the range of possible impacts (given the lack of specificity about most Draft RTP projects), and it does provide performance standards to which the future mitigation measures developed as part of the project-specific analyses must conform.

D. Cumulative Impacts

Every EIR must discuss "cumulative impacts" (CEQA 21083[b]), which are defined by the *CEQA Guidelines* to be "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts," *CEQA Guidelines* 15355[a]). Cumulative impacts may be either: a) the cumulative impacts of the various individual effects of a single project; or b) the cumulative impacts of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

When a project will make no contribution to a significant cumulative effect solely caused by other projects, the project would not have a significant cumulative impact. When the project's contribution to a significant cumulative impact is de minimis, the project would not have a significant cumulative impact. "De minimis" means that the project's contribution is sufficiently small that environmental conditions would be essentially the

same whether or not the proposed project is implemented. When a project would, either as proposed or including recommended mitigation measures, participate in a previously approved plan or mitigation program or pay fees to cover the project's "fair share" contribution to the funding of an improvement required for several projects, the project's incremental contribution would be less than cumulatively significant. Finally, if the cumulative impact was addressed in a prior EIR prepared for a general plan, specific plan, local coastal plan, or zoning action, and the project is consistent with that plan, then the cumulative impacts need not be assessed in this EIR.

E. Growth-Inducing Impacts

The EIR must discuss ways the proposed project could, either directly or indirectly, foster economic or population growth or the construction of additional housing in the surrounding environment. This is because the increased population may require construction of new public facilities or infrastructure, and construction of those facilities could have potentially significant environmental impacts. This analysis also must include a discussion of how the project may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively (*CEQA Guidelines* Section 15126.2d).

The identification of growth-inducing impacts requires some level of forecasting about possible future development. Because the future development or projects that may be induced by a project are not known, CEQA does not specifically require that an EIR develop mitigation measures for growth-inducing impacts. The level of analysis for growth-inducing impacts is generally less detailed than the level of analysis provided for both project-specific impacts and cumulative impacts.

F. Consistency with Plans

CEQA requires that an EIR assess the proposed project's consistency with goals, policies, programs, regulations, and other guidelines included in General Plans, Zoning Ordinances, and other plans that have jurisdiction over the project. An inconsistency with a General Plan policy is not in and of itself a significant environmental impact. This is because a significant impact is a substantial change in the physical environment, and a plan is not a part of the physical environment. However, an inconsistency can point to a potentially significant environmental impact. In addition, a policy may be used to determine that an environmental impact is, in fact, significant. For example, if a project would remove oak trees and the jurisdiction's general plan contains a policy stating that oak woodlands are to be preserved to the maximum degree feasible, this policy may be used to find that the project's impact is significant.

In addition, lead agencies and other responsible agencies may determine that a project cannot be approved as proposed if it is found to be inconsistent with a general plan or other pertinent plan, ordinance, or regulations that have jurisdiction over the project. However, this is a legal issue and not an environmental impact per se.

G. Level of Detail Required in an EIR

Section 15151 of the *CEQA Guidelines* specifies that "an EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables

them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts."

Amendments to the *CEQA Guidelines* (adopted in October, 1998) re-emphasize the fact that the purpose of the EIR "is not to generate paper but to compel governments to make decisions with environmental consequences in mind." Technical perfection is not required, but rather "adequacy, completeness, and a good-faith effort at full disclosure." "CEQA requires that decisions be informed and balanced. It must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development or advancement," (*CEQA Guidelines*, Section 15003, as amended).

Section 15145 of the *CEQA Guidelines* states that the EIR need not examine an impact if it is determined to be too speculative for evaluation. The EIR should note this conclusion and terminate discussion of the impact.

H. Project Alternatives

The EIR must examine a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially decrease any of the potentially significant effects of the project. The EIR must evaluate the comparative merits of the alternatives. The EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation.

I. Decision on Whether to Approve the Project

The *CEQA Guidelines* provide that public agencies should not approve projects as proposed until all feasible means available (i.e., mitigation measures or alternatives to the project) have been employed to substantially decrease the significant adverse effects of such projects. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time taking into account economic, environmental, legal, social, and technological factors (*CEQA Guidelines*, Section 15364). A public agency can approve a project with unmitigated, significant impacts only if it finds that specific economic, legal, social, and/or technological factors make infeasible the mitigation measures or project alternatives identified in the Final EIR for the project (*CEQA Guidelines*, Section 15091).

If there are one or more significant unavoidable impacts that cannot be substantially and feasibly mitigated and the Lead Agency decisionmakers (the MCOG Board) decides to approve the project, the Lead Agency decisionmakers, under CEQA, must prepare a Statement of Overriding Considerations (per *CEQA Guidelines*, Section 15093) setting forth in writing the reasons for approving the project despite the environmental impacts which may result from project construction. This process requires the decisionmakers to balance the benefits of a proposed project against its potential unavoidable environmental impacts in determining whether to approve a project. The Statement is prepared after the Final EIR has been completed and certified as complete and

adequate, and it is preserved in the record of the project approval (if the project is approved).

1.4 ORGANIZATION OF THE EIR

This EIR includes the following chapters:

1. This Introduction Chapter includes descriptions of the proposed RTP, the general environmental setting, and CEQA requirements.
2. The Summary Chapter contains narrative and tabular summaries of project impacts, mitigation measures, and project alternatives.
3. The Environmental Impact Analysis Chapter contains the specific description and assessment of environmental impacts that would result from implementation of RTP-recommended actions and mitigation measures recommended to avoid or reduce those impacts.
4. Topical Issues Chapter includes discussions of growth-inducing impacts, cumulative impacts, and project alternatives.
5. The Appendix includes background data used in preparing the previous four chapters of the EIR.

1.5 PUBLIC REVIEW AND COMMENT

A. Notice of Preparation

MCOG issued and circulated a Notice of Preparation (NOP) for this EIR on July 5, 2002

The NOP was sent to all Responsible and Trustee Agencies as well as other potentially interested agencies and groups. The NOP is included in Appendix A of this EIR. In response to the NOP, MCOG received comment letters from the following:

- U.S. Department of the Interior, Fish and Wildlife Section
- California Department of Parks and Recreation
- California Department of Toxic Substances Control
- California Department of Transportation
- Mendocino County Department of Transportation
- Mendocino County Department of Planning and Building Services
- Local Agency Formation Commission of Mendocino County
- Mendocino Transit Authority
- Tim Scully, Little River Airport Advisory Committee
- Richard W. Robie
- Robert E. Houtz
- Robert W. Terry
- Sherry M. Terry

In addition, MCOG received three letters from private individuals that were submitted after the close of the NOP comment period. These letters were forwarded to the EIR

consultant for consideration when preparing this EIR. These comment letters are all included in Appendix A.

B. Distribution of the Draft EIR

A public review period of 45 days is provided for this Draft EIR. This review period begins on the publication date of the Notice of Completion of the Draft EIR. During the public review period, MCOG will hold a public hearing on the Draft EIR. In addition, public agencies and interested individuals may submit comments in writing to Larry Wright, MCOG, 367 North State Street, Suite 206, Ukiah, CA 95482.

The information contained in this report is considered to be accurate, but it is subject to review and comment by MCOG, other responsible agencies, and the public. The public is invited to review the document and comment on its accuracy and completeness.

C. Certification of the Final EIR

Once the public review period is closed, a Final EIR will be prepared. The Final EIR will incorporate this Draft EIR by reference. It will contain all comments on this Draft EIR, responses to those comments, and any revisions to the text of this Draft EIR. The Final EIR will be considered by the MCOG Board of Directors ("the Board"). When the Board considers the EIR to be complete and accurate, it will certify the document. The Final EIR must be certified before any action on the project can occur. After the Board has certified the EIR and, if it approves the project, it will file a Notice of Determination with the State Office of Planning and Research and the Mendocino County Clerk.

Before the project is approved, the Board would be required to find (per *CEQA Guidelines* Section 15091) with respect to each significant impact of the project how changes in the project decrease the impact to a level that is less than significant; that such changes are within the jurisdiction of a public agency other than MCOG; or that mitigation measures and alternatives are infeasible. For impacts that the Board determines cannot be mitigated to a level less than significant, it would be necessary for the Board to issue a Statement of Overriding Considerations (per *CEQA Guidelines* Section 15093) that describes how benefits of the project outweigh those impacts.

1.6 PROJECT LOCALE AND SETTING

The RTP addresses future transportation needs and projects throughout the County of Mendocino. Mendocino County contains 2,246,000 acres, or 3,510 square miles, within its rugged boundaries. It is bounded on the west by the Pacific Ocean and on the east mainly by the mountainous divide between the North Coastal Basin and the Sacramento River Basin, with the width varying from 35-60 miles. The county extends approximately 80 miles north to south, bordered by Sonoma County on the south and Humboldt County on the north.

Within 20 miles of the ocean, the landscape rises to 3,000 feet in a series of northwest-southeast trending ridges paralleling the coast. The ridges are separated by narrow

valleys. The larger alluvial valleys in the central part of the county are located at elevations of 1,000-1,500 feet, dropping to 500 feet where the Eel River and Russian River leave the county.

The county includes four incorporated cities: Point Arena, Willits, Fort Bragg, and Ukiah, as well as a variety of smaller unincorporated towns and communities, including Covelo, Laytonville, Mendocino, Gualala, Leggett, Boonville, Hopland, and several smaller communities. These communities are shown on Figure 1.

Personal and commercial travel within most of these communities is generally limited to walking, bicycling, and driving private vehicles. Within Ukiah, Willits, and Fort Bragg, public buses provide a viable travel option. Between communities and between the county and the rest of the state, travel options are primarily by private vehicle. Some private individuals fly in and out of the five public airports plus private landing fields (the five public airports are shown on Figure 2). The inter-community bus system is limited. There is an active train operation between Fort Bragg and Willits, but currently no active train system out of the county.

1.7 PROJECT DESCRIPTION

The Mendocino Council of Governments (MCOG) is revising its Regional Transportation Plan (RTP). The proposed 2001 Draft RTP will replace the 1994 RTP (adopted in February, 1996). The Draft 2001 RTP provides an assessment of the current modes of transportation in the county and identifies potential new travel options. It predicts future needs for travel and the movement of goods. The RTP includes a list of specific actions and improvements to facilitate travel and accessibility. The list of specific actions include major highway and local road construction projects, highway and street maintenance projects, bridge construction and repair, improvements to and expansion of airports, rehabilitation of rail lines, construction of bikelanes and bikeways, construction of mass transit transfer centers, improvements to harbors, and a variety of other transportation-related projects.

MCOG is a joint powers agency established in 1972. It serves as the Regional Transportation Planning Agency (RTPA) for the region. The MCOG Board consists of representatives of the County Board of Supervisors (two members), a County elected official, and one council member from the four incorporated cities in the County. The projects included in the RTP were proposed by these five jurisdictions as well as other agencies responsible for transportation in the County, including Caltrans, the Mendocino Transit Authority, North Coast Railroad Authority, California Western Railroad, Noyo Harbor District, and the Anderson Valley Community Services District.

In order to be eligible for Federal and State funding, transportation projects must be included in the RTP. As such, agencies and jurisdictions responsible for transportation elements in the County have submitted lists of possible projects that might be funded and constructed over the next twenty years. As will be discussed later in this chapter, some of these projects are unlikely to be funded within the Plan's timeframe and are considered speculative as regards this EIR.

The following description of the major elements of the Draft 2001 RTP are taken from the document.

A. Overall Mission Statement

Provide well-maintained access facilities representing a balance of modes that reflect unique county transportation constraints and demand characteristics, while at the same time supporting and encouraging economic development, sustainable community life, and environmental preservation.

B. Regional Transportation System Goals

- Ensure the safety and efficiency of the regional transportation system, consistent with the role, responsibility and authority of a regional transportation planning agency.
- Develop and implement maintenance and rehabilitation programs to reduce transportation system deterioration, with projects specifically addressing repair, correction of defects, and reconstruction needs that have accumulated due to lack of financial resources.
- Expand and enhance transportation system facilities to increase access and connectivity of key activity centers within Mendocino County, while at the same time recognizing the need for improved interregional connections.
- Coordinate and integrate transportation system investments with regional and local capital improvement investments to encourage and accelerate economic development and growth in basic employment within Mendocino County.
- Encourage inter-modal connectivity and provide for increased modal choices, consistent with implementation opportunities, physical and topographic barriers, and financial constraints.
- Provide transportation investment opportunities that support and enhance social/environmental goals for the region such as maintenance of air quality, and preservation of rural character of key communities.

These goals are the "objectives" of the project. They are further described in the "regional vision for the future of transportation." That "regional vision" (as outlined on page 1 of the Draft RTP) includes the following "long sought after elements:"

- A transportation system that offers alternative modes for person trips and freight movement.
- The improvement of the Highway 101 Corridor to a full four-lane facility throughout the entire County, subject to environmental and financial constraints.

- The implementation of a roadway maintenance and rehabilitation program that brings the local streets and roads to acceptable Pavement Management System standards.
- Implementation of an aviation system that provides access to scheduled passenger service connecting to regional aviation centers and enhanced general aviation service to outlying rural areas.
- Development of safe, dedicated bike routes connecting all areas of the region, and designed to meet tourist, recreation and personal activity trip requirements.
- Operation of a viable and effective inter-modal freight system that balances rail and highway modes with strategically placed intermodal (i.e., intermodal refers to two or more different transportation modes or types; for example, the connection between trains and buses) terminals.
- A modernized public transit system that uses intermodal facilities to serve the transit dependent as well as maximize ridership choice potential.

C. Proposed Actions

The RTP proposes a series of future actions to implement the goals described above. The actions fall into several categories, including:

- Road Transportation System, which includes Significant Highway Corridors and the County Backbone Circulation System and Local Roads;
- Public Transit System, which includes Bus Transit Service, Rail Transit, and Special Needs Transit Elements;
- Modal Alternatives System, which includes Aviation, Maritime, Non-Motorized Transportation System, and Rail Transportation Elements; and
- Functional Service Element, which includes sections on Intermodal Facilities, Freight and Goods Movement, and Rail Freight/Goods Movement.

The specific proposed actions included in the RTP under each of these systems and elements are outlined below. As mentioned previously, MCOG staff has reviewed the actions included in the Draft RTP and determined that some of the listed actions are very unlikely to be funded, and thus implemented, over the next twenty years. As such, these projects are considered "speculative." As was explained in the Notice of Preparation circulated for this EIR, these projects will not be assessed in this EIR (minor changes have been made to the projects originally listed in the NOP based on response letters received from the Mendocino County Department of Transportation and the Mendocino Transit Authority, and the recently published Boonville Airport Layout Plan). If these projects are subsequently funded, then this EIR will need to be amended or revised to address any new impacts that might arise from those projects. In outlining the projects included in the RTP, the following discussion will identify those projects that were deemed speculative in the NOP.

1. Roadway Transportation System

a. Corridors of Regional Significance

The three corridors of regional significance include U.S. Highway 101 (hereafter called Highway 101), State Route 20 (hereafter called Highway 20), and State Route 1 (Highway 1) from its junction with Highway 101 to the Sonoma County line. These three routes are of regional and interregional importance to the County. The major proposed projects proposed for these routes are listed below

- Construct the Highway 101 four-lane bypass of the City of Willits. *A Draft EIR/EIS has been prepared and circulated for review by Caltrans for this project; Caltrans is currently preparing the Final EIR/EIS.*
- Construct a four-lane bypass of Hopland on Highway 101. *An EIR/EIS is being prepared by Caltrans for this project.*
- Complete the four-lane expressway on Highway 101 from the southern terminus of the Hopland bypass to the existing four-lane section to the south. *This project is under construction.*
- Construct a four-lane expressway on Highway 101 between the north end of Hopland bypass to the freeway to the north. *An EIR/EIS is being prepared by Caltrans for this project. This project is an “in-between” project. The preliminary environmental assessment will be addressed as part of the Hopland By-pass alternatives analysis, however funding for the implementation of the four-lane widening is not identified at this time. The actual construction of the four-lane widening from the north terminus of the Hopland bypass to Burke Hill south of the Ukiah Valley is considered speculative.*
- Construct passing lanes at various locations on Highway 20 between Fort Bragg and Willits. *There are no plans available for these projects. The field review of the route is currently under way to identify potential sites for passing lanes. Once these are identified, feasibility studies of each site will be completed by Caltrans.*
- Widen Highway 20 from Trillium Lane to Summers Lane to accommodate a two-way left turn lane east of the Highway One junction. *This is a long-range project.*
- Evaluate the feasibility of designating Highway One as a Pacific Coast Bike Route. *Though Highway One is currently designated a Pacific Coast Bike Route, MCOG has been negotiating with Caltrans to have any type of bikeway designation removed from Highway One. Until such time as the Coastal Commission and Caltrans can agree to provide funding and approvals for adequate and safe bicycle use of the route, MCOG would strongly oppose bicycle use of this route.*
- Construct a two-way left turn lane on Highway 1 from Pudding Creek Road to 0.1 mile south of Odom Lane in Fort Bragg. *This is not a high priority project for Caltrans implementation based on their State Highway Operation and Protection Program.*

- Construct a variety of less substantial pavement and road management projects, including repaving, shoulder widening, drainage improvements, intersection and interchange improvements, bridge repair/replacement, and curve realignment on various portions of Highways 1, 20, 101, 128, and 153. *These are all State Highway Operation and Protection Program (SHOPP) projects which are assigned priorities by Caltrans for implementation. They are listed in Table 1 below.*

Table I
2002 Proposed SHOPP Projects' Costs - Significant Highway Corridors
Mendocino County (\$ In Thousands)

Rte	Milepost (MP)	Location/Description	Prog Year	State RW (\$)	State Const (\$)	Local Funds (\$)	State Support (\$)
20	1.0/2.1	Near F.B.-construct 2-way left turn lane	05/06	3,000	6,173	0	3,824
101	RO.7/4.6	Near Hopland-North of Russian River Bridge to South Pieta Creek Bridge-rumble strip/OGAC overlay	01/02	0	950	0	350
101	37.9/38.3	Near Willits-4.2 miles to 3.8 miles south of the South Willits Overhead-realign curve	03/04	6	2,726	0	843
101	96.5/97.0	Near Leggett-0.5 mile north of Dora Creek Bridge-realign curve	03/04	9	1,897	0	1,136
1	33.6/33.7	Near Elk at Greenwood Creek Bridge-replace bridge (scour)	03/04	46	5,989	0	1,201
1	69.4/70.1	Near Fort Bragg-north & south of Ten Mile River Bridge-seismic retrofit	04/05	118	14,956	0	7,174
101	10.2/11.2	Near Hopland-at Feliz Creek Bridge-replace bridges, upgrade rail	03/04	3	3,621	0	767
128	28.3	Near Boonville-at Anderson Creek Bridge-rehabilitate bridge (scour)	03/04	4	2,167	0	597
128	43.3/43.6	Near Yorkville-at Dry Creek Bridge-rehabilitate bridge (scour)	03/04	26	1,819	0	62
222	1.0	Near Ukiah-at the Russian River Bridge-replace bridge (scour)	05/06	10	6,122	0	2,168
253	.5/3.5	Near Boonville & Longvale-east of Rt. 128 & on Rt. 162-upgrade bridge rail	03/04	27	1,745	0	782
1	3.7/38.2	Mendocino-North of Sonoma County line to 2 miles south of Navarro river Bridge-reconstruct log crib walls (3 locations)	02/03	100	1,430	0	1,144
1	10.7/11.3	Near Pt. Arena-1 mi north of Iverson Road to Schooner Gulch Bridge-realign roadway	04/05	797	1,675	0	1,726
1	38.0/38.2	Near Elk-11 miles north of Greenwood Creek to 5 miles south of Navarro River Bridge #10-130-reconstruct log crib walls	04/05	21	3,622	0	596
20	4.4/R32.8	Mendocino Count-on Route 1 from 3.8 to 47.2; Route 20-4.4/R32.8; Route 101-48.9-rehabilitate drainage	03/04	71	1,388	0	1,062
20	33.3/37.9	Near Calpella-Overcrossing to Cold Creek Bridge-rehabilitate roadway	05/06	2	9,016	0	4,761
20	37.9/43.0	Near Calpella-Cold Creek Bridge to 1 mi. west of Lake Co. line-rehabilitate roadway	03/04	0	4,979	0	538
101	19.5/31.0	Near Ukiah-south of El Roble Overcrossing North of Rte 20-rehabilitate roadway ramps	01/02	3	9,405	0	485

Notes: State RW = Cost to purchase right of way; State Const = Cost to construct the project; Local Funds = Local Funds available to fund the project; State Support = State funding for the project.

b. County Backbone Circulation System and Local Roads

The Backbone Circulation System portion of this element is composed of segments of the state highway system and key interconnecting county roads. It is shown on Figure 1. The remainder of this element is composed of the local-serving segments of the county

and city circulation systems. The major proposed actions for this system are outlined below.

- Provide a second access road to Brooktrails Township. *A preferred route and right-of-way location have not yet been identified. A preliminary draft report on alternative alignments has been prepared by the Mendocino County Department of Transportation. This report identifies six alternative alignments which will be the subject of further study. The implementation of a second access route will be coordinated with the implementation of the Willits bypass in order to create a seamless freeway/county road interface.*
- Improve North State Street, from Milepost (MP) 0.50 to MP 2.30. Improvement will include widening the travelway to include a continuous left-turn lane, adding bikelanes, paving shoulders, and replacement of bridges over Masonite Road and Ackerman Creek. *In the preliminary stage; no plans have been prepared yet. Environmental review will be done and Phase I of the project expected to be constructed in 2004-2007). Phase II of the project includes upgrade or replacement of the two bridges and will be constructed as HBRR (Highway Bridge Replacement and Rehabilitation) projects, with State Transportation Improvement Program (STIP) funding all or a portion of the local share.*
- Construct a Redemeyer Road Extension. This will require construction of a bridge over the Russian River and the extension of Redemeyer Road to Lake Mendocino Drive. Project distance is approximately 0.3 mile. *No studies or plans have been prepared for this project.*
- Improve Sherwood Road from MP 0.00 to MP 1.65. Widen roadway, reconstruct pavement, grade and pave shoulders, and reconstruct drainage facilities. *No plans are available. It would be coordinated with improvements to Sherwood Road within the Willits city limits.*
- Improve East Side Potter Valley Road, from MP 4.70 to MP 6.40. Phase II improvements include roadway widening, pavement reconstruction, grading and paving shoulders, and reconstruction of drainage facilities. *In design and environmental review is underway. No plans available.*
- Construct a variety of smaller projects on various County and City roads including repavement, drainage improvements, bridge repair/replacement, intersection improvement, bike lane construction, minor street widening, rail crossings, etc.
- Consider a possible parallel (to Highway 1) north-south facility through the City of Fort Bragg. *This project was assessed in the EIR prepared for the revised Fort Bragg General Plan. The route would be located west of Highway 1, primarily through property owned by the Georgia-Pacific Corporation.*
- Consider a second emergency access to the Noyo Harbor in Fort Bragg. *This project was assessed in the EIR prepared for the revised Fort Bragg General Plan.*
- Consider possible future parallel north-south access through the City of Willits and enhancement of the internal circulation system in Willits when the bypass is completed. *The City was awarded funding to conduct a feasibility study of a bypass*

on the east side of Highway 101. The route being assessed would extend Baechtel Road north to Railroad Avenue. Project could be implemented in the next 5-10 years. However, no route is yet known. A second route that could be considered in the future would extend North Street south to Coast Street with corresponding improvements to the Coast Street/Blosser/Highway 20 intersection. No plans or study have been approved for this second route.

- Develop additional north-south routes parallel to Highway 101 to serve existing and future traffic demand in the Ukiah Valley. Routes will include extensions and improvements to existing County and City roads. Candidate roadways will include Orchard Avenue, Hensley Creek Road, Redemeyer Road, Airport Park Boulevard, and South Main Street. MCOG is currently seeking a consultant to prepare an AB 1600 study for extending Orchard Avenue from its northern terminus at Orr Creek through to Ford Road. The impacts of this extension were assessed in the Orr Creek Bridge and Orchard Avenue Extension Project Draft EIR. This Draft EIR was circulated for public review by the City of Ukiah in October, 2002. There are no plans for any of the other possible extensions.
- Construct a variety of smaller projects on the Backbone Circulation System and Local Roads. These smaller projects are shown below in Tables 2 to 7.

Table 2
2000 SHOPP Projects-Significant Highway Corridors
Mendocino County
(\$ In Thousands)

Route	MP.	Length (Miles)	Project Description	Cost	Year
1	3.7	34.5	4.0 miles north of Sonoma County line to 2.0 miles south of Navarro River Bridge-reconstruct log cribs (3 locations)	\$2,444	02/03
1	10.7	0.6	Near Point Arena- .9 mile north of Iverson Rd. to Schooner Gulch Br. – realign roadway from slip-outs	1,960	02/03
1	33.6	0.1	Near Elk – at Greenwood Creek Bridge – replace bridge (scour)	5,633	02/03
1	38.0	0.2	Near Elk – 5.2 miles north of Greenwood Creek Bridge to 2.7 miles south of Navarro River Bridge #10-130- reconstruct failing log crib	3,643	03/04
1	90.9	14.7	Near Leggett – Usal Road to Route 101 – rehabilitate roadway	3,135	00/01
253	0.5	3.0	Near Boonville and Longvale – east of Route 128 and on Route 162 – guard rail, widen, and scour	1,016	01/02
Total				\$17,831	

Table 3
Mendocino County
Department of Transportation
High Priority Short-Range Improvement Projects
(\$ In Thousands)

Project Priority	Road	Post Mile Loc.	Project Description	Funding Source Notes	Estimated Cost
1	Robinson Creek Rd.	0.90	Replace bridge and approaches over Robinson Creek	HBRR	\$1,220
2	Gualala Rd.	1.52	Rehabilitate bridge and approaches over North Fork, Gualala River	HBRR	200
3	South State Street	.30/1.10	Widen roadway with continuous left-turn lane and roadway illumination	HES	350
4	Seismic Retrofit – 3 bridges	Various	Construct seismic retrofit improvements for three bridges	Seismic retrofit	3,000
5	School Way	1.31	Replace bridge/approaches over West Fork of Russian River	Seismic retrofit & HBRR	1,200
6	Storm damage repair programs	Various	Provide storm damage repairs at 12 sites	FEMA, FHWA, County Road Fund	3,600
7	Moore St.	0.45	Replace bridge/approaches over West Fork of Russian River	Seismic retrofit & HBRR	1,480
8	Eureka Hill Road	4.92	Replace bridge and approaches over Garcia River	Seismic retrofit & HBRR	1,500
9	Sherwood Road/ Birch St.	1.29 & 0.76	Improve Intersection	HES	150
10	East Side Potter Valley Rd.	2.70/4.7	Reconstruct and widen road (Phase I)	2000 STIP Augmentation	4,182
Total					\$17,882

**Table 4
City of Ukiah
Local Street System Improvements
FY 2001-2002**

Project Location	Project Description	F. Year	Estimated Cost
Mendocino Drive	Construct sidewalk, curb, and gutter along Mendocino Drive footage of Yokayo School – SB-45 funded project	01/02	\$46,000
Various City Streets	ADA Curb Cut/Ramp Project – Phase 4	01/02	12,161
Various Locations	AC Overlay Program – Pavement Maintenance and rehabilitation	01/02 02/03	100,000
State Street and Main Street	Tree planting and Parking Lot Landscaping Project – TEA Project	01/02	546,625
State Street and Gobbi Street	Traffic Signal Installation	01/02	212,000
West Gobbi Street	Install bike lanes within existing curb-to-curb pavement width – from State Street to Dora Street on West Gobbi Street	01/02	40,000
Ukiah Central Business District	Circulation Study to evaluate CBD access and local area circulation needs.	01/02	120,000
Intersection of Low Gap Road & State Street	Upgrade existing traffic signal, widen for left-turn lanes, reconstruct curb returns, and reconstruct portions of Brush Street (eastern leg of intersection)	04/05	775,000
Total			\$1,851,768

**Table 5
City of Willits
High Priority Projects**

Priority	Road / Project	Project Description	Program Year	Estimated Cost
1	East Commercial Street	Reconstruction of roadway, including widening, curbs, gutters, sidewalk and storm drain enhancement.	01/02	\$340,000
2	Various – Safe Routes to School	Improvements to street and pathways serving Baechtel Grove Middle School-bikeway, sidewalk, curb and gutter improvements. (Phase I: \$222,000/Phase II: \$378,000)	03/04	600,000
3	Baechtel Road	Pavement rehabilitation with 2-inch overlay and spot patching of pavement breaks.	03/04	400,000
Total				\$1,340,000

Table 6
City of Fort Bragg
High Priority Projects
Pavement Management System Report

Project Location	Project Description	Fiscal Year	Estimated Cost
Pine Street & Fir Street	Reconstruct Pine Street from Main St. to Cory St. including drainage improvements along Pine St. and Franklin St.; Reconstruct Fir Street from Main St. to Harrison St.	01/02	\$450,000
Pine Street and Franklin Street	Rail crossing improvements including safety and pavement/track repair	01/02	180,000
Various Locations	Street overlay Phase II at 21 locations throughout the City; and complete safety equipment upgrades and pavement repairs at Pine Street, Fir Street and Bush Street Rail Crossings	02/03	475,000
Franklin Street and Oak Street	Reconstruct roadway including base material, pavement replacement, curbs, gutters and drainage system repairs.	03/04	800,000
Total			\$1,905,000

Table 7
City of Point Arena
Short-Range High Priority Project

Project Location	Project Description	Fiscal Year	Estimated Cost
Lake Street	Sidewalk, curb and gutter improvements – Safe Route to Schools program	00/01	\$300,000
Port Road between Main Street & Arena Cove Parking	Construct 1.25 miles coastal access scenic bikeway and Parking Lot acquisition and improvements	01/02	463,000
Port Street and Lake Street	Construct sidewalks, curbs and gutters and 1 _ inch pavement overlay – total distance 1,100 feet on Port Street; and total overlay distance of 4000 feet on Lake Street	01/02	201,000
Scott Place and Mill Street	1 ± inch pavement overlay, 500 ft. and 1,000 ft respectively.	03/04	50,000
Windy Hollow and Riverside Drive	Chip Seal pavement treatment of 3200 ft. and 1800 ft. respectively	03/04	49,000
Hwy. 1 and Iverson Avenue Intersection	Intersection improvement for Safety & Sidewalk connectivity	04/05	100,000
Mill Street	Sidewalk, curb and gutter repair and/or replacement	04/05	140,000
Total			\$1,303,000

2. Public Transit Service System Elements

a. Bus Transit

The Draft RTP includes a list of capital and functional improvements proposed by the Mendocino Transit Authority (MTA), a Joint Powers Agency (JPA) which manages and operates the bus system within the County. Many of the projects on the list are proposed changes to bus routes, adding service, and/or adding or replacing equipment (e.g., replacing heavy duty buses with alternative fuel vehicles and retrofitting the oldest buses with particulate traps and EGR systems). These projects will not have adverse environmental effects and are not listed here. The capital improvement projects (which could have adverse environmental impacts) proposed in the Draft RTP include construction of:

- North Ukiah Transit Center. *Project is funded and has plans. The proposed site for the transit center is the old Fjord's Restaurant site on N. State Street in Ukiah, located just west of Highway 101. However, MTA is currently having problems purchasing the site, as the property owner is unwilling to sell it. If purchase or eminent domain proves impossible, then an alternative site would be selected.*
- Fort Bragg Transit Bus Yard. *Grant funding has been received to prepare a study to identify possible sites.*
- Point Arena Transit Bus Yard. *Speculative project*
- Willits Transfer Center. *Speculative project according to MTA as stated in the Response to the NOP).*
- Central Ukiah Transit Center. *Speculative project.*
- Ukiah Shop/Office Expansion. *Speculative project.*

b. Rail Transit

The North Coast Railroad Authority (NCRA) plans to conduct a comprehensive assessment of the overall needs and actions for their line, including the entire line through Mendocino County. This assessment will determine what areas need repair or replacement. All repair would be done only after extensive environmental review. As it is premature to predict what rehabilitation, repair, and other projects will be required, this EIR will only briefly discuss the likely range of impacts that might result from future projects.

c. Special Needs Transit Service Element

This Element assesses the needs of people with special needs, such as senior and people with disabilities. These needs are met by MTA. No capital improvement programs or other programs that might have environmental impacts are proposed in this Element.

3. Modal Alternatives System

a. Aviation

There are five public airports in the County. Major capital improvements at these airports that could have environmental impacts are outlined below. All airport improvements are proposed to improve the safety and/or efficiency of the five airports. None of the improvements are aimed at increasing use of the airports, and substantial increased use of the airports is not expected (Dietz, Bua, and Peters, personal communication).

Appendix H of the Draft RTP presents the "Future Airport Demand Forecast" prepared by the State Department of Transportation. for each of the airports. The 20-year forecasts show an approximately 1.5% average annual increase in aircraft operations, though a smaller increase is forecasted for some of the smaller rural airports. An "aircraft operation" includes both a landing and a take off, so a 1.5% increase in aircraft operations would equal an annual average 0.75% increase in the number of planes using the airport.

The following describes proposed improvements that could have possible environmental effects at the five airports.

i. Ukiah Municipal Airport:

This is the largest and busiest airport in the County. The airport has an adopted Master Plan (*Ukiah Municipal Airport Master Plan Report*, Shutt Moen Associates, 1996). The improvements proposed for this airport within the RTP are all included in the adopted Master Plan (Bua, personal communication). A Negative Declaration was prepared for this Plan prior to adoption and found that no additional mitigation measures beyond those included in the Plan were required. Because a CEQA document has been certified for these improvements, they will not be addressed further in this EIR except as regards cumulative impacts. Proposed projects are summarized below.

- Construct a Helipad. *No plans are available or prepared. Project is very high in City of Ukiah's priority ranking. Listed for short-range program implementation. The project would be constructed on the existing paved area of the airport*
- Construct terminal facility and ground access facilities including access roads and auto parking. *This project is a high priority and a rough preliminary plan is available. The project was addressed in the Negative Declaration prepared for the adopted Ukiah Municipal Airport Master Plan.*
- Reconstruct storm drain system and runway apron. *This is a high priority project but it is a long range project.*
- Construct Runway (RW) 15/33 run-up area (approximately 6,000 square feet located 1,000 feet from end of runway). *This is a very high priority project, but no plans have been prepared. This is a project which will be programmed in the short-range program category.*
- Repave ramp area between CDF and FBO area. *Listed for short-range program implementation.*

- Enclose open drainage ditch. *Listed for short-range program implementation.*
- Construct commercial helicopter operations area, including housing facilities for medical evacuation personnel. *This is a long-range project. It is likely to be implemented, even though no time line has been identified. It is expected that if this improvement is constructed, it will be a part of a proposed new air attack facility to be constructed by the California Department of Forestry and Fire Protection. An EIR is being prepared for that project, which is not an RTP project.*
- Construct cargo ramp. *Long-range program project. No plans have been prepared. The project would be located on already-developed portions of the airport north of the tie-down area.*
- Remove portable hangars and replace with permanent hangars. *Long-term project.*
- Remodel former FSS building to create usable space for airport activities. *Long-term project.*
- Purchase adjoining properties for airport-related expansion, southwest and southeast of the present airport site. *Speculative project.*
- Complete negotiation of aviation easements to the south of airport property. *Speculative project.*
- Construct perimeter access road for airport circulation. *Speculative project.*
- Construct sound wall/sound barricades. *Speculative project.*
- Relocate corporation yard from airport to available parcels in airport industrial area. This will free airport land for airport development activities. *Speculative project.*
- Develop a systematic approach for the acquisition of parcels adjacent to the airport to protect airport operations and future airport development. *Speculative project.*

ii. Willits Municipal Airport (Ells Field):

A new Airport Layout Plan (ALP) is being prepared for this airport by Shutt Moen Associates. It is expected that the new Plan will be adopted in 2003. A CEQA document will be prepared for that Plan. Conversations with the preparers of this ALP indicate the only major project will likely be shortening the existing runway (Dietz, personal communication). Capital projects in the RTP are shown below, though these projects may be amended when the new Airport Layout Plan is completed.:

- Overlay runway, taxiway and ramp area. *Listed for short-term program implementation.*
- Replace runway and taxiway lighting system. *Listed for short-term program implementation.*

- Repair slide area at RW 16/24 at north end of runway and provide drainage improvements at runway. *The initial steps in implementing this project are underway. Soils testing and structural subsoil analysis are being conducted.*
- Improve parking area. *This project is scheduled by the City of Willits for implementation. No plans have yet been prepared.*
- Construct perimeter fencing. *Listed as a short-term project, but no plans are available yet.*
- Construct heliport landing pad. *Listed as a short-term project, but no plans are available yet.*
- Purchase maintenance equipment. *Short-term project.*
- Construct turn around area at south end of runway 24. *Listed as a short-term project, but no plans are available yet.*
- Construct new administration building and pilot's lounge. *Speculative project.*
- Extend new parallel taxiway on east side of runway. *Speculative project.*
- Purchase 75-100 acres southwest of airport for extension of runway and runway protection zone. *Speculative project.*
- Construct 10 new hangars. *Speculative project.*
- Construct perimeter road around airport. *Speculative project.*
- Extend runway 1,000 feet and lower a portion of the existing runway. *Speculative project.*
- Construct new parallel taxiway and lower portion of existing runway. *Speculative project.*

iii. Little River Airport:

A new Airport Layout Plan is being prepared for this airport by Shutt Moen Associates. The Draft ALP is expected to be completed in 2002/2003 and adopted in early 2003. The Mendocino County Department of Transportation will prepare a CEQA document for that Plan. Projects listed in the RTP are summarized below, though some of these projects may change once the new Airport Layout Plan is completed. All the improvements listed below would occur on already-developed portions of the existing airport with the exception that allowing non-precision GPS approaches will require removal of some trees at the ends of the runway.

- Prepare site and construct 16 aircraft hangers. *Short-term project.*
- Finalize obtaining non-precision GPS approaches including clearing obstacles and trimming trees. *Short-term project.*

- Trim all trees and brush in the airport clear zone areas. *Short-term project.*
- Install AWOS or ASOS at airport. *Short-term project.*
- Replace septic system and upgrade restroom facilities. *Short-term project.*
- Negotiate land swaps or purchase of adjacent land parcels for clear zones around airport. *Short-term project*
- Replace existing runway lighting system and wiring for edge lights and directional lights; upgrade all lighting for runway and night operations. *Short-term project.*
- Replace storage buildings at airport site. *Long-range project; no plans but funding has been identified.*
- Place AC overlay on paved areas. *Long-range project.*
- Replace lighting system. *Long-range project.*
- Replace operations building at airport. *Long-range project; no plans are available.*
- Construct more hangars as needed. *Speculative project.*
- Construct large transient hangar or covered aircraft parking. *Speculative project.*

iv. Round Valley Airport:

A new Airport Layout Plan for this airport is being prepared by Shutt Moen Associates. The Mendocino County Department of Transportation will prepare a CEQA document for that Plan. The projects listed in the RTIP are summarized below, and, again, they may be amended given the recommendations of the new ALP. All projects would occur on developed portions of the existing airport or on flat, mowed grassland on the south side of the existing runway.

