Roseburg Commerce Park

Draft Environmental Impact Report

SCH No. 98032006

Prepared for:

CITY OF MOUNT SHASTA
305 N. Mt. Shasta Boulevard
Mount Shasta, California 96067

Prepared by:

PACIFIC MUNICIPAL CONSULTANTS

PMC

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May 1998

DRAFT ENVIRONMENTAL IMPACT REPORT

FOR

ROSEBURG COMMERCE PARK

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MAY 1998

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1.0 INTRODUCTION

1.1 PURPOSE

This Draft Environmental Impact Report (EIR) has been prepared in conformance with the California Environmental Quality Act (CEQA) to evaluate the environmental effects of annexing approximately 140.7 acres located south of the City of Mt. Shasta. In order to better assess impacts associated with the annexation, the City has prepared the Roseburg Commerce Park Development Plan (Draft Development Plan, DDP), which covers the majority of the property proposed for annexation (127.5 acres). The purpose of the DDP is to enable comprehensive planning through the integration of various land uses, physical design features, infrastructure requirements and vehicle and pedestrian circulation. Specific actions evaluated in this EIR include: 1) proposed amendment to the City of Mt. Shasta's General Plan, 2) annexation of the project site into the City of Mt. Shasta, and 3) approval of the DDP and pre-zoning of the project site.

The project site is located south of and adjacent to the City of Mt. Shasta in Siskiyou County, California. The proposed annexation is comprised of 17 parcels totaling 140.7 acres. Six parcels totaling 127.5 acres comprise the Roseburg Commerce Park (RCP) which is the subject of the DDP. The RCP DDP is available for review at the Mount Shasta City Hall at 305 N. Mt. Shasta Blvd. The DDP is intended to establish a Planned Unit Development (PUD) Ordinance and land use plan for the Roseburg site, along with development and site design criteria. The DDP will also serve as an implementing mechanism and includes phasing and capital improvement recommendations. Uses allowed within the DDP include commercial, tourism-oriented commercial, industrial, governmental, office, and park and open space land uses.

An additional eleven parcels, which are not part of the RCP, total 13.6 acres and are included in the annexation application. The majority of these parcels have already been developed, consequently the analysis in this EIR focuses primarily on impacts associated with implementation of the RCP DDP. The DDP and accompanying EIR are being prepared both to guide future development and to facilitate the annexation of the site to the City, which owns most of the RCP property. Throughout this document the area covered by the DDP is referred to as the "RCP" or "project."

As provided in the California Environmental Quality Act (CEQA), public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors (CEQA Guidelines Sec. 15021). The purpose of an EIR is to provide necessary information to inform public agency decision-makers and the general public of the significant environmental effects of a proposed project. Additionally, an EIR identifies possible means to minimize the significant effects and describes reasonable alternatives to the project. The public agency is required to consider the information in the EIR, along with any other relevant information, in making its decision on the project (CEQA Guidelines Sec. 15121).

1.2 LEGAL BASIS OF THE EIR

The statutes which comprise CEQA are set forth in the California Public Resources Code, Section 21000 *et seq.* To assist in implementing these statutes, the State of California has issued regulations known as the State CEQA Guidelines. Under CEQA, all state and local agencies are required to consider the environmental impacts of any project they approve or propose to implement. The principal mechanism for such consideration is the EIR.

The EIR is primarily a public disclosure and informational document with a number of specific objectives:

- To inform public agency decision-makers and the public of the environmental effects of proposed activities;
- To assist public agency decision-makers as they consider the environmental implications of their actions;
- To identify ways in which environmental damage can be avoided or significantly reduced;
- To reduce or prevent damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures; and
- To disclose to the public the reasons why a governmental agency approved a project if significant environmental effects are involved.

1.3 INTENDED USES OF THE EIR

The EIR has been prepared to evaluate, at a program level, the impacts associated with development guided by the Roseburg Commerce Park Draft Development Plan. As defined by CEQA Guidelines Section 15168, a Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

- 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 activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The EIR is intended to evaluate the environmental impacts of the proposed annexation, implementation of the DDP, provision of services, amendment of the General Plan, and all related site-specific actions to the greatest extent possible. This EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all subsequent

planning and permitting actions associated with the project. Subsequent actions include, but are not limited to the following:

- Prezone/General Plan Amendment;
- Adoption of RCP Development Plan;
- Annexation;
- Adoption of Tentative Map for RCP;
- Final Maps/Development Permits;
- Conditional Use Permits; and
- Grading/Encroachment Permits.

It should be noted that the DDP has been formulated as a self mitigating document. Plan preparation was initiated with an opportunity and constraints analysis of the project area. The purpose of this analysis was to identify environmental constraints and infrastructure shortfalls that would influence the location and relationship of proposed uses. The DDP was prepared with these constraints and opportunities in mind and specific performance standards have been established for each development area to address concerns that could not be addressed in the physical layout of the plan. It is intended that any other additional concerns or areas of impact identified in the EIR that were not considered during preparation of the DDP will be incorporated into the final Roseburg Commerce Park Development Plan that will be considered for adoption. It is the intent of the city that the adopted Plan will function as a self mitigating document.

For this analysis, a reasonable buildout scenario has been developed which reflects realistic worse case conditions over a 20 year buildout. This scenario is based on site conditions and infrastructure constraints, market trends and growth projections for the region. Consistent with CEQA requirements, this EIR also provides a qualitative discussion of full buildout of the entire Plan area at maximum intensity as identified in the DDP.

As the lead agency, the City of Mt. Shasta has discretionary approval authority and the responsibility to consider the environmental effects of the project per CEQA. This document will also be used in part by regulatory agencies and decision-makers to evaluate requests for permits and approvals. Responsible agencies include all other public agencies that have discretionary approval authority over the project. CEQA defines a trustee agency as: "A state agency having jurisdiction, by law, over natural resources affected by a project which are held in trust for the people of the State of California." Physical development of the property may require consultation and/or permits from the following agencies:

FEDERAL AGENCIES

U.S. Army Corps of Engineers (Corps)
1325 J Street
Sacramento, CA 95814-2922

Portions of the site are considered jurisdictional wetlands by the U.S. Army Corps of Engineers and any discharge or fill material into "waters of the United States" would require a permit from the U.S. Army Corps of Engineers issued under the authority of Section 404 of the Clean Water Act.

US Fish and Wildlife Service (USFWS)
2800 Cottage Way, Room E 1803
Sacramento, CA 95825

Portions of the site are considered potential habitat for special status plant and animal species. Consequently , the USFWS should be consulted regarding this project.

STATE AGENCIES

California Regional Water Quality Control Board
Central Valley Region
415 Knollcrest Drive, Suite 100
Redding, CA 96002

The Regional Water Quality Control Board regulates wastewater disposal and storm water discharge through issuance of Waste Discharge Requirements, a National Pollutant Discharge Elimination System (NPDES) permit, and a Storm Water Pollution Prevention Plan. The Regional Water Quality Control Board is a responsible agency.

California Department of Fish and Game
1416 9th Street - Room 1311
Sacramento, CA 95814

CDFG is a trustee agency with authority in accordance with the provisions of the Fish and Game Code Section 1802 to exercise administration over the fish and wildlife resources of California. CDFG will provide comments and recommend measures for the conservation and prevention of damage to fish and/or wildlife resources of the state.

California Department of Transportation District 2
1657 Riverside Drive
Redding, CA 96049-6073

Caltrans is a trustee agency which would exercise authority over development affecting and/or requiring an encroachment permit. Caltrans will provide comments and recommend measures for the required improvements to roadways resulting from project implementation.

LOCAL AGENCIES

Siskiyou County Local Agency Formation Commission (LAFCo)
P.O. Box 1085
Yreka, CA 96097

As defined by the Cortese-Knox Local Government Reorganization Act of 1985 (section 56000 et seq of the California Government Code), the purpose of LAFCo is the discouragement of urban sprawl and encouragement of the orderly formation and development of local governmental agencies based upon local conditions and circumstances.

LAFCo's statutory authority includes responsibility for deciding on the annexation of unincorporated land to local agencies. In reviewing a proposal for annexation, LAFCo must consider a number of factors which include but are not limited to the following:

- Population, population density, land area and land use; per capita assessed valuation; topography, natural boundaries, drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas during the next ten years.
- Need for organized community services, present cost and adequacy of government services and controls, probable future needs, probable effect of the annexation and of alternative courses of action on the cost and adequacy of services and controls in the area and vicinity.
- The effect of the proposed annexation and of alternative actions on adjacent areas, on mutual social and economic interests, and on the local government structure of the county.
- Conformity of the proposed annexation and its effect with LAFCO policies on providing planned, orderly, and efficient patterns of urban development and with state policies and priorities in conversion of open space lands to other uses.
- The effect of the proposal on maintaining the physical and economic integrity of lands in an agricultural preserve in open space uses.
- Clarity of the boundaries of the territory, the nonconformance of the proposed boundary lines of assessment or ownership, the creation of islands or corridors of unincorporated territory and other similar matters affecting the proposed boundaries.
- Consistency with appropriate city or county general and specific plans.

- The sphere of influence of any agency which may be applicable to the proposal being reviewed.

- The comments of any affected agency.

Siskiyou County Planning Department
P.O. Box 1085
Yreka, CA 96097

The project site is currently within the jurisdiction of the County, even though the City owns the majority of RCP property and it is within the City's Sphere of Influence. The County will serve as a "commenting agency"; reviewing and commenting on this EIR.

City of Mt. Shasta Planning Department
305 North Mt. Shasta Boulevard
Mount Shasta, CA 96067

The City of Mt. Shasta is the Lead Agency for the project. In this capacity, the Lead Agency has the principal responsibility for carrying out or approving a project and therefore the principal responsibility for producing a comprehensive environmental document. Upon EIR certification, the City will perform the planning and permitting actions associated with the project including: annexation, adoption of the RCP Development Plan, Prezone/General Plan Amendment, and issuance of the appropriate development permits.

1.4 SCOPE AND ORGANIZATION OF THE EIR

Sections 15122 through 15132 of the CEQA Guidelines describe the content requirement for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The environmental issues addressed in the EIR were based on the CEQA environmental checklist and further refined by reviewing previous environmental documentation developed for the site, environmental documentation for nearby projects, public agency responses to the Notice of Preparation and comments received by other interested parties. Based upon these comments, agency consultation and review of the project application, the City determined the scope for this EIR.

The Roseburg Commerce Park EIR is organized in the following manner:

Section 1 - Introduction
Section 1 provides an introduction and overview describing the intended use of the Program EIR and the review and certification process.

Section 2 - Executive Summary
This Section summarizes the characteristics of the proposed Project and provides a concise summary matrix of the project's environmental impacts and associated mitigation measures.

Section 3 - Project Description
This Section provides a detailed description of the proposed project, including intended objectives, background information, and physical and technical characteristics.

Section 4 - Environmental Setting, Impacts and Mitigation Measures
Section 4 contains an analysis of environmental topic areas as identified below. Each subsection contains a description of the existing setting of the project area, identifies project-related impacts, presents existing General Plan provisions that serve to mitigate the identified impact, and recommends additional mitigation measures where necessary.

The following major environmental topics are addressed in this Section 4.0, Environmental Setting, Impacts, and Mitigation Measures:

Land Use. Addresses the land use impacts associated with implementation of the DDP, including project compatibility with surrounding land uses, consistency with City land use goals and policies, and future development projects.

Transportation and Circulation. Addresses the impacts on the local and regional road system at buildout of the project.

Noise. Examines the impacts related to potential noise generation from mobile and stationary sources at project buildout.

Air Quality. Discusses the local and regional air quality impacts associated with project implementation.

Water Quality and Surface Hydrology. Examines the impacts of the project on local hydrological conditions, including creeks and drainage areas, groundwater, and water quality.

Biological Resources. The project's impacts on habitat, vegetation, and wildlife are addressed, while emphasizing the potential degradation or elimination of important habitat, and the impacts on listed, proposed, and candidate threatened and endangered species.

Geology and Soils. Addresses the potential impacts the project may have on topographic features, soils, slope stability, seismic hazards, mining resources, and geologic composition.

Community Services. Discusses the impacts the project will have on the need for police, fire, street maintenance, and park land dedication. Also addresses the potential for fire hazards in the vicinity of the project as well as the possibility of increased fire hazards resulting from the introduction of urban uses to the site.

Water and Wastewater Systems. Discusses the impacts the project will have on the need for water supply and distribution facilities, and on wastewater collection and treatment.

Aesthetics/Light and Glare. Addresses the impacts on the visual character of the project site, including typical and scenic views and vistas. Also discussed are the impacts associated with lighting related to commercial and industrial areas and glare from new buildings.

Cultural Resources. Addresses the potential impacts on historic and archaeological resources within the project site and surrounding area.

Risk of Upset. Assesses the likelihood for the presence of hazardous materials or conditions on the project site and their potential impact upon human health. Potential hazards investigated include potential on-site contamination and use of hazardous materials by future activities.

Economic Analysis. Analyzes the economic impacts of the Roseburg Commerce Park Development Plan in terms of costs and benefits. This section is not required by CEQA but is included in compliance with General Plan Policy LU-1.1 and Implementation measures LU-1.1(a) and LU-1.2(b).

Section 5 - Project Alternatives

CEQA Sec.15126(d) requires that an EIR describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project. This alternatives analysis provides a comparative analysis between the project and the selected alternatives, which include:

Alternative 1 - No Development. Under this alternative, no development would occur. As such, no impacts to existing on-site and surrounding land use patterns would occur.

Alternative 2 - Development Under County Zoning. This alternative considers the environmental impacts of developing the site consistent with County zoning designations. Since the zoning designations are those of the County, it is assumed under this alternative that the site would not be annexed to the City.

Alternative 3 - Reduced Intensity. Under this alternative, the buildout scenario used as the basis of this EIR would be reduced by 25 percent of the developable area. No urban development would occur in Development Area V, which is owned by the City. The

provisions and standards of the DDP would apply to the properties where development is permitted.

Section 6 and Section 7 - CEQA Considerations
These chapters contain required discussions and analysis of various topical issues mandated by CEQA, including: significant environmental effects that cannot be avoided if the proposal is implemented; growth inducing impacts; irreversible environmental changes and irretrievable commitment of resources; and a summary of cumulative impacts.

Section 8 - Report Preparers and References
This section provides a list of all individuals and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation. Section 8 also itemizes supporting and reference data used in the preparation of the EIR and lists all government agencies, organizations, and other individuals consulted in preparing the Draft EIR.

Section 9 - Acronyms
This section provides a list of the acronyms used throughout this document.

Technical Appendices
This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical reports prepared to support the analysis.

1.5 ENVIRONMENTAL REVIEW PROCESS

In compliance with the CEQA Guidelines, the City of Mt. Shasta solicited comments through the distribution of a Notice of Preparation (NOP), included as Appendix A. The review and approval process for the Roseburg Commerce Park EIR will involve the following procedural steps in addition to those related to the project review and NOP.

Notice of Completion (NOC): Upon completion of the Draft EIR, the City will file a NOC with the State Office of Planning and Research to begin the public review period in accordance with Public Resources Code Section 21161.

Public Notice/Public Review: Concurrent with the NOC, the City will provide public notice of the availability of the Draft EIR for public review and invite comment from the general public, agencies, organizations and other interested parties. The public review and comment period should be no less than 30 days or longer than 90 days. The review period in this case is expected to be 45 days and comments on the Draft EIR will be accepted in written form. All comments or questions regarding the Draft EIR should be addressed to:

Mark Teague, Contract Planner
City of Mt. Shasta Planning Department
305 N. Mt. Shasta Boulevard
Mt. Shasta, CA 96067

Response to Comments/Final EIR: Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period. The Final EIR will be available for public review prior to its consideration for certification by the Planning Commission and City Council. The Planning Commission and City Council will review and consider the Final EIR prior to their decision to approve, revise or reject the proposed project.

Certification of the EIR: If the City finds that the Final EIR is "adequate and complete", the City may certify the Final EIR. The rule of adequacy generally holds that the Final EIR can be certified if 1) it shows a good faith effort at full disclosure of environmental information, and 2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of environmental considerations.

Project Consideration: Upon review and consideration of the Final EIR, the City may act upon the project. A decision to approve the project would be accompanied by written findings in accordance with CEQA Guidelines Section 15091. The City would also adopt a Mitigation Monitoring Program (MMP), as described further below, for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects upon the environment. The MMP would be designed to ensure that these measures are carried out during project implementation.

1.6 MITIGATION MONITORING

CEQA requires that when a public agency makes findings based on an EIR, that agency must adopt a reporting or monitoring plan for those measures which it has adopted or made a condition of the project approval. The Mitigation Monitoring Program (MMP) would be designed to ensure compliance during project implementation and provide disclosure to the public to ensure that conditions are monitored and properly met (Public Resources Code Section 21081.6).

The draft MMP for the project would be prepared under separate cover prior to certification of the Final EIR. Following certification of the Final EIR, the MMP would be finalized consistent with the City Council's final action on the project and adopted concurrent with agency final approval of the project.

1.7 TERMINOLOGY OF IMPACTS

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Section 15091 requires that decision-makers make findings that significant impacts identified in the Final EIR have been mitigated as completely as feasible. If the EIR identifies any significant

unmitigated impacts, CEQA Section 15093 requires decision-makers to adopt a statement of overriding considerations, which explains why the benefits of the project outweigh the adverse environmental consequences identified by the EIR.

The level of significance for each impact examined in this EIR was determined by considering the predicted magnitude of the impact against a threshold. Thresholds were developed using criteria from the CEQA Guidelines, local/regional plans and ordinances, accepted practice, and/or consultation with recognized experts. Thresholds are identified in each chapter under the title Significance Criteria. Four levels of impact significance are recognized by this EIR:

- **Less than Significant [LS]** impacts would not cause a substantial change in the environment or are not disruptive enough to require mitigation, because they fall below the significance threshold.

- **Potentially Significant [PSM]** impacts may cause a significant effect on the environment, however, additional information is needed regarding the extent of the impact. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact. Potentially significant impacts are subject to mitigation.

- **Significant [SM]** impacts would cause a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of the project effects using specified significance criteria. Mitigation measures are identified to reduce project effects to the environment.

- **Significant and Unavoidable [SU]** impacts are significant adverse project impacts that cannot be avoided or mitigated to a less than significant level if the project is implemented.

2.0 EXECUTIVE SUMMARY

This section provides an overview of the proposed project and the environmental analysis. For additional detail regarding any specific issue, please consult the appropriate chapter of Section 4.0, Environmental Impact Analysis Section of this document.

2.1 PURPOSE AND SCOPE OF THE EIR

This Draft Environmental Impact Report (EIR) evaluates the potential environmental effects related to the proposed annexation of 140.7 acres, associated general plan amendment, and adoption of a Draft Development Plan (DDP) for the Roseburg Commerce Park (RCP). The DDP allows for the development of six parcels totaling 127.5 acres with commercial, tourism-oriented commercial, industrial, governmental, office, park and open space uses. An additional eleven developed parcels totaling 13.6 acres, which are not part of the RCP, are to be included in the annexation application. The DDP and accompanying EIR are being prepared both to guide development of the site and to facilitate annexation of the site to the City, which owns most of the property.

As provided in the CEQA Guidelines, public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors (Guidelines Sec. 15021). The purpose of an EIR is to provide necessary information to inform public agency decision-makers and the general public of the significant environmental effects of a proposed project. Additionally, an EIR identifies possible means to minimize the significant effects and describes reasonable alternatives to the project. The public agency is required to consider the information in the EIR, along with any other relevant information, in making its decision on the project (Guidelines Sec. 15121).

2.2 PROJECT CHARACTERISTICS

ROSEBURG COMMERCE PARK DRAFT DEVELOPMENT PLAN

The DDP applies to a total of 127.5 acres: 117 acres of land formerly owned by the Roseburg Lumber Company which were deeded to the City in 1989, and 10.5 acres of privately owned land adjacent to the former lumber company property. Under the DDP, the Roseburg Commerce Park site is divided into seven Development Areas (DAs). Each DA has its own set of development standards that includes a listing of permitted uses and design requirements. General development standards that apply to the entire site are also provided.

The DDP envisions a variety of land uses on the site. Many of these uses are primarily commercial in nature, with emphasis on visitor-serving uses. However, the Plan also permits some industrial, office and business park uses. Approximately five acres on the site will be designated for governmental uses, per a previous agreement between the City of Mt. Shasta and Siskiyou County. Approximately 13.5 acres of the northern portion of the site is designated for public use and may be developed as a park. In addition, approximately 16.5 acres will be kept in open space, with trails

permitted. While the Plan does identify specific development areas within the property, it also provides some flexibility in determining the location and type of development.

Development Concepts

The DDP contains standards covering site design, but within those standards it encourages creativity. Ideas are presented for site layout, entry treatment, incorporation of existing features, and use of topographic variations in project design.

Infrastructure Plan

Lack of infrastructure is a major constraint to development of the RCP site. The Infrastructure Plan proposes phased programs for the extension of water, wastewater, and drainage services to the area.

Water
Water service would be provided to sites near Mt. Shasta Boulevard by partial construction of an 8-inch water main along the proposed interior loop road. As development increases, the main within the loop road would be completed, and a looped 10-inch main would be constructed from the Quail Hill storage tanks. The final phase calls for new mains in the eastern section of the site.

Sewer
The initial improvement for wastewater service would be the placement of an 8-inch gravity flow pipe in the western section of the site. The next phase would include the construction of a lift station and 2-inch pressure pipe. Final improvements would include a 12-inch gravity flow pipe in the southern part of the site. It is anticipated that additional treatment capacity will be required to accommodate full development of the RCP site.

Drainage
The RCP site contains two drainage areas. In the northern drainage area, the former mill pond could be used as a storm water detention facility. For the southern drainage area, a detention pond could be constructed. Discharges from this detention pond would be metered to ensure that peak flows to Mill Creek are the same as before development.

Circulation Plan

The key element in the proposed circulation system is an interior loop road to be constructed in the western section of the site. The loop road could be constructed in two phases. It would begin at the Mt. Shasta Boulevard/Bear Springs Road intersection, and it would end at a second intersection with Mt. Shasta Boulevard further south. The intersection would be constructed to accommodate the Highway 89 bypass proposed in the City's General Plan. Other improvements proposed in the Circulation Plan include turn lanes on Mt. Shasta Boulevard, a traffic signal at the southern loop

road/Mt. Shasta Boulevard intersection, and internal roadway extensions to Development Areas (DA) IV and V and to the proposed park.

Phasing Plan

The Phasing Plan suggests a three-phase plan for development of the Roseburg Commerce Park. The initial phase covers the Bear Springs Road / Mt. Shasta Boulevard intersection and the first segment of the internal loop road. This phase would allow development of portions of DA I and II. Phase 2 includes completion of the internal loop road and extension of services to allow development of all of DA I, II, and III. The final phase would include additional infrastructure and road improvements to allow development of DA IV and V.

2.3 PROJECT ALTERNATIVES

CEQA Sec. 15126(d) requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and reduce the degree of environmental impact. The Alternatives that were evaluated include:

- No Development
- Buildout Under County Zoning
- Buildout Under Existing General Plan Designations
- Reduced Intensity Alternative

CEQA requires that the environmentally superior alternative be identified. It was determined that the Modified Site Design Alternative was the environmentally superior alternative.

2.4 AREAS OF CONTROVERSY

Through the scoping process and Notice of Preparation, areas of potential controversy were identified. Such areas include land use compatibility, public services, biological resources, cultural resources, traffic and circulation, fire safety, noise, air quality, water supply, hydrology, and aesthetics. The above information, as well as the summary table presented below, represents a summary only. Please refer to the body of the EIR for more detailed information or specific analysis.

2.5 SUMMARY TABLE

Table 2-1 presents a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance of each environmental impact is indicated both before and after the application of the recommended mitigation measures.

For detailed discussions of all project impacts and mitigation measures, the reader is referred to individual chapters in Section 4.0, Environmental Analysis.

TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
LAND USE			
4.2.1 **Annexation of the project site would be consistent with the City of Mt. Shasta General Plan. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.2.2 **Project development may result in land use compatibility impacts with adjacent residential uses to the north of the project site. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
CUMULATIVE LAND USE IMPACTS			
4.2.3 **The proposed project would be consistent with the land use pattern of the area and meets General Plan goals and policies for the City of Mt. Shasta. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
TRANSPORTATION/CIRCULATION			
4.3.1 **Development of the project would increase the daily traffic volume on portions of Mt. Shasta Boulevard, with projected traffic volumes in excess of the City's LOS "D" threshold. [PSM]**	**PSM**	General Plan Policies **CI-1.1, CI-2.1, CI-2.2,** and Implementation measures **CI-1.1(a), CI-1.1(b), CI-1.2(a) through CI-1.2(f), CI-2.1(a) and CI-2.1(b), CI-2.2(a) through CI-2.2(d)** mitigate the above impact. These policies and implementation measures include, but are not limited to, the following mitigation: establish LOS standards; monitoring programs; require improvement plans and programs prior to development; and require impact fees as a means of accumulating funds for improvements.	**LS**

LS=Less than Significant Impact PSM=Potentially Significant Impact SM=Significant Impact SU=Significant and Unavoidable

TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
4.3.2 **Development of the project would increase the volume of traffic using the I-5/SR 89/South Mt. Shasta Boulevard ramp system, with resulting LOS on the short northbound weaving section in excess of City and Caltrans standard. [PSM]**	**PSM**	General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact, assuming City implementation of general plan programs relative to monitoring of roadways.	**LS**
CUMULATIVE TRANSPORTATION/CIRCULATION IMPACTS			
4.3.3 **Cumulative traffic conditions at the Mt Shasta Boulevard / Lake Street intersection would remain within the City's LOS "D" standard. Queues can be expected on the northbound and eastbound approaches which could result in safety problems extending back into adjoining intersections. [PSM]**	**PSM**	General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below: **MM 4.3.4a Install a traffic signal when warrants are actually met. With signalization, the intersection would operate at LOS "C" during the p.m. peak hour.**	**LS**
4.3.5 **Full buildout of RCP site at maximum density may produce traffic volumes in excess of those assessed in the traffic study, with resulting traffic volumes on Mt Shasta Boulevard in excess of the City's LOS "D" standard. [PSM]**	**PSM**	General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact.	**LS**

LS=Less than Significant Impact PSM=Potentially Significant Impact SM=Significant Impact SU=Significant and Unavoidable

TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
4.3.6 **Cumulative traffic volumes may exceed the City's LOS "D" standard on portions of Mt Shasta Boulevard in the downtown area whether or not the RCP is developed. [PSM]**	PSM	General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact. The General Plan mandates continuing evaluation of the impacts of development with the goal of identifying applicable mitigation measures as projects are proposed. Development of new streets (i.e., West Lake/South Mt. Shasta Boulevard connection) and/or local capacity enhancements are presented as potential mitigation measures. Specific development proposals within the RCP should adhere to General Plan requirements for subsequent analysis and for "fair share" participation in mitigation measures.	LS
4.3.7 **Cumulative traffic volumes on Mt Shasta Boulevard in the vicinity of the project may exceed the City's LOS "D" standard. [PSM]**	PSM	General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below: **MM 4.3.7a Design of the project entryways, particularly the main entrance, shall include provisions for auxiliary through and exclusive turn lanes.**	LS
4.3.8 **Cumulative traffic conditions may result in traffic volumes in excess of capacity on some of the ramps in the I-5 / SR 89 / South Mt Shasta Boulevard interchange system. [PSM]**	PSM	General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact, assuming City implementation of General Plan programs relative to impact fees and monitoring of roadways.	LS
NOISE			
4.4.1 **Interior traffic noise levels will comply with the interior noise level criterion of 45 dB Ldn. [LS]**	LS	Since no significant impact has been identified, no mitigation is required.	LS

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
4.4.2 **The interior spaces of office buildings located within 180 feet of the railroad track centerline may exceed the interior noise level criterion of 45 dB Leq. [PSM]**	**PSM**	MM 4.4.2a **If project buildings located within 180 feet of the railroad tracks include office areas facing the railroad tracks, a detailed interior acoustical analysis shall be conducted when building plans and construction details are provided. The analysis shall focus on determining compliance with the interior noise level criterion of 45 dB Leq during peak hours of train operations.**	**LS**
4.4.3 **Future traffic noise levels are not expected to exceed the exterior noise level standards contained within the General Plan Noise Element. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.4.4 **The proposed uses that would be located within Development Areas II, III and IV would comply with the Mt. Shasta General Plan Noise Element noise level criterion of 70 dB Ldn. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.4.5 **The increase in traffic noise levels along Mt. Shasta Boulevard due to project traffic would range from 3 dB to 5.9 dB. [SU]**	**SU**	This EIR identifies numerous mitigation measures to reduce the impacts associated with the proposed project, however, the project would still contribute to the increase in noise levels along Mt. Shasta Boulevard.	**SU**
4.4.6 **On-site noise sources are not expected to adversely impact adjacent noise sensitive uses. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
CUMULATIVE NOISE IMPACTS			
4.4.7 Exterior cumulative noise levels at the project site are expected to increase over existing conditions. [SU]	**SU**	This EIR identifies numerouse mitigation measures to reduce the impacts associated with the proposed project; however, cumulative development within the area, with or without the project would contribute to the increase in noise levels along Mt. Shasta Boulevard.	**SU**
AIR QUALITY			
4.5.1 Grading and construction activities on the RCP site would generate fugitive dust emissions. Dust is one contributor to PM_{10} emissions. [SM]	**SM**	**MM 4.5.1a All grading and construction activities shall be required to incorporate the following dust control measures:** • **All active construction areas shall be watered at least twice daily.** • **Soil stabilizers shall be applied to inactive construction areas, as needed.** • **All unpaved access roads and staging areas at construction sites shall be paved, have soil stabilizers applied, or have water applied three times daily.** • **Traffic speeds on unpaved roads shall be limited to 15 mph.** • **Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and be watered twice daily or have soil binders added.**	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
		MM 4.5.1a (continued) • **All trucks hauling soil and other loose material shall be covered or have at least two feet of freeboard.** • **If visible soil material is carried onto adjacent public streets, such streets shall be swept with water sweepers.** • **Dust-producing activities shall be suspended when high winds create construction-induced visible dust plumes moving beyond the project site, in spite of dust control measures.**	
4.5.2 **Exhaust from diesel- and gasoline-powered vehicles used in construction at the RCP site may contribute to increases in the levels of criteria pollutants. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.5.3 **RCP development would generate CO emissions that exceed significance thresholds. Among the sources of these emissions are vehicles traveling to and from the RCP site and permitted industrial activities. [SM]**	**SM**	Standards for the emission of all criteria pollutants from stationary sources has been established by the local APCD for all land use activities at the RCP site. The standards require that all emissions from stationary sources shall be in conformance with the conditions for the issuance of a permit to construct from the Siskiyou County APCD. Industrial and other uses that could result in increased emissions shall use the Best Available Control Techniques (BACTs) to reduce emissions. Mitigation for emissions from mobile (vehicular) sources is provided below:	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
		MM 4.5.3a The City shall encourage programs that reduce the amount of vehicle trips to and from the RCP site. Such programs may include, but are not limited to: • **Use of bicycles and construction of bike paths.** • **Establishment of a STAGE bus stop at site.** • **Creation of a shuttle bus system that connects lodging facilities to other parts of the City.**	
CUMULATIVE AIR QUALITY IMPACTS			
4.5.4 Cumulative development, including the RCP site, could lead to an increase in emissions of criteria pollutants and a consequent decrease in air quality in the Mt. Shasta area. [SU]	**SU**	This EIR identifies numerous mitigation measures to reduce the impacts associated with the proposed project, however the project would still contribute to an increase in emissions of criteria pollutants and a consequent decrease in air quality in the Mt. Shasta area.	**SU**
WATER QUALITY AND SURFACE HYDROLOGY			
4.6.1 Grading and construction-related activities associated with the proposed project could result in degradation of surface and groundwater quality. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.6.2 The proposed project would result in an increase in impervious surfaces thereby resulting in an increase in surface runoff. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
4.6.3 **Drainage from roadways and other impervious surfaces may result in the contamination of stormwater. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
CUMULATIVE WATER QUALITY AND SURFACE HYDROLOGY IMPACTS			
4.6.4 **Cumulative development in the area could increase stormwater runoff from the site. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
BIOLOGICAL RESOURCES			
4.7.1 **Development Area I-subareas H, I, and J, and Development Area V and VI are considered areas with potential habitat for special-status species. [PSM]**	**PSM**	**MM 4.7.1a** **Prior to the issuance of a grading permit for activities in Development Area I subareas H, I, J and Development Areas V and VI, a detailed wildlife and plant survey shall be conducted to determine the presence or absence of special status species in areas with potential habitat. Surveys should be conducted using the methods prescribed by the CDFG (1984). Results of the surveys shall be submitted to CDFG, USFWS, and the City prior to the issuance of grading permits for these areas. If no sensitive species are located on-site, no further mitigation is necessary. If listed species are located on the property, the applicant and City shall enter into informal consultation with CDFG and USFWS and begin preparation of a Biological Assessment or Habitat Conservation Plan, as applicable.**	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation		Significance After Mitigation
		MM 4.7.1a (continued)	**The precise mitigation/compensation for direct and indirect impacts to sensitive species will depend on agency consultation and agreements. The project applicant shall implement all measures identified by the CDFG and USFWS to protected and mitigate impacts to listed and other special status species.**	
4.7.2 **The RCP site may contain potential jurisdictional waters of the United States, including wetlands. [PSM]**	**PSM**	**MM 4.7.2a**	**Prior to the issuance of a grading permit in areas identified as potential wetland locations, the project proponent shall conduct a detailed wetland delineation to determine the extent and specific location(s) of the jurisdictional waters and obtain written verification of the delineation from the Corps. The impact analysis shall include all project alternatives, including avoidance. If necessary, prepare a mitigation and monitoring plan for all loss of waters of the U.S. The mitigation plan should include measures for wetland habitat enhancement and creation, as appropriate for the level of impact, and be developed in coordination with the Corps.**	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
		MM 4.7.2b **Prior to any issuance of a grading permit, the project proponent shall obtain and comply with the terms and conditions of the following permits which may be applicable to the project: a federal Section 404 Clean Water Act permit; a state Section 1601 et seq. Streambed Alteration Agreement from the Department of Fish and Game; and a Water Quality Certification (or waiver of certification) from the State Water Resources Quality Control Board.** **MM 4.7.2c** **Development plans for enhancement of existing wetland habitats that impact waters of the U.S. would require the same delineation, impact analysis, and mitigation and monitoring plan (if necessary) required for direct development impacts.**	
CUMULATIVE BIOLOGICAL RESOURCE IMPACTS			
4.7.3 Cumulative development would contribute to the loss of natural undisturbed open space, increase human intrusion and activity levels in proximity to habitat areas, and would remove potential habitat for federally and state listed and other special-status species. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
GEOLOGY AND SOILS			
4.8.1 Development within the RCP site may be subjected to hazards caused by volcanic activity in and around Mt. Shasta, although the probability of such activity at any given time is low. [LS]	LS	Since no significant impact has been identified, no mitigation is required.	LS
4.8.2 The Ponto soils that predominate on the RCP site have been rated as having a moderate erosion hazard. Linked to this is the rating of moderate limitations on commercial building construction due to the presence of slopes. [LS]	LS	Since no significant impact has been identified, no mitigation is required.	LS
4.8.3 Projects located on the RCP site are subject to seismic hazards of at least moderate intensity, although the probability of such activity at any given time is low. [LS]	LS	Since no significant impact has been identified, no mitigation is required.	LS
CUMULATIVE GEOLOGY AND SOILS IMPACTS			
4.8.4 Due to the nature of geology and soils, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region. [LS]	LS	Since no significant impact has been identified, no mitigation is required.	LS

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

	Impact	Level of Significance		Mitigation	Significance After Mitigation
COMMUNITY SERVICES					
4.9.1	The eastern section of the RCP site contains substantial tree and shrub growth. New development in this area would be exposed to a potential wildland fire hazard. [SM	SM	MM 4.9.1a	Applicants for projects located in the eastern section of the Roseburg Commerce Park site shall comply with any additional fire safety recommendations made by the Fire Department, along with the performance standards in the DDP.	LS
4.9.2	Development at the site, particularly the construction of any multi-story buildings, may require the Fire Department to obtain additional equipment and a new facility. [SM]	SM	MM 4.9.2a MM 4.9.2b	The City shall work with the Fire Department in maintaining the City's ISO rating of 5. The City shall begin planning for a new fire station to replace the existing Station #1 downtown prior to completion of Phase 1 of the Capital Improvement Plan for the site. Planning shall include the identification of measures to finance the new facility.	LS

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
4.9.3 **Anticipated commercial and industrial development would demand additional police protection services. [SM]**	**SM**	**MM 4.9.3a** **The City shall provide for the necessary additional police personnel and equipment to ensure adequate protection for the site.** **MM 4.9.3b** **The DDP shall incorporate the following security measures recommended by the Police Department:** • **Security alarms shall be installed in all buildings.** • **Developed sites shall provide adequate lighting for security, provided that such lighting is consistent with the development standards for lighting set forth in the DDP.** • **The public area, if developed as a park, shall be adequately lighted and shall be accessible to police patrol cars.** • **Dumpster areas shall be secured, fenced, and adequately lighted.**	**LS**
4.9.4 **Streets and roads constructed on the site will require maintenance by the City, including snow removal. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.9.5 **The potential park and Open Space Parkway would add more park acreage to the City, which already has more community park acreage per 1,000 population than is required by the General Plan. [LS]**	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation		Significance After Mitigation
CUMULATIVE COMMUNITY SERVICES IMPACTS				
4.9.6 Development at the RCP site and anticipated development elsewhere in Mt. Shasta would require the Fire Department to obtain additional personnel and a new facility. [SM]	**SM**	**MM 4.9.6a**	**The City shall assist the Fire Department in adding necessary personnel to maintain an effective firefighting force.**	**LS**
4.9.7 The project would contribute to cumulative demands for community services. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.		**LS**
WATER/WASTEWATER				
4.10.1 To supply the projected water demand at the Roseburg Commerce Park site, significant additions and extensions of the City's existing water system would need to be made, including new water mains and possibly new wells and tanks. [SM]	**SM**	**MM 4.10.1a**	**The City shall utilize appropriate sources to fund all proposed water system improvements in the Capital Improvement Plan. Such sources may include, but are not limited to, development impact fees, grant programs and special assessments.**	**LS**
		MM 4.10.1b	**Prior to the issuance of a grading permit for a project at the site, the project developer shall install adequate water service infrastructure and present confirmation of an adequate water supply.**	

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation		Significance After Mitigation
4.10.2 Wastewater flows from development may cause the Palmer Road/W. Ream Avenue sewer main to exceed pipe capacity when wet weather flows are taken into account. [SM]	**SM**	**MM 4.10.2a**	**The City shall work toward implementing recommendations concerning reduction of infiltration and inflow that are generated by the consultant analysis.**	**LS**
		MM 4.10.2b	**Prior to the issuance of a grading permit for a project on the site, confirmation of adequate capacity at the WWTP to accommodate project demands shall be required.**	
		MM 4.10.2c	**Prior to the issuance of a grading permit for a project on the site, confirmation of adequate capacity of the Palmer Road main to accommodate project demands shall be required. Should the Palmer Road/W. Ream Avenue main be inadequate to accommodate the demand even after implementation of MM 4.10.2a, the City shall consider measures to provide additional capacity, including construction of the main proposed in Phase 3 of the CIP.**	
CUMULATIVE WATER/WASTEWATER IMPACTS				
4.10.3 Development at the RCP site, along with other projects and planned development in the Mt. Shasta area, would generate a substantial increase in demand for water. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.		**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
4.10.4 The projected additional wastewater flow from the RCP site at buildout, along with flows from other projects, may cause total wastewater flows to exceed 75 percent of the treatment plant's capacity. [SM]	**SM**	**MM 4.10.4a The City shall review all proposed projects on the RCP site to determine if there is adequate capacity to handle wastewater flows generated by the project. If projected flows cause the total wastewater flows to exceed 75 percent of plant capacity, the City shall plan for an expansion of the plant, including plans for design and financing.**	**LS**
AESTHETICS/LIGHT AND GLARE			
4.11.1 Project implementation will alter the visual character of the RCP site. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.11.2 Certain types of development may obstruct scenic views from Mt. Shasta Boulevard and I-5. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
4.11.3 Development at the RCP site would lead to an increased amount of light and glare emissions in the area. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
CUMULATIVE AESTHETICS/LIGHT AND GLARE IMPACTS			
4.11.3 Development at the RCP site would lead to an increased amount of light and glare emissions in the area. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
CULTURAL RESOURCES			
4.12.1 Artifacts, objects, and structures associated with an event or person in California or American history or prehistory, may exist upon the project site. [SM]	**SM**	**MM 4.12.1a If cultural resources are encountered in the course of development or construction work, work shall stop immediately at the site where such resources are found, and a qualified archaeologist shall be consulted. All recommendations made by the archaeologist after the evaluation of the site shall be implemented.**	**LS**
4.12.2 The abandoned service station building on the site has potential historic value. [SM]	**SM**	**MM 4.12.2a Prior to disturbance or alteration of the service station, tower or immediately surrounding property, the property owner or project applicant shall consult with the State Historic Preservation Officer (SHPO) to determine if the service station structure is eligible for inclusion on the National Register of Historic Places. If it is determined to be a historic structure, then the property owner or project applicant shall comply with all historic building criteria and applicable regulations.**	**LS**
CUMULATIVE CULTURAL RESOURCES IMPACTS			
4.12.3 Due to the nature of cultural resources and the development history of the project site, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**

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TABLE 2.0
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance	Mitigation	Significance After Mitigation
RISK OF UPSET			
4.13.1 Some contaminants may have been left over from previous industrial and commercial operations on the Roseburg site. These contaminants may adversely affect ground water quality, and users of the property may be exposed to these substances, among other impacts. [PSM]	**PSM**	**MM 4.13.1a The City shall take appropriate measures to clean up any significant contamination found within the RCP site before development is permitted in these areas.**	**LS**
CUMULATIVE RISK OF UPSET IMPACTS			
4.13.2 Risk of upset impacts are site-specific and are generally not affected by cumulative development in the region. [LS]	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**
ECONOMIC IMPACTS			
Under the CEQA Guidelines, economic changes resulting from a project are not to be treated as significant effects on the environment (CEQA Guidelines Section 15064[f]). However, the Guidelines do permit the presentation of economic information in an EIR, particularly if economic changes lead to physical environmental changes (CEQA Guidelines Section 15131). The Economic Impacts Section has been prepared for informational purposes.	**LS**	Since no significant impact has been identified, no mitigation is required.	**LS**

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3.0 PROJECT DESCRIPTION

3.1 REGIONAL AND LOCAL SETTING

The City of Mt. Shasta is located in the southern portion of Siskiyou County at the southwestern base of Mt. Shasta, a 14,162 foot peak in the Cascade Mountains in northern California. The City is located approximately 60 miles north of the City of Redding and 40 miles south of the Oregon border **(Figure 3-1)**.