- Construct turn-around and connecting taxiway and expand apron area at RW 10. *Short-term project.*
- Install above-ground fueling facilities. *Short-term project.*
- Install security fence. *Short-term project.*
- Place AC overlay on all paved surfaces. *Short-term project.*
- Construct new tie-down area and relocate facilities. *Short-term project.*
- Construct new taxiway. *Long-range project.*
- Identify clear zone around runway and approaches; clear obstacles and trim trees and brush. *Long-range project.*
- Reconstruct runway and apron area. *Speculative project.*

- Install apron and runway lighting. *Speculative project.*

v. Boonville Airport:

A new Draft ALP (February 2002) has been prepared for this airport. This ALP includes an Initial Study that concluded the projects included in the ALP would have no or a less than significant impact with two exceptions. First, project construction could generate dust, and the Initial study recommends standard dust control mitigation to reduce this impact to a less than significant level. Second, there is the potential for red tree voles (a Federal and State species of special concern) inhabiting the area north of the airport. The Initial Study requires pre-construction surveys for this species and, if found, appropriate mitigation measures. The Anderson Valley Community Services District is planning to adopt a Mitigated Negative Declaration based on this Initial Study in late 2002/early 2003 (Dietz, personal communication). Because a CEQA document has been prepared for this airport, the projects listed below will not be further assessed in this EIR except as regards cumulative impacts. This ALP included the projects listed below.

- Install drainage system and correct existing drainage problems across runway. *Short-term project.*
- Construct emergency use heliport. *Short-term project.*
- Construct and rehabilitate runway and taxiway pavement. *Short-term project.*
- Install drainage system. *Short-term project.*
- Complete land acquisition (1-acre) for airport expansion. *Mid-range project.*
- Establish clear zones on all approaches to runway (Runway Protection Zone via Protection Easement). *Easement negotiations are underway, if easements cannot be obtained at reasonable costs, property may have to be purchased. Mid-range project.*
- Rehabilitate pavement. *Mid- and long-range project.*
- Develop lease agreement for hanger construction on airport expansion parcel. *Long-range project.*
- Prepare site for hanger construction and construct access facilities to hanger area. *Long-range project.*
- Construct additional aircraft tie-downs. *Long-range project.*
- Construct airport operations building and pilot's lounge. *Speculative project.*
- Install lighting system. *Speculative; unlikely FAA would approve.*

b. Maritime System Element

The RTP includes recommendations for two harbors on the Mendocino County coast: Noyo Harbor at Fort Bragg and Point Arena Harbor in Point Arena. The RTP includes three projects for the Noyo Harbor.

- Continue to pursue funds to construct a breakwater project at Noyo Harbor. *Speculative project.*
- Provide additional storage areas for fishing-related uses at Noyo Harbor. *Speculative project.*
- Provide additional berths at Noyo Harbor. *Speculative project.*

c. Bicycle Transport

The RTP includes a range of bikelane and bike path projects. Nearly all projects/project features are within existing rights-of-way. While the EIR will generally discuss these projects, their construction will have minimal environmental impacts since all but one of the proposed bikeways are to be constructed on the edge of existing roads.

1.7 REQUIRED APPROVALS AND INTENDED USES OF THE EIR

A. Required Approvals

Once MCOG certifies the EIR, it will adopt the RTP (as amended by findings based on this EIR). The RTP will then be forwarded to the California Transportation Commission (CTC) for review and comment.

B. Intended Uses of the EIR

Once the RTP is adopted, MCOG, the County of Mendocino, the Cities of Ukiah, Willits, Fort Bragg, and Point Arena, the California Department of Transportation, the Mendocino Transit Authority, agencies that manage the public airports and the railroads, and other Responsible and Trustee Agencies will use this EIR for preparing:

- The Transportation Improvement Program;
- Project Study Reports;
- Design Studies;
- Grant and other funding source applications;
- Corridor Studies;
- Transit Plans and Studies;
- Non-Motorized Plans and Studies;
- Aviation Plans and Studies;
- Passenger and Freight Rail Plans and Studies;
- Other Plans and Studies including those for TDM and ITS Improvement Projects;
- General Plan Amendments;
- Review of transportation and land use development projects;

- Capital Improvement Program budgeting and project priorities; and
- Encroachment Permits

The following Responsible and Trustee Agencies will use this EIR when considering future permits and project approvals. Responsible Agencies are agencies that must issue some form of permit or determination for the project and, thus, rely on the EIR for the environmental documentation required prior to issuing said permit. Trustee Agencies are State agencies having jurisdiction by law over natural resources affected by a project which are held in trust for the people of California. Potential Responsible and Trustee Agencies are listed below.

1. Federal Agencies

- Army Corps of Engineers - regulates activities that have the potential to affect navigable waters under Section 10 of the Rivers and Harbors Act of 1899 (Section 10 permits) and waters of the United States under Section 404 of the Clean Water Act (Section 404 permit).

The Federal Clean Water Act has as its goal to restore and maintain the physical, chemical, and biological integrity of the nation's waters. Section 404 of the Federal Clean Water Act regulates the discharge of fill material into "waters of the United States," which includes wetlands. Based on the Corps' determination that any wetlands on the site are under its jurisdiction, filling of wetlands would require a permit to alter these resources. Some projects may be covered under one of a series of Nationwide Permits while other projects may require an individual permit. The Corps would evaluate the need to hold a public hearing on the permit. Any person may request that a public hearing be held.

- Environmental Protection Agency (EPA) - oversees the analysis of the Army Corps of Engineers regarding the issuance of permits for filling wetlands under Section 404 permits and issues permits for point source discharges to waterways. The EPA shares oversight jurisdiction regarding wastewater treatment issues and funding programs with the State Water Resources Control Board.
- Fish and Wildlife Service (USFWS) - administers the Federal Endangered Species Act and the Marine Mammal Protection Act. The USFWS operates under a number of statutory and administrative authorities. Its basic responsibilities concern migratory birds, anadromous fish, and endangered species. The USFWS is an advisory agency to the Army Corps on Section 404 and Section 10 projects. The USFWS will review mitigation plans for these projects. Briefly, the USFWS policy identifies four different resource categories with criteria and mitigation goals for each. The Fish and Wildlife Service will review the resources on the project site and assign a category to each. Each category has a specific set of mitigation requirements. Some projects may require an Incidental Take Permit from USFWS under the Endangered Species Act.
- National Marine Fisheries Service (NMFS) - administers the Federal Endangered Species Act and the Marine Mammal Protection Act as they pertain to marine and anadromous species. The service also advises the Corps of Engineers on Section 7 and Section 404 permits for projects that could affect fish habitat. Some projects may require an Incidental Take Permit from NMFS under the Endangered Species Act.
- Federal Highway Administration - responsible for funding Federal highway projects.
- Federal Transit Administration (FTA) - responsible for funding transit-related programs, rural transit, special-needs transit, and other programs.
- Transportation Security Agency (Department of Transportation) - responsible for security of transportation systems and facilities.

- Federal Aviation Agency - responsible for oversight and funding and operational support for air control systems, airport improvements/expansion, and airport operations.

2. State Agencies

- Regional Water Quality Control Board (RWQCB) - regulates discharges to waterways through the adoption of Waste Discharge Requirements (WDR) and National Pollution Discharge Elimination System (NPDES) permits. The RWQCB must approve Stormwater Pollution Prevention Plans (SWPPP) for future projects.

The Board will issue General Construction Permits for projects pursuant to the National Pollution Discharge Elimination System (NPDES). The RWQCB would use the EIR to determine the acceptability of mitigation measures before granting a permit. The RWQCB may delegate formal action in compliance with this requirement to Mendocino County in which case the County would be responsible. As part of the Corps Section 404 permit review process, the RWQCB must issue a Section 401 Water Quality Certification or Waiver. The RWQCB also has regulatory authority in connection with the California Department of Fish and Game's Stream Alteration Agreement to grant Water Quality Certification (or Waiver) to cover any in-channel construction.

- Department of Transportation - reviews and comments on the RTP, initiates and oversees projects on State highways, and issues encroachment permits for projects that involve work within Caltrans right-of-way.
- Office of Planning and Research - circulates EIRs for review by State agencies.
- Highway Patrol - responsible for traffic safety on State highways.
- Department of Fish and Game (CDFG) - has authority to oversee work done in streams pursuant to Fish and Game Code 1601 and 1603. An applicant who proposes to substantially divert the natural flow of a stream, substantially alter its bed or bank, or use any material from the streambed must first enter into a "Streambed Alteration Agreement" with CDFG. Such an agreement would include a requirement that there be no net loss of wildlife habitat values or that lost acreage would be replaced. The Department is also responsible for the protection of plant and wildlife populations and for overseeing the California Endangered Species Act. The Federal Fish and Wildlife Coordination Act gives the CDFG authority to comment on U.S. Army Corps of Engineers permits. Any waterway subject to CDFG jurisdiction is also subject to Corps regulations.
- Department of Parks and Recreation - responsible for State park and recreational planning.
- Department of Toxic Substances Control - oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and safety Code, Division 20, Chapter 6.8.

- Department of Conservation - excavation of embankment materials from a designated borrow pit to be used for highway or road projects would require a Surface Mining and Reclamation Act Permit (SMARA Permit).
- Aeronautics Board - responsible for State oversight of airport operations.

3. **Local Agencies**

- Mendocino Council of Governments - responsible for developing the Regional Transportation Improvement Program and other regional transportation planning documents.
- County of Mendocino (Board of Supervisors, Planning Commission, Redevelopment Agency, Airport Land Use Commission, Department of Transportation, Department of Planning and Building Services, Sheriff's Department, and other departments and agencies) - responsible for transportation planning and improvements within its jurisdiction, approval of General Plan Amendments, rezonings, and project approvals, Capital Improvement Program budgeting and project priorities, encroachment permits, aggregate extraction and processing, improvements at some airports, etc.
- Cities of Fort Bragg, Willits, Point Arena, and Ukiah - responsible for transportation planning and improvements within their jurisdiction, Capital Improvement Program budgeting and project priorities, review of transportation and land use development projects, General Plan Amendments, rezonings, encroachment permits, etc.
- Local Agency Commission of Mendocino County - responsible for boundary changes for cities and special districts.
- Special Districts - a variety of Special Districts (community service, school, water districts, fire districts, etc.) may have authority over or interest in improvement projects within their jurisdiction Anderson Valley Community Services District is responsible for the operation of the Boonville Airport.
- Wine Country Interregional Partnership (IRP) this is an interregional partnership that is studying ways of addressing the jobs-housing imbalance in the Lake and Mendocino County area, with plans to include Sonoma and Napa Counties.

2.0 SUMMARY CHAPTER

This Draft EIR identifies a number of impacts that would result from possible future projects allowed under the Draft Regional Transportation Plan. This summary chapter begins with brief narrative discussions of the more substantial impacts. It is followed by a table that catalogues the impacts and the mitigations for these impacts.

This chapter also contains a summary of the alternatives to the project as proposed. The reader should note that this chapter is a summary. The full descriptions of impacts, mitigations, and alternatives are presented in the third and fourth chapters of this EIR.

A. Summary of Impacts

1. Geology

Future projects would be subject to severe groundshaking during earthquakes on major faults within and near Mendocino County. All projects would be required to withstand the maximum credible earthquake. While damage may still occur, the required mitigation measures would reduce the impact to a less than significant level.

Some of the future roadway projects would be located in areas with steep slopes. These areas may contain existing landslides that could be aggravated by the proposed project, or the road project could cause a new landslide. This EIR recommends standard geotechnical studies and mitigation measures to avoid or remediate landslide problems. However, it cannot be predicted with certainty that landslides will not occur despite the best engineering efforts. As such, this EIR finds that the potential for increased landsliding is a significant unavoidable impact.

Soil conditions in the locations where future projects would be constructed may be subject to expansion, settlement, densification, and other soil limitations. This EIR includes standard geotechnical mitigation measures to ensure that future projects are constructed to withstand local soil constraints.

The construction of future roadway and airport projects would result in bared earth which can erode. The EIR requires standard erosion control mitigations and compliance with permits from the RWQCB to ensure that erosion is adequately controlled. Implementation of erosion control measures would reduce the impacts of the projects to a less than significant level.

Given the program level mitigation measures recommended in this EIR, all geologic and soil impacts can be reduced to a less than significant level except for the potential of additional landsliding. This latter impact is considered a significant impact for future projects.

2. Hydrology and Water Quality

Erosion generated from future projects and pollutants washed from new roads and other paved areas can adversely affect water quality. This EIR requires conformity with current permit requirements and establishes additional performance standards to ensure

that erosion and pollutants generated by future projects do not significantly affect water quality.

Projects could be constructed in areas subject to flooding, and the construction of new pavement could increase runoff and flooding. Altering the drainage courses of streams could also exacerbate flooding. This EIR requires projects to be assessed to ensure that improvements are constructed above the design-level flood elevation and that the improvements do not significantly increase flooding downstream of the project.

The EIR also recommends mitigation measures to ensure that new projects do not significantly reduce aquifer recharge. Given the mitigation measures recommended in this EIR, all hydrologic impacts of RTP projects would be reduced to a less than significant level.

3. Biological Resources

Draft RTP projects could result in the loss of plant species that are listed as threatened, rare, or endangered or species that are candidates for such listing. This EIR recommends an extensive mitigation program for this potential impact that would reduce the impact to a less than significant level. The projects could also destroy or damage sensitive plant communities (e.g., oak woodlands). While this EIR recommends programs to avoid or reduce this impact, it is possible that larger highway and road projects in undeveloped areas could have a significant adverse impact on sensitive plant communities.

The projects could also result in death or injury to special status species of wildlife and/or damage the habitat that these species depend on. This EIR recommends a full mitigation program to avoid or reduce these potential impacts. Given the recommended mitigation measures, the impact is expected to be less than significant for most Draft RTP projects. However, it is possible that larger highway and road projects in undeveloped areas could have a significant adverse impact on special status species of wildlife.

The projects could require filling of wetlands and streams. This would have an adverse impact on listed fish and other aquatic species as well as result in a loss of this sensitive habitat. This EIR recommends mitigation measures to avoid or reduce this impact. Given the recommended mitigation measures, the impact is expected to be less than significant for most Draft RTP projects. However, it is possible that larger highway and road projects in undeveloped areas could have a significant adverse impact on wetlands.

The impacts to biological resources can be reduced to a less than significant level for most projects included in the Draft RTP. However, the Highway 101 bypass projects, the second Brooktrails access, the Redemeyer Road extension, and, possibly some other projects could have a significant adverse impact on sensitive plant communities, special status species of fish and wildlife, and wetlands.

4. Cultural Resources

It is possible that future projects could damage or destroy significant archaeological or historical resources. This EIR provides standard mitigation measures to avoid or reduce these potential impacts. However, without knowing the final design for most projects, it cannot be predicted for certain that these resources would not be affected. Thus, the impact to archaeological and historical resources is considered a significant adverse impact.

5. Transportation and Circulation

The projects included in the Draft RTP would reduce congestion of existing roads and highways in the County. Projects would improve existing roadways, construct bypasses and alternate routes in congested areas, expand the use of mass transit, and expand the use of non-motorized means of transport. These are beneficial impacts. Airport improvements would primarily improve the safety and efficiency of existing airport operations. The airport improvement projects would not significantly increase air traffic. The RTP would have either beneficial or less than significant impacts as regards transportation and circulation.

6. Air Quality

Construction of transportation projects will generate dust and other air pollutants. These short-term impacts can be reduced to a less than significant level through use of standard dust control and other mitigations.

Future use of new roads will cause an increase in air pollution along the routes of those roads. Airport expansion could increase airplane use and increase air pollution in the area near the airports. The construction of new mass transit centers could result in increased pollution levels around those centers. This EIR recommends locating new roads away from sensitive receptors and requires air quality analysis for new transit centers. These mitigations would reduce air quality impacts. In addition, the new roads would be expected to decrease congestion near and around existing urbanized areas. Decreasing traffic congestion would improve regional air quality. The expansion of mass transit routes and bicycle routes would also reduce air pollution. These are beneficial impacts of the RTP. The impacts from future use of RTP projects would be reduced to a less than significant level given the beneficial aspects of the RTP plus EIR-recommended mitigation measures. All air quality impacts can be reduced to a less than significant level.

7. Noise

Construction of transportation projects will generate noise and vibrations. This short-term impact can be reduced to a less than significant level through use of standard construction noise mitigation measures.

Future use of new roads will cause an increase in noise along the routes of those roads. This EIR requires noise analyses for new roads constructed through undeveloped areas or roads that would experience increased use due to new road connections. The agency constructing these roads will be responsible for reducing noise impacts to a less

than significant level. Similarly, this EIR requires noise analyses and noise mitigation for airport projects and mass transit center projects. All noise impacts can be reduced to a less than significant level.

6. Aesthetics

New transportation projects may adversely affect views from public roads, other public vantage points, and private residences, though most projects would not have any long-term visual impacts once project construction is completed. The projects with potentially significant visual impacts include the Highway 101 bypass projects, the Redemeyer Road extension, second Brooktrails access, Little River and Round Valley Airport expansion, and new north-south parallel routes in Fort Bragg, Willits, and Ukiah. This EIR requires project-level visual assessments for these projects and preparation of a project design and landscaping plan to minimize visual effects. It is expected that visual impacts of these projects can all be reduced to a level that is considered less than significant.

9. Hazards and Hazardous Materials

Construction of transportation projects may involve the use of hazardous materials. Future use of new roads will include the transport of hazardous materials. This EIR includes mitigation measures that would reduce these impacts to a less than significant level.

The RTP projects could increase the risk of catastrophic wildfires. However, existing practices to reduce such risk plus the fact that new roads would improve access by fire departments reduce this risk to a less than significant level.

Airport improvement projects could slightly increase use of those airports, thereby increasing the risk of airplane accidents. However, the projects would not alter the approach and departure zones for the airports. It is concluded that the existing Airport Layout Plans adequately protect the public from airplane accidents.

Construction of future transportation projects could involve construction on sites that contain hazardous materials resulting from past use of the sites. This EIR contains a full range of mitigation measures to address such impacts, and these mitigation measures would reduce the impact to a less than significant level. However, it is possible that the clean-up costs of polluted sites could be extensive for major roadway projects. All impacts related to hazards and hazardous materials can be reduced to a less than significant level.

10. Public Services and Utilities

The transportation projects included in the RTP would have very few impacts on public service providers. In fact, the new roads and airport improvements would improve evacuation capability, emergency vehicle access, and helicopter access, all of which are beneficial impacts. This EIR recommends mitigation measures to ensure that during construction, all agencies that would use roads are aware of the construction schedule and lane closures. It further recommends appropriate fire control measures to be used during project construction. All impacts to public services can be reduced to a less than significant level.

11. Land Use

Some of the large road improvement projects would likely displace prime agricultural soils. While this EIR recommends mitigation measures to offset this loss of these soils, their loss is considered a significant adverse impact. These large roadway projects may also adversely affect future farming operations on properties that are under Williamson Act contracts, and this is considered a significant adverse impact.

The larger roadway projects could displace residences. The EIR recommends mitigation measures to assist homeowners and renters that would be displaced. These mitigation measures, plus the fact that on an overall basis few homes would be displaced, reduce this impact to a less than significant level.

Because the projects have been proposed by the County, the four incorporated cities, and governmental agencies that serve the county's population, it is assumed that the proposed transportation projects are basically consistent with the General Plans of the County and its four cities. However, each project will need to be assessed at the time it is formally proposed to ensure that it is consistent with the entirety of the appropriate jurisdiction's general plan.

While the projects are not expected to divide established communities, the projects could result in new land uses which conflict with surrounding existing land uses. These potential conflicts include additional noise, air pollution, visual changes, and other changes. These potential conflicts are considered a significant adverse impact.

All land use impacts can be reduced to a less than significant level except for loss of prime agricultural soils, development of properties under Williamson Act contracts, and land use conflicts.

12. Energy

Energy and non-renewable resources would be used to construct and operate the transportation projects. Some of the projects would reduce traffic congestion, thereby reducing energy consumption. As there is no evidence that energy would be used in a wasteful fashion, the impact is considered less than significant.

B. Significant Adverse Impacts That Cannot Be Avoided

This EIR identifies a number of potentially significant adverse impacts that would result from possible future development under the Draft RTP. The EIR presents mitigation measures that would eliminate those impacts or reduce them to a level that is considered less than significant. However, some impacts cannot or may not be reduced to a less than significant level. Significant impacts would occur from construction of the Willits Bypass. For other projects, the precise amount of impact cannot be predicted since final routes and designs of the projects are unknown. In those cases, this EIR may conclude that future projects could have significant adverse impacts which cannot be reduced to a less than significant level by the mitigation measures recommended in this EIR. For purposes of this Program EIR, any impact where there is some question of whether the impact would be reduced to a less than significant level and where there

remains the potential for a significant impact is identified as an unavoidable adverse significant impact. This EIR identifies these impacts as significant, even though the impact would not be significant for most projects included in the RTP and may even prove less than significant for larger projects. Thus, this is a worst case analysis. Given the caveats described above, this EIR identifies the following impacts as significant adverse impacts.

1. Projects could induce landsliding.
2. Projects could damage or displace sensitive plant communities.
3. Projects could result in filling of wetlands and other waters of the U.S.
4. Projects could result in the loss of habitat which supports special status species of fish and wildlife.
5. Projects could result in damage or destruction of archaeological and historical resources.
6. Projects could result in the loss of open space and add views of new improvements and lights. These changes could adversely affect views from public and private vantage points.
7. Larger roadway projects would displace prime agricultural soils.
8. Larger roadway projects may adversely affect farming operations on properties under a Williamson Act contract.
9. Projects could result in land use conflicts with existing land uses near the roadway, airport, or other transportation project.
10. Projects could induce additional growth in the County, and this growth could have potentially significant impacts.
11. RTP projects plus other proposed projects in the County could result in potentially significant cumulative impacts as regards the following resources:
 - Deterioration of water quality due to runoff from roads and other paved areas.
 - Loss of habitat used by special status species of wildlife.
 - Loss of sensitive plant communities.
 - Filling of wetlands and other waters of the U.S.
 - Loss of groundwater recharge areas.
 - Excessive noise along some new streets and highway sections.
 - Loss of open space views and replacement with views of new development and new lights.
 - Loss of prime agricultural soils.
 - Adverse effects on Williamson Act contract properties.
 - Land use conflicts.

These are the conclusions of the EIR preparers and MCOG staff. If the MCOG Board of Directors concurs that these impacts are significant, then the Board must adopt a Statement of Overriding Considerations prior to approving the RTP (if it decides to approve the plan). Per Section 15093 of the *CEQA Guidelines*, the Statement of Overriding Considerations must explain why the RTP is being approved despite these unavoidable adverse significant impacts.

C. Project Alternatives

Section 4.4 of this EIR contains an analysis and comparison of three project alternatives plus the Draft RTP complete with the mitigation measures recommended in this EIR. The three alternatives are:

1. No Project
2. Alternative Transit Focus
3. Two-lane Highway 101 Bypasses

This EIR concludes that the Draft RTP complete with the mitigation measures recommended in this EIR is the "environmentally superior" alternative.

D. Areas of Controversy and Issues to be Resolved

The Summary Chapter must identify known areas of controversy and issues to be resolved. Known areas of controversy (all of which are assessed in this EIR) are listed below. This list of issues is based on comments to the Notice of Preparation (letters included in Appendix A of this EIR) as well as comments made to the EIR preparers when preparing this EIR. The issues, questions, and concerns summarized below are the opinions of members of the public and public agency staff. They are not necessarily the conclusions of this EIR.

Proposed transportation improvements may cause the following impacts:

- Increased landsliding, unstable slopes, and soil erosion.
- Increased deposition of soil and water pollutants into streams and other wetlands.
- Loss of native plant, wildlife, and fish habitat.
- Loss of open space.
- Loss of or damage to archaeological and historical resources.
- Increased emission of pollutants into the air.
- Increased noise around airports and along streets and highways.
- Increased traffic on County and City streets and roads.
- Impacts to views from public roads and highways and from private residences.

In addition, the following concerns were raised:

- Constructing the Redemeyer Road Extension would allow significantly more growth in the area served by that road.

- Constructing Highway 101 bypasses and other major road improvements will improve inter-county and intra-county circulation thereby inducing additional development in Mendocino County.

A two-lane alternative for the Willits Bypass should be assessed and the impacts compared to the currently proposed four-lane alternatives. The EIR should examine the direct impacts of this alternative on the physical environment as well as the growth-inducing and cumulative impacts of the alternative, and these impacts should be compared to the four-lane alternatives assessed in the Draft Willits Bypass EIR/EIS prepared by Caltrans.

While this EIR will examine the growth-inducing and cumulative impacts of the proposed bypass project, it will not include a project-specific environmental analysis of the bypass project. This is consistent with the role of this Draft EIR being a Program EIR where the site specific-impacts of proposed RTP projects would be assessed in subsequent project level CEQA (and in the case of projects with Federal involvement, NEPA) reports. In the case of the Willits Bypass project, this subsequent Draft EIR/EIS has already been prepared. Nevertheless, since assessment of this two-lane bypass alternative was requested, this alternative is discussed in Section 4.3 of this EIR (Project Alternatives Section).

- The EIR should examine expanding bus and train service. This analysis should discuss the number of cars and trucks that would be removed from Highway 101 if these services were expanded and the differences in environmental impact resulting from removal of these vehicles from the highway
- Constructing improvements at some of the public airports could increase air traffic at those airports thereby creating additional noise, aesthetic, and other impacts on the surrounding environment.

E. Impact and Mitigation Table

Table 8 on the following pages provides a summary of the impacts identified in this Draft EIR. The first column of the table describes the impact that would result from construction of the projects. Following that impact is a description of the level of significance that impact has. Levels of significance include "beneficial," "less than significant" (that is, less than significant as measured against significance criteria established for each area of impact), "potentially significant" (i.e., significant prior to implementation of mitigation measures), or "significant."

The next column lists the recommended mitigation measures for the impact. Finally, there is a column that describes the significance of the impact after mitigation measures have been implemented.

3.0 ENVIRONMENTAL IMPACT ANALYSIS CHAPTER

A. EIR Format

This section of the EIR addresses in detail the interaction of the proposed project with its physical environment. Each area or topic of environmental concern which is addressed in this EIR is discussed using the following format:

1. Setting

This section includes a description of the existing physical and environmental conditions as regards the particular environmental factor under consideration (per *CEQA Guidelines* Section 15125).

2. Potential Impacts and Mitigations

This section begins with a list of the criteria that are used to determine impact significance. The criteria are based on the list of impacts typically considered significant as listed in the *CEQA Guidelines*. This section includes a description of any environmental constraints that could affect implementation of the projects proposed in the Draft RTP and an analysis of all potentially significant impacts that would or could occur if the RTP is approved and projects included in the RTP (except for "speculative" projects) are constructed (per *CEQA Guidelines* Section 15126a and b).

The assessment of impacts is also a "cumulative" analysis in the sense that it addresses the cumulative impacts if all the proposed projects were constructed. In some cases, particular analysis and mitigations are provided for particular projects or classes of projects, where those projects or classes of projects might have different impacts than would be expected from the entire suite of projects included in the Draft RTP. This cumulative analysis includes the cumulative impacts for those transportation projects for which Lead Agencies have already adopted a Negative Declaration or certified an EIR. The cumulative analysis also includes the impacts of future use of the proposed projects (for example, future use of new roads).

The cumulative impacts of the proposed RTP projects plus other non-RTP projects are discussed in Section 4.2 of this Draft EIR.

Following the discussion of each potentially significant impact is a listing of possible mitigation measures for that impact. Finally, there is a determination of the significance of the remaining impact after recommended mitigation actions are implemented.

B. Program EIR

As discussed in Section 1.2 of this EIR, this is a Program EIR. It is intended to serve as a "first tier" environmental document. As such, the assessment of impacts from the range of projects possible over the next 20 years is necessarily general. This is not an EIR that addresses the site-specific impacts of each project included in the Draft RTP. Site-specific analyses and mitigations will be assessed as part of the CEQA review of each project at the time there is a specific project application.

This approach is consistent with the degree of specificity required by CEQA for such EIRs. The *CEQA Guidelines* Section 15146 states:

The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.

- (a) *An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.*
- (b) *An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow.*

Because the details of many of the projects remain unknown and because this EIR does not examine site-specific Impacts, some of the impacts of RTP-listed projects may remain potentially significant even if recommended program-level mitigation measures are required. For purposes of this EIR, any impact where there is some question of whether the impact would be reduced to a less than significant level and where there remains the potential for a significant impact will be identified as an unavoidable adverse significant impact.

3.1 GEOLOGY AND SOILS

A. Setting

Mendocino County includes a wide range of soils and geologic conditions. Many areas where future projects may be constructed are constrained by the risk of seismic activity, landsliding, unstable soils, compressible or expansive soils, liquefiable soils, and erodible soils. All future transportation improvements would need to be designed and constructed to compensate for these soil constraints. The following subsections briefly discuss the potential soil and geologic constraints in the County.

1. Seismic Hazard

Earthquakes originate as shock waves generated by movement along an active fault. Primary seismic hazards result from groundshaking and ground rupture along surface traces of the fault. Secondary seismic hazards result from the interaction of groundshaking with existing soil and bedrock conditions and include liquefaction, settlement, landslides, tsunamis (tidal waves), and seiche (oscillating waves in enclosed bodies of water).

The entire California area is seismically active, and low magnitude earthquakes occur every year in the area. Mendocino County has active and inactive faults passing through it. Earthquakes along these faults can cause ground rupture, severe ground shaking, landsliding, liquefaction, and other effects that result in building or improvement failures. The two major faults in the County are the San Andreas Fault and the Maacama-Brush Fault, and a third, the Mendocino Fault, lies offshore. The San Andreas Fault extends north from the Sonoma County line to the east of Highway 1 to about Point Arena where it travels northwest into the ocean. The Maacama-Brush Fault extends north from the Sonoma County line, running just east of the Russian River to Lake Mendocino and then near Highway 101 to about Laytonville. The Mendocino Fault zone lies approximately 60 miles to the northwest at the terminus of the San Andreas Fault. The Mendocino Fault zone is an extremely active structure which has had extensive recent activity.

Earthquakes are generated along fault zones when a swift, sudden shift occurs. This shift releases a great quantity of energy as ground shaking. Earthquakes are measured by the amount of ground motion they cause. This is usually referred to as the magnitude of the earthquake, the most common measure of which is the Richter Scale. This scale is logarithmic, and each successively higher unit of magnitude reflects an increase of 31.5 times the amount of seismic energy over the prior magnitude. The maximum credible earthquake on the San Andreas Fault is projected to be 8.3 on the Richter Scale and 7.25±0.25 on the Maacama-Brush Fault. The Mendocino Fault zone is expected to have a maximum credible earthquake in the range of 7.0 to 7.5.

It is anticipated that an earthquake of moderate to high magnitude initiated on any known nearby fault would result in significant ground shaking in portions of the County similar to the effects of the Loma Prieta earthquake in 1989 in the San Francisco Bay Area or the Great Earthquake of 1906. The U.S. Geological Survey has given a low probability (two percent between 1990 and 2020) for a maximum size earthquake to

occur on the northern segment of the San Andreas Fault (U.S.G.S. Working Group on Earthquake Probabilities 1990). This probability estimate is currently under review, and it is anticipated to be increased, indicating a higher probability of a maximum size earthquake to occur (Questa Engineering Corp, 2001, p. 10). Recurrence intervals for a 7.9M earthquake similar to the 1906 earthquake on the San Andreas fault have been estimated to be 210 years (U.S.G.S. 1996).

Both the San Andreas and Maacama-Brush Faults are mapped and defined as Alquist-Priolo Earthquake Fault Zones (EFZ) which means any development within these fault zones would require detailed evaluation to determine the presence of active fault breaks. In addition to these two major faults, the County is criss-crossed with a series of smaller inactive faults and some faults that have been active within the past 1,600,000 years.

In addition to ground shaking and rupture, earthquakes can cause the changes in the soil as described below.

a. Soil Liquefaction and Dynamic Densification

Soil liquefaction is a type of ground failure which may occur when loose to medium dense, saturated granular soils (sand and silt sands) undergo a rapid loss in shear strength due to an increase in pore pressure within the soil mass. This total loss of shear strength is induced by strong ground shaking associated with earthquakes. The liquefaction potential of soils is dependent upon depth to the water table, thickness and location of granular layers, relative density of granular layers, maximum acceleration produced by the earthquake, and the number of cycles of strong ground shaking. Liquefaction most commonly occurs in soils or loose fine sands and silt sands associated with a high water table.

Dynamic densification occurs in gravels, sands, and silty sands which are in the loose state but are not saturated. These soils settle abruptly during strong to violent ground shaking and can cause differential movement at the ground surface as well as damage to utilities and structures located across areas with variable response. When sandy and silty soils that have high water content are subjected to earthquakes, the solid soil particles enter into suspension. This causes the soil to become like quicksand and no longer able to support structures. While saturated soils are most prone to liquefaction, this effect can also occur under conditions of lower moisture content. Soils prone to liquefaction, listed in decreasing susceptibility, are artificial fill, sand, and alluvium.

b. Lateral Spreading and Lurch Cracking

Lateral spreading involves lateral movement of a soil mass towards a free face, such as coastal bluffs, when liquefaction of an underlying layer reduces the shear strength allowing sliding to occur. Lateral spreading commonly results in a graben or valley being formed at the contact between the failed sediments and the adjacent intact units. Lurch cracking forms when sediments shift but do not completely fail during lateral spreading resulting in long cracks instead of a void or graben.

c. Tsunamis or Sea Waves

Tsunamis are sea waves produced by large-scale seismic disturbances of the ocean floor. The waves are formed in groups having great length from crest to crest and

having a long duration. In deep ocean areas, wave lengths may be a hundred miles or more, and wave heights from crest to trough may be only a few feet. As a tsunami enters shallower waters along coastlines, wave velocity diminishes and wave height increases. If a trough precedes the initial crest, the arrival of a tsunami is indicated by a gradual recession of coastal waters; if a crest precedes, there is a rise in water level. Following this are large waves, some of which can crest at heights of more than 100 feet and strike down with devastating force. Damage potential is amplified whenever a tsunami coincides with high tide, storm waves, or both.

2. Landslides

The five primary factors which contribute to landslides are slope of hillside, soil characteristics, degree of saturation, human activity, and seismic activity. Landslides in many areas of the County have been mapped by the California Geological Survey.

Slopes can become unstable as a result of urban development such as road cuts and grading operations. Soil saturation may occur during periods of heavy rainfall, and saturated soils become much more susceptible to landslides. The potential for landslides will be compounded in the event of significant seismic activity.

Any one of the above conditions can result in ground failure. Because of the complexity of landslides, a number of factors are likely to combine to trigger a landslide. In any event, activities which will increase the potential for landslides should be avoided. One practice of particular concern is grading cuts at the base of slopes. Such cuts are often made to maximize building sites at the base of hills. In evaluating geologic risk, evidence of past landslides should be considered carefully, since areas of past slides will have a high likelihood for future landslide activity.

3. Soil Expansion and Compression

Soils within the County are susceptible to shrinking and swelling in the presence or absence of moisture. Soils that are compressible, will shrink when wet and when under pressure (e.g., from buildings) while expansive soils will expand causing cracking of pavement, foundations, etc.

4. Erosion

Some soils are more susceptible to soil erosion than others. The County contains a range of soils, some of which are moderately to highly susceptible to erosion. Unprotected soils susceptible to erosion as well as most unprotected soils on steeper slopes will erode. The eroded soils will be carried downslope and may result in sedimentation of streambeds. This can adversely affect the flood carrying capacity of streams and adversely affect water quality and the aquatic habitat.

5. Mineral Resources

The Count includes a number of active quarries as well as mapped areas of potentially commercial mineral resources.

6. Regulatory Framework

To reduce seismic hazards in the State, the California legislature passed the Alquist-Priolo Special Studies Zone Act of 1972. The intent of this Act was to identify faults within the State considered capable of generating damaging earthquakes and to regulate development near such faults to mitigate the hazard of ground ruptures. In 1990, the State enacted the Seismic Hazard Mapping Act. The intent of this Act was to address seismic hazards, including ground shaking and earthquake-induced ground failure, which are not addressed in the Alquist-Priolo Special Studies Zone Act of 1972. Mendocino County includes two Special Study Zones: along the San Andreas and the Maacama-Brush Faults.

Mining activities are subject to local, State, and Federal policies and regulations. The State Surface Mining and Reclamation Act (SMARA) regulates activities related to mineral resource extraction, requires the prevention of adverse environmental effects caused by mining, requires the reclamation of mined lands, and requires the elimination of public health and safety hazards due to the effects of mining activities. Mining activities also must comply with the County's Surface Mining and Reclamation Ordinance.

The Uniform Building Code (UBC) provides construction guidelines for residential, commercial, and industrial buildings and includes building standards for various intensities of seismic events. Mendocino County is included in Zone 4 which includes areas that would experience the largest amount of ground shaking.

The County of Mendocino is considering the adoption of a Grading Ordinance. A Draft version of the Ordinance has been prepared, but is likely to be amended (perhaps substantially). Adoption may occur in 2003. Projects which include earthwork above the thresholds adopted in the final ordinance would be required to obtain a Grading Permit which would establish grading requirements and erosion control procedures.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Exposes people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving any of the following:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
 - Strong seismic shaking.
 - Seismic-related ground failure, including liquefaction.

- Landslides.

(Assessed in Impacts 3.1-A and B.)

- Results in substantial soil erosion or the loss of topsoil. *(Assessed in Impact 3.1-D.)*
- Is located in a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. *(Assessed in Impacts 3.1- A to C.)*
- Is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or, property. *(Assessed in Impact 3.1-C.)*
- Has soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater. *(The project does not include the use of private septic tanks.)*
- Directly or indirectly destroys a unique geologic feature. *(Assessed in Impact 3.1-F.)*
- Results in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. *(Assessed in Impact 3.1-E.)*
- Results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. *(Assessed in Impact 3.1-E.)*
- Is subject to inundation by seiche, tsunami, or mudflow. *(Assessed in Impact 3.1-A.)*

2. Impacts

Seismic Hazard

Impact 3.1-A Projects included in the RTP could be adversely affected by seismic activity.

Earthquakes occurring along the two major faults passing through the County, the Mendocino Fault lying offshore, or other secondary faults could result in severe ground shaking, potential soil rupture, liquefaction, dynamic densification, tsunamis, mudflows, and landsliding. Such earthquakes could potentially damage any of the improvements proposed in the RTP.

Any road improvement project, from major highway improvements such as the Willits Bypass to such minor improvements as rehabilitation of existing pavement could be damaged by a major earthquake. For example, some proposed road projects are near

or cross the Maacama-Brush Fault (e.g., the Redemeyer Road extension and the westernmost Willits Bypass alternative route). Other road projects are located on Highway 1 and other roads near the coast (e.g., Ten Mile Road and Eureka Hill Road); all these roads as well as more distant roads, could be severely damaged by earthquakes on the San Andreas Fault. Some damage from such major earthquakes cannot be avoided. However, roads, bridges, culverts, and other major improvements need to be designed and constructed to avoid major failure of the improvements. Otherwise, there could be a major failure resulting in extensive damage to the improvements, possible human injury or death, and potential landsliding or erosion of large amounts of soil. This is a potentially significant impact.

Airports are equally susceptible to earthquakes. Airport aprons can rupture or be damaged, making taking off or landing dangerous. Lighting and signage systems can be damaged. Buildings can be damaged. These are potentially significant impacts.

Earthquakes could damage bikeways. While such damage could require remedial reconstruction, it is not expected it would result in significant injury or death. While this EIR does not examine harbor or rail improvements, earthquakes could result in tsunamis and landsliding at harbors causing extensive damage and potential injury or death. Earthquakes could cause extensive damage to rail lines, especially where the rail line passes through canyons susceptible to landsliding.