Regional access to the City and project site is provided by Interstate 5 (I-5) and State Route 89 (SR 89). I-5 is the major north-south transportation route in the State, extending from southern California through Washington State. State Route 89 originates just south of the project site at its intersection with I-5 and provides regional access to northeastern California. Direct access to the site from the south is provided via South Mt. Shasta Boulevard from an off ramp on northbound I-5 and an interchange with SR 89. Access from the north is provided by South Mt. Shasta Boulevard from downtown Mt. Shasta. The Union Pacific Railroad tracks form the western boundary and I-5 defines the southwestern boundary of the project site. The Shasta-Trinity National Forest lies to the east of the property and the Mt. Shasta City limits to the north.

Although the City owns a majority of the property, the project site is currently within the jurisdiction of Siskiyou County. However, the site is within the City's Sphere of Influence (SOI), and, as addressed in this EIR, the City intends to file an application with the Local Agency Formation Commission (LAFCo) to annex the project site and neighboring parcels.

The Roseburg Commerce Park (RCP) project site and other parcels considered for annexation are located south of the city limits on South Mt. Shasta Boulevard **(Figure 3-2)**. Mt. Shasta Boulevard bisects the RCP site into two sections totaling 127.1 acres. The western portion consists of approximately 69.8 acres and 57.3 acres constitutes the eastern portion of the site. An additional 13.6 acre area east of South Mt. Shasta Boulevard and north of the RCP is included within the annexation request. A General Plan Amendment is also required for several residential parcels within this 13.6 acre area to eliminate existing General Plan inconsistencies. The parcels within the proposed annexation area are listed in Table 3-1. Table 3-1 also identifies existing and proposed General Plan and zoning designations.

In December 1997, a Preliminary Market Assessment and an Opportunities and Constraints Analysis were prepared for the proposed RCP. These two documents were prepared prior to the addition of two privately owned and one city owned parcel to the project site. The Preliminary Market Assessment and Opportunities and Constraints Analysis evaluated the city owned Roseburg Lumber Mill property, which totals 116.7 acres. Subsequently the three parcels, which are to be included in the annexation process, were added to the project, changing the project acreage total to 127.1. The three parcels are located at the southern end of the site, two parcels totaling 6.3 acres to the east of Mt. Shasta Boulevard and one parcel totaling 4.1 acres to the west. Additional parcels totaling 13.6 acres which are not part of the Roseburg Commerce Park, but are to be included in the annexation

TABLE 3-1
PARCELS WITHIN THE PROPOSED RCP ANNEXATION

ASSESSOR'S PARCEL NO.	PROPERTY OWNER	ACRES	EXISTING LAND USE	GENERAL PLAN DESIGNATION		ZONING		WITHIN RCP
				EXISTING	PROPOSED	EXISTING	PROPOSED	
37-220-040	City of Mt. Shasta	21.3	Vacant	CC/EC/Public	CC/EC/Public	M-H	PUD	Y
37-220-080		44.4	Vacant	CC/EC	CC/EC	M-H	PUD	Y
37-240-130		51.0	Vacant	CC	CC	R-R-B-40	PUD	Y
37-260-020		0.3	Vacant	CC	CC	C-U	PUD	Y
37-240-010	C&C	0.8	Beverage Distributor	CC	CC	M-M	M-M	N
37-240-020	Rousseau, R.L., Eila E. & R.J.	1.3	Motel	CC	CC	C-H	C-H	N
37-240-090		1.0	Vacant	CC	GR	R-R-B-1	R-R-B-1	N
37-240-030	Lyman, Luther Reed Jr. & Margaret Tr.	0.6	Raquetball Club	CC	CC	C-U	C-U	N
37-240-040	Zeiler, Dale S. & Karen A.	1.1	Zeigler Distributing	CC	CC	M-M	M-M	N
37-240-070		1.5	Street	CC		Street	Street	N
37-240-050	Mt. Shasta Church of Christ, Inc.	1	Church	CC	CC	C-U	C-U	N
37-240-060	Richardson, Aaron L. & Illa I. Trust	1	Excavation & Grading Operation	CC	CC	C-U	C-U	N
37-240-100	Olkkola, Laura Trust	2.1	Vacant	CC	GR	R-R-B-1	R-R-B-1	N
37-240-120	Fidler, Ron M. & Roberta M.	1.4	Residential	CC	GR	R-R-B-1	R-R-B-1	N
37-240-160 (formerly 37-240-080/110)		1.8	Vacant	CC	GR	R-R-B-1	R-R-B-1	
37-240-140	Ericson, Gene A. & Lavada I. Family Trust	6	Vacant Gas Station	CC	CC	C-U	PUD	Y
37-260-010	Franklin, Ralph J.	4.1	Vacant	CC	CC	C-U	PUD	Y
Total Acreage		140.7						

General Plan Designations:
CC - Commercial Center
EC - Employment Center
GR -General Residential
Public

Zoning:
M-H - Heavy Industrial
M-M - Light Industrial
C-H - Highway Commercial
C-U - Neighborhood Commercial
R-R-B - Rural Residential Agriculture
PUD - Planned Unit Development

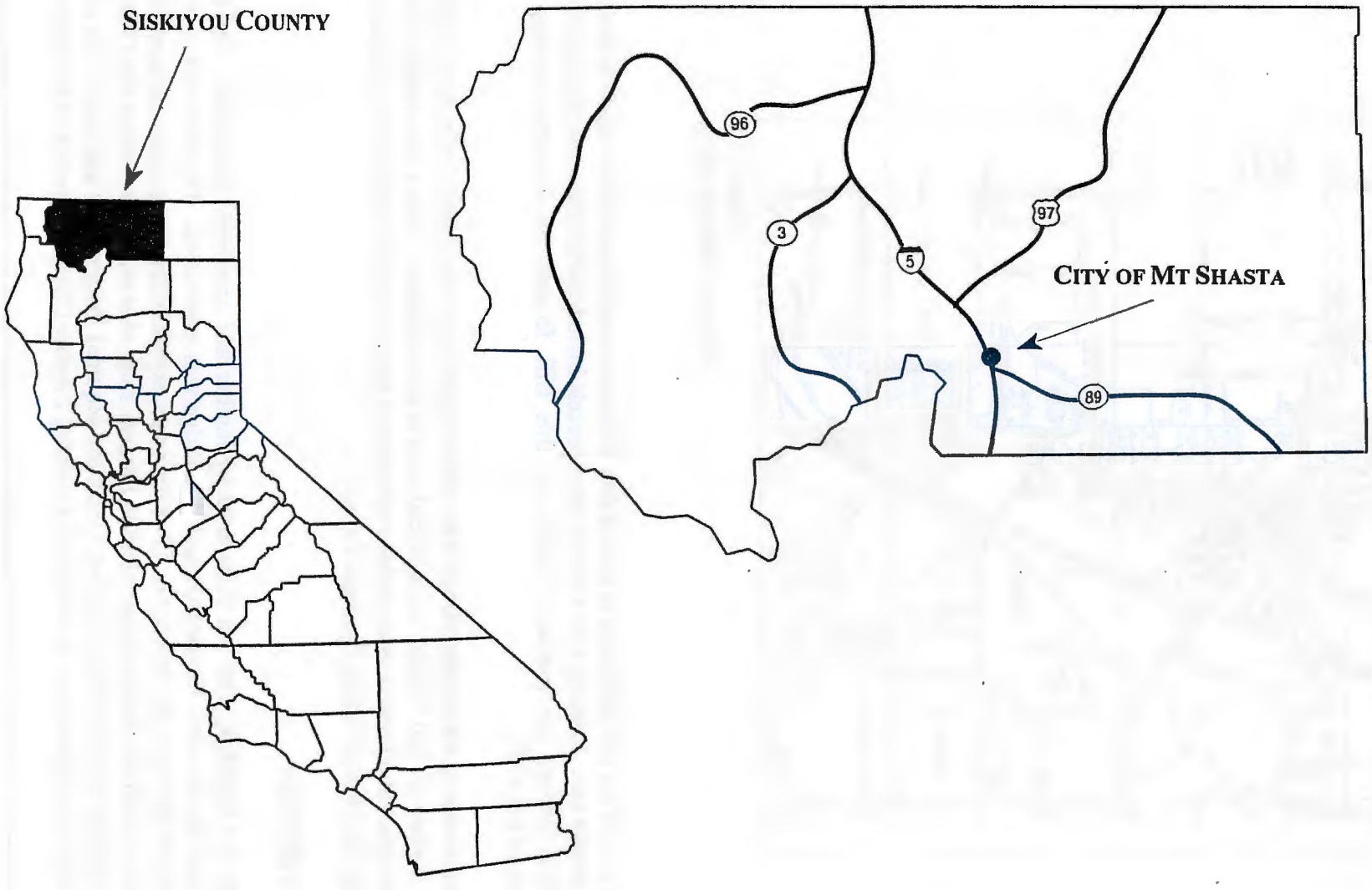


Figure 3-1
Regional Map

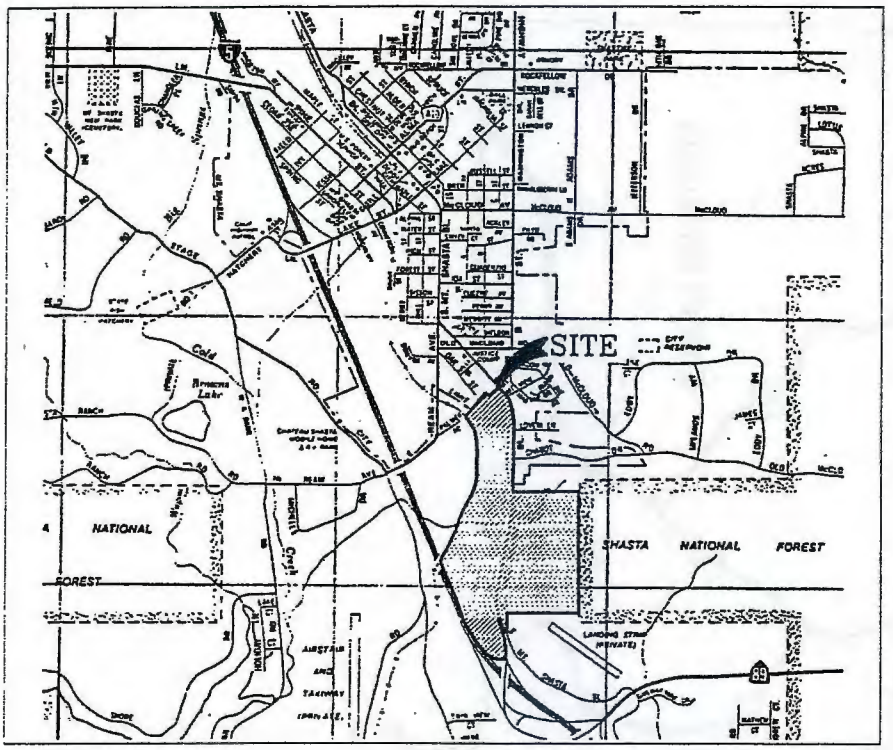


Figure 3-2
Project Vicinity Map

application to LAFCo and addressed as part of this EIR, are located immediately north of the eastern half of the project site. Existing land uses on these parcels include residential and commercial uses. Because these parcels are primarily built out, this EIR focuses on impacts resulting from development of the RCP.

Land uses surrounding the project site include: undeveloped city-owned land to the west, residential uses to the northwest, and various commercial uses to the northeast. Uses to the south of the site include open space and limited commercial development and most of the property to the east of the site is within the Shasta-Trinity National Forest.

3.2 SITE HISTORY

Historically, the Roseburg site has been used by lumber and associated industries. In 1887, a sawmill owned by Barnard, Huntington and Walbridge was established. The mill was located on Barnard railroad spur near the mill pond. Over the years, several companies operated sawmills and box factories at both the Barnard spur and the Pioneer spur, also on the Roseburg site (Vaughan, 1996). Eventually, the Roseburg Lumber Company acquired the property and used it for milling operations and a tree plantation. In 1989, the Roseburg Lumber Company ceased its operations and

deeded the property to the City of Mt. Shasta. The railroad spurs at the site have been removed, and the last remaining building within the lumber mill property was demolished in 1996.

3.3 EXISTING CONDITIONS

The Roseburg property is essentially vacant, although there are remnants of the former lumber operations including: the empty mill pond, the uniform plantation grown trees on the eastern portion of the site, abandoned/dilapidated infrastructure, and concrete slabs and guard rails in the center of the western portion of the site. Only one significant structure remains standing within the RCP: a vacant former service station and an associated tower just east of Mt. Shasta Boulevard near the southern edge of the project site on one of the two private parcels within the RCP. The building is currently for sale and has been used for a retail ski shop and a real estate office since the service station was closed. The structure was originally built in the late 20's as part of a string of Richfield Beacon Stations that stretched from Blaine, Washington to El Centro, California along Highways 99 and 101. The stations from Mt. Shasta north utilized a French Revival architectural style characterized by steep roof lines and arched entryways. The 125 foot tower held a light beacon that was utilized by small planes as a navigational aid. Because of the age and unique character of the structure and accompanying tower it is possible that they may be eligible for inclusion on the National Register of Historic Places (See Figure 4.12-1 in Section 4.12, Cultural Resources).

The eastern portion of the RCP is primarily occupied by a tree plantation formerly managed by the lumber company. This portion of the site slopes moderately upwards to the southeast with some steeper slopes in the northeast corner. Elevations range from 3,500 feet near Mt. Shasta Boulevard in the west to roughly 3,625 feet in the east. Currently there are no urban uses on this half of the project site. The western portion of the project site is where the past lumber operations were located. This area has been extensively altered and remnants of the lumber operations can be found throughout the site although all buildings and major improvements have been removed. This half of the site slopes gradually downward from east to west with elevations ranging from approximately 3500 feet at Mt. Shasta Boulevard to 3,460 feet at the western property line near I-5.

The 13.6 acres outside of the RCP boundaries but included in the annexation request consists of eleven parcels. The majority of the area is developed with a mix of uses including a health club, a motel, a trucking operation, a heavy equipment operation, the Mt. Shasta Church of Christ, and one single family residence. Three of the parcels in the eastern portion are zoned for residential uses and are undeveloped. Existing and surrounding land uses in the project area are shown in Section 4.2, Land Use, Figure 4.2-3.

3.4 PROJECT OBJECTIVES

In January 1998 a Draft Development Plan (DDP) was prepared for the proposed Roseburg Commerce Park. The information and analyses included in the DDP defines the project evaluated in this environmental analysis. The DDP identifies development concepts, buildout scenarios, and allowed uses and standards for the development of the majority of the project site being considered for annexation. The 13.6 acres outside the RCP are already developed and will have a minimal contribution to the environmental impacts generated by the project. A copy of the Draft Development Plan is available for review at the City of Mt. Shasta City Hall, 305 North Mt. Shasta Boulevard..

Since the City received title to the Roseburg property, it has considered potential commercial or industrial development of the site and explored various options to annex the property. The DDP and supporting documents were prepared to facilitate the achievement of both of these objectives. Consistent with these objectives the RCP property is within the City's Sphere of Influence and has been designated in the General Plan for Commercial Center, Employment Center, and Public land uses. Following acceptance and adoption of the Roseburg Commerce Park DDP and certification of this Environmental Impact Report (EIR), the City intends to submit an application to the Siskiyou County Local Agency Formation Commission (LAFCo) requesting annexation of the property into the City.

Listed below are the proposed project objectives as identified in the Roseburg Commerce Park Draft Development Plan:

- To provide guidance for the development of the Roseburg site that reflects the desires of the Mt. Shasta community.
- To ensure that development within the Roseburg site is well integrated and is harmonious with the surrounding natural and built environment.
- To encourage the development of the site by establishing defined criteria that project applicants must meet.
- To provide a baseline for the evaluation of the environmental impacts associated with annexation and development of the Roseburg property.
- To expedite the annexation of the Roseburg property by providing a more detailed application and environmental review process to the Local Agency Formation Commission (LAFCo).
- To develop an infrastructure and phasing plan for the site.

3.5 PROJECT CHARACTERISTICS

OPPORTUNITIES AND CONSTRAINTS

Preparation of the DDP began with the compilation of information and the preparation of an Opportunities and Constraints Analysis. This analysis identified several potential development opportunities and constraints which were depicted on a Development Opportunities Map. This map depicts a conceptual circulation system and potential development areas graded by the degree of constraint to development. Areas were "graded" in a range from 1-Few to 4-Severe development constraints. A copy of the Opportunities and Constraints Analysis and the DDP are available for review at the Mt. Shasta City Hall.

The Opportunities and Constraints Analysis identified several potential development constraints:

- The former mill pond site and adjacent areas, due to soil type and the presence of wetlands. Work within wetlands may require a permit from the U.S. Army Corps of Engineers.
- Areas adjacent to the railroad tracks, due to noise and steep slopes.
- The northeastern corner of the eastern section of the site, due primarily to steep slopes, but also due to the presence of wetlands and the possible existence of cultural resources.
- A seep area in the northwestern area of the eastern section, potentially subject to the jurisdiction of the Army Corps of Engineers.
- There could be limited traffic capacity available on Mt. Shasta Boulevard, depending on the intensity of site development. The steep embankment along the frontage with the western section of the site restricts access options and the ability to widen the boulevard. Sight lines and the rolling terrain along this segment also are potential problems.
- Both on-site and off-site improvements must be constructed to provide water and sewer service.
- Noise levels could restrict development potential within 300 feet of Interstate 5 and within 75 feet of the Union Pacific Railroad tracks.

BUILDOUT SCENARIO

The precise extent and mix of development likely to occur within the proposed Roseburg Commerce Park are unknown. Nevertheless, it is necessary to create a reasonable buildout scenario for the project site for the purposes of this environmental analysis and to assist in planning circulation and infrastructure improvements. Based on an evaluation of roadway and infrastructure capacity, it was determined that limiting buildout to a total Average Daily Trip (ADT) generation of approximately 16,000 would minimize the need for significant infrastructure improvements required to serve the next increment of growth on the site. This threshold was then translated into a mix of uses that were felt to represent a reasonable mix of potential uses based on market conditions. As shown in Table 3-2, this buildout scenario would involve development of 47.5 acres of the 81 acres of developable area identified in the DDP.

It should be noted that in lieu of specific development proposals for the site, this EIR can only evaluate project related impacts at a programmatic level. Consequently , the uses identified in Table 3-2 have not been distributed onto the project site as this was considered too speculative. Instead, the project team evaluated potential environmental impacts during the initial phases of implementing the DDP and incorporated development standards, setbacks etc. into the plan to minimize potential impacts from development. In essence the DDP was developed to be self mitigating. The initial environmental screening that has already been conducted is supplemented in this EIR with an evaluation of off-site impacts on services and identification of specific thresholds where certain improvements or actions would need to be taken at various stages of development and within specific portions of the property. Provided that subsequent development proposals are within the envelope described by this EIR, minimal further environmental analysis should be necessary.

In order to fully comply with CEQA, this EIR also considers potential impacts associated with worse case/full buildout of the project site. This buildout scenario is shown in Table 3-3. As shown in Table 3-3, the RCP could accommodate up to 900,000 square feet of commercial/office/industrial uses. Given local market conditions, the probability of achieving that level of buildout over a reasonable buildout timeline (20 to 30 years) is extemely low. The evaluation of the worse case buildout scenario is qualitative in nature and is intended to provide the decision-makers with adequate information to make an informed decision on the Roseburg Commerce Park DDP and the annexation proposal.

LAND USE PLAN

The DDP covers the majority of the property proposed for annexation which is identified as Roseburg Commerce Park (RCP), 127.5 acres. The DDP is intended to establish a Planned Unit Development and land use plan for the RCP site, along with development and site design critiera. The DDP will also serve as an implementing mechanism and includes phasing and capital improvement recommendations.

The RCP site is divided into seven "development areas" containing individual parcels plus an open space parkway. The boundaries of these areas are depicted in **Figure 3-3**, Draft Land Use Plan. The DDP's overall goal is the unified development of a range of anticipated land uses including recreational, commercial, industrial, government, business park, and office uses. The DDP contains several concepts that could be employed in building and site design. It also contains a detailed description of the buildout scenarios that are used for the analysis in this EIR. General and specific development standards and allowed uses within each Development Area (DA) are described in Chapters 4.0 and 5.0 of the DDP. The various development areas are described below:

TABLE 3-2
BUILDOUT SCENARIO FOR ROSEBURG COMMERCE PARK*- 16,000 ADT* *

LAND USE	ACREAGE	ADT
Business Park	9.5	1,518
Office Park	7.0	1,366
Governmental	5.0	976
Industrial Park	3.5	220
Resort Hotel (100 rooms)	6.0	625
Motel (50 rooms)	1.0	510
Amusement Center	6.0	480
Service Station (12 pumps)	0.5	1,954
2 Fast-Food Restaurants (5,000 sq. ft. total)	2.0	3,550
2 Sit-Down Restaurants (10,000 sq. ft. total)	2.0	1,780
Quality Restaurant (5,000 sq. ft.)	1.0	480
10 Specialty Retail Stores (50,000 sq. ft. total)	4.0	2,035
Total	**47.5**	**15,494**

* The mix of uses identified in the Table was developed for analytical purposes only. The actual mix of uses that ultimately are developed on the property could vary substantially from this mix.

* * Under General Plan buildout conditions, approximately 16,000 ADT can be accommodated without expanding Mt. Shasta Boulevard to four lanes.

TABLE 3-3
MAXIMUM POTENTIAL BUILDOUT OF ROSEBURG DEVELOPMENT AREAS

DEVELOPMENT AREA (DA)	PARCEL	ACREAGE	FAR	POTENTIAL BUILDOUT (SQ. FT.)	PREFERRED/ANTICIPATED USE
DA-I	A	1.5	0.30	19,600	Commercial
	B	3.0	0.30	39,200	Business Park
	C	3.5	0.30	45,738	Business Park
	D	2.0	0.30	26,136	Comm./Gas/Food
	E	2.0	0.30	26,136	Comm./Gas/Food
	F	1.0	0.30	13,068	Comm./Gas/Food
	G	2.0	0.30	26,136	Comm./Gas/Food
	H	6.0	0.30	78,408	Commercial
	I	3.5	0.30	45,738	Commercial
	J	6.0	0.30	78,408	Recreation
	K	2.0	0.30	26,136	Motel
DA-II	A	5.0	0.30	65,340	Government
	B	2.0	0.30	26,136	Office
	C	1.5	0.30	19,600	Office
DA-III		3.5	0.30	45,738	Industrial
DA-IV	A	4.0	0.25	43,560	Commercial
	B	3.0	0.25	32,670	Commercial
	C	2.5	0.25	27,225	Commercial
	D	3.0	0.25	32,670	Commercial
DA-V		24.5	0.15	160,083	Resort Hotel
DA-VI		15.0	---	---	---
DA-VII		13.5	0.05	29,600	Public/Concessionaire
Total		**81.5**		**907,326**	

Internal Road Improvements

An interior loop road in the western portion of the project site would serve as the primary internal means of access. The more readily developable land is located in this area, but there are currently no improved roads or access points. The proposed loop road would begin at the intersection of Mt. Shasta Boulevard and Bear Springs Road in the north and would wind southward for approximately .5 miles, creating a second intersection with Mt. Shasta Boulevard in the south (See Figure 3-3). The road would be constructed to meet City standards for commercial/industrial roads.

Turn lanes on Mt. Shasta Boulevard would be needed at the intersections, which would require the widening of the boulevard at those points. In addition, a traffic signal is recommended for the southernmost intersection, assuming that the State Route 89 bypass identified in the Mt. Shasta General Plan may eventually be connected at this location. The loop road can be constructed in phases depending on the size and intensity of initial site development. The Phasing Plan anticipates a two-phase construction of the loop road.

Other interior roads will be required to access other Development Areas. Extension roads from the loop road to Development Areas IV and VII will be required before these areas can be developed. Another extension would be required from Mt. Shasta Boulevard to DA V. This access would need to be compatible with the potential future construction of the Highway 89 bypass. Smaller access roads to site parcels may be required, but future developers would be primarily responsible for those roads. Such roads must be constructed to City commercial/industrial standards.

The DDP also includes provisions for a pedestrian and bike trail system. An improved trail is proposed for the designated parkway extending from Mt. Shasta Boulevard, near DA VII, to the railroad under-crossing of I-5. The pathway would be designed to accommodate both pedestrian and bicycle traffic and would allow connection to a regional trail system west of I-5. Sidewalks would also be provided along the loop road to encourage walking between uses within the interior of the site. Recreational trails are an allowed use within DA VI. Pedestrian improvements are not proposed along Mt. Shasta Boulevard due to safety and cost considerations.

INFRASTRUCTURE PLAN

A major constraint to development of the Roseburg site is the lack of existing infrastructure. No sewer lines exist on-site, and the City's General Plan requires that all new development to be connected to the City's sewer system. Only one water line is located in the area, within Mt. Shasta Boulevard extending from the north to Bear Springs Road. There are currently no paved roads or improved access points to areas beyond Mt. Shasta Boulevard. Therefore, improvements will need to be constructed on or extended to the RCP site before any development can occur.

The Infrastructure Plan addresses the lack of services at the site other than roads, which are discussed in the Circulation Plan. The Infrastructure Plan identifies service needs based on the buildout assumptions presented previously and describes improvements needed to satisfy anticipated demands. This plan discusses improvements in three service areas: water, sewer and drainage.

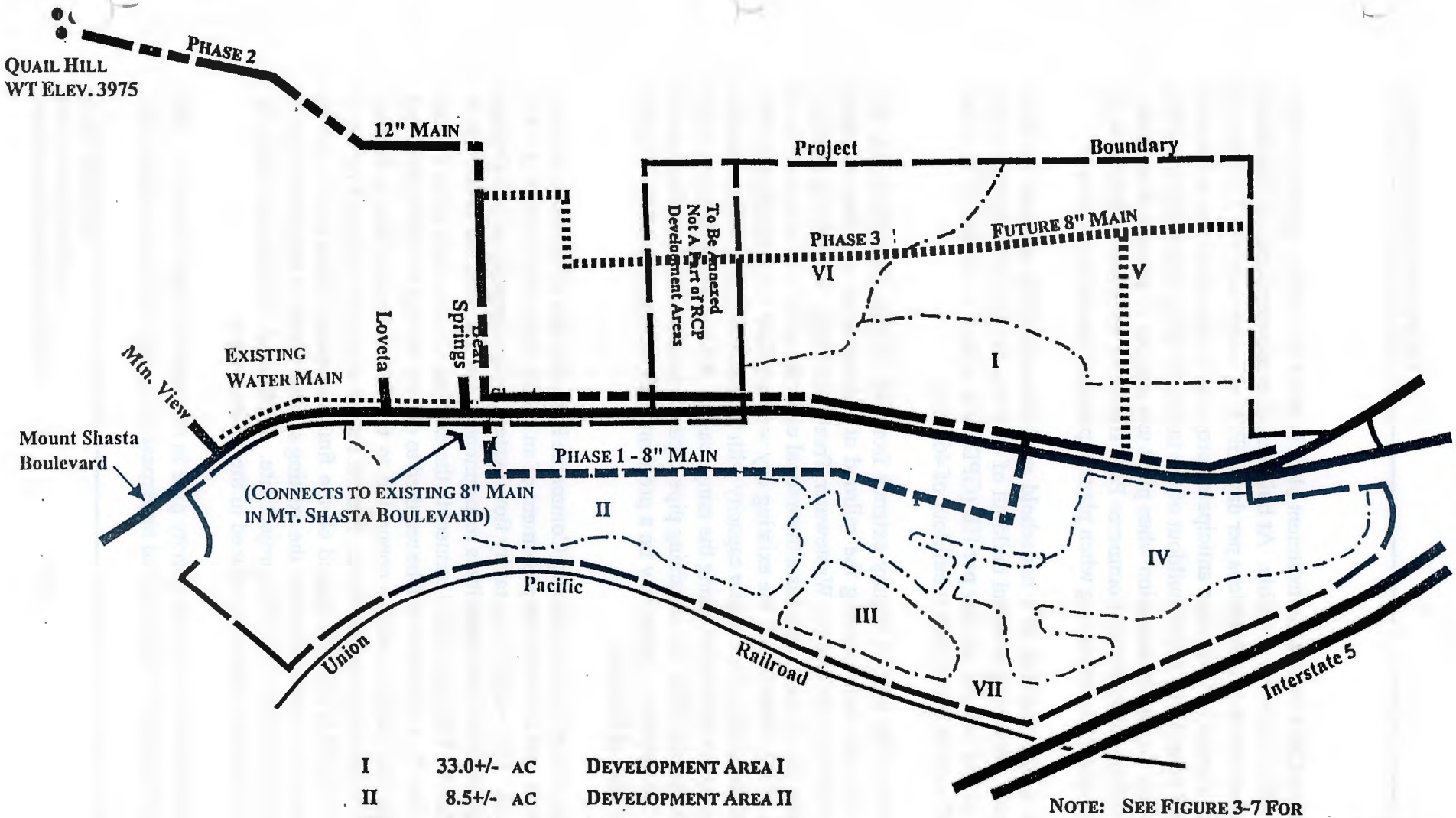
Water Supply

The standard water usage rate for commercial development is 0.5 gallons per minute (GPM) per 100 square feet. At maximum buildout as described in Table 3-2, flow rate demand would be approximately 4,000 GPM. In addition, flows required for fire fighting must be considered. The suggested Needed Fire Flow (NFF) at maximum buildout is 3,000 GPM for at least three hours. To handle the total 7,000 GPM flow, a 16-inch minimum diameter pipeline from the storage tanks at Quail Hill (approximately .5 miles northeast of the site) would be required, with a potential demand of 10 million gallons per day (MGD). This would require unrealistic infrastructure additions and thus is not considered a practical approach.

Instead, a more realistic phasing strategy was used to determine required water system improvements. Phase 1 would tie in development along Mt. Shasta Boulevard to the existing water system at the 8-inch water main that dead-ends at the Bear Springs Road intersection. An 8-inch water main would be placed just west of Mt. Shasta Boulevard and then looped back to serve both existing and future development east of the boulevard and development within DA I and II in the western portion of the site. The maximum available flow from this main would be 2,021 GPM with a residual pressure of 20 pounds per square inch (psi). The Uniform Fire Code requires a minimum fire flow of 1,500 GPM for at least two hours for nonresidential areas. Thus, only 521 GPM would be available to serve water needs for development, limiting commercial development to approximately 104,200 square feet. **Figure 3-4** depicts proposed improvements by phase.

Once the 104,200 square-foot threshold is reached, Phase 2 would be required. Improvements include a looped main of at least 10-inch diameter from the Quail Hill storage tanks (The Capital Improvement Plan in this chapter assumes a 12-inch main). The Phase 2 main can parallel the existing main on Old McCloud Avenue or take a shorter route to the hydrant at Bear Springs Road and Village Way. An additional well may be required to provide sufficient supply.

Phase 3, the final phase, would allow for further development in the eastern section of the Roseburg site. The 1986 Master Water Plan for the City calls for a looping system from Quail Hill to Village Way and Bear Springs Road, then to Mt. Shasta Boulevard where it would extend south to the end of the RCP site. Phase 3 would also add an 8-inch main from Village Way through the eastern section. It would then be looped back to a 12-inch main near the south limit of the site. This phase would be in compliance with the suggested development of a water main in the City's Master Water Plan, and it would provide flow increases for water supply and NFF flows for the south end of the Roseburg site.



I	33.0+/-	AC	DEVELOPMENT AREA I
II	8.5+/-	AC	DEVELOPMENT AREA II
III	3.5+/-	AC	DEVELOPMENT AREA III
IV	12.5+/-	AC	DEVELOPMENT AREA IV
V	24.5+/-	AC	DEVELOPMENT AREA V
VI	15.0+/-	AC	DEVELOPMENT AREA VI
VII	30.5+/-	AC	DEVELOPMENT AREA VII

NOTE: SEE FIGURE 3-7 FOR PROJECT DEVELOPMENT PHASES

SCALE IN FEET

Figure 3-4
Water System Improvements

Wastewater Service

At present, the capacity of the City's wastewater treatment plant is about 0.7 million gallons per day (MGD), with about 0.15 MGD currently available. At buildout, it is estimated that the Roseburg Commerce Park could generate up to 63,480 gallons per day (GPD) of wastewater or 42 percent of the 150,000 GPD available capacity. With other anticipated projects, it is possible that expansion of the treatment plant would be required before buildout of the initial 46 acres, especially since the General Plan requires the City to plan for expansion when plant use reaches 75 percent of capacity. Subsequent development within the Roseburg Commerce Park should be reviewed to determine if capacity is available and to assist in determining when plant expansion should be considered.

To estimate demand, the usage standard of 6 household equivalencies (HE) per acre of light commercial usage was used. Assuming an initial buildout of 46 acres, the project would generate a minimum of 276 HE. At 230 gallons per day per HE (GPD/HE), a flow of 63,480 GPD or 44 Gallons per Minute (GPM) can be anticipated at buildout of 46 acres.

The existing sanitary sewer in the project vicinity extends from Mt. Shasta Boulevard near the southern city limits to a 12-inch main crossing the railroad at Palmer Road and then crossing Interstate 5 at Ream Road before reaching the Wastewater Treatment Plant. Reviewing sanitary sewer main sizing standards, the 12 inch main has a theoretical capacity of 915 GPM at a slope of 0.4%. According to City of Mt. Shasta staff, the existing dry weather flow is approximately 457 GPM or half of the available capacity, which is near capacity with the remaining pipe volume needed for wet weather peak flows due to infiltration during the rainy season. Adding 44 GPM of peak dry flow from the Roseburg Commerce Park, the remaining pipe capacity is effectively zero because of the infiltration problem. Consequently, there may be a problem with the capacity of the 12-inch sewer main during wet weather at buildout.

Development of the sewage system for the Roseburg Commerce Park, like that of the water system, can occur in phases. Phases 1 and 2 involve the placement of an 8-inch main with a slope of 0.4% along Mt. Shasta Boulevard. This would be a gravity flow system with a capacity of 403 Gallons per Minute (GPM), although only half that capacity is recommended for use, with the remainder to be saved for wet-weather flows. The main would connect to the existing 12-inch main under Palmer Road. For Development Area III, a lift station will be required to deliver sewage to the Palmer Road main. The outlet from the lift station could be connected to the 8-inch gravity line at the last manhole before it reaches the existing manhole tie-in. The lift station should be designed for up to a minimum peak flow of 30 GPM, but will depend on the final occupancy types and would be subject to a detailed site survey. As noted, repairs to the existing system would be required to reduce infiltration and accommodate demand from the project site. Additional development could be accommodated once the infiltration problem is reduced in the 12-inch main.

Phase 3 would involve installation of a 12-inch gravity pipe in the southern part of the site. This main would be routed under Interstate 5 at the railroad underpass to an existing line underneath the

tracks. This main would not only permit development of the remaining undeveloped area of the RCP site, but the area south of the site as well. As previously indicated, it is anticipated that additional treatment capacity would be required before full buildout of the project site could occur. **Figure 3-5** identifies existing and proposed sanitary sewer lines and improvements that would serve the site.

Storm Drainage

Existing storm water drainage on the RCP site drains into Mill Creek at I-5 through two culverts under the railroad tracks. Two drainage areas exist within the Roseburg site. The north drainage area is the Mill Creek drainage through the former mill pond. The mill pond has a channel through which drainage is discharged. The northern drainage area covers a relatively small portion of the site but includes off-site drainage from areas east and northeast of the site. The southern drainage area covers all of the eastern section and the southern half of the western section.

In the northern drainage area, the pond could be rehabilitated as an additional storm water detention facility when necessary, with a metering gate at the present discharge channel. Wetlands have developed in the former mill pond, but mitigation measures for their loss can be implemented. The development standards for this area allow for a wetlands mitigation bank and enhancement area (see Area VII in Chapter 5.0).

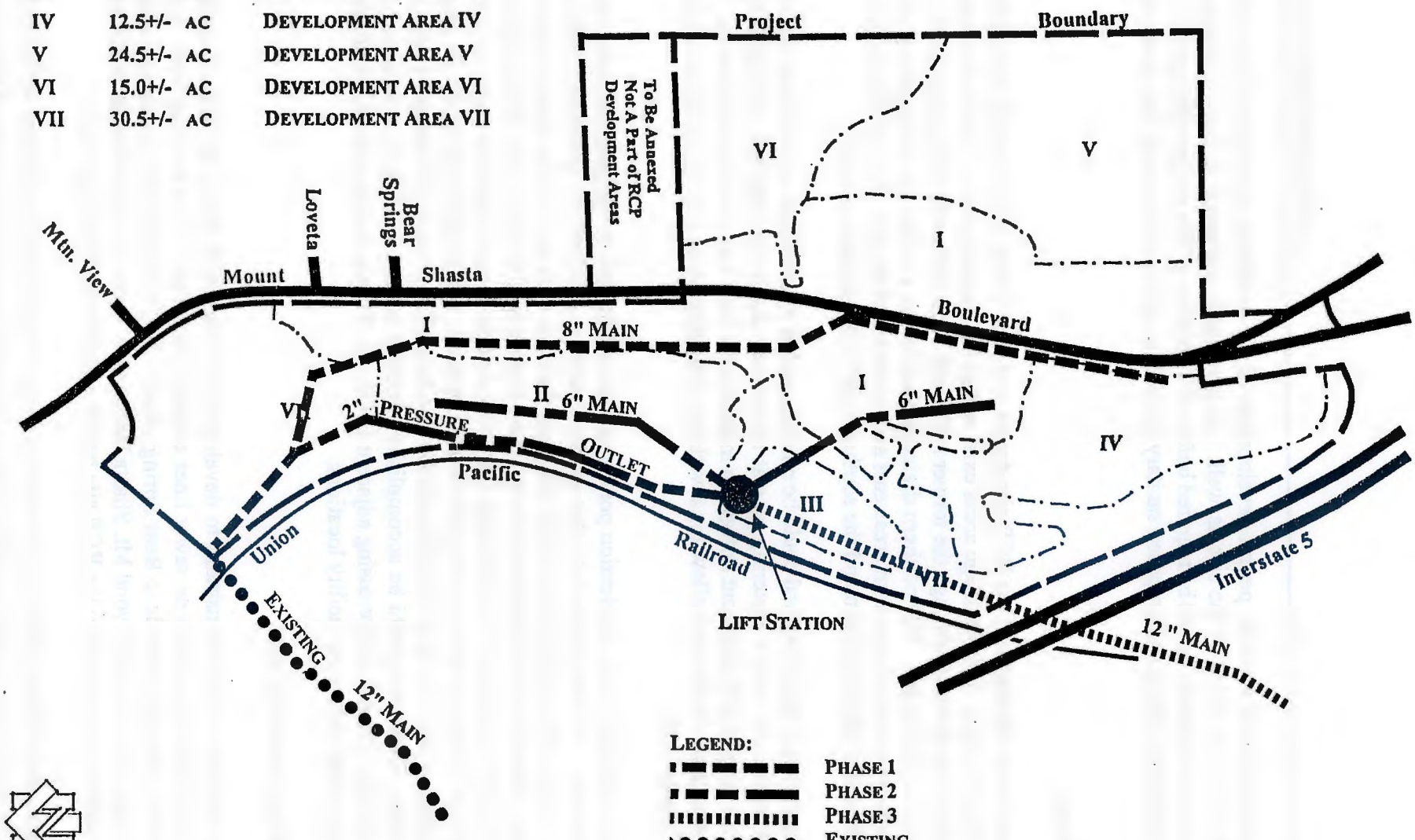
For the southern drainage area, a detention pond could be constructed to mitigate increased runoff from development. If development in the southern area is confined to preexisting areas of development, such as the former lumber mill site, then Caltrans does not need to study or approve a drainage plan. However, if development occurs in the eastern section of the site, then a detention area on site would be needed. The discharge from this detention area would be metered to keep peak flows to Mill Creek the same as that prior to development. Other approvals would be needed from the Regional Water Quality Control Board, the California Department of Fish and Game, and Siskiyou County. Detention could be accomplished through several small detention basins or a larger basin near the railroad undercrossing adjacent to DA-III. **Figure 3-6** depicts on-site drainage features and proposed detention facility locations.

CAPITAL IMPROVEMENT PLAN

As mentioned earlier, a major constraint to development of the RCP site is the lack of existing infrastructure. There are currently no sewer lines extended to the site. The existing water line in Mt. Shasta Boulevard only extends to Bear Springs Road. There are currently no paved roads or improved access points to areas beyond Mt. Shasta Boulevard. Therefore, improvements will need to be constructed on or extended to the RCP site before any development can occur.