Mitigation Measures

1. All projects requiring more than a minimal amount of earthwork (e.g., projects such as re-paving existing roads or creating turnouts) must have a geotechnical study conducted by a geotechnical engineer or engineering geologist. The design report will contain specific construction recommendations for all buildings, roads, bridges, and other improvements to ensure that those improvements can withstand the maximum credible earthquake and ground shaking predicted for the area. The geotechnical report shall also provide construction guidelines to address expansive, compressible, and liquefiable soils and any other soil constraints identified by the geotechnical consultant. Final project design will include the recommendations contained in the geotechnical report. To the extent feasible, projects will avoid areas particularly susceptible to seismic-caused damage. Projects within Special Study Zones shall comply with all requirements established for those zones.

It is expected that the geotechnical report will recommend special design considerations in areas of particular hazard (e.g., landslide potential). These special considerations may include specialized foundation treatments, specific slope ratios and specialized cut slope and fill slope design, mechanically reinforced embankments, stabilization trenches, catchment areas, reinforcing geotextile fabrics, and specialized subsurface drainage techniques. For bridges or other structures over liquefiable soils, construction will occur on foundation piles extended into structurally competent materials.

2. Any project potentially affected by tsunamis shall be designed to withstand the maximum credible tsunami as defined by the Federal Emergency Management Agency (FEMA).

Impact Significance After Mitigation

Requiring that all projects be constructed to withstand the maximum credible earthquake and to comply with the design recommendations of an engineering geologist or geotechnical engineer will ensure that these improvements would both withstand that earthquake and not pose a significant health risk to humans. While some risk of earthquake-caused damage must be accepted if one lives in this region, the mitigation measures would reduce the risk and impact for each proposed project to a less than significant level.

Landsliding

Impact 3.1-B Projects included in the RTP could be adversely affected by existing landsliding or cause new or increased landsliding.

Projects included in the RTP include several projects that require constructing roads or other improvements in canyons, on steep hillsides, or in other areas that include potentially active landsliding. For example, one of the Willits Highway 101 bypass alternatives assessed by Caltrans in the EIR for that project would involve constructing the bypass in the hills west of Willits. This area is very susceptible to landslides, and the EIR concludes that the potential for landslides for this alternative would remain high (Caltrans, 2002, p. 6-18). Another example is that several of the alternative alignments being considered for the second access to Brooktrails cross steep hillsides that are subject to landsliding. Similar hilly areas are located where a number of proposed roadway improvements are located.

Unless properly designed and constructed, these improvements could be damaged by future landsliding. Other areas include potential landslides that could be activated by the proposed projects. This landsliding could not only result in damage to the improvements themselves and people using or occupying those improvements, but could result in the release of substantial amounts of unconsolidated sediment that would wash into storm drains and streams, thereby adversely affecting those streams and the aquatic life dependent on said streams. These are all potentially significant impacts. The potential increase in stream sedimentation from landslides would also be a potentially significant cumulative impact since a number of the proposed projects are located in the same watersheds.

Mitigation Measures

1. The geotechnical study required for Impact 3.1-A will be required for this impact. The geotechnical study shall investigate the project site for landslide potential. If feasible, areas susceptible to landsliding will be avoided. If not feasible to avoid such areas, the geotechnical study will include design requirements to address landsliding. The design requirements shall be implemented.

Impact Significance After Mitigation

The required geotechnical study will ensure that future projects are not adversely affected by existing landsliding nor cause new or aggravated landsliding. The mitigation measures would reduce the impact, but the potential for landslides would remain high for some road projects. Thus, the potential for landsliding is considered a significant adverse impact. This finding is consistent with the findings of the *Willits Bypass Draft EIR/EIS* (Caltrans, 2002, p. 6-18). The cumulative impact would also be a significant adverse impact. It is possible that landsliding caused or exacerbated by future projects could result in deposition of large amounts of sediment into receiving waterways. This would be a potentially significant indirect effect. However, because future projects will be required to avoid or mitigate landslide areas, because it is unknown which if any areas might slide, and because it is unknown whether such landslides, if they did occur, would deposit sediments in waterways, this indirect impact is considered to be speculative, and no further assessment of that secondary effect is required.

Soil Constraints

Impact 3.1-C Projects included in the RTP could be adversely affected by other soil constraints.

Road, bridge, airport, mass transit, bicycle, and other improvements could fail if improperly designed and constructed to withstand expansive, compressible, densifiable, and/or liquefiable soils. If these soils types are present, and the project is improperly designed and/or constructed, it could lead to road, apron, or foundation cracking and failure, bridge failure, and failure of other improvements. This is a potentially significant impact.

Mitigation Measures

1. All projects shall, at a minimum, comply with all requirements set forth in the most recent Uniform Building Code.
2. If and when the County and/or a City with jurisdiction over a future project adopts a Grading Ordinance, the project shall obtain a Grading Permit (if warranted) and comply with the requirements of said permit.
3. The geotechnical report required for Impact 3.1-A will be required for this impact.

Impact Significance After Mitigation

Requiring future projects to be designed and constructed per the requirements set forth in the design level geotechnical report, the UBC, and any required Grading Permit will ensure that these improvements can withstand any local soil constraints. These mitigation measures will reduce the impact to a level that is less than significant.

Soil Erosion

Impact 3.1-D Projects included in the RTP could cause substantial soil erosion.

Many of the major projects included in the RTP would require substantial amounts of earthwork. If soils are stripped of vegetation and recontoured, they would be susceptible to erosion during winter rains. The eroded soil could wash off the site and enter storm drains or natural drainageways. The resulting sedimentation would reduce the ability of the storm drains or streams to transport peak flows, thereby potentially increasing flooding. The sedimentation can also reduce the habitat value of streams, thereby adversely affecting fish and other aquatic species. This is a potentially significant impact for any project that has the potential of delivering sediment to a stream

This is a potentially significant impact for each project that has the potential for releasing sediment to a stream and a potentially significant cumulative impact. Many of the projects are located in the Russian River watershed. The combined increase in sedimentation from projects could have a significant cumulative impact on the Russian River. The Willits Bypass, the second Brooktrails access, improvements to the Willits airport, as well as other non-transportation projects approved or proposed in the Willits area could adversely affect the Little Lake Valley watershed. However, the Draft EIR/EIS prepared for the Willits Bypass concluded that the cumulative impacts would be less than significant given compliance with the NPDES stormwater permit for the Willits Bypass (assuming the other projects would likewise be constructed consistent with the requirements established in the NPDES stormwater permit required for those projects).

Some RTP projects would reduce existing erosion, particularly off of unpaved roads. For example, two roadway projects were recently approved by the County to reduce sedimentation to coastal streams. The projects are funded through the Five Counties funding for improvement to salmonid streams. A portion of Sherwood Road will be reshaped (i.e., rolling dips, outsloping, and rocking) to reduce erosion to Ten Mile River and the Noyo River. This project is funded and will cost \$247,947. This will be Phase 1 of a longer term project to reduce erosion along the length of Sherwood Road. Ten Mile Road will receive similar treatment including all-weather surfacing for a cost of \$389,073. Other projects include improving drainage, rehabilitating or replacing culverts, and other projects that would reduce erosion to local streams. These projects would have a beneficial impact as regards erosion.

Mitigation Measures

1. For each project over 5 acres in size (over 1 acre in size after March 2003), the project applicant shall prepare and implement a Stormwater Pollution Prevention Program (SWPPP) which will be submitted to the Regional Water Quality Control Board (RWQCB) as part of the NPDES General Construction Activity Stormwater Permit (General Permit) application. The SWPPP shall include Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater. BMPs incorporated in each project SWPPP would likely include *in-situ* protection, seeding and mulching of bare ground, planting of trees and shrubbery in disturbed riparian areas, and installation of other types of biotechnical slope stabilization, such as appropriately staked straw bale perimeters and silt fences. No grading should occur between October 15 and May 1. Project applicants would implement the final BMPs and measures included in the General Permit obtained from the RWQCB. For projects under 5 acres in size until March, 2003 and under 1 acre in size after that date, the project applicant shall prepare and implement an erosion control plan which will

describe the Best Management Practices that will be used to control erosion and sedimentation.

2. All Caltrans projects will include Caltrans' Standard Special Provisions (SSPs) to reduce erosion in all stormwater discharges.

Impact Significance After Mitigation

Requiring that each project be constructed per the requirements established by the RWQCB would ensure that erosion is reduced to a level where it would not substantially affect water quality in receiving waterways. The impact of each project and the projects in combination would be reduced at a program level to a level that is less than significant.

Mineral Resources

Impact 3.1-E Projects included in the RTP could remove valuable mineral resources for production.

It is not expected that any of the proposed projects would include construction on or across a valuable mineral deposit, since those deposits are generally on hillsides, and there are not that many of them. However, it is possible that projects could affect such resources, and this would be a potentially significant impact.

Construction of large road projects would potentially require importing fill and road base. For example, the three eastern bypass alternatives assessed in the *Willits Bypass Draft EIR/EIS* would require importing of 2.4 to 3.1 million cubic yards of fill material. For that project, Caltrans has identified a designated borrow site (Oil Well Hill) that will likely be used as the source for the required fill (Caltrans, 2002, p. 3-7). Smaller road projects and other proposed projects would likely rely on existing quarries in the County or outside the County. Use of material from these quarries could shorten the active life of these quarries, thereby requiring development of new quarries or expansion of the existing quarries. It is not currently possible to estimate the demand for quarry materials, and this indirect impact is considered speculative. However, the County should review the potential demand for aggregates from the projects included in the RTP when updating its General Plan to determine if there are adequate aggregate reserves to meet the demand for these transportation projects plus other projected new development in the County.

Mitigation Measures

1. Projects shall be sited to avoid all existing quarries and California Geological Survey-mapped aggregate reserves.
- 2, When updating its General Plan, the County of Mendocino should ensure that there are adequate aggregate reserves to meet the needs of RTP projects and other projected growth in the County.

Impact Significance After Mitigation

The recommended mitigation measures would ensure that existing aggregate quarries and reserves are retained for future production. The County has the responsibility of addressing the future demand for aggregates. The impact is reduced to a level that is less than significant.

Unique Geologic Features

Impact 3.1-F Projects included in the RTP could damage or eliminate unique geologic features.

It is possible that future projects could damage or destroy unique rock outcroppings or other unique geologic features. While such an impact is not expected, without knowing

the environmental setting of each project, such an impact is possible. If this were to occur, it would be a potentially significant impact.

Mitigation Measures

1. The geotechnical report required for Impact 3.1-A will include an identification of any unique geologic features. If such features are present, the project will be designed to avoid such features. If avoidance is not feasible, the project shall be designed to minimize the impact on said features.

Impact Significance After Mitigation

The mitigation measure should avoid or minimize impacts on unique geologic features. It is not expected that such features would occur where most to all projects are proposed. It is expected that the mitigation measure would reduce the impact to a level that is less than significant.

3.2 HYDROLOGY AND WATER QUALITY

A. Setting

1. Rivers and Streams

The County contains thousands of miles of perennial streams and many more miles of seasonal streams. The County has a mild and wet climate with most precipitation occurring during the winter and spring. Due to the seasonal nature of precipitation, flows in streams fluctuate significantly with high flow periods occurring generally from December to May and low flows from June to November. The County includes three major drainage basin areas:

- The Russian River Basin which drains approximately 1,500 square miles;
- The Eel River Basin which drains approximately 3,600 square miles; and
- The Coastal River Basins which drain approximately 1,600 square miles; these coastal rivers include the Gualala, Garcia, Navarro, Albion, Big, Little, Noyo, Ten Mile, and Mattole Rivers as well as numerous smaller creeks.

2. Groundwater Hydrology

The groundwater resources of the County occur mainly in three types of aquifers, including coastal terraces and valleys, the inland valley alluvium and terraces, and in the Franciscan geologic formation. Many of the alluvial valleys (e.g., Ukiah Valley, Little Lake Valley, Anderson Valley) contain large groundwater aquifers which are tapped by wells to provide agricultural water for irrigation as well as domestic water. Coastal terraces supply a more limited water supply, while aquifers in the Franciscan formation tend to be small and discrete. The Mendocino County General Plan states that the Coastal Basins have an aquifer area of 53,500 acres and a usable capacity of 217,000 square feet, the Russian River Basin has 11,500 acres with a usable capacity of 64,000 square feet, and the Eel River basin has 105,000 acres with a usable capacity of 342,600 acre feet.

3. Regional Water Quality

The State, in accordance with Section 303(d) of the Clean Water Act, has submitted to the U.S. Environmental Protection Agency a draft list of impaired water (i.e., streams and other water bodies that do not meet applicable water quality standards). The State prepared a priority list of these impaired waters and has begun preparing and adopting Total Maximum Daily Load (TMDL) Programs for the streams included on the list. The TMDL Programs establish waste discharge prohibitions for all landowners within the watershed of the river. These regulations require landowners to reduce sediment from existing erosion sources on their property. To date, a TMDL Program has been adopted for the Garcia River. Other streams in Mendocino County on the list of impaired waters from which TMDL Programs are being prepared include:

- Albion River
- Big River

- Eel River
- Gualala River
- Mattole River
- Navarro River
- Noyo River
- Ten Mile River
- Tomki Creek

Draft or preliminary TMDL Programs have been developed at least for the Gualala, Noyo, Ten Mile, and Navarro Rivers. The TMDL Program includes the requirement that all landowners within the watershed inventory the roads on their property to determine erosion sources and erosion potential and develop measures to reduce the controllable sources by 10 percent per year for ten years. This requirement would apply to all roads included in the RTP list as well as existing roads. For example, Mendocino County would be required to identify locations where sediment could be delivered to streams along its roads within the target watershed and develop measures to reduce that erosion potential. New road and other projects would be similarly regulated.

Projects included in the RTP are located in the watersheds of all of these impaired streams with the exception of the Mattole River.

In addition to these TMDL Programs, the County is involved in two organizations whose objectives are to improve water quality in the County to benefit anadromous fish. The Eel River watershed and the coastal river watersheds are within the purview of the Five Counties Effort (Mendocino, Humboldt, Del Norte, Trinity, and Siskiyou Counties). This program receives funding from grants with the principal funding coming from the National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (CDFG). The program has two principal objectives. The first is to address ways of improving County facilities (e.g., the County road system). In this regard, the program has developed a manual for fish friendly practices to be used by the County Department of Transportation when constructing or repairing roads, culverts, storm damage, etc. This manual is currently being completed. Once completed, it will be submitted to the County Board of Supervisors for adoption. The manual will describe methods to be used in construction and repair activities that minimize sedimentation and water pollution.

The second objective addresses lands within the County's jurisdiction. Methods of reducing sedimentation and water pollution may include adoption of a grading ordinance, riparian protection ordinance, and similar water quality control measures. The County is currently considering adoption of a grading ordinance. The draft ordinance is currently before the County Planning Commission and is expected to be forwarded to the Board of Supervisors sometime in 2003.

The Russian River watershed is targeted by a second program called FISHNET 4C. This multi-county group includes counties to the south of Mendocino County. This program is focusing on developing a management practices manual similar to the one drafted by the Five Counties Effort.

These management manuals, once adopted, will not only regulate new roadway-related construction but address existing roadway problems. Until their adoption, the Mendocino County Water Agency is already coordinating with the Mendocino County Department of Transportation (DOT) to ensure that new road construction and repair of

existing roads, culverts, and storm damage are done in a way to minimize impacts to streams (Slota, personal communication).

Another parallel program working through the Five Counties Effort is a program to remove fish barriers. This program is concentrating on removing barriers on County roads. For 2003, seven projects to replace fish barrier culverts and replace them with natural bottom crossings have been funded within the County (Slota, personal communication).

4. Flooding

Areas along streams may be inundated during major or prolonged storms. The Federal Emergency Management Agency (FEMA) has mapped the areas susceptible to flooding during the 100-year storm event. While the 100-year floodplain may be relatively limited in extent along smaller streams or streams in incised valleys, the floodplain can be wide and extensive for major rivers, particularly where they pass through relatively flat valleys.

Floodways are the portion of the stream that carries peak runoff. Floodways cannot be filled or developed without causing increased flooding in other parts of the watershed.

5. Regulatory Framework

The Federal Water Pollution Control Act Amendments, commonly known as the Clean Water Act, provides a basic structure for regulating discharges of pollutants into the waters of the United States. The Clean Water Act (CWA) sets requirements for water quality standards for all contaminants in surface waters, and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The USEPA, together with the California Regional Water Quality Control Board, is responsible for administering the CWA.

The National Pollution Discharge Elimination System (NPDES) program was established by USEPA to regulate stormwater runoff and is implemented by the states. NPDES permits can be issued for municipal or industrial wastewater discharges, or for stormwater discharges. There are three categories of stormwater permits: construction (over five acres of disturbance), municipal, and industrial. The State of California has issued a general NPDES stormwater permit for construction activity that would apply to State highway projects. In addition, a project-specific NPDES permit will also be required for each project greater than 5 acres in size. Other projects larger than 5 acres included in the RTP would be required to obtain an NPDES permit. After March 2003, all projects over one acre in size will be required to obtain an NPDES permit. As part of this permit, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared. The Plan requires that pollution sources be identified, and it commits the permittee to implementing stormwater pollution prevention measures to reduce pollutants in stormwater discharges from construction sites both during construction and after construction has been completed.

The State Water Resources Control Board (SWRCB) and the North Coast Regional Water Quality Control Board (RWQCB) have primary responsibility for the maintenance of water quality in the North Coast Region. The *Water Quality Plan for the North Coast Region* (Basin Plan) was originally adopted by the Regional Board in 1975. Since that time, the Regional Board has updated and amended the Basin Plan several times. At

the time of preparation, the most current version of the Basin Plan was adopted by the Regional Board on May 23, 1996. The Basin Plan is used by the Regional Board as a regulatory tool and by other agencies for permitting and resource management. The provisions of State Water Board Plans, such as the Ocean Plan and the Thermal Plan, are incorporated into the Basin Plan.

The goal of the Basin Plan is to define a program of actions that are designed to preserve and enhance water quality and to protect the beneficial uses of waters in the North Coast Region. Beneficial uses are identified in regional waters in order to assess which uses need to be protected from degraded water quality. From a water quality management standpoint, the most sensitive beneficial uses are municipal, domestic, and industrial water supply, recreation, and uses associated with the maintenance of resident and anadromous fisheries. The Basin Plan includes water quality objectives, action plans, prohibitions, and policies for the control of water quality.

As part of the Phase II portion of the Storm Water Permit Program, the City of Ukiah will be required to adopt a Municipal Stormwater Program by March 2003. It is possible that the City of Fort Bragg will also be required to adopt a Municipal Stormwater Program under Phase II, though a final decision on whether Fort Bragg would be listed as an entity subject to Phase II has not been made (Short, personal communication). These stormwater programs will include measures the cities will take to reduce point and non-point water pollution, including pollution from streets and roads.

In addition to the requirement for NPDES permits, future projects will need to comply with TMDL requirements adopted for specific watersheds in the County and (for County projects) the fish friendly management programs once adopted by the County.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Violates any water quality standards or waste discharge requirements. *(Assessed in Impacts 3.2-A and B.)*
- b. Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted). *(Assessed in Impact 3.2-F.)*
- c. Substantially alters the drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site. *(Assessed in Impact 3.2-E.)*
- d. Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases

- the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. *(Assessed in Impact 3.2-D.)*
- e. Creates or contributes runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provides substantial additional sources of polluted runoff. *(Assessed in Impact 3.2-D.)*
 - f. Otherwise degrades water quality *(Assessed in Impact 3.2-B.)*
 - g. Places housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map. *(None of the projects include the construction of housing, so there is no impact per this criterion.)*
 - h. Places within a 100-year flood hazard area structures that would impede or redirect flood flows. *(Assessed in Impact 3.2-C.)*
 - i. Results in or requires the construction of new storm drain water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. *(Assessed in Impact 3.2-D.)*

2. Impacts

Water Quality

Impact 3.2-A Projects included in the RTP could result in deposition of sediment into streams and the ocean.

As discussed under Impact 3.1-D, many of the projects proposed in the RTP have the potential of causing soil erosion. Depending on the construction site, this eroded soil can be transported by rainfall either directly to perennial streams or to intermittent streams which then can transport the sediment to perennial streams. This sediment can result in a number of potentially significant impacts including 1) reduction of the flood-carrying capacity of the streams thereby potentially increasing the area subject to flooding; 2) clogging of culverts thereby potentially causing increased flooding; 3) adversely affecting spawning beds of salmonids and other aquatic species; and 4) increasing the turbidity of the streams thereby potentially adversely affecting aquatic species. These are all potentially significant impacts. Projects likely to have the most substantial impacts would be ones requiring new road construction near or crossing stream channels. This includes projects such as the Willits Bypass, other Highway 101 projects, the second access alternatives being considered for Brooktrails, and the Redemeyer Road Extension. Construction or reconstruction of bridge pilings and footings and culverts may also generate sediments to streams.

The main sedimentation impacts are expected to be the result of proposed roadway improvement projects. Airport improvements projects generally do not include construction of facilities on undeveloped land. However, constructing a new turn-around area at the Willits Municipal Airport, constructing new hangers at the Little River Airport, and constructing a runway, taxiway, hangers, and other expansion projects at the Round

Valley Airport could result in erosion. The proposed repair of the existing landslide on the Willits Municipal Airport should reduce erosion potential at that site.

All the rivers listed in subsection 3 in the Setting section, except the Mattole River, could be adversely affected by future projects included in the RTP. The sedimentation impact of future projects included in the RTP on streams and the ocean is considered a potentially significant impact both on a project-specific level and cumulatively.

Mitigation Measures

The same mitigation measures recommended for Impact 3.1-D will apply to this impact. In addition, the following will apply:

1. All projects located within watersheds for which TMDL programs have been adopted by the State will abide by all conditions for road and other improvement projects included in those TMDL programs.
2. All County projects will be constructed and maintained per the BMPs included in the fish friendly management program when it is adopted by the County. Until final adoption, the Mendocino County Department of Transportation will continue to coordinate with the Mendocino County Water Agency to design and construct their projects consistent with the recommendations included in the draft management program.
3. All Caltrans projects shall be constructed utilizing the BMPs included in Caltrans Storm Water Quality Handbook Planning and Design Staff Guide (Caltrans, June 2000).
4. All airport projects and MTA transit centers and bus yards shall be constructed using BMPs identified by the Mendocino County Water Agency and Caltrans, as described above, plus industrial BMPs as listed in California Storm Water Best Management Practices (Camp Dresser & McKee et al, 1993).
5. When local jurisdictions adopt new Municipal Stormwater Plans, all road and airport projects within those jurisdictions shall be constructed and maintained consistent with the requirements established in those programs. Until such programs are adopted, local jurisdictions will require the implementation of BMPs for all small projects not subject to a NPDES individual permit. BMPs for municipal projects are identified in the Coastal Commission's Model Urban Runoff Program.

Impact Significance After Mitigation

The individual and cumulative impacts from erosion from future projects would be reduced to a less than significant level by requiring the projects to comply with the required NPDES permits, Best Management Practices for smaller projects, and TMDL Program requirements for projects in areas where TMDL Programs are adopted as well as future requirements adopted by the County as part of the grading ordinance, the fish friendly management program, and/or Phase II requirements. These permits and requirements should ensure that significant deterioration of water quality does not result either individually or cumulatively from the projects. Existing requirements established

by the RWQCB as well as expected additional requirements established by the RWQCB, the County, and the cities in the County will establish performance standards to ensure that projects do not significantly affect stream or ocean water quality. In fact, the new requirements established in these recently adopted or soon-to-be-adopted programs would not only reduce the impacts of future projects but substantially decrease sedimentation from existing sources, thereby improving water quality in many portions. At a program-level of analysis, the impacts of the projects both singly and cumulatively would be reduced to a less than significant level.

Impact 3.2-B Projects included in the RTP could result in the disposition of pollutants into streams and the ocean.

The construction of new roads and paved areas at airports and the use of those roads and paved areas would generate oil, grease, and other chemical residues and heavy metals from vehicles which could be washed off the sites into streams. Application of landscaping fertilizers along highways or roads could also be washed off the sites. Fertilizers may promote algae growth thereby resulting in reduced dissolved oxygen levels in water bodies. While pesticides are not used by Caltrans or the County, it is possible that pesticides might be used around proposed airport projects or City street projects. Transport of these chemicals to streams and other water bodies would have an adverse impact.

The Draft EIR/EIS prepared for the Willits Bypass assessed this impact (except as regards pesticides since they are not allowed in the Caltrans right of way in Mendocino County) for that proposed project. The Draft EIR/EIS concluded that highway runoff from any of the proposed bypass alternatives would be sufficiently diluted upon entering receiving waters that they would not exceed water quality objectives of the RWQCB's Basin Plan. In addition, the approximate percentage of pavement as compared to the total watershed was considered to be negligible, and the impact was considered less than significant. A similar conclusion is likely for most projects included in the Draft RTP as most major projects are located in generally undeveloped areas and consist of a small percentage of the total watershed. The exception would be proposed road improvements within urbanized areas where increased use of new streets in combination with surrounding denser development could result in more substantial runoff of pollutants to streams passing through those urban areas. For example, to address this potential impact the Draft Fort Bragg General Plan requires the City to adopt a Municipal Stormwater Program. Until that program is prepared and adopted, the Draft General Plan requires the City to review new development applications for impacts on water quality and require implementation of BMPs (including the possible installation of oil/water separators) as appropriate. Oil/water separators are catch basins that are designed to capture oils and greases washed off the pavement so that these pollutants cannot enter receiving waterways.

It is concluded that Draft RTP projects within urbanized areas of Willits, Fort Bragg, and Ukiah, either individually or cumulatively, could generate sufficient waterborne pollutants to adversely affect water quality in streams draining those three cities. This is a potentially significant impact.

Accidental spills of oils, grease, fuels, or concrete during project construction could adversely affect receiving waters. This is a potentially significant impact.

Mitigation Measures

1. All contracts for proposed projects shall contain provisions which prohibit the contractor from discharging oils, greases, chemicals, or spillage of concrete and grout into receiving waters
2. A Hazardous Waste and Spill Response Plan will be prepared by each Lead Agency to address water quality issues associated with accidental spills for road and airport construction projects.
3. If and when Municipal Stormwater Plans are adopted by the Cities of Ukiah and Fort Bragg, projects will comply with any provisions included in those programs for reducing non-point pollution to receiving waters. Until such programs are adopted, projects in Fort Bragg, Ukiah, and Willits shall be assessed on a case-by-case basis to assess potential adverse impacts to water quality. The CDFG shall be contacted to determine whether CDFG recommends pollution control features and what those features should include. If it is determined that a project could generate pollutants that might adversely affect water quality of a receiving waterway, then BMPs will be required. These BMPs could include installation of oil/water separators.

Impact Significance After Mitigation

The standard mitigation measures recommended above should provide adequate control and response to accidental spills. Requiring that individual projects be assessed for potential water pollution and inclusion of water pollution control BMPs should reduce both project-specific and cumulative pollution from future use of new roads to a less than significant level.

Flooding

Impact 3.2-C Projects included in the RTP could be exposed to flooding.

Certain roadway projects would be located in areas subject to flooding along the Russian River or other streams during major storms. If roadway or other improvements are not constructed above the predicted flood levels, they could be inundated during peak storms thereby making it impossible to use the road during the peak flows and possibly placing people using those roads at risk. State highways are constructed to have the travelway above the 100-year floodplain elevation. However, County and City streets (depending on the jurisdiction) are typically required to be elevated above the 10-year or 25-year floodplain elevation. Such roads and streets could be subject to flooding during the 100-year storm event. It is expected that the CHP, the County Sheriff's Department, City police officers, and appropriate emergency agency personnel will continue to close roads and highways that might be affected by flooding prior to the flood event occurring. These existing emergency response procedures are expected to reduce the risk of people using the roads and highways to a less than significant level.

Constructing new roads within a floodplain would result in encroachment on the floodplain. Fill or supports could displace existing floodway or floodplain capacity thereby increasing flood elevations and/or the duration of floods. The most substantial impacts on floodplain capacity would result from the major Highway 101 projects. However, the Draft EIR/EIS prepared for the Willits Bypass concluded that the impacts of the several bypass alternatives would not have a significant impact on flood flows or patterns, and not constitute a major impact on floodplain storage or values due to the relatively small area affected (when compared to the entire floodplain and due to Caltrans design features which minimize floodplain intrusion; Caltrans, 2002, pp. 5-51 through 5-58). It is unlikely that other proposed roadway and airport projects would have a substantial affect on flooding, assuming that improvements are not constructed within the actual floodway. However, this conclusion must be examined on a case-by-case basis. If proposed projects reduce the carrying capacity of the floodway or substantially impede on the floodplain, this could result in additional flooding and would be considered a potentially significant impact.

Mitigation Measures

1. Projects shall be designed to avoid construction within the floodway. If improvements are required to be constructed in the floodway, a hydrologic study will be required to determine whether the reduction of floodway capacity would result in increased flooding. If the project would result in a measurable increase in flooding and improvements in the area subject to said flooding could be damaged by that flooding, mitigation measures will be required to ensure that increased flooding not occur. Specific mitigations could include re-design such as constructing bridges or elevated road sections rather than filling a channel.
2. Projects constructed within the 100-year floodplain shall be assessed by a qualified engineer. If floodplain encroachment is determined to significantly increase flooding within or adjacent to the existing floodplain, mitigation measures shall be required to reduce that predicted flooding so that it does not cause damage to existing improvements. Specific mitigations could include re-design such as constructing bridges or elevated road sections rather than filling, or providing additional area for floodplain fringe to offset project filling.
3. Roadways and airport improvements shall be constructed at least one foot above the elevation of the design level storm used by the jurisdiction where the project would be constructed.

Impact Significance After Mitigation

Requiring future projects to undergo hydrologic analysis and establishing performance standards to ensure that future projects do not result in significant additional flooding would reduce the impacts from encroachment into the floodplain or floodway to a less than significant level both individually and cumulatively.

Impact 3.2-D Projects included in the RTP could increase runoff thereby causing increased flooding.

The construction of new roads, highways, and paved areas on airports would increase the amount of impermeable surface, thereby increasing the amount of runoff. During peak storm events, this additional runoff could exacerbate existing flooding in the project area and downstream. It is not expected that the proposed projects would result in a significant increase in runoff given the relatively small amount of new impermeable surface that would be added to the affected watersheds. For example, the Willits Bypass Draft EIR/EIS concluded that the additional runoff generated by the alternatives assessed in that EIR/EIS would have a less than significant impact on flooding (Caltrans, 2002, pp. 5-51 through 5-58). If a major project such as the Willits Bypass would have a less than substantial impact on flooding, it is expected that other projects would also not have a significant impact. Nevertheless, this must be confirmed on a case-by-case basis since a project could generate additional runoff that adversely affected localized flooding conditions. This would be a potentially significant impact.

Mitigation Measures

1. Each project will be reviewed by a qualified engineer to determine the amount of new runoff that the project would generate. The analysis will also include the cumulative impacts of the proposed project plus other planned development in the affected watershed. The impact of this additional runoff will be assessed for the receiving waterway(s) to determine if the additional runoff would generate additional flooding of existing improvements. If project-generated or cumulative runoff is determined to significantly increase flooding, mitigation measures shall be required to reduce that predicted flooding so that it does not cause damage to existing improvements. Such measures could include improving downstream stormwater facilities, constructing retention facilities, or other engineering measures.

Impact Significance After Mitigation

The requirement that each project be assessed for flooding impacts and mitigate any project-caused flooding of existing improvements would reduce each project's impact to a less than significant level. As each project's future assessment would include the predicted flooding caused by any other RTP project already constructed within the affected watershed, the mitigation would also reduce the cumulative impact of all Draft RTP projects to a less than significant level.

Impact 3.2-E Projects included in the RTP could alter the drainage pattern of streams.

Most projects included in the Draft RTP are relatively minor improvements of existing roads or other projects that would not affect streamcourses. However, major projects such as those proposed on Highway 101 could result in direct stream realignment or indirect changes in area drainage causing streams to alter their course. Projects resulting in an alteration of the courses of streams that would result in flooding of areas previously unaffected would have a potentially significant impact. The Draft EIR/EIS prepared for the Willits Bypass determined that though some of the alternatives assessed in that EIR/EIS would involve realignment of existing streamcourses, none of those realignments would have a significant flooding impact (Caltrans, 2002, pp. 5-51

through 5-58). However, it is possible that other Draft RTP projects could have an adverse impact.

Mitigation Measures

1. To the degree feasible, stream alteration will be avoided. Where such avoidance is not feasible, projects shall be designed so that any direct or indirect alteration of stream channels does not cause increased flooding of existing improvements.

Impact Significance After Mitigation

The requirement that each project be assessed for flooding impacts and mitigate any project-caused flooding of existing improvements would reduce each project's impact to a less than significant level. As each project's future assessment would include the predicted flooding caused by any other RTP project already constructed within the affected watershed, the mitigation would also reduce the cumulative impact of all Draft RTP projects to a less than significant level.

Groundwater

Impact 3.2-F Projects included in the RTP could reduce recharge to groundwater aquifers or pollute those aquifers.

Most of the proposed projects included in the RTP are relatively minor as regards covering undeveloped land with new pavement or impermeable surfaces which could potentially block recharge of any groundwater aquifer. The projects with the most potential for adversely affecting groundwater recharge include construction of new roads as well as possible expansion of paved areas on some airports. The projects with the most likely impact on groundwater resources would include:

- Highway 101 Willits Bypass
- Highway 101 Hopland Bypass
- Highway 101 four-lane expressways north and south of the Hopland Bypass
- Widening North State Street
- Redemeyer Road Extension
- Widening East Side Potter Valley Road
- Second Access Road to Brooktrails
- Highway 101 alternate routes in the Ukiah Valley
- Additional aircraft hangers at Little River Airport
- New taxiways, apron areas, and tie-down areas at Round Valley Airport

Without detailed assessments of the groundwater aquifers at each project site, it is speculative what the precise impacts to those aquifers might be. The Draft EIR/EIS prepared for the Willits Bypass did not find that project would have a significant impact on groundwater supplies. Given the size of the Willits Bypass project, it is unlikely that the other projects included in the Draft RTP would have a significant impact on groundwater supplies. Draft RTP projects do not include projects that would cover large areas where groundwater recharge may occur with impermeable surfaces. This is not expected to be a significant impact, but this conclusion must be confirmed on a case-by-

case basis. Cumulatively, the impact is also not expected to be significant since few projects are proposed over the same aquifer, and even where there is more than one project proposed over the same aquifer (e.g., Ukiah Valley), the projects are not substantial when compared to the entire aquifer recharge area.

In addition to reducing groundwater recharge, some airport projects and other projects could result in the discharge of polluted water that may pollute underground aquifers. For example, as stated in the Response Letter to the Notice of Preparation from the Little River Airport Advisory Committee (see letter in Appendix A of this EIR), residents living near that airport are concerned that a ditch that drains Little River Airport drains into a series of ponds which neighbors feel may pollute the groundwater aquifer their wells tap. This existing problem could be exacerbated by additional construction on and use of this airport.

Mitigation Measures

1. Future CEQA studies of each project shall identify potential project impacts to the local groundwater aquifer. If the project is found to substantially decrease the local aquifer's recharge potential (i.e., reduce the recharge area by more than one percent), then mitigation measures (e.g., construction of recharge facilities) to allow additional off-site recharge will be included so that the reduction in recharge area is no more than one percent.
2. The future CEQA studies for the new Airport Layout Plan for the Little River Airport will assess potential pollution impacts to the groundwater aquifer serving nearby residents. If the study shows there is an existing or projected pollution problem, then specific recommendations will be developed to ensure that there is no airport-caused pollution of the groundwater aquifer. The proposed plan for remediating the problem, if it exists, will be submitted to the RWQCB for their approval. Once approved, all recommended actions will be implemented.

Impact Significance After Mitigation

It is not expected that any proposed project, either individually or in conjunction with other Draft RTP projects would reduce the aquifer recharge area of any aquifer more than one percent. However, the recommended mitigation measure ensures that this performance standard is realized for each project. Mitigation Measure No. 2 would address existing concerns regarding groundwater pollution near the Little River Airport. The impact would be reduced to a less than significant level.

3.3 BIOLOGICAL RESOURCES

A. Setting

1. Natural Communities

Mendocino County supports a wide and varied range of natural communities including various subtypes of forest, woodlands, oak woodland, riparian, marsh, meadow, chaparral, vernal pool, and other plant communities. These various natural communities support an equally wide range of wildlife.

In general, the coastal portion of the County is forested with coniferous woodlands, though there are numerous other plant communities interspersed throughout the local area, including various types of grasslands, riparian, wetland, bog, and chaparral communities. Further inland, the coniferous forest types are replaced with various types of oak woodland and grasslands, and further east in the drier part of the County, there are larger stands of chaparral community types interspersed with oaks.

2. Special Status Plants

Mendocino County supports over 100 species of plants that are listed as rare or endangered by the California Native Plant Society (i.e., included on Lists 1A, 1B, 2, 3, and 4 of the *California Native Plant's Society Inventory of Rare and Endangered Plants of California*). Many of these species are plants that are listed as endangered or threatened under the California Endangered Species Act and others that are deemed rare under the California Native Plant Protection Act. Ten of these species are Federally listed or proposed Threatened (T), Endangered (E), or Candidate (C) Species, including:

Scientific Name	Common Name	Category
• <i>Eriogonum kelloggii</i>	Red Mountain buckwheat	C
• <i>Sedum eastwoodiae</i>	Red Mountain stonecrop	C
• <i>Lasthenia conjugens</i>	Contra Costa goldfields	E
• <i>Trifolium amoenum</i>	showy Indian clover	E
• <i>Lilium occidentale</i>	western lily	E
• <i>Arabia macdonaldiana</i>	McDonald's rock-cress	E
• <i>Lasthenia burkei</i>	Burke's goldfields	E
• <i>Erysimum menziesii</i>	Menzies' wallflower	E
• <i>Chorizanthe howellii</i>	Howell's spineflower	E
• <i>Howellia aquatilis</i>	water howellia	T

These Federally-listed species as well as State listed species and all species included on Lists 1-4 of the California Native Plant Society (CNPS) Inventory are considered Special Status Plant species.

3. Sensitive Natural Communities

Several plant communities and habitats in the County are considered sensitive natural communities in that they are either regulated (e.g., wetlands under Section 404 of the

Clean Water Act) or support special biological values, including wet meadow, marsh, riparian woodlands, oak woodlands, vernal pools/swales, etc.

4. Special Status Wildlife and Fish Species

Mendocino County supports numerous species of fish and wildlife that are listed by the State or Federal government as rare, endangered, threatened, protected, or otherwise considered a special status species. Of these species, 29 are listed or proposed for listing as Federally Threatened or Endangered Species. However, several of these species are marine species (e.g., black abalone, several marine turtles, several whale species, and Steller sea lion) and are not listed below. The terrestrial or non-marine aquatic species include:

Scientific Name	Common Name	Category
Invertebrates		
<i>Lycaeides argyrognomon lotis</i>	lotis blue butterfly	E
<i>Syncaris pacifica</i>	California freshwater shrimp	E
<i>Speyeria zerene behrensii</i>	Behren's silverspot butterfly	E
Fish		
<i>Eucyclogobius newberryi</i>	tidewater goby	E
<i>Oncorhynchus mykiss</i>	Northern California steelhead	T
<i>Oncorhynchus kisutch</i>	Central CA coast coho salmon	T
<i>Oncorhynchus tshawytscha</i>	CA coastal chinook salmon	T
<i>Oncorhynchus kisutch</i>	S. Oregon/N. CA coho salmon	T
Amphibians		
<i>Rana aurora draytonii</i>	California red-legged frog	T
Birds		
<i>Coccyzus americanus</i>	yellow-billed cuckoo	C
<i>Pelecanus occidentalis californicus</i>	California brown pelican	E
<i>Phoebastria albatrus</i>	short-tailed albatross	E
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	T
<i>Haliaeetus leucocephalus</i>	bald eagle	T
<i>Strix occidentalis caurina</i>	northern spotted owl	T
<i>Brachyramphus marmoratus</i>	marbled murrelet	T
Mammals		
<i>Aplodontia rufa nigra</i>	Pt. Arena mountain beaver	E

5. Regulatory Framework

The following plans, acts, and regulations are related to preservation of Special Status Species and biotic habitat.