A Capital Improvement Plan (CIP) is a short and/or long-term planning instrument which can be used to identify capital improvement needs and to coordinate financing and timing of those needs

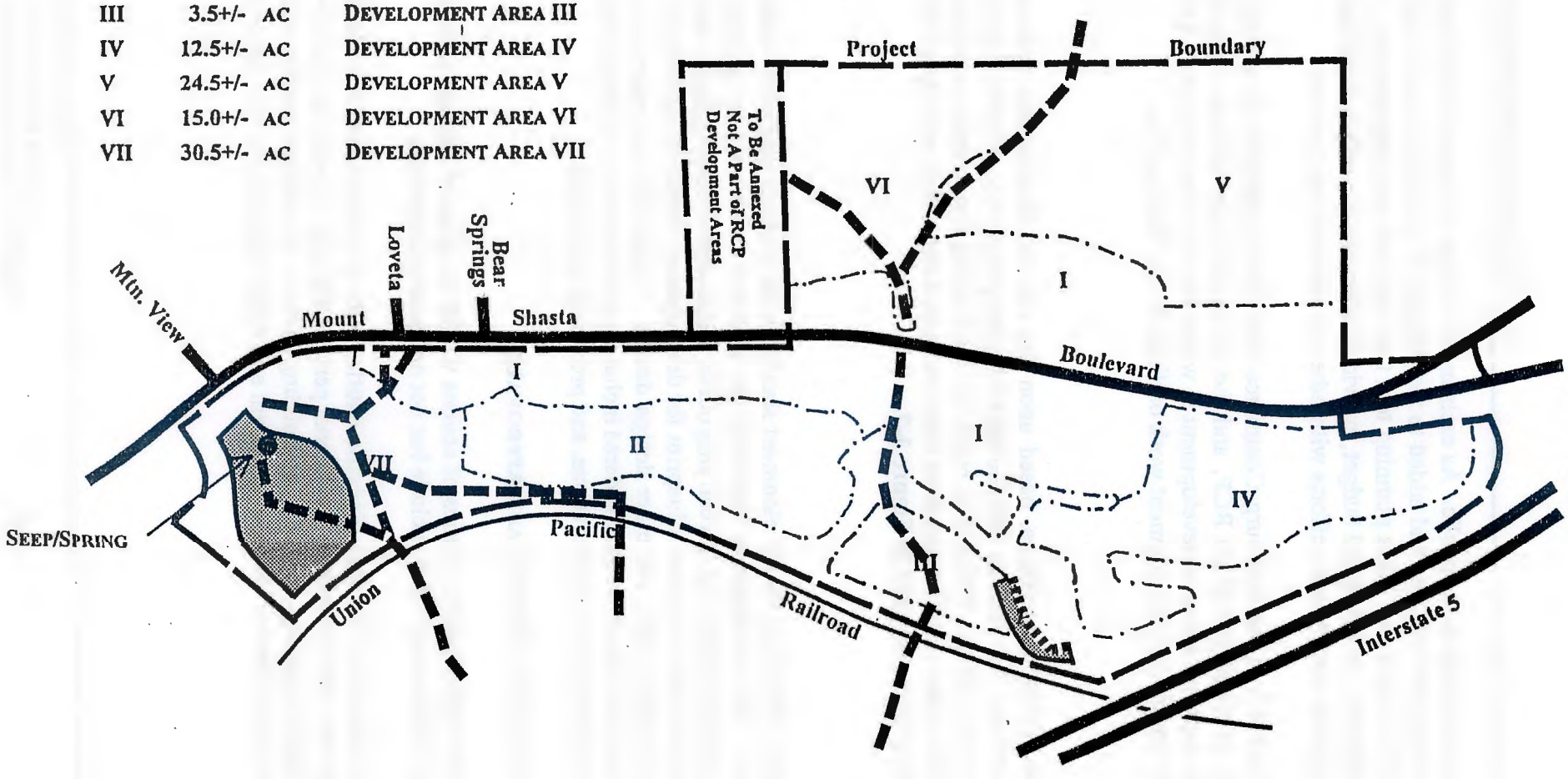
I	33.0+/-	AC	DEVELOPMENT AREA I
II	8.5+/-	AC	DEVELOPMENT AREA II
III	3.5+/-	AC	DEVELOPMENT AREA III
IV	12.5+/-	AC	DEVELOPMENT AREA IV
V	24.5+/-	AC	DEVELOPMENT AREA V
VI	15.0+/-	AC	DEVELOPMENT AREA VI
VII	30.5+/-	AC	DEVELOPMENT AREA VII



NOTE: SEE FIGURE 3-6 FOR PROJECT DEVELOPMENT PHASES

Figure 3-5
Wastewater Improvements

I	33.0+/-	AC	DEVELOPMENT AREA I
II	8.5+/-	AC	DEVELOPMENT AREA II
III	3.5+/-	AC	DEVELOPMENT AREA III
IV	12.5+/-	AC	DEVELOPMENT AREA IV
V	24.5+/-	AC	DEVELOPMENT AREA V
VI	15.0+/-	AC	DEVELOPMENT AREA VI
VII	30.5+/-	AC	DEVELOPMENT AREA VII



LEGEND:

PHASE 1 EXISTING DRAINAGE CHANNELS

PHASE 2 DETENTION POND AREA

PHASE 2 BERM FOR DETENTION BASIN

NOTE: SEE FIGURE 3-7 FOR PROJECT DEVELOPMENT PHASES

SCALE IN FEET

Figure 3-6
Drainage Improvements

in a manner that maximizes the return to the public. As each annual budget is prepared, additional projects and priority needs can be developed and added to the program to maintain a current and comprehensive plan. A CIP is more than just a planning tool for City staff and management. It functions as a detailed explanation of the capital budget, provides information to elected officials and the general public, and aids coordination efforts with other jurisdictions and entities.

The CIP, presented in Table 3-3 in the Roseburg Commerce Park DDP, identifies the projects necessary to facilitate the development of the RCP, and the estimated costs of these projects. Projects are grouped by the expected phase of development in which they will be completed. This grouping is based upon the anticipated development work outlined in the Phasing Plan.

PHASING

The DDP identifies three development phases, based upon the ease of development and the incremental provision of services. The phasing plan provides a logical progression of development, assuming an incremental growth pattern. It should be noted that the Phasing Plan is only conceptual and does not preclude a different pattern of development based on market conditions or development opportunities. The phasing plan is presented in **Figure 3-7.**

DESIGN GUIDELINES

The DDP includes a chapter describing the development standards for projects proposed within Roseburg Commerce Park. The development standards are intended to be used by persons, organizations, and public agencies in planning and carrying out developments within the project site. The development standards provide the general blueprint for development decisions affecting the architecture, landscaping, parking, signs, and other design details. In deciding the appropriate development standards, several key factors were considered including: pad elevations, visibility from transportation corridors, site preparation considerations, and proximity to services.

3.6 SUBSEQUENT AGREEMENTS, PERMITS, AND APPROVALS

In order for the Project to be implemented, a series of actions would be required through private parties and public agencies. Such actions may include but not necessarily limited to:

City of Mount Shasta Entitlements or Permits: Specific entitlements or permits needed include tentative and final map approval, and use permit. Additional permits that may be required from the City may include sewage disposal, grading, driveway and building permits. In addition, the City will have to prezone the project site to Planned Unit Development and annex the property into the city limits.

I	33.0+/-	AC	DEVELOPMENT AREA I
II	8.5+/-	AC	DEVELOPMENT AREA II
III	3.5+/-	AC	DEVELOPMENT AREA III
IV	12.5+/-	AC	DEVELOPMENT AREA IV
V	24.5+/-	AC	DEVELOPMENT AREA V
VI	15.0+/-	AC	DEVELOPMENT AREA VI
VII	30.5+/-	AC	DEVELOPMENT AREA VII

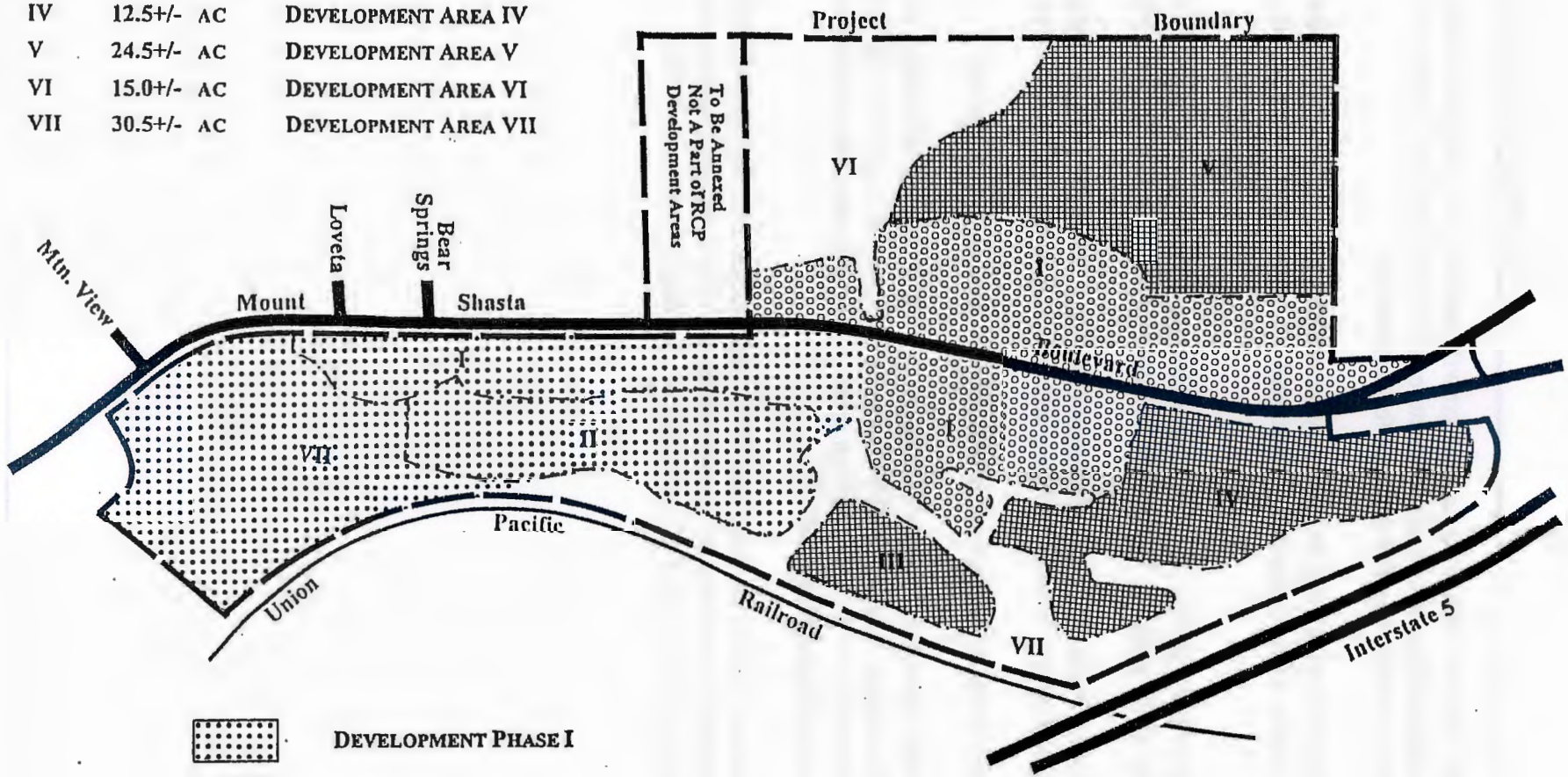


Figure 3-7
Phasing Plan

LAFCo: LAFCo typically considers issues of logical growth, preservation of open space and agricultural lands, and the effect on the governmental structure and service provision in the County. LAFCo's review and approval of this project is required for annexation.

Siskiyou County: Encroachment permits may be necessary for widening and/or other modifications to existing roads in the vicinity of the project. This should be coordinated with the City and Caltrans.

Caltrans: Encroachment permits may be necessary for widening and/or other modifications to existing roads in the vicinity of the project. This should be coordinated with the City and County.

Regional Water Quality Control Board: National Pollutant Discharge Elimination System permits and Water Quality Certification and/or waiver (Sections 402 and 401 of the Clean Water Act).

Coordination with the Army Corps of Engineers: A Section 404 permit may be required.

Coordination with California Department of Fish and Game: A 1603 Streambed Alteration Permit may be required. Informal consultation with the CDFG may be necessary in regard to a Biological Assessment (or similar document) if it is determined that species of special status are located on the site. This effort should be coordinated with USFWS.

Coordination with US Fish and Wildlife Service: Informal consultation with the USFWS may be necessary in regard to a Biologial Assessment (or similar document) if it is determined that species of special status are located on the site. This effort should be coordinated with the CDFG.

4.0 Environmental Setting, Impacts, and Mitigation Measures

4.1 Introduction To Environmental Analysis

FORMAT OF ISSUE SECTIONS

Sections in this chapter describe, for each environmental issue area, the following: 1) a summary of the environmental setting as it relates to the specific issue; 2) significance criteria and the focus of the analysis and the methodology used to assess impacts; 3) an evaluation of project-specific and cumulative impacts and identification of mitigation measures; and 4) a determination of the level of significance after mitigation measures are implemented. The sections are organized in the following way: 1) Introduction; 2) Setting; and 3) Impacts and Mitigation Measures.

The **Introduction** provides a brief summary of the purpose of the section, itemizes the main issue-areas of analysis, and briefly describes the methodology used to complete the evaluation.

The **Setting** section summarizes the existing conditions at the regional, sub-regional and local level, as appropriate, and identifies applicable plans, policies and regulations that relate to the particular issue area.

The **Impacts and Mitigation Measures** section begins with a description of the significance criteria used to evaluate project impacts followed by a description of the methodology utilized to assess impacts. Next are the individual impact statements which include explanatory text and technical information necessary to formulate a conclusion. The impact section is broken down into project and cumulative impacts. Where necessary each impact discussion is followed by a description of the proposed mitigation and a statement of the level of impact following mitigation.

DETERMINING LEVEL OF SIGNIFICANCE

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Section 15091 requires that decision-makers make findings that significant impacts identified in the Final EIR have been mitigated as completely as feasible. If the EIR identifies any significant unmitigated impact(s), CEQA Section 15093 requires decision-makers to adopt a statement of overriding considerations which explains why the benefits of the project outweigh the adverse environmental consequences identified by the EIR.

The level of significance for each impact examined in this EIR was determined by considering the predicted magnitude of the impact against a threshold. Thresholds were developed using criteria from the California Environmental Quality Act (CEQA Guidelines), local/regional plans and ordinances, accepted practice, and/or consultation with recognized experts. Thresholds are identified in each chapter under the title Significance Criteria. Four levels of impact significance are recognized by this EIR:

- **Less than Significant [LS]** impacts would not cause a substantial change in the environment or are not disruptive enough to require mitigation, because they fall below the significance threshold.

- **Potentially Significant [PSM]** impacts may cause a significant effect on the environment, however, additional information is needed regarding the extent of the impact. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- **Significant [SM]** impacts would cause a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of the project effects using specified significance criteria. Mitigation measures are identified to reduce project effects less than significant.

- **Significant and Unavoidable [SU]** impacts are significant adverse project impacts that cannot be avoided or mitigated to a less than significant level if the project is implemented.

As noted above, in some circumstances, the classification "potentially significant" is applied. A potentially significant impact is one the consultant considers, but cannot determine for certain, to be significant. For example, because construction activities would occur immediately adjacent to a water course, water quality could be impacted as a result of an accidental spill or due to sedimentation. Although it is impossible to determine for certain that such an impact would occur, it is prudent to take measures to prevent such an occurrence. Consequently, water quality impacts would be considered potentially significant and mitigation measures would be required.

IMPACT AND MITIGATION FORMAT

The standard format used to present the evaluation of impacts is as follows:

Impact

4.1.1 **The impact number identifies the chapter of the report and the sequential order of the impact within that chapter. The impact statement is followed by an abbreviation identifying the level of impact, i.e. less than significant [LS], potentially significant but mitigable [PSM], significant but mitigable [SM], or significant and unavoidable [SU].**

The identified impact is then discussed in more detail. If the impact is identified as potentially significant or significant, proposed mitigation measures will follow.

Mitigation

Where applicable, explanatory text is included, as necessary, to describe how the mitigation measure would be implemented, or how effective it is expected to be.

MM 4.1.1a **Project-specific mitigation is identified that would reduce the impact to the degree possible. The mitigation number links the mitigation to the impact and the letter identifies the sequential order of the mitigation for that impact.**

Significance After Mitigation

The discussion then concludes with a statement identifying the resulting level of significance following mitigation, such as: "Implementation of identified mitigation measures would reduce this impact to a **less than significant** level."

4.2 LAND USE

Potential environmental impacts associated with land use are generally categorized by physical changes to the environment, compatibility with surrounding uses, and conflicts and/or inconsistencies with relevant planning documents. This section of the EIR describes existing land use, City of Mt. Shasta General Plan, and Siskiyou County General Plan designations for the Roseburg Commerce Park site, proposed development patterns, and potential land use impacts resulting from project implementation. These impacts were evaluated using a combination of field review to assess current land use conditions, review and analysis of existing planning documents, and review of other relevant documents and articles.

4.2.1 SETTING

The proposed project is the annexation of approximately 140.7 acres located south of the City of Mt. Shasta in Siskiyou County, California. Six of these parcels, totaling 127.5 acres, comprise the Roseburg Commerce Park (RCP). The additional eleven parcels, which are not part of the RCP, total 13.6 acres and are included in the annexation application. The majority of these eleven parcels have already been developed with primarily commercial and residential land uses. However, in order to better assess impacts associated with the annexation of the 127.5 acre RCP site, the City has prepared the Roseburg Commerce Park Development Plan (Draft Development Plan or DDP). Consequently the analysis in this EIR focuses primarily on the development areas within the RCP and impacts associated with implementation of the DDP.

EXISTING ZONING

The RCP site is currently under the jurisdiction of Siskiyou County. Therefore, County land use plans and zoning currently apply to the project site. Existing onsite land uses are described in Section 3.0, Project Description, Table 3-1.

The RCP site is bisected by Mt. Shasta Boulevard and is divided into two distinct sections. Three parcels comprise the western half of the RCP site. Two of these parcels, which are owned by the City of Mt. Shasta, are zoned M-H, Heavy Industrial. The purpose of the M-H District is to permit the normal operations of almost all industries, subject only to those regulations needed to protect industrial areas from intrusion by nonindustrial activities. The third parcel is zoned C-U, Neighborhood Commercial and is located south of the M-H parcels in the western portion of the RCP site. The C-U zoning designation is intended to provide areas where less intensive commercial uses can operate and offer goods and services within a close distance to, and be compatible with, residential neighborhoods.

The eastern portion of the RCP site is also comprised of three parcels. The largest parcel, which is owned by the City, has been designated R-R-B-40, Rural Residential Agricultural zone. This zone has been combined with Combining District "B," which establishes a minimum parcel size for the R-R zoning designation, therefore, the R-R-B-40 designation is limited to a minimum parcel size

of 40 acres. The remaining two parcels that comprise the eastern half of the RCP site, one privately owned parcel and one City owned parcel, are both zoned C-U.

The remaining eleven parcels that are part of the annexation application are located immediately north of the eastern half of the RCP site. The majority of these parcels have already been developed and zoning reflects their current land uses. Zoning designations for these parcels are one of the following: M-M (Light Industrial), C-U (Neighborhood Commercial), and R-R (Rural Residential). **Figure 4.2-1** illustrates the existing Siskiyou County zoning designations for the entire project site.

General Plan designations, zoning, and onsite land uses are described in Section 3.0, Project Description, Table 3-1.

EXISTING LAND USE DESIGNATIONS

In 1993, the City of Mt. Shasta updated its General Plan. The General Plan provides the blueprint for development within the community. Government Code Section 65300 *et seq.* sets forth the required elements of the General Plan and the procedures for its preparation and adoption. One of the requirements of the General Plan is the preparation of a Land Use Element. The Land Use Element designates the proposed general distribution, location, and extent of various land uses.

The project site is located within the City's Sphere of Influence (SOI). As required by Government Code Section 65300, a general plan must cover all territory within the boundaries of the city or county as well as "any land outside its boundaries which in the planning agency's judgement bears relation to its planning." When determining its planning area, each city considers its sphere of influence. The Local Agency Formation Commission (LAFCo) in every county adopts a Sphere-of-Influence (SOI) for each city to represent "the probable ultimate physical boundaries and service area" for that city (GPG, 1990). Because the project site is within the City's SOI and is proposed to annexed into the City, the General Plan has designated land uses for the project site and adjacent areas. Therefore, this EIR and the DDP addresses compatibility and compliance with City regulations.

The General Plan designates the portion of the RCP site along Mt. Shasta Boulevard as Commercial Center (**Figure 4.2-2**). This designation allows businesses that generally require onsite customer traffic for the business to be successful. Commercial Center uses include shopping centers, retail stores, real estate offices, factory outlet malls and restaurants.

A majority of the land beyond the Commercial Center area is designated for Employment Center uses. This designation allows businesses that provide a product or service that generally does not require on-site customer traffic. Employment Center uses include factories, machine shops, service-business offices, lumber mills and other industrial type uses.

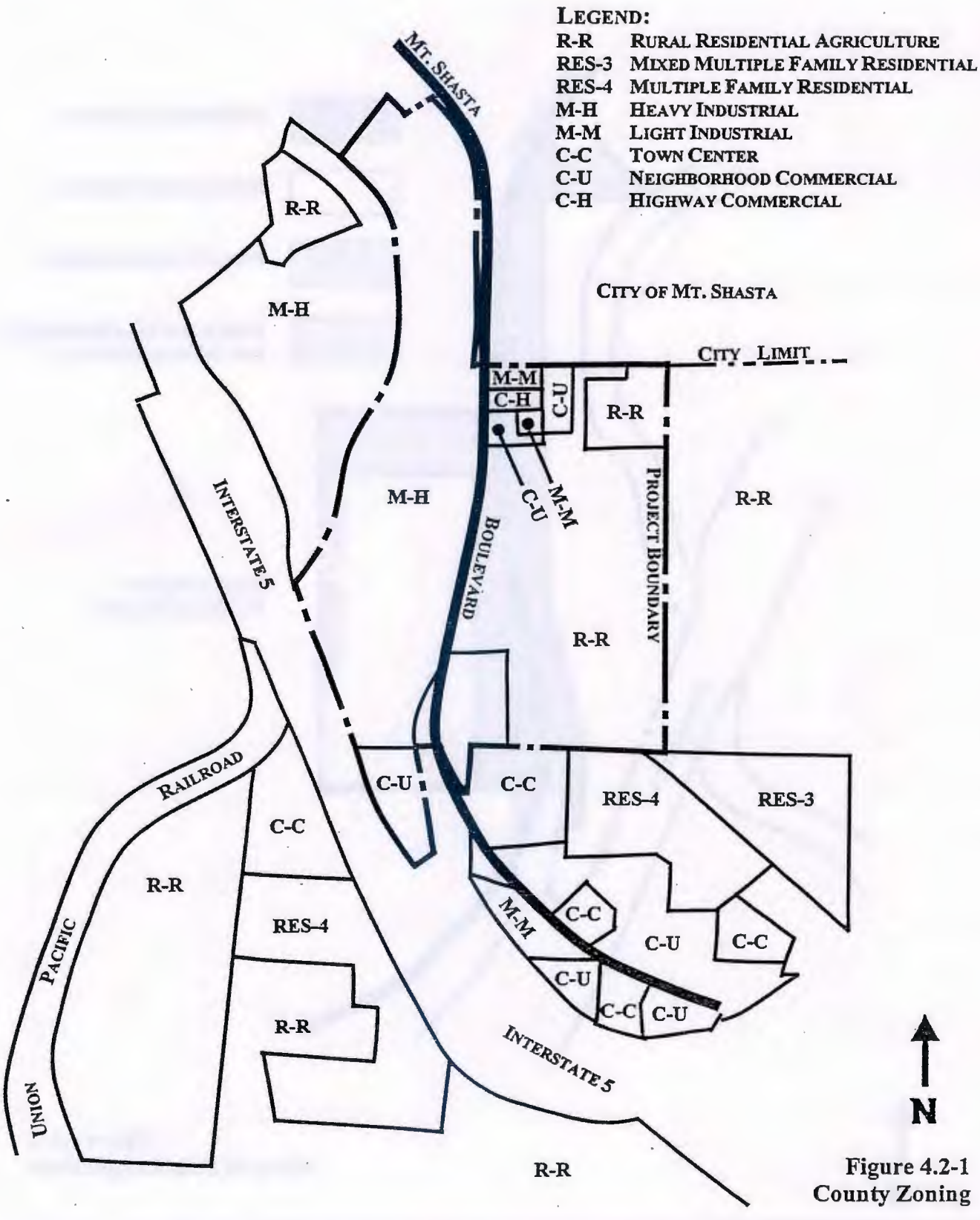


Figure 4.2-1
County Zoning

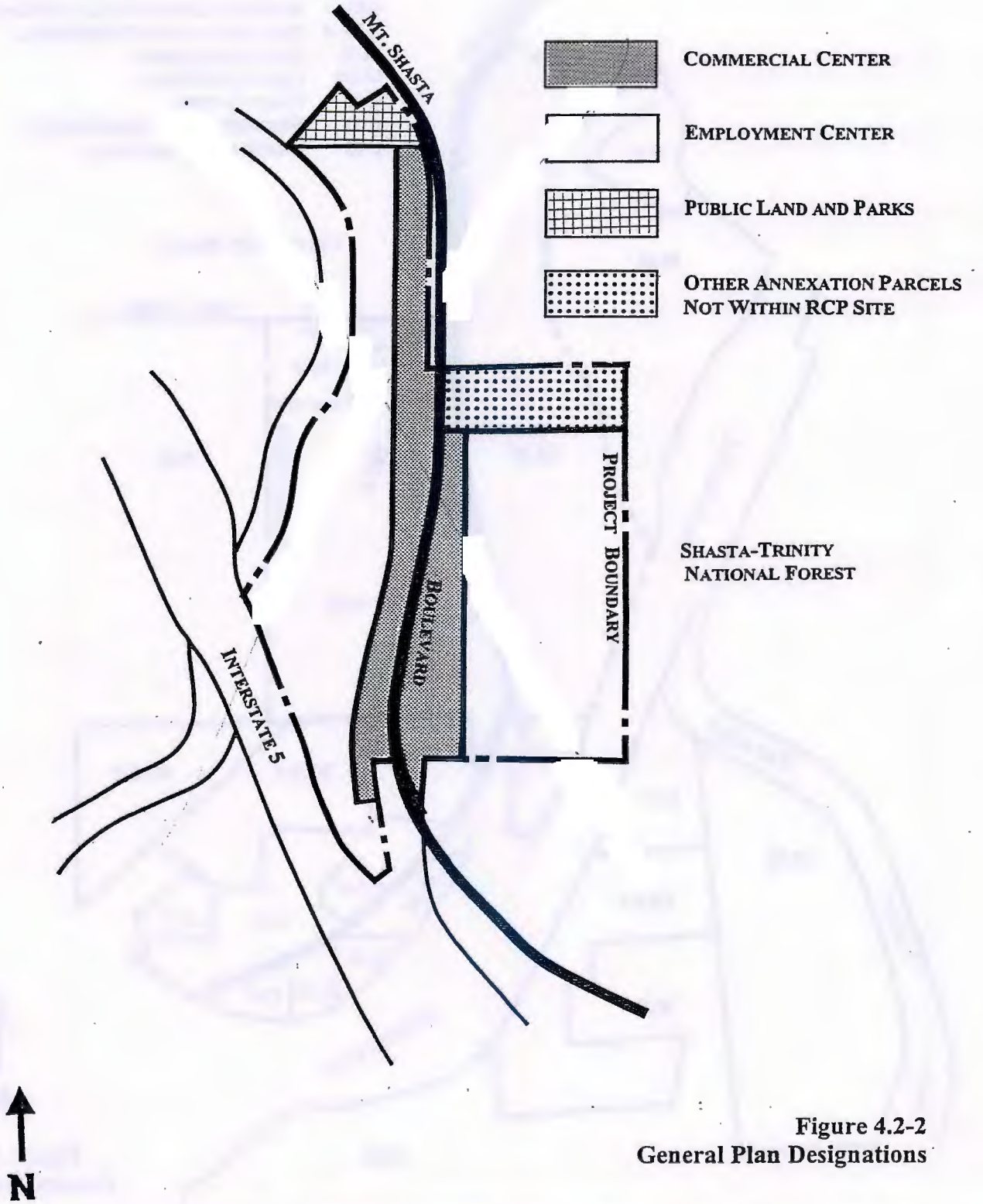


Figure 4.2-2
General Plan Designations

The land surrounding the former mill pond in the western half of the RCP site is designated Public Land. Public Land sites are those on which a publicly owned facility or use exists or may be located.

SURROUNDING LAND USES

West

West of Mt. Shasta Boulevard three parcels totaling 69.8 acres form the western portion of the RCP site. This portion of the project site is bounded on the north by the Mt. Shasta City Limits and the Union Pacific Railroad to the west. West of the railroad tracks is undeveloped land which is owned by the City although it is not within the City Limits. However, the City does not propose to annex this property along with the RCP site, and it is not included in the Draft Development Plan (DDP). This area is currently vacant, although it has been designated as Employment Center in the General Plan. **Figure 4.2-3** illustrates the project site and surrounding land uses.

North

North of the western half of the project site, between Mt. Shasta Boulevard and the Union Pacific Railroad, are residential and commercial uses located within the city limits. These areas are designated as General Residential and Community Residential, which allow lower-density and relatively higher density single family residential uses, respectively. Also located in this area is a Pacific Gas and Electric (PG&E) maintenance facility. This parcel is designated as Commercial Center.

East of Mt. Shasta Boulevard and north of the western portion of the project site are various commercial uses, primarily motels and eating establishments. The Meadowbrook residential subdivision, which is mostly developed, is located northeast of the site, off Mt. Shasta Boulevard. Behind the commercial land uses that front Mt. Shasta Boulevard is a six acre parcel that was donated to the Mt. Shasta Recreation and Parks District (MSRPD) in 1997. The City Corporation Yard and the Siskiyou Opportunity Center also front Mt. Shasta Boulevard to the east of the western portion of the project site. Adjacent to these land uses is the Mt. Shasta Village residential subdivision.

Land east of the western portion of the project site, along Mt. Shasta Boulevard, is designated for commercial uses, except for the City Corporation Yard, which has a Public Land designation. The Meadowbrook and Mt. Shasta Village subdivisions are designated Community Residential, while land east of Mt. Shasta Village has a General Residential designation.

East of Mt. Shasta Boulevard, comprising 57.3 acres, is the eastern portion of the Roseburg Commerce Park site, plus the additional 13.6 acres (eleven parcels) that are also part of the RCP

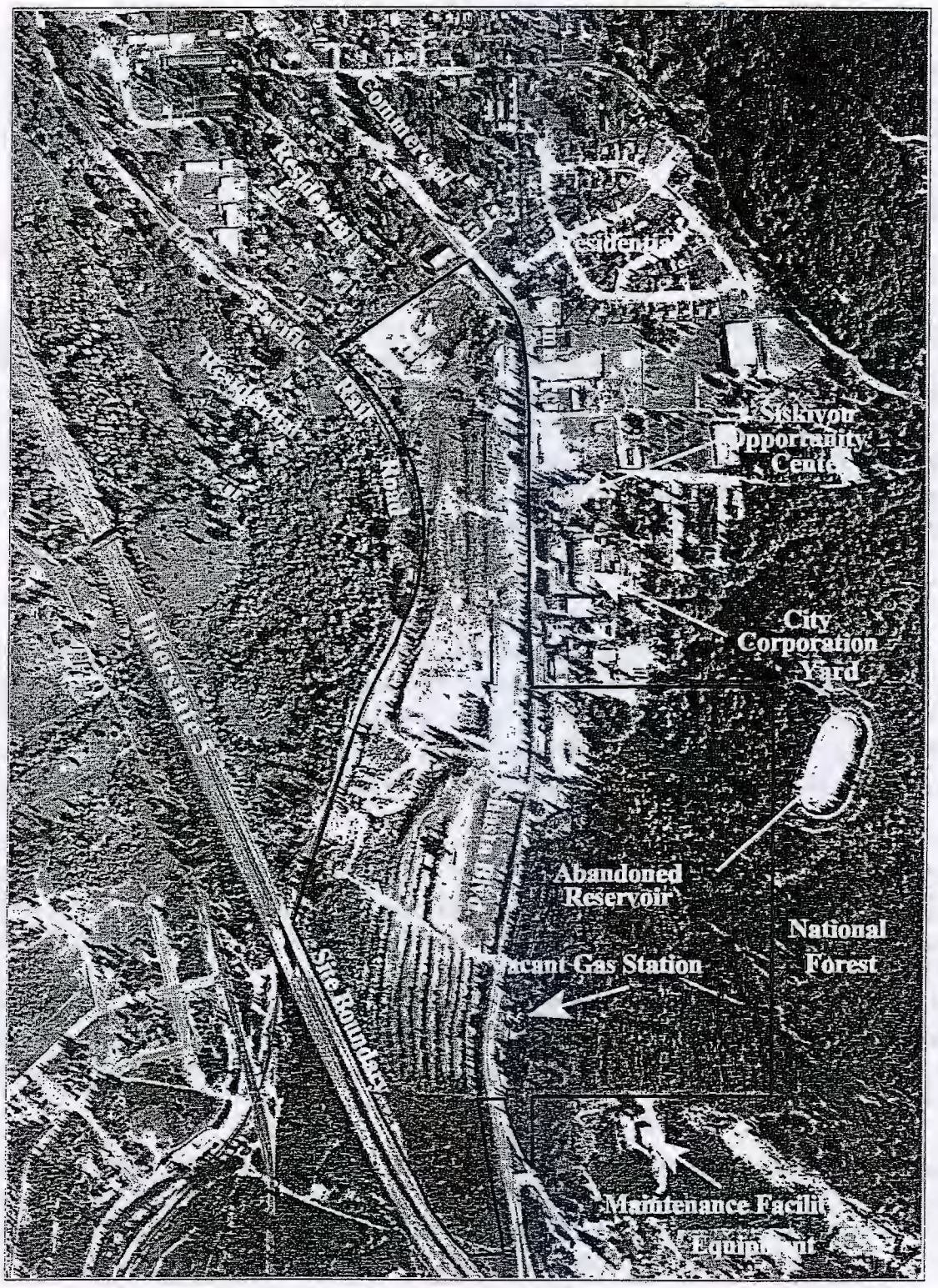


Figure 4.2-3
Project Site and Surrounding Land Uses

annexation application. The eleven parcels are located south of the City Corporation Yard and north of the eastern half of the RCP Development Plan site. These eleven parcels are already developed; land uses include a motel, a fitness center, other commercial buildings, a church, and residential uses.

East

The area east of the RCP site is within the Shasta-Trinity National Forest which is under the jurisdiction of the United States Forest Service (USFS). This land has been designated in the General Plan as Resource Land, which is land containing resources suitable for harvest, production, or conservation. The USFS Land and Resource Management Plan for the Shasta-Trinity National Forest has designated this area for "Roaded Recreation" use. This designation is given to areas where there is moderate evidence of human activity. Uses emphasized in this area are recreational opportunities associated with developed road systems and developed campsites (USFS, 1994). Also located east of the project site, on USFS land, is an empty concrete reservoir once used to provide water for lumber operations. Although removal of such structures is the usual action taken, the USFS currently has no plans for the disposition of the reservoir (Poehlmann, 1997).

South

South of the eastern portion of the RCP site are several limited commercial developments. Immediately adjacent to the southern boundary of the site is a privately owned parcel that is primarily used for maintenance equipment storage. Further south in the vicinity of the State Route 89 (SR 89) and Interstate 5 (I-5) interchange, is a small shopping center, a motel, a church, an inn, and other limited commercial uses and rural residential uses. Southwest of I-5, land has been placed in a Rural Residential designation which allows large parcel residential uses and "hobby farms."

FUTURE DEVELOPMENT IN THE VICINITY

The two existing residential subdivisions Meadowbrook and Mt. Shasta Village are nearly at full buildout and approximately half developed, respectively. The Mt. Shasta Village subdivision anticipates that residential units will be constructed until buildout. The area east of these subdivisions and adjacent to USFS land is designated rural residential.

East of Mt. Shasta Boulevard, behind the Pine Needles Motel, the Mt. Shasta Recreation and Parks District owns a six acre parcel. The previous owner has suggested possible uses for the site including an ice-skating rink. However, such a use would require rezoning of the property, improvement of public access, and the necessary approvals from the City (Ferguson, 1998).

Based on current land use designations, the area where significant development could occur is located east of I-5 south of the project site. This area is currently under the jurisdiction of Siskiyou County and is primarily zoned for various types of commercial uses in both the City and County

General Plans. These parcels are either currently undeveloped or could be more intensively developed, however, there are no current plans for further commercial development in that area. Although the City has pursued annexation of these parcels in the past, they are not part of the annexation application for the RCP and they are not included in the DDP.

The majority of parcels south of SR 89 and southwest of I-5 are zoned for general and rural residential uses, respectively. South of SR 89, the Gateway Park subdivision has been subdivided into residential lots, although no development has occurred.

West of the western portion of the site, between the Pacific Union Railroad and I-5, is the vacant, City owned parcel. The City General Plan has designated this parcel Employment Center, although currently there are no plans to annex this parcel into the City. However, because the parcel is within the jurisdiction of the County, the County General Plan has designated a majority of this area M-H (Heavy-Industrial). A small portion of this area, abutting city limits to the north, has been designated R-R-B-1, rural residential agriculture with one acre minimum lot sizes.

FORMER PROJECTS PROPOSED FOR RCP

South Side Annexation Project

In 1988 a Draft Environmental Impact Report was prepared for the South Side Annexation Project (South Side Project). The South Side Project proposed to amend the Land Use Element (revised in 1980) and Noise Element (amended in 1975) of the General Plan, which consisted of a collection of documents evolving from the City's 1963 General Plan. The purpose of the South Side Project was to prezone and annex 360 acres into the City.

A portion of the South Side Project included the Roseburg Commerce Park and seven of the adjacent parcels north of the RCP site. In addition to these parcels, the South Side Project also included land west of the Union Pacific Railroad and parcels adjacent to State Route 89. However, the South Side Project was not approved by the Local Agency Formation Commission (LAFCo) and therefore was not annexed into the City.

Roseburg Park and Outdoor Environmental Interpretation Center

In 1994 the City of Mt. Shasta submitted an Environmental Enhancement and Mitigation Program (EEMP) Application (Resolution No. CCR-94-114) for the proposed Roseburg Park and Outdoor Environmental Interpretation Center. The proposed 15.2 acre Interpretation Center included the northern portion of the western half of Roseburg Commerce Park, in the vicinity of the former mill pond. The Interpretation Center project was to occur in three phases: Phase I involved the resource enhancement and restoration of the original Roseburg Mill Pond and Mill Creek, earthform grading, and extensive tree planting; Phase II was to establish a roadside recreation area accessible from

South Mt. Shasta Boulevard; and Phase III was the completion of a network of trails and foot bridges providing visitor access.

The City intended to make application to the EEMP grant program for three successive years beginning with the 1995-1996 funding cycles. Because funding did not become available to the City, the Interpretation Center was never developed. However, the overall goals of the Interpretation Center project formed the basis of the potential parkland site within the currently proposed Roseburg Commerce Park DDP.

DEVELOPMENT PLAN STANDARDS

Development Areas

The Roseburg Commerce Park site is divided into seven "development areas" containing individual parcels plus an open space parkway. The boundaries of these areas are depicted in the Draft Land Use Plan Figure 3-3 in Section 3.0, Project Description. The DDP's overall goal is the unified development of a range of anticipated land uses including recreational, commercial, industrial, government, business park, and office uses. The DDP contains several concepts that could be employed in building and site design. It also contains a detailed description of the buildout scenarios that are used for the analysis in this EIR. General and specific development standards and allowed uses within each Development Area (DA) are described in Chapters 4.0 and 5.0 of the DDP. The seven development areas are described below.

Development Area I (DA-I)

DA-I is located in both the western and eastern portion of the RCP site on both sides of Mt. Shasta Boulevard. The general purpose of DA-I is to provide for light commercial and office uses that will serve the Mt. Shasta community and nearby towns, with emphasis on highway and visitor-oriented commercial uses. Permitted uses include but are not limited to: arboretums and horticultural gardens, exhibit centers, eating and drinking establishments, souvenir shops, hotels and motels, and any other visitor-oriented uses determined to serve the purpose of this area. DA-I is divided into 10 subareas identified as DA-IA to DA-IK. According to the DDP, there are setback requirements for DA-IB and DA-IC. However, DA-I generally has few environmental constraints to development, and it is expected that the costs of development in this Development Area will be lower than other areas at the site.

Development Area II (DA-II)

DA-II is within the western portion of the RCP site west of Mt. Shasta Boulevard between DA-I and the Union Pacific Railroad tracks. The purpose of DA-II is to provide for light commercial and office uses that will serve the community and nearby towns. Permitted uses include but are not limited to the following: professional, administrative or executive offices; eating and drinking establishments; government buildings and service facilities; and theaters, dance halls, and

community assembly halls. There are three subareas in DA-II identified as DA-IIA to DA-IIC. DA-II has moderate constraints to development, but the costs of development should be reasonable.

Development Area III (DA-III)

DA-III is located in the western portion of the RCP site, west of DA-I and south of DA-II. The purpose of DA-III is to provide for light industrial uses such as manufacturing, processing, assembly and storage of permitted uses such as cabinet shops, machine and sheet metal shops, and wholesale distribution. There are no subareas in DA-III. Constraints to development include noise (due to its proximity to the railroad and I-5), and access (due to steep grades and its distance from Mt. Shasta Boulevard).

Development Area IV (DA-IV)

DA-IV is located in the southernmost portion of the western section of the RCP site, immediately adjacent to DA-I, and bordered by I-5 to the south. The purpose of DA-IV is to provide for a variety of uses that serve the community, some of which may not be considered appropriate in other development areas in the RCP. Permitted uses include: bakeries and bottling plants, microbreweries, automobile sales and service centers, and recreational vehicle and boat sales and service centers. DA-IV is divided into 4 subareas identified as DA-IVA to DA-IVD, which include setback requirements for areas adjacent to Mt. Shasta Boulevard. Steep terrain, noise, and access pose constraints to development in this area. Visibility from I-5 is an important planning consideration.

Development Area V (DA-V)

DA-V is located in the eastern portion of the RCP site east of DA-I. The purpose of DA-V is to provide for commercial uses primarily oriented toward visitor services. Permitted uses include but are not limited to hotels and motels, resorts and conference centers, and indoor/outdoor recreational facilities. There are no subareas designated in DA-V. Constraints include higher development costs due to the need for extensive grading and access requirements.

Development Area VI (DA-VI)

DA-VI is located in the northern portion of the eastern section of the RCP site. It is anticipated that development in this area would be limited to trails and other nonstructural uses. Therefore, the purpose of DA-VI is to provide open space and recreational opportunities for the community including recreational trails, habitat and wetland restoration areas, wetland mitigation bank, and a public wildlife and /or wilderness preserve. Constraints to development are severe, due to the presence of steep slopes, wetland areas, and possible cultural resources.

Development Area VII (DA-VII)

DA-VII is located in the northernmost portion of the western section of the RCP site, west of Mt. Shasta Boulevard. Although there are no subareas within DA-VII, this development area extends south along the western boundary of the site and is designated as the Open Space Parkway. The purpose of DA-VII is to provide a parkland site, along with recreational uses appropriate to a park including trails and paths for pedestrians and bicycles. A second purpose of DA-VII is to provide

an area for the promotion and enhancement of the natural and cultural resources of the Mt. Shasta community. A majority of this development area has been designated for public land use in the City's General Plan, and it is designated as park area in the DDP.

Open Space Parkway

The Open Space Parkway runs through the western section of the RCP site. This parkway provides an aesthetic, cirulatory, and recreational amenity to the site. The proposed trail use will allow movement of pedestrians and bicyclists within the site. The parkway trails could also become part of an area-wide trail system, with connections to the planned Lake Siskiyou trail and to the downtown.

GENERAL PLAN GOALS AND POLICIES

The City of Mt. Shasta General Plan, adopted in 1993, provides for long range direction and policy for the physical development of land within the City of Mt. Shasta and its respective Sphere-of-Influence and Planning Area. The General Plan is comprised of goals, objectives, policies, and implementation measures which are based upon assessments of current and future needs and available resources intended to maintain and enhance the quality of life in the City.

In response to key issues affecting the City's quality of life, the City has established four central themes which articulate the vision for the development of the City:

- maintain the quality of a small town community;
- sustaining a quality environment;
- development of a diverse employment base and sustainable local economy; and
- planned land use patterns will determine the level of public services appropriate to the character, economy, and environment of the City.

The following General Plan Goals and Policies are applicable to the Roseburg Commerce Park Project:

Goal LU-1

Consider annexation when lands are needed to accommodate the General Plan growth objectives.

Policy LU-1.1

Annexation shall occur only when the proposed use of the property furthers the City's economic development objectives.

Goal LU-2

Annexed lands shall be incorporated into the City in conformance with the General Plan.

Policy LU-2.1
Require pre-zoning and development plans prior to completing annexation procedures.

Goal LU-6
Encourage customer-oriented businesses in Commercial Center areas.

Policy LU-6.1
Identify lands that are suitable for customer-oriented businesses.

Goal LU-7
Support the economic viability and success of downtown Mt. Shasta.

Policy LU-7.1
Encourage an attractive downtown business center.

Policy LU-7.2
Support economic growth in the downtown area.

Goal LU-8
Encourage businesses that provide primary employment.

Policy LU-8.1
Establish locations expressly for Employment Center land uses.

Goal LU-9
Protect the City's long-term need to conserve land area for Employment Center development.

Policy LU-9.1
Identify larger tracts of land with the potential to serve as Employment Center lands, and retain them for future development.

Goal LU-10
Develop a five-year capital improvement program.

Policy LU-10.1
Utilize the capital improvement program as a means of keeping pace with the needs of facilities and infrastructure.

4.2.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Land use impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Conflict with adjacent land uses, conflict with existing onsite constraints, or cause a substantial adverse change in the types or intensity of existing land use patterns;

2) Result in a conflict or inconsistency with adopted land use plans or policies; or

3) Disruption or division of the physical arrangement of a community.

PROJECT IMPACTS

Impact 4.2.1 Annexation of the project site would be consistent with the City of Mt. Shasta General Plan. [LS]

Over the past ten years, the City has explored various options to annex the RCP site and to encourage development of the site. To facilitate the achievement of both objectives, the DDP was prepared. In essence, the DDP establishes a Planned Unit Development (PUD) Ordinance and land use plan for the RCP site. The General Plan requires that all provisions established in the DDP must be consistent the General Plan. The proposed development of the RCP site is generally consistent with the land use designations as set forth in the General Plan.

The PUD zone provides for innovative planning and development techiques by encouraging balanced growth to better reflect the character and scale of the community while minimizing impacts on the surrounding areas, to provide more efficient utilization of land, and to allow for flexibility of development while providing for general public benefits.

The General Plan designates the RCP as Commercial Center (CC), Employment Center (EC) and Public Land and Parks. The proposed Land Use Plan contained in the DDP utilizes a combination of these land use designations and has established seven Development Areas (DA) that provides development standards for each area. The primary differences with the DDP Land Use Plan and the General Plan are as follows:

- Employment Center uses are restricted to DA-III and part of DA-IV, with administrative offices permitted in DA-II;

- the provision of DA-VI to remain as open space and nonstructural recreational use area; and

- expansion of potential park area in DA-VII.

However, the proposed Planned Unit Development (PUD) designation for the RCP site would eliminate any potential conflicts between the DDP and General Plan designations.

In addition, as part of the annexation process, the City proposes to adopt a General Plan Amendment for the four residential parcels that are included in the annexation application. The existing General Plan designation for these parcels is Commercial Center (CC), with the General Plan Amendment, these parcels would be designated to General Residential (GR). The amendment would eliminate potential conflicts between existing and proposed General Plan designations for these parcels, therefore this impact is considered **less than significant.**

Impact 4.2.2 **Project development may result in land use compatibility impacts with adjacent residential uses to the north of the project site. [LS]**

Land use compatibility impacts are a function of the project's interface with surrounding adjacent land uses. Adjacent uses to the project area are considered compatible, excepting the residential uses to the north of the western portion of the RCP site. Residential parcels north of the Roseburg site could experience the following possible adverse impacts of development: traffic congestion, noise from traffic and onsite activities, increased light from onsite activities, and increased mosquitoes from wetland creation. However, the DDP includes standards such as setback requirements, permitted uses, and development standards that reduce potential impacts that would occur from development. In addition, the permitted uses within development areas adjacent to these residential land uses include recreational, park and open space uses. Therefore, this impact is considered **less than significant.**

Any additional land use compatibility issues relating to traffic, noise, aesthetics, water quality, and biological resources are analyzed and mitigated in appropriate sections of this EIR.

CUMULATIVE IMPACTS

Impact 4.2.3 **The proposed project would be consistent with the land use pattern of the area and meets General Plan goals and policies for the City of Mt. Shasta. [LS]**

Cumulative development, proposed and anticipated, throughout the City's Planning Area would change existing rural and open space land uses to more developed uses. However, if development

occurs pursuant to planned uses, as designated in the General Plan, the changes in land use would not be cumulatively adverse. Therefore, this impact is considered **less than significant.**

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4.3 TRANSPORTATION/CIRCULATION

This section analyzes the transportation and circulation impacts associated with the development of the Roseburg Commerce Park (RCP) and is based upon a traffic study conducted by KD Anderson Transportation Engineers. The section contains the existing traffic setting, specific impacts, and mitigation strategies associated with project implementation.

4.3.1 SETTING

PHYSICAL FEATURES

The project site is located east of Interstate 5 (I-5) and the Union Pacific Railroad, and north of the State Route 89 (SR 89) interchange and is bisected by Mt. Shasta Boulevard. Within the project area, Mt. Shasta Boulevard is a two lane roadway (35 mph speed limit) in good condition. The portion of the site west of Mt. Shasta Boulevard has existing access that is a remnant of the previous use on the site. The old mill access gate is located near the midpoint of the site, but no significant intersection improvements exist (i.e., no left turn lane nor improved approach). The sight distance in this area is acceptable to the north, but a crest vertical curve to the south creates a minor obstruction and the available sight distance has been judged to be below City standards. **Figure 4.3-1** illustrates the existing roadways and intersections within the project vicinity.

Access exists to developed parcels on the east side of Mt. Shasta Boulevard The existing commercial uses have several private driveways onto the street. The timber plantation site, which occupied the majority of the area east of Mt. Shasta Boulevard is accessed by a dirt road located immediately north of the vacant gas station.

Access from the site to Mt. Shasta Boulevard is constrained by the local topography. While Mt. Shasta Boulevard follows the generally rolling terrain of the foothills, the mill site was excavated to accommodate the mill and timber storage and is relatively level in the area of Mt. Shasta Boulevard As a result, the difference in elevation between the western portion of the site and Mt. Shasta Boulevard varies. The western half of the site and road are at the same elevation near the gate but a grade differential varying from approximately five to fifteen feet exists at various locations to the north and south. No significant grade differential exists for east side properties.

Access to Mt. Shasta Boulevard is also constrained by sight distance limitations created by the horizontal alignment of the road. To the north, Mt. Shasta Boulevard follows a 480' radius curve near the northern limit of the site. To the south, a 600' radius curve exists near the vacant gas station.

CAPACITY / LEVEL OF SERVICE ANALYSIS

Traffic Engineers use "Level of Service" to measure the quality of existing traffic flow and to provide a basis for measuring the impact of proposed development. Level of Service is a qualitative measure of traffic operating conditions whereby a letter grade ("A" through "F", corresponding to

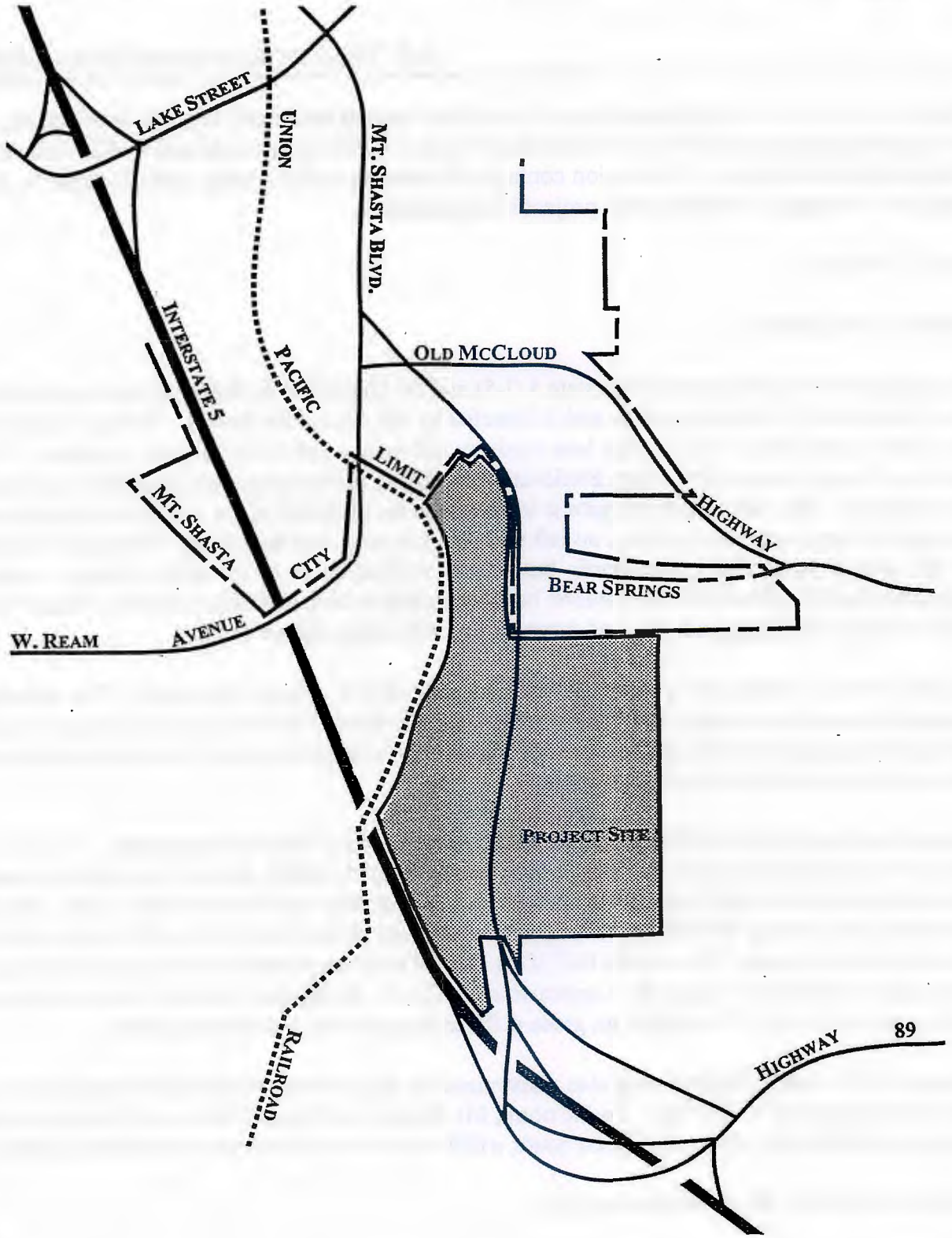


Figure 4.3-1
Existing Roadways within the Project Vicinity

progressively worsening operating conditions) is assigned to an intersection or roadway segment. Table 4.3-1 presents the characteristics associated with each LOS grade. As shown, LOS "A," "B," and "C" are considered satisfactory to most motorists, while LOS "D" is marginally acceptable. LOS "E" and "F" are associated with severe congestion and delay and are unacceptable to most motorists. The City of Mt. Shasta General Plan Circulation Element establishes LOS "D" as the minimum acceptable standard.

Methodology

For this analysis, the procedure for calculating the LOS at signalized intersections is the operational methodology presented in the *1994 Highway Capacity Manual*. This methodology employs approximate traffic signal timing, traffic volumes and intersection geometry to estimate the length of the delays experienced by motorists at the intersection. The average delay at the intersection is compared to adopted LOS thresholds.

At unsignalized intersections, gaps in the stream of passing traffic are typically available for motorists waiting to turn. The number of gaps is a function of traffic volume, and the length of delays experienced by motorists as they wait to turn is used to characterize unsignalized LOS. For this analysis, individual turning movement LOS, as well as an overall weighted LOS for all turning movements, has been presented. The procedures used for calculating unsignalized intersection LOS are also presented in the *1994 Highway Capacity Manual*.

Because these calculations do not specifically deal with the condition of through traffic flow (which is assumed to flow freely) they are not indicative of the overall operation of an intersection. To suggest whether "significance" should be associated with the unsignalized LOS, a traffic signal warrant analysis is performed. A poor unsignalized LOS is typically deemed to be significant if traffic volumes meet signal warrants. The signal warrant criteria employed for this study are those presented in the *Caltrans Traffic Manual*.

Current Levels of Service

Figure 4.3-2 presents current p.m. peak hour traffic volumes that were observed at the major intersections in the vicinity of the RCP site.

As shown in Table 4.3-2, current traffic conditions at project area intersections appear to meet City standards. At the signalized Mt. Shasta Boulevard / Lake Boulevard intersection, the average LOS over the p.m. peak hour is LOS "B". While this LOS is indicative of relatively short delays, there are periods within the peak hour when the combination of pedestrians, unprotected turn phases, and high traffic volume was observed. This resulted in long queues, especially in the northbound left turn lane. Thus, while City of Mt. Shasta LOS standards are met, traffic signal modifications to provide protected left turn phasing (i.e, left turn arrows) should be considered.

TABLE 4.3-1
LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE	SIGNALIZED INTERSECTION	UNSIGNALIZED INTERSECTION	ROADWAY (DAILY)
"A"	Uncongested operations, all queues clear in a single-signal cycle. V/C ≤ 0.60	Little or no delay. 0 to 4 second average delay	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. V/C = 0.61-0.70	Short traffic delays. 5 to 9 second average delay	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. V/C = 0.71-0.80	Average traffic delays. 10 to 19 seconds average delay	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. V/C = 0.81-0.90	Long traffic delays. 20 to 29 seconds average delay	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). V/C = 0.91-1.00	Very long traffic delays, failure, extreme congestion. More than 30 seconds average delay	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. V/C > 1.00	Intersection blocked by external causes.	Forced flow, breakdown.

Sources: 1994 Highway Capacity Manual, Transportation Research Board (TRB) Special Report 209; V/C (volume to capacity) ratios ranges from TRB Circular 212.

TABLE 4.3-2
EXISTING PEAK HOUR INTERSECTION LEVELS OF SERVICE

LOCATION	CONTROL	EXISTING PM PEAK HOUR		
		LOS	AVERAGE DELAY	SIGNAL WARRANTED?
1. Mt. Shasta Blvd. / Lake St	Signal	B	9.0 sec	n/a
2. Mt. Shasta Blvd. / Bear Springs	SB Stop			No
Overall		*A*	*3.0 sec*	
SB left		A	2.5 sec	
EB left		A	3.2 sec	
EB thru+right		A	5.0 sec	
3. Mt. Shasta Blvd. / project access	Signal	(future)		
4. Mt. Shasta Blvd. / I-5 ramps	NB Stop			No
Overall		*A*	*2.8 sec*	
WB left		A	2.5 sec	
NB left + right		A	3.1 sec	
5. Mt. Shasta Blvd. / SR 89	NB / SB Stop			No
Overall		*A*	*3.6 sec*	
EB left		A	2.3 sec	
WB left		A	2.3 sec	
SB left+thru+right		A	3.8 sec	
NB left+thru+right		A	4.3 sec	

Roadway Segment Level of Service

The Mt. Shasta General Plan indicates applicable standards for daily traffic volumes on City streets. These thresholds, which equate daily volume to LOS, are presented in Table 4.3-3.

TABLE 4.3-3
DAILY TRAFFIC VOLUME LEVEL OF SERVICE THRESHOLDS

LOS	DAILY TRAFFIC VOLUME			
	2 LANE STREETS		4 LANE STREETS	
A	0	2,700	0	18,300
B	2,701	5,500	18,301	21,000
C	5,501	8,700	21,001	24,000
D	8,701	12,100	24,001	27,000
E	12,101	15,000	27,001	30,000

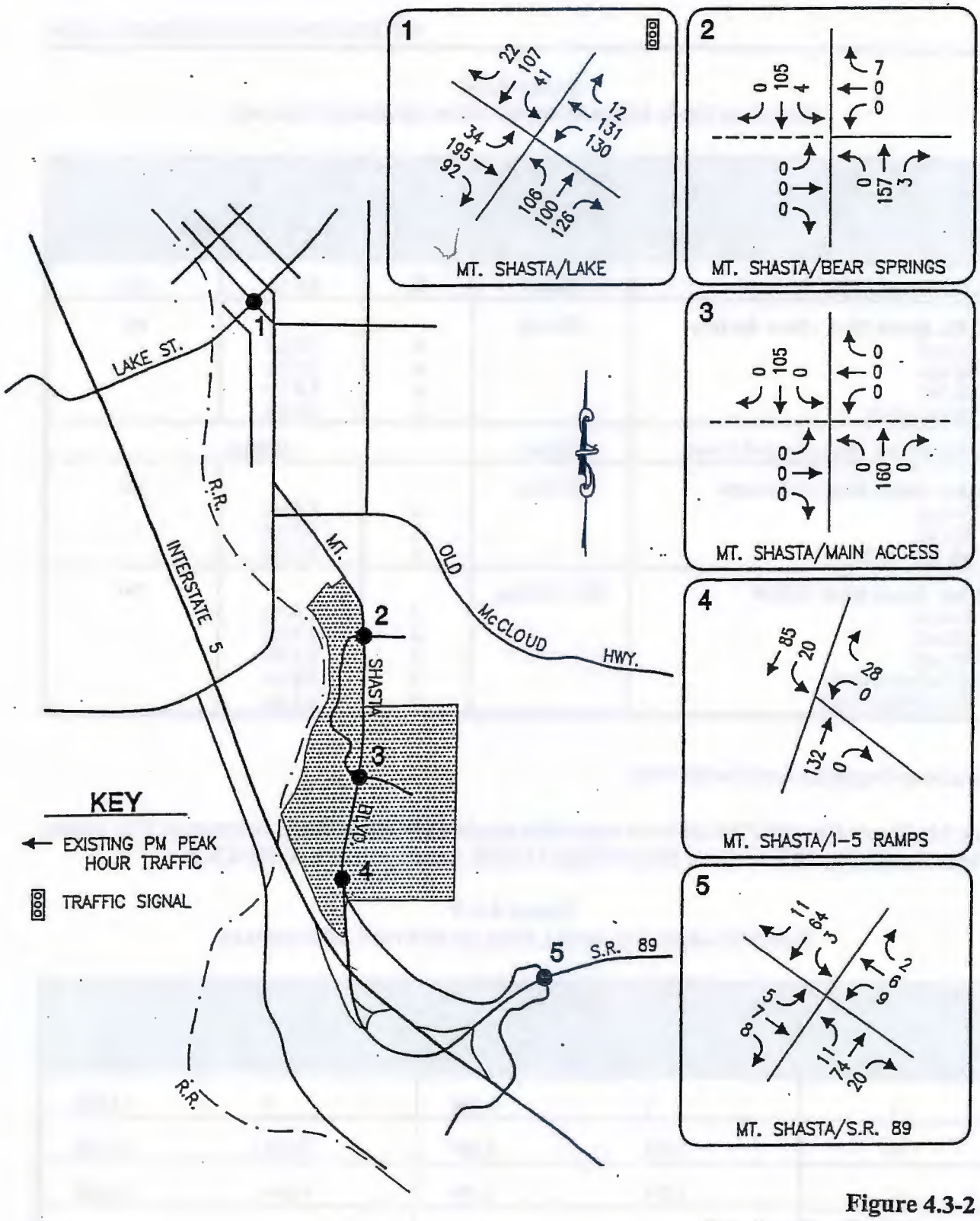


Figure 4.3-2
Existing Traffic Volumes

As indicated in Table 4.3-4, Mt. Shasta Boulevard currently carries traffic volumes that are well within the City's LOS "D" standard in the area of the proposed project. While the General Plan suggests daily traffic volumes south of Ream Avenue of 6,700 ADT, interpolation of current p.m. peak hour traffic volumes observed for this analysis suggests that Mt. Shasta Boulevard carries about 3,000 ADT in the vicinity of the proposed project.

Interstate 5 - State Route 89 Interchange

Access to/from northbound I-5 and to/from southbound occurs at an unusual set of ramps which intersect Mt. Shasta Boulevard at the south end of the project site. Access to northbound I-5 occurs either via South Mt. Shasta Boulevard to SR 89 to the I-5 / SR 89 interchange or via the Lake Boulevard interchange in downtown Mt. Shasta.

The current ramp volumes at the SR 89 and Mt. Shasta Boulevard ramps are relatively small. Thus, the LOS for ramp / freeway merge-diverge is very good (i.e., LOS "A"). The most noticeable capacity constraint is the short weave section on northbound I-5 between the SR 89 on-ramp and the Mt. Shasta Boulevard off-ramp. This weave section operates at LOS "C."

No improvements to the interchange are currently programmed or funded. Similarly, the City of Mt. Shasta General Plan does not indicate that the operation of this ramp system is a problem or that improvements are a City responsibility.

GENERAL PLAN GOALS AND POLICIES

Level of service in the General Plan is used in three different and distinct ways. The General Plan and its general policies are directed to *segment level of service*, or the relationship of average daily traffic to the capacity of a segment of street between two defined points (City of Mt. Shasta, 1993).

To try to prevent roads from reaching a level in which traffic does not move well from point-to-point, cities establish guidelines at which a street or road is considered to have reached the highest service volumes that are tolerable within a community. At this level, it becomes important for the City to either improve the street to acceptable levels or construct another street to relieve the crowded street. The segment level of service ratings in the General Plan are the indicator of this type of problem.

The General Plan Circulation Element goals and policies are designed to establish programs based on the segment levels of service. A street segment means the length of a street between its terminus points or between two arterial streets or other identified major dividing point. For the purposes of the General Plan, degradation of level of service is not a potentially significant environmental issued until the approval of a project will result in the existing level of service dropping to the projected future level of service defined in General Plan Table G. For example, if a road has a current level of service of B and a future level of service of D, a project that would result in decreasing level of service from B to C is not considered significant. Dropping the level of service from C to D could be a potentially significant effect that requires additional information (City of Mt. Shasta, 1993).

TABLE 4.3-4
EXISTING ROADWAY SEGMENT LEVELS OF SERVICE ON MT. SHASTA BOULEVARD

SEGMENT	LOS "D" THRESHOLD (ADT)	EXISTING		GENERAL PLAN PLUS PROJECT		EXISTING PLUS PROJECT	
		VOLUME (ADT)	LOS	VOLUME (ADT)	LOS	VOLUME (ADT)	LOS
Ream Avenue to Bear Springs	12,100	6,700	C	17,500	F	13,510	E
Bear Springs to Main Access	12,100	3,000	B	13,800	E	9,060	D
Main Access to I-5 ramps	12,100	3,000	B	15,700	E	11,680	D
I-5 ramps to SR 89	12,100	750	A	4,830	B	4,350	B

* Based on observation of 265 vehicles per hour with 10% ± in the p.m. peak hour.

The following General Plan Goals and Policies are applicable to the Roseburg Commerce Park Project. Applicable implementation measures that mitigate potential impacts have also been identified.

Goal CI-1
Ensure that land development does not exceed road capacities.

Policy CI-1.1
Segment level of service shall be the standard for judging whether a road has adequate remaining capacity for average daily traffic generated by a proposed project.

Implementation measure CI-1(a): The annual average daily traffic volume shown on the following table shall define segment level of service:

General Plan Table
Implementation Measure CI-1(a)

Two lane streets and roads LOS thresholds		Four lane streets and highways LOS thresholds	
LOS	ADT	LOS	ADT
A	≤2,700	A	≤18,300
B	2,701-5,500	B	18,301-21,000
C	5,501-8,700	C	21,001-24,000
D	8,701-12,100	D	24,001-27,000
E	12,101-15,000	E	27,001-30,000

Implementation measure CI-1.1(b): For roads in excess of four lanes, traffic segment levels of service shall be adjusted proportionally to the four lane volume.

Policy CI-1.2
Segment level of service "D" shall be the minimum acceptable service level.

Implementation measure CI-1.2(a): Once during each calendar year, the City's Department of Public Works, in cooperation with Caltrans and Siskiyou County shall monitor traffic volume on roads that presently have levels of service of C or D and annually report their findings during the annual review of the General Plan.

Implementation measure CI-1.2(b): When a road segment is found to be approaching LOS D -- defined as ADT being within ten percent of the highest LOS C traffic volume threshold, the City shall initiate plans for improvements designed for the intermediate and long-term planning periods to increase capacity.

Implementation measure CI-1.2(c): The improvements shall be designed to be initiated by the time traffic volume is approaching LOS E, which is defined as being within ten percent of the highest traffic volume for LOS D. This program may result in the generation of impact fees as a means of accumulating funds for the improvements caused by private development.

Implementation measure CI-1.2(d): The thresholds of maximum traffic volume of segment levels of service C and D for scheduling these measures shall be:

General Plan Table J
Ten Percent Thresholds in Average Daily Traffic

LOS	2 Lane	4 Lane
C	7,830	21,600
D	10,890	24,300

Implementation measure CI-1.2(e): Streets and roads with a General Plan rating of LOS E shall, during the short-term planning period, be the subject of plans and programs designed to enhance capacity. These programs may result in the generation of impact fees as a means of accumulating funds for the improvements caused by private development. New development shall not use or occupy new structures until the program for improving the road segment to LOS D or higher is in place and ready for construction.

Implementation measure CI-1.2(f): Development may occur on streets with existing segment levels of service of E in conformance with the development objectives of this Element defined in Goal CI-2.

Goal CI-2
Balance the need for new development with methods of accommodating increasing traffic.

Policy CI-2.1
Review project traffic generation to ensure level of service remains within the City's threshold.

Implementation measure CI-2.1(a): Require that applications for discretionary projects include a generalized traffic study providing an estimate for the proposal's average daily traffic.

Implementation measure CI-2.1(b): For roads on which the base segment level of service is rated at A, B, or C, the following standards of review shall apply to project proposals:

(1) The City shall determine if the proposed project will increase the traffic generated by the subject property by more than ten percent over existing traffic volume. This

shall be determined using the system defined in the current edition of the Institute of Traffic Engineers *Trip Generation Manual.*

(2) If the traffic generated is equal to or less than ten percent of the average daily traffic on the road, the traffic impact shall be deemed not to be significant, and no further traffic analysis is required.

(3) If the traffic generated by the proposed project increases the traffic on the road by more than ten percent, or the traffic volume generated by the subject property after development of the proposed project is projected to be greater than ten percent of the parcel's existing traffic volume, the proponent shall provide a traffic assessment prepared using accepted engineering standards to show how the project's traffic will fit into the circulation patterns in the area.

(4) If there are known projects proposed for the same street segment with traffic counts that are not included in the existing average daily traffic counts for the street, the traffic from these projects shall be added into the street segment average daily traffic prior to calculating the ten percent threshold.

Policy CI-2.2
Work to develop methods of accommodating projects without degrading level of service.

Implementation measure CI-2.2(a): In the event that the average daily traffic of the proposal places the segment level of service within ten percent of dropping to LOS D as shown in Table J and specified in Table J, or in the event that the road has a LOS of D, the project proponent shall be required to use the services of an appropriately licensed traffic engineer to prepare a more detailed traffic study, including an assessment of the impacts of the proposed project on the street's future level of service.

Implementation measure CI-2.2(b): The detailed traffic study shall provide recommendations related to overall improvements -- or use improvements recommended in any traffic improvement program prepared by the City -- needed in the area to prevent degradation of level of service, and shall also define the proportional share of the improvements that are attributable to the proposed project.

Implementation measure CI-2.2(c): If the road has an existing level of service of E or F, the proponent shall be required to use the services of an appropriately licensed traffic engineer to prepare a more detailed traffic study, including an assessment of the impacts of the proposed project on the street's future level of service.

Implementation measure CI-2.3(d): The detailed traffic study shall provide recommendations related to overall improvements -- or use improvements recommended in any traffic improvement program prepared by the City -- needed in the area to increase the segment level of service served by the project to level of service D. The study shall also define the proportional share of the improvements that are attributable to the proposed project.

Goal CI-3
Ensure that newly constructed roads are built to standards meeting long-term needs.

Policy CI-3.1
Accept roads in the City-maintained road system when constructed to City standards.

Goal CI-4
Ensure that new roads are sited to meet demands of growth.

Policy CI-4.1
Construct, or require construction of identified new roads as development or redevelopment occurs.

Goal CI-8
Promote pedestrian and bicycle transportation

Policy CI-8.1
Ensure that pedestrian facilities follow logical routes designed to serve pedestrian needs and are not constructed as "sidewalks to nowhere."

Policy CI-8.2
Ensure that there are safe bicycle routes.

4.3.2 IMPACTS AND MITIGATION MEASURES

This report section describes the traffic impacts associated with developing the project and suggests mitigation measures that would be necessary to reduce identified impacts to a level of insignificance.

SIGNIFICANCE CRITERIA

As indicated in the Existing Setting, the Mt. Shasta General Plan establishes LOS "D" as the minimum acceptable service level for individual roadway segments. For this project specific analysis, exceeding LOS "D" at signalized intersections has also been employed as a standard of significance. At unsignalized intersections, individual Levels of Service for specific turning movements are not significant unless Caltrans warrant criteria for traffic signals are also met.

For the purpose of this EIR, impacts are considered significant if any of the following would result from project implementation:

1) The project generates sufficient traffic volumes to change existing levels of service (LOS) from acceptable (D or better) to unacceptable (E or F) on any roadway segment or intersection;

2) The project contributes incrementally to a roadway segment or intersection currently operating at an LOS worse than D;

2) Project implementation would interfere with existing services or planned facilities or conflict with public transportation related goals, objectives, and policies of the City of Mt. Shasta General Plan; or

3) Project implementation would interfere with existing or planned bicycle or pedestrian facilities or conflict with related goals, objectives, and policies of the City of Mt. Shasta General Plan.

METHODOLOGY

The discussion below describes the steps that were followed in estimating the number of project trips, determining the distribution of project trips, assigning the project trips to the roadway network, and analyzing traffic operations under existing plus project and cumulative conditions.

Buildout Scenario

The precise extent and mix of development likely to occur within the Roseburg Commerce Park is unknown. Nevertheless, it is possible to create a reasonable buildout scenario for the project site for the purposes of calculating existing, existing plus project, and cumulative level of service on roadways. This information is also useful for the purposes of planning circulation and infrastructure improvements.

The Draft Development Plan (DDP) discusses the buildout assumptions for proposed circulation improvements using two buildout scenarios. However, for the purpose of this analysis, the following buildout scenario was used:

- Limiting buildout to a total Average Daily Trip (ADT) generation of approximately 16,000. Under General Plan buildout conditions, this is the volume of traffic that can be accommodated without expanding Mt. Shasta Boulevard to four lanes.

Section 3.0, Project Description, discusses the buildout scenario assumptions for the RCP project. Table 3-2, identifies the possible mix of uses that could occur on the project site. Trips generated by these types of uses are shown in Tables 4.3-5 and 4.3-6.

Trip Generation

The proposed project involves development of a mix of highway oriented commercial and employment center uses. Table 4.3-5 identifies daily and p.m. peak hour trip generation rates associated with various uses that are permissible under the DDP.

The number of daily and p.m. peak hour trips generated by the anticipated uses within the plan area is summarized in Table 4.3-6. As shown, the daily trip generation associated with these uses totals 15,494 daily trips, with 1,432 trips occurring during the p.m. peak hour. As described in Section 3.0, Project Description, the buildout scenario presented in Table 4.3-5 is considered a reasonable projection of the types of uses and the amount of development expected to occur within the DDP area over a 20 year period.

TABLE 4.3-5
TRIP GENERATION RATES

LAND USE	DESCRIPTION (ITE CODE)	QUANTITY	DAILY TRIP RATE	PM PEAK HOUR TRIP GENERATION RATE		
				IN	OUT	TOTAL
Restaurant	Quality (831)	ksf	96.0	4.95	2.44	7.39
	High Turnover Sit-Down (832)	ksf	178.0	7.24	5.68	12.92
	Fast Food (834)	ksf	710.0	19.03	17.56	36.59
Motel	(320)	room	10.2	0.34	0.26	0.60
Lodge	(330)	room	6.25	.21	.28	0.49
Amusement Center		acre	80.0	4.0	4.0	8.0
Gasoline Station	(845)	fueling positions	162.8	6.69	6.69	13.38
Specialty Retail	(814)	ksf	40.7	2.81	2.12	4.93
Industrial Park	(130)	acre	62.9	2.20	8.28	10.48
Business Park	(770)	acre	159.8	3.96	14.00	17.96
Office Park	(750)	acre	195.1	4.24	24.04	28.28
Heavy Industrial	(120)	acre	6.8	0.44	1.72	2.16

Trip Distribution

The distribution of project trips to the adjoining street system will be reflective of the nature of each of the types of businesses that occupy the site, as well as the quality of access that is available to the regional street and highway system. Restaurants, motel and gasoline stations with good visibility from I-5 would be expected to attract patrons from the highway. Alternatively, employment centers will attract proportionately more trips from the community of Mt. Shasta itself. Table 4.3-7 summarizes the assumed distribution of trips generated by the project.

Existing Plus Project Conditions

Using the directional distribution identified above as a guide, trips generated by the proposed project were assigned to the local streets system based on the location of individual uses relative to site access and, in the case of I-5, the availability of access. Resulting "Existing Plus Project" traffic volumes are presented in **Figure 4.3-3**.

TABLE 4.3-6
TRIP GENERATION ESTIMATE

LAND USE	DESCRIPTION (ITE CODE)	QUANTITY	DAILY TRIPS	PM PEAK HOUR TRIPS		
				IN	OUT	TOTAL
Restaurants	Quality	5 ksf	480	*25*	*12*	*37*
	High Turnover Sit-Down (2)	10 ksf	1,780	72	56	138
	Fast Food (2)	5 ksf	3,550	96	88	184
Motel / Lodge		50 rooms	510	17	13	30
Lodge		100 rooms	625	21	29	50
Gasoline Station		12 fueling positions	1,954	81	80	161
Specialty Retail		50 ksf	2,035	141	106	247
Industrial Park		3.5 acres	220	8	29	37
Business Park		9.5 acres	1,518	38	133	171
Office Park / Government Center		12.0 acres	2,341	51	288	339
Amusement Center		6.0 acres	48(	24	24	48
TOTAL		47.5 acres	15,494	574	858	1,432

TABLE 4.3-7
TRIP DISTRIBUTION ASSUMPTIONS

ROUTE	PERCENTAGE OF TOTAL TRIPS	
	FREEWAY ORIENTED USES	LOCAL USES
Northbound I-5	60%	10%
Southbound I-5	10%	10%
Mt. Shasta via Mt. Shasta Blvd.	20%	60%
East via SR 89	10%	20%

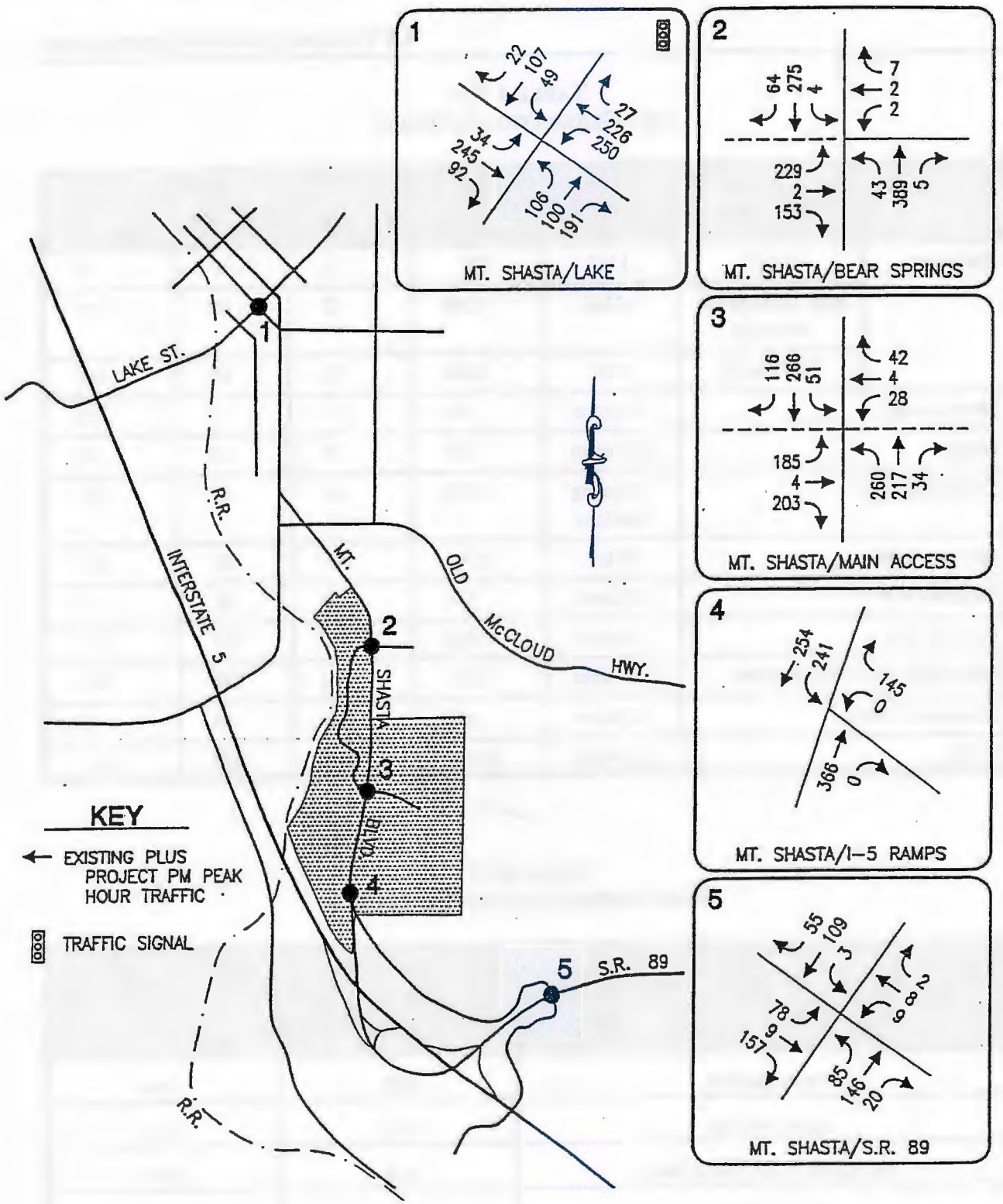


Figure 4.3-3
Existing Plus Project Traffic Volumes

Intersection Levels of Service

Assuming implementation of the roadway improvements included in the DDP, intersection Levels of Service were re-calculated for the "Existing Plus Project" condition. The results of these calculations are presented in Table 4.3-8. As indicated, development of the project will not result in a traffic condition in excess of City standards for intersections. The main access intersection, which is planned to be signalized, will operate at LOS "C".