- **California Department of Fish and Game (CDFG) Regulations.** The CDFG has direct jurisdiction pursuant to Fish and Game Code Sections 1601-1603 in regard to any proposed activities which will divert, obstruct, or change the natural flow or bed of any river, stream, or lake designated by the department or will use materials from streambeds. Sections 1601-1603 allow the CDFG to review projects and propose reasonable modifications to proposed construction for the protection of a fish and game resource that may be substantially affected by such construction. CDFG requirements are included in a Streambed Alteration Agreement. The Department is also responsible for the protection of plant and wildlife populations and for overseeing the California Endangered Species Act.
- **U.S. Fish and Wildlife Service (USFWS)** USFWS administers the Federal Endangered Species Act (ESA) and the Marine Mammal Protection Act. The U.S. Fish and Wildlife Service (USFWS) operates under a number of statutory and administrative authorities. Its basic responsibilities concern migratory birds, anadromous fish, and endangered species. If a project involves a "take" of a Federally listed species, then USFWS must approve the permit for this "taking." "Take" is defined by the ESA as harassing, harming, pursuing, shooting, wounding, trapping, capturing, or collecting any listed wildlife species. Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter.

Take incidental to an otherwise lawful activity may be authorized by one of two procedures. If a Federal agency is involved with the permitting, funding or implementing of the project, then initiation of formal consultation between that agency and USFWS, pursuant to Section 7 of the ESA, is required, if it is determined that the proposed project may affect a Federally listed species. Such consultation would result in a biological opinion that addresses anticipated effects of the project on listed and proposed species and may authorize a limited level of incidental take. If a Federal agency is not involved with the project, then an "incidental take" permit pursuant to Section 10(a) of the ESA should be obtained.

The USFWS is an advisory agency to the Army Corps on Section 404 and Section 10 projects. The USFWS will review mitigation plans for these projects. The USFWS identifies four different resource categories with criteria and mitigation goals for each. The Fish and Wildlife Service will review the resources on a site and assign a category to each. Each category has a specific set of mitigation requirements.

- **National Marine Fisheries Service (NMFS).** NMFS administers the Federal Endangered Species Act and the Marine Mammal Protection Act as they pertain to marine and anadromous species. The service also advises the Army Corps of Engineers on Section 7 and Section 404 permits for projects that could affect fish habitat.

- **U.S. Army Corps of Engineers (USACE or Army Corps).** The USACE has direct jurisdiction over activities which will alter fresh water wetlands pursuant to Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high water marks" on opposing channel banks. Wetlands are habitats with soils which are intermittently or permanently saturated or inundated. The resulting anaerobic conditions support plant species known as hydrophytes which show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophilic vegetation, hydric soils (soils intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 *Corps of Engineers Wetland Delineation Manual*. In locations where wetlands are present, a jurisdictional study is required. In cases where the wetland acreage to be filled is small and no sensitive rare or endangered species occur in the area, it is possible that filling will be authorized under certain Nationwide Permits. These Nationwide Permits apply in limited circumstances where the Corps has determined that the fill will not constitute a significant impact on the environment if carried out according to the limitations and conditions of the pertinent Nationwide Permit.

If the proposed fill is not authorized under a Nationwide Permit, the applicant would be required to obtain approval under the individual permit program administered by the Corps under Section 404. When an individual permit is required, the Corps analysis will include a determination of whether the project is "water dependent." The analysis per Section 404(b)(1) must include an analysis of practical alternatives to filling of wetlands. If the Corps authorizes a permit, it can require mitigations for the loss of jurisdictional wetlands. The Corps is required to consult with the U.S. Fish and Wildlife Service, NMFS, the EPA, and California Department of Fish and Game in carrying out its discretionary authority under Section 404. No permit can be issued until the RWQCB issues a certification (or waiver of such certification) that the proposed activity will meet State water quality standards. If an applicant is able to demonstrate that proposed filling of wetlands is necessary and that there is no practicable alternative to this filling, then the project mitigation plan would be reviewed by the U.S. Fish and Wildlife Service in relation to their mitigation policies.

- **The Federal Migratory Bird Treaty Act.** This Act prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses birds, parts of birds, bird nests, and eggs.
- **Birds of Prey** Birds of prey are protected in California under provisions of the California State Fish and Game Code which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Stingiformes (birds of prey) or to take, possess, or destroy the nests or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction of projects during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance which causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFG.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Has a substantial adverse effect, either directly or through habitat modification on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. (This includes reducing the number or restricting the range of an endangered, rare, or threatened species.) *(Assessed in Impacts 3.3-A and D.)*
- b. Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. *(Assessed in Impact 3.3-B.)*
- c. Has a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *(Assessed in Impact 3.3-C.)*
- d. Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites. *(Assessed in Impact 3.3-E.)*

2. Impacts

Special Status Plants

Impact 3.3-A Projects included in the RTP could result in loss of special status plants.

The construction of road and airport projects could occur in locations that support populations of special status plants. These projects could result in direct loss of special status plants as well as adverse indirect effects (e.g., changes in the hydrologic conditions required to support wetland species, fragmentation of populations, etc.). The loss of any these plants would be considered a potentially significant impact. Because site-specific field surveys would be required to determine precisely which, if any, special status plants might be affected, this Program EIR is unable to describe exactly which populations, if any, might be impacted.

One project on the RTP list of projects has undergone site-specific CEQA review (the Willits Bypass project). The Draft EIR/EIS for that proposed project determined that there are six State or Federally listed plant species in the area where one of the bypass alternatives might be constructed. That Draft EIR/EIS determined that three of the four bypass alternatives would adversely impact *Limnanthes bakeri* (Baker's meadowfoam; a

Federal Species of Concern, State listed as Rare, and List 1B by CNPS) and one alternative would adversely impact *Hesperolinon adenophyllum* (glandular western flax; a Federal Species of Concern and List 1B of the CNPS).

Similar adverse impacts are possible from the other major roadway projects as well as from smaller roadway and airport projects. Destruction of special status plants would be a potentially significant impact.

Mitigation Measures

1. For any project that would result in the displacement of native vegetation, the applicant shall have a records search of the California Natural Diversity Data Base (CNDDB) conducted. If that records search indicates the potential for a special status species in the project area, the site shall be surveyed by a qualified botanist.
2. If special status species do exist in the area to be disturbed by the project, the applicant shall take all feasible steps to design or re-design the project to avoid the special status plant species.
3. Federal projects or projects including Federal funding or permitting must comply with Section 7 requirements which require consultation and a Biological Assessment (Section 7[c]) for Major Construction Activities.
4. If avoidance is not possible, then the applicant shall consult with CDFG and USFWS (if Federal species would be affected; all subsequent references to USFWS apply only if the species potentially affected by the project is a Federally listed or proposed species) and following that consultation shall have a qualified botanist or ecologist develop a mitigation and monitoring plan for the project. The mitigation and monitoring plan shall include all components requested by CDFG and USFWS during the initial consultation. It will include at least the following components (unless modified by USFWS and/or CDFG):
 - goals of the mitigation plan;
 - performance standards;
 - final success criteria;
 - implementation methods;
 - schedule;
 - maintenance activities; and
 - monitoring methods and schedule; and contingency measures to be implemented if the proposed success criteria are not met.

The mitigation measures shall be specific to the special status species that would be affected. The actual mitigations may include one or more of the following:

- Purchase of property or a conservation easement on lands that support the affected species where those species could be lost in the future.
- Purchase of property or a conservation easement on lands with degraded populations of the affected species or habitat suitable for the introduction or re-introduction of the species. The existing populations can be

enhanced, affected species transplanted, and/or seeds planted to establish new populations of the affected species.

- Transplanting, enhancement, and creation of new populations of the affected species will need to be done in consultation with CDFG and CNPS botanists who have specific knowledge of the microhabitat requirements for the species.
- Enhancing degraded populations or establishing new populations of the affected species on those portions of the project site that would not be affected by the project.

The final mitigation and monitoring plan shall be approved by USFWS and CDFG.

5. As warranted, the applicant shall obtain required permits from USFWS and CDFG.

Impact Significance After Mitigation

The program-level mitigation measures recommended above will ensure that all RTP projects are adequately studied to determine the presence of special-status plants. If such plants exist and would be affected by a proposed project, the mitigation measures ensure that a thorough mitigation and monitoring plan would be developed in concert with CDFG and USFWS (if a Federal species would be affected) and approved by those agencies. This mitigation and monitoring plan will establish explicit performance standards, approved by CDFG and USFWS, that must be met in the final mitigation and monitoring plan. Because those two agencies have the legal responsibility for ensuring that projects do not adversely affect special-status species, it is concluded that a species-specific mitigation and monitoring plan approved by the agencies would reduce the impact of each project and the cumulative impact to a less than significant level. If a Lead Agency cannot prepare and/or implement a mitigation and monitoring plan that satisfies CDFG and the USFWS, then the project would have a significant adverse impact.

Sensitive Plant Communities

Impact 3.3-B Projects included in the RTP could result in the loss of sensitive plant communities.

The construction of road and airport projects could occur in locations that support sensitive plant communities. The loss or fragmentation of these sensitive plant communities would be considered a potentially significant impact. Because site-specific field surveys would be required to determine precisely which, if any, special plant communities might be affected, this Program EIR is unable to describe exactly which such populations might be impacted.

The Draft EIR/EIS for the Willits Bypass described seven sensitive plant communities in the area where one of the bypasses might be constructed. That Draft EIR/EIS determined that bypass alternatives would adversely impact marsh, oak woodland, mixed riparian woodland, oak riparian woodland, wet meadow, and vernal pool plant

communities. That Draft EIR/EIS concluded that the four bypass alternatives would adversely impact 41.1 to 157.7 acres of sensitive plant communities (Caltrans, 2002, p. 5-76).

Similar adverse impacts are possible from the other major roadway projects as well as from smaller roadway and airport projects. It is expected that the major impact to sensitive plant communities would result from the Highway 101 bypass and improvement projects, since these projects are located in valley areas supporting marshes, vernal pools, oak woodlands, wet meadows, and riparian areas and since these projects involve constructing wide highways in areas that contain native plant habitat. Major impacts to sensitive plant communities could also be expected from construction of the Brooktrails second access project and extension of Redemeyer Road as both these projects would involve constructing new roads in areas containing native plant habitat. However, these two roads would be considerably shorter and narrower than the Highway 101 projects. Other road improvement projects are mainly widening of existing roads or repairing culverts, bridges, and other ancillary road improvements or are projects in urbanized areas. While these projects may affect sensitive plant communities, the impact from these projects is expected to be less severe than for the previously described projects. Similarly, airport improvement projects might affect sensitive plant communities, but the size of the proposed improvements is sufficiently limited, and the impacts are not expected to be as severe as the major road projects listed above. However, any of these projects that would result in the loss or fragmentation of a sensitive plant community would be considered to have a potentially significant impact.

Mitigation Measures

1. If the Initial Study for a project determines that the project could affect a sensitive plant community, the applicant will have a qualified botanist survey the site to identify and map the community.
2. If a sensitive plant community would be displaced or fragmented by the project, then the applicant shall consult with CDFG and USFWS (if the project includes Federal involvement) to obtain guidance regarding adequate mitigation for the loss. The mitigation and monitoring plan shall contain the same components and methods of mitigation listed for the mitigation monitoring plan under Impact 3.3-A. The mitigation and monitoring plan shall be approved by CDFG and USFWS (if there is Federal involvement).
3. If oak woodlands would be impacted by the project, then the mitigation and monitoring plan shall comply with CDFG's Oak Protection Guidelines for mitigation of oak impacts.

Impact Significance After Mitigation

The program-level mitigation measures recommended above will ensure that a complete mitigation and monitoring plan would be developed in concert with CDFG and USFWS for any project that would displace or fragment a sensitive plant community. This mitigation and monitoring plan will establish explicit performance standards, approved by CDFG and USFWS, that must be met in the final mitigation and monitoring plan. Because those two agencies have the responsibility for ensuring that projects do not

adversely affect sensitive plant communities, it is concluded that a community-specific mitigation and monitoring plan approved by the agencies would reduce the impact of most projects to a less than significant level. However, the Highway 101 bypass projects and, possibly, the Redemeyer Road extension and the second Brooktrails access projects could require removal of sensitive plant communities which may not be adequately replaced even with the recommended mitigation. This is considered a significant adverse impact for the large projects that would cause the impact and cumulatively. This conclusion mirrors the conclusion in the Draft EIR/EIS prepared for the Willits Bypass which found that one of the alternatives would remove extensive acreage of oak woodlands and other sensitive plant communities (Caltrans, 2002, p. 6-19).

Wetlands

Impact 3.3-C Projects included in the RTP could result in the loss of jurisdictional wetlands.

Future RTP projects could result in filling of wetlands, altering the hydrology of those wetlands, or altering the vegetation in and adjacent to those wetlands. Filling of wetlands has the potential to directly and indirectly alter surface and groundwater hydrologic conditions thereby adversely affecting other nearby wetlands.

The Draft EIR/EIS prepared for the Willits Bypass determined that the four bypass alternatives would result in permanent impacts (i.e., loss) of 15.1 to 129.1 acres of jurisdictional wetlands and other waters of the U.S., depending on the alternative that is constructed (Caltrans, 2002, p. 5-84). As was the case for special plant communities, it is expected that the major Highway 101 projects would have the most substantial impacts on wetlands due to the presence of vernal pools, riparian zones, marshes, and other wetlands in the valley areas near Willits and Hopland. The Redemeyer Road extension project may also require filling of wetlands. The Brooktrails second access may require wetland filling, but due to the hilly location of most alignments for this access, the impacts to wetlands are expected to be less substantial.

Other roadway projects are not expected to have substantial impacts to wetlands other than the limited impacts that may occur from working in stream channels to replace culverts, rehabilitate or replace bridge footings, and roadway widening. Airport improvement projects are not expected to require the need for extensive wetland filling. However, any of these projects that would result in the filling of jurisdictional wetlands would be considered to have a potentially significant impact.

Mitigation Measures

1. Any project that would affect areas that are potentially jurisdictional wetlands shall have those wetlands surveyed by a person qualified to determine whether the wetlands meet the Army Corps' definition of jurisdictional wetlands. The expert shall calculate the amount and type of wetlands to be filled.
2. Wherever feasible, the project will be designed or re-designed to avoid the need to fill wetlands.
3. Where fill of wetlands is required, a mitigation and monitoring plan containing the same components as listed under Impact 3.3-A will be prepared. The wetlands delineation and mitigation and monitoring plan shall be submitted to the Army Corps, USFWS, NMFS, and CDFG for approval. The basic performance standard for the mitigation and monitoring plan shall be that there will be no net loss of wetlands.
4. The project applicant shall obtain required permits from the Army Corps, USFWS, NMFS, and CDFG.

Impact Significance After Mitigation

The mitigation measures recommended above will reduce filling of wetlands and, where such filling is unavoidable, ensure that there will be no net loss of wetlands. Direct and indirect impacts to wetlands should be eliminated or reduced to a less than significant level by implementing an approved mitigation and monitoring plan and compliance with Army Corps and other agency permit requirements. Compliance with permit requirements and the mitigation measures recommended above would reduce specific and cumulative impacts of most Draft RTP projects to a less than significant level. However, the Highway 101 bypass projects and, possibly, the Redemeyer Road and other new road projects, could affect large acreages of wetlands. This would be a significant adverse impact for those projects and cumulatively. This conclusion mirrors the conclusions of the Draft EIR/EIS prepared for the Willits Bypass which found one of the alternatives would have a significant adverse impact on wetlands and other waters of the U.S. (Caltrans, 2002, p. 6-19).

Special Status Wildlife

Impact 3.3-D Projects included in the RTP could result in death or loss of habitat supporting special status species of wildlife.

Construction of projects included in the Draft RTP could result in injury or death to special status species of wildlife, or, more likely, damage to habitat that supports these species. As described under Impacts 3.1-D, 3.2-A, and 3.2-B, projects could result in water quality impacts as a result of erosion and increased pollution from paved surfaces. This sediment and these pollutants can adversely affect listed salmon species, steelhead, tidewater goby, freshwater shrimp, red-legged and yellow-legged frogs, and other aquatic species. This is a potentially significant impact. However, as discussed under those previous impact discussions, this impact can be reduced to a less than significant level by implementing EIR-recommended mitigation measures.

Some of the major road projects, such as the Willits Bypass, could result in realignment of stream channels with consequent loss of riparian habitat. This can result in a direct loss of aquatic habitat and indirectly adversely affect stream temperatures. This is a potentially significant impact.

Construction of major road projects through currently undeveloped areas (i.e., the Highway 101 bypass projects, Redemeyer Road extension, and second Brooktrails access) could result in the loss of forest and other habitat that support special status species. For example, one of the alternatives for the Willits Bypass would result in loss of habitat supporting spotted owl. This would be a potentially significant impact. Similarly, expansion of airport facilities could result in loss of habitat used by special status species of wildlife.

Mitigation Measures

1. For any project that might affect wildlife (as determined in the Initial Study prepared for the project), the applicant shall have a records search of the CNDDDB conducted. If that records search indicates the potential for a special

status species of wildlife in the project area, the site shall be surveyed by a qualified biologist.

2. Federal projects or projects including Federal funding or permitting must comply with Section 7 requirements which require consultation and a Biological Assessment (Section 7[c]) for Major Construction Activities.
3. If a project not subject to Section 7 requirements might result in a "take" of Federally listed species, then an "incidental take" permit pursuant to Section 10(a) of the ESA shall be obtained from the USFWS. Issuance of the permit requires approval of a satisfactory conservation plan for the listed species that would be affected by the project.
4. If the biological survey indicates that Federal or State listed or candidate species exist in the area and are likely to be affected by the proposed project, then the applicant shall consult with CDFG and USFWS (if Federally listed species are involved) to develop a plan that specifically mitigates the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. This plan may include at least the following elements:
 - Avoiding construction activities in areas near nests of listed and candidate species during the nesting season. Buffers around nests for each species will be determined by CDFG or USFWS.
 - Delineating Environmentally Sensitive Areas to protect sensitive biological resources and prohibiting construction within those areas.
 - Limiting in-stream construction to low flow periods.
 - Conducting protocol-level surveys to determine the presence of Northern spotted owls, and, if present, determination of specific mitigation measures for this species as recommended by USFWS.
 - Constructing wildlife under-crossings of road projects.
 - If the project involves a substantial loss or fragmentation of habitat critical for the survival of the listed or candidate species, then a plan to compensate for this loss of habitat will be prepared and approved by the CDFG and/or USFWS. The compensation can take the form of replanting of vegetation required by the species, conservation easements on habitat required by the species, and/or enhancement of undeveloped land so that it meets the requirements of the species. Such a plan will contain a monitoring program.
5. All mitigation measures recommended for Impacts 3.1-D, 3.2-A, and 3.2-B also apply to this impact.

Impact Significance After Mitigation

The mitigation measures recommended above and the conditions established in required permits should ensure that listed and candidate wildlife species are adequately protected when new road and other transportation projects are constructed. The specific mitigations will need to be developed for each project that might affect listed or candidate species and will depend on what species would be affected. While the recommended mitigation measures are likely to reduce impacts to special status species of wildlife to a less than significant level for most projects, some projects, especially those involving construction of new roads through undeveloped land, could have a significant impact on special status species of wildlife even with implementation of the recommended mitigation measures. Because of this possibility, it is concluded that some Draft RTP projects would have both a project-specific and cumulative significant adverse impact on special status species of wildlife. This conclusion mirrors the conclusions of the Draft EIR/EIS prepared for the Willits Bypass. That Draft EIR/EIS found that one of the bypass alternatives would have a significant impact on special status species of wildlife and that one alternative would have a significant impact on salmonid habitat (Caltrans, 2002, p. 6-19).

Wildlife Movement

Impact 3.3-E Projects included in the RTP could block wildlife migration or movement.

Construction of new roads through currently undeveloped area could pose barriers to wildlife migration and movement. Such roads, particularly freeways, can result in injury and death to wildlife attempting to cross them. The projects likely to have such impacts include the Highway 101 bypass projects and possibly the Redemeyer Road extension and the second Brooktrails access projects. This is a potentially significant impact.

Mitigation Measures

1. All Highway 101 projects shall include wildlife under-crossings. The number and location will be identified by the CDFG and USFWS.
2. The Redemeyer Road extension and the second Brooktrails access project sites shall be assessed by a biologist to determine the need for wildlife under-crossings.

Impact Significance After Mitigation

The required wildlife undercrossings for the Highway 101 projects and the possible undercrossings of the other two road projects that would be developed in areas where wildlife movement could be disrupted would reduce this impact to a less than significant level.

3.4 CULTURAL RESOURCES

A. Setting

1. Existing Cultural Resources

For at least 9,000 years, Mendocino County was inhabited by a number of Native American groups. According to the County General Plan, 1,500 archaeological sites had been recorded in the County at the time that plan was prepared, and it is expected that several hundred additional sites have been recorded since then. The General Plan states that the 1,500 recorded sites are believed to represent 10 to 20 percent of the total number of sites in the County. While archaeological sites can occur in a wide range of locations, sites are most likely to occur along the coast, along streams, in alluvial valleys, and on flatter ridgecrests.

The County also contains a wealth of historic resources that reflect its logging, fishing, ranching, and farming history. Any structure older than 50 years old is considered a potential historic resource.

2. Regulatory Framework

a. Federal

Implementation of any project involving Federal funds or Federal lands requires compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended). Section 106 requires Federal agencies to take into account the effects of their projects on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. To ensure that the requirements of Section 106 are met, the Federal Highway Administration follows the Council's implementing procedures contained in 36 Code of Federal Regulations (CFR) Part 800. Cultural resources investigations performed pursuant to these statutes are documented in a Historic Property Survey Report. Pursuant to Section 106, the existence of cultural resources must be determined, and mitigation provided for loss of significant resources before a project may be implemented. Under Federal guidelines, a property must generally be over 50 years old and meet integrity standards and other criteria in order to qualify for inclusion in the National Register of Historic Places (NRHP)

b. State

Historical Resources

The State's Public Resources Code (Section 21084.1 requires a lead agency to determine whether a resource is a "historical resource." Historical resources include:

- A resource listed in, or determined to be eligible for listing in, the California Register of Historic Resources (CRHR). The State Historic Resources Commission determines whether properties are to be included in the NRHP and the CRHR. Even if the Commission has not made a formal eligibility determination, a lead agency

shall consider a resource to be "historically significant" if it meets the criteria for listing on the CRHR. Those criteria include:

- The structure is associated with events that have made a significant contribution to the broad patterns of California's history.
 - The structure is associated with the lives of persons important in our past.
 - The structure embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
 - The structure has yielded, or may be likely to yield, information important in prehistory or history.
- A resource listed on a local register of historical resources is presumed significant unless the preponderance of evidence demonstrates otherwise.
 - Any historical resources deemed significant pursuant to Public Resources Code Section 5024.1g are presumed significant unless the preponderance of evidence demonstrates otherwise.
 - Other resources that the local agency treats as a historical resource.

Once it is determined that a resource is a historical resource, the lead agency must determine whether a project would cause a substantial adverse change in the significance of the historical resource, which can include demolition or materially altering the physical characteristics that convey its historical significance. If a project will result in demolition or substantially alter the resource's physical characteristics, then mitigation measures are required if the impact cannot be avoided. Methods for mitigating impacts are described in Section 15064.5 of the *CEQA Guidelines*.

Archaeological Resources

Some archaeological resources meet the criteria for being designated as historical resources and, thus, are provided the protections described above. If an archaeological site does not meet the criteria for a historical resource, then it must be determined whether it is a "unique archaeological resource." A resource is a unique archaeological resource if it meets the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource is determined to be unique, then the lead agency must assess the impacts of the project on that resource. In general, such unique resources

are to be avoided or not developed, but mitigation measures are allowed in the case avoidance is not possible.

c. County

Project applications submitted to the County are reviewed by the County's Archaeological Commission. The Commission reviews the proposed project site to determine whether there is the likelihood of archaeological resources present. If there are, the Commission will recommend field surveys to determine the presence and importance of these resources.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Causes a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5. (*Assessed in Impact 3.4-A.*)
- b. Causes a substantial adverse change in the significance of a unique archaeological resource pursuant to *CEQA Guidelines* Section 15064.5. (*Assessed in Impact 3.4-B.*)
- c. Directly or indirectly destroys a unique paleontological resource or site. (*Assessed in Impact 3.4-C.*)
- d. Disturbs any human remains, including those interred outside of formal cemeteries. (*Assessed in Impact 3.4-B.*)

2. Impacts

Historical Resources

Impact 3.4-A Projects included in the RTP could result in the demolition of or damage to historical resources.

Most projects are relatively minor improvements along existing roadways or within airports and are not expected to affect historical resources. However, larger projects, particularly those requiring construction of new highway or road segments, could require demolition of homes or other buildings and improvements that may be historical resources. Future project construction could also significantly damage archaeological sites that meet the criteria for being historical resources. Demolition or damage to these historical resources would be considered a potentially significant impact.

Mitigation Measures

1. If a proposed project would require demolition of a structure or improvement over 50 years old or potentially damage the integrity of such a structure or improvement, then a qualified architectural historian will conduct a preliminary assessment of each structure to determine whether its structural integrity is intact (i.e., that it has not been modified, thereby destroying its historic integrity). If the structural integrity remains, then the architectural historian will prepare a Historic Evaluation Report on each of those structures. This Evaluation will include a discussion of the construction of the building, an architectural description, an architectural evaluation, drawings of the building and its important features, and photographs to document the structure. The Historic Evaluation Report will be submitted to the State Office of Historic Preservation. If avoidance is not possible, to the extent feasible, structures should be reconstructed or moved and, possibly, restored or rehabilitated. If the structure is restored, reconstructed, or rehabilitated, the work shall comply with the Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or the *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*.
2. For projects that involve Federal funding or lands, cultural resource studies shall be performed per all pertinent Federal regulations and requirements of the National Historic Preservation Act and the Department of Transportation Act, as appropriate, including preparation of a 4(f) Joint Development Planning Documentation, Historic Resource Inventory forms, or other required documentation.
3. Projects will be submitted to the County's Archaeological Commission and/or the Northwest Information Center to determine the need for field surveys. The surveys will be conducted by a qualified archaeologist. If field surveys indicate that there are archaeological sites that meet the criteria of being historical resources, they shall be avoided wherever feasible. If avoidance is not possible, they should be capped or otherwise left undisturbed. If capping or avoidance is not feasible, then the archaeologist conducting the field survey will identify other mitigation measures per those listed in Public Resources Code Section 21083. 2.
4. If any buried cultural materials are encountered during project construction, work in the area of the survey shall be halted until a qualified archaeologist can evaluate the nature and significance of the find and make recommendations for its disposition. The archaeologist shall, as warranted, provide mitigation measures as described under Mitigation Measure No. 4 above.

Impact Significance After Mitigation

The standard mitigation measures listed above will reduce the impacts of most projects to a less than significant level. However, absent specific field surveys, it is possible that proposed RTP projects could require demolition of a historical resource or substantially damage an archaeological site that is a historical resource. There remains a potentially significant impact on historical resources. As such, this impact is considered a significant adverse impact of the project.

Archaeological Resources

Impact 3.4-B Projects included in the RTP could result in damage to unique archaeological resources.

As described above under Impact 3.4-A, future projects could require construction in areas containing unique archaeological resources. It is also possible that such construction could disturb human remains. This would be a potentially significant impact.

Mitigation Measures

1. Mitigation Measures 1, 3, 4, and 5 recommended for Impact 3.4-A apply to this impact.
2. If human remains are unearthed during construction, no further disturbance shall occur in the immediate vicinity of the discovery until the County Coroner has made the necessary findings as to origin and disposition of the remains pursuant to Public Resources Code Section 5097.98 and California Health and Safety Code Section 7050.5. Related provisions of *CEQA Guidelines* Appendix K shall be adhered to in the treatment and disposal of the remains. Any involved Federal agency shall be notified, and prescribed Federal requirements shall be adhered to.

Impact Significance After Mitigation

The standard mitigation measures listed above will reduce the impacts of most projects to a less than significant level. However, absent specific field surveys, it is possible that proposed RTP projects could damage a unique archaeological resource. There remains a potentially significant impact on unique archaeological resources. As such, this impact is considered a significant adverse impact of the project.

Paleontological Resources

Impact 3.4-C Projects included in the RTP could result in damage to unique paleontological resources.

There are very little data available regarding potential paleontological resources in the County, though the County is not known for finds of scientifically valuable fossils. However, there is the possibility that such fossils could be uncovered during site preparation for any of the proposed projects. If such resources were damaged during project construction, this would be a potentially significant impact.

Mitigation Measures

1. If paleontological resources are encountered during construction of the proposed project, work in the area shall halt in the vicinity of the find until a qualified paleontologist evaluates the nature and significance of the find.
2. Authority shall be provided to the paleontologist to monitor further earthmoving activities and to temporarily divert such activities around the fossil site until the fossil remains have been evaluated and recovered.
3. All identifiable fossil remains shall be fully treated. Treatment shall include preparation, identification, cataloging, and curation in a recognized museum repository, along with associated data. The paleontologist shall prepare a final report of findings that includes an assessment of scientific importance of any recovered fossil remains and an inventory of the remains.

Impact Significance After Mitigation

It is expected that the program-level mitigation measures recommended above will adequately protect any paleontological resources unearthed during future project construction. The impact is reduced to a level that is less than significant.

3.5 TRANSPORTATION AND CIRCULATION

A. Setting

1. Roadway System

Similar to much of rural California, the basic roadway system in Mendocino County was developed many decades ago. Few new roads, other than new streets in urban areas, have been constructed in the past twenty years. Instead, existing roads have been widened and improved to handle the increased traffic volumes resulting from population growth in the County and increased movement of goods and people through the County.

State highways provide the main regional and interregional travel routes. Highway 101 is the major travel corridor that allows movement between the major population centers in the County and access to areas outside the County. The widening of this highway to a four-lane freeway/expressway has been a long-term aim of Caltrans, the County, and the Cities of Willits and Ukiah (for example, see the recommendation on page III-4 of the County's General Plan and the 1986 RTP).

Highway One provides access to communities along the coast and includes access to areas to the south and north of the County. Other State Highways provide east-west connections between Highway One and Highway 101 and to Lake County to the east. These include Highways 20 (from Highway One to Willits and then Calpella to Lake County), 128 (from Highway One to Highway 101 at Cloverdale), 162 (from Highway 101 to Covelo), 175 (from Highway 101 at Hopland to Lake County), 222 (from Highway 101 at Ukiah to Talmage), and 253 (from Highway 101 south of Ukiah to Highway 128 near Boonville). All of these highways except for portions of Highway 101 and a few small sections of Highway One are two-lane highways (though some include passing lanes).

The County of Mendocino maintains about 1,000 miles of County roads (as reported in the existing County General Plan, page. III-6). The County roads provide connections between State highways and various smaller communities within the County. The four cities within the County own and maintain approximately 100 miles of roads. In addition, the U.S Forest Service, Bureau of Land Management, and State Parks maintain access roads on their holdings.

In 2001, the *Route 101 Corridor Traffic Model* was prepared for MCOG (this report is included in the RTP Appendices). This report modeled traffic increases along the Highway 101 corridor for the years 2010 and 2020. While results of this modeling were not presented in a tabular form, a review of the line maps showing future traffic volumes shows that projected traffic volumes on Highway 101 in the Ukiah Valley area would increase by about 50% over the next 20 years. Highway 128 south of Boonville would increase by about 80% and west of Yorkville by 110%, and Highway 20 west of Willits by 140% and east of Highway 101 by 4% (page 15 of RTP Appendix B).

Major arterials in the Ukiah area would experience equal or greater traffic increases. For example, traffic volumes on N. State Street (north of Highway 101) would increase by 300-400%, Low Gap Road by 54%, S. State Street (just north of Highway 101) by 540% and Highway 222 by 195%. Similar volume increases are projected for local streets in the Willits area.

An earlier corridor study of Highway One was prepared for Mendocino County (TJKM Transportation Consultants, 1994). That study examined future operating conditions along Highway One for six different buildout scenarios. The study indicated that future buildout could result in significant congestion along sections of Highway One, particularly in the areas near the Town of Mendocino, Gualala, and the Fort Bragg area. More recent traffic assessments done for the Fort Bragg General Plan revision indicate that buildout in the Fort Bragg area over the next ten years would result in segments of Highway One through the city operating at Level of Service F unless additional roadway widening were done or a new north-south parallel route was developed.

The Draft RTP does not attempt to identify existing or future levels of service on roadways or at intersections. While it is likely that some roads and intersections currently operate at unacceptable levels of service, the RTP does not establish minimum level of service standards for the roadway system. Instead, the minimum acceptable level of service for roads and intersections is deemed the responsibility of the County or the Cities. In turn, these jurisdictions are responsible for identifying needed roadway improvements to maintain their accepted levels of service, and those identified improvements are then forwarded to MCOG for inclusion in the RTP.

2. Airport Operations

The County is served by five public airports (Ukiah, Willits, Boonville, Little River, and Round Valley). The State Division of Aeronautics has prepared 20-year forecasts of aviation activity (an airport activity is a landing or a take-off; so one airplane that takes off from an airport and then later lands at the airport is counted as two airport activities) at these five airports (data presented in Appendix H of the RTP). These projections show the Ukiah Airport (capacity 180,000 activities per year) increasing aircraft activities from 45,000 in 2000 to 60,200 in 2020; Willits Airport (capacity 125,000) from 5,600 to 7,450; Little River Airport (capacity 100,000) from 6,800 to 8,640; Round Valley Airport (capacity 60,000) from 2,000 to 2,550; and Boonville Airport (capacity 50,000) from 4,200 to 5,650.

3. Mass Transit

Public bus service is provided by the Mendocino Transit Authority (MTA). MTA began service in 1976 with a start-up budget of \$250,000. In 2000/2001, MTA received \$4,588,970 in revenues, of which \$514,255 (11.2%) was from fares, contracts, and charters; the remainder was from Federal, State, and local funding sources through MCOG.

MTA provides fixed route bus service operating on weekdays (and some routes on Saturday) between Laytonville and Willits, Willits-Redwood Valley-Ukiah, Redwood Valley and Ukiah, Potter Valley and Ukiah, Hopland-Talmage-Ukiah, Fort Bragg and the Navarro River, Mendocino-Fort Bragg-Willits-Ukiah-Hopland-Santa Rosa, Gualala-Boonville-Ukiah, and Point Arena-Gualala-Santa Rosa. It also provides fixed route bus service within Ukiah, from Ukiah to Mendocino College, and within Fort Bragg. Finally, it provides dial-a-ride service within Willits, Fort Bragg, and Ukiah.

4. Non-Motorized Transit

The County and its Cities contain a variety of bicycle routes and pedestrian paths. Many improvements to bikeways are recommended in the approved *2000 Mendocino County Regional Bikeway Plan* as well as the General Plans of the County and its Cities.

5. Rail Service

Rail service once was an important means of moving freight within and through the county, and secondarily of moving passengers. However, large storm events resulted in substantial damage to the main rail line, particularly through the Eel River Canyon north of Willits. The line north of Willits has not operated in many years. South of Willits, there has been some use of the line for moving freight, though there are no current operations.

This line is owned by the North Coast Railroad Authority (NCRA). NCRA is currently completing a preliminary environmental assessment of the complete railroad line from Humboldt County south. This preliminary assessment will lead to the preparation of a full EIR/EIS on re-opening the entire length of the line and operating trains on that line. NCRA expects it will be "several years" until this EIR/EIS is completed and certified (Christy, personal communication). Upon certification of that EIR/EIS, the NCRA Board would then identify what improvements are required and what rail operations would be approved once the improvements are completed. This could take some unknown period of time. It is for this reason that MCOG identified re-opening of this line as "speculative" for purposes of this EIR. If and when these improvements and re-opening of the line are formally proposed, these projects would be assessed in an addendum or supplement to this EIR.

While re-opening of the entire line, particularly north of Willits, could be many years away, re-opening the line for freight movement south of Willits could occur in the next few years. This is because the State provided CEQA exemptions for freight movement south of Willits. While these uses would be assessed in the EIR/EIS, NCRA is not required to wait until adoption of that EIR/EIS before reopening this portion of the line for freight movement (but not passenger transit) (Christy, personal communication).

Re-opening of the line or portions of the line for freight and, possibly, passenger transit would be a significant benefit to the County. It could relieve the number of trucks traveling on Highway 101. In the future, it could relieve the number of commuters and other residents traveling on Highway 101. However, it is noted that MCOG, and thus the RTP, does not have the ability, either legislatively or financially, to provide any direct support for rail system implementation. While the RTP encourages expansion of rail transit, it does not have the ability to implement any rail projects.

A second rail line operated by the California Western Railroad (CWA) operates a line between Willits and Fort Bragg. This line, commonly known as the Skunk Train, currently provide transit almost entirely for tourists. In the future, with successful re-opening of NCRA's line, it is possible this line could carry freight and passengers.

6. Maritime

There are two public harbors in the County: the Noyo Harbor in Fort Bragg and the Point Arena Harbor. Both of these harbors mainly serve local commercial and sports

fishermen and recreational boaters. Boating does not provide any significant transit services in the County. While the RTP contains some proposed improvements to these harbors, MCOG has determined that these improvements are speculative over the next 20 years.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Causes an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections. *(Assessed in Impact 3.5-A.)*
- b. Exceeds, either individually or cumulatively, a level of service standard established by the county or city for designated roads or highways. *(Assessed in Impact 3.5-A.)*
- c. Results in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. *(Assessed in Impact 3.5-C.)*
- d. Results in inadequate emergency access. *(Assessed in Impact 3.5-A.)*
- e. Conflicts with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks). *(Assessed in Impact 3.5-D.)*

2. Impacts

Vehicular Traffic

Impact 3.5-A Draft RTP projects would affect traffic flows in the County.

Many of the projects included in the Draft RTP are specifically recommended to address existing and future traffic congestion that will result from increases in the County population, increased commuting out of the County, and increased interregional movement of goods and people. As described in the Setting section, substantial volume increases are predicted on Highway 101, Highway One, other State highways, and County and City roads, particularly along the Highway 101 corridor and around the major cities.