TABLE 4.3-8
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION LEVELS OF SERVICE

LOCATION	CONTROL	EXISTING - PM PEAK HOUR			EXISTING PLUS RCP		
		LOS	DELAY	SIGNAL WARRANT	LOS	DELAY (SEC)	SIGNAL WARRANT
1. Mt. Shasta Blvd. / Lake St	Signal	B	9.0 sec	n/a	B	14.1 sec	n/a
2. Mt. Shasta Blvd. / Bear Springs	SB Stop			No			No
Overall		A	3.0 sec		D	22.9 sec	
SB left		A	2.5 sec		A	3.3 sec	
NB left					A	3.2 sec	
WB left		A	3.2 sec		C	13.8 sec	
WB thru+ right		A	5.0 sec		B	5.3 sec	
EB left					E	39.5 sec	
EB thru+right					A	4.7 sec	
3. Mt. Shasta Blvd. / project access	Signal				C	16.8 sec	Yes
4. Mt. Shasta Blvd. / I-5 ramps	NB Stop			No			No
Overall		A	2.8 sec		A	4.6 sec	
WB left		A	2.5 sec		A	4.3 sec	
NB left + right		A	3.1 sec		B	5.0 sec	
5. Mt. Shasta Blvd. / SR 89	NB / SB Stop			No			No
Overall		A	3.6 sec		B	5.4 sec	
EB left		A	2.3 sec		A	2.7 sec	
WB left		A	2.3 sec		A	2.5 sec	
SB left+thru+right		A	3.8 sec		B	6.2 sec	
NB left+thru+right		A	4.3 sec		B	7.1 sec	

PROJECT IMPACTS

Roadway Segment Level of Service

Impact 4.3.1 **Development of the project would increase the daily traffic volume on portions of Mt. Shasta Boulevard, with projected traffic volumes in excess of the City's LOS "D" threshold. [PSM]**

The addition of project trips would increase the volume of traffic carried by local streets. As indicated in Table 4.3-9, development of the project would increase the volume of traffic on Mt. Shasta Boulevard in the immediate vicinity of RCP, but the resulting traffic volumes would be within the LOS "D" threshold established in the General Plan. Farther north, where the existing traffic volume on Mt. Shasta Boulevard is higher, the addition of project trips would result in daily traffic volumes in excess of the General Plan's LOS "D" standard. This impact is considered **potentially significant and subject to mitigation.**

TABLE 4.3-9
EXISTING PLUS PROJECT
ROADWAY SEGMENT LEVELS OF SERVICE ON MT. SHASTA BOULEVARD

SEGMENT	LOS "D" THRESHOLD (ADT)	EXISTING		EXISTING PLUS PROJECT	
		VOLUME (ADT)*	LOS	VOLUME (ADT)	LOS
Ream Avenue to Bear Springs	12,100	6,700	C	14,200	E
Bear Springs to Main Access	12,100	3,000	B	9,500	D
Main Access to I-5 ramps	12,100	3,000	B	11,000	D
I-5 ramps to SR 89	12,100	750	A	4,350	B

* Traffic counts for the Ream Avenue to Bear Springs segment are based on General Plan traffic counts (Table G - Mt. Shasta Boulevard south of Ream), resulting in a higher ADT volume and a lower LOS for existing and existing plus project projections. However, it could be assumed that actual traffic numbers along this segment are substantially lower and would more likely resemble the actual counts taken for Bear Springs to Main Access and Main Access to I-5 ramp segments.

Mitigation

General Plan Policies **CI-1.1, CI-2.1, CI-2.2,** and Implementation measures **CI-1.1(a), CI-1.1(b), CI-1.2(a) through CI-1.2(f), CI-2.1(a) and CI-2.1(b), CI-2.2(a) through CI-2.2(d)** mitigate the above impact. These policies and implementation measures include, but are not limited to, the following mitigation: establish LOS standards; monitoring programs; require improvement plans

and programs prior to development; and require impact fees as a means of accumulating funds for improvements.

Significance After Mitigation

Implementation of the above General Plan policies and implementation measures would reduce this impact to **less than significant.**

Impact
4.3.2 **Development of the project would increase the volume of traffic using the I-5/SR 89/South Mt. Shasta Boulevard ramp system, with resulting LOS on the short northbound weaving section in excess of City and Caltrans standard. [PSM]**

Development of the project would add traffic to the ramps joining I-5 with the local street system. While the magnitude of these increases is relatively small, the increase will result in a lower LOS in the weaving area between the northbound I-5 on ramp and the northbound off-ramp to Mt. Shasta Boulevard. Development of the project would reduce peak hour LOS from LOS "C" to LOS "E." This impact is **potentially significant and subject to mitigation.**

Caltrans District 2 staff have previously investigated the feasibility of a full or partial I-5 interchange at Ream Avenue. Staff have noted that the spacing between existing interchanges and Ream Avenue does not appear to provide the distance required by the Federal Highway Administration (FHWA) between interchanges in "rural" areas. If an interchange was approved, it is likely that it would have to be funded "locally" either through developer exactions or via prioritization of limited State Transportation Improvement Program (STIP) funds. It is unlikely that a partial interchange would be approved, with a resulting cost for a full interchange of at least $5 million.

While development of additional freeway access may prove to be beneficial to the community, a Ream Avenue interchange mitigation for this project would not be feasible. For example, if developing the Ream Avenue interchange requires closure of the South Mt. Shasta Boulevard off-ramp, then the Highway Commercial uses in RCP are likely not feasible. Alternatively, use of a Ream Avenue interchange by patrons of RCP could be questioned, as the facility would be a mile from the project along an indirect route.

Other improvements that have been discussed in the past have include local circulation system modifications to SR 89 (i.e., South Mt. Shasta Boulevard extension to SR 89).

Mitigation

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact.

Significance After Mitigation

Implementation of the identified General Plan policies and implementation measures would reduce this impact to a **less than significant** level.

CUMULATIVE IMPACTS

The Mt. Shasta General Plan suggests long term traffic volumes for City streets assuming that the community continues to grow. These forecasts for the year 2012 assume that "*the credible amount of build out at the end of the General Plan's life span will average 3% per year, a cumulative total of 60% traffic increase.*" While the uses included in the RCP are not specifically addressed in the General Plan, it would be reasonable to suggest that they could be a portion of this cumulative growth. However, to provide a conservative (i.e., "worst case") evaluation, this report assumes that along Mt. Shasta Boulevard adjacent to the site, the trips generated by the RCP are in addition to the growth suggested in the General Plan DEIR. In the downtown area, project trips are assumed to be included in the overall 60% growth assumed in the General Plan DEIR.

To assess long term traffic conditions in the immediate study area, the net traffic increase suggested in the General Plan were applied to current traffic volumes to create a "base" cumulative condition. Trips resulting from development of the RCP were then superimposed onto the base condition to create "Cumulative Plus Project" traffic volumes.

Figure 4.3-4 presents "cumulative plus project" traffic volumes assuming background traffic increases as suggested in the GP DEIR and project trips. Resulting Levels of Service on study area intersections and at study area roadway segments are presented in Tables 4.3.10 and 4.3.11, respectively.

Intersection Levels of Service

Impact

4.3.3 **Cumulative traffic conditions at the Mt Shasta Boulevard / Lake Street intersection would remain within the City's LOS "D" standard. Queues can be expected on the northbound and eastbound approaches which could result in safety problems extending back into adjoining intersections. [PSM]**

As indicated, if traffic volumes increase by 60% over the life of the General Plan, the overall p.m. peak hour LOS at the Mt. Shasta Boulevard/ Lake Street intersection may remain below the City's LOS standard. However, it is very likely that motorists in some individual lanes within the intersection will experience very long delays and that queues, especially on the northbound and eastbound approaches could become excessive. This impact is considered **potentially significant and subject to mitigation.**

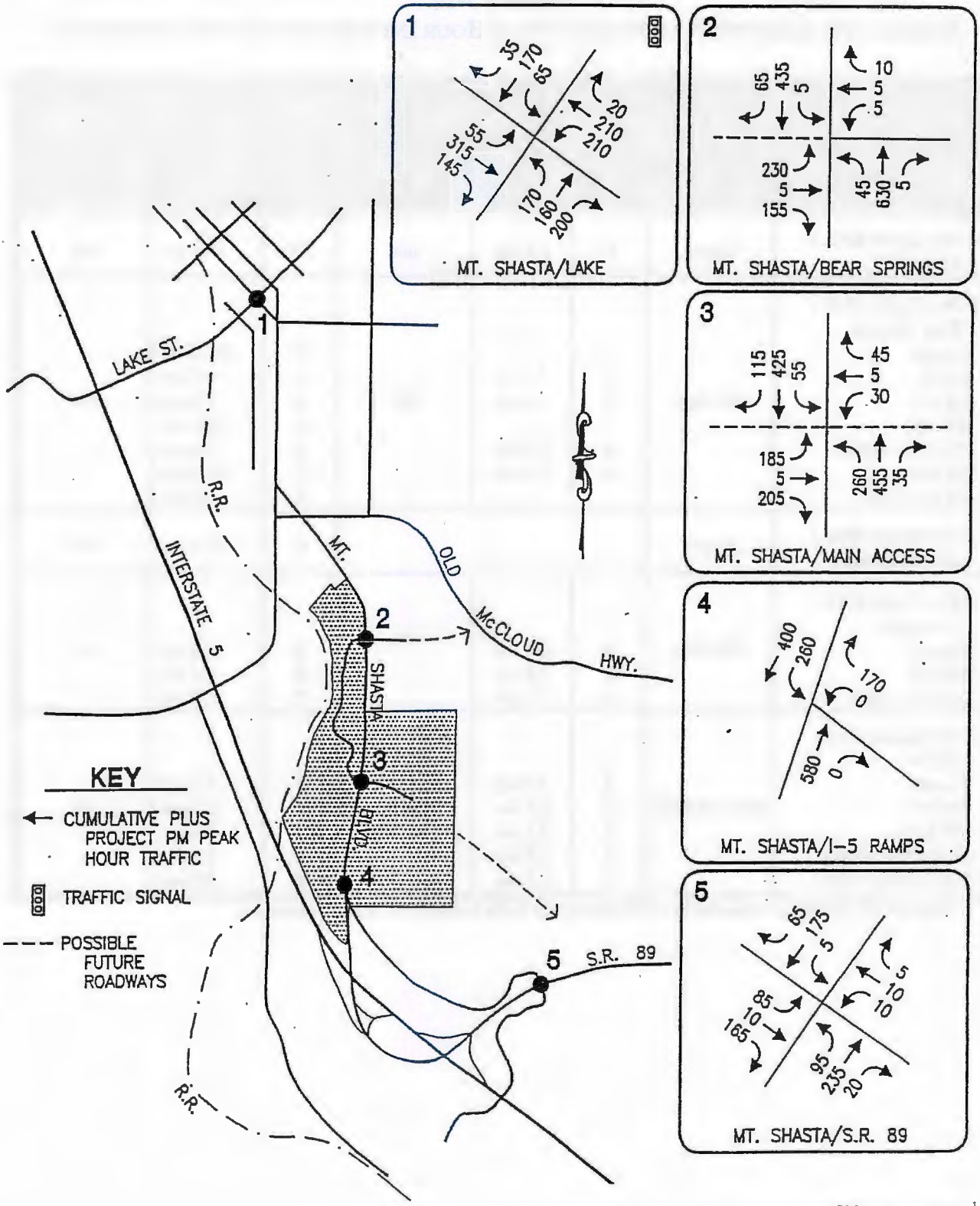


Figure 4.3-4
Cumulative Plus Project Traffic Volumes

TABLE 4.3-10
CUMULATIVE GROWTH PLUS PROJECT PEAK HOUR INTERSECTION LEVELS OF SERVICE

LOCATION	CONTROL	EXISTING PM PEAK HOUR			CUMULATIVE PLUS RCP		
		LOS	DELAY	SIGNAL WARRANT	LOS	DELAY (SEC)	SIGNAL WARRANT
1. Mt. Shasta Blvd. / Lake St	Signal	B	9.0 sec	n/a	C*	30.3 sec	n/a
2. Mt. Shasta Blvd. / Bear Springs							
Overall					*F*	*398.8 sec*	
SB left		*A*	*3.0 sec*		A	4.4 sec	
NB left	SB Stop	A	2.5 sec	No	A	4.0 sec	Yes
WB left					D	27.7 sec	
WB thru+ right		A	3.2 sec		B	9.4 sec	
EB left		A	5.0 sec		F	774.4 sec	
EB thru+right					B	6.7 sec	
3. Mt. Shasta Blvd. / project access	Signal				C	21.2 sec	Yes
4. Mt. Shasta Blvd. / I-5 ramps							
Overall	NB Stop	*A*	*2.8 sec*	No	*A*	*7.2 sec*	No
WB left		A	2.5 sec		B	6.2 sec	
NB left + right		A	3.1 sec		B	7.5 sec	
5. Mt. Shasta Blvd. / SR 89							
Overall		*A*	*3.6 sec*		*B*	*7.4 sec*	
EB left	NB / SB Stop	A	2.3 sec	No	A	3.0 sec	No
WB left		A	2.3 sec		A	2.8 sec	
SB left+thru+right		A	3.8 sec		B	8.9 sec	
NB left+thru+right		A	4.3 sec		B	8.8 sec	

* Project traffic included in cumulative traffic assessment in the General Plan at this intersection.

TABLE 4.3-11
CUMULATIVE PLUS PROJECT
ROADWAY SEGMENT LEVELS OF SERVICE ON MT. SHASTA BOULEVARD

SEGMENT	LOS "D" THRESHOLD (ADT)	EXISTING		CUMULATIVE PLUS PROJECT	
		VOLUME (ADT)	LOS	VOLUME (ADT)	LOS
South of Chestnut	12,100	11,200	C-D	17,920	E
Ream Avenue to Bear Springs	12,100	6,700	C	17,500	E
Bear Springs to Main Access	12,100	3,000	B	13,800	E
Main Access to I-5 ramps	12,100	3,000	B	15,700	E
I-5 ramps to SR 89	12,100	750	A	4,830	B

Mitigation

General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below:

MM 4.3.3a **If the City determines that it is necessary to increase the capacity of the intersection, applicable strategies to increase capacity may include modifying the traffic signal to provide protected left turns, and/or eliminating parking to provide auxiliary lanes.**

Significance After Mitigation

Implementation of the identified General Plan policies and implementation measures, and the above mitigation measure would reduce this impact to **less than significant.**

Impact

4.3.4 **Cumulative traffic conditions would result in long delays at the South Mt Shasta Boulevard / Bear Springs Road intersection. [PSM]**

If background traffic increases as projected in the General Plan on Mt. Shasta Boulevard, it would be difficult to access the site via the Bear Springs Road intersection. Forecast traffic conditions indicate long delays and excessive queues. Traffic signal warrants are projected to be met, therefore, this impact is considered **potentially significant and subject to mitigation**.

Mitigation

General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below:

MM 4.3.4a Install a traffic signal when warrants are actually met. With signalization, the intersection would operate at LOS "C" during the p.m. peak hour.

Significance After Mitigation

Implementation of the identified General Plan policies and implementation measures, and the above mitigation measure would reduce this impact to **less than significant**.

Roadway Segments

Impact
4.3.5 Full buildout of RCP site at maximum density may produce traffic volumes in excess of those assessed in the traffic study, with resulting traffic volumes on Mt Shasta Boulevard in excess of the City's LOS "D" standard. [PSM]

The preceding analysis assumes a finite amount of development within RCP over the next twenty years. Although this analysis does assume a credible worst-case scenario based on the proposal, it is possible that economic conditions in the long term may result in demands for development at levels beyond that assessed in this study. Increased development levels are likely to result in future traffic volumes in excess of those projected herein and in greater impacts to the main routes serving the site. While additional analysis and monitoring would be required to identify the complete extent of additional impacts, it is reasonable to conclude that traffic conditions on Mt. Shasta Boulevard in the area of the project could be negatively impacted and that a four lane facility could be required. This impact is considered **potentially significant and subject to mitigation.**

Mitigation

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact.

Significance After Mitigation

Implementation of the identified General Plan policies and implementaion measures would reduce this impact to a **less than significant** level.

Impact 4.3.6 **Cumulative traffic volumes may exceed the City's LOS "D" standard on portions of Mt Shasta Boulevard in the downtown area whether or not the RCP is developed. [PSM]**

The Mt. Shasta General Plan suggests that if current traffic volumes increase by 60% as anticipated, then many segments of the downtown street system will carry volumes in excess of the City's LOS "D" standard. Development of the RCP will contribute to cumulative traffic volumes in the Downtown area.

Mitigation

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact. The General Plan mandates continuing evaluation of the impacts of development with the goal of identifying applicable mitigation measures as projects are proposed. Development of new streets (i.e., West Lake/South Mt. Shasta Boulevard connection) and/or local capacity enhancements are presented as potential mitigation measures. Specific development proposals within the RCP should adhere to General Plan requirements for subsequent analysis and for "fair share" participation in mitigation measures.

Significance After Mitigation

Implementation of the above General Plan policies and implementation measures would reduce this impact to **less than significant.**

Impact 4.3.7 **Cumulative traffic volumes on Mt Shasta Boulevard in the vicinity of the project may exceed the City's LOS "D" standard. [PSM]**

In the immediate vicinity of the project, if background traffic volume increases as suggested by the General Plan, then forecast "cumulative plus project" traffic volumes on Mt. Shasta Boulevard are projected to exceed the City LOS "D" standard. Because the quality of overall traffic flow is governed by the operation of signalized intersections, this impact is considered **potentially significant and subject to mitigation.**

Mitigation

General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below:

MM 4.3.7a Design of the project entryways, particularly the main entrance, shall include provisions for auxiliary through and exclusive turn lanes.

Significance After Mitigation

Implementation of the identified General Plan policies and implementation measures, and the above mitigation measure would reduce this impact to **less than significant.**

Impact

4.3.8 Cumulative traffic conditions may result in traffic volumes in excess of capacity on some of the ramps in the I-5 / SR 89 / South Mt Shasta Boulevard interchange system. [PSM]

As regional development occurs, traffic volumes on I-5 and SR 89 can be expected to increase. Based on review of available planning documents, it appears that current traffic volumes on the highways could reasonably be expected to increase at a rate that was similar to that suggested for local streets in the Mt. Shasta General Plan. If this were the case, traffic volumes on I-5 could increase from the current level of about 17,000 ADT to perhaps 30,000 ADT. On SR 89, current volumes of 3,650 could approach 6,500 ADT.

These traffic volume increases, coupled with the increase in ramp traffic resulting from project development would result in very poor traffic conditions on portions of the interchange. While the magnitude of the traffic increases on I-5 ramps is relatively small, the increase would result in a poor LOS in the weaving area between the NB I-5 on ramp and the NB off-ramp to Mt. Shasta Boulevard. This impact is considered **potentially significant and subject to mitigation.**

Mitigation

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact, assuming City implementation of General Plan programs relative to impact fees and monitoring of roadways.

Significance After Mitigation

Implementation of the identified General Plan policies and implementation measures would reduce this impact to a **less than significant** level.

REFERENCES

ITE, Institute of Transportation Engineers. 1997. Trip Generation, 6th Edition.

TRB, Transportation Research Board. 1994. Highway Capacity Manual, Transportation Research Board (TRB) Special Report.

4.4 NOISE

This section discusses the existing setting, identifies potential impacts and proposes mitigation measures related to noise impacts resulting from implementation of the Roseburg Commerce Park (RCP). A combination of visual and noise level measurement surveys, use of existing acoustical literature, and application of accepted noise prediction methodologies were used by Brown-Buntin Associates to quantify the existing and projected future ambient noise environments in the RCP study area (Appendix B).

4.4.1 EXISTING SETTING

BACKGROUND AND TERMINOLOGY

Noise is often described as unwanted sound. Sound is defined as any pressure variation in the air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighing network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The Day-Night Average Level (Ldn) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

A means of determining a potential noise impact is to assess a persons reaction to changes in noise levels due to a project. An increase of at least 3 decibels (dB) is usually required before most people will perceive a change in noise levels, and an increase of 5 dB is required before the change will be clearly noticeable. A common practice has been to assume that a minimally perceptible increase of 3 dB represents a significant increase in ambient noise levels, when existing or future (without project) noise levels are generally in the range of 60 to 70 dB.

REGULATORY SETTING

City of Mt. Shasta General Plan

The City of Mt. Shasta Noise Element establishes land use compatibility criteria for various land uses affected by transportation-related and non-transportation noise sources. The transportation noise source criteria are established for both the exterior and interior spaces of various types of land uses. Transportation noise sources are considered to include roadway traffic and railroad operations. There are no noise level standards for industrial uses affected by transportation-related noise sources. Table 4.4-1 shows the transportation noise source criteria.

TABLE 4.4-1
MAXIMUM ALLOWABLE NOISE EXPOSURE DUE TO TRANSPORTATION NOISE SOURCES
MT. SHASTA GENERAL PLAN

LAND USE	OUTDOOR ACTIVITY AREAS[1] L_{dn}/CNEL, dB		INTERIOR SPACES	
	ROADWAYS	RAILROADS	LDN/CNEL,dB	LEQ, dB[2]
Residential	60[3]	65[4]	45	--
Transient Lodging	65[4]	65[4]	45	--
Hospitals, Nursing Homes	60[3]	60[3]	45	--
Theaters, Auditoriums, Music Halls	--	--	--	35
Churches, Meeting Halls	60[3]	65[4]	--	40
Office Buildings, Retail Commercial	70	70	--	45
Schools, Libraries, Museums	--	--	--	45
Playgrounds, Neighborhood Parks	70	70	--	--

Notes:

1 Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

2 As determined for a typical worst-case hour during periods of use.

3 Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

4 Where it is not possible to reduce noise in outdoor activity areas to 65 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 70 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

The City of Mt. Shasta Noise Element also establishes noise level performance standards for new stationary noise sources which may be associated with commercial or industrial uses, as they may affect noise-sensitive land uses. Table 4.4-2 shows the stationary noise source performance standards.

TABLE 4.4-2
NOISE LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS
AFFECTED BY OR INCLUDING NON-TRANSPORTATION (STATIONARY) NOISE SOURCES
MT. SHASTA GENERAL PLAN

NOISE LEVEL DESCRIPTOR	DAYTIME (7 A.M. – 10 P.M.)	NIGHTTIME (10 P.M. – 7 A.M.)
Hourly Leq, dB	55	45
Maximum Level, dB	75	65

Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

EXISTING NOISE ENVIRONMENT

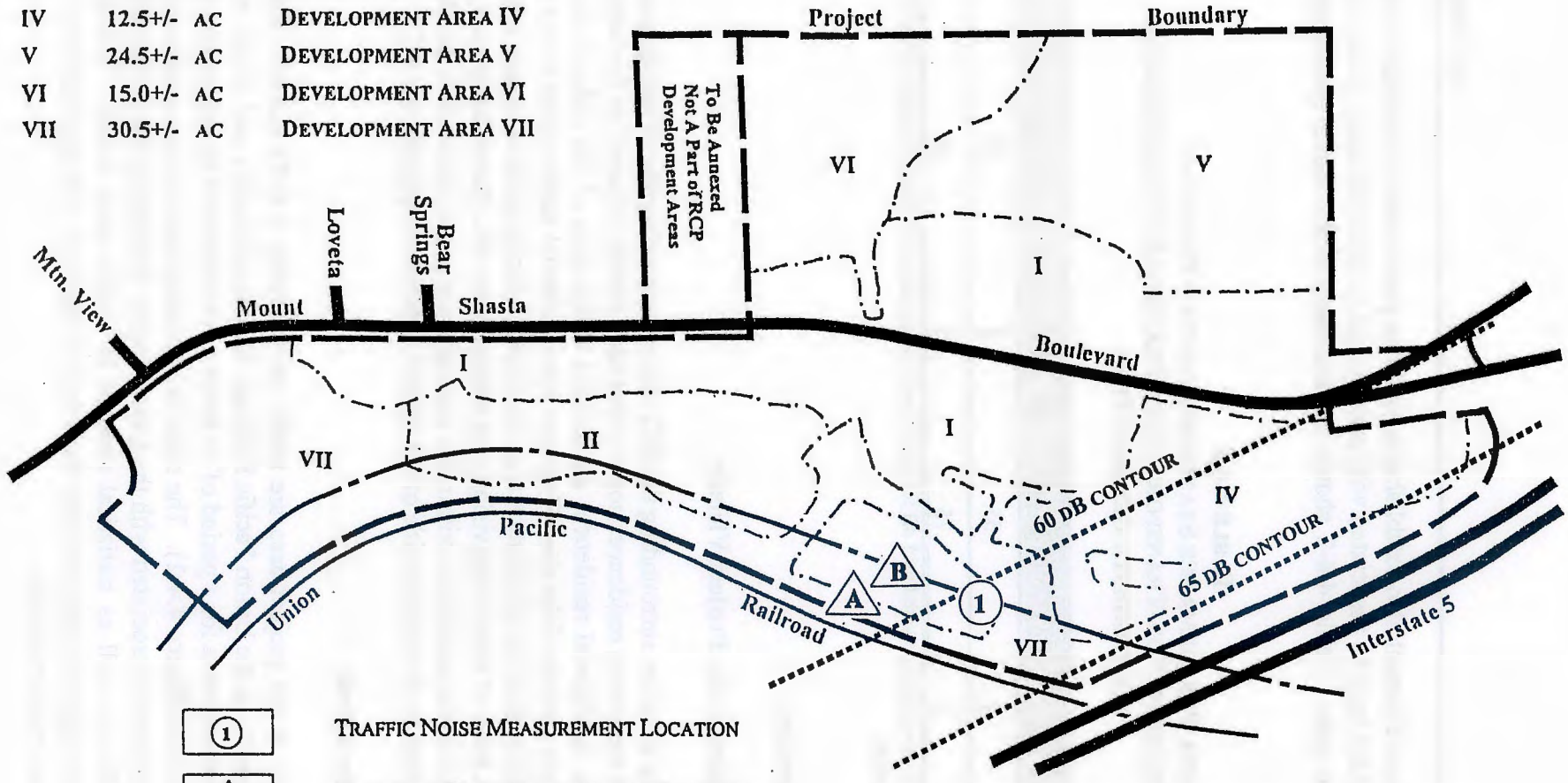
Existing Sensitive Receptors in the Project Vicinity

Existing land uses sensitive to noise surrounding the RCP site consist primarily of hotels/motels and residential uses. There are several residences north of and immediately adjacent to the western portion of the project site. Additional residences are located to the west of the railroad tracks opposite the extreme northern portion of the site. There are two residential subdivisions to the east of Mt. Shasta Boulevard and north of the annexation area: the Meadowbrook subdivision and the Mt. Shasta Village subdivision. Both of these subdivisions are setback from Mt. Shasta Boulevard and do not abut the site. There are two residences within the annexation area not included in the RCP. There are three motels located on the eastern side of Mt. Shasta Boulevard opposite the RCP.

On-Site Background Noise Levels

The primary noise sources in the project area are traffic on Interstate 5 (I-5) and Mt. Shasta Boulevard and train movements on the Union Pacific Railroad. Continuous hourly and single event background noise level measurements for a period of 24 hours were conducted on the project site, on December 17-18, 1998 (See **Figure 4.4-1**). The noise level measurements were conducted to determine background noise levels associated with the Union Pacific Railroad (UPRR) operations and Interstate 5 (I-5) traffic, as well as statistical changes in hourly noise levels. The noise measurement site was located approximately 600 feet from the I-5 centerline, and approximately 125 feet from the UPRR railroad track centerline.

I	33.0+/-	AC	DEVELOPMENT AREA I
II	8.5+/-	AC	DEVELOPMENT AREA II
III	3.5+/-	AC	DEVELOPMENT AREA III
IV	12.5+/-	AC	DEVELOPMENT AREA IV
V	24.5+/-	AC	DEVELOPMENT AREA V
VI	15.0+/-	AC	DEVELOPMENT AREA VI
VII	30.5+/-	AC	DEVELOPMENT AREA VII



1 TRAFFIC NOISE MEASUREMENT LOCATION

A RAILROAD NOISE MEASUREMENT LOCATION

B RAILROAD NOISE MEASUREMENT SITE AND CONTINUOUS NOISE MEASUREMENT SITE

I-5 FUTURE WITH PROJECT L_{dn} CONTOURS

65 dB L_{dn} RAILROAD NOISE CONTOURS

SCALE IN FEET

NOTE: I-5 NOISE CONTOURS DO NOT ACCOUNT FOR VARIATIONS IN LOCAL TOPOGRAPHY

Figure 4.4-1
Noise Measurement Sites and Predicted Noise Contours

Noise level measurements were conducted using Larson Davis Laboratories (LDL) Models 820 and 700B precision integrating sound level meters. The equipment was calibrated prior to and after the measurements using an LDL Model CA250 acoustical calibrator to ensure accuracy of the measurements.

Based upon the background noise level measurement data, the average hourly noise level during the daytime period (7 a.m. - 10 p.m.) at the noise monitoring Site B was 60.1 dB Leq. The average hourly noise level during the nighttime period (10 p.m. - 7 a.m.) was 60.6 dB Leq. The measured Ldn was 66.9 dB. **Figure 4.4-2** graphically shows the results of the noise measurements at Site B.

Existing Traffic Noise Levels

Brown-Buntin Associates, Inc. (BBA) employs the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) for the prediction of traffic noise levels. The FHWA model is the analytical method currently favored for traffic noise prediction by most state and local agencies, including the California Department of Transportation (Caltrans). The model is based upon the CALVENO noise emission factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions, and is considered to be accurate within 1.5 dB. To predict Ldn values, it is necessary to determine the day/night distribution of traffic and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic noise measurements were conducted on the project site on December 17, 1997 (See Figure 4.4-1). The measurements were made to evaluate noise exposure due to traffic on I-5 on the project site. Concurrent counts of traffic on the roadway were made, and were projected to obtain hourly traffic volumes. Instrumentation consisted of a Larson Davis Laboratories (LDL) Model 700B integrating sound level meter which was calibrated in the field before use with an LDL CA-250 acoustical calibrator.

The purpose of traffic noise level measurements is to determine the accuracy of the FHWA model in describing the existing noise environment on the project site, accounting for local topography, actual travel speeds, shielding of the roadway and roadway grade. Noise measurement results were compared to the FHWA model results by entering the observed traffic volume, speed, and distance as inputs to the FHWA model. The results of this comparison are shown by Table 4.4-3. The FHWA model was found to considerably over predict traffic noise levels at the monitoring site. Based upon field observations, portions of I-5 traffic are shielded from view on the project site by local topography.

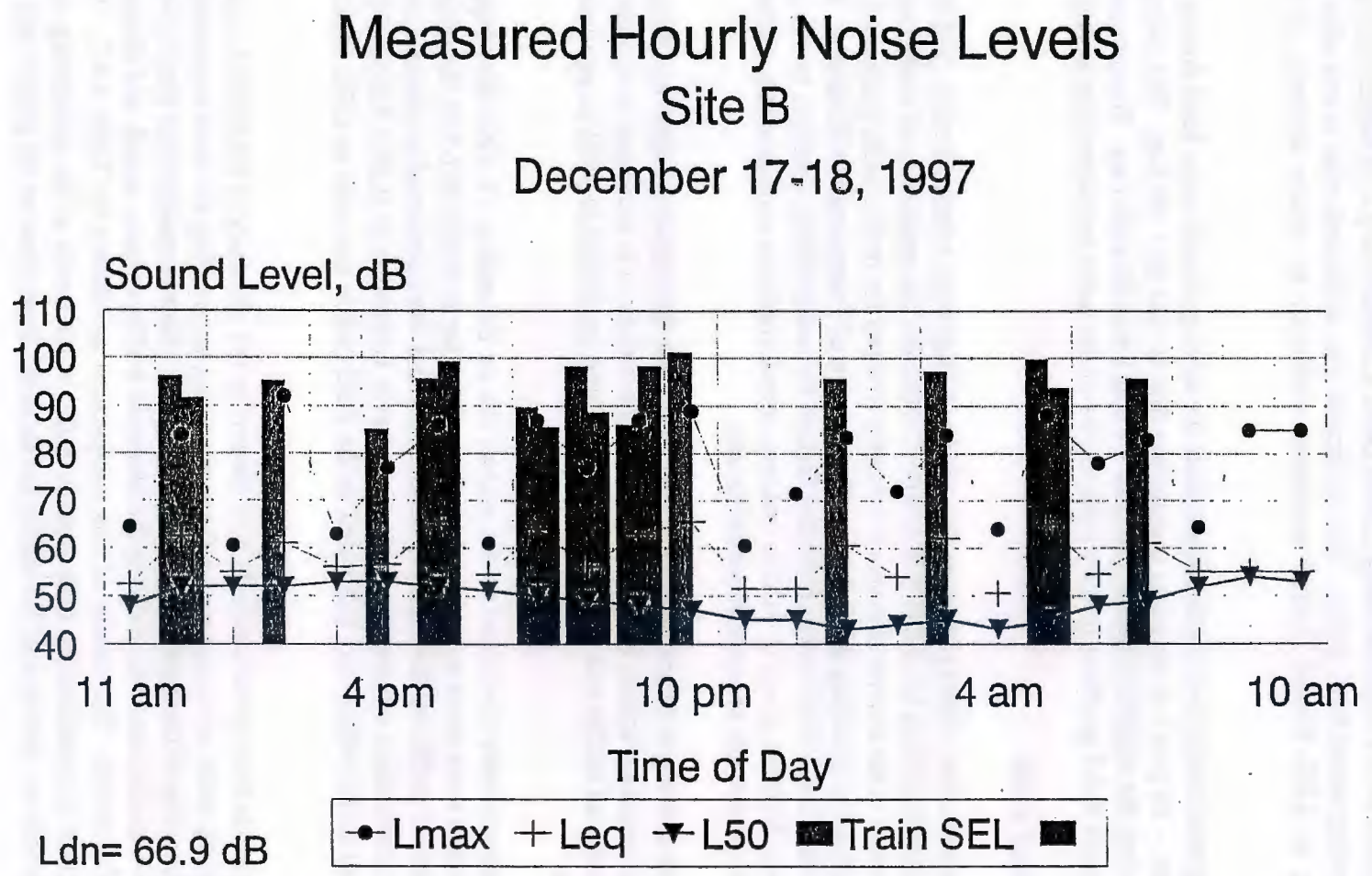


Figure 4.4-2
Measured Hourly Noise Levels

TABLE 4.4-3
COMPARISON OF INTERSTATE 5
FHWA MODELED TO MEASURED NOISE LEVELS
DECEMBER 17, 1997

VEHICLES/HR.				POSTED SPEED (MPH)	DIST. (FEET)	MEASURED LEQ, DB	MODELED LEQ, DB*
TIME	AUTOS	MED. TRK.	HVY.TRK.				
3:10 pm	1364	64	436	65	500	55.5	63.3

* Acoustically "soft" site assumed

Existing traffic data for I-5 and Mt. Shasta Boulevard were provided by KD Anderson Traffic Consultants and Caltrans. The day/night traffic distribution for I-5 was based upon the measured hourly noise level data collected on site. The day/night distribution of traffic for Mt. Shasta Boulevard was based upon data used for the General Plan Noise Element roadway noise calculations. Truck mix data for I-5 was based upon data supplied by Caltrans. The truck mix data for Mt. Shasta Boulevard was based upon data used for the General Plan Noise Element roadway noise calculations. The FHWA model was used with the assumptions shown in Table 4.4-4 to calculate existing traffic noise levels. Table 4.4-5 contains the modeling results. A -7 dB correction was applied to the noise level calculations for I-5.

TABLE 4.4-4
FHWA MODEL ASSUMPTIONS*

ROADWAY	EXISTING TRAFFIC		TRAFFIC DISTRIBUTION		TRUCK MIX (%)		SPEED (MPH)
SEGMENT	ADT	PEAK HOUR	DAY%	NIGHT %	MED	HVY	
I-5							
Entire Length	17,100	2,150	69.5	30.5	3.3	27	65
Mt. Shasta Boulevard							
Ream Ave. - Bear Springs	6,700	670	87	13	2	1	35
Bear Springs - Main Access	3,000	300	87	13	2	1	35
Main Access - I-5 Ramps	3,000	300	87	13	2	1	35
I-5 Ramps - SR 89	750	75	87	13	2	1	35

* Soft site assumed

TABLE 4.4-5
PREDICTED EXISTING TRAFFIC NOISE LEVELS*

ROADWAY	LDN, DB	LEQ, DB	DISTANCE TO CONTOUR (FEET)*			
			60 DB LDN	65 DB LDN	70 DB LDN	65** DB LEQ
I-5	58.3 @ 500'	57.3 @ 500'	384	178	83	154
Mt. Shasta Boulevard						
Ream Ave. - Bear Springs	62.6 @50'	63.0 @50'	74	34	16	37
Bear Springs - Main Access	59.1 @50'	59.5 @50'	43	20	9	22
Main Access - I-5 Ramps	59.1 @ 50'	59.5 @ 50'	43	20	9	22
I-5 Ramps - SR 89	53.0 @ 50'	53.5 @ 50'	17	8	4	9

*Predicted distances to traffic noise levels are from the roadway centerline.
**Represents the distances to the Peak Hour 65 dB Leq values

Existing Train Noise Levels

The UPRR tracks are located adjacent to of the project site forming the western property boundary. The railroad tracks are topographically depressed in relation to the existing grade of the RCP site. Therefore, portions of the project site would be expected to receive some shielding of train operation noise levels due to the intervening topography. Two sets of noise level measurements were conducted on the project site to determine the noise levels due to individual passbys of train operations and to assist in determining the effects of shielding on the project site.

The first set of train noise level measurements were conducted at the edge of the railroad right-of-way (approximately 75 feet from the railroad track centerline). This site had a clear view of the tracks. This site is shown as Site A on Figure 4.4-1.

The second set of train noise level measurements were conducted approximately 50 feet northeast of Site A (125 feet from the railroad track centerline), and is labeled Site B. This site received shielding of train operations due to the depressed railroad track, and is also the continuous noise measurement site described earlier in the report. Figure 4.4-2 shows the measured sound exposure level (SEL) or single event noise exposure values due to train operations at Site B. SEL is the level of noise accumulated during a single noise event, such as a train passing the reference to a duration of one second. Table 4.4-6 shows the results of the noise level measurements at both sites.

Based upon the noise measurement results contained within Table 4.4-6, the mean SEL value at Site A due to train passbys is 101.6 dB. The mean SEL value at Site B due to train passbys is 95.8 dB.

Based upon the results contained within Table 4.4-6, the average arithmetic difference between measured train pass-by noise levels at Sites A & B is approximately 6 dB SEL/L_{max}. Based upon the additional distance from the tracks to Site B, it would be expected that the measured railroad operations noise levels at Site B would be approximately 3.5 dB less than the measured noise levels at Site A. Therefore, it is expected that a small correction can be applied to first floor receivers on the project site. However, second or third floor receivers are not expected to receive any significant benefit from shielding of railroad operation noise levels.

TABLE 4.4-6
COMPARISON OF MEASURED TRAIN NOISE LEVELS
ROSEBURG COMMERCE PARK

SITE A @50' FROM RR TRACKS		SITE B @100' FROM RR TRACKS		DIFFERENCE	
SEL, DB	L_{MAX}, DB	SEL, DB	L_{MAX}, DB	SEL, DB	L_{MAX}, DB
102.5	89.7	96.0	84.0	-6.5	-5.7
99.3	88.8	91.5	82.5	-7.8	-6.3
101.3	96.6	95.0	92.0	-6.3	-4.6
94.1	76.7	85.0	68.5	-9.1	-8.2
100.8	90.6	95.5	85.0	-5.3	-5.6
102.5	90.3	99.0	86.0	-3.5	-4.3
99.1	87.6	89.5	80.5	-9.6	-7.1
94.7	82.3	85.5	74.0	-9.2	-8.3
102.7	91.2	98.0	87.0	-5.7	-4.2
97.6	82.8	88.5	77.0	-9.1	-5.8
95.3	80.8	86.0	73.5	-9.3	-7.3
104.3	91.6	98.0	87.0	-6.3	-4.6
106.8	95.4	101.0	89.0	-5.8	-6.4
101.3	88.7	95.5	83.5	-5.8	-5.2
102.4	91.8	97.0	84.0	-5.4	-7.8

Previous noise level measurements in the Mt. Shasta area conclude that approximately 16 freight trains and 2 Amtrak train operations per day occur along the UPRR railroad tracks. The current number of train operations along the Union Pacific line in Mt. Shasta is 17 trains per day, and could increase to up to 20 trains per day (Bradley, 1998). The continuous noise level measurements conducted on December 17-18, 1997 indicate that 18 total train operations occurred during a 24-hour period.

Based upon the information provided by the UPRR staff, this analysis will conservatively estimate that 20 freight trains and 2 Amtrak operations per day occur along the UPRR tracks. Based upon the measured railroad operation noise level data discussed above, a mean SEL of 101.5 dB at a distance of 75 feet from the railroad tracks was used for this analysis.

To relate railroad operational data to the applicable noise level standards, it was necessary to calculate the Ldn and peak hour Leq for typical train operations. This was done using the average reported SEL value, and the above-described number and distribution of daily train operations. The train Ldn contribution may be calculated as follows:

$$\mathbf{Ldn = \overline{SEL} + 10 \log N_{eq} - 49.4, dB, where:}$$

$\overline{SEL}$ is the mean SEL of the event, N_{eq} is the sum of the number of daytime events (7 a.m. to 10 p.m.) per day plus ten times the number of nighttime events (10 p.m. to 7 a.m.) per day, and 49.4 is ten times the logarithm of the number of seconds per day. Based upon the above-described noise level data and methods of calculation, the Ldn at a distance of 75 feet from the railroad track centerline is 71.9 dB. The predicted distances to the 70 and 65 dB Ldn contours are contained in Table 4.4-7.

The peak hour number of train operations is expected to be no more than 3 trains. Using the same methodology as described above, the peak hour train noise levels can be calculated as follows:

$$\mathbf{Leq = \overline{SEL} + 10 \log 3 - 35.6, dB, where:}$$

$\overline{SEL}$ is the mean SEL of the event, (3) is the number of train operations during a peak hour, and 35.6 is ten times the logarithm of the number of seconds per hour Based upon the above-described noise level data and methods of calculation, the Leq at a distance of 75 feet from the railroad track centerline is 70.7 dB. The predicted distance to the 65 dB Leq contour is contained in Table 4.4-7.

TABLE 4.4-7
DISTANCES TO RAILROAD NOISE CONTOURS

DISTANCES TO NOISE CONTOURS (FEET)			
60 dB Ldn	65 dB Ldn	70 dB Ldn	65 dB Leq
463	215	100	180

GENERAL PLAN GOALS AND POLICIES

The following General Plan goals and policies address noise issues:

Goal NZ-1
Protect City residents from the harmful and annoying effects of exposure to excessive noise.

Policy NZ-1.1
Enforce standards for noise exposure from proposed and existing non-transportation noise sources.

Policy NZ-1.2
Review impacts more closely when a project is potentially a high noise generator.

Policy NZ-1.3
Emergency service and agriculture uses shall be allowed to continue or be initiated even if noise standards are exceeded.

Policy NZ-1.4
Enforce General Plan noise standards for noise exposure from proposed and existing transportation noise sources.