The roadway projects included in the Draft RTP would not directly result in new traffic, but would instead redistribute some of the existing traffic (see Section 4.1 of this EIR regarding the possible growth-inducing impacts of these projects). Several of the larger projects would reduce congestion in locations where traffic volumes currently exceed

acceptable levels of service and correspondingly decrease the risk of traffic accidents. For example,

- The Highway 101 Willits Bypass project would reduce traffic on Main Street (the current Highway 101) through Willits by 38-52% (depending on which bypass alternative is selected) by the year 2008 (Caltrans, 2002, p. 3-24). This bypass would reduce delay time of traveling through Willits in 2008 from 23.9 minutes if the existing highway is maintained to about 9.3 minutes for the bypasses. The bypass would also result in a 25-50% reduction in the total number of accidents and a 22-51% reduction in the number of fatal and injury accidents (Caltrans, 2002, p. 3-19).
- The Redemeyer Road extension is projected to reduce traffic on Highway 101 south of Lake Mendocino Drive from 44,100 trips per day to 42,900 trips per day in 2020. A slight reduction in traffic on N. State Street south of Lake Mendocino Drive would also result (Draft RTP, Appendix B). In addition to relieving traffic on major north-south routes, this road extension would improve safety in the area as it would allow a second evacuation route in the case of a major catastrophe.
- The second Brooktrails access would relieve congestion of Sherwood Road and at the Sherwood Road/Highway 101 intersection. It would also provide a second evacuation route in the case of an emergency.
- Widening North State Street north of Highway 101 with the addition of a center turn lane and wider shoulders would relieve congestion from turning vehicles along this congested road section.
- Adding passing lanes to Highway 20 and other roads would relieve congestion and improve safety along those roads.
- Constructing the Hopland Bypass would relieve congestion through Hopland and would likely reduce delay time and accidents similar to the reductions projected for the Willits Bypass.
- Constructing a new north-south route parallel to Highway One in Fort Bragg would reduce projected Level of Service F conditions along Highway One through the center of Fort Bragg.
- Constructing new north-south routes paralleling Highway 101 in Willits would relieve congestion along this street. Even if the bypass is constructed, this street will continue to experience significant congestion, and this congestion could be reduced by these new north-south routes.
- Constructing new north-south routes paralleling Highway 101 in Ukiah could relieve significant congestion on State, Gobbi, and Perkins Streets and Talmage Road.

All these projects will have beneficial impacts on traffic circulation. However, as the County's population grows (as projected by the State and the local jurisdictions), additional roadway improvements would be required in order to reduce unacceptable levels of service and traffic accidents. The necessary improvements for Fort Bragg have been identified in its recently adopted (December, 2002) General Plan. The City of Ukiah is planning to prepare a city-wide traffic study in 2003 to identify additional

roadway improvements needed for that city. The County is currently updating its General Plan. It is expected that this new General Plan will identify additional roadway improvements need to support projected population increases in the County. When these studies and plans are completed, it is expected that the appropriate jurisdiction will request that any needed additional roadway projects be added to the RTP.

To conclude, the RTP projects will have a beneficial impact on traffic circulation in the County. No mitigation measures are required. However, MCOG should continue to monitor traffic congestion in the County and add new roadway improvement projects to the RTP as they are identified by its participant agencies.

Bus Transportation

Impact 3.5-B Draft RTP projects would enhance the use of mass transit in the County.

The Draft RTP includes projects proposed by MTA to expand its service to meet its identified unmet needs. These projects would all expand service to County residents, thereby increasing ridership. Increased use of buses would reduce use of private vehicle thereby reducing traffic congestion and the impacts caused by motor vehicles (e.g., air pollution and noise). The RTP would have a beneficial impact as regards mass transit, and no mitigation is required.

Several individual who submitted comments on the Draft RTP requested additional analysis of what the impacts would be if the RTP placed more emphasis on bus transport and what the reduction in other impacts would be if more people used buses. One of the project alternatives discussed in Section 4.4 of this EIR focuses on this increased use of buses.

Air Transportation

Impact 3.5-C Draft RTP projects would increase the use of public airports.

Proposed improvements to airports in Willits, Little River, and Round Valley (remembering that improvements to the Ukiah and Boonville Airports have already been addressed in CEQA documents prepared for the Airport Layout Plans for those airports) are mainly intended to promote increased safety and efficiency of those airports. The few new proposed hangars are meant to serve airplane owners who currently keep their airplanes at these airports. For example, the proposed new hangars at the Little River Airport have already been reserved by owners of planes who currently house their planes at that airport.

The projected average 1.5% annual growth in airplane operations at these airports is projected to occur with or without the improvements included in the RTP. It is not expected that these improvements would attract substantially more aircraft operations than currently projected by the State. This projected growth is reflective of an increase in the population served by these airports and not by the attractiveness of the airports

themselves. The RTP projects would have a beneficial impact as regards safety. The improvements are not expected to substantially increase aircraft operations and would have a less than significant impact as regards airplane circulation. No mitigation is required.

Non-Vehicular Transportation

Impact 3.5-D Draft RTP projects would increase the use of non-motorized facilities.

The Draft RTP includes bicycle route improvements. All the proposed bike route improvements would have a beneficial impact as they would reduce the number of people using motor vehicles and improve safety for bicyclists. The impact would be beneficial, and no mitigation is required. As the RTP states, there is a need for a Non-Motorized Transportation System Master Plan which addresses not only bicycling needs but the needs of pedestrians and equestrians. The RTP commits MCOG to preparing this plan. Completion of this plan and the addition of projects identified in that eventual plan to the RTP would further meet the needs of those people who cannot or choose not to use motor vehicles for transit, and these projects would further reduce congestion on roads and the impacts generated by motor vehicle use. It is recommended that preparation of this plan be a high priority for MCOG.

3.6 AIR QUALITY

A. Setting

1. Introduction

For regulatory purposes, Mendocino County is located within the North Coast Air Basin, which includes Del Norte, Humboldt, Trinity, Mendocino, and northern Sonoma Counties. Air quality in Mendocino County is regulated by the Mendocino County Air Quality Management District (MCAQMD).

In general, the climate of the County is characterized by warm dry summers and cool damp winters. During summer, high temperatures of 90 to 100 degrees F are common inland of the coast, while nighttime temperatures range in the 50s and 60s. Coastal temperatures are lower due to the moderating influence of the ocean and summer fog. High temperatures in the 50s and 60s are common during wintertime. Freezing or near-freezing temperatures are common inland on clear late fall and winter nights. Rainfall occurs mostly during the winter. December and January are typically the wettest months with an average of 7 to 8 inches falling during each of these months. Winds in inland valleys are primarily from the northwest, especially during the summer. In the Ukiah Valley area and other inland valleys, winds can, however, flow from the south under certain weather conditions, such as when Pacific low pressure systems affect Northern California, and during warm weather spells where low-level cooler marine air penetrates into the area through the Russian River Valley.

Inland valleys frequently experience temperature inversions where warm air aloft traps cold air near the surface. Two types of temperature inversions affect the region: (1) elevated inversions caused by marine air penetration and/or subsidence (sinking air caused by strong high pressures systems) and (2) ground-based inversions where nighttime cold air sinks into the valley below from surrounding ridges. Inversions limit vertical mixing creating a very stable layer of air near the earth's surface. During late fall and winter, ground-based inversions (which restrict vertical mixing the most) are usually present on clear cold nights. In the morning, these ground-based inversions are weakened and eventually eliminated by solar heating. These stagnant periods allow locally produced air emissions to sometimes build up to unhealthy levels.

2. Ambient Air Quality and Air Quality Standards

Clean air goals have been set through the establishment of ambient air quality standards. Individuals vary as to their sensitivity to air pollutants so standards have been set at levels that protect groups that are more sensitive (e.g., asthmatics). National ambient air quality standards (NAAQS) were established by the Federal Clean Air Act of 1970 (amended in 1977 and 1990) for six criteria pollutants. These criteria pollutants include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), respirable particulate (segmented into 10 microns or less: PM₁₀; and 2.5 microns or less: PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb). These are considered the most prevalent air pollutants that are known to be hazardous to human health. California established ambient air quality standards as early as 1969 through the Mulford-Carroll Act. The California Clean Air Act of 1988 (amended in 1992) requires attainment of the California ambient air quality standards. In many cases, these standards are more stringent than

the national ambient air quality standards. The Federal and State air quality standards are summarized in Table 9

Table 9
Ambient Air Quality Standards
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	CA Standards ¹ Concentrations	National Standards² Concentrations
Ozone	1-Hour 8-Hour	0.09 ppm	0.12 ppm 0.08 ppm
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 20.0 ppm	9 ppm 35 ppm
Nitrogen Dioxide	Annual Average 1-Hour	0.25 ppm	0.053 ppm
Sulfur Dioxide	Annual Average 24-Hour 1-Hour	0.04 ppm 0.25 ppm	80 µg/m ³ 365 µg/m ³
Suspended Particulate Matter - (PM-10)	Annual Arithmetic Mean Annual Geometric Mean 24-Hour	30 µg/m ³ 50 µg/m ³	50 µg/m ³ 150 µg/m ³
Suspended Particulate Matter - (PM-2.5)	Annual Arithmetic Mean 24-Hour		15 µg/m ³ 60 µg/m ³
Lead	Calendar Quarter 30-Day Average		1.5 µg/m ³ 1.5 µg/m ³

PPM = Parts per Million, µg/m³ = Micrograms per Cubic Meter

¹California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. The standards for lead are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average, then some measurements may be excluded. In particular, measurements are excluded that ARB determine would occur less than once per year on the average.

²National standards other than for ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year.

3. Existing Air Quality

In the 1960s and 70s open field burning, lumber mill teepee burners, and other sources of pollutants created bad air quality in several inland valleys (e.g., Ukiah Valley). Modern pollution potential in the area is relatively low due to controls on these sources and improvements in motor vehicles and fuels. Elevated levels of particulate matter (PM10 and PM2.5) and ground-level ozone in the Ukiah area are still a concern to air quality officials. Air quality in the region is controlled by meteorological conditions and the rate of pollutant emissions. Meteorological conditions such as wind speed, atmospheric stability, and mixing height affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in air

pollutant emissions while short-term variations result from changes in meteorological conditions. Global climate effects such as El Nino or La Nina can affect overall meteorological conditions, resulting in changes to air pollutant levels. For example, the San Francisco Bay Area usually experiences more frequent high levels of ground-level ozone during the summers following strong El Nino events (e.g. 1998).

During the wintertime, the combination of strong ground-based inversions combined with very light or calm winds leads to elevated levels of particulate matter and carbon monoxide. The emissions of these pollutants are caused mostly by wood burning and automobile use. During drought years, there is a higher occurrence of winter days and nights where winds are calm or very light, and stagnant conditions can lead to higher levels of PM10 and carbon monoxide.

In summer, relatively weak inversions aloft combined with abundant sunlight, light winds, and warm temperatures lead to a buildup of ground level-ozone. Ground-level ozone, the principal component of smog, is not directly emitted into the atmosphere. It is formed by the reaction of reactive organic gases and nitrogen oxides (known as ozone precursor pollutants) in the presence of strong sunlight. Ozone levels are highest in Willits and Ukiah during late spring through early fall, when emissions of the precursor pollutants are highest, and meteorological conditions are favorable.

Air quality levels for gaseous pollutants are measured in Ukiah and Willits on a continuous basis. Maximum measured air pollutant concentrations for Ukiah are shown in Table 10 and for Willits on Table 11. The air pollutant of most concern is PM10. The California ambient air quality standard for PM10 was exceeded on 12 days in 1999, but not exceeded in 2000, or 2001. Ground-level ozone is a concern since the highest measured levels have been close to the State standard during 3 of the last 6 years. In August 2002, at the time when major wildfires were burning along the California/Oregon border, State ozone standards were exceeded several times during a 2-week period at both Willits and Ukiah. MCAQMD staff believes these exceedances were due to smoke from the northern wildfires. An exceedance of PM10 was also registered during this period. All other ambient air quality standards (PM2.5, NO₂, CO, Pb, etc.) have been met for the last 10 years.

Table 10
Maximum Monitored Air Pollutant Concentrations in Ukiah

Air Pollutant	Averaging Time	1997	1998	1999	2000	2001
Ground-Level Ozone	1-Hour	0.07 ppm	0.09 ppm	0.08 ppm	0.07 ppm	0.07 ppm
Ground-Level Ozone	8-Hour	0.061 ppm	0.071 ppm	0.069 ppm	0.059 ppm	0.055 ppm
Carbon Monoxide	1-Hour	4.6 ppm	4.8 ppm	5 ppm	5 ppm	1.6 ppm
Carbon Monoxide	8-Hour	3.2 ppm	3.5 ppm	3.7 ppm	2.5 ppm	1.1 ppm
Nitrogen Dioxides	1-Hour	0.049 ppm	0.052 ppm	0.066 ppm	0.042 ppm	0.052 ppm
PM10	24-Hour	35 µg/m ³	46 ug/m ³	62 ug/m ³	46 ug/m ³	46 ug/m ³
PM10 (State)	Annual	14 µg/m ³	12 ug/m ³	16 ug/m ³	14 ug/m ³	15 ug/m ³
PM2.5	Daily	NA	NA	35.6 ug/m ³	20.0 ug/m ³	38.3 ug/m ³
	Annual	NA	NA	8.8 ug/m ³	7.2 ug/m ³	8.0 ug/m ³

NA : Not available

SOURCE: CALIFORNIA AIR RESOURCES BOARD

Table 11
Maximum Monitored Air Pollutant Concentrations in Willits

Air Pollutant	Averaging Time	1997	1998	1999	2000	2001
Ground-Level Ozone	1-Hour	0.065 ppm	0.07 ppm	0.066 ppm	0.054 ppm	0.062 ppm
Ground-Level Ozone	8-Hour	0.058 ppm	0.059 ppm	0.059 ppm	0.046 ppm	0.047 ppm
Carbon Monoxide	8-Hour	3.04 ppm	2.06 ppm	1.82 ppm	1.22 ppm	0.96 ppm
Nitrogen Dioxides	1-Hour	0.061 ppm	0.052 ppm	0.056 ppm	0.035 ppm	0.044 ppm
PM10	24-Hour	66 µg/m ³	47 ug/m ³	62 ug/m ³	48 ug/m ³	49 ug/m ³
PM10 (State)	Annual	17 µg/m ³	15 ug/m ³	17 ug/m ³	15 ug/m ³	16 ug/m ³
PM2.5	Daily	NA	NA	NA	NA	NA
	Annual	NA	NA	NA	NA	NA

NA : Not available

4. Air Quality Attainment Status

The Federal Clean Air Act required states exceeding the national ambient air quality standards to prepare air quality plans showing how the standards were to be met by the end of 1987. The act was amended in 1977, and again in 1990, to extend the deadline for compliance and requires that revised State Implementation Plans be prepared for areas where violations of national ambient air quality standards occur. The 1990 amendments established categories of severity, from "marginal" to "extreme," for non-attainment areas (areas not meeting the Federal ambient air quality standards). The North Coast Air Basin has either attained national and State ambient air quality standards or the attainment status is unclassified (but likely to have attained the standard) for all other pollutants, with the exception of PM₁₀. The area is nonattainment for State standards for PM₁₀.

The recent (August 2002) exceedances of State ozone standards are currently being assessed by the State Air Resources Board (ARB). MCAQMD believes these exceedances were an "exceptional event" which should not be counted as an ozone exceedance. The ARB must make the final determination on this issue. If the ARB determines that the exceedances were not "exceptional events," then it is possible the ARB will find the area to not be in compliance with ozone standards.

5. Air Quality Control

Air quality planning in the region occurs at the Federal, State, regional, and local levels. At the Federal level the EPA issues regulations through the authority granted by the Clean Air Act. The EPA's regulations and programs are designed to require states to attain and maintain compliance with the Federal standards. The EPA also has programs that prevent significant deterioration of air quality and identify and regulate toxic air pollutants. The EPA requires states that are not in compliance with the Federal standards to prepare and submit air quality plans showing how the standards will be met. If the states cannot show how the standards will be met, then they must show progress toward meeting the standards. These plans are referred to as State Implementation Plans (SIP). Under severe cases, the EPA may impose a Federal plan to show progress in meeting the Federal standards. Since the North Coast region is in compliance with national ambient air quality standards, the region does not need to prepare local air quality attainment plans.

In California, the Air Resources Board (ARB) coordinates and oversees both State and Federal air quality control programs. The Board's primary functions include establishing and updating the California ambient air quality standards, monitoring existing air quality, controlling emissions from mobile sources, and developing the State Implementation Plan. The SIP is the State's overall air quality control strategy for both mobile and stationary sources.

The Mendocino County Air Quality Management District (MCAQMD) regulates stationary sources by applying Federal, State, and local regulations. MCAQMD also develops local air quality control strategies and suggests mitigations for land use projects. The challenge of attaining the State PM₁₀ standard and continuing to meet other air quality

standards is MCAQMD's focus. If the North Coast region were to exceed the State standard for ozone, then, under the California Clean Air Act, the region would be required to prepare an Ozone Attainment Plan. Such a plan would demonstrate how the region would attain the State ozone standard through controls on stationary and mobile sources (i.e. scrubbers, modified equipment, annual vehicle inspection). Avoiding these controls saves businesses and individuals money and time and hence is a goal of MCAQMD.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Conflicts with or obstructs implementation of the applicable air quality plan. *(Assessed in Impacts 3.6-A to C.)*
- b. Violates any ambient air quality standard or contributes substantially to an existing or projected air quality violation. *(Assessed in Impacts 3.6-A to C.)*
- c. Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). *(Assessed in Impacts 3.6-B and C.)*
- d. Exposes sensitive receptors to substantial pollutant concentrations. *(Assessed in Impacts 3.6-A to C.)*
- e. Creates objectionable odors affecting a substantial number of people. *(Projects included in the Draft RTP are not expected to generate odors. There would not be a significant impact per this criterion.)*

2. Impacts

Construction Impacts

Impact 3.6-A Construction of projects included in the Draft RTP may pollute the air.

Construction of roadway, bicycle, airport, and other projects included in the Draft RTP could generate a number of pollutants. The use of heavy equipment can generate diesel and gasoline exhaust. While this impact would typically be considered short-term and not significant, the potential for long construction periods for projects in proximity to residences or businesses could result in exposure of people to harmful levels of benzene and diesel particulates. This is a potentially significant impact. It is noted that the State is implementing new requirements for diesel-powered vehicles. After January

1, 2003, new diesel fuel will be sold in the State. This new fuel contains lower percentages of sulfur, thereby allowing diesel engines to be fitted with particulate traps and catalytic converters. The State will be requiring new diesel engines to be fitted with these devices, and some retrofitting of older engines will be required. These and other State requirements should reduce diesel pollution in the coming years.

Project construction also would require earthmoving. Bared earth can blow off the site as dust and aggravate particulate pollution problems in the County. This is a potentially significant impact.

Mitigation Measures

1. Applicants for each project will be required to prepare and implement a dust control program. The program should include at least the following provisions:
 - a. Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
 - b. Cover all hauling trucks or maintain at least two feet of freeboard. Dust-proof chutes shall be used as appropriate to load debris onto trucks during demolition.
 - c. Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.
 - d. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas, and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.
 - e. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously-graded areas that are inactive for 10 days or more).
 - f. Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
 - g. Limit traffic speeds on any unpaved roads to 15 mph.
 - h. Replant vegetation in disturbed areas as quickly as possible.
2. Locate stationary gas- or diesel-powered equipment as far away as feasible from schools, churches, residences, and other sensitive receptors.
3. Require contractors to use new diesel-powered equipment fitted with particulate traps and catalytic converters to the maximum degree feasible.

Impact Significance After Mitigation

The standard dust-control mitigations recommended above would reduce the dust pollution impact to a less than significant level. The mitigations recommended for diesel-

and gas-powered equipment would reduce impacts to humans. The impact would be reduced to a level that is less than significant.

Air Quality Impacts from Use of Projects

Impact 3.6-B Use of new road and other projects included in the Draft RTP would increase the emission of pollutants into the air.

Most roadway projects involve improving the safety and efficiency of existing roads (e.g., roadway widening, improving shoulders, adding left-turn lanes, and adding passing lanes). These projects are not expected to induce substantial new use of those roads. By improving their safety and efficiency, these projects may reduce congestion, thereby reducing the emission of pollutants into the air.

Certain road projects involve constructing a new road (e.g., Redemeyer Road extension, second Brooktrails access, Willits and Hopland Bypasses, and possible new north-south parallel routes in Ukiah, Willits, and Fort Bragg). Future use of these roads will result in potential concentrations of CO and other pollutants near those roads. If the roads are constructed adjacent to or near residences or other sensitive receptors, there could be potential exposure of people to pollutant concentrations that exceed State or Federal standards. This impact is not expected to be significant for Highway 101 projects, given the setback of residences from the highway. The air quality modeling done for the Willits Bypass showed that the modeled 1-hour and 8-hour CO concentrations for the bypasses would be well below the standards (Caltrans, 2002, p. 5-150).

CO concentrations near Redemeyer Road extension and the second Brooktrails access are also not expected to be significant as it is not expected that these roads serving rural residential development and a rural community would generate sufficient trips to result in significant CO concentrations. In addition, the roads would not pass through built-up residential areas.

The possible new north-south parallel routes through Willits, Fort Bragg, and Ukiah would be expected to relieve congestion on existing streets in those cities, thereby reducing congestion and the potential for harmful concentrations of CO. CO concentrations are not expected to be a significant impact for these projects. A recent air quality modeling for CO was done for the most one of the most congested intersections in Ukiah (Orchard Avenue at Gobbi Street). That modeling showed that future CO concentrations at that intersection, including area buildout, would be well below State standards. Given that this is one of the most congested intersections in the County, it is expected that CO pollution would not be a significant impact for other project (Brown, personal communication).

Emissions from diesel engines is a particular air quality and health concern. It is expected that the roadway projects included in the Draft RTP would reduce the exposure of people to concentrated diesel particulates and emissions near roadways. The Highway 101 bypasses would reduce truck traffic through Willits and Hopland while the possible new north-south routes through Ukiah, Willits and Fort Bragg would reduce congestion on existing City streets, thereby reducing diesel emission concentrations. These would be beneficial impacts. However, the construction of new roads and their use by large trucks could expose residents and others along those roads to diesel emissions. The MCAQMD recommends that when constructing new roads, the

alignments should avoid or be well-separated from sensitive receptors such as schools, hospitals, convalescent homes, etc. (Brown, personal communication).

As regards the impacts to the regional air quality, the projects would not involve additional new traffic (only a redistribution of existing traffic). As such, the projects would not result in new or greater emission of pollutants. In fact, by decreasing congestion, RTP projects could slightly reduce the mission of air pollutants.

The airport improvement projects are not expected to substantially increase air traffic using those airports. In addition, residences are well-separated from locations where airplanes start and warm up their engines. As such, it is not expected that airport improvement projects would result in significant air quality impacts.

Expansion of bicycle facilities throughout the County would reduce the use of private motor vehicles. This would have a beneficial impact on air quality.

The Draft RTP includes a number of projects proposed by the Mendocino Transit Authority, including over the short-term preparing a five-year transit improvement plan, providing additional bus service to Mendocino College, the North Coast (on Saturdays), Leggett to Willits route, local weekday Willits service, Round Valley local service and service to Willits, and additional service from the North Coast to the South Coast and inland to Ukiah and Santa Rosa. Long-term projects include a transit connection between Lake and Mendocino Counties, commuter service between Willits/Ukiah and Santa Rosa, and intercity service between Willits/Ukiah and Santa Rosa. These proposed service extensions would increase use of mass transit and would have a beneficial impact on air quality. MTA continues to replace older buses with new buses which should be less polluting; this is a beneficial impact.

The one MTA-proposed project that could have air quality impacts would be construction and use of the North Ukiah Transit center. This Transit Center (currently proposed at the site of the old Fjord's restaurant near the N. State Street intersection with Highway 101 ramps) could result in a relatively substantial number of bus trips and other vehicle trips in this already congested area. While there are no residences in this area, it is possible there could be substantial concentrations of CO and diesel particulates at and adjacent to the Transit Center. This could be a potentially significant impact.

Overall, the projects included in the Draft RTP should have a beneficial impact on air quality because they would reduce traffic congestion on existing streets and highways. However, it is possible that the North Ukiah Transit Center and projects involving construction of new roads on previously undeveloped right-of-ways could have localized adverse impacts.

Mitigation Measures

- 1 MTA shall include an air quality analysis of impacts of the North Ukiah Transit Center. If air quality modeling shows that the project would result in local or regional air quality exceeding State standards, then the project will be required to include all mitigation measures recommended by the MCAQMD.
2. New road and highway alignments shall be designed to avoid or maintain a distance between the road and sensitive receptors such as schools, hospitals,

convalescent homes, etc. Applicants proposing new roads or highways shall confer with the MCAQMD to determine whether adequate separation is provided to avoid exposure to diesel emissions.

Impact Significance After Mitigation

Overall, the projects included in the Draft RTP should have a beneficial impact on air quality. The recommended mitigation measures would reduce the potential air quality impacts resulting from the proposed North Ukiah Transit Center and new roads and highways located near sensitive receptors. The cumulative and project-specific impacts would be reduced to a level that is less than significant.

Asbestos Pollution

Impact 3.6-C Road and other project construction could release asbestos into the air.

Many areas of the County are underlain by rocks and soils containing asbestos. Asbestos is a health hazard and is regulated by the MCAQMD. MCAQMD is proposing official guidelines for asbestos control and will take these proposed guidelines to its Board for adoption next year. If earthwork is required in areas where asbestos material is found, the asbestos can become airborne and thereby adversely affect workers and others living in or passing through the area. This is a potentially significant impact.

Mitigation Measures

1. Project applicants will conduct initial site assessments as part of the CEQA review to determine the potential presence of asbestos at the project site. If asbestos materials are present, the applicant will contact the MCAQMD and comply with all MCAQMD requirements for asbestos control.

Impact Significance After Mitigation

Requiring projects to comply with MCAQMD requirements for asbestos control would reduce this impact for all projects to a less than significant level.

3.7 NOISE

A. Setting

1. Fundamental Concepts of Environmental Acoustics

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. Its pitch or its loudness could cause the sound to have an offensive nature. Pitch is the height or depth of a tone or sound. Pitch is controlled by the relative rapidity (frequency) of the vibrations by which sound is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several sound measurement scales that are used to describe sound in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired, human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 12.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq} . The most common averaging period is hourly, but L_{eq} can describe any series of sound events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental sound levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental sound levels from sources such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the sound source. Close to the sound source, the models are accurate to about plus or minus 1 to 2 dBA.

Table 12
Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to sound. All sound levels in this report are A-weighted, unless reported otherwise.
L ₀₁ , L ₁₀ , L ₅₀ , L ₉₀	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, L _{eq}	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after adding 5 decibels to sounds from 7:00 pm to 10:00 pm, and adding 10 decibels to sound levels measured between 10:00 pm and 7:00 am.
Day/Night Noise Level, L _{dn}	The average A-weighted noise level during a 24-hour day, obtained after adding 10 decibels to sound levels measured between 10:00 pm and 7:00 am.
L _{max} , L _{min}	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental sound at a given location.
Intrusive	That noise which intrudes over and above the existing ambient sound at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence. Tonal or informational content is important as well as the prevailing ambient sound level.

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Since the sensitivity to sound increases during the evening and at night, because excessive noise interferes with the ability to sleep, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time sound events. The Community Noise Equivalent Level, CNEL, is a measure of the cumulative sound exposure in a neighborhood or city, with a 5 dB penalty added to evening, 7:00 pm - 10:00 pm, and 10 dB is added to nocturnal noise levels (10:00 pm - 7:00 am). The Day/Night Average Sound Level, L_{dn}, is essentially the same as CNEL, except that the 7:00 pm - 10:00 pm penalty is omitted.

2. Existing Noise Environment

Noise measurements were not taken for this Program EIR as it would be premature to measure noise along proposed road routes or at airports prior to knowing exactly where the proposed improvements would be located. Plus, by the time a project was actually designed, the ambient noise environment could be different than what currently exists. Noise measurements at noise sensitive receptors will be done when an actual project is proposed.

Absent data from noise measurements, the noise environment in much of the County is very quiet, befitting the rural and undeveloped nature of most of the County. Noise levels within urban areas is much greater. Noise levels around airports and along major highways and roads are also greater.

3. Regulatory Setting

Federal guidelines for assessing traffic noise are contained in Title 23 of the Code of Federal Regulations, Part 772 (23 CFR Part 772), "Procedures for Abatement of Highway Traffic Noise and Construction Noise." These regulations constitute the Federal noise standard. Projects complying with this standard are also in compliance with the requirements stemming from NEPA.

FHWA and Caltrans use the criteria for evaluating noise impacts that are outlined in the "Traffic Noise Analysis Protocol, for New Highway Construction and Highway Reconstruction Projects - October, 1998." Based on the protocol, the proposed project is a Type 1 project. A Type I project is defined in 23 CFR 772 as follows: *"A proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes."*

Under FHWA regulations (23 CFR 772), noise abatement must be considered for Type I projects when the project results in a substantial noise increase, or when the predicted noise levels approach or exceed the Noise Abatement Criteria (NAC) (Table 5-22). Noise abatement measures that are reasonable and feasible and that are likely to be incorporated into the project, as well as noise impacts for which no apparent solution is available, must be identified and incorporated into the project's plans and specifications (23 CFR 772.11(e)(1) and (2)).

Under CEQA, the potential for noise increase as a result of a project must be examined (CEQA Guidelines, Appendix G) and a substantial noise increase must be mitigated or identified as a noise impact for which it is likely that no, or only partial, abatement measures may be available. Under the Streets and Highways Code, Section 216, if, as a result of a proposed freeway project, noise levels inside classrooms of public or private elementary or secondary schools exceed 52 dBA, Leq(h), the project proponent shall provide noise abatement to reduce interior classroom noise to the criteria or below. If the classroom noise exceeds the criteria before and after the freeway project, the project proponent shall provide noise abatement to reduce classroom noise to pre-project noise levels.

The County and the Cities within the County all have minimally acceptable noise levels for various classifications of land use contained within their General Plans. All these jurisdictions establish an average noise level of 60 dB Ldn as the minimally acceptable outdoor noise level for single-family residential use. These General Plans also contain policies aimed at not only ensuring that noise-sensitive land uses are adequately protected from substantial noise, but often include policies requiring that new roadway projects be assessed for their noise impacts. For example, the recently adopted Fort Bragg General Plan contains programs requiring acoustical studies for new highway and street projects (Programs N-1.6.3 and N-1.6.4).

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Exposes people to or generate noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies. *(Assessed in Impacts 3.7-B and C.)*
- b. Results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. A substantial increase is defined as a permanent increase of more than 3 dBA at sound-sensitive land uses, and the resultant sound level exceeds 60 dBA Ldn, or by 5 dBA and the resultant sound level remained below the 60 dBA threshold. *(Assessed in Impacts 3.7-B and C.)*
- c. Results in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. *(Assessed in Impacts 3.7-A and C.)*
- d. For projects within an area covered by an airport land use plan or within two miles of a public airport or public use airport when such an airport land use plan has not been adopted, or within the vicinity of a private airstrip, exposes people residing or working in the project area to excessive aircraft noise levels. *(Assessed in Impact 3.7-C.)*
- e. Exposes people to or generates excessive groundborne vibration or groundborne noise levels. *(Assessed in Impact 3.7-B.)*

2. Impacts

Construction Impacts

Impact 3.7-A Projects included within the Draft RTP would result in construction noise.

Construction of roads, airport projects, and mass transit centers, especially larger highway and road improvement projects generate substantial amounts of noise. Activities involved in highway and road construction would generate noise levels from 70 to 90 dB at a distance of 50 feet from the piece of equipment. Pile drivers can create high instantaneous sound events and ground-borne vibration.

Typically, construction noise impacts are considered temporary and only lasting during normal working hours. However, some of the projects are sufficiently large that nearby residents could be exposed to construction noise for many months, and some roadway projects include construction outside of normal working hours. The impacts of major construction projects could have a potentially significant impact on nearby residents and other sensitive receptors.

Mitigation Measures

1. The CEQA analysis for each future project shall identify all sensitive receptors within the area surrounding the project that might be affected by project construction. For projects lasting more than four weeks near any sensitive receptor and where that sensitive receptor would be exposed to exterior noise levels exceeding 60 dBA or interior school classroom noise levels exceeding 52 dBA Leq, a construction noise mitigation program will be required. This program will include at least the following measures, unless the measures prove infeasible.
 - a. Limit noise-generating construction activities to daytime, non-Sunday, non-holiday hours (7:00 am to 6:00 pm).
 - b. Properly muffle and maintain all construction equipment powered by internal combustion engines.
 - c. Prohibit unnecessary idling of internal combustion engines.
 - d. Locate all stationary noise-generating construction equipment, such as air compressors, as far as practical from existing nearby residences and other noise-sensitive land uses. Acoustically shield such equipment.
 - e. Select quiet construction equipment, particularly air compressors, whenever possible (e.g., fit motorized equipment with proper mufflers in good working order).
 - f. Notify, in writing, all neighbors located within 500 feet of the construction site of the construction schedule.
 - g. Designate a person responsible for acting on any local complaints about construction noise. Conspicuously post a telephone number for the Noise Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. The Noise Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require implementation of reasonable measures to correct the problem. The Lead Agency for the project should be responsible for designating a

Noise Disturbance Coordinator and the construction contractor should be responsible for posting the phone number and providing construction schedule notices.

- h. Pile driving can create loud percussive sounds and ground-borne vibration within 100 feet of the operation. Standard mitigation is to pre-drill pile bores to minimize the number of blows needed. Residents should be notified when pile driving will occur, and work should only occur in the daytime.

Impact Significance After Mitigation

These standard construction noise mitigation measures would substantially reduce construction noise and vibration impacts. Given the temporary nature of the impact and the mitigation measures recommended above, it is expected that construction noise would be reduced to a level that is less than significant. However, this conclusion would need to be verified on a project-by-project basis.

Noise Impacts from New Roads

Impact 3.7-B Projects included within the Draft RTP would result in new noise and vibrations along the new streets and highways.

Projects that include constructing a new road or highway (that is, not simply widening or improving an existing street) would introduce new traffic-generated noise in areas where such noise is currently non-existent or very low (i.e., from traffic on existing local streets). The projects that are expected to potentially generate significant noise impacts in this regard are the Highway 101 bypasses and four-lane improvement projects, the Redemeyer Road extension, the Brooktrails second access, and the possible new north-south connector streets in Willits, Ukiah, and Fort Bragg.

The Highway 101 projects are generally expected to adversely affect a relatively small number of existing residences due to the fact that it is likely that the bypasses and major widening projects would occur in sparsely settled rural areas. For example, the Draft EIR/EIS prepared for the Willits bypass identified seven sensitive receptors that would be exposed to significant noise increases (Caltrans, 2002, p. 5-145). However, it is noted that the Willits Bypass EIR used a noise significance criterion of a 12 dBA increase in order to be considered significant. This is substantially higher than the 3 dBA or 5 dBA significance criterion used in this present EIR. It is expected that if the 3 or 5 dBA increase criterion was used, there would be additional sensitive receptors that would be exposed to a potentially significant noise increase.

Constructing new north-south local routes parallel to Highway 101 in Willits and Ukiah and parallel to Highway 1 in Fort Bragg could result in new streets that connect with existing streets. Because traffic volumes could increase substantially along those existing streets that are parts of the new north-south systems, there could be substantial noise increases along those streets, and this would be particularly significant if those streets are residential streets. For example, the City of Ukiah is presently proposing to

extend Orchard Avenue to the north into an undeveloped area adjacent to the west side of Highway 101. A Draft EIR has been prepared for this roadway extension. The acoustical study done as part of that EIR determined that noise levels along that extension would increase by as much as 5 dBA (Leonard Charles and Associates, 2002, p. 139). However, that Draft EIR recommended mitigation measures which would reduce the noise increase to 2-3 dBA, and the impact was found to be less than significant given recommended mitigation measures. This Orchard Avenue extension is one of the routes being considered for further extension to the north to provide an area-wide alternative north-south route. Future extension of Orchard Avenue to the north would likely further increase noise levels along that street. Future CEQA studies of that additional extension (if actually proposed) would need to be conducted to determine future noise impacts and mitigations. It is also noted that constructing these parallel routes would relieve traffic congestion and noise on other local and residential streets, and this would be a beneficial impact.

The construction of the second Brooktrails access and the Redemeyer Road extension would result in new roads and traffic in areas currently not exposed to substantial traffic-generated noise. Private residences along or near those new roads could be adversely affected by this new noise.

These new roads and roadway system could also generate new groundborne noise and vibrations, especially local streets and roads that would be used by a large number of heavy trucks.

The creation of new noise for major road projects and new noise and vibration along existing streets would be a potentially significant impact where that new noise would be 3 dBA or greater at sound-sensitive land uses, and the resultant sound level exceeded 60 dBA Ldn, or by 5 dBA and the resultant sound level remained below the 60 dBA threshold.

Mitigation Measures

1. All projects that would result in the construction of a new road along an undeveloped route or additional traffic due to an existing street being connected to a new road will be required to have an acoustical study prepared by a qualified acoustical consultant. The acoustical study shall include at least the following:
 - a. Noise measurements will be conducted at sensitive receptors along the proposed route or the existing street that would be affected by the project.
 - b. Noise modeling will be conducted to show future noise levels at affected sensitive receptors given predicted traffic volumes and vehicle mix once the new road or roadway system is in operation. The acoustical consultant shall also assess the potential for significant increases in groundborne noise and vibration.
 - c. If predicted noise levels would increase the noise level by 3 dBA or greater at sound-sensitive land uses (if the resultant sound level would exceed 60 dBA Ldn), or by 5 dBA (if the resultant sound level would remain below the 60 dBA threshold), then mitigation measures will be identified to reduce the noise increase below those levels. Noise

mitigation measures may include realignment of the road, construction of sound barriers, the use of open-graded asphalt (i.e., "quiet pavement;" the use of such pavement has been shown to reduce traffic noise by 4 to 6 dBA), or other appropriate measures,

- d. The acoustical engineer will predict future noise levels at affected sensitive receptors given the recommended mitigation measures.

The Lead Agency shall implement the recommended mitigation measures unless they are found to be infeasible.

Impact Significance After Mitigation

The mitigation measure recommended above would ensure that future projects do not generate substantial noise and/or vibrations that would adversely affect nearby residents or other noise-sensitive receptors. The impacts of the projects would be reduced to a less than significant level with successful implementation of this mitigation measures. Each future project that includes new road construction must include the requirements of this mitigation measure. If the future acoustical studies demonstrate that the subject project-generated noise cannot be reduced below the cited significance criteria, or if the Lead Agency decides not to implement identified mitigation measures on the bases of cost or other reasons, then the impacts of that project may be found to be significant unavoidable impacts.

Airport Noise Impacts

Impact 3.7-C Airport Improvements projects included in the Draft RTP could result in new noise at noise-sensitive receptors.

While most proposed airport improvement projects would mainly improve existing airport safety operations and efficiency, there are several proposed projects that might be expected to increase the use of those airports. The increase is expected to be quite minimal. Conversations with the aeronautical consulting firm that has prepared or is preparing the airport layout plans for the various airports in the County indicate that those consultants do not believe that any of the proposed airport improvement projects assessed in this EIR would result in a noticeable increase in airport use (Dietz, personal communication).

Proposed projects at the Willits Municipal Airport which might be expected to increase the attractiveness of the airport to pilots not currently using the airport include:

- Replace runway and taxiway lighting system.
- Improve parking area.
- Construct turn around area at south end of runway 24.

At Little River Airport, the following proposed improvements could attract additional pilots:

- Construct 16 aircraft hangers.
- Finalize obtaining non-precision GPS approaches including clearing obstacles and trimming trees.
- Install AWOS or ASOS at airport.
- Replace existing runway lighting system.

The Little River Airport Advisory Committee (LRAAC) has expressed concern about potential noise impacts from pilots starting their engines in front of the proposed new hangers and from installing non-precision GPS approaches at the airport. A number of members of the LRAAC and others are concerned that these improvements could adversely impact the "rural residential" character of the area (see the letter from Tim Scully of the LRAAC in Appendix A of this EIR).

At Round Valley, the following proposed improvements could increase use:

- Construct turn-around and connecting taxiway and expand apron area at RW 10.
- Construct new tie-down area and relocate facilities.
- Construct new taxiway.

Any of these or other proposed improvements at these three airports could generate additional air traffic which could increase noise levels at residences and other noise-sensitive receptors near the airport or in the approach zones. This would be a potentially significant impact

Mitigation Measures

1. The CEQA analysis of each new Airport Layout Plan shall include an acoustical analysis which will include at least the following:
 - a. Identification of noise-sensitive receptors affected by airport operations. Noise measurements shall be taken at sufficient number of those receptors to determine the existing noise environment around the airport.
 - b. Future noise levels will be modeled or described based on predicted increased usage of the airport.
 - c. Mitigation measures shall be developed and implemented to reduce noise levels below a 3 dBA increase at sound-sensitive land uses (if the resultant sound level would exceed 60 dBA Ldn), or below a 5 dBA increase (if the resultant sound level would remain below the 60 dBA threshold).

Impact Significance After Mitigation

The mitigation measure recommended above would ensure that new airport projects would not substantially increase existing noise levels at noise-sensitive receptors near those airports. Implementation of the mitigation measure would reduce the impact, at a program level, to a level that is less than significant. Each future airport layout plan must include the requirements of this mitigation measure. If the future acoustical studies demonstrate that the subject project-generated noise cannot be reduced below the cited significance criteria, or that the Lead Agency decides not to implement identified mitigation measures on the bases of cost or other reasons, then the impacts of that project may be found to be significant unavoidable impacts.

Mass Transit Noise Impacts

Impact 3.7-D Transit center projects included in the Draft RTP could generate substantial noise.

The use of the North Ukiah Transit Center could generate significant noise near that center due to buses traveling in and out of the center and drivers of private vehicles accessing the center. Similarly, the new Fort Bragg Transit Bus Yard could result in new noise around that center. However, neither project is expected to have significant noise impacts. The North Ukiah Transit Center is proposed for a location that already experiences substantial noise from traffic on Highway 101 and N. State Street, plus there are not residences or other sensitive receptors near the site. However, it is not certain that this will be the final site (as the owner of the site is presently unwilling to sell it to MTA). It is unlikely the Fort Bragg Transit Bus Yard would have a significant noise impact because few buses would operate out of the yard and there would be limited use by the public. However, both project could have potentially significant noise impacts.

Mitigation Measures

1. MTA shall assess Transit Center projects for noise impacts as part of their CEQA studies for those projects. The Transit Centers shall be designed and/or located in areas where bus and other traffic will not create noise increase of more than 3 dBA at sound-sensitive land uses (if the resultant sound level would exceed 60 dBA Ldn), or by 5 dBA (if the resultant sound level would remain below the 60 dBA threshold).

Impact Significance After Mitigation

The recommended mitigation measure would ensure that transit center projects do not have a significant noise impact. The impact would be reduced to a level that is less than significant.

3.8 AESTHETICS

A. Setting

Mendocino County supports a wide range of aesthetic resources, including views of the ocean, bays, estuaries, and rivers along Highway 1 and other coastal roads; views of wooded hills and river valleys in the mountains between the coast and inland valleys; views of vineyards, pear and apple orchards, grazing land, and other agricultural pursuits in inland valleys; rough wooded hills in the eastern part of the County; and urban and rural residential views primarily in communities along Highway 101, but also in scattered other locations.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Has a substantial adverse effect on a scenic vista. *(Assessed in Impact 3.8-A.)*
- b. Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. *(Assessed in Impact 3.8-A.)*
- c. Substantially degrades the existing visual character or quality of the site and its surroundings. *(Assessed in Impact 3.8-A.)*
- d. Creates a new source of substantial light or glare which would adversely affect day or nighttime views in the area. *(Assessed in Impact 3.8-A.)*

2. Impacts

Impact 3.8-A Construction of Draft RTP projects could impact views from public and private vantage points.

Most of the projects (repavement, shoulder widening, culvert and bridge repair/replacement, etc.) included in the Draft RTP are relatively minor roadway improvement projects that would not adversely affect views once construction is completed. The projects that could have potentially significant impacts on existing views are discussed further below.

Willits Bypass

A visual analysis of the proposed alternative bypasses was included in the Draft EIR/EIS prepared for this project. That Draft EIR/EIS determined that the visual impacts of all bypass alternatives could be reduced to a less than significant level with the incorporation of EIR/EIS-recommended mitigation measures (Caltrans, 2002, pp. 5-114 through 5-137).

Hopland Bypass

The alternative routes for this bypass have not been finalized, but it is assumed that routes may include a route through: 1) the valley bottomlands to the east, 2) the hills to the west, or 3) downtown Hopland. A major four-lane highway could possibly adversely affect views from County roads in the Hopland area as well as views from private residences in Hopland and rural residences in the area outside Hopland. Depending on the route selected and the vantage point, viewers might see the highway itself, cut and fill banks, signs, lights, and passing vehicles.

Highway 1 Widening

Adding a two-way left turn lane on Highway 1 north of Fort Bragg between Pudding Creek Road and 0.1 mile south of Odom Lane is not expected to result in significant visual impacts. The area where this widening is proposed is already developed with motels and industrial and commercial development. The Fort Bragg General Plan allows similar development for undeveloped land along the highway. However, the visual impact should be assessed in the CEQA document prepared for that project.

Redemeyer Road Extension

The route for this road extension has not been identified. However, it is likely to pass through agricultural lands. The new road could change views from private residences adjacent or near the road. It is unlikely that the new road would be visible from other public roads except where it intersects the existing Redemeyer Road and Lake Mendocino Drive. The new road could adversely impact these existing views by adding new pavement, cut and fill slopes, a bridge, signs, lights, and passing vehicles. This is a potentially significant impact.

Brooktrails Second Access

Depending on the route selected for this access, the new road could be visible from portions of the existing Highway 101, Highway 20, several streets in Willits, and private residences in Willits and between Willits and Brooktrails. The new road could adversely impact these existing views by adding new pavement, cut and fill slopes, signs, lights, and passing vehicles. This is a potentially significant impact.

New North-South Streets Paralleling State Highways

A proposed new north-south route paralleling Highway 1 in Fort Bragg would pass through land owned by Georgia-Pacific Corporation. The land is currently developed with a lumber mill or is excess land that Georgia-Pacific no longer uses. The road could affect views from private residences located between Highway 1 and the new road route. This would be a potentially significant impact.

New routes paralleling Highway 101 in Willits and Ukiah have not yet been finally identified. In Willits, the two possible routes are through or connecting already developed areas. The eastern alignment between Baechtel Road and Railroad Avenue passes through an industrial area, and the visual impacts along this route would not be significant. The possible western alignment that would connect North Street and Coast

Street could have visual impacts as it would be constructed over an undeveloped hillside.

The possible routes in Ukiah are primarily extensions of Orchard Avenue and Airport Park Boulevard. These extensions would pass through areas already developed or vacant lands slated for development near Highway 101. The roads themselves would have few visual impacts. Improving east-west connectors to Orchard Avenue could have some visual impacts along those roads.

North Ukiah Transit Center

The proposed site for this project is in an area already developed with a variety of commercial uses and adjacent to Highway 101 and N. State Street. Assuming reasonable project design, there is no reason to believe that a project in this location would have a significant visual impact. If this project were relocated to another site, it would likely be located in an existing commercial or industrial area. Assuming reasonable project design, there is no reason to conclude that a project in this location would have a significant visual impact.

Fort Bragg Transit Bus Yard

It is unknown where this project would be constructed, but it would likely be located in an existing commercial or industrial area. Assuming reasonable project design, there is no reason to conclude that a project in this location would have a significant visual impact.

Willits Airport

None of the projects proposed for this airport are expected to develop land not currently within the developed portion of the airport. It is not expected that these projects would have any significant visual impacts.

Little River Airport

Several projects included in the list of proposed projects for this airport could affect public and private views. The projects that might affect views include: clearing obstacles and trimming trees for non-precision GPS approaches, constructing 16 additional hangers, construction of a new lighting system, and replacing storage and operations buildings. These projects could have a potentially significant visual impact.

Round Valley Airport

Several projects included in the list of proposed projects for this airport could affect public and private views. The projects that might affect views include: expanding the airport, hanger construction, taxiway, apron, and parking area construction. These projects could have a potentially significant visual impact.

Mitigation Measures

Future CEQA reviews of the following projects will include a visual impact study: Highway 101 bypasses and widening, Highway 1 widening, Redemeyer Road extension, Brooktrails second access, north-south alternate routes in Fort Bragg, Willits, and Ukiah,

North Ukiah Transit Center, and Little River and Round Valley Airport expansion projects. This assessment shall contain at least the following components:

1. Identification of public and private vantage points from which the project would be visible.
2. Where project improvements would be visible and would substantively alter existing open space views, the applicant shall prepare a project design and landscaping plan that minimizes the visual impacts.
3. Mitigation measures that may be included in the design and landscaping plan include:
 - i. Preserve trees and other native vegetation to the degree feasible.
 - ii. Blend slope protection with existing natural features
 - iii. Avoid and preserve large rock formations to the degree feasible.
 - iv. Plant trees and other landscaping to screen or buffer views.
 - v. Construct lighting to avoid glare off the site.
 - vi. For road projects where headlight glare is possible, consider installation of a glare screen.
 - vii. Incorporate slope rounding, contour grading, and leaving a vegetative buffer between road projects and the cut slope.
4. All structures will be subject to design review by the appropriate jurisdiction or Caltrans Structures and Aesthetics Division in cooperation with the State Office of Landscape Architecture for State projects.

Impact Significance After Mitigation

The design mitigations recommended above should result in all or most projects not having significant visual impacts. However, without knowing the precise location and/or design of many of these possible future projects, it cannot be predicted with certainty that one or more of these projects might not have significant visual impacts even if the recommended mitigations are implemented to the degree feasible. As such, it is concluded that the Draft RTP could have a significant adverse impact on visual resources.

3.9 HAZARDS AND HAZARDOUS MATERIALS

A. Setting

1. Transport of Hazardous Materials

Hazardous materials are routinely transported on State highways and on many local arterials and collectors. Hazardous materials are also used in the construction of roads and other Draft RTP projects, though these materials are far less toxic and dangerous than materials that may be transported between businesses and industries. Construction-related materials are generally limited to fuels, grease, oil, concrete, grout, and similar materials. The potential impact related to use of these materials was addressed previously under Impact 3.2-B.

2. Hazardous Waste Sites

New streets and roads, the MTA mass transit center, and airport expansions may include development in areas that have toxic materials stored in the ground or groundwater due to past uses on or near the site.

3. Wildfire Hazards

Much of Mendocino County is classified as a Very High Fire Hazard Zone. Flammable vegetation in many of the hilly areas combined with steep slopes, high summer temperatures, limited access, and distant fire stations produce a potentially hazardous situation as regards the ignition and spread of wildfires. CDF responds to wildland fires while local fire departments and fire protection districts respond as part of automatic and mutual aid agreements.

4. Airport Safety

The five airports addressed in the Draft RTP are all existing airports that have been in use for many years. The Draft RTP does not include projects that would result in more people being at risk from airport operations. The proposed airport improvements at the airports are, in fact, primarily aimed at improving the safety and efficiency of existing airport operations. However, some of the proposed projects could possibly increase airport usage.

5. Regulatory Setting

For projects with Federal involvement, hazardous materials studies and agency coordination for projects are required pursuant to the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, and its implementing regulations (40 CFR 260-271); and the Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA), as amended, and its implementing regulations (40 CFR 300 and 43 CFR11). Both acts require coordination with the Environmental Protection Agency (EPA) or an EPA-approved state agency for any project that might require right-of-way containing a hazardous substance. In addition, the Mendocino County Environmental

Health Department regulates land pollution within the study area, and the North Coast Regional Water Quality Control Board (RWQCB) regulates groundwater pollution in the study area. The Clean Air Act, 42 U.S.C. s/s 7401 et seq. (1970), as amended, is administered by the Mendocino County Air Pollution Control District to regulate air emissions from area, stationary, and mobile sources in the project area. The Occupational Safety and Health Act (OSHA), 29 U.S.C. 651 et seq. (1970) governs exposure to, handling and clean-up of hazardous materials to ensure worker safety.

The Mendocino Emergency Services Authority (MESA), a joint powers organization that includes the County and the incorporated cities within the county serves as the coordinating agency for mutual aid services provided by fire departments, law enforcement agencies, and emergency medical service providers throughout the county. In addition, the MESA reviews and makes recommendations regarding emergency operation plans for public and private institutions where pre-planning for emergency procedures is advisable. Coordination of emergency services and planning guidelines are provided for situations including flood, wildland fires, structure fires, explosions, hazardous materials, severe weather, and earthquakes.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets any of the following criteria:

- a. Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (*Assessed in Impacts 3.9-A and B.*)
- b. Creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (*Assessed in Impacts 3.9-A and B.*)
- c. Emits hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. (*Assessed in Impacts 3.9-A and B.*)
- d. Is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, creates a significant hazard to the public or the environment. (*Assessed in Impact 3.9-B.*)
- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, the project would result in a safety hazard for people residing or working in the project area. (*Assessed in Impact 3.9-D.*)
- f. For a project within the vicinity of a private airstrip, the project would result in a safety hazard for people residing or working in the project area. (*Assessed in Impact 3.9-D.*)

- g. Impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan. (*Assessed in Impact 3.9-C.*)
- h. Exposes people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. (*Assessed in Impact 3.9-C.*)

2. Impacts

Transport of Hazardous Materials

Impact 3.9-A Projects included in the Draft RTP would be used for the transport of hazardous materials.

The major Highway 101 bypasses and widening projects would facilitate the movement of vehicles along this State highway. The projects would not involve additional transport of such materials. By making the highway wider and bypassing Willits and Hopland, these Highway 101 projects would reduce the number of accidents along the highway (see Caltrans, 2002, p. 3-19). By eliminating or substantially reducing the interregional transport of hazardous materials through Willits and Hopland, these bypass projects would be beneficial in reducing the potential for hazardous spills in the most populated areas. Similarly, widening of Highway 101 north of Hopland would further reduce the risk of accidents and hazardous spoils in that area.

It is not expected that other highway and road improvement projects would generate additional transport of hazardous materials. The transport of such materials would continue to comply with pertinent State and Federal laws regarding the transport of hazardous materials. However, the proposed new north-south parallel routes to Highway 10 in Willits and Ukiah and Highway 1 in Fort Bragg could result in the transport of hazardous materials on those new streets. On the other hand, it is likely that this transport through these three cities would simply be redistributed from existing routes to an alternative route through the City. The potential for hazardous materials to be transported over new streets or existing streets connected to a new north-south roadway system is considered a potentially significant impact.

Airport operations include storage of fuels, oils, grease, solvents, and other potentially hazardous materials. Any increased use of these airports could require additional use, storage, and transport of these materials. The accidental spill of fuel or other materials could cause damage to the environment and pose a safety risk to people on and near the airports. This is considered a potentially significant impact.

Mitigation Measures

- 1. On State highways, pursuant to the Caltrans *Hazardous Materials Spill Contingency Plan*, all hazardous spills or releases (regardless of size), must be reported immediately to the Caltrans district dispatch office by the California Highway Patrol and reports describing the incident must be filled out. Specific

contingency plans are referenced in the *Hazardous Materials Spill Contingency Plan* in the event that flammable or toxic vapors are released, a fire or explosion occurs, or a hazardous substance is released. The party responsible for the spill is given the opportunity to clean up the spill; however, if the responsible party does not have a means to clean up the spill, Caltrans contacts a pre-approved contractor to perform mitigation activities.

2. On all other roads, spills will be reported immediately to MESA which will be responsible for coordinating the appropriate response to the emergency.
3. All airports will maintain adopted *Hazardous Materials Spill Contingency Plans* for that airport.

Impact Significance After Mitigation

Requiring appropriate reporting of spills of hazardous materials and response per *Hazardous Materials Spill Contingency Plans* will ensure that the environment and public are adequately protected from spills of such materials. While catastrophic spills may occur that cannot be adequately controlled by the appropriate emergency response agencies, such an impact is speculative, and no additional analysis is required. The impact is reduced to a less than significant level both for individual projects and collectively.

Use of Hazardous Materials During Construction

Impact 3.9-B Projects included in the Draft RTP could result in construction on sites containing hazardous materials.

It is possible that the sites for road improvements, the mass transit centers, or airport improvement projects are contaminated with hazardous materials from past uses. Earthwork and project construction could result in exposure of workers and the general public to these hazardous materials, and it is possible that the hazardous materials could be transported into the environment, adversely affecting water quality, plants and animals, and other natural resource values. In addition, some road and highway projects could require the demolition of structures. Some of those structures may contain asbestos, and exposure of workers and the public to asbestos could pose a health risk to those exposed. Exposure of people or the environment to hazardous materials would be a potentially significant impact.

Mitigation Measures

1. A Phase I Study or Initial Site Assessment will be conducted for all projects where there is a potential that hazardous materials might exist and where such materials might be exposed during project construction.
2. If that Phase I Study determines the potential for hazardous materials within the area to be disturbed by project construction, a Phase II Study will be done, including drilling of test holes and collection and laboratory analysis of collected

soil and/or water samples, to confirm or dismiss potential hazardous waste issues.

3. If the Phase II Study concludes there are hazardous wastes at the project site, then the Lead Agency should re-design the project to avoid the areas where the hazardous waste is present.
4. If avoidance is not feasible, then the following steps will be required:
 - a. The Lead Agency will prepare a Health and Safety Plan that addresses the potential effects of the various chemical compounds that could be encountered at each property with potentially hazardous substance issues. The health and safety plan will include evaluations of the suspected chemical hazards including symptoms of exposure and emergency treatment, appropriate use of personal protection equipment, and air monitoring. If the Lead Agency's contractors conduct the cleanup activities, the health and safety plan for each site shall identify training and personal protective equipment requirements for workers, visitors, and the public. Only those workers and visitors who have reviewed the plan and have the specified required training may enter a site undergoing remediation.
 - b. Upon confirmation of hazardous waste issues, responsible parties will be sought for cleanup activities. If the Lead Agency must clean up impacted properties, reimbursement of cleanup costs shall be sought from the Responsible Party(ies).
 - c. For impacted soil encountered on potential acquisition properties, possible cleanup technologies employed by the Responsible Party(ies) would include excavation and disposal of the impacted soil at appropriately permitted landfills, and aeration or bioremediation of soil in situ or above ground. All soil remediation will be performed within the existing policies, rules and regulations of governing regulatory agencies. Those include the North Coast Regional Water Quality Control Board, Department of Toxic Substances Control, Mendocino County Air Quality Management District, and the Mendocino County Environmental Health Department.
 - d. For impacted groundwater encountered beneath potential acquisition properties, possible cleanup technologies employed by the Responsible Party(ies) include removal of impacted water, with subsequent disposal or treatment.
 - e. In the event that explosives are found to be present at any of the potential acquisition properties, the Responsible Party(ies) will be required to have them removed by specially trained crews and handled appropriately.
 - f. For projects that require acquisition of structures, the Lead Agency will complete an asbestos survey prior to demolition activities. The Lead Agency will obtain Mendocino County Air Quality Management District

(AQMD) permits (National Emission Standards for Hazardous Air Pollutants - NESHAP), which are required for demolition.

- g. Asbestos inspections for a NESHAP permit are done by Cal/OSHA certified inspectors. Regulated Asbestos Containing Materials (RACMs), Category I and II materials are identified during the survey and are noted on NESHAP permit. The Lead Agency will have all RACM abated by licensed asbestos removal experts.

Impact Significance After Mitigation

Avoiding hazardous wastes or abating those wastes per existing Federal, State, and local regulations would ensure that workers, the public and the environment are not exposed to significant health or environmental risks. The impact for each project and collectively would be reduced to a level that is less than significant. However, there is the risk that the costs of clean-up of contamination could be significant particularly for larger projects such as the Willits Bypass.

Wildfire Hazard

Impact 3.9-C Projects included in the Draft RTP could result in catastrophic wildfires.

Most proposed projects would occur within urban areas or developed airports where there are not significant wildfire risks and adequate fire response is readily available. Other projects include widening or improvement of existing highways and roads and would not result in any new wildfire risk. However, the proposed bypasses of Willits and Hopland, the extension of Redemeyer Road, and a second Brooktrails access would result in new roads. Wildfire ignitions along roads and highways are caused by a number of actions with the principal ignitions being the result of cigarettes being thrown out of vehicle windows, and from carbon particles from vehicle exhaust.

The two Highway 101 bypasses would likely be sited in the valleys to the east of the two communities. These areas are generally developed with agriculture or support vegetation that is not as susceptible to wildfires as the hilly areas to the west. The Willits Bypass could include a western bypass through the hills to the west. If this western alignment were selected, there would be a risk of additional wildfire ignitions along this bypass.

The risk of such fires would be greatest on the possible western alignment of the Willits Bypass and the second access to Brooktrails. This second Brooktrails access would be through relatively steep hillsides that are well vegetated with oaks and other trees and brush. The Redemeyer Road extension would likely be through relatively level land in the valley bottom and should not pose a significant risk.

While there would be some additional risk of wildfire from these new roads, the risk is considered less than significant for the following reasons:

- Caltrans and the County mow the road edges and highway medians.

- The new roads would provide access to fire suppression agencies.
- While roadside fires are not uncommon, it is quite rare for roadside ignitions to become major wildfires due to the ability of fire suppression agencies to quickly access the fire.

For these reasons, the impact is considered less than significant, and no mitigation is required. In fact, the Redemeyer Road extension and the second Brooktrails access are proposed to provide evacuation routes and improved emergency access in the case of a major wildfire or other natural catastrophe. In this regard, these two projects would have a beneficial impact as regards wildfire hazard.

The improved access that would result from many of the proposed projects would improve evacuation and emergency response and would have beneficial impacts as regards Significance Criterion 3.9g.

Airplane-Related Hazards

Impact 3.9-D Airport improvement projects could result in the public being exposed to an increased risk of accidents.

As discussed in Impact 3.7-C, most proposed airport projects are intended to improve the safety and efficiency of the existing airports. However, certain projects (as listed in Impact 3.7-C) could potentially increase use of the airports. If there were additional air traffic as a result of these improvement projects, it would mean a greater potential for accidents. However, no new areas of potential accident exposure would result as the flight approach and departure zones would not be changed. The potential impact is considered to be less than significant for the following reasons:

- Areas currently not at risk would not be at risk if the improvements are made.
- Many of the proposed improvements would enhance the ability of pilots to safely use the airports.
- All projects would be consistent with the Airport Land Use Plan for the appropriate airport. These Plans address safety considerations near the airports.
- It is not expected that proposed improvements would substantially increase use of the airports.

However, to ensure that all safety issues are adequately addressed, future CEQA studies of the proposed projects will include an assessment of any safety hazards involved with the improvements to the three airports that have not already had CEQA studies adopted for their improvement plans.

Mitigation Measures

1. CEQA studies of future Airport Layout Plans will ensure that the Airport Layout Plan is consistent with all safety requirements established by the Federal Aviation Agency, the State, and the County's Airport Land Use Commission.

Impact Significance After Mitigation

Requiring future airport projects to be consistent with existing safety requirements for airport operations would reduce the potential impact. In addition, it is unlikely the proposed projects would substantially increase airplane flights. Finally, many of the proposed improvements would enhance pilot safety. The impact would be reduced to a level that is less than significant.

3.10 PUBLIC SERVICES AND UTILITIES

A. Setting

Public services within Mendocino County are provided by the County, the four cities, and a number of special districts. The following summarizes the main service providers,

Potable water is provided by the four cities; Calpella, Elk, Laytonville, Millview, Redwood Valley, Round Valley, Westport, and Willow County Water Districts; Point Arena Waterworks District 2; Hopland Public Utility District (PUD); Brooktrails, Pacific Reefs, Anderson Valley, Irish Beach, Covelo, Mendocino City, and Anderson Valley Community Service Districts (CSDs); Caspar South Water District; Willow Water Company, Rogina Water Company, Point Arena Waterworks, Southwood Mutual Water Corporation, North Gualala Water Company, and a variety of smaller commercial water companies.

Community wastewater collection, treatment, and disposal are provided mainly by the four cities; Covelo, Mendocino City, Gualala Community, and Brooktrails CSDs; Hopland PUD; Calpella and Westport CWDs; Ukiah Valley Sanitation District; and Mendocino County Waterworks.

Public education is provided mainly by the Ukiah, Fort Bragg, Willits, Point Arena, Mendocino, Anderson Valley, Manchester, Potter Valley, Leggett, Laytonville, and Covelo school districts.

Fire protection and emergency medical response are provided by the California Department of Forestry and Fire Protection, city fire departments; Albion-Little River, Covelo, Fort Bragg Rural, Leggett Valley, Little Lake, Long Valley, Mendocino, Piercy, Redwood Valley-Calpella, South Coast, and Ukiah Valley Fire Protection Districts, and several volunteer fire departments.

Police services are provided by the County Sheriff's Department and the cities of Willits, Ukiah, and Fort Bragg.

Solid waste is collected by a variety of private haulers and delivered to waste transfer stations from where it is transported to landfills outside the County.

Public recreation is provided by a range of State, regional, and city parks spread throughout the County, but concentrated along the coast, along Highway 101, and in the cities of Ukiah, Willits, and Fort Bragg.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact if it would:

- a. Generate demand for police or fire protection services that would result in the need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. *(Assessed in Impact 3.10-A.)*
- b. Generate demand for police or fire protection services that would exceed the ability of the fire department to provide service without substantially decreasing its ability to serve the existing population. *(Assessed in Impact 3.10-A.)*
- c. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs. *(Assessed in Impact 3.10-A.)*
- d. Not comply with Federal, state, and local statutes and regulations related to solid waste. *(Assessed in Impact 3.10-A.)*
- e. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *(Assessed in Impact 3.10-A.)*
- f. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. *(Assessed in Impact 3.10-A.)*
- g. Provide for or increase the need for additional schools, or alterations to existing schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives. *(Assessed in Impact 3.10-A.)*
- h. Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. *(Assessed in Impact 3.10-A.)*
- i. Could not be served by the local water district(s) due to insufficient potable water supply. *(Assessed in Impact 3.10-A.)*
- j. Require new or expanded water entitlements. *(Assessed in Impact 3.10-A.)*
- k. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts. *(Assessed in Impact 3.10-A.)*
- l. Exceed wastewater treatment requirements of the Regional Water Quality Control Board. *(Assessed in Impact 3.10-A.)*
- m. Generate additional wastewater that exceeds the existing or planned capacity of the sewage treatment and disposal system. *(Assessed in Impact 3.10-A.)*

2. Impacts

Impact 3.10-A Projects included in the Draft RTP could increase the demand for public services and on public infrastructure.

In general, proposed RTP projects would not be expected to substantially affect public services and infrastructure. The potential impacts on each public service and infrastructure element are described in more detail below. The reader should also refer to Section 4.1 of this EIR which describes the potential growth-inducing impacts of the RTP on public services and infrastructure.

Potable Water

Roadway and other construction projects would require the use of water for dust control and other grading activities. This use would be temporary and is not expected to adversely affect any public water supplier, assuming public water is used. Lead Agencies will obtain water consistent with the requirements established by the local water supplier. Proposed airport improvement projects could slightly increase use of those airports, but the increased demand for potable water, if any, is not expected to be substantial. The two transit centers would require potable water for restroom facilities, but the demand is not expected to be substantial. Impacts to potable water suppliers is expected to be less than significant.

Roadway and other project construction could cause damage to underground water lines. However, it is assumed that all project contracts and specifications will be properly designed and implemented to avoid damage to these facilities.

Wastewater

Roadway projects are not expected to increase the demand for wastewater facilities. Airports are currently provided with restroom facilities. No substantial increase in wastewater generation is expected from proposed airport projects. Restroom facilities would be included in the proposed mass transit centers. However, the amount of wastewater generated by these facilities is not expected to be substantial. The impact to community wastewater facilities is expected to be less than significant. The projects would not result in the need for new wastewater treatment and disposal facilities nor result in any facility exceeding RWQCB requirements.

Roadway and other project construction could cause damage to underground wastewater lines. However, it is assumed that all project contracts and specifications will be properly designed and implemented to avoid damage to these facilities.

Schools

The projects do not include the construction of new housing nor businesses. As such, the projects would not directly result in new students. Roadway improvement projects would ease existing and future congestion in some areas in the County. This would be beneficial as regards public and private access to schools. The RTP would have no direct impact on schools.

Construction of some road projects could result in traffic delays (temporary lane closures) which could disrupt bus schedules. This is a potentially significant impact.

Fire Protection and Emergency Medical Response

As described in Impact 3.9-C, there could be some increase in the risk of wildfires resulting from several new roads in wilder, hilly areas. However, it was determined that this potential impact would be less than significant. During construction of roadways and other projects, it is possible for fires to ignite due to the use of heavy equipment in areas containing vegetation. This is a potentially significant impact.

The major roadway projects would relieve existing and future traffic congestion. Reducing congestion and providing new highways would reduce the number of traffic accidents, thereby reducing the demand on local fire departments and fire protection districts who typically provide emergency medical response. This is beneficial impact.

Construction of the Redemeyer Road extension and the second Brooktrails access would facilitate evacuation and emergency vehicle access of the areas served by those roads. Constructing bypasses of Willits and Hopland and widening Highway 101 north and south of Hopland would facilitate fire and emergency vehicle access along the Highway 101 corridor. These are beneficial impacts.

Constructing helipads at the Ukiah, Willits, and Boonville airports would facilitate emergency rescue operations.

Construction of some road projects could result in traffic delays (temporary lane closures) which could impede fire and emergency medical response. This is a potentially significant impact.

Police Protection

By constructing the major roadway projects, existing and future traffic congestion would be relieved. Reducing congestion and providing new highways would reduce the number of traffic accidents, thereby reducing the demand on CHP, the County Sheriff's Department, and City police departments. This is a beneficial impact.

The new streets could result in additional patrol demand, but it is unlikely that these new roads would require hiring additional staff (except as staff may be expanded to keep pace with the growth in population).

Construction of some road projects could result in traffic delays (temporary lane closures) which could impede police response. This is a potentially significant impact.

Solid Waste

Construction projects can result in solid waste, for example, packaging material, unused building materials scraps, etc. It is expected that project contracts will include special provisions for disposal of waste if that waste is beyond what can typically be disposed of at the solid waste transfer stations in the County. The impact would be temporary and is expected to be less than significant.

Recreation

New Highway 101 bypasses and widening will facilitate local and interregional tourist traffic. People will be able to more easily and safely access parks to the north of Willits and areas to the south of Mendocino County. Provision of passing lanes on Highway 20, a left-turn center lane on Highway 1 north of Fort Bragg, and shoulder widening on other State highways will likewise facilitate recreational travel. These are beneficial impacts.

This improved access to parks and other regional recreational facilities could lead to some increase in the use of those parks. It is not expected that many tourists make their decision to visit parks accessed by State Highways in the County based on the consideration of whether they might encounter traffic congestion. However, it is possible that some people would increasingly use Highway 101 to access parks north and south of the County and in the County itself once the proposed improvements to that highway are completed. The number of additional users that could use Highway 101 is speculative, and no further analysis is required. However, even if there was some increase in use caused strictly by the roadway projects, this increase is not expected to result in the need for additional parks or recreational facilities.

Constructing the bikeways that are included in the Regional Bikeways Plan would improve bicycle access and safety in many areas in the County. These projects would have a beneficial impact as regards providing additional recreational facilities.

The Draft RTP includes a proposal to study the feasibility of eliminating the designation of Highway 1 as a Pacific Coast Bike Route. Caltrans has responded that the State Legislature has already designated Highway 1 as a Pacific Coast Bike Route, and that this designation can only be revoked by the State Legislature. Caltrans further noted that Caltrans and MCOG should coordinate to identify and prioritize projects to make this a safe route for bicycles (see letter from Caltrans in Appendix A). MCOG and Caltrans cosponsored a community meeting in Fort Bragg on December 5, 2002 to gain input on improving bike facilities along Highway 1. While many ideas were presented, at this time no recommendations or proposals have been formulated.

MCOG has stated that it believes this bikeway designation should be revoked until such time as funding is found to make the bike route safe. However, in addition to the fact that the designation can only be revoked by the State Legislature, the California Department of Parks and Recreation (in a response to the Notice of Preparation included in Appendix A) has stated that the designation should be applied. The Department recommends that a census/traffic study of the highway's use as a bike trail could be done to help motivate adequate funding and political support. Such a study is not precluded by the Draft RTP. The feasibility study recommended in the RTP would need to address existing and future use, including safety considerations of using the highway in its present state.

The State Department of Parks and Recreation also recommended that a parking lot be constructed at the Pudding Creek State Park beach on Highway 1 in Fort Bragg. They further recommended a stoplight at the intersection of the access to this parking lot and Highway 1. These projects are not currently part of the Draft RTP. The projects would need to be recommended by Caltrans (if the projects are within the Caltrans' right-of-way) or the City of Fort Bragg (since the proposed project site is within the City's jurisdiction) to MCOG as a potential RTP project. The MCOG Technical Advisory Committee (TAC) would evaluate the proposed project and give it a priority. The project

would be rated given available funding, and, if recommended for future construction, forwarded to the CTC. If the projects were approved by the TAC for inclusion in the RTP, the RTP would need to be amended to reflect the new project(s).

Mitigation Measures

1. Each Lead Agency will make pre-construction contacts with the pertinent fire department/district, law enforcement, ambulance services, and schools to inform them of the construction project and expected lane or road closures.
2. The Lead Agency will notify concerned agencies of the construction schedule.
3. The Lead Agency will implement a traffic management plan to minimize impacts to roadway users during project construction.
4. The Lead Agency will include fire control measures in all contracts which will require, at the least, that 1) contractors maintain all equipment with appropriate, protected mufflers and catalytic converters; 2) all work done during dry season conditions in areas containing flammable vegetation will be conducted under the supervision of a spotter equipped with sufficient fire suppression equipment (i.e., water pumper truck, fire extinguishers, etc.) to suppress equipment-caused ignitions; 3) personnel will be trained to avoid using equipment in ways or locations where fires could ignite; and 4) an emergency response plan will be prepared describing how personnel will report and respond to any ignition and which fire suppression agency shall be contacted.
4. MCOG shall work with Caltrans to identify and prioritize non-motorized facilities along Highway 1. Once prioritized, funding for such projects should be sought and the improvements constructed.

Impact Significance After Mitigation

The mitigation measures recommended above would reduce the risk of fire ignitions and blocking or delay of emergency vehicles and school buses during roadway construction. These measures would reduce the identified potentially significant impacts to a less than significant level. All project-specific and cumulative Draft RTP impacts to public services and public infrastructure would be less than significant.

3.11 LAND USE

A. Setting

1. Agriculture

Mendocino County supports a thriving agricultural community, currently focused on the production of wine grapes with major secondary crops including pears, apples, hay, and livestock. Approximately 640,000 acres of the County are used for agricultural production, almost all of which is used as rangelands for raising mainly cattle. About 30,000 acres are in crops.

The County contains prime agricultural soils which are defined by the County General Plan as soils rated as Class I or Class II in the Soil Survey capability classifications. These prime agricultural soils are located primarily in the large inland valleys.

Parcels covering approximately 465,000 acres of the County are under Williamson Act contracts. These contracts reduce the burden on those properties in exchange for a long-term agreement not to develop the property. The contracts are for 10 years and are automatically renewed each year unless the property owner informs the County that he/she wishes to cancel the contract. From that point, the contract provisions endure for 10 years.

2. Land Use

Mendocino County consists of large areas that are undeveloped or very lightly populated. Much of the County is either under public ownership or owned by large timber firms which use their holdings for timber production. Other private landowners own large ranches or timberlands which are used mainly for timber production or ranching.

Of the approximately 87,000 people living in the County, most live in or near the three larger cities (Ukiah, Fort Bragg, and Willits). Most others live in or near Point Arena and several smaller unincorporated communities including Gualala and the South Coast, Manchester, Elk, Albion, Mendocino, Westport, Hopland, Boonville, Philo, Navarro, Comptche, Redwood Valley, Potter Valley, Calpella, Covelo, Dos Rios, Laytonville, Leggett, Branscomb, and Piercy. The remaining population resides in scattered locations along the coast and inland.

3. Population and Housing

The population of the County in 2000 was 86,265 people. The State Department of Finance projects the County's population will grow from 86,265 in 2000 to 118,804 in 2020 and 133,440 in 2030. These projections indicate that the State expects a much more rapid population increase than has occurred in the past. Between 1990 and 2000, the population grew by 6,280 people, or a 7.4% increase. The projected growth to 2020 is a 37.7% increase.

4. Land Use Plans

Land use in the County is under the primary jurisdiction of five entities: the incorporated Cities of Point Arena, Willits, Ukiah, and Fort Bragg and the County of Mendocino. The County and Cities of Fort Bragg and Point Arena also have adopted Local Coastal Programs, and these programs are consistent with the General Plans of those three jurisdictions. Lands within the City Limits of the four incorporated cities are under the jurisdiction of the appropriate city while all unincorporated lands are within the jurisdiction of the County. The County and the four cities have adopted General Plans which guide and regulate future development within the jurisdiction. Those General Plans also provide policy direction for ensuring that there is adequate public infrastructure, including the transportation system, to serve projected growth under the general plans. These General Plans also provide policy direction for the preservation of natural resources, provision of adequate housing, and provision of public safety. Each jurisdiction regulates development under these general plans through ordinances and regulations included in their zoning ordinances, subdivision ordinances, and other ordinances.

B. Potential Impacts and Mitigations

1. Criteria Used For Determining Impact Significance

Based on the *CEQA Guidelines* and other commonly accepted standards, the project would have a significant impact on population and housing conditions if it would:

- a. Physically divides an established community. (*Assessed in Impact 3.11-D.*)
- b. Conflicts with any applicable land use plan policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. (*Assessed in Impact 3.11-C*)
- c. Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (*Assessed in Impact 3.11-A.*)
- d. Conflicts with existing zoning for agricultural use or a Williamson Act contract. (*Assessed in Impact 3.11-B.*)
- e. Involves other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses. (*Assessed in Impacts 3.11-A and B*)
- f. Introduces new land uses that would conflict with established or proposed uses. (*Assessed in Impact 3.11-E.*)

- g. Induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). *(See Section 4.1, Growth-Inducing Impacts, for a discussion of the impacts per this criterion.)*
- h. Displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. *(Assessed in Impact 3.11-F.)*
- i. Displaces substantial number of people, necessitating the construction of replacement housing elsewhere. *(Assessed in Impact 3.11-F.)*

2. Impacts

Impacts on Agriculture

Impact 3.11-A Projects included in the Draft RTP could displace commercial agriculture and prime agricultural soils.

Proposed projects could be located in areas that contain prime agricultural soils. The projects most likely to affect agriculture or prime agricultural soils include the Highway 101 bypass projects, the Redemeyer Road extension, and possibly new north-south parallel roads in Ukiah. It is possible that airport projects at the Willits and Round Valley airports might also affect prime agricultural soils. For example, the Draft EIR/EIS prepared for the Willits Bypass indicates that 24 to 56.3 acres of prime farmland would be impacted by the four proposed bypass alternatives (Caltrans, 2002, p. 5-31). Removal of prime agricultural soils from current or potential commercial use would be a potentially significant impact.

Mitigation Measures

Projects will be designed to avoid prime agricultural soils to the maximum degree feasible. Where avoidance is not feasible, the following mitigation measures will be required.