Policy NZ-1.5
Actively work to reduce noise generated by City transportation equipment.

Policy NZ-1.6
The City Development Code shall include procedures to ensure that required noise review and mitigation measures are implemented in the project review and building permit processes.

Policy NZ-1.7
Noise mitigation measures required to achieve acceptable noise standards shall emphasize site planning and project design.

Policy NZ-1.8
Monitor compliance with noise standards.

Goal NZ-2
Support the economic base of the City by avoiding land uses incompatible with existing or planned noise-producing uses.

Policy NZ-2.1
Amend the development code to promote compatible land uses and accommodate existing or planned noise-producing uses in concert with noise exposure.

4.4.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Criteria for determining the significance of noise impacts are based on information contained in Appendix G of the California Environmental Quality Act Guidelines (State CEQA Guidelines). A project may have a significant effect on the environment if it will:

1) Generate noise that would conflict with local planning criteria or ordinances; or

2) Significantly increase noise levels at noise-sensitive land uses.

For this project, the significance of anticipated noise effects is based on a comparison between predicted noise levels and noise criteria defined by the City. General Plan maximum allowable noise exposure levels range from 60 dB to 70 dB; these criteria are presented in Tables 4.4-1 and 4.4-2. If the project leads to an exceedence of, or contributes to an existing exceedence of, General Plan thresholds then the impact is considered signficant.

METHODOLOGY

To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA) Model was used. The FHWA model is the analytical method currently favored for highway traffic noise prediction by most state and local agencies, including the California Department of Transportation (Caltrans). The FHWA model predicts hourly Leq values for free-flowing traffic conditions. To predict Ldn values, it is necessary to determine the day/night distribution of traffic and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic data was supplied by KD Anderson Transportation Engineers. Assumptions are contained within Appendix B, and Table 4.4-8 shows the results of the analysis. Figure 4.4-1 shows the locations of the 60 dB and 65 dB Ldn I-5 traffic noise contours and railroad noise contours.

PROJECT IMPACTS

On-Site Interior Noise Impacts

Impact

4.4.1 Interior traffic noise levels will comply with the interior noise level criterion of 45 dB Ldn. [LS]

Specific land uses which may be impacted by traffic noise levels onsite include hotels, motels, and office uses within areas designated for commercial, office, government, and business park uses.

TABLE 4.4-8
PREDICTED FUTURE TRAFFIC NOISE LEVELS*

ROADWAY	LDN DB	LEQ, DB	DISTANCE TO CONTOUR (FEET)*			
			60 DB LDN	65 DB LDN	70 DB LDN	65** DB LEQ
Future Without Project						
I-5	60.9 @ 500'	58.8 @ 500'	570	265	123	197
Mt. Shasta Boulevard						
Ream Ave. - Bear Springs	64.6 @ 50'	65.0 @ 50'	101	47	22	50
Bear Springs - Main Access	63.2 @ 50'	63.6 @ 50'	81	38	18	40
Main Access - I-5 Ramps	62.8 @ 50'	63.2 @ 50'	76	35	16	38
I-5 Ramps - SR 89	55.2 @ 50'	55.6 @ 50'	24	11	5	12
Future With Project						
I-5	60.9 @ 500'	58.8 @ 500'	570	265	123	197
Mt. Shasta Boulevard						
Ream Ave. - Bear Springs	66.7 @ 50'	67.2 @ 50'	140	65	30	70
Bear Springs - Main Access	65.7 @ 50'	66.1 @ 50'	120	56	26	59
Main Access - I-5 Ramps	66.3 @ 50'	66.7 @ 50'	131	61	28	65
I-5 Ramps - SR 89	61.1 @ 50'	61.6 @ 50'	60	28	13	30

*Predicted distances to traffic noise levels are from the roadway centerline.
**Represents the distances to the Peak Hour 65 dB Leq values

To judge compliance with the 45 dB Ldn or 45 dB Leq interior traffic noise standard for the land uses described above, it is necessary to determine the noise reduction provided by the building facade. This may be calculated by assuming a generalized A-weighted noise frequency spectrum of the traffic, determining the composite transmission loss and resulting noise level in the receiving room, then correcting for room absorption and calculating the overall noise level in the room.

Typical facade design and construction in accordance with prevailing industry practices would result in an exterior to interior traffic noise attenuation of 20 to 25 dB with windows closed, depending upon the materials used for the facade construction. Noise attenuation of 12 to 15 dB would be expected with windows partially open.

The Draft Development Plan (DDP) has established general development standards for architectural design including building style, configuration, and materials. These standards include criteria for facade design and wall materials. In addition, setback requirements have been established for each of the Development Areas (DA) in the project site with additional setback requirements for DA-I, subareas B and C.

Since future traffic noise levels are expected to be less than 65 dB Ldn/Leq at the nearest building facades, it can be assumed that interior traffic noise levels will comply with the interior noise level criterion of 45 dB Ldn, provided that windows and doors are in the closed position. This impact is considered **less than significant**.

Impact

4.4.2 The interior spaces of office buildings located within 180 feet of the railroad track centerline may exceed the interior noise level criterion of 45 dB Leq. [PSM]

As stated earlier, typical facade design and construction in accordance with prevailing industry practices would result in an exterior to interior noise attenuation of 20 to 25 dB with windows closed, depending upon the materials used for the facade construction. Noise attenuation of 12 to 15 dB would be expected with windows partially open.

Future railroad noise levels within DA's II-B and II-C and DA IV-C could exceed 65 dB Leq at the nearest building facades. The interior spaces of office buildings and similar uses could be located within 180 feet of the railroad track centerline which may exceed the interior noise level criterion of 45 dB Leq. This impact is considered **potentially significant and subject to mitigation**.

Mitigation

MM 4.4.2a If project buildings located within 180 feet of the railroad tracks include office areas facing the railroad tracks, a detailed interior acoustical analysis shall be conducted when building plans and construction details are provided. The analysis shall focus on determining compliance with the interior noise level criterion of 45 dB Leq during peak hours of train operations.

Significance After Mitigation

Implementation of the above mitigation measures will reduce this impact to **less than significant.**

On-Site Exterior Noise Impacts

Impact 4.4.3 **Future traffic noise levels are not expected to exceed the exterior noise level standards contained within the General Plan Noise Element. [LS]**

Based upon the analysis, the portions of the project site within the development envelopes are located outside of the future 65 dB Ldn and 65 dB Leq, I-5 traffic noise level contours. It is also anticipated that proposed building facades would be located a minimum of 70 feet from the Mt. Shasta Boulevard centerline, and therefore would be located outside of the future 65 dB Ldn/Leq Mt. Shasta Boulevard traffic noise contours. Further attenuation would be expected due to the grade differential between the roadway and the project site along major portions of the western frontage. Therefore, this impact is **less than significant.**

Impact 4.4.4 **The proposed uses that would be located within Development Areas II, III and IV would comply with the Mt. Shasta General Plan Noise Element noise level criterion of 70 dB Ldn. [LS]**

Based upon the analysis, the portions of the project site within the development envelopes adjacent to the UPRR railroad tracks are located inside of the 65 dB Ldn/Leq railroad noise level contours. However, they are located outside of the 70 dB Ldn /Leq, railroad noise level contours. Therefore, the proposed uses to be located within Development Areas II, III and IV which include Government, Office, Industrial and Commercial would comply with the Mt. Shasta General Plan Noise Element noise level criterion of 70 dB Ldn. This impact is considered **less than significant.**

Off-Site Exterior Traffic Noise Impacts

Impact 4.4.5 **The increase in traffic noise levels along Mt. Shasta Boulevard due to project traffic would range from 3 dB to 5.9 dB. [SU]**

Some land uses which are considered to be noise-sensitive are located in the near vicinity of the project site, and adjacent to Mt. Shasta Boulevard. Noise-sensitive uses include residences and hotel/motel facilities. In some cases residential uses are located within 50 feet of the centerline of Mt. Shasta Boulevard. Based upon the analysis, future Mt. Shasta Boulevard traffic noise levels, without implementation of the project, will range between 55.2 dB Ldn near the intersection of SR

89, to 64.6 dB Ldn near Ream Avenue, at a distance of 50 feet from the roadway centerline. Future Mt. Shasta Boulevard traffic noise levels, with implementation of the project, will range between 61.1 dB Ldn near the intersection of SR 89, to 66.7 dB Ldn near Ream Avenue, at a distance of 50 feet from the roadway centerline.

Increases in future traffic noise levels due to the project are predicted to be less than 3 dB Ldn (2.1 to 2.5 dB Ldn) along Mt. Shasta Boulevard north of the main access to the project site, and between 3.5 dB and 5.9 dB Ldn south of the main access to the project site.

TABLE 4.4-9
INCREASES IN FUTURE TRAFFIC NOISE LEVELS

ROADWAY	FUTURE WITHOUT PROJECT LDN DB (@ 50')	FUTURE WITH PROJECT LDN DB (@ 50')*	DB LDN INCREASE WITH PROJECT
Ream Ave. - Bear Springs	64.6	66.7	2.1
Bear Springs - Main Access	63.2	65.7	2.5
Main Access - I-5 Ramps	62.8	66.3	3.5
I-5 Ramps - SR 89	55.2	61.1	5.9

* The dB Ldn for future with project are based on a worst-case scenario analysis using an estimated 50,000 Average Daily Trip (ADT) generation. The buildout scenario utilized as the basis of this EIR analysis used a 16,000 ADT. Therefore, it is anticipated that the increase in dB Ldn would actually be lower that predicted.

Noise level criterion for the area south of the main access would be 70 dB Ldn because there are no sensitive land uses (i.e., residences) south of the main access. Therefore, the increase in traffic noise levels along Mt. Shasta Boulevard south of the main access would be considered less than significant.

Based upon the analysis and field observations, front porches, front yards, and some patio areas and outdoor activity areas at existing residences adjacent to Mt. Shasta Boulevard, north of the RCP site, are already exposed to exterior noise levels in excess of the 60 dB Ldn exterior noise level criterion for noise sensitive uses (i.e., residential uses, hospitals, and churches). Because the area north of the main access is already in excess of the 60 dB Ldn criterion, the increase in traffic noise levels in this area would be considered **significant and unavoidable.**

Stationary Noise Source Impacts

Impact 4.4.6 **On-site noise sources are not expected to adversely impact adjacent noise sensitive uses. [LS]**

The proposed land use plan took into consideration potential noise impacts on nearby noise sensitive uses. The plan calls for open space, recreational uses, or a park (DA VII) adjacent to the residential uses along the northern boundary. Residential uses within the annexation area but outside the RCP are located adjacent to DA VI which only allows minimal use. In addition, the DDP includes performance standards that regulate on-site noise sources. This impact is considered **less than significant.**

CUMULATIVE IMPACTS

Impact 4.4.7 **Exterior cumulative noise levels at the project site are expected to increase over existing conditions. [SU]**

As development occurs throughout the City, ambient noise levels can be expected to increase due to new development and increased traffic. Future cumulative noise levels at sensitive receptors nearest the proposed project site are expected to increase over existing conditions. However, future noise levels without the proposed project would likely increase because of vehicular traffic growth that is expected within the area. The General Plan's policies and implementation measures and the DDP's performance standards assist in regulating and reducing noise sources. Therefore, cumulative impacts are considered to be **significant and unavoidable.**

REFERENCES

Bradley, Carl. Superintendent of the Union Pacific Railroad Operations, Roseville, California. Personal communication: 1998.

4.5 Air Quality

4.5 AIR QUALITY

This section evaluates the potential air quality impacts of development at the RCP site. Air quality is an issue of concern for many Mt. Shasta residents. Also, both the federal government and the State of California have established emission standards for certain air pollutants. Emissions of these pollutants could occur from activities associated with site development. Potential sources of emissions are identified and possible emission quantities are presented. The analysis of air quality impacts was based on an in-house analysis by PMC, which included the use of the URBEMIS air quality computer model (Appendix C).

4.5.1 SETTING

The RCP site is adjacent to the City of Mt. Shasta, which is located on the edge of Strawberry Valley at the foot of Mt. Shasta. The valley is flanked by Rainbow Ridge to the west and Mt. Shasta to the east. The area is subject to warm, dry summers and wet, cool winters. Most of the precipitation in the area falls from November to April, with a mixture of rain and snow. Prevailing winds arise predominantly from the north and the southeast. Upslope and downslope winds occur regularly during the summer months. The Mt. Shasta area is less subject to the formation of inversions, which could trap air pollutants, than other mountain valley areas. This is due to the movement of air through the Sacramento River Canyon (City of Mt. Shasta, 1992).

Pursuant to the federal Clean Air Act of 1970, the Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS) for several major pollutants. The NAAQS have two levels: primary to protect public health, and secondary to prevent degradation of the environment (e.g., damage to vegetation and property). The six "criteria" pollutants are ozone (O_3), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxides (SO_x), lead (Pb) and particulate matter less than ten microns in diameter (PM_{10}). The State of California has also established air quality standards, pursuant to its own Clean Air Act. California's air quality standards are generally more strict than the federal standards. Table 4.5-1 shows both state and federal air quality standards for the criteria pollutants.

The EPA has recently issued new standards for ozone and for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). For ozone, the new federal standard is 0.08 parts per million (ppm) for an 8-hour average. For $PM_{2.5}$, the federal standards are an annual average of 15 micrograms per cubic meter ($\mu g/m^3$) and a 24-hour average of 65 $\mu g/m^3$. The current court-mandated schedule for adoption of the proposed EPA standards would result in promulgation prior to implementation of this project. However, because the new standards have not been adopted as of this date, evaluation of air quality impacts in this section refer to the current standards outlined in Table 4.5-1.

The City of Mt. Shasta, along with the rest of Siskiyou County, is within the Northern Plateau Air Basin (NPAB). The NPAB also includes Modoc and Lassen counties. Within Siskiyou County, the air quality regulating authority is the Siskiyou County Air Pollution Control District (APCD). The APCD monitors air quality at several sites throughout the county. The main pollutants of concern for Siskiyou County are PM_{10} and ozone. Siskiyou County is classified as a non-attainment area for

the state's 24-hour PM_{10} standard. While the county is currently in attainment for ozone, ozone is a concern because the monitored values are close to the state's one-hour standard. The county is in attainment for all other criteria pollutants (CH2M Hill, 1998).

TABLE 4.5-1
STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary	Secondary
Ozone	1 hour	0.09 ppm	0.12 ppm	0.12 ppm
Carbon Monoxide	8 hour	9.0 ppm	9.0 ppm	--
	1 hour	20 ppm	35 ppm	--
Nitrogen Dioxide	Annual average	--	0.053 ppm	0.053 ppm
	1 hour	0.25 ppm	--	--
Sulfur Dioxide	Annual average	--	0.03 ppm	--
	24 hour	0.04 ppm	0.14 ppm	--
	3 hour	--	--	0.5 ppm
	1 hour	0.25 ppm	--	--
PM_{10}	Annual geometric mean	30 $\mu g/m^3$	--	--
	24 hour	50 $\mu g/m^3$	150 $\mu g/m^3$	150 $\mu g/m^3$
	Annual arithmetic mean	--	50 $\mu g/m^3$	50 $\mu g/m^3$
Lead	30 day	1.5 $\mu g/m^3$	--	--
	Calendar quarter	--	1.5 $\mu g/m^3$	1.5 $\mu g/m^3$

ppm - parts per million
$\mu g/m^3$ - micrograms per cubic meter
Source: California Air Resources Board

Siskiyou County has monitored PM_{10} at four sites: in Yreka at Foothill Drive, in Mt. Shasta at Alma Street, near Mt. Shasta at North Old Stage Road, and at Lava Beds National Monument. Table 4.5-2 shows the measured values. The main sources of PM_{10} emissions are forest fires, open and slash burning, residential wood stoves and unpaved roads. In Mt. Shasta, wood stoves have been identified as a principal source of PM_{10} emissions during the winter months. A series of new

regulations were implemented in 1989 and 1991. Since 1994, the North Old Stage Road site has reported no instances of samples exceeding state or federal standards for PM_{10}. No data has been reported from the Alma Street site since 1993.

TABLE 4.5-2
MEASURED PM_{10} CONCENTRATIONS IN SISKIYOU COUNTY

	Max. 24-hour Concentration ($\mu g/m^3$)	% Samples Over State Standard	% Samples Over Federal Standard	Annual Geometric Mean Concentration	Annual Arithmetic Mean Concentration
Yreka at Foothill Drive					
1996	35	0	0	15.9	17.1
1995	38	0	0	16.4	18.0
1994	49	0	0	20.2	22.1
1993	60	2	0	19.2	22.9
Mt. Shasta at North Old Stage Road					
1996	37	0	0	10.7	13.6
1995	46	0	0	12.2	16.0
1994	61	2	0	13.8	19.0
Mt. Shasta at Alma Street					
1993	27	0	0	22.3	22.8
Lava Beds National Monument					
1996	188	2	2	7.7	16.4
1995	26	0	0	6.7	7.9
1994	34	0	0	8.6	10.5

Source: California Air Resources Board

Ozone is monitored in Siskiyou County at the Yreka site only. Table 4.5-3 shows the measured values for ozone. Ozone is formed through a complex series of reactions involving reactive organic gases (ROG) and NO_x in the presence of high ambient temperatures and sunlight. Because high temperatures are required for efficient ozone formation, it is a problem during the summer months. The primary source of ozone is vehicular emissions. Ozone is also generated from the use of cleaning solvents, paints and other volatile organic compounds.

TABLE 4.5-3
MEASURED OZONE CONCENTRATIONS FROM YREKA STATION

	Max 1-hour Concentration ($\mu g/m^3$)	Max 8-hour Concentration ($\mu g/m^3$)	% Samples Over State 1-hour Standard	% Samples Over Federal 1-hour Standard	% Samples Over New Federal 8-hour Standard
Yreka at Foothill Drive					
1996	0.07	0.062	0	0	0
1995	0.08	0.069	0	0	0
1994	0.07	0.070	0	0	0
1993	0.08	0.074	0	0	0
1992	0.05	0.046	0	0	0
1991	0.08	0.077	0	0	0
1990	0.08	0.076	0	0	0

Source: California Air Resources Board

GENERAL PLAN GOALS AND POLICIES

The following General Plan Goals and Policies are applicable to the Roseburg Commerce Park Project:

Goal OC-10
Strive to maintain clean air in Strawberry Valley.

Policy OC-10.1
Work with the County to maintain attainment status in the Planning Area.

4.5.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Air quality impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Violation of any ambient air quality standard;

2) Substantial contribution to an existing or projected air quality violation;

3) Exposure of sensitive receptors to substantial pollutant concentrations; or

4) Generation of objectionable odors.

METHODOLOGY

The principal source of criteria pollutant emissions from this project was considered to be automobiles. To estimate the emissions that would be generated by vehicle trips to and from the RCP site, the URBEMIS 5.0 computer software program was used. The URBEMIS program calculates emissions from vehicles based on several factors. Among them are the following:

1) Land uses
2) Number of vehicle trips associated with land use
3) Composition of vehicle fleet
4) Type of vehicle trips
5) Distance of trips
6) Season and temperature
7) Average speed of vehicles
8) Base year for calculations

For this analysis, the mix of land uses are similar to those under the buildout scenario presented in Table 3-2 of this EIR. URBEMIS contained some of the land uses found in Table 3-2, along with the average number of daily vehicle trips per given unit (e.g., acre, 1000 square feet). Other land uses were inserted into URBEMIS, using traffic data found in Table 4.3-5 of this EIR.

Emission calculations for the buildout scenario were made for the year 2020, the year in which the buildout scenario used in this analysis would most likely be realized. Calculations were made for both the summer and the winter. For summer, calculations were based on a temperature of 85° F, the maximum mean temperature for Mt. Shasta in July. For winter, the temperature selected was 40° F, which is close to the mean maximum temperature in January of 42° F. The average speed for commercial traffic in the site area was set at 35 mph. Emission calculations for construction impacts were similar to those used for buildout, except that no estimates were developed for the winter. Also, separate estimates were made for automobiles and for diesel trucks, and the base year used was 2010.

Information concerning current PM_{10} and ozone concentrations, as well as current ambient air quality standards, was obtained from the California Air Resources Board. The Siskiyou County APCD also provided information on standards for emissions. The Planning and Environmental Data Base for the City's General Plan provided other air quality information.

PROJECT IMPACTS

Impact 4.5.1 **Grading and construction activities on the RCP site would generate fugitive dust emissions. Dust is one contributor to PM_{10} emissions. [SM]**

During the construction of projects on the RCP site, PM_{10} emissions can be expected, mainly from fugitive dust. Sources of fugitive dust include site clearing, grading, cut and fill operations (on steeper terrain), vehicles and construction equipment traveling over dirt surfaces, and wind-blown dust. The amount of dust generated will depend on the extent of construction activities. The impact of dust emissions on PM_{10} levels would be temporary, ceasing with the end of construction. However, the impact could be significant in a localized area.

Mitigation

MM 4.5.1a **All grading and construction activities shall be required to incorporate the following dust control measures:**

- **All active construction areas shall be watered at least twice daily.**
- **Soil stabilizers shall be applied to inactive construction areas, as needed.**
- **All unpaved access roads and staging areas at construction sites shall be paved, have soil stabilizers applied, or have water applied three times daily.**
- **Traffic speeds on unpaved roads shall be limited to 15 mph.**
- **Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and be watered twice daily or have soil binders added.**
- **All trucks hauling soil and other loose material shall be covered or have at least two feet of freeboard.**
- **If visible soil material is carried onto adjacent public streets, such streets shall be swept with water sweepers.**
- **Dust-producing activities shall be suspended when high winds create construction-induced visible dust plumes moving beyond the project site, in spite of dust control measures.**

Significance After Mitigation

With implementation of the above mitigation measure, construction-related impacts on PM_{10} levels will be **less than significant.**

Impact 4.5.2 **Exhaust from diesel- and gasoline-powered vehicles used in construction at the RCP site may contribute to increases in the levels of criteria pollutants. [LS]**

Emissions from construction equipment and vehicles contain CO, NO_x, SO_x, PM_{10} and ROG (an ingredient of ozone). Again, impacts on air quality would be temporary and would disappear after construction work ended. Emissions would peak during site preparation, when the most on-site equipment would be used at one time. The amount of emissions would depend on the size of project. Since a variety of projects are permitted under the Draft Development Plan, the evaluation of air quality impacts presented below is based on the largest project that could most reasonably be built on the site. This project would most likely be an industrial plant in Development Area III. Other projects that could be built on the site would likely have lesser impacts.

Estimates of vehicle emissions were calculated using the URBEMIS 5.0 program. Inputs for the program were based on the assumption that there would be 50 workers, each with their own car, and a maximum of 10 trucks per day. It was also assumed that there would be a total of 100 car trips and 20 truck trips. The results produced by URBEMIS are shown in Table 4.5-4 below. Also shown is the estimated emissions from re-entrained road dust. While URBEMIS does not calculate values for these emissions, Appendix F of the URBEMIS User Guide provides a factor to calculate PM_{10} emissions from this source. This factor (2.3 grams per mile) is multiplied by the anticipated longest trip length (assumed to be 10 miles) and by the total number of trips for a "worst-case" estimate.

The significance thresholds at the bottom of Table 4.5-4, developed by the Siskiyou County APCD, establish a standard by which a determination of significant impact can be made. By these thresholds, emissions from construction activity associated with the largest project considered reasonable would be **less than significant**. As stated earlier, other conceivable individual projects at the RCP site would likely have lesser impact. It is possible that more than one project may be under construction simultaneously at the site. However, the effects would likely only increase marginally , and the total impact would remain insignificant. The cumulative effect of these projects once the site is built out is evaluated later in this section.

TABLE 4.5-4
VEHICLE EMISSIONS DURING PROJECT CONSTRUCTION AT RCP SITE - WORST CASE

VEHICLE TYPE	NUMBER OF TRIPS PER DAY	CRITERIA POLLUTANT EMISSIONS (LBS/DAY)				
		ROG	CO	NO_x	SO_x	PM_{10}
Automobiles	100	0.58	5.76	0.64	0.13	0.21
Trucks	20	1.09	4.84	4.78	0.27	0.60
Re-entrained Road Dust	--	0.00	0.00	0.00	0.00	6.08
Total Vehicle Emissions		1.67	10.60	5.42	0.40	6.89
Significance Thresholds (lbs/day)		137	550	137	137	220

Impact 4.5.3 **RCP development would generate CO emissions that exceed significance thresholds. Among the sources of these emissions are vehicles traveling to and from the RCP site and permitted industrial activities. [SM]**

Upon buildout of the RCP site, vehicles would be one of the main sources of emissions. Estimates of emissions from vehicles were calculated using the URBEMIS 5.0 program. Input for the program was based on the assumptions outlined in the Methodology section above. The emissions were compared to the significance thresholds presented in Table 4.5-4 earlier. These thresholds and the results of the URBEMIS run are displayed in Table 4.5-5 below.

TABLE 4.5-5
PROJECTED EMISSIONS FROM RCP DEVELOPMENT, 2020

SEASON	CRITERIA POLLUTANT EMISSIONS (LBS/DAY)				
	ROG	CO	NO_x	SO_x	PM_{10}
Summer	65.91	715.26	149.25	21.73	32.12
Winter	80.26	972.62	184.43	21.73	32.12
Significance Thresholds	219	550	219	219	82

It must be emphasized that the above estimates apply to the site as a whole after the anticipated buildout. Development will not occur all at once, but as a series of individual projects. As indicated by the above results, an individual project is unlikely to exceed the significance thresholds.

The most significant emissions would be those of carbon monoxide. Motor vehicles are the primary source of CO emissions, and ambient CO concentrations normally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are also influenced by meteorological factors such as wind speed and atmospheric mixing. Meteorological conditions in the Mt. Shasta area, discussed earlier in this section, are conducive to the dispersion of CO.

Emissions from land use activities, particularly industrial, may contribute pollutant emissions. The Development Plan places some restrictions on the emission of smoke and particulate matter, as well as for odors. It does not place restrictions on the emission of other criteria pollutants such as ozone and CO. However, given the limited amount of site area on which industrial development is permitted, industrial activities would not be as great a source of emissions as motor vehicles.

Development is subject to the standards and regulations of the Siskiyou County APCD. Although individual projects are not expected to exceed APCD thresholds, this impact is considered **significant and subject to mitigation.**

Mitigation

Standards for the emission of all criteria pollutants from stationary sources has been established by the local APCD for all land use activities at the RCP site. The standards require that all emissions from stationary sources shall be in conformance with the conditions for the issuance of a permit to construct from the Siskiyou County APCD. Industrial and other uses that could result in increased emissions shall use the Best Available Control Techniques (BACTs) to reduce emissions.

Mitigation for emissions from mobile (vehicular) sources is provided below:

MM 4.5.3a The City shall encourage programs that reduce the amount of vehicle trips to and from the RCP site. Such programs may include, but are not limited to:

- **Use of bicycles and construction of bike paths.**
- **Establishment of a STAGE bus stop at site.**
- **Creation of a shuttle bus system that connects lodging facilities to other parts of the City.**

Significance after Mitigation

Although full buildout could exceed APCD thresholds, individual projects however are not expected to exceed these thresholds, therefore this impact is considered **less than significant** following mitigation and implementation of APCD regulations.

CUMULATIVE IMPACTS

Impact 4.5.4 **Cumulative development, including the RCP site, could lead to an increase in emissions of criteria pollutants and a consequent decrease in air quality in the Mt. Shasta area. [SU]**

According to the City's General Plan, significant development is planned in the Springhill area in addition to development within the RCP site. In addition, there is one major project planned just outside the City limits - the Dannon Water Bottling Plant. Like the RCP site, Springhill will be developed incrementally. Individual projects will likely not produce a significant amount of emissions. Cumulatively, these projects may emit a significant amount of CO, based on the estimate for the RCP site (see Table 4.5-5).

Even with the implementation of Siskiyou County APCD regulations and mitigation measures MM 4.5.1a and MM 4.5.3a identified in this section, CO emissions are still likely to be significant. Therefore, cumulative impacts on air quality are considered **significant and unavoidable**.

REFERENCES

City of Mt. Shasta. 1992. *Planning and Environmental Data Base for the General Plan.* Mt. Shasta, Calif.

City of Mt. Shasta. 1998. *Dannon Water Plant Negative Declaration.* Prepared by CH2M Hill.

4.6 Water Quality and Surface Hydrology

This section describes the water resources within the Roseburg Commerce Park (RCP) site and evaluates potential impacts of site development on these resources. Issues discussed in this section include sedimentation of streams, surface and ground water contamination, and increased runoff and flooding. This section relies principally on existing documents.

4.6.1 SETTING

SURFACE WATER

The RCP site is located at the northern limits of the Sacramento River watershed. The Sacramento River begins in the Eddy Mountains west of the City, then flows eastward until it turns south at a point approximately 2.5 miles south of the City. The site is traversed by one perennial stream and several intermittent drainages **(Figure 4.6-1)**. Mill Creek, which begins east of Mt. Shasta Boulevard, flows through the former mill pond before it connects with Cold Creek west of Interstate-5 (I-5). Cold Creek, in turn, flows into Lake Siskiyou, a reservoir formed by Box Canyon Dam on the Sacramento River. Several intermittent creeks and channels are located on the site. One creek, which is unnamed, begins in the eastern section of the site and runs through the site's center. It eventually connects with Mill Creek just east of the freeway. Another intermittent creek appears to begin at a seep area within the eastern portion of the site.

A mill pond, approximately three acres in size, once existed in the northern part of the site and was used as part of the former lumber operations. The pond is now dry with the exception of Mill Creek which flows through the pond. The DDP permits the refilling of the pond as part of the permissible uses in Development Area VII.

Drainage structures have been constructed in the project area. A few culverts run underneath Mt. Shasta Boulevard. A drainage ditch runs parallel to the east side of I-5. Surface runoff from the southern half of the project site enters this drainage which eventually empties into a culvert located in the southwest portion of the site. This culvert runs underneath I-5. Section 3.0, Project Description, Figure 3-5, Drainage Improvements, illustrates the existing and proposed improvements for the project site.

The Federal Emergency Management Agency (FEMA) did not map any floodplains in the Mt. Shasta area, except for a narrow fringe around Lake Siskiyou, three-quarters of a mile southwest of the project site. Street flooding has occurred in the Roseburg area, for example in June 1995, spot flooding was reported along Mt. Shasta Boulevard after an intense rainstorm. No significant drainage system improvements have been made along Mt. Shasta Boulevard, and no major flood occurrences have been reported in the immediate project vicinity.

I	33.0+/- AC	DEVELOPMENT AREA I
II	8.5+/- AC	DEVELOPMENT AREA II
III	3.5+/- AC	DEVELOPMENT AREA III
IV	12.5+/- AC	DEVELOPMENT AREA IV
V	24.5+/- AC	DEVELOPMENT AREA V
VI	15.0+/- AC	DEVELOPMENT AREA VI
VII	30.5+/- AC	DEVELOPMENT AREA VII

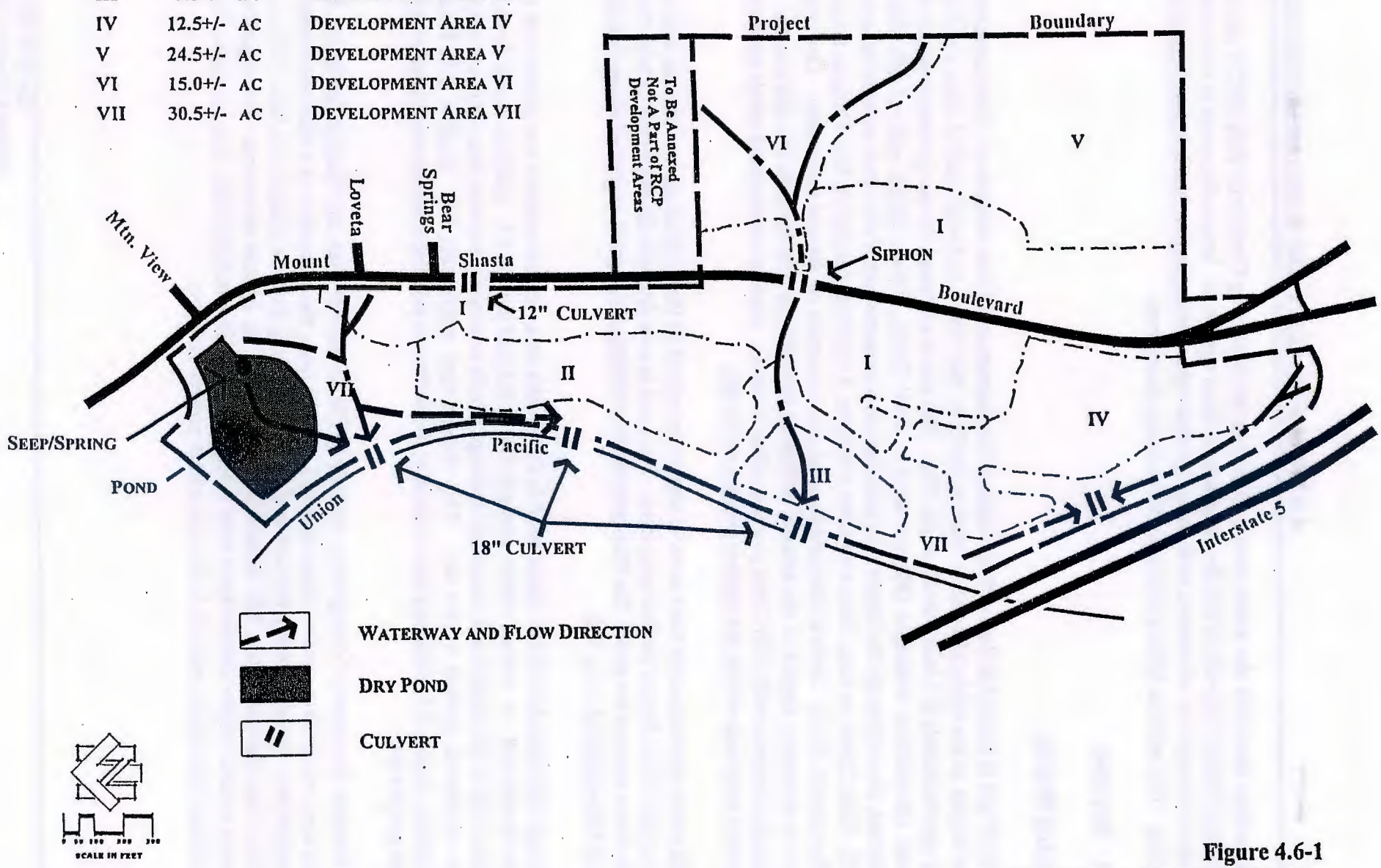


Figure 4.6-1
Surface Water Features, RCP Site

GROUNDWATER

Groundwater resources in the Mt. Shasta area originate with snowmelt and rainfall on the upper slopes of Mt. Shasta. Most of this precipitation percolates into coarse materials with only a small amount of runoff. The direction of ground water movement through the Mt. Shasta area is generally downslope, or southwest. Ground water depths are about 70 feet along I-5 and fall at a rate of about 150 to 300 feet per mile east of the freeway. The gradient of the ground water is estimated to be about 200 feet per mile above I-5, and about 150 feet per mile below it (PEDB, 1992). Readings taken at the former mill pond found ground water at a depth of 4 to 11 feet below grade. Ground water elevations measured in three monitoring wells on site indicated a steep southwesterly flow at a gradient of 0.047 feet per foot, or 248.16 feet per mile (Metcalf & Eddy, Inc., 1991).

Groundwater emerges on the surface as springs. Cold Springs, near McCloud Avenue, is the principal source of domestic water for the City. The City also operates two wells which yield 400 gallons per minute (gpm) and 800 gpm. Near the RCP site, one well within the Meadowbrook subdivision reportedly produces 500-600 gpm. There are no known wells on the project site. The DDP indicates that future development at the site would connect to the City's water system. Section 4.9, Water/Wastewater contains a detailed discussion relative to water supply impacts.

WATER QUALITY

Groundwater quality in the Mt. Shasta area is of such quality that no special treatment is required. To date, there have been no reports of any groundwater contamination in the area, or within the RCP site. The site, however, may have contaminants left over from previous mill operations that could possibly affect water quality in the area. This issue is discussed within Section 4.14, Risk of Upset.

The RCP site has been regulated since 1959 by a waste discharge permit from the Central Valley Regional Water Quality Control Board (RWQCB). The permit was required because of the mill pond which discharged into Cold Creek (Palladino, 1998). Under the requirements of the permit, surface water samples were taken from Cold Creek and analyzed for various water quality parameters. There is no record of any contamination problems in Cold Creek.

REGULATORY FRAMEWORK

Clean Water Act

The discharge of dredged or fill material into "waters of the United States" is regulated by the United States Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (CWA). Construction activities that impact designated jurisdictional areas generally fall under Corps regulation. These regulations are intended to limit degradation of water quality. Because the site potentially contains areas under Corps jurisdiction, development in some areas may be subject to these regulations, although the DDP has been designed to avoid wetland impacts.

National Pollution Discharge Elimination System

During the re-authorization of the Clean Water Act (CWA), Section 402 (P) through 405, was added to the Water Quality Act of 1987, providing for a program to eliminate pollution from non-point municipal and industrial sources. Land development and construction activities of five or more acres are also included under this legislation. The addition of stormwater discharges to the National Pollution Discharge Elimination System (NPDES), the primary federal water quality permit system administrated by the Federal Environmental Protection Agency (EPA), was completed in October, 1990. In November, 1990, the final rule and regulations for the NPDES Permit Application for Storm Water Discharges [40 Code of Federal Regulations (CFR) 122-124] were published in the Federal Register.

The State Water Resources Control Board (SWRCB) has the authority to issue NPDES permits but generally delegates this responsibility to the Regional Water Quality Control Board (RWQCB). Site development associated with the project would fall under the general construction activity stormwater discharge permit process. The general construction permit authorizes the discharge of stormwater and prohibits the discharge of materials other than stormwater and all discharges which contain a hazardous substance in excess of reportable quantities established in 40 CFR 117.3 or 40 CFR 302.4, unless a separate NPDES permit has been issued to regulate those discharges.

A general construction permit would require discharges associated with construction activity to:

- eliminate or reduce non-stormwater discharges to stormwater systems and other waters of the nation;
- develop and implement a stormwater pollution prevention plan (SWPPP); and
- perform inspections of stormwater control structures and pollution prevention measures.

In addition, general construction permits require adherence to Best Management Practices (BMPs) for the control of erosion and other potential water quality pollutants associated with construction activity. These BMPs consist of the following:

- "Site Planning Considerations" such as preservation of existing vegetation.
- "Vegetation Stabilization" through methods such as seeding and planting.
- "Physical Stabilization" through use of dust control and stabilization measures.
- "Diversion of Runoff" by utilizing earth dikes and temporary drains and swales.
- "Velocity Reduction" through measures such as slope roughening/terracing.
- "Sediment Trapping/Filtering" through use of silt fences, straw bale and sand bag filters, and sediment traps and basins.

Most of these BMPs are incorporated in the development standards of the DDP.

GENERAL PLAN GOALS AND POLICIES

The following policies of the Mt. Shasta General Plan are relevant to hydrology issues associated with the project:

Policy OC-2.1
Require erosion control protection as part of grading and development plans.

Policy CI-9.2
Develop public utility master plans for water service, sewage disposal, and stormwater control.

4.6.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Water resource impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Substantial degradation of surface or ground water quality;

2) Substantial increase in the amount of surface runoff;

3) Exposure of people or structures to significant threat of flooding;

4) Substantial depletion of ground water resources; or

5) Substantial interference with ground water recharge.

METHODOLOGY

Most of the information for water resources comes from the Planning and Environmental Data Base for the City's General Plan. Supplemental information was provided by Chuck Schlumpberger who conducted a drainage assessment for the project. This information was used in the evaluation of potential impacts. Information concerning groundwater depths at the former mill pond site was obtained from the Draft Closure/Post-Closure Plan for the wood waste pile on that site, prepared by Metcalf & Eddy, Inc (M&E, 1991).

PROJECT IMPACTS

Impact 4.6.1 **Grading and construction-related activities associated with the proposed project could result in degradation of surface and groundwater quality. [LS]**

As discussed in Section 4.8, Geology and Soils, the Roseburg site contains predominantly Ponto-Neer complex soils, which are rated as having a moderate potential for water erosion hazard. Some of the proposed building sites in the DDP are either adjacent to stream/drainage channels or traversed by them. The DDP contains development standards concerning grading and erosion control, including some pertaining to development around watercourses. Adherence to these standards would reduce this impact to **less than significant**. Potential impacts on Mill Creek are already considered less than significant, since little development is planned in the area traversed by the creek.

Impact 4.6.2 **The proposed project would result in an increase in impervious surfaces thereby resulting in an increase in surface runoff. [LS]**

Percolation into most of the soils in Mt. Shasta is good. An increase in impervious surfaces - mainly buildings, streets and parking lots - would decrease the amount of water percolating into the ground. Development of the project site would be expected to result in increased surface runoff over existing conditions. It should be noted that much of the western portion of the site was previously occupied by the mill operation and remnant improvements, including paving, still are present on the site. Other pad areas have been highly compacted and surface runoff is expected to be similar to developed conditions. These conditions reduce the magnitude of increase that can be expected from the project.

The street flooding of Mt. Shasta Boulevard in 1995 was the result of a combination of factors: heavy rainfall in a short time, topography and inadequate storm drainage. An increase in surface runoff could contribute to localized flooding, given the variation in topography and the presence of additional streets and buildings on the site.

Implementation Program CI-9.2(c) of the City's General Plan requires that proposed commercial development with new parking facilities submit a site drainage plan with permit applications. Also, the Capital Improvement Plan for the DDP calls for drainage improvements. The DDP identifies specific drainage control measures, including using the exiting mill pond and planned open space for detention of stormwater, intended to maintain off-site stormwater flows at there pre-development levels. These measures would reduce runoff impacts to a **less than significant** level.

Impact 4.6.3 **Drainage from roadways and other impervious surfaces may result in the contamination of stormwater. [LS]**

In developed areas, stormwater runoff could convey a wide range of pollutants to waterways. The daily use of streets and parking areas would contribute vehicle oil, greases, and metals to the site's stormwater discharge. These could be carried by runoff into creeks and channels.