1. Prime agricultural soils will be stockpiled. The stockpiled soil will be used for landscaping purposes for the proposed project and/or by the County, its Cities, and/or local County residents and businesses.
2. The project applicant will contribute a mitigation offset fee for the amount of acreage of prime agricultural soils (as defined by the County General Plan) lost due to the project. The fee shall be used to fund the Inland Mendocino Land Trust, another land trust, or another entity acceptable to the Lead Agency for use in purchasing and/or protecting agricultural lands. The amount of the fee shall be determined by the County of Mendocino. Alternatively, the project applicant can coordinate with the Mendocino County Agricultural Commission to establish an agricultural conservation easement near the project area. This easement would be purchased for properties containing prime agricultural soils that are at some risk of being developed in the future (e.g., adjacent to urbanized areas).

Impact Significance After Mitigation

The recommended mitigation measure to contribute offset fees to the Inland Mendocino Land Trust, an alternative land trust or other acceptable entity is consistent with recent mitigations recommended by the Mendocino County Board of Supervisors on a project that would develop a site containing prime agricultural soils (see the Board's Conditions of Approval for the Dharma Realm Buddhist Association project in Talmage). In that case, the Board of Supervisors required an offset fee equal to \$15,000 per acre for prime agricultural land. The use of offset fees is also consistent with the recommended mitigation measures for the proposed Willits Bypass project (Caltrans, 2002, p. 5-30). The recommended agricultural conservation easement is consistent with Caltrans EIR/EIS-recommended mitigations for the Willits Bypass project (Caltrans, 2002, p. 5-29).

These mitigation measures would reduce the impact of loss of prime agricultural soils. However, these soils would still be lost as regards future commercial agriculture. Per Significance Criterion 3.11c, this would remain a significant adverse impact.

While it is unknown whether proposed projects would include prime agricultural soils, it is possible that proposed projects could affect these resources. In the case of the proposed Willits Bypass, it is known that all of the four alternatives would adversely impact prime agricultural soils. Thus, this is considered a project-specific and cumulative significant adverse impact of the RTP.

Impact 3.11-B Projects included in the Draft RTP could affect agricultural operations on properties under Williamson Act contracts.

Construction of some projects, namely the same ones identified in Impact 3.11-A, could be located on properties that are currently under Williamson Act contracts. Development of public infrastructure projects on Williamson Act contracts are not prohibited by State law. However, if the project was sufficiently large, it could result in the inability of the property owner to continue to commercially farm or graze the property. This could result in the property owner seeking a termination of the Williamson Act contract, thereby potentially opening the property for non-agricultural development.

It is unknown which projects might affect Williamson Act contracts. The one project that has identified routes and where site-specific analyses have been conducted (the Willits Bypass project) would impact 20.7 to 62.6 acres of land under a Williamson Act contract (depending on which of the four alternatives is constructed).

If a project is constructed on properties under a Williamson Act contract and that development would adversely impact the ability of the property owner to continue to commercially farm or graze the property, this would be a potentially significant impact.

Mitigation Measures

The same mitigation measures recommended for Impact 3.11-A will apply.

Impact Significance After Mitigation

The mitigation measures would reduce the impact, but the impact would remain potentially significant. As such, this is considered a project-specific and cumulative significant adverse impact of the RTP.

Consistency with Existing Plans

Impact 3.11-C Projects included in the Draft RTP could be inconsistent with General Plans of the County and its four Cities.

With the exception of projects proposed by Caltrans, MTA, and the Anderson Valley Community Services District (the owner of the Boonville Airport), the projects included in the Draft RTP that are assessed in this EIR have all been submitted by either the County or the four cities. These projects have been proposed to meet the future needs of the existing population and the future population allowed by the General Plans of the five jurisdictions. The projects are all consistent with the Circulation or Transportation Elements of those General Plans. Given the required internal consistency of a general plan, it is assumed that the five jurisdictions have determined that the proposed projects are basically consistent with their General Plans. The Caltrans projects, mass transit projects proposed by MTA, and the Boonville Airport improvements are also considered to be consistent with the General Plans of the jurisdictions in which those projects are located.

While it is possible that a project might be viewed as inconsistent with a specific policy or implementation measure or program of the pertinent general plan, it is noted that projects are generally assessed for consistency with the intent of the entire plan. Any potential inconsistencies with the General Plan of the pertinent jurisdiction where the project is located would need to be assessed at the time a formal project application is submitted. The CEQA review for each future project would identify any significant impacts of the project that could not be reduced to a less than significant level, and the pertinent jurisdiction would then need to determine whether these remaining, if any, significant environmental impacts would constitute an inconsistency with that jurisdiction's general plan.

Inconsistencies or potential inconsistencies of a project with a General Plan are to be determined by the jurisdiction's decisionmakers. Inconsistency with a General Plan policy is not, in and of itself, an environmental impact, since a plan is not part of the physical environment. If an inconsistency or potential inconsistency is identified, it may point to possible significant impacts on the physical environment which would need to be fully addressed in the CEQA document prepared for the project.

It is possible that some of the projects proposed in the Draft RTP might be found to be inconsistent with specific non-transportation policies and programs of the adopted General Plans of the pertinent jurisdiction. This inconsistency would need to be addressed by the jurisdiction. Given that the projects in the Draft RTP have been submitted primarily by the jurisdictions, it is likely that the jurisdictions would find that the projects are consistent with their general plans. If a jurisdiction did find a project inconsistent with portions of its general plan and decided to proceed with the project in

any case, this would only be done if the jurisdiction amended its general plan to eliminate its inconsistency. Given the need for General Plan consistency, the impact is considered to be less than significant.

Impacts on Existing Land Use

Impact 3.11-D Projects included in the Draft RTP could physically divide an established community.

Constructing new road projects through undeveloped land or enlarging existing roads could result in established communities being divided. Most projects included in the Draft RTP would not result in a major barrier dividing a community. The construction of the second Brooktrails access and the Redemeyer Road extension would be two-lane roads through mainly undeveloped area. These projects would not create a major division between an established community. The possible new north-south roads in Fort Bragg, Willits, and Ukiah would mainly be located in already developed areas. While these roads could pose some impediment to travel patterns across the roadways, the roads are not expected to be sufficiently large to actually divide the existing community. Other projects are primarily improving existing roads. Airport projects would occur within existing airport properties and would not divide a community. The mass transit center and bus yard projects would be relatively small projects.

The Highway 101 projects could physically divide the community through which they pass. For example, the proposed Willits Bypass would be a freeway with no access except at its southern and northern end. Similar division of the community could result from the Hopland Bypass. However, these highway projects would ensure that existing residences and businesses continue to be provided access. Because these bypasses would occur in areas that are generally lightly developed, this is not expected to be a significant impact (and it was not identified as a potential significant impact in the Draft EIR/EIS prepared for Caltrans for the Willits Bypass). In addition, these bypasses would remove much of the traffic currently passing through the center of Willits and Hopland, thereby reducing the congestion through those communities. Reducing the congestion would make it easier for people to cross what was once the highway. This would be a beneficial impact of these bypasses. Neither the highway projects nor other projects included in the Draft RTP are expected to result in a substantial division of an existing community, and the impact is considered less than significant. No mitigation is required other than to continue to provide access to residences and businesses affected by highway bypasses.

Impact 3.11-E Projects included in the Draft RTP could result in land use that conflict with existing or proposed nearby land uses.

Construction of transportation improvement projects could result in conflicts with adjacent land uses. Possible conflicts include:

Airports. Improvement projects could increase use of the airports thereby increasing noise impacts on adjacent residences. While air traffic at the airports is projected to grow slowly (about 1.5% per year), even this small increase over 20 years would result in additional noise impacts. Improvement projects at some airports could impact views and water quality in wells (e.g., Little River Airport). These and other possible impacts could result in land use conflicts with surrounding, particularly residential, uses. This would be a potentially significant impact.

Roads and Highways. Constructing new roads and highways could result in substantial amounts of new noise, air pollution, and traffic and changed views. This could result in land use conflicts. Such conflicts would mainly be expected for the Highway 101 projects, the Redemeyer Road extension, the second Brooktrails access, and the new north-south parallel routes in Fort Bragg, Willits, and Ukiah. This is a potentially significant impact.

As described in Impacts 3.11-A and 3.11-B, new road projects could conflict with existing agricultural land uses, and this would be a potentially significant impact.

Mass Transit. The North Ukiah Transit Center and the Fort Bragg Transit Bus Yard would likely be constructed in areas already developed with commercial and/or industrial uses. These projects are not expected to cause significant land use conflicts.

Bicycle Routes. Other than the proposed route from Willits to Brooktrails, these projects would occur along existing streets. None of these projects is expected to result in significant land use conflicts.

Mitigation Measures

The mitigation measures recommended for previous impacts in this EIR are all required for this impact, particularly those recommended for noise, traffic, air quality, aesthetics, and land use. In addition, the following mitigation is recommended.

1. The project applicant shall design the project to avoid residential areas and other sensitive receptors (e.g., schools and hospitals) to the maximum degree feasible. Where avoidance is not feasible, require the other mitigation measures recommended in this EIR to eliminate or reduce potential land use conflicts.

Impact Significance After Mitigation

It is possible that some of these projects would result in new land use conflicts or aggravate existing land use conflicts. The mitigation measures recommended in this EIR would eliminate or reduce such conflicts. However, as described in the discussion of previous impacts, there are some impacts that may not be reduced to a less than significant level, and these impacts would potentially cause significant land use conflicts. These impacts include possible noise, visual, and agricultural impacts from road and airport projects. Without knowing the precise location and design of future projects, these potential land use conflicts are considered a significant adverse impact of the Draft RTP.

Displacement of Homes or People

Impact 3.11-F Projects included in the Draft RTP could result in homes being or people being displaced.

Other than road and highway projects, other projects included in the Draft RTP would not be constructed in residential areas and would not require displacement of homes or people.

The Highway 101 projects would likely require residence demolition. The Willits Bypass alternatives would require displacement of 3 to 114 homes. Three of the alternatives would require displacement of 13 or fewer homes; only one alternative would require displacement of 114 homes (Caltrans, 2002, p. 5-11). Of these homes that would be displaced, 1-2 of the homes are low-income homes for three of the alternatives; for the fourth alternative that would require displacement of 114 homes, 62 of the homes are low income homes (Caltrans, 2002, p. 5-13).

It is possible that the Hopland Bypass could also result in the displacement of homes. The Redemeyer Road extension project and second Brooktrails access project could require displacement of homes, but it is expected these projects, given their limited size and options for location, would not require home displacement.

Other than the Highway 101 projects, the projects most likely to result in home displacement would be new parallel routes in Ukiah and Willits (the proposed Fort Bragg north-south parallel route would be through the Georgia-Pacific property, and few to no homes are likely to be displaced if this new arterial is constructed). Because these new parallel routes would potentially connect existing streets, they could require demolition or moving of homes that are located between the existing street ends. However, the potential routes, as described to date, would be developed through undeveloped land, industrial areas, or along the railroad tracks. As such, it is not expected that these projects would require home displacement.

Displacement of homes, and therefore displacement of the residents of those homes, is considered a potentially significant impact. This is particularly true for homes rented to low income households. While landowners would receive sufficient reimbursement for their property and be able to purchase another comparably priced residence, low income renters might be unable to find similarly priced rentals.

Mitigation Measures

1. For Caltrans projects, Caltrans will assist displaced residents in locating new, affordable housing. The proposed Caltrans mitigation measures for this impact are listed on pages 5-9 to 5-10 of the Willits Bypass Draft EIR/EIS and include development of a comprehensive Relocation Plan, payment of relocation assistance payments and Last Resort Housing payments, relocation and rental differential payments for mobile home residents, and working with the local jurisdiction to ensure there is adequate vacant land to construct the necessary low income housing.
2. For projects under the authority of the County or its Cities, the Lead Agency shall to the degree feasible utilize the same programs identified above as well as any other financial assistance available through local and State programs to assist low income households to relocate within the immediate area.

Impact Significance After Mitigation

Even if all the projects in the Draft RTP were constructed, it is not expected that the overall loss of residences, on a countywide basis, would be substantial. These transportation projects would be constructed over at least 20 years, and during that period, many new residential units are projected to be developed in the County. The only possible significant impact would be a loss of homes available to low income households, since there is an existing shortage of units available to those households. Requiring the appropriate Lead Agency to prepare and implement a comprehensive Relocation Program, complete with possible financial assistance, should reduce the impacts to displaced low income households to a less than significant

3.12 ENERGY

A. Setting

Energy (petroleum products and electricity) is currently used to maintain existing roads and airports. Use of these facilities also consumes petroleum products.

B. Potential Impacts and Mitigations

1. Criteria Used to Determine Impact Significance

A project will typically have a significant impact if it meets the following criterion:

- a. Uses energy or fuel in a wasteful manner. (*Assessed in Impact 3.12-A.*)

2. Impacts

Impact 3.12-A Construction and use of proposed Draft RTP projects would consume energy.

Constructing road, airport, and mass transit projects would consume fuel and other energy needed to 1) actually construct the proposed project; 2) in the transportation of materials and equipment; 3) energy consumed in the manufacturing of parts, equipment, and other aspects that support construction activities; and 4) energy consumed by maintenance operations.

Future use of these new facilities would consume fuel. Most roadway projects are proposed to improve access in specific areas in the County. These improvements (e.g., roadway widening, provision of passing lanes, constructing alternative north-south routes through Willits, Fort Bragg, and Ukiah, etc.) would reduce existing and future congestion thereby decreasing fuel consumption (since vehicles use less fuel to travel a given distance when the traffic flow is uninterrupted). For example, the energy analysis prepared for the Willits Bypass EIR/EIS showed that all but one of the four alternatives assessed would reduce fuel consumption as compared to the "No Build": alternative (i.e., leaving the highway in its present location through Willits). One alternative (the western alternative through the hills) would result in more fuel consumption due to its distance and elevation changes (Caltrans, 2002, p 5-154). A similar conclusion would be expected if other proposed roadway projects were subject to an energy audit.

Proposed airport projects are not expected to substantially increase airport use, but any additional use would increase the consumption of energy. However, there is no evidence that such increased use would be "wasteful."

The proposed Ukiah mass transit center would facilitate the use of buses in the area. Increased usage of buses per this project as well as other non-capital improvements proposed by MTA (e.g., adding service, and adding or replacing equipment such as replacing heavy duty buses with alternative fuel vehicles and retrofitting the oldest buses with particulate traps and EGR systems) would reduce energy consumption.

While energy would be consumed in constructing roadway, airport, and mass transit projects, it is assumed that Caltrans, the County, or other Lead Agencies would require that project contractors use fuels and energy in a conservative fashion. There is no evidence that fuels or other energy sources would be used in a wasteful manner while constructing these future projects. As regards use of these new facilities, once completed, it is expected that the roadway and mass transit projects would reduce fuel consumption when compared to fuel consumption if the improvements were not constructed. It is possible that airport projects could result in some increase in use, but there is no evidence that increased use of airplane operations would result in a wasteful use of fuels. The impact is considered less than significant.

4.0 TOPICAL ISSUES AND IMPACT SUMMARIES CHAPTER

This fourth chapter of this EIR contains a discussion of possible growth-inducing effects of the project, cumulative impacts, significant irreversible environmental changes, and a discussion of alternatives to the proposed RTP.

4.1 GROWTH-INDUCING IMPACTS

CEQA requires that an EIR discuss whether a proposed project will directly or indirectly induce growth of population, economic development, or housing construction (*CEQA Guidelines*, Section 15126.2[d]).

The causes of growth typically involve a complex and varied relationship between a number of factors, including economic conditions and employment opportunities, natural population increase, public policies, and the local environmental setting. Because population and/or economic growth generally produce a varied range of effects that occur simultaneously, attempts to label growth as categorically adverse or beneficial are considered subjective. Furthermore, *CEQA* does not assume that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment (*CEQA Guidelines*, Section 15126.2[d]). The Draft RTP would have the following direct and indirect growth-inducing impacts.

A. Airport Projects

The projects proposed for the three airports assessed in this EIR (i.e., Willits, Round Valley, and Little River; as the improvements proposed for the Ukiah and Boonville airports have previously been assessed in CEQA documents adopted for those airports) are proposed primarily to improve the safety and efficiency of operations at those airports. However, this improved safety could attract additional pilots. In addition, construction of new hangars at the Little River Airport and improved turn-arounds, taxiways, apron areas, and other facilities at the three airports could attract additional use.

Conversations with the firm that is preparing the airport layout plans for these three airports (and who prepared the already-adopted plans for the other two airports) indicate that those planners foresee little growth in use at the three airports (Dietz, personal communication). The Draft RTP Appendix H describes the California Department of Transportation's projections of future use of the airports. These projections show an annual increase in use of about 1.5%. The potential impacts of this additional use of the airports were discussed in the impact analyses presented previously in Chapter 3 of this EIR.

The proposed improvements are not expected to generate significant growth in the areas near the airports. Pilots are a relatively small percentage of the population. It is not expected that improving the safety and efficiency of these airports would attract a

substantial number of new residents to the communities near the airports. The increased use of the airports could result in hiring a few additional employees, but, again, the number is expected to be small and have less than significant growth-inducing impacts.

The only airport where growth could be relatively large would be the Ukiah Airport. While use is projected to grow about the same as the other airports (about 1.5% per year), a substantial increase in air freight/courier operations is expected (increasing from 7,300 aircraft operations in 2000 to 21,900 operations in 2020). This increase is expected due to anticipated growth in employment associated with light manufacturing and agricultural product processing (Draft RTP Appendix H). Thus, this increase in air freight traffic would be a response to projected growth and not an inducement of that growth.

B. Mass Transit

Constructing the North Ukiah Transit Center and the Fort Bragg Transit Bus Yard and expanding service to various points in the County is not expected to attract a substantial number of new residents to the area. Improving the efficiency and range of bus service generally does not attract new residents to an area, except perhaps in heavily urbanized areas where efficient bus or mass transit such as BART allow people to live at a considerable distance from their jobs and take mass transit to work. This is not expected to be the case in Mendocino County. However, there is the possibility that an improved bus service could attract some new residents, particularly those with low-paying jobs who would use the bus system to travel to work and other destinations. It would be speculative to forecast how many new residents might be attracted given proposed mass transit improvements, but it is expected the number would not be substantial.

C. Bicycle and Pedestrian Improvements

Improving bicycle and pedestrian facilities would increase safety for those users, expand recreational opportunities, and improve the ability to bike or walk to work, school, shopping, and other destinations. These facilities are not expected to attract a substantial number of new residents to the County. In general, people do not move to an area because of its bicycle and pedestrian facilities.

D. Roads and Highways

The one area of proposed improvements that might induce substantial growth would be the proposed road and highway projects. Most of these projects included in the Draft RTP are relatively minor improvements of existing roads and highways and their support facilities (e.g., culverts, drainage, bridges, shoulders, etc.). This class of projects are not expected to have any significant growth-inducing impacts. The potential growth-inducing impacts of the more major projects are outlined below.

1. Hopland Bypass

Constructing the Hopland Bypass would potentially reduce commute times between Sonoma County and Ukiah and points to the north. Because homes and land are less

expensive in Ukiah and adjacent areas than in Sonoma County, it is possible that the reduction in commute time could induce commuters to purchase homes in the Ukiah area or nearby areas. Between 1990-2000, homes in Ukiah were valued at an average of \$1.80 per square foot as compared to \$0.30 per square foot in Willits and \$1.98 in Cloverdale (Caltrans, 2002, p. 6-3). Though no data are available, it is suspected that home prices in unincorporated communities near Ukiah (e.g., Talmage, Redwood Valley, etc.) would be somewhat lower than the average price for homes within Ukiah.

The reduction in commute time plus lower home prices could induce additional development. However, countering this supposition are the following factors:

- In the past, the major access constraint on Highway 101 in this area has been the two-lane section of highway between the Russian River bridge south of Hopland and the northern end of the four-lane section to the south. Caltrans is currently completing the widening of this section of the highway. This section of the highway was often constrained and dangerous. From the north end of these improvements (at the bridge across the Russian River south of Hopland) to the point where the freeway begins north of Hopland is about 8.5 miles. Driving this section at the speed limit (which was considerably slower than most drivers were observed to drive) takes approximately 10.5 minutes. Most drivers travel this section quicker (driving at the posted speed limit, the EIR preparers were continually retarding traffic flows, with queues of drivers passing where there is the opportunity). While the proposed bypass may reduce the time it takes to travel between these two points, the reduction in travel time, except during peak periods during the tourist season, would not appear sufficiently substantial to be a major inducement for people to move to the area north of the proposed bypass.
- Convenient vehicular access is one consideration people use when determining where to live. Other factors include the cost of homes or land, quality of schools, perceived freedom from crime, access to recreation and public open space, visual amenities, rural or small-town atmosphere, etc. The Ukiah area has experienced substantial growth in the number of commuters traveling south in the past 2-5 years with a corresponding increase in home prices (reportedly home prices have doubled in that period) (Stump, personal communication). This growth in the number of commuters has occurred without the bypass. People appear to be moving to Ukiah for reasons other than the improved access a bypass would afford.
- Even when commuter access is constrained, growth occurs. The example of the Santa Rosa area to the south shows how even with a freeway that is frequently congested (and not simply at peak commute periods), growth continues to be allowed and occurs. Again, factors other than uncongested vehicular access are as important, and likely more important, in inducing growth.
- Even if the bypass were to induce additional people to move to the north of Hopland, that growth would be allowed consistent with the General Plans of the City of Ukiah and the County. The City of Ukiah does not have large tracts of undeveloped land available for residential development. Unless areas outside the City are annexed, future development will consist of infill of smaller parcels and/or redevelopment of currently developed property allowing higher density mixed use (Stump, personal communication).

- Most land in the Ukiah Valley outside the City of Ukiah is designated for Agriculture, Rangeland, or large lot rural residential development. Areas where smaller lots are allowed have mainly been developed. As is the case in most of the County, much of the recent home development has occurred as large lot developments allowed through the Certificate of Compliance process rather than as approval of new subdivisions. There are some exceptions; for example, the County recently approved a 125-lot subdivision in the Lake Mendocino area north of Ukiah.
- The County is currently updating its General Plan which will address the need to make additional lands available for residential development. While this plan may not be adopted for several years, the County is currently considering adoption of the *Ukiah Valley Area Plan* (UVAP); this plan would constitute the General Plan for the Ukiah Valley area. The Draft UVAP does include a number of proposed amendments to land use designations in the Ukiah Valley area. Proposed redesignations that would allow more residential development include:
 - Redesignating about 290 acres of an area located north of Vichy Springs Road and east of Redemeyer Road from Rangeland to RR-1-PD (Rural Residential, 1-acre minimum lot). Development of this area would be done as a Planned Development. A maximum of 290 homes might be developed.
 - Redesignating about 90 acres of an area known as the Brush Creek Triangle (located west of Highway 101, north of Orr Creek, and east of the railroad tracks) from Industrial to Commercial which would allow multi-family mixed use. The City of Ukiah has prepared a Draft EIR for future development of this area. That EIR assesses future commercial development and the development of 56 multi-family units in the area (Leonard Charles and Associates, 2002). It is possible that specific project applications in the area could include additional multi-family development.
 - An area including about 77 acres in the Forks Area north of Ukiah would be redesignated mainly from Agriculture (though a few other uses are currently permitted) to The Forks Rural Community. Development in the Rural Community designation allows lots of 6,000 square feet if both public water and sewer are available, 12,000 square feet if public water or sewer are available, and 40,000 square feet if neither public water or sewer are available. If water and sewer were available, a maximum of 462 lots could be created here.
 - An area including about 15 acres on Tollini Lane could be developed with 15-30 lots, depending on the availability of water and sewer.
 - Redesignating an area in the community of Calpella from a variety of land use designations to Calpella Rural Community or Rural Residential, one acre minimum. It is difficult to project the possible number of new units that could be allowed in this area. However, it is noted that the Calpella County Water District which serves the area has no water available for additional development, and little likelihood of obtaining additional water supplies in the near future. The Calpella CWD does provide wastewater

treatment and disposal. As such, it is expected that future development in the Rural Community would need to be at least 12,000 square foot lots. Given frequent well failures or low producing wells, lots may need to be larger. It is estimated that as many as 50-200 new homes could be constructed here, including possibly 50 multi-family units on a parcel adjacent to the east side of Highway 101.

These proposed changes, if adopted, would increase the development potential in the Ukiah Valley by approximately 450-1,000+ residential units. Because the County has just completed this review of future development in the Ukiah Valley, it is not expected that the revision of the entire General Plan would further revise land use designations in the area. The impacts of this increased development potential will be assessed in the CEQA document prepared for the UVAP.

- Future development near Hopland could be induced by the bypass. However, once the widening project south of Hopland is completed, commuter access to Hopland would be improved, and the proposed bypass would not substantially reduce commute times to this area.
- If the bypass were constructed to the east of Hopland, there could be pressure to redesignate lands between the existing highway and the new bypass to allow higher density residential development. Other than already-developed areas, this area is designated for Agriculture and Rangeland. The valley bottom is mainly developed with vineyards, and some of the area is within the Russian River floodplain. Development of this area would be constrained by these factors, particularly since the County continues to support land use guidelines that protect and preserve agriculture. It is speculative that this area would be redesignated to allow substantial new development.

To summarize, it is possible by decreasing the commute time between Sonoma County and Ukiah that the new bypass would be one factor making the Ukiah Valley area a more desirable place to live. The City of Ukiah and the unincorporated portions of the Ukiah Valley have plans to accommodate future growth. However, it is possible that the demand for new housing, principally resulting from people working in Sonoma County, could fill available and proposed vacant residential lands. This could result in pressures on the City and/or County to redesignate other lands to allow residential development. Because most lands not already slated for residential development are either in Agriculture or Rangelands, future redesignations could have a significant impact on prime agricultural soils and commercial agriculture. Other potential impacts on the environment from this possible induced growth could include:

- Additional potential for erosion and sedimentation of streams;
- Additional runoff of pollutants into streams;
- Development of wetlands and sensitive biotic habitats;
- Cumulative loss of habitat available to native plants and animals;

- Potential adverse impacts to listed fish species;
- Increased noise and air pollution;
- Increased traffic on Highway 101 and streets in and near Ukiah;
- Increased demand for public services and infrastructure;
- Loss of open space views and changes to viewsheds;
- Potential decrease of commercial use of agricultural lands and rangelands; and
- Increase of population.

While the proposed bypass would be only one factor in potentially inducing growth, it would contribute to this inducement to grow. Since some of the impacts listed above may be significant, it is concluded that this bypass project would contribute to potentially significant growth-inducing impacts. Such growth is a recognized objective of the Draft RTP which states that constructing Highway 101 as a 4-lane freeway/expressway, where feasible, for its entire length through the County is vital to future economic growth within the County and the wider north coast area (Draft RTP, 2002, pp. 16-18). While this growth may result in impacts on the environment, it could also foster economic growth with corresponding higher income jobs and additional housing supply.

2. Willits Bypass

Caltrans prepared a full assessment of the potential growth-inducing impacts of this project as part of its 2002 Draft EIR/EIS for the project (Caltrans, 2002, pp. 6-1 through 6-9). Caltrans determined that other than short-term economic growth during project construction, none of the proposed bypass alternatives would be expected to encourage or facilitate growth that would adversely affect the environment. These conclusions were based primarily on the following factors:

- The commute time between Willits and points to the south would not be reduced by the project.
- The project is included in the Willits General Plan, and that Plan anticipates growth to continue at existing rates until reaching buildout in 2020 at a population of 7,700, a 2,023 increase over the 2001 projected population of 5,677.
- Future development of Brooktrails would not be affected. Current infrastructure constraints, including the need for a second access and increased water capacity, would continue to limit construction in this development.
- The County's General Plan and zoning limit development potential in the unincorporated areas around Willits.
- The floodplain to the north and east of Willits and steep slopes and landsliding in hilly areas to the west are expected to constrain future development.

- Access to the new bypass would be limited to the interchanges at the north and south ends of the bypasses.

This analysis did not include the potential combined impacts of the proposed bypass and a second access to Brooktrails. Some of the preliminary routes for this second access would terminate at or near the northern bypass interchange. If one of the valley bypass alternatives were constructed and a second access to Brooktrails constructed to terminate at or near the northern bypass interchange or if the western bypass route were constructed, it could reduce the commute time from Brooktrails to Ukiah or other points south of Willits. Given the lower price of land in the Willits area compared to Ukiah and points to the south (as described on page 6-3 of the Willits Bypass Draft EIR/EIS), it is possible that the two projects together could induce development of Brooktrails. About 1,250 lots of the approximately 6,000 lots in this subdivision have been developed. Many of these lots are unbuildable due to access and topographic constraints. The Brooktrails Specific Plan projects a buildout of about 4,000 lots. It is noted that development of Brooktrails is already allowed as part of the Brooktrails Specific Plan which is a part of the County's General Plan.

While, as the Caltrans Draft EIR/EIS states, the bypass would not shorten the commute time between Willits and points to the south, it would shorten the commute time from areas to the south to the north end of Willits, Brooktrails (if the western route or a second access were constructed to intersect the bypass at its north interchange), and undeveloped portions of the County to the north of Willits. Reducing the commute time could result in faster development of vacant lots and properties in these areas due to the increased cost of homes and land to the south. Conversations with Mendocino County Planning and Building Services Department staff indicate that staff believes reducing the commute time plus improving the access safety to Brooktrails could potentially foster faster development of this subdivision, though staff believes that the effect would be modest (Pedroni, personal communication). This could result in vacant lands in Willits and unincorporated areas being developed sooner than projected in the Willits General Plan, the Brooktrails Specific Plan, and the County General Plan. The result could be pressure to amend those plans to allow additional residential development of lands currently designated for agriculture, rangeland, and/or large lot rural residential development.

Mendocino County Planning and Building Services Department staff indicated that one possible growth-inducing impact of this bypass would be the tendency for the City and/or County to redesignate lands between the developed portion of the City and the new freeway to allow urban development. However, this area is constrained by floodplains and agricultural uses. While redesignation of some of this land may be possible, it is speculative whether it could or would occur.

Another possible growth-inducing impact would be the potential for new commercial development at the interchanges north and south of Willits. These interchanges would be within the County's jurisdiction. While development potential is currently restricted at these interchanges, it is possible the County would entertain amending the land use designations to allow restaurants, motels, and other typical freeway interchange development. Caltrans staff has stated that Caltrans may target these interchange areas for conservation easements that are required as mitigation measures for the bypass impacts. However, Caltrans would only target these areas for protection if the County so requested (Ashley, personal communication).

Unincorporated lands to the north, west, and east of Willits (not including Brooktrails) are designated primarily for Agriculture, Rangelands, and Forestland. There are some properties between Willits and Brooktrails designated for 5-acre and 10-acre minimum lots and one relatively large area to the north designated for 20-acre and 40-acre minimum lots.

The proposed bypass would relieve congestion through Willits thereby allowing redevelopment of the city per its Redevelopment Plan. This redevelopment, possibly including new north-south routes through the City, could induce additional development within the City. Any new development potential would be consistent with the City's General Plan and Redevelopment Plan. While such redevelopment may be desired by the City, it could increase growth which could have potential impacts on the environment.

While it would be speculative to assume that the City and/or County would approve such amendments of their general plans, it is a possibility if there is adequate infrastructure to serve additional development. If such amendment were to occur, then additional development beyond that projected in the general plans could occur. The potential environmental impacts of this additional development would need to be assessed in the CEQA documents prepared for those general plan amendments. Without knowing when or where additional development might be allowed, it is not possible for this EIR to assess those impacts. However, at a general level, the impacts could include the following:

- Additional potential for erosion and sedimentation of streams;
- Additional runoff of pollutants into streams;
- Development of wetlands and sensitive biotic habitats;
- Cumulative loss of habitat available to native plants and animals;
- Potential adverse impacts to listed fish species;
- Increased noise and air pollution;
- Increased traffic on Highway 101 and streets in and near Willits;
- Increased demand for public services and infrastructure;
- Loss of open space views and changes to viewsheds;
- Potential decrease of commercial use of agricultural lands and rangelands; and
- Increase of population.

Some of these impacts could be significant, either at a project level or cumulatively. Recognizing the somewhat speculative nature of this analysis, it is determined that the bypass, particularly in conjunction with a second Brooktrails access, could have potentially significant growth-inducing impacts. Such growth is a recognized objective of

the Draft RTP which states that constructing Highway 101 as a 4-lane freeway/expressway for its entire length, where feasible, through the County is vital to future economic growth within the County and the wider north coast area (Draft RTP, 2002, pp. 16-18).

3. Redemeyer Road Extension

Extending Redemeyer Road to Lake Mendocino Drive would provide a second emergency access route as well as provide an alternative north-south route in a portion of the Ukiah Valley east of Ukiah. In the past, the County has denied subdivision requests in the area served by Redemeyer Road due to the lack of emergency access in the case of a wildfire or other major catastrophe. The Draft UVAP would allow additional development potential along Redemeyer Road. About 290 acres on the east side of Redemeyer Road is proposed for redesignation from Rangeland to RR-1-PD, and, if approved, would allow development of 290 lots. It is unknown whether subdivision of this site would be allowed only if the Redemeyer Road extension is constructed. The Draft UVAP states that improvement of Redemeyer Road is a high priority to serve the eastern hills (Implementation Measure CT-4.1.2 on page 10-18).

If this extension were constructed, it could induce development of the 290 acres proposed for RR-1 in the Draft UVAP as well as potential additional development of an area that is east of the proposed extension and immediately south of Lake Mendocino. This area is currently designated RR-5.

Other lands in the area that were proposed for redesignation in the Draft UVAP include the site of the formerly proposed Vichy Springs Subdivision, Phase 4. A SR designation was sought for this parcel, but the Planning Commission recommended it remain Rangeland. A similar proposal was received for the property immediately north of the existing Vichy Springs subdivision. Again, the Planning Commission recommended it remain Rangeland.

Because the Draft UVAP recommends extension of Redemeyer Road as a high priority project, the Draft UVAP recognizes the additional development potential such an extension would pose. The Planning Commission has maintained existing residential development densities in the area that would be served by the extension except for the 290 acres proposed to be redesignated as RR-1.

In addition to inducing development of this RR-1 area, the project could result in future requests to allow additional development potential on lands currently designated RR-5 or Rangeland. However, given the fact that the County has not increased development potential on those other properties as part of preparing the Draft UVAP, approval of future requests for amending the General Plan is considered speculative.

The project would induce development of at least 290 new residences in the area. This development could have similar impacts on the environment as previously outlined for the bypass projects. The significance of these impacts would be assessed in the CEQA document prepared for the Draft UVAP. It is assumed that the CEQA document that will be prepared for the Draft UVAP will either determine that the impacts can be reduced to a less than significant level or that the County will either revise the Draft UVAP to not allow any additional development in the area (beyond what is allowed under the existing County General Plan) served by that road and/or eliminate the road extension project.

However, it is possible that the County would include the road extension and the land redesignation previously described even if there is one or more remaining significant impacts, and approve the UVAP with a Statement of Overriding Considerations. In the latter case, the project would have significant growth-inducing impacts. This determination of the significance of the growth-inducing impact will be made when the County adopts the CEQA document for the Draft UVAP.

4. Second Brooktrails Access

The potential growth-inducing impacts of the proposed second access to Brooktrails depends on which alternative route is selected for construction. The more likely alternatives include those that provide access from the northern end of Brooktrails, as these alternatives not only provide the needed second emergency access, but would potentially provide congestion relief by accessing the proposed northern interchange on the Willits Bypass.

Construction of these northern access routes would traverse lands designated by the County as RR-10 and RR-20. Construction of the road through these properties could induce additional growth on these parcels, given the improved access. However, these properties are constrained by slopes. In addition, the amount of new development would be relatively low given the large lot sizes allowed under the County's General Plan. While the presence of the road could induce property owners along the new road to request an amendment of the General Plan, there is no evidence that the County would support such an amendment given ample land for development in the City of Willits to the south and the many remaining vacant lots in Brooktrails. However, there are about 80 acres of undeveloped land in the City's northwest corner that is currently accessed by Sherwood Road. This area is designated for single-family residential development (R1). In the past, this area has not been developed in part because of existing congestion on Sherwood Road. Willits City staff believes that construction of a second access would relieve congestion on Sherwood Road and potentially induce development of this 80 acres (Falleri, personal communication). While such future development would be consistent with the City's General Plan, it would result in potentially significant environmental impacts.

The three southern alternatives routes would similarly traverse properties with some development potential, including RR5, SR, and Rangeland lands. While some additional development could result from these southern accesses, the potential impacts are considered less than significant given existing County land use designations plus the fact that these alternatives appear less likely to be selected.

It is unclear whether the second access would induce more rapid buildout of the Brooktrails subdivision itself. County Department of Planning and Building Services staff did not believe buildout of this subdivision was currently constrained by the absence of a second access (Pedroni, personal communication). However, Willits Planning Department staff opined that in the past some potential residential buyers have been dissuaded from purchasing or constructing a home in Brooktrails because of the safety and congestion concerns associated with the community having only one access (Falleri, personal communication.). It is possible that the second access would potentially induce more rapid development of Brooktrails than would otherwise be the case.

In addition to the possible growth-inducing impacts discussed above, a second Brooktrails access in combination with the proposed Willits Bypass could have growth-inducing impacts. If the western bypass alternative were elected, it would provide easy access to Brooktrails, thereby potentially speeding up the development of that subdivision. If an eastern bypass were selected and included an interchange at the truck scales, and if a northern Brooktrails second access were developed that afforded access to this northern interchange, then Brooktrails residents could more easily access Highway 101 and avoid driving through Willits. This again could induce a more rapid development of Brooktrails.

The potential growth identified above would be consistent with adopted land use plans for the City and Brooktrails, so the site specific impacts of that development would not be expected to be significant. However, together the possible induced growth could result in increased traffic, air pollution, noise, and demand for public services. This second access would have potentially significant growth-inducing impacts. These impacts would be further assessed in the CEQA document prepared for that project.

5. New North-South Routes in Fort Bragg

The new Fort Bragg General Plan recommends construction of a north-south arterial paralleling Highway 1 to the east. The road would be constructed through the Georgia-Pacific property at such time as that property is redeveloped (the mill is closed). The EIR prepared for the General Plan indicates that such a road could be constructed without causing any significant impacts. The road would not induce additional growth, which is limited primarily to infill development within the existing City limits by the General Plan. The EIR determined that the General Plan, which includes this possible road project, would not have any significant growth-inducing impacts (Leonard Charles and Associates, 2002).

6. New North-South Parallel Routes in the Ukiah Valley

No routes paralleling Highway 101 have been formally proposed, though the Draft UVAP contains a number of possible routes. These include the Redemeyer Road extension assessed above as well as 1) extending Orchard Avenue (located west of Highway 101) from its existing northern terminus at Orr Creek through the Brush Creek Triangle to Ford Road (including a possible southbound on- and off-ramp connection to Highway 101 at Brush Street) and then parallel to the railroad tracks to Hensley Creek Road; 2) extending Orchard Avenue south via an improved Waugh Street to Airport Park Boulevard which would either be connected to a new southbound Highway 101 on- and off-ramp or connected to Plant Road and back to South State Street; 3) possible extension of Sanford Ranch Road or some other road accessing the Rogina Heights subdivision north to Vichy Springs Road, and 4) east-west collector extensions to these north-south roads including extending Orr Springs Road, and Hensley Creek Road to the proposed Orchard Avenue extension.