New development in excess of 5 acres is subject to a NPDES permit. The purpose of the permit is to protect water quality from development areas that would discharge into a surface water body. The RWQCB issues general construction permits (which falls under the NPDES permit process), requires that discharges associated with construction activity eliminate or reduce non-stormwater discharges to stormwater systems and other waters; develop or implement a stormwater pollution prevention plan (SWPPP); and perform inspections of stormwater control structures and pollution prevention measures.

In addition, the DDP limits the type of industries that are permitted on the Roseburg site. Specifically, the Plan prohibits industries whose main activities are the manufacture, storage and distribution of hazardous materials. For industries that may use hazardous materials as part of their manufacturing processes, the Plan states that they must meet all federal, state and Siskiyou County requirements concerning the handling of such materials. Finally, the Plan prohibits the discharge of any pollutants into the waters of Mt. Shasta. These standards, in addition to state and federal regulations, reduce the likelihood of contaminated runoff entering surface and groundwater. Therefore, this impact is considered **less than significant.**

CUMULATIVE IMPACTS

Impact 4.6.4 **Cumulative development in the area could increase stormwater runoff from the site. [LS]**

Stormwater runoff from the site would be controlled to not exceed pre-project levels, consequently there would be no cumulative impacts associated with drainage. Therefore this impact is considered **less than significant.**

REFERENCES

Bellcastro, Gene. Environmental Health Officer, Siskiyou County Department of Health. Personal communication, February 1998.

City of Mt. Shasta. 1992. *Planning and Environmental Data Base for the General Plan.* Mt. Shasta, Calif.

Metcalf & Eddy, Inc. 1991. *Draft Closure/Post-Closure Plan, Wood Waste Pile (Former Roseburg Mill Site)*. Chico, CA: Metcalf & Eddy, Inc.

Palladino, Carl. 1998. *City of Mt. Shasta, CA - Roseburg Brownfields Project, Scope of Field Activities*. Letter, February 1998.

4.7 BIOLOGICAL RESOURCES

This section evaluates the potential biological resource impacts of development of the Roseburg Commerce Park. While the site has been heavily disturbed by human activities, some forested and wetland areas still remain. The forested areas may provide habitat for species of special concern. Wetlands, in addition to providing potential habitat, fall under federal regulation. This section is based on a biological resource study of the area conducted by North State Resources.

4.7.1 SETTING

GENERAL

Roseburg Commerce Park (RCP) is located at the southern end of the City of Mt. Shasta and is bounded by a combination of residential and commercial development, open forested areas, and portions of the I-5/Union Pacific Railroad corridor. The topography of the site consists of mainly flat to gentle slopes within the western portion of the property and moderately steep slopes within the eastern portion. Several intermittent creeks and channels run through the property draining to the west, and a perennial creek traverses the northern end of the site.

The majority of the western portion of the site consists of old landings, roads, building pads and other remnant features from the old mill. An empty mill pond, perennial stream, and several springs/seeps are also located at the northern end of the western portion of the site. As a result of past activities, the majority of this half of the RCP site is very disturbed. Vegetation is very "weedy" and consists of a combination of exotic, invasive, and native plant species considered early seral or colonizing species. Large portions of the western portion of the site is barren of any vegetation.

VEGETATION

Vegetation habitats within the project area include Sierra mixed conifer, montane chaparral, and a fresh emergent wetland/montane riparian complex (**Figure 4.7-1**). Also found on the project site are barren and urban areas.

Disturbed areas left from the former mill operation occupy the majority of the western portion of the project site (**Figure 4.7-2**). Vegetation within these areas is variable and consists of a combination of trees, shrubs, and grasses and forbs. Dominant tree species include ponderosa pine (*Pinus ponderosa*), incense cedar (*Calocedrus decurrens*), Douglas fir (*Pseudotsuga menziesii*) and black oak (*Quercus kelloggii*). Shrubs are found growing in dense to sparse clumps and include green leaf manzanita (*Arctostaphylos patula*), mountain

Figure 4.7-2
Disturbed Areas in Western Portion of Site

I	33.0+/-	AC	DEVELOPMENT AREA I
II	8.5+/-	AC	DEVELOPMENT AREA II
III	3.5+/-	AC	DEVELOPMENT AREA III
IV	12.5+/-	AC	DEVELOPMENT AREA IV
V	24.5+/-	AC	DEVELOPMENT AREA V
VI	15.0+/-	AC	DEVELOPMENT AREA VI
VII	30.5+/-	AC	DEVELOPMENT AREA VII

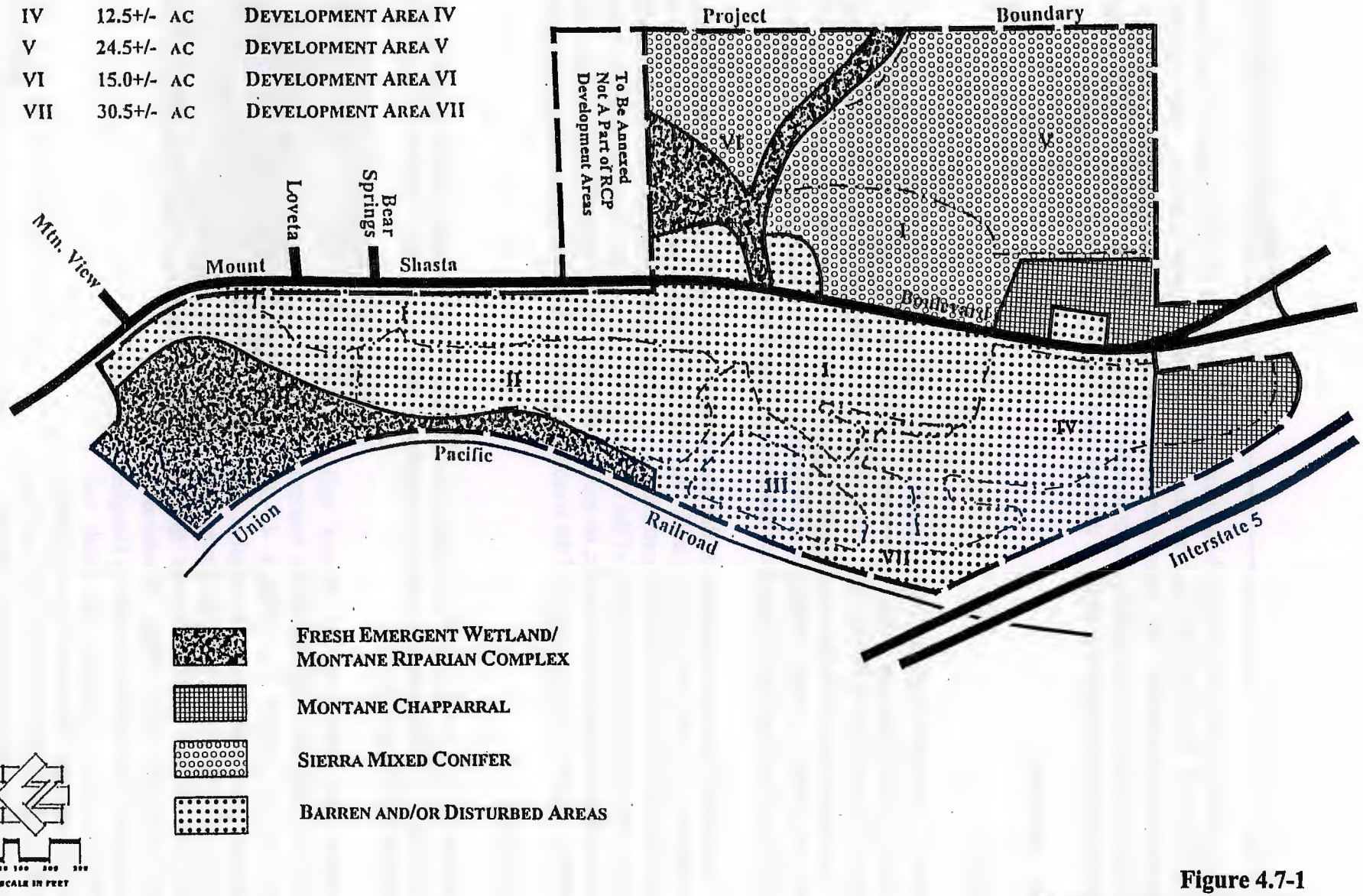


Figure 4.7-1
Habitat Types at RCP Site

whitethorn (*Ceanothus cordulatus*), tobacco brush (*C. velutinus*), rabbitbrush (*Chrysothamnus nauseosus*), bitter cherry (*Prunus emarginata*), scotch broom (*Cytisus scoparius*), and chinquapin (*Castanopsis sempervirens*). Other herbaceous growth occurs throughout the disturbed areas and includes everlasting peavine (*Lathyrus latifolius*), common mullein (*Verbascum* sp.), willow-herb (*Epilobium* sp.), bull thistle (*Cirsium* sp.) plantain (*Plantago* sp.), and various other grasses and forbs.

A complex of fresh emergent wetland/montane riparian vegetation occurs at the northern end of the site and is associated with the former mill pond, a perennial stream, and several springs and seeps (See **Figure 4.7-3**). Vegetation is moderate to dense and consists of a network of emergent wetland and riparian species. Dominant species within this area include sedges (*Carex* spp.), rushes (*Juncus* spp.), broad-leaf cattail (*Typha latifolia*), bracken fern (*Pteridium aquilinum*), doc (*Rumex* sp.), and horsetail fern (*Equisetum arvense*). Riparian vegetation is moderate to dense and includes an overstory of white alder (*Alnus rhombifolia*), willow (*Salix* spp.), and black cottonwood (*Populus trichocarpa*). Shrubs include Himalayan blackberry (*Rubus discolor*), spirea (*Spirea douglasii*), wood rose (*Rosa woodsi*), snowberry (*Symphoricarpos* sp.), and thimbleberry (*Rubus parviflorus*). The southern portion of the western half is occupied by a dense stand of montane chaparral dominated by green leaf manzanita, mountain whitethorn, bitter cherry, and chinquapin, with occasional black oaks.

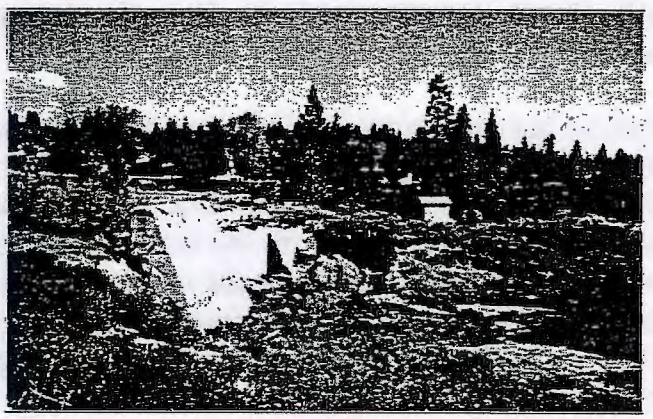


Figure 4.7-3
Former Mill Pond

A stand of Sierra mixed conifer forest occupies much of the eastern portion of the site. This forest stand consists mainly of pole-sized trees with small patches of more mature trees. The understory consists of a dense shrub layer in the younger tree stands, and is generally open in the patches of more mature forest. Dominant species include ponderosa pine, incense cedar, Douglas fir, white fir (*Abies concolor*), and sugar pine (*Pinus lambertiana*). Hardwood species include black oak and dogwood (*Cornus nuttallii*). The dominant shrubs include green leaf manzanita, bitter cherry, and whitethorn. Snowberry, bracken fern and thimbleberry occupy the forest floor in areas without dense shrub growth. In the southwestern portion of the eastern half of the site, in the vicinity of the vacant gas station and along the disturbed areas adjacent to Mt. Shasta Boulevard, vegetation is comprised primarily of montane chaparral.

SPECIAL STATUS SPECIES

Five special status plant species were found to occur in similar habitats within the general vicinity of the proposed project area. These species include Shasta chaenactis (*Chaenactis suffrutescens*),

pallid bird's beak (*Cordylanthus tenuis* ssp. *pallencens*), Oregon fireweed *(Epilobium oreganum*), Aleppo avens (*Geum aleppicum*), and northern adder's-tongue (*Ophioglossum pusillum*). There are no records within the proposed project area for these species. Shasta chaenactis occurs in coniferous forests on sandy or serpentine soils. Oregon fireweed and Aleppo avens occur in meadow or bog/fen habitats. Although historical records exist of its occurrence in the Mt. Shasta area, northern adder's-tongue is considered extirpated in California. Pallid bird's-beak is known from the lower montane conifer forests in the vicinity of Black Butte and areas southwest. Potential habitat may occur within the proposed project area for pallid-bird's beak, particularly in forested areas in the eastern portion of the site. Potential habitat for the four other special status species mentioned does not occur within the project area.

Potential habitat for two amphibian and three avian special status wildlife species was found on the site. The species are the northern red-legged frog (*R. aurora aurora*), Cascades frog *(R. cascadae*), northern goshawk (*Accipiter gentilis*), Cooper's hawk (*A. cooperii*), and sharp-shinned hawk (*A. striatus*). Potential habitat for the northern red-legged and Cascades frog is located within the wetland areas found mainly at the northern portion of the project area. Both frog species are currently considered "species of special concern" by the California Department of Fish and Game (CDFG) and "species of concern" (formerly category 2 species) by the United States Fish and Wildlife Service (USFWS). The northern goshawk, and Cooper's and sharp-shinned hawks are all forest raptors. Potential habitat for these species occurs in the forested habitat at the eastern portion of the site. Generally, more extensive forest stands are preferred by these species; however, suitable stands are present within the study area. These raptor species are all currently considered species of special concern by the CDFG. The northern goshawk is also considered a species of concern by the USFWS. Additionally, these raptor species are also afforded special protection under CDFG Code Section 3503.5, which states "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird".

REGULATORY FRAMEWORK

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered (16 USC 1533[c]). Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed, threatened or protected species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]).

The USFWS also publishes a list of candidate species. Species on this list receive "special attention" from federal agencies during environmental review, although they are not protected otherwise under the FESA. The candidate species are taxa for which the United States Fish and Wildlife Service has sufficient biological information to support a proposal to list the species as endangered or threatened.

California Endangered Species Act

Sensitive, endangered, and threatened plants and animals of California are listed pursuant to Section 1904 (Native Plant Protection Act of 1977) and Section 2074.2 and 2077.5 (California Endangered Species Act of 1984) of the California Department of Fish and Game Code. Under the California Endangered Species Act (CESA), the California Department of Fish and Game (CDFG) has the responsibility for maintaining a list of threatened and endangered species. CDFG maintains a list of "candidate species" which are species that are being reviewed for addition to either the endangered or threatened species lists. The CDFG also maintains lists of "species of special concern" which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species.

According to California Fish and Game Code Section 86, it is prohibited to "take" species listed as threatened or endangered under the CESA (CF&GC 2080) or as fully protected (CF&GC 3511, 4700, and 5050), which is defined by the following:

- direct mortality;
- permanent or temporary loss of occupied habitat that would result in mortality to or disruption of reproduction of at least one individual of the species; or
- avoidance by individuals of biologically important habitat for substantial periods that would result in mortality or disruption of reproduction to at least one individual of the species.

In addition, the CDFG encourages informal consultation on any proposed project which may impact a candidate species.

Special Status Species

In addition to formal listing under FESA and CESA, species may also receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the California Department of Fish and Game. CDFG tracks species in California whose numbers, reproductive success, or habitat may be threatened.

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of state and federal laws. The Federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior.

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California.* Potential impacts to populations of CNPS listed plants receive consideration under CEQA review.

Waters of the United States, including Wetlands

The U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredge and fill material into wetlands or other "Waters of the United States" under Section 404 of the Clean Water Act (CWA).

Riparian habitat, swale, seasonal wetlands, open water, and ephemeral drainages in a project area may fall under the jurisdiction of the Corps. Urban development that discharges fill into these wetlands is subject to provisions of CWA and may require a permit from the Corps.

The CDFG and the USFWS also consider wetlands sensitive habitats. Wetlands of all types have been reduced in extent and continue to decline in California (Fryer, et al. 1989). CDFG and USFWS consider the degradation of wetland habitat a significant impact requiring mitigation. The Corps and EPA consider fill activity in jurisdictional wetlands a significant impact requiring mitigation.

The Corps has developed a *Wetlands Delineation Manual* to provide users with guidelines and methods to determine whether an area is a wetland under federal jurisdiction pursuant to Section 404 of the Clean Water Act. The *Wetland Delineation Manual* prescribes three diagnostic environmental criteria as characteristic of wetland: 1) hydrophytic vegetation; 2) hydric soils; and 3) wetland hydrology. The Manual also states that, except in certain situations, evidence of a minimum of one positive wetland indicator for each parameter must be found in order to make a positive wetland determination.

Hydrophitic Vegetation: An area has hydrophytic vegetation when more than 50 percent of all considered species are wetland plants rather than facultative plants. Facultative plants are, "Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non wetlands."

Hydric Soil: A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. Not all areas having hydric soils will qualify as wetlands. Only when a

hydric soil supports hydrophytic vegetation and the area has indications of wetland hydrology may the soil be referred to as a "wetland" soil.

Wetland Hydrology: Recent research indicates that duration of inundation and/or soil saturation during the growing season is more influential on the plant community than the frequency of inundation/saturation during the growing season. "Areas that are inundated or saturated for a duration of less than 5% of the growing season are not wetlands; many areas inundated or saturated for a duration of 5% to 12.5% during the growing season are not wetlands."

Potential jurisdictional waters of the U.S. occur within the proposed project area in the forms of riparian and emergent wetlands, perennial and intermittent creeks, and constructed channels. The wetland areas are located mainly at the north end of the site and consist of the old mill pond and surrounding areas, and also include areas to the southwest of the pond. Another potential jurisdictional wetland area is located at the base of the hill in the forested eastern portion of the site, where an intermittent creek appears to feed a seep area at the base of the slope (See Figure 4.7-1). The remaining location of potential waters is a small drainage channel at the south end of the site.

California Wetland Definition

Unlike the federal government the California Department of Fish and Game (CDFG) has adopted the Cowardin definition of wetlands.

> *Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface of the land or is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (at least 50% of the aerial vegetative cover); (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year* (Cowardin et al 1979).

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the California definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by CDFG consists of areas which are periodically inundated or saturated, or in which at least seasonal dominance by hydrophytes may be documented, or in which hydric soils are present. The CDFG does not normally have direct jurisdiction over wetlands unless they are subject to jurisdiction under Streambed Alteration Agreements or they support State listed endangered species.

Regulation of Activities in Wetlands

The State's authority in regulating activities in wetlands and waters at the site resides primarily with the CDFG and the State Water Resources Control Board (SWRCB). The CDFG provides comment

on Corps permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the Fish and Game Code Sections 1600-1607 to develop mitigation measures and enter into a Stream Alteration Agreement with applicants that propose a project that would obstruct the flow or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The SWRCB, acting through the Regional Water Quality Control Board (RWQCB), must certify that a Corps permit action meets State water quality objectives (Section 40 1, Clean Water Act).

Riparian Habitat

Riparian habitats have been greatly reduced from their original extent in California (Katibah 1984) and are considered sensitive habitats by the CDFG and the U.S. Fish and Wildlife Service (USFWS). CDFG and USFWS consider removal of riparian vegetation a significant impact that requires mitigation. In addition, riparian vegetation may meet Corps criteria as jurisdictional wetlands.

California Forest Practice Rules

As previously described, a mixed conifer forest stand is found within the eastern portion of the project area. Planned development in this area may be subject to the California Forest Practice Rules governed by the State Board of Forestry and administered by the California Department of Forestry and Fire Protection. Development that requires removal of trees would require a Timber Harvest Plan prepared by a Registered Professional Forester that would describe the proposed action, impacts of timber harvest, and any proposed mitigation measures.

GENERAL PLAN GOALS AND POLICIES

The following General Plan Goals and Policies are applicable to the proposed project:

Goal OC-1
Conserve lands that support important fisheries or wildlife and botanical habitat.

Policy OC-1.1
Limit development on lands that provide important fisheries or wildlife and botantical habitat to agriculture and rural density residential.

Policy OC-1.2
Encourage public-private programs to conserve wildlife and botantical habitat.

Policy OC-1.3
Require flexibility in development standards to balance both private property rights with the need to conserve wildlife and botanical habitat.

Goal OC-2
Protect riparian habitat along streams in the Planning Area.

Policy OC-2.1
Require erosion control protection as a part of grading and development plans.

Goal OC-3
Conserve wetlands areas.

Policy OC-3.1
Work to satisfy state and national wetlands policy.

Policy OC-3.2
Allow property owners of lands with wetlands to design projects to avoid or mitigate wetlands impacts.

4.7.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Biological resource impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Reduction in number or restriction in the range of a rare, threatened, or endangered plant or animal; or substantially affect a rare, threatened, or endangered species of animal or plant or the habitat of the species; or violate the California Fish and Game Code;

2) Substantial interference with the movement of any resident or migratory fish or wildlife species;

3) Substantial reduction in the habitat of a fish or wildlife species;

4) Threatened elimination of a plant or animal community; or

5) Loss of jurisdictional waters of the U.S., including wetlands.

METHODOLOGY

Information for this section came from a biological resource study conducted by North State Resources. The study was prepared using the following methods:

- The most current lists of special status plant and wildlife species were reviewed to confirm the present status of these species (CDFG 1994, 1996, 1997,1998; Federal Register 1996; USFWS 1995, 1996a, 1996b, 1996c).

- Searches and queries of three databases were conducted to assist in determination of potential special status floral or faunal species presence. These three databases included California Department of Fish and Game Natural Diversity Database (CNDDB), California Native Plant Society Electronic Inventory (Skinner and Pavlik 1994), and the CDFG Wildlife Habitat Relationships System (5.3 version) (Airola 1988).

- The project area was traversed on foot to characterize vegetation habitats and document features that may be considered potential habitat for special status floral and faunal species. Vegetation was classified using the classification developed for use with the WHR system (Mayer and Laudenslayer 1988). Wildlife species were identified by direct observation, by identification of vocalizations, or by observations of various animal sign. Also evaluated during the survey were features or areas for use in the Opportunities and Constraints Analysis, and a review to determine the presence and extent of potential federal jurisdictional waters, including wetlands.

PROJECT IMPACTS

Impact 4.7.1 **Development Area I-subareas H, I, and J, and Development Area V and VI are considered areas with potential habitat for special-status species. [PSM]**

Development Areas V and VI and the eastern portion of Development Area I, subareas H, I, and J (See **Figure 3-4**) contain forest stands that are potential habitat for raptors (birds of prey), including the northern goshawk, Cooper's hawk, and the sharp-shinned hawk. All of these species are species of special concern; raptor nesting sites are protected under Fish and Game Code, Section 3503.5.

In addition, this portion of the project site may be potential habitat for pallid bird's beak, a special status plant species. Pallid bird's-beak, is known to occur in the lower montane conifer forests.

This impact is considered **potentially significant and subject to mitigation.**

Mitigation

MM 4.7.1a **Prior to the issuance of a grading permit for activities in Development Area I subareas H, I, J and Development Areas V and VI, a detailed wildlife and plant survey shall be conducted to determine the presence or absence of special status species in areas with potential habitat. Surveys should be conducted using the**

methods prescribed by the CDFG (1984). Results of the surveys shall be submitted to CDFG, USFWS, and the City prior to the issuance of grading permits for these areas. If no sensitive species are located on-site, no further mitigation is necessary. If listed species are located on the property, the applicant and City shall enter into informal consultation with CDFG and USFWS and begin preparation of a Biological Assessment or Habitat Conservation Plan, as applicable.

The precise mitigation/compensation for direct and indirect impacts to sensitive species will depend on agency consultation and agreements. The project applicant shall implement all measures identified by the CDFG and USFWS to protected and mitigate impacts to listed and other special status species.

Significance After Mitigation

Project impacts would be less than significant following the prescribed mitigation measure if no special status species are found during special status species surveys. If listed species are found, the implementation of a Habitat Conservation Plan or appropriate document could reduce this impact to a less than significant level. Additional mitigation requirements may be necessary and should be developed with the CDFG and USFWS to bring impacts to **less than significant** levels.

Impact
4.7.2 The RCP site may contain potential jurisdictional waters of the United States, including wetlands. [PSM]

Development Area VI contains potential jurisdictional waters of the U.S., including wetlands in the south and southwestern boundary of the Development Area that are associated with a drainage and seep area. Also, Development Area VII has a large montane riparian/emergent wetland complex associated with the former mill pond, a perennial stream, and various seeps in the northern and southwestern portion of the Development Area boundary. These areas may contain jurisdictional waters of the U.S., including wetlands.

The DDP has designed the Development Areas to accommodate potential wetland areas. DA VI has been designated primarily for open space and recreational uses with minimal improvements. DA VII has been designated as public land. Permitted uses which could be developed in this Development Area include: a park and associated recreational uses, a wetland restoration and enhancement area, and a natural community creation and enhancement area. However, any proposed activities that may impact jurisdictional waters would require a detailed delineation to determine the extent and specific location(s) of the jurisdictional waters. Following an analysis of impacts from any proposed activity within areas containing jurisdictional waters, permits may be obtained from the Corps. The permits would be issued under the regulatory authority of the Corps and would likely

have terms and conditions attached, which would include, but are not limited to, a mitigation and monitoring plan for all loss of waters of the U.S.

Mitigation

MM 4.7.2a **Prior to the issuance of a grading permit in areas identified as potential wetland locations, the project proponent shall conduct a detailed wetland delineation to determine the extent and specific location(s) of the jurisdictional waters and obtain written verification of the delineation from the Corps. The impact analysis shall include all project alternatives, including avoidance. If necessary, prepare a mitigation and monitoring plan for all loss of waters of the U.S. The mitigation plan should include measures for wetland habitat enhancement and creation, as appropriate for the level of impact, and be developed in coordination with the Corps.**

MM 4.7.2b **Prior to any issuance of a grading permit, the project proponent shall obtain and comply with the terms and conditions of the following permits which may be applicable to the project: a federal Section 404 Clean Water Act permit; a state Section 1601 et seq. Streambed Alteration Agreement from the Department of Fish and Game; and a Water Quality Certification (or waiver of certification) from the State Water Resources Quality Control Board.**

MM 4.7.2c **Development plans for enhancement of existing wetland habitats that impact waters of the U.S. would require the same delineation, impact analysis, and mitigation and monitoring plan (if necessary) required for direct development impacts.**

Significance After Mitigation

Impacts to jurisdictional waters of the U.S., including wetlands, would be reduced to **less than significant** levels by avoidance, or by implementation of a mitigation and monitoring plan that may include wetland enhancement and/or creation.

CUMULATIVE IMPACTS

Impact

4.7.3 **Cumulative development would contribute to the loss of natural undisturbed open space, increase human intrusion and activity levels in proximity to habitat areas, and would remove potential habitat for federally and state listed and other special-status species. [LS]**

It is likely that development of the proposed and/or anticipated projects throughout the City would result in significant impacts on vegetation and/or wildlife because they would eliminate habitat for both common and special-status species. However, the proposed project and Draft Development Plan's proposed layout for the Development Areas reduces the site-specific impacts to biological resources to less than significant levels. This would be achieved by retaining potentially sensitive areas, such as DA VI, as primarily open space and designate DA VII to be developed as parkland or recreational use, wetland enhancement areas, or natural community enhancement areas.

Because environmental review would be required as part of all future projects' in the City, mitigation would be developed for site-specific impacts at that time. Therefore, cumulative impacts on biological resources are considered **less than significant.**

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4.8 GEOLOGY AND SOILS

This section evaluates the existing geologic conditions at the RCP site and provides an analysis of geologic and geotechnical problems which may be encountered on the site. They include earthquake damage, slope instability, erosion and sedimentation and volcanic hazards. This section is based primarily on previous geological and soils studies.

4.8.1 SETTING

GEOLOGIC CONDITIONS

Site Topography

The RCP site contains a variety of topographical conditions, with elevations ranging from approximately 3,460 feet above sea level to about 3,640 feet above sea level (PMC, 1997). The western section of the site adjacent to Mt. Shasta Boulevard is generally flat with steep embankments between flat areas, except for the southern portion which slopes to the west. Near the railroad tracks, the site slopes to the west toward the tracks. A small, relatively flat area is located in the southwestern corner of the project site. The eastern section of the site slopes from a high point near the southeast corner of the site toward Mt. Shasta Boulevard. The steepest slopes on the site are below the off-site reservoir. There are no prominent topographic or geologic features, such as unusual rock formations or outcroppings on the site.

Local Geology

The site is underlain by Pleistocene volcanic rocks and associated sediment deposits of Mt. Shasta. Mt. Shasta, elevation 14,162 feet above sea level, is a massive compound stratovolcano composed of overlapping cones. The mountain was built up over a period of 100,000 years, with more recent eruptions creating the peak of Mt. Shasta and Shastina. Predominantly pyroclastic rocks derived from volcanic action including tuffs, tuff breccias, lahars, and pyroclastic flows underlie the site (PEDB, 1992).

Soils

A soil survey of Siskiyou County, conducted by the Soil Conservation Service in 1984, found three soil types within the RCP **(Figure 4.8-1)**. The northeast portion of the site contains Ponto sandy loam soil. This soil type is a very deep, well drained soil formed of volcanic ash. The soil consists of layers of sandy loam and reaches a depth of 80 inches. Permeability of the Ponto soil is moderate, runoff is medium, and the water erosion hazard is moderate. The shrink-swell potential is low. The soil survey rates the Ponto sandy loam as posing moderate limitations to construction of roads and streets and severe limitations to construction of small commercial buildings, due to slopes. Ponto sandy loam is considered a prime agricultural soil by the Soil Conservation Service. However, the presence of steep slopes, the small size of the land area and its isolation make most agricultural activities infeasible.

I	33.0+/-	AC	DEVELOPMENT AREA I
II	8.5+/-	AC	DEVELOPMENT AREA II
III	3.5+/-	AC	DEVELOPMENT AREA III
IV	12.5+/-	AC	DEVELOPMENT AREA IV
V	24.5+/-	AC	DEVELOPMENT AREA V
VI	15.0+/-	AC	DEVELOPMENT AREA VI
VII	30.5+/-	AC	DEVELOPMENT AREA VII

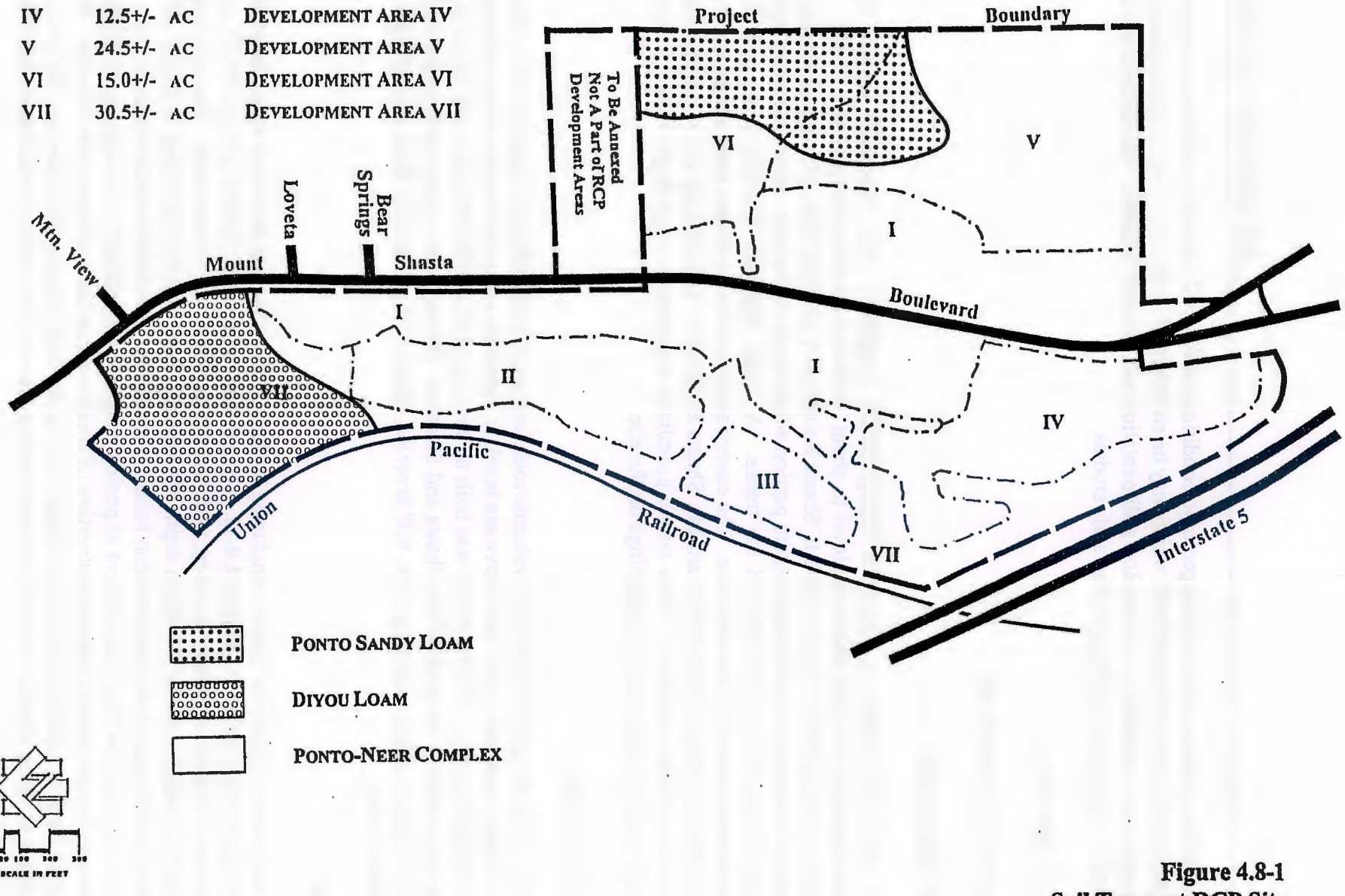


Figure 4.8-1
Soil Types at RCP Site

The Ponto-Neer complex is found on the remaining portion of the site, with the exception of the area around the former mill pond. Ponto-Neer soil is an intermingling of the Ponto sandy loam and the Neer gravelly sandy loam soils. The characteristics of the Ponto portion of this complex are the same as those of the Ponto sandy loam. The Neer soil is moderately deep and well drained, and is also formed of volcanic ash. Typically, the surface layer is a gravelly sandy loam about 9 inches deep, with the subsoil consisting of very gravelly sandy loam about 17 inches thick. At a depth of 26 inches, extrusive igneous rock is found. Permeability of the Neer soil is rapid, runoff is medium, and the water erosion hazard is moderate. Shrink-swell potential is low. Limitations on road and commercial building construction are the same for Neer soils as those for Ponto soils, again due to slopes.

The former Roseburg lumber mill operation included log ponds and log decks whose underlying soil has become filled with organic matter, such as bark and wood material from logs. A large wood waste pile once occupied the former mill pond at the north end of the site. It has since been removed. Nevertheless, other areas within the site have soils with a high organic matter content.

Around the former mill pond site is the Diyou loam, peat substratum. Diyou soil is a very deep, somewhat poorly drained soil found commonly on floodplains. The surface layer is typically an 11-inch layer of loam. Below that is a 29-inch thick layer of stratified sandy loam, sandy clay loam, and clay loam. Below that, to a depth of 62 inches, is peat. Permeability of Diyou loam is moderately slow to a depth of 40 inches, then rapid below this depth. Runoff is slow, and the water erosion hazard is slight. This soil is considered poorly suited to urban development, due to a seasonal high water table, hazard of flooding, and limited load supporting capacity.

Subsidence

No known subsidence hazards exist in the Mt. Shasta area. Conditions normally associated with subsidence are not known to occur. Subsidence could result from peat oxidation in wetlands (PEDB, 1992). Diyou soils in the far northern portion of the RCP site may contain peat. However, the DDP proposes park and open space uses in that area, with very limited development. Therefore, subsidence is not considered a significant issue.

Mineral and Energy Resources

The only significant mining activity in the Mt. Shasta area is sand and gravel extraction in the Abrams Lake Road area. No mineral extraction activity exists at the RCP site, and no mineral resources of statewide or regional significance have been identified there. There are no known oil and gas resources in the Mt. Shasta area. Some geothermal leases have been issued in the Mt. Shasta area, and exploration activities have been conducted. No such activities have been conducted on the RCP site.

Volcanic Hazards

The RCP site is located at the southwestern base of Mt. Shasta. Mt. Shasta has erupted regularly over the past 10,000 years, and it has erupted on average once every 600 years during the last 4,500 years. The last known eruption occurred in 1786 (Miller, 1980). The likelihood of an eruption of Mt. Shasta in a given decade has been calculated to be 1 in 25 to 1 in 30 (PEDB, 1992).

Five hazards associated with volcanic activity at Mt. Shasta have been identified (Miller, 1980):

1) *Lava Flows*. Most of the lava flows from Mt. Shasta have been blocky flows of andesite less than 5 miles in length. The last known lava flow from Mt. Shasta took place about 2,000 years ago on its northeast flank. The last known lava flow on the southwest flank - where the City of Mt. Shasta is located - occurred between 9,500 and 9,700 years ago. The City and the RCP site has been placed in lava-flow hazard zone C, in which areas are likely to be infrequently affected by lava flows. The probable frequency of the occurrence of a lava flow has been projected to be 1 per 10,000 years.

2) *Pyroclastic Flows*. Pyroclastic flows generally involve masses of hot, dry rock fragments mixed with hot gases released from an eruption vent. Such flows have formed frequently at Mt. Shasta during the last 10,000 years, and they have traveled as far as 12.5 miles from their source. One flow traveled about 6 miles down the southwest slope of Mt. Shasta approximately 2,100 years ago. The City and the RCP site have been placed in flowage hazard zone 2, an area of intermediate potential hazard, less than the most severe potential hazard areas. The probable frequency of the occurrence of a pyroclastic flow has been projected to be 1 per 1,500 years.

3) *Domes*. Domes result from the extrusion of highly viscous lava which piles up at the vent rather than flowing away. Internal pressures may cause explosion or collapse of the dome during or after the formation process. No specific hazard zones have been identified for domes, nor have any domes been identified at the RCP site.

4) *Tephra*. Tephra, in this EIR, is defined as molten or solid rock particles of all sizes, from boulders to dust, which are erupted into the atmosphere above a volcano. It often occurs in conjunction with pyroclastic flows. Hazards associated with tephra include falling fragments, ash deposition, adverse air quality impacts, and utility disruption. A 1983 U.S. Geological Survey (USGS) study indicated that as much as 10 to 15 inches of ash could be deposited in the Mt. Shasta area, although the actual deposition amount will depend on atmospheric conditions. However, only two major eruptions of tephra have been known to occur in the last 10,000 years.

5) *Mudflows*. These involve downhill flows of water-saturated volcanic ash and debris, generated by events in snow- or ice-bound areas. Large mudflows have usually occurred in conjunction with lava flows or pyroclastic flows. Small mudflows are common on Mt. Shasta, a result mainly of glacial melt (Osterkamp et al, 1986). A small mudflow took place on Ash Creek on the eastern slope

in 1977. The projected frequency of a "large" mudflow is 1 per 600 years. A "small" mudflow is projected to occur once every 10 years.

A study of mudflow hazards in the Mt. Shasta area was conducted in 1987. The study classified hazards into three categories and produced a map depicting three zones based on potential hazards. The most hazardous mudflow areas were placed in Zone A; the least hazardous areas in Zone C. Zone C designates areas where future mudflows are possible, but none have occurred in the last 9,000 years. The Roseburg site is located in Zone C (PEDB, 1992).

SEISMIC CONDITIONS

Seismicity

The Mt. Shasta Planning Area is located in a "moderate" seismicity zone with a probable maximum earthquake intensity of VI or VII on the Modified Mercalli Scale. At those intensities, minor to moderate structural damage may occur, and people may have difficulty walking. The Uniform Building Code places the Mt. Shasta area in Seismic Zone 3, which is defined as an area of potentially "Major damage (from earthquakes), corresponding to intensity VII and higher of the (Modified Mercalli) scale" (PEDB, 1992).

Historically, there have been only two earthquakes with a Richter magnitude of 4.0 or greater occurring in the Mt. Shasta area. In 1978, two earthquakes centered about 20 miles east of Mt. Shasta recorded Richter scale readings of 4.0 and 4.6. The Seismic Safety and Safety Element of Siskiyou County's General Plan indicates that over a 120-year period, only nine or ten earthquakes capable of "considerable damage" had occurred. Reported building damage has never been more than "minor," and no earthquake deaths have been reported (PEDB, 1992).

Faulting

The Fault Activity Map of California, updated in 1994, indicate no active or potentially active faults within the Mt. Shasta Planning Area. There are two faults outside the Planning Area classified as "potentially active" by the California Division of Mines and Geology. One is a north/south-trending concealed fault running through the top of Mt. Shasta. The other is an east/west-trending concealed fault that runs from the top of Mt. Shasta to a point north of Black Butte.

Slope Stability

Slope stability hazards include landslides and mudslides. In preparing the Siskiyou County General Plan, reconnaissance mapping of potential geologic hazards in the county was conducted. The mapping revealed no geologic hazards east of I-5, where the RCP site is located. The Planning and Environmental Data Base mentions numerous landslide features identified along Rainbow Ridge west of the City. It also states that the same rock type that characterizes Rainbow Ridge is found at

Quail Hill and a hillock south of Old McCloud Road. Both features are located outside the RCP site, and thus do not pose a landslide hazard to the area (Wagner and Saucedo, 1987).

A topographical analysis of the RCP site for the Opportunities and Constraints Analysis revealed several areas that had a slope of 25 percent or greater **(Figure 4.8-2)**. The most significant of these areas is the northeast corner of the eastern section. Other noteworthy areas are the southern part of the western section and along the railroad tracks. Development Area III is bordered on two sides by high slope areas. These slopes are in areas with soils classified as having a moderate erosion potential. Most of these high slope areas are isolated strips, but the slope in the eastern section marks the presence of a hill.