Future consideration of these road extensions and improvements would be subject to feasibility studies and CEQA analyses. The construction of one or more of these extensions would relieve congestion in Ukiah and the adjacent portions of the Ukiah Valley. The extension of Orchard Avenue from its current northern terminus to Ford Road would have significant growth-inducing impacts as identified in the Draft EIR prepared for that project (Leonard Charles and Associates, 2002). These growth-inducing impacts are caused by providing more efficient access to a mainly undeveloped area of about 95 acres (called the Brush Street Triangle) that is located between the railroad tracks, Highway 101 and Orr Creek. The Draft EIR prepared for this possible road extension identified the following potentially significant growth-inducing impacts:

- Increased erosion and sedimentation of streams;
- Potential increase in flooding;
- Increased runoff of water pollutants;
- Reduction of groundwater recharge;
- Potential loss of riparian habitat;
- Loss of open space and biotic habitat;
- Increased congestion at 12 intersections;
- Generation of air pollutants;
- Loss of open space views;
- Increased noise on two residential streets;
- Increased demand for all public services;
- Increased use of energy;

- Loss of agricultural uses; and
- Increased population (Leonard Charles and Associates, 2002, pp. 33-52).

That Draft EIR determined that all of these potentially significant growth-inducing impacts could be reduced to a less than significant level by implementing mitigation measures recommended in the Draft EIR except for traffic congestion on East Perkins Street between Orchard Avenue and the Highway 101 southbound ramps.

Extension of Orchard Avenue further to the north would likely also have growth-inducing impacts between Ford Road and Hensley Creek Road, as would the extensions of Hensley Creek Road and Orr Creek Road to this new Orchard Avenue extension. Improving access to the south along Waugh Road and to a new freeway ramp or Plant Road would likely not have significant growth-inducing impacts given already-allowed development in the Airport Industrial Park and Redwood Business Park. The Draft UVAP does not include any proposed redesignation of properties along this northern extension of Orchard Avenue. However, this extension and attendant improvements could induce future growth.

Constructing a new collector from Sanford Ranch Road or some other road accessing the Rogina Heights subdivision north to Vichy Springs Road could induce additional growth though the area through which such a road would pass is either already designated for Suburban Residential development (Rogina Heights subdivision) or Agriculture and Rangeland. The Draft UVAP does not include any proposed redesignations of properties in the area that would be served by this potential; new road extension.

To summarize, at least some of these possible north-south extensions could induce additional development, in addition to relieving existing traffic congestion. The long-term impacts of such induced growth would be similar to the list of impacts presented above for the extension of Orchard Avenue through the Brush Street Triangle. The CEQA document that will be prepared for the Draft UVAP and/or for the revision of the County's General Plan will need to examine these growth-inducing impacts.

7. New North-South Parallel Routes in Willits

Two potential routes have been identified. The first is the Baechtel Road/Railroad Avenue connector; this proposed parallel route is on the east side of Main Street (Highway 101). The City has a grant to study the feasibility of this new connector. The connector would extend north from Baechtel Road before it turns west back toward Highway 101 and connect with the southern end of Railroad Avenue. This new connector would provide better access to an area designated for Industrial development. The area currently contains some industrial uses and storage, but it is not extensively developed. However, the area is mainly devoid of natural habitat. This extension would require widening an existing bridge across Baechtel Creek. This road extension would have potentially significant growth inducing impacts similar to those listed previously for the Orchard Avenue extension. These impacts would be assessed in more detail when an actual route is selected and proposed.

The second potential route would be to extend North Street south to Coast Street; this project would include improvements to the Coast Street/Blosser Lane/Highway 20 intersection. This parallel route is on the west side of Main Street. There is no formal

proposal for this route. The southern extension of North Street would require major earthwork due to the large hill south of the current southern terminus of North Street. As the area through which this extension is proposed is mainly already developed, it is not expected that this extension would have substantial direct growth-inducing impacts. However, indirect growth could be induced to the north or south. If and when this route is formally proposed, the growth-inducing impacts of the route would need to be addressed in the CEQA document prepared for that project.

8. North State Street Widening

Widening a portion of North State Street north of Highway 101 would include providing a continuous left-turn lane, bike lanes, and some shoulder widening. While these improvements will facilitate traffic movement and safety through this congested section of road, the project is not expected to significantly induce new development along the road.

9. Relationship to Plans and Projections

Each of the jurisdictions within the county have General Plans which guide where new development can occur. The road projects discussed above can be seen as growth accommodating, since they would provide necessary access for the larger population allowed in the General Plans of Willits, Fort Bragg, Ukiah, and Mendocino County. Each of these jurisdictions allows and projects growth within their jurisdiction. The State Department of Finance projects the County's population will grow from 86,265 in 2000 to 118,804 in 2020 and 133,440 in 2030. These projections indicate that the State projects a much more rapid population increase than has occurred in the past. Between 1990 and 2000, the population grew by 6,280 people, or a 7.4% increase. The projected growth to 2020 is a 37.7% increase.

There is no evidence that the State's projected growth would be less if the proposed projects were not constructed. However, it is possible that in addition to accommodating this projected growth, the major road projects described above could facilitate even more growth than projected.

E. Summary

The following projects have potentially significant growth-inducing impacts:

- Highway 101 Willits Bypass
- Highway 101 Hopland Bypass
- Brooktrails second access
- Redemeyer Road extension
- New north-south parallel routes in the Ukiah area
- New north-south parallel routes in Willits.

If all the projects were constructed, they would facilitate movement from the Sonoma County line to north of Willits. The provision of a four-lane freeway would facilitate travel by people working in Sonoma County to homes in the southern part of the County and the Ukiah Valley area and by people working in Ukiah to their homes in Willits, Brooktrails, and/or points to the north.

These projects could induce additional residential, commercial and/or industrial development on properties immediately adjacent to the new roads or nearby areas that would gain better access to Highway 101 or other major arterials if the proposed projects were constructed. This induced development would have the following potentially significant impacts:

- Increased erosion and sedimentation of streams;
- Potential increase in flooding;
- Increased runoff of water pollutants;
- Reduction of groundwater recharge;
- Potential loss of riparian habitat;
- Loss of open space and biotic habitat;
- Potential loss of wetlands;
- Direct and indirect impacts on special status species;
- Loss of historical and archaeological resources;
- Increased traffic congestion;
- Increased air pollution;
- Loss of open space views;
- Increased noise;
- Increased demand for all public services;
- Increased use of energy;
- Loss of agricultural uses; and
- Increased population

The potential growth-inducing impacts would need to be examined in further detail in the CEQA documents prepared for each of these projects as well as the CEQA documents prepared for the Draft UVAP and the revision to the County's General Plan. At the program level, the growth-inducing impacts of these projects are considered significant.

4.2 CUMULATIVE IMPACTS

A. Introduction

While all or most of the proposed projects are consistent with existing or draft update versions of the General Plans of the County and its Cities, this EIR will not rely on that fact to dismiss the analysis of cumulative impacts. The Cities of Willits, Fort Bragg, and Ukiah and the County were contacted to develop a list of projects for which some type of application had been submitted and projects that have been approved but not constructed. The City of Point Arena was not contacted since the Draft RTP does not include any major projects in the Point Arena area. The jurisdictions provided the following list of major projects.

Willits Area

- The possible Brooktrails second access project.
- Harwood General Plan Amendment (GPA) (GP# 12-99) which would allow 12-17 five-acre parcels on a property west of Willits and north of Highway 20.
- A Use Permit for 54 units of affordable housing at the south end of Willits on the east side of Main Street.
- Expansion of the Willits wastewater treatment facility.

Calpella Area

- A major subdivision (S# 2-2000) creating 11 five-acre parcels on Marian Drive in Calpella.

Ukiah Area

- A General Plan Amendment (GP# 4-2002) to redesignate 3.8 acres north/west of Lovers Lane from Industrial to Commercial; approved by the County Board of Supervisors.
- West Fork Subdivision off of Lake Mendocino Drive - 126 lots in three phases; this is an approved subdivision, and 27 building permits have been issued as of 10/21/02.
- Rose Industrial Park, including warehousing, office, and storage, on Kunzler Ranch Road off of N. State Street - an approved five-phase project with 105,000 square feet of buildings completed, 61,000 square feet in construction and 108,000 square feet to be constructed in phases 3-5.
- Rural Community Housing Development Corporation - 30 units on Lake Mendocino Drive, three preapplications have been submitted, but no formal application had been submitted as of 10/21/02.
- *Ukiah Valley Area Plan* - a draft of this specific plan has been developed but not approved; a CEQA document would be required prior to approval.

- *Mendocino County General Plan* - a revision of the County's General Plan is underway; an EIR will be prepared for this general plan revision.

Fort Bragg Area

- *Fort Bragg General Plan* - a new General Plan was adopted in December 2002; an EIR was prepared and certified for this plan revision.
- Coast Clinic - medical offices near the County offices on S. Franklin Street.
- 60 units on the south bluff of Pudding Creek, west of Main Street; no formal application has been submitted.
- Pacific Marine Farms - an aquaculture project at the north end of the Georgia-Pacific property; an EIR is being prepared.
- Glass Beach - purchase of 37 acres as a State Park; located north of the Pacific Marine Farms project.
- Habitat for Humanity - 10-lot subdivision on Oak Street.
- Rural Community Housing Development Corporation - 7 units on Oak Street.

B. Cumulative Impacts

The Draft RTP projects combined with the projects listed above could have the following potentially significant cumulative impacts.

1. Water Quality

Construction of all projects can potentially result in soil erosion which can deposit sediments in streams and other bodies of water, thereby decreasing the quality of the water. This in turn can adversely impact aquatic wildlife and other wildlife dependent on that water quality. However, the projects included in the Draft RTP are required to comply with the provisions of permits issued by the RWQCB and, depending on the project, the Army Corps, the Department of Fish and Game, and the National Marine Fisheries Service. Compliance with these permits will reduce the project-specific and cumulative impacts of the Draft RTP projects to a less than significant level. The other projects listed above will similarly be subject to pertinent permit requirements.

Construction of all projects, along with increased use of motor vehicles, will result in increased runoff of pollutants into waterways. As discussed under Impact 3.2-B, this is expected to be a significant impact only within urbanized areas. This Draft EIR requires Draft RTP projects to comply with the requirements of Phase II Municipal Stormwater Plans when those plans are adopted. Until adoption or where a Plan is not required, projects will be reviewed by the Department of Fish and Game to determine the need for pollution controls for new projects. This mitigation would reduce the Draft RTP projects' contribution to a less than significant level.

2. Flooding

All projects would increase runoff, thereby potentially increasing the area exposed to flooding or the length of time flooding could occur. This Draft EIR requires Draft RTP projects to be assessed to ensure that adequate drainage is provided without causing increased flooding either from the project or cumulative development in the watershed. This will reduce the cumulative flooding impacts of Draft RTP projects to a less than significant level.

3. Groundwater

Future projects would result in covering of aquifer recharge areas with impermeable surfaces, thereby reducing groundwater recharge. This Draft EIR requires mitigation for Draft RTP projects that would reduce aquifer recharge areas by more than one percent. However, the combination of Draft RTP projects and other proposed projects, especially those in the Ukiah and Little Lake Valleys, could substantially reduce groundwater recharge. This is a potentially significant impact. While this Draft EIR recommends mitigation measures for Draft RTP projects to reduce this impact to a less than significant level, it does not have the authority to require similar mitigation measures for projects under the jurisdiction of other Lead Agencies. As such, this is a potentially significant cumulative impact.

4. Mineral Resources

The combined projects would increase the demand for aggregates, thereby reducing the supplies at aggregate sources inside and outside the County. As recommended in the mitigation measures for Impact 3.1-E, when revising its General Plan, the County should ensure that it has reserved sufficient aggregate supply sources to meet projected demand in the County.

5. Biotic Resources

The combined projects could result in the loss of special status plants and animals, habitat necessary for the survival of those species, sensitive plant communities, and wildlife travel corridors. This Draft EIR recommends mitigation measures to reduce these impacts resulting from Draft RTP projects, but impacts to special status species of wildlife, sensitive plant communities and wetlands would remain significant impacts. Other projects could also be expected to adversely affect special status species of wildlife, sensitive plant communities, and wetlands. As such, the RTP projects plus other new development would have significant cumulative impacts on those resources.

6. Transportation and Circulation

RTP projects, in and of themselves, are not expected to generate new vehicle trips. Instead, existing trips would be re-directed onto new roads. The individual projects listed above are not large in size. They are not expected to generate substantial numbers of new trips, particularly in any one part of the County. However, each project would need to be assessed during its CEQA review to ensure the project does not adversely affect levels of service on nearby roads or intersections.

Future projects possible under the new General Plans for the County and Fort Bragg as well as the Draft UVAP could generate a substantial number of new trips. The Draft UVAP could result in as many as 450-1,000 new residential units as well as additional non-residential development. This could generate as many as 4,500-10,000 new trips per day using local roads. The City of Fort Bragg's new General Plan will allow as many as 803 new residential units, 300 motel units, and 273,000 square feet of new nonresidential development over the next ten years. The Cities of Ukiah's and Willit's General Plans are older, but they also allow considerable new development. The environmental impacts of this new development was assessed in the EIRs prepared for the Cities' General Plans, and the impacts were found to be less than significant. The impacts of development allowed under the proposed UVAP and the County's General Plan revision have yet to be assessed in a CEQA document. The traffic impacts of the new development allowed under the Draft UVAP and the County's General Plan revision will need to be assessed in those CEQA documents, once the County finalizes where new development would be allowed. It is speculative what the long-term impacts of that new development would be.

However, because the RTP projects do not generate new traffic, the RTP projects would not be a part of any potentially significant cumulative traffic impact. Potential growth caused by RTP projects could result in new traffic as was discussed in the previous section (Section 4.1).

7. Aesthetics

The Draft RTP projects plus the other projects would reduce the amount of open space views in the County. Open space views would be replaced with views of new roads, other transportation improvements, residential buildings, and non-residential buildings. This impact was identified as potentially significant for RTP projects. Those projects would combine with other new development to have a potentially significant cumulative impact on visual resources.

8. Air Quality

As described in Section 3.6 of this EIR, all air quality impacts resulting from RTP projects can be reduced to a less than significant level. As discussed above, RTP road projects would not generate new traffic. While there could be some localized air quality impacts along new road sections, these impacts can be reduced to a less than significant level. In addition, the redirected traffic would reduce emission of pollutants on those roads currently used by travelers. As the roadway projects would reduce traffic congestion, there would be an overall reduction in air pollution. Expansion of mass transit and non-motorized resources and facilities would also reduce air pollution.

While projects assessed for cumulative impacts would result in new traffic and, thus, emission of air pollutants, the RTP projects would either have an insignificant contribution to that impact or, even, a beneficial impact. Draft RTP projects would not contribute to a significant cumulative air quality impact. The air quality impacts of the other projects would need to be assessed during the CEQA review for those projects.

9. Noise

Similar to air quality impacts, RTP road projects would not generate new trips but rather re-direct where some of those trips occur. While this could increase noise along new road or highway sections, this EIR includes mitigation measures that would reduce any noise impacts to a less than significant level. However, the projects assessed for cumulative impacts, particularly buildout under the UVAP and general plans would increase noise along these new road sections. It is possible that this new traffic, even if mitigations are implemented, could generate noise levels exceeding County or City acceptability standards. Thus, there would be a potentially significant cumulative noise impact on the Highway 101 bypass projects, Redemeyer Road extension, second Brooktrails access, and new north-south routes in Willits and Ukiah.

10. Land Use

Other projects could result in the loss of prime agricultural soils or development that adversely affected Williamson Act contract properties. These impacts were identified as significant for the RTP and would also be considered significant cumulative impacts. Future development could also result in land use conflicts with existing development. This is considered both a project-specific and cumulative significant impact.

Future projects would need to be assessed by the pertinent jurisdiction to ensure consistency with that jurisdiction's general plan.

11. Other Factors

The Draft RTP projects have minimal impacts on public services, so they would not combine with other projects to have a significant cumulative impacts on public services and infrastructure. While this EIR concludes that Draft RTP projects could have potentially significant impacts on archaeological and historical resources, those impacts are site-specific. There would not be additional impacts resulting from the RTP projects and other development. All new development will require energy to construct and use. However, such an increase in energy use is a necessary component of growth. As there is no evidence that Draft RTP projects would be constructed or use energy in a wasteful fashion, there would not be a significant cumulative impact as regards energy use. The RTP projects would not combine with the other projects to result in any additional geologic impacts other than erosion potential. While other projects could require the use of hazardous materials, this use of such materials is independent of RTP projects. Other hazards would be site-specific.

C. Conclusion

The projects included in the Draft RTP would combine with potential impacts from other projects assessed for cumulative impacts to result in the following potentially significant cumulative impacts:

- Deterioration of water quality due to runoff from roads and other paved areas.
- Loss of habitat used by special status species of wildlife.
- Loss of sensitive plant communities.

- Filling of wetlands and other waters of the U.S.
- Loss of groundwater recharge areas.
- Excessive noise along some new streets and highway sections.
- Loss of open space views and replacement with views of new development and new lights.
- Loss of prime agricultural soils.
- Adverse effects on Williamson Act contract properties.

4.3 **SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES**

The *CEQA Guidelines* require that an EIR discuss irreversible environmental changes that would occur if the project were approved (Section 15126.2[c]). Future development of projects included in the RTP would irretrievably commit the following resources (as described in detail in Chapter 3 of this EIR):

- Aggregates;
- Energy and non-renewable energy sources;
- Open space;
- Biotic habitat;
- Archaeological and historical resources;
- Prime agricultural soils;
- Commercial farming; and
- Existing land use patterns.

4.4 PROJECT ALTERNATIVES

CEQA requires that the EIR examine a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially decrease any of the potentially significant effects of the project. As noted in Chapter 3 of this EIR, the Draft RTP would have a number of significant impacts. As such, this EIR assesses alternatives to the Draft RTP. The *CEQA Guidelines* offer a number of requirements and recommendations regarding the alternatives analysis as summarized below.

The EIR must

- A range of reasonable alternatives must be assessed. The range must be sufficient to permit a reasonable choice of alternatives so far as environmental aspects are concerned. The EIR need not assess multiple variations of alternatives. The range of alternatives to be assessed is governed by a rule of reason.
- Alternatives must be ones that could feasibly attain most of the basic objectives of the proposed project. While alternatives can impede the attainment of the objectives, they should not substantially impede those objectives. Alternatives that fundamentally change the nature of the project do not meet the basic objectives of the project.
- The alternative must be feasible. Feasibility takes into account factors such as site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans and regulatory limitations, jurisdictional boundaries, and ability to acquire, control, or access alternative sites.
- The analysis of the alternative must determine whether it reduces the significant impacts identified for the project. If the alternative would generate additional significant impacts, those must be identified and discussed.

The EIR must assess the identified alternatives and determine which among the alternatives (including the project as proposed) is the environmentally superior alternative. One of the alternatives to be assessed is the "no project" alternative (see discussion below under that heading). If the no project alternative is identified as the environmentally superior alternative, then another of the alternatives shall be identified as the environmentally superior alternative of the remaining alternatives.

Given these mandates, this EIR assesses the following alternatives:

1. No Project
2. Alternative Transit Focus
3. Two-lane Highway 101 Bypasses

Alternative 1 - No Project

If none of the projects included in the Draft RTP were constructed, none of the potential impacts identified in this EIR would occur. There would be no increase in landsliding or

erosion potential, no additional sedimentation or pollution of streams, no loss of native plant or wildlife habitat, no potential damage to cultural resources, no increased air pollution or noise along new roadway routes, no change in existing views, etc. However, there would be increased traffic congestion on existing streets and highways. There would be increased congestion on Highway 101 in the Willits and Hopland area and on City and County roads in the Ukiah and Willits area. This increased congestion would reduce the level of service on those highway and road sections. Increased congestion could result in increased air pollution. Not expanding MTA facilities and services would increase use of private vehicles as well as reduce the ability of people who do not have access to private vehicles to travel. Not constructing proposed airport improvements would not likely reduce use of those airports but would also not improve the safety and efficiency of those airports.

The alternative of not adopting a new RTP is not a feasible alternative. This is because the State requires that every area have an adopted RTP, and Senate Bill 45 requires that the RTP be updated every four years. The RTP is required to be a long-range (20 year) plan that describes how various levels of government, public and private organizations, and individuals will work together to meet future regional transportation needs.

If the Draft RTP is not approved, then MCOG would continue to rely on the existing RTP until such time as an acceptable revised RTP were adopted. MCOG legally must have an RTP, so there is no the possibility of there being no RTP. The existing 1996 RTP contains most of the same proposed large projects that are included in the current Draft RTP, including:

- Highway 101 bypasses of Hopland and Willits and eventual widening of Highway 101 to four lanes throughout the County;
- Adding passing lanes to Highway 20;
- Construction of a second Brooktrails access;
- Widening East Side Potter Valley Road;
- Extending Redemeyer Road to Lake Mendocino Drive;
- Widening North State Street from Highway 101 to Hensley Creek Road;
- Construction of the North Ukiah Transit Center; and
- The recommended actions for the five airports are essentially the same as included in the current Draft RTP.

Other than parallel routes to Highway 101 in Willits and Ukiah, most of the major projects that would have potentially significant impacts are included in the adopted RTP. When the existing RTP was adopted, a Negative Declaration for that RTP was approved. Thus, in 1996, the RTP, including most of the same major projects included in the Draft RTP, was found to have less than significant impacts with the inclusion of then-recommended mitigation measures. The environmental impacts of future projects constructed per the existing adopted RTP would be basically the same as predicted for projects under the Draft RTP. However, the required mitigation measures recommended in this EIR are considerably more detailed and protective of environmental resources than those adopted for the existing RTP. As such, future project development under the Draft RTP would have fewer environmental impacts than if these same projects were constructed per the existing RTP.

The No Project alternative would have more significant impacts than the proposed RTP (including EIR-recommended mitigation measures).

If the Draft RTP were not adopted, then MCOG would need to develop a new Draft RTP, and this Draft RTP would need to undergo CEQA review. However, it is unknown what changes to the currently proposed RTP would be included in that revised Draft RTP. All the major projects are projects that have been recommended transportation improvements for many years. Other than constructing the Highway 101 bypasses as two-lane rather than four-lane bypasses and concentrating funding on train, bus, and other alternative traffic modes rather than roadway improvements, the EIR preparers are unaware of any other major alternatives that have been presented either by governmental agencies or the public. These latter two alternatives are addressed in Alternatives 2 and 3 below.

Alternative 2 - Alternative Transit Focus

As requested by two commentors on the Notice of Preparation, this alternative would include expanded MCOG funding of mass transit, railroad, and non-motorized travel modes. As requested in the letter from the Willits Environmental Center (included in Appendix A), this alternative would include the following components:

- Providing hourly express buses from Laytonville to Willits, Willits to Ukiah, Ukiah to Hopland, and Fort Bragg to Mendocino.
- Providing fixed route bus service on 15-minute intervals along major thoroughfares in the cities listed above.
- Providing passenger and freight rail service from Willits south out of the County and freight service from Willits to Fort Bragg.
- Encouraging bus use by methods such as property tax reduction with proof of transit use, incentives for businesses and companies whose employees commute using public transit, developer fees, and owner/renter incentives to use transit.
- Constructing bike and pedestrian paths from the south coast to MacKerricher State Park (north of Fort Bragg).

The Draft RTP includes specific elements that address these alternative transit modes. In considering this possible project alternative, the following factors should be kept in mind:

MTA receives money for its operations primarily from Transportation Development Act (TDA) funds. MTA currently receives virtually all TDA funds disbursed by MCOG (with a small amount retained for administration and planning). MCOG does not have other discretionary funds that can be allocated to MTA for operations. MTA's current operating budget is about \$3,000,000. TDA funds provide about \$2,000,000 and Federal operating assistance funds provide about another \$200,000.

MTA staff briefly reviewed this proposed expansion of their bus service and opined that it would require about a ten-fold increase in service, thereby requiring a ten-fold increase in cost and needed subsidies (Richard, personal communication). While MCOG may

have some discretion of providing additional funds for certain capital costs that would be required for such an expansion of service, MCOG would not be able to disburse any additional funds needed to operate such an expanded system. Passenger fares and other MTA user revenues constitute only a small percentage of the operating costs. Thus, such an expansion is considered infeasible given current State and Federal programs of subsidizing bus transit.

Regarding the proposals to encourage bus use by tax reductions and other incentives, MTA does not have the ability, even if they are legally feasible, to institute any of these measures. They are all programs that would need to be developed and implemented by whatever entity controls land use within the County and/or the State. As such, these programs are not considered feasible for this EIR.

As regards rail traffic, MCOG does not have the ability to directly fund any railroad operations. All railroad improvement funding must come directly from the State or Federal governments. The Draft RTP does support improved rail transit through the County (see Draft RTP, p. 64). As the Draft RTP states, "MCOG will continue to monitor and support the development of passenger rail into, and through Mendocino County," (Draft RTP, p. 66)

The North Coast Railroad Authority (NCRA) has prepared a long-term feasibility study that examines potential future demand and use of the railroad (PB Ports & Marine, 2002). This study concluded the following:

- Due to the relatively low population density on the NCRA corridor, intercity passenger service demand was found to be insufficient to warrant additional analysis. All the long-range plans for NCRA do not include intercity passenger service (PB Ports & Marine, 2002, p. S-8). Thus, the proposal to carry passengers is considered infeasible.
- Hauling freight from Willits to the south was found to be fiscally infeasible. Unless NCRA hauled freight along the entire 300 mile length of the line, it would be fiscally infeasible to operate the train line. "The fixed costs of operating a railroad are too high to support the proposed 141-mile route between Willits and Schellville" (PB Ports & Marine, 2002, p. S-12)

Given NCRA's feasibility study, it is concluded that the proposed passenger and rail freight from Willits south is an infeasible proposal and would not be implemented by NCRA. This alternative does not include future operations of the entire 300-mile length of the line. However, if this were added to the alternative, it would substantially reduce truck traffic on Highway 191. However, as described previously, it is unknown when, if ever, this line will be opened and operational. Opening of this line for its entire length is considered speculative for the purposes of this EIR. In this regard, it is noted that NCRA's feasibility study concluded:

Given the results outlined in the chart above, the financial model demonstrates that without both aggressive market penetration and a reasonable increase in tariff that is on pace with inflation, it is very difficult to make it to even a breakeven point. It is also critical to understand that the railroad is cash flow positive only with the most optimistic projections. (PB Ports & Marine, 2002, p. S-11)

Given that it is quite unlikely that the railroad would be able to operate without State or Federal subsidies and that it is unknown whether such subsidies would be forthcoming, it seems appropriate for MCOG to consider re-opening of the entire length of this line as speculative for purposes of the environmental analysis.

As regards bike and pedestrian access for tourists, the Draft RTP does include new bike paths in Fort Bragg. Future bike and pedestrian paths along the coast and elsewhere will be more fully explored and developed in the proposed Regional Non-Motorized Transportation System Master Plan. While additional bike and pedestrian paths for tourists would enhance visitor use and increase safety, it is not expected that such a system of paths would reduce motor vehicle travel on regional and local highways and roads. The number of people who would walk or bicycle from distant point to the coast or other tourist destinations is expected to be very low. Virtually all tourists will drive to the area and then walk or bicycle on local paths.

If the suggested components of the alternative were feasible, it could result in substantial environmental benefits. There would be a reduction in heavy truck and private vehicle traffic on Highway 101. The feasibility study prepared for NCRA projected that the railroad would likely transport about 9,400 rail cars loads of freight per year (this is the "medium" projection, and it would occur only after the train had been in business for several years; PB Ports & Marine, 2002, p. S-5). This reduction in traffic would reduce the emission of air pollutants and traffic-related noise. It is possible that two-lane bypasses would operate at acceptable levels of service. As regards growth-inducing impacts (and therefore future impacts on water, other public services, open space, and other resources), this alternative would likely induce as much, if not more, growth in the County than the proposed project. Facilitating passenger movement between Willits and Ukiah and employment centers to the south would likely induce in-migration of commuters. The construction of Highway 101 bypasses, even if they are two lanes, would combine with improved mass transit options to induce as much, if not more, growth than the proposed four-lane bypasses and other RTP improvements.

It is possible to envision a future scenario where 1) the County was connected to the north and south by a fully functioning train system capable of operating at sufficient travel speeds to be desirable to commuters, shoppers, and tourists as well as to shippers of goods; 2) a bus system connecting all major population centers on a regular basis and provide frequent fixed route service to all major arterials, shopping centers, employment centers, schools, parks, and other high use areas; and 3) a coordinated system of bicycle and pedestrian paths that linked schools, residential areas, employment centers, and shopping centers. However, such a scenario is considered an infeasible alternative for this EIR for the reasons presented above. Such a scenario would require major changes in State and Federal subsidies and funding and would likely require major changes in the travel expectations and motivations of the public. MCOG does not have the jurisdiction or ability to require these changes. It should also be noted that there could be significant impacts on roads and intersections within the County if finances which are currently designated for roadway circulation improvement were transferred to financing other transport modes. While it is possible that over the long term, improvements to mass transit modes of travel could reduce vehicle trips on the roadway system; however, this could take many years or decades to occur, if at all. In the meanwhile, there could be increased traffic congestion on the roadway system (with consequent air quality, noise, and other impacts associated with traffic congestion)

if the limited finances available for transportation projects were substantially directed away from roadway improvement projects.

While MCOG has little to no latitude for developing such a future scenario, the Draft RTP does encourage development of all these alternative modes of traffic and funds their construction and operation to maximum levels. While MCOG can also encourage other public entities to approve additional funding for such alternative modes and encourage the County and the Cities to integrate alternative transit modes into their General Plan processes, MCOG cannot mandate any of these changes. While this EIR would certainly encourage MCOG to actively support development of such alternative modes of travel and to continue to finance those modes to the maximum level allowed, an alternative that includes a major expansion of bus and rail services is considered infeasible.

Alternative 3 - Two-Lane Highway 101 Bypasses

Alternative 3 assesses the potential impacts of constructing a two-lane bypass rather than a four-lane bypass around both Willits and Hopland. This alternative was selected for analysis because many of the significant impacts identified in Chapter 3 of this EIR resulted from the Willits Bypass. In addition, two members of the public that commented on the Notice of Preparation requested an analysis of a two-lane Willits Bypass. Construction of these two-lane bypasses could have the following impacts as compared to the proposed bypasses.

Geology. The bypasses would not need to be as wide, thereby reducing the amount of earthwork required. Conversations with Caltrans staff indicate that the footprint of a two-lane bypass would be approximately 60% the size of the four-lane bypass (this would provide sufficient space for some passing lanes, some median between the lanes, and sufficient shoulder to allow future expansion when warranted; Ashley, personal communication). This would reduce the potential for soil erosion and stream sedimentation. However, this impact is not considered significant after mitigation for the projects as proposed. The narrower bypasses would not require as much fill and pavement, thereby reducing the need to develop borrow sites and use aggregate from existing quarry sites. It is possible that the narrower bypasses could avoid landslide impacts, though any western alignment through the hills would probably have a significant impact as regards landsliding whether the bypass was two or four lanes.

Hydrology. As noted above, there would be less potential soil erosion and stream sedimentation. The same number of vehicles would travel on the new bypasses, so runoff of vehicle-generated pollutants would be similar. There would be slightly less runoff generated by the narrower bypass, but this impact is not considered significant for the proposed projects.

Biotic Resources. There would be a reduction in the loss of native plant and wildlife habitat. Reducing the footprint of the Willits Bypass by 40% would mean that 60% of the native biotic habitat, sensitive plant communities, and special status plant populations (e.g., Baler's meadowfoam, Baker's navarettia, and Glandular western flax) that would be impacted by the four-lane bypass would be impacted by this alternative. Wetland filling would be similarly reduced by 40%. However, impacts to wetland hydrology from interruption of flows would remain similar. It is possible that the alternative could reduce or eliminate the need to realign stream channels on Mill Creek and Outlet Creek. The

reduction in impact to these biological resources would be a substantial benefit of this alternative for the Willits Bypass, since many of these biological impacts have been identified as significant impacts that cannot be avoided for the proposed Willits Bypass (see Caltrans, 2002, pp. 6-18 to 6-19). While it is presently unknown what biological resources could be affected by the Hopland Bypass, it is assumed that there would be some reduction in biological impacts if this bypass were only two lanes wide.

Cultural Resources. It is possible that the narrower bypasses would impact fewer archaeological and historical resources.

Traffic. A two-lane bypass would have sufficient capacity to allow existing and projected traffic to bypass Willits and/or Hopland. However, according to Caltrans, a two-lane Willits Bypass would operate at Level of Service D (Caltrans, 2002, p. 3-32). LOS D condition is considered unstable as volumes are sufficiently high to make passing extremely difficult. Motorists driving under LOS D conditions are delayed about 75% of the time. The congestion experienced at LOS D can result in significant traffic accidents involving motorists attempting to unsafely pass. The potential for traffic accidents could be reduced by separating the lanes with a median and/or barrier. The level of service could potentially be improved with the addition of intermittent passing lanes. While engineering data on these options have not been presented to the EIR preparers, it is considered possible that a two-lane bypass with sufficient passing lanes and median separation where passing lanes were absent could result in bypasses that operated at LOS C with accident rates that would not exceed those expected for a four-lane bypass. However, it is noted that even LOS C is not an ideal level of service. Drivers will still be impeded up to 60% of the time by slower vehicles. In addition, the amount of passing lanes required to reach LOS C conditions might result in a road footprint that is not that much less than required for a four-lane bypass.

It is noted that a two-lane bypass that includes lane separation and extensive passing lanes would require a wider footprint than assumed above (i.e., 60% as wide). A two-lane bypass that could meet LOS C standards might only reduce the footprint by 25% or less. In that case, the reduction in impacts to other resources would be less than described in the other sections under this alternative.

The two-lane bypasses would not improve traffic circulation. In fact, the level of service along the bypass sections would be worse than for the proposed project. Over the long term (i.e., 20+ years), these bypasses could be inadequate to handle local and regional traffic.

If in the future, the two-lane bypasses were widened to four lanes, then the same or more environmental impact would occur as compared to initially constructing a four-lane bypass. This is because the environment would be impacted twice rather than once. If a two-lane bypass were proposed and constructed, then biological and other mitigation would be required only for the impacts resulting from two lanes. Future widening would then expand on those mitigations.

Air Quality. The alternative would involve the same number of vehicles. There would be some additional congestion (i.e., lower LOS) which would slightly increase air pollution, but this difference is not expected to be significant.

Noise. The same number of vehicles would travel the bypasses. The lower LOS on the two-lane bypasses could result in lower travel speeds which would slightly reduce the amount of noise generated by the traffic. This decrease could be somewhat offset by the noise of vehicles accelerating to pass slower vehicles. The difference in noise is not expected to be significant when compared to the project as proposed.

Aesthetics

Because the footprint would be narrower, the amount of open space views that would be affected would be reduced. The narrower footprint could also result in less need for cut and fill operations. While there would be some decrease in visual impacts, the difference is not expected to be substantial. There would still be a major new road through currently undeveloped land.

Land Use.

A two-lane bypass would reduce the amount of prime agricultural soils that would be lost. It could reduce the number of residences that would need to be demolished or moved. A two-lane bypass would be inconsistent with the County's General Plan which calls for a four-lane highway through the length of the County.

Other Factors

This alternative would have similar impacts to the project as proposed as regards public services and hazards. There would be a reduction in the amount of energy needed to construct the project.

Growth-Inducing Impacts

The two-lane bypasses would not substantially change the growth-inducing impacts of the bypass projects. Unless the bypasses operated at such a poor level of service that traffic was significantly delayed traveling the bypasses, the bypasses would reduce travel time similar to the proposed project and have similar growth-inducing impacts. If the bypasses did significantly reduce travel time, thereby possibly reducing the growth-inducing impacts of the bypasses, then the traffic impacts summarized above would be substantially worse than expected and described.

Summary

The principal benefits of this alternative would be the reduction in impacts to biological resources, namely wetlands, riparian areas, sensitive plant communities, and special status species of plants and animals. There would also be some reduction of impacts to other resources, but these reductions are either not expected to be substantial and/or the impacts can be reduced to a less than significant level for the bypasses as proposed. This alternative would result in more traffic congestion of Highway 101 than the proposed project.

While this alternative has environmental benefits, it may not be a feasible project alternative in that it does not meet a basic objective of the proposed project. MCOG, in

both the Draft RTP and the adopted 1996 RTP, has stated that improving Highway 101 to four-lane freeway/expressway standards is the "top priority of MCOG's transportation improvement program," (Draft RTP, p. 16). Two-lane bypasses would also be inconsistent with Caltrans' Route Concept Report (RCR) for Highway 101 north from San Francisco to the Oregon border. The RCR calls for the ultimate construction of a four-lane freeway or expressway throughout this section of the highway (Caltrans, 2002, p. 2-5).

Further conversations with Caltrans' staff (Ashley, personal communication) indicate the following:

- A four-lane facility is needed to decrease delays for people traveling through the region and to reduce the number of traffic accidents. Highway 101 is a part of the Strategic Highway Network and is important for commerce and goods movement as well as providing access to communities along California's north coast and Oregon's southern and central coast. Recognizing the importance of Highway 101 for the interregional movement of people and goods, Caltrans has established a concept LOS C for the route in the Route Concept Report (RCR). The RCR for Highway 101 between San Francisco and the Oregon border calls for the ultimate construction of a four-lane freeway or expressway to minimize congestion and delays and to improve traffic safety. The project is consistent with the RCR whereas a 2-lane bypass alternative would not be consistent with the RCR.
- A 2-lane bypass would operate at LOS D by 2008 and would not meet RCR objectives.
- Caltrans can construct a 4-lane bypass consistent with its RCR regardless of whether MCOG includes the 4-lane bypass in its RTP. However, if a 4-lane bypass were not included in the Final RTP, it would mean that MCOG would be unable to assist in financing a 4-lane bypass. The loss of MCOG contributions to the project would likely mean that the construction of a 4-lane bypass could be delayed many years since Caltrans has limited funds, and there is a greater likelihood that these funds would be used for projects that are consistent with local RTPs, particularly in urbanized areas experiencing more severe congestion than the Willits area.
- Of the four agencies who have commented on the Draft EIR/EIS (NMFS, Army Corps, California Department of Fish and Game, and U.S. EPA), all favor a four-lane bypass over a two-lane bypass. The agencies believe that eventually a four-lane bypass will be constructed and would rather have all the environmental mitigation done now for the eventual four-lane highway, rather than have mitigation piecemealed for a two-lane bypass now, with eventual widening of that bypass at some point in the future.

Comparison of Alternatives

The no project alternative would have more significant impacts than the proposed RTP. This is because the projects that would cause most of the significant environmental impacts are already included in the existing RTP, and this RTP would continue to be the guiding RTP until such time as a new RTP was adopted.

Alternative 3 (Two Lane Highway 101 Bypasses) would decrease some environmental impacts, particularly impacts to important biological resources. This alternative would not relieve traffic congestion to the level of the proposed project. It would be inconsistent with policies of the County's General Plan. This alternative would be considered environmentally superior to the proposed RTP if MCOG was willing to accept LOS D conditions on the bypasses. However, it is possible that the increased traffic congestion impact is equal or of more significance than the biological and other impacts created by a four-lane bypass. In addition, the Draft RTP states that one of the principal objectives of the RTP is to construct four-lane bypasses of Willits and Hopland. Further conversations with MCOG staff indicate that these four-lane bypasses remain as a principal objective of MCOG and the RTP and that an alternative that did not include four-lane bypasses would be considered contrary to RTP objectives (Wright, personal communication). In that case, the alternative would be considered infeasible.

Alternative 2 (Alternative Transit Focus) is considered infeasible because MCOG has no or little ability to disburse more money for bus operations, no ability to fund expanded train operations, and no ability to require incentives for people to use the bus or other forms of mass transit.

If Alternative 3 is infeasible, then the Draft RTP complete with the mitigation measures recommended in this EIR would be considered the environmentally superior alternative.

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APPENDIX A

CEQA DOCUMENTATION