Liquefaction

Liquefaction occurs when loose, saturated granular soil deposits lose their strength due to a sudden buildup of excess water pressure. This buildup is induced by a seismic event. In reviewing the draft EIR for the City's General Plan the California Division of Mines and Geology identified one site where soils were subject to liquefaction - Sisson Elementary School. The Division of Mines and Geology also recommended that the City require site-specific investigations for liquefaction potential in the portion of the City underlain by glacial outwash deposits. Glacial deposits have been identified in the eastern and southern parts of the City, but none are located within the RCP boundaries, except possibly in the far northwest corner (Wagner and Saucedo, 1987). According to the DDP, no urban development will take place in that area.

GENERAL PLAN GOALS AND POLICIES

The City of Mt. Shasta General Plan provides the following goals and policies relative to geology and soils.

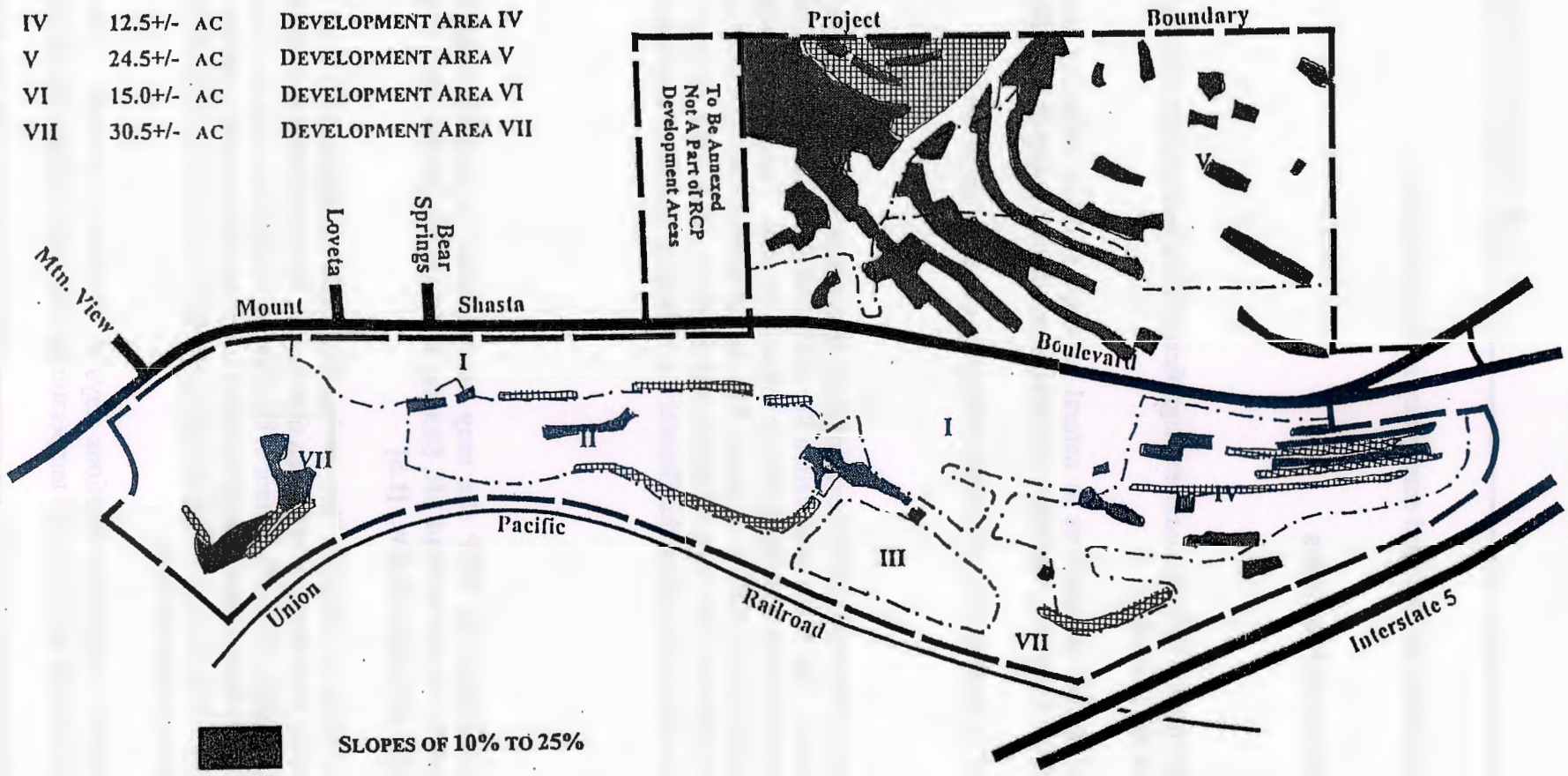
Goal SF-2
Assure life and property are adequately protected from seismic hazards in the area.

Policy SF-2.1
Avoid development in areas of steep slope and high erosion potential.

Goal SF-3
Take prudent steps to maintain emergency services in the event of volcanic activity.

Policy SF-3.1
Periodically update the City's emergency service program to minimize destruction from volcanic activity.

I	33.0+/- AC	DEVELOPMENT AREA I
II	8.5+/- AC	DEVELOPMENT AREA II
III	3.5+/- AC	DEVELOPMENT AREA III
IV	12.5+/- AC	DEVELOPMENT AREA IV
V	24.5+/- AC	DEVELOPMENT AREA V
VI	15.0+/- AC	DEVELOPMENT AREA VI
VII	30.5+/- AC	DEVELOPMENT AREA VII



SLOPES OF 10% TO 25%

SLOPES 25% AND GREATER

SCALE IN FEET

Figure 4.8-2
Existing Slopes at RCP Site

Policy SF-3.2
Take steps to protect public facilities and emergency service providers.

4.8.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Geologic and seismic hazard impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Exposure of people or structures to natural geologic hazards, including seismic events, volcanic eruptions, landslides and other hazards mentioned in this EIR;

2) Construction of structures on soils with adverse engineering properties.

METHODOLOGY

Evaluation of potential impacts was conducted by reviewing existing studies concerning the geology and soils of the Mt. Shasta area. The Soil Conservation Service's *Soil Survey of Siskiyou County, California, Central Part* was utilized in evaluating project impacts on soils. For potential impacts of volcanic activity, two reports by the USGS were used. Also useful was the *Geologic Map of the Weed Quadrangle*, by the California Division of Mines and Geology. For other geologic and seismic impacts, information was obtained from the General Plan Planning and Environmental Data Base.

PROJECT IMPACTS

Impact
4.8.1 **Development within the RCP site may be subjected to hazards caused by volcanic activity in and around Mt. Shasta, although the probability of such activity at any given time is low. [LS]**

An eruption of Mt. Shasta can be considered a "low probability, high consequence" event. This means that while the probability of an eruption at a given time is low, the consequences of an actual eruption would likely be catastrophic. While the extent of the damage would depend on the direction of the blast and wind conditions, there would almost certainly be substantial property damage and possible loss of life. The most likely hazards that would affect the RCP site from an eruption would be ash deposition, tephra, and pyroclastic flows.

Volcanoes often show signs of impending eruptions days to months in advance. Shallow earthquakes, bulging ground surfaces, and increased temperatures of thermal springs may herald the

onset of an eruption. The Cascade Volcanic Observatory, located in Vancouver, Washington and operated by the USGS, monitors changes in seismic activity, ground swelling and gas emissions through equipment located on and around Mt. Shasta (Hirt, undated). It is expected that this monitoring will detect a possible volcanic eruption in enough time to warn residents, though there is no guarantee that all eruptions can be anticipated early. The General Plan contains policies and implementation measures that reduce the risk of hazards caused by volcanic activity, these actions include: continued monitoring of Mt. Shasta for possible volcanic activity, so that warning may be given to people in the region of a possible volcanic event and the need to evacuate; and continuously reviewing plans to ensure the safety of its residents and workers including evacuation routes, and revision of such plans when necessary.

In the event of a volcanic eruption, property damage is likely to occur. However, with continued monitoring and maintenance of evacuation route plans, the risk to the lives of people in the City are reduced. Overall, impacts are considered **less than significant.**

Impact 4.8.2 **The Ponto soils that predominate on the RCP site have been rated as having a moderate erosion hazard. Linked to this is the rating of moderate limitations on commercial building construction due to the presence of slopes. [LS]**

Concern regarding the erodibility of Ponto soils centers on the fact that this soil is commonly found on slopes of 5 to 15 percent. Much of the RCP site proposed for development is flat due to previous development. However, all of DA V contains slopes and grading activity in this area is an issue. Also, even in the flat areas, ground will be exposed in the grading of parcels. The DDP contains development standards that address grading, erosion, and hillside development concerns. The DDP prohibits construction of buildings on slopes of 25 percent or greater, and it requires other slope stabilization measures. Adherence to these standards would reduce erosion impacts to **less than significant.**

Impact 4.8.3 **Projects located on the RCP site are subject to seismic hazards of at least moderate intensity, although the probability of such activity at any given time is low. [LS]**

Most seismic activity that is likely to occur would be associated with volcanic activity around Mt. Shasta. Ground shaking would be the most likely seismic hazard to affect the Roseburg site. The Uniform Building Code has placed the Roseburg site in Seismic Zone 3, which subjects building activities to more stringent building requirements. Compliance with these requirements will reduce seismic impacts to a **less than significant** level.

CUMULATIVE IMPACTS

Impact
4.8.4 **Due to the nature of geology and soils, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region. [LS]**

The proposed project is not anticipated to contribute to cumulative impacts to earth resources. Therefore, impacts are considered **less than significant.**

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4.9 COMMUNITY SERVICES

This section discusses the potential impacts on community services from the annexation and development of the Roseburg Commerce Park (RCP). The services that would be affected include fire protection, police protection, street maintenance, and parks. Potential impacts on these services include an increased demand for services, which in turn affects service levels. Information on which the analysis is based came from City documents and interviews.

4.9.1 SETTING

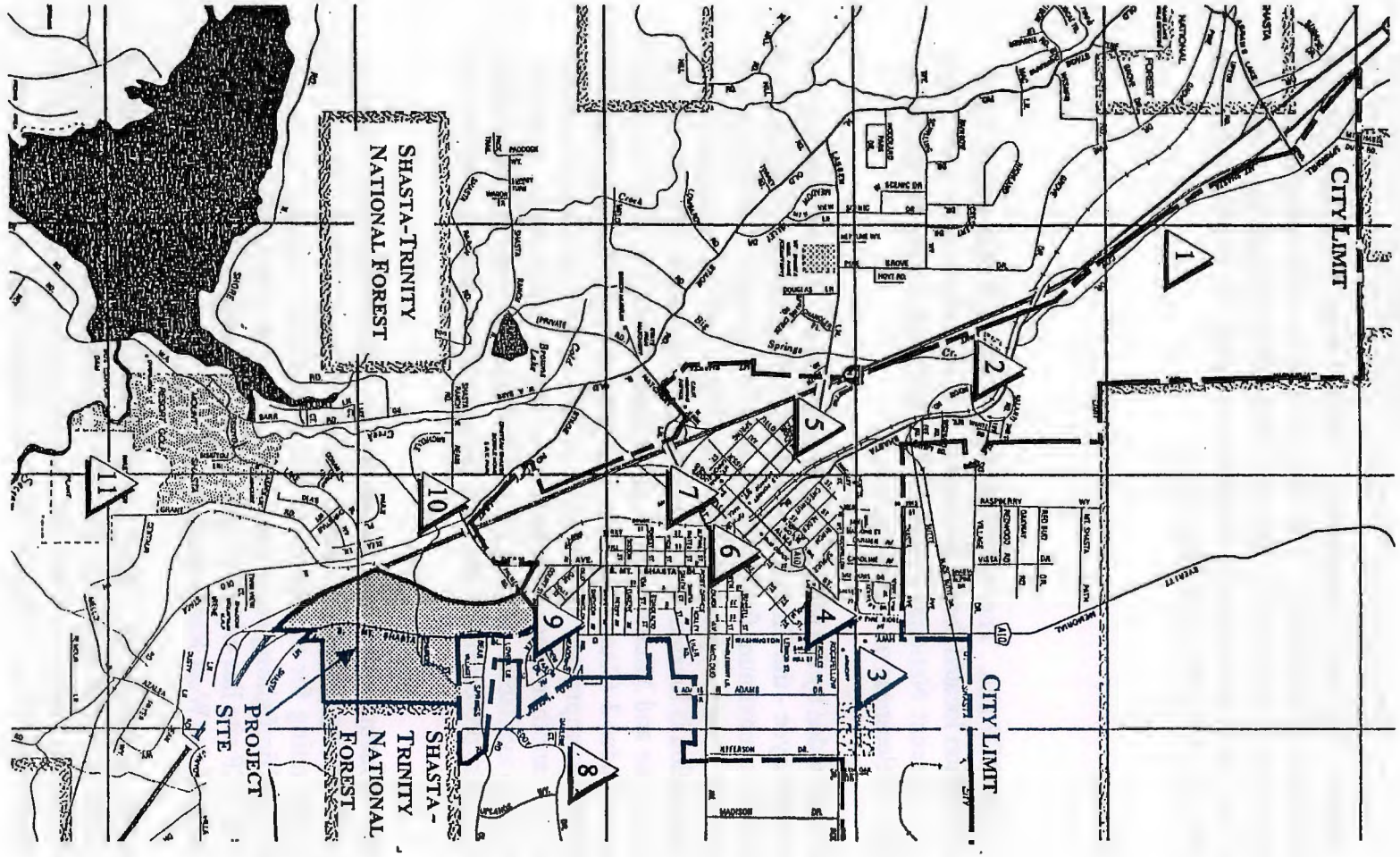
FIRE PROTECTION

Fires are a potential hazard on the RCP site. The eastern section is forested with mature trees - primarily remnants of the tree plantation located there. Development in this area may be at risk from forest fires ignited there or on adjacent National Forest land. Such fires could be started by lightning, vehicle use, or human carelessness or intentional act.

Fire protection services would be provided by the Mt. Shasta Fire Department. The Fire Department currently has only one salaried employee - the Fire Chief - with the remaining force consisting of volunteers. The Fire Department has a maximum firefighting force of 35 members. The Department has its main station in downtown Mt. Shasta, adjacent to City Hall **(Figure 4.9-1)**. Another station is located on Pine Street. A third station is located outside the City limits on North Old Stage Road. A new station on West Ream Avenue and Michelle Drive, southwest of the City, will be opened shortly. Available equipment includes 3 Class A engines (pumping capacity of more than 500 gallons per minute), 1 engine with a compressed air foam unit, a 3,500 gallon tanker and a rescue unit. The Department has on order another Class A engine with compressed air foam capability. A state-owned Class A engine is also available. This equipment is shared with the Mt. Shasta Fire Protection District, which provides fire protection for the rural unincorporated area surrounding the City (Spini, pers. comm.).

The Insurance Services Office (ISO) maintains a rating system for fire protection services. Services are rated on a scale of 1 to 10, with 1 being the highest rating. The ISO rating for the Mt. Shasta Fire Department is 5, a relatively high rating for a small town fire department. Among the factors supporting this rating is the basing of firefighting equipment within 1.5 miles of potential calls. All except the far southern part of the RCP site lies within 1.5 miles of the downtown station, and all of the site would lie within 1.5 miles of the West Ream station.

The Department requires that new development follow fire standards set forth in the Uniform Building Code, Uniform Fire Code, and other similar codes. The Department states that insurance requires minimal fire flows of 1,500 gallons per minute for 2 hours and that hydrants be 500 feet apart. In heavy commercial areas, hydrants are to be 250 feet apart (Spini, pers. comm.).



LEGEND:

1. FIRE STATION
2. PARK
3. MT. SHASTA HIGH SCHOOL
4. SISSON SCHOOL, PARK, LIBRARY
5. HOSPITAL
6. CITY HALL, POLICE, FIRE
7. ELEMENTARY SCHOOL DISTRICT OFFICES
8. QUAIL HILL (CITY) WATER TANK
9. SHERIFF'S SUBSTATION
10. FIRE STATION
11. WASTEWATER TREATMENT PLANT

Figure 4.9-1
Community Facilities in the Project Vicinity

POLICE PROTECTION

Police protection services would be provided by the Mt. Shasta Police Department. The Police Department currently has 9 sworn officers and 4 reserve officers. It also has 1 animal control officer, 4 full-time dispatchers and 2 dedicated part-time dispatchers. The Department has 9 patrol cars (one for each sworn officer), 1 animal control car and 1 four-wheel drive vehicle (Montz, pers. comm.). The Department has just one police station, located in downtown at the corner of Lake Boulevard and Mt. Shasta Boulevard (See Figure 4.9-1).

The City's General Plan calls for the maintenance of the current ratio of sworn police personnel to population as the City grows. Although the development of the RCP site is not expected to induce a significant increase in the City's population, there are plans for commercial, industrial and office uses. Also, there would be visitor-oriented uses. Therefore, additional demands on police services are expected (Montz, pers. comm.).

STREET MAINTENANCE

The City Department of Public Works is responsible for the maintenance of streets and roads within the City limits. Services performed by the Public Works Department includes fixing potholes, clearing drains, removing snow and resurfacing streets. Available equipment includes snowplows, trucks and other vehicles. The main facility is the City Corporation Yard, located at the southern City limits along Mt. Shasta Boulevard, across from the RCP site.

The Public Works Director states that snow removal for the roads at the RCP site would cost approximately one dollar per lineal foot of roadway. It is anticipated that no additional personnel or equipment would be needed to provide street maintenance services at the site (Teague, pers. comm.).

PARKS AND RECREATION

Existing public recreation lands are administered by the Mt. Shasta Recreation and Parks District (MSRPD). The MSRPD operates and maintains two parks within the City limits. City Park, located in northern Mt. Shasta, is 26 acres in size and has five buildings for meetings, social events and other gatherings. There are also picnic areas and nature areas. Shastice Park, adjacent to Mt. Shasta High School, is 37 acres in size. It has a picnic area, a softball field, tennis courts and a tot lot. Portions of both parks are undeveloped. MSRPD also maintains joint use agreements with the local school districts for the use of the schools' facilities, see Figure 4.9-1 (City of Mt. Shasta, 1992).

The City's General Plan states that the City shall maintain a ratio of not less than five acres of neighborhood parks per 1,000 population. The National Recreation and Parks Association (NRPA) defines a neighborhood park as an "(A)rea for intense recreational activities such as field games, court games ... Neighborhood park sites should be suited for intense development, easily accessible

to neighborhood populations and geographically located for safe walking and bike access." The City considers school lands used for recreational purposes as neighborhood. Also considered a neighborhood park is a baseball field used by Mt. Shasta Youth Baseball. Total acreage of these lands is 26.5 acres. Using an estimated 3,700 population for the City, the acre/1,000 population ratio is 7.2, which exceeds the General Plan standard.

City Park and Shastice Park are classified by the City as community parks. According to the NRPA, community parks are "(A)reas of diverse recreational value including intense recreational facilities such as athletic complexes and pools, as well as more passive uses such as picnicking, viewing, nature study and other types of recreational development." These parks serve a larger population than neighborhood parks. The City's General Plan calls for the maintenance of a ratio of no less than five acres of community parks per 1,000 population. The current ratio, again using an estimated 3,700 population, is 17.0. This is well in excess of the General Plan standard.

The DDP for the RCP site allows for the creation of a park in the far northern part, around the former mill pond. This use would be consistent with the General Plan designation for that area. In 1994, a plan for a Roseburg Park and Environmental Interpretive Center was prepared. However, no money was available for implementation of that plan. The area in the DDP that would be a park is approximately 13.5 acres in size. The uses allowed within this area would be primarily passive in character, such as picnic areas, nature areas and wetland restoration sites. However, bicycle and hiking trails would be permitted, and activities centering around a refilled mill pond are possible. Also, some buildings that support recreational activities would be allowed, subject to the development standards set forth in the DDP. Given its size and proposed activities, a park at this site could be classified as a community park.

An Open Space Parkway is proposed for the RCP site as well. This parkway would be in the western section and would be approximately 16 acres in size. It would be an open space area with trails for hiking, bicycling and horseback riding. The DDP states that these trails could become part of an area-wide trail system, ultimately intended to connect to downtown Mt. Shasta and Lake Siskiyou.

GENERAL PLAN GOALS AND POLICIES

Goals and policies from the City's General Plan that are relevant to the issues discussed in this section are as follows:

Goal LU-10
Develop a five-year capital improvement program.

> Policy LU-10.1
> Utilize the capital improvement program as a means of keeping pace with the needs of facilities and infrastructure.

Goal LU-11
Provide adequate fire protection services.

Policy LU-11.1
Provide fire management services which meet area needs.

Policy LU-11.2
Develop a program to collect funds for upgrading fire fighting apparatus and firefighter equipment.

Policy LU-11.3
A program shall be created to collect funds for fire protection equipment.

Policy LU-11.4
Provide adequate fire fighting facilities.

Goal LU-12
Provide adequate police protection.

Policy LU-12.1
Develop programs to ensure adequate police services capabilities.

Policy LU-12.2
Provide adequate facilities for the police department.

Goal OC-8
Provide park and recreation facilities to meet the growing population of Mt. Shasta

Policy OC-8.1
Strive to provide neighborhood parks to meet the needs of developing areas.

Policy OC-8.2
Continue to meet community park and recreation needs.

4.8.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Community service impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Deviation from the ratio of police officers to population as set forth in the General Plan;

2) Deviation from the ratio of community and neighborhood park area to population as set forth in the General Plan;

3) Distance of new development from City fire stations is greater than 1.5 miles;

4) Development is placed in an area where a significant potential fire hazard exists;

5) Requirement of additional personnel and equipment to maintain adequate fire and/or police service; or

6) Requirement of additional personnel and equipment to maintain adequate street maintenance.

METHODOLOGY

Information on fire and police services came from interviews with the chiefs of those departments. Street maintenance information came from the City's contract planner. The Planning and Environmental Data Base, prepared for the General Plan, provided material for the parks and recreation section.

PROJECT IMPACTS

Fire Protection

Impact

4.9.1 The eastern section of the RCP site contains substantial tree and shrub growth. New development in this area would be exposed to a potential wildland fire hazard. [SM]

Fires could be ignited in the forested eastern section by lightning or by human carelessness. These fires may threaten any structures constructed in that area. Moreover, no water lines exist in that area at present. The DDP anticipates development taking place on the eastern side of Mt. Shasta Boulevard. That is not likely to happen until a looped water system is installed, as planned for in Phases 1 and 2 of the Capital Improvement Plan. Development within Development Area V, where most of the forested area is located, is planned to occur in Phase 3 of the Phasing Plan, along with additional water line extensions. However, the timing of the development could change if an extraordinary development opportunity presented itself.

Performance standards in Section 4.9 of the DDP include fire safety provisions with which development must comply. Infrastructure improvements set forth in the Capital Improvements Plan are proposed with the intention of providing adequate fire fighting flows. Therefore, this impact is considered **potentially significant and subject to mitigation.**

Mitigation

MM 4.9.1a **Applicants for projects located in the eastern section of the Roseburg Commerce Park site shall comply with any additional fire safety recommendations made by the Fire Department, along with the performance standards in the DDP.**

Significance After Mitigation

Implementation of the Capital Improvement Plan, DDP standards and the above mitigation measure would reduce fire hazard impacts to a **less than significant** level.

Impact

4.9.2 **Development at the site, particularly the construction of any multi-story buildings, may require the Fire Department to obtain additional equipment and a new facility. [SM]**

The Fire Department stated that as development occurs on the RCP site, a ladder truck would be needed, especially if multi-story buildings are constructed. Lack of a ladder truck could have a negative impact on the City's ISO rating. Also, the Department has identified the expansion of Station #1 (the main station) as a need that would become more urgent with increased development in the City, including the RCP site. In order for this expansion to occur, a new station would need to be constructed at a different location for City response needs, since there is no room for expansion at the existing location (Spini, pers. comm.). This impact is considered **significant and subject to mitigation.** Currently, the City has not established a development impact fee program for new fire protection facilities, although the General Plan allows for such fees. Funding for the Department comes from the City's General Fund plus revenues raised by the Measure A parcel tax.

Mitigation

MM 4.9.2a **The City shall work with the Fire Department in maintaining the City's ISO rating of 5.**

MM 4.9.2b **The City shall begin planning for a new fire station to replace the existing Station #1 downtown prior to completion of Phase 1 of the Capital Improvement Plan for the site. Planning shall include the identification of measures to finance the new facility.**

Significance After Mitigation

Implementation of the above mitigation measures would reduce fire service impacts to a **less than significant** level.

Police Protection

Impact

4.9.3 Anticipated commercial and industrial development would demand additional police protection services. [SM]

The Police Department estimates that if the RCP site is developed in accordance with the buildout scenario presented in the DDP, then 1 additional officer and 1 additional patrol car would be required. The additional officer and car would be needed at about 50 percent of buildout. The timing could change, however, based on the type of development that occurs at the site. For example, if development reaches only 25 percent of buildout, but development consists mainly of specialty stores, then an additional officer and car would be needed, since retail stores typically have a greater demand for police services. If development at the site consists mainly of retail stores and hotels/motels, then an additional 1.5 officers would be required. No additional facilities would be needed to provide police services to the Roseburg area. Response times would not be affected, although an additional officer may need to be assigned to the day shift on weekends to ensure maintenance of current response times (Montz, pers. comm.).

The Department also expressed a desire to see adequate lighting and security alarms installed on developed sites, and it would like more secure dumpster areas, with dumpsters themselves locked and the surrounding area lighted and fenced off. The Department would like to have a controlled intersection in the area, preferably away from the freeway off-ramp. Finally, concerning the potential park, the Department would require adequate lighting for the park and the pond, and it would require the park to be accessible to patrol vehicles (Montz, pers. comm.). This impact is **significant and subject to mitigation.**

Mitigation

MM 4.9.3a The City shall provide for the necessary additional police personnel and equipment to ensure adequate protection for the site.

MM 4.9.3b The DDP shall incorporate the following security measures recommended by the Police Department:

- **Security alarms shall be installed in all buildings.**

- **Developed sites shall provide adequate lighting for security, provided that such lighting is consistent with the development standards for lighting set forth in the DDP.**
- **The public area, if developed as a park, shall be adequately lighted and shall be accessible to police patrol cars.**
- **Dumpster areas shall be secured, fenced, and adequately lighted.**

Significance After Mitigation

With the implementation of the above mitigation measures, impacts on police service would be **less than significant.**

Street Maintenance

Impact
4.9.4 **Streets and roads constructed on the site will require maintenance by the City, including snow removal. [LS]**

According to the Public Works Director, street maintenance can be extended to the site without requiring additional personnel or equipment (Teague, pers. comm.). Therefore, impacts are considered **less than significant.**

Parks and Recreation

Impact
4.9.5 **The potential park and Open Space Parkway would add more park acreage to the City, which already has more community park acreage per 1,000 population than is required by the General Plan. [LS]**

Demand for parks is usually driven by actual or anticipated increases in population. For example, a new residential subdivision can be expected to generate the need for additional parks to satisfy the demands of its residents. The DDP is different in that it allows for a new park and Open Space Parkway that is not connected to any population growth. Since the City already exceeds the community parkland per 1,000 population standard, this impact would be considered **less than significant.**

CUMULATIVE IMPACTS

Impact
4.9.6 **Development at the RCP site and anticipated development elsewhere in Mt. Shasta would require the Fire Department to obtain additional personnel and a new facility. [SM]**

The Department anticipates that the firefighting force would need to be increased to 40 to cover both the RCP site and the Springhill area in the northern part of the City at buildout. The force could remain volunteer, but it is possible that more salaried positions would be needed (Spini, pers. comm.).

Mitigation

MM 4.9.6a The City shall assist the Fire Department in adding necessary personnel to maintain an effective firefighting force.

Significance After Mitigation

With the implementation of the above mitigation measure, potential cumulative impacts would be **less than significant.**

Impact
4.9.7 The project would contribute to cumulative demands for community services. [LS]

Parks and Recreation
With regard to local recreational opportunities, the project has the potential to include park, recreational, and open space opportunities. Since the City alread exceeds the community parkland per 1,000 population standard, cumulative impacts are **less than significant.**

Police Protection
Given that physical facilities to support increased services are available and that funding for services would increase as future projects are approved, cumulative impacts to law enforcement services are considered **less than significant.**

Street Maintenance
Given that street facilities could be extended to the site without requiring additional personnel or equipment and that funding for additional facilities would increase as future projects are approved, cumulative impacts to street maintenance are considered **less than significant.**

REFERENCES

City of Mt. Shasta. 1992. *Planning and Environmental Data Base for the General Plan.* Mt. Shasta, Calif.

_____ 1993. *City of Mt. Shasta General Plan.* Mt. Shasta, Calif.

Montz, Robert. Chief of Police, Mt. Shasta Police Department. Interview, February 1998.

Spini, Joe. Fire Chief, Mt. Shasta Fire Department. Interview, February 1998.

Teague, Mark. City Planner , City of Mt. Shasta. Personal communication, March 1998.

4.10 WATER AND WASTEWATER SYSTEMS

4.10 WATER AND WASTEWATER SYSTEMS

This section discusses the impacts of RCP site development on the City's water supply and wastewater treatment systems. Upon annexation of the RCP site, the City would be responsible for the provision of water and sewer service. The extension of infrastructure and the capability of the systems to accommodate additional demands are the major issues concerning these services. Discussion of the potential impacts is based on an infrastructure study prepared for the Draft Development Plan (DDP), City documents and interviews with City officials.

4.10.1 SETTING

WATER SUPPLY AND DISTRIBUTION

The City's water is supplied by Cold Springs, located east of the City, and by two wells. The normal capacity of these sources is 3.8 million gallons per day (MGD). This capacity was increased by 0.7 MGD when the City acquired the Cold Springs water rights of the Roseburg Lumber Company. The water is stored at three tanks at Quail Hill, with a total storage capacity of 1.2 MGD. A smaller storage tank is located at Cold Springs. The quality of the water is such that no treatment is required. The water distribution system consists of a network of four- to ten-inch mains placed throughout the City. Water pressure is maintained principally by gravity from the Quail Hill storage system, as well as by looping in the system. Average water demand in Mt. Shasta is about 1.3 MGD, with a maximum daily demand of about 3.6 MGD (City of Mt. Shasta, 1992).

The RCP site is currently not connected to the City's water system. The nearest water line is an eight-inch main that extends down Mt. Shasta Boulevard to Bear Springs Road. No other water mains are located in the RCP area. The DDP includes an Infrastructure Plan that outlines improvements required to provide water service to the RCP site. The extension would be accomplished in three phases, coinciding with the proposed stages of development. The main improvements would be an extension of the Mt. Shasta Boulevard main, a new main along the proposed loop road, another new main from Quail Hill, and a third new main serving the eastern section. Water System Improvements are illustrated in Section 3.0, Project Description, Figure 3-3.

WASTEWATER SYSTEM

Sewage in the Mt. Shasta area is treated at the Mt. Shasta Wastewater Treatment Plant (WWTP), located along the Sacramento River south of the City. The plant has a capacity of about .7 million gallons per day (MGD). The average daily dry weather flow is .55 MGD, leaving about .15 MGD of unused capacity. Winter flows average 1.2 MGD and can exceed 2.5 MGD during heavy rainfall, due to infiltration and inflow into the wastewater system. The treatment plant is a gravity system that provides secondary treatment through retention and aeration in four ponds. Treated wastewater is filtered, disinfected and finally discharged. During the wet season, the discharge goes directly into the Sacramento River. In the summer months, the discharge is pumped through a main to a disposal field located south of State Route 89 (City of Mt. Shasta, 1992). The WWTP is exceeding some

water quality parameters contained in its discharge permit. Because of this, the WWTP is currently operating under a Cease and Desist Order issued by the RWQCB.

The existing wastewater collection system consists of about 17.5 miles of collection lines and about 2.5 miles of interceptor lines. Collection lines are typically six inches in diameter, while the interceptor lines have diameters of 12 to 18 inches (City of Mt. Shasta, 1992). A problem with collection lines is infiltration and inflow, which have a significant impact on pipe capacity, particularly on older pipes. For example, the 12-inch main under Palmer Road has a theoretical capacity of 915 gallons per minute (GPM). The existing dry weather flow is approximately 457 GPM. However, due to infiltration, most of the remaining capacity is needed for wet weather peak flows Schlumpberger, 1998). The City has recently retained Metcalf & Eddy to conduct a study of infiltration and inflow into the existing wastewater system.

The RCP site currently is not connected to the City's wastewater system. The nearest sewer line is a 12-inch main that runs under Palmer Road and Ream Avenue, near the northwest corner of the site. The Infrastructure Plan outlines a three-phase program to extend the wastewater system to the RCP site. This generally involves the construction of new mains and one lift station. Initial development would be served by the Palmer Road main, but an additional main in the southern part of the site linking up with an existing line west of Interstate 5 would be required to serve subsequent development. Wastewater improvements are illustrated in Section 3.0, Project Description, Figure 3-4. Figure 4.9-1 in Section 4.9, Community Services, identifies the location of the City's wastewater treatment plant.

GENERAL PLAN GOALS AND POLICIES

Goals and policies from the City's General Plan that are relevant to the issues discussed in this section are as follows:

Goal LU-16
Maintain a wastewater treatment plant that serves the need of the community.

Policy LU-16.1
Ensure that the growth of the community does not outstrip the capacity of the wastewater treatment facility.

Policy LU-16.2
Require connection to the sewer system for multi-family, commercial, and employment center land uses within the City limits.

4.8.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Water and wastewater system impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Substantial withdrawal of groundwater from aquifers;

2) Adverse effects to water pressure and flows within water system;

3) Major additions to the City water system;

4) Total wastewater flows exceed 75 percent of treatment plant capacity;

5) Dry weather wastewater flows exceed approximately half of pipe capacity; or

6) Major additions to the City wastewater system.

METHODOLOGY

Most of the information on the water and wastewater systems was gathered by interviews with City officials and staff and from a report prepared by Charles Schlumpberger, an engineering career. The Infrastructure Plan within the draft DDP for Roseburg Commerce Park incorporated some of this information. Some background information came from the *Planning and Environmental Data Base.*

PROJECT IMPACTS

Water System

Impact

4.10.1 To supply the projected water demand at the Roseburg Commerce Park site, significant additions and extensions of the City's existing water system would need to be made, including new water mains and possibly new wells and tanks. [SM]

Development at the RCP site would generate additional demands on the water supply. The standard water usage rate for commercial development is 0.5 gallons per minute (GPM) per 100 square feet. At the maximum potential buildout of the RCP site, that would lead to a water demand of approximately 6.5 MGD. In addition, firefighting flows must be considered. The Needed Fire Flow (NFF) at maximum buildout has been suggested at 3,000 GPM for three hours, or approximately 4.3 MGD. Thus, total water demand at maximum potential buildout would be approximately 10.8

MGD. To satisfy this demand, additional wells and one additional storage tank would most likely be necessary (Schlumpberger, 1998).

Construction of all needed improvements for the maximum buildout is not considered practical. Instead, the Capital Improvement Plan (CIP) takes a phased approach to water system improvements at the RCP site. The first phase of the CIP indicates that a new water line would be installed along the proposed loop road. This line would be tied in to the Bear Springs main. Because most of the available water flow in this line would be reserved for firefighting needs, minimal water would remain for developed uses. Thus, development during the first phase would be somewhat limited.

As more improvements are installed, more areas would become open for development. The second phase of the CIP proposes a new looped water line brought down from the Quail Hill storage tanks. This would provide water service to Development Areas III and IV. During this phase, an additional well will likely need to be drilled to provide a sufficient supply of water to the site. The final phase would extend a main to Development Area V from Quail Hill. The proposed improvements in the CIP are timed to approximately coincide with the planned stages of development presented in the Phasing Plan. The CIP presents cost estimates for these improvements and suggests possible funding sources.

The project would require the extension of the City's water system, therefore, this impact is considered **significant and subject to mitigation**. However, with the implementation of the Capital Improvement Plan and the mitigation measures provided below, this impact would be reduced to less than significant.

Mitigation

MM 4.10.1a The City shall utilize appropriate sources to fund all proposed water system improvements in the Capital Improvement Plan. Such sources may include, but are not limited to, development impact fees, grant programs and special assessments.

MM 4.10.1b Prior to the issuance of a grading permit for a project at the site, the project developer shall install adequate water service infrastructure and present confirmation of an adequate water supply.

Significance After Mitigation

Implementation of the above mitigation measures and the Capital Improvement Plan would make the potential impacts associated with water system improvements **less than significant.**

Wastewater

Impact

4.10.2 Wastewater flows from development may cause the Palmer Road/W. Ream Avenue sewer main to exceed pipe capacity when wet weather flows are taken into account. [SM]

The 12-inch main under Palmer Road/W. Ream Avenue has a theoretical capacity of 915 gallons per minute (GPM). The existing dry weather flow is approximately 457 GPM. That would leave more than enough remaining capacity to handle the estimated 44 GPM that would come from the RCP site. However, due to infiltration, most of the remaining capacity would be needed for wet weather peak flows. Thus, at buildout, there would not be adequate capacity in the Palmer Road/W. Ream Avenue main during wet weather to serve the site. The recommendations generated by the Metcalf & Eddy study could address potential problems within the Palmer Road main, and thus make more pipe capacity available for RCP development.

Mitigation

MM 4.10.2a The City shall work toward implementing recommendations concerning reduction of infiltration and inflow that are generated by the consultant analysis.

MM 4.10.2b Prior to the issuance of a grading permit for a project on the site, confirmation of adequate capacity at the WWTP to accommodate project demands shall be required.

MM 4.10.2c Prior to the issuance of a grading permit for a project on the site, confirmation of adequate capacity of the Palmer Road main to accommodate project demands shall be required. Should the Palmer Road/W. Ream Avenue main be inadequate to accommodate the demand even after implementation of MM 4.10.2a, the City shall consider measures to provide additional capacity, including construction of the main proposed in Phase 3 of the CIP.

Significance After Mitigation

Implementation of the above mitigation measures would make the potential impact **less than significant**.

CUMULATIVE IMPACTS

Water System

Impact 4.10.3 **Development at the RCP site, along with other projects and planned development in the Mt. Shasta area, would generate a substantial increase in demand for water. [LS]**

Along with the RCP site, development is planned for the Springhill area in north Mt. Shasta. As the population grows, residential development in other parts of Mt. Shasta could intensify. The DDP indicates that for development on the site to occur beyond the first phase of improvements, an additional well would have to be drilled to provide an adequate water supply. Improving economic conditions could lead to further development of the area south of the RCP site. The proposed Dannon water plant would also generate demand for water. All of these potential developments would place demands on local water resources. A 1984 study by PACE Engineering and ground water hydrology studies conducted in conjunction with the Springhill annexation indicated that wells of several hundred gallons per minute yield should be developable throughout the area. Due to the extent of water resources and the underlying geology, well interference would be unlikely (City of Mt. Shasta, 1992). Cumulative impacts, therefore, are considered **less than significant.**

Wastewater System

Impact 4.10.4 **The projected additional wastewater flow from the RCP site at buildout, along with flows from other projects, may cause total wastewater flows to exceed 75 percent of the treatment plant's capacity. [SM]**

At the initial phase of buildout, which would take place on 46 acres, it is estimated that the RCP site would generate up to 63,480 GPD of wastewater. While this amount of wastewater is below the available capacity, it is possible that expansion of the WWTP would be necessary before the initial phase of buildout can be completed. The General Plan requires the City to plan for expansion when plant use reaches 75 percent of capacity. With other anticipated projects in the Mt. Shasta area, including the Dannon water plant, additional capacity may be required.

Currently, the WWTP is operating under a Cease and Desist Order from the Regional Water Quality Control Board (RWQCB). RWQCB issued the order when the WWTP exceeded some water quality parameters contained in its discharge permit. The order requires the City to correct system deficiencies with regard to infiltration and inflow, upgrade its chlorine contact chamber, modify or repair the outfall surge tank, install a filtration system, and identify alternatives for land application or reclamation use of wastewater. This order does not preclude the City from adding any new connections (CH2M Hill, 1998). However, it does prohibits further expansion of the treatment plant

until the deficiencies have been corrected. Until the order is lifted, development at the RCP site would have to be reviewed to determine if plant capacity is available. Available capacity could be expanded if infiltration and inflow problems in the wastewater system are reduced or eliminated.

Mitigation

MM 4.10.4a The City shall review all proposed projects on the RCP site to determine if there is adequate capacity to handle wastewater flows generated by the project. If projected flows cause the total wastewater flows to exceed 75 percent of plant capacity, the City shall plan for an expansion of the plant, including plans for design and financing.

Significance After Mitigation

Implementation of the above mitigation measures plus MM 4.10.2 a,b and c would reduce potential impacts to a **less than significant** level.

REFERENCES

CH2M Hill. 1998. *Dannon Water Bottling Plant Negative Declaration.*

City of Mt. Shasta. 1992. *Planning and Environmental Data Base for the General Plan.* Mt. Shasta, Calif.

Pacific Municipal Consultants. 1998. *Draft Development Plan for the Roseburg Commerce Park, City of Mt. Shasta.* Sacramento, Calif.: Pacific Municipal Consultants.

Schlumpberger, Charles. 1998. *Roseburg Park Utilities.* Letter, January 1998.

4.11 AESTHETICS/LIGHT AND GLARE

This section describes scenic views and other aesthetic issues concerning the Roseburg Commerce Park (RCP) site, and describes potential impacts of the project on aesthetics. It is recognized that impacts on scenic views, especially from the I-5 and Mount Shasta Boulevard corridors, will receive considerable public attention. The RCP site represents the southern "gateway" to the City, and travellers' perceptions of the community will be influenced by the appearance of the area from these travel corridors. Aesthetics were evaluated based on field observations and review of City documents.

4.11.1 SETTING

NATURAL SCENIC RESOURCES

The Mt. Shasta area contains many excellent scenic vistas and prominent landmarks. Many of these are visible from the RCP site (See **Figure 4.11-1**). Northeast of the site is Mt. Shasta, one of the highest peaks in the Cascade mountain range and the predominant natural feature in the area. The mountain from the 8,000-foot level and above was designated a National Natural Historic Landmark in 1976. The lower slopes contain dense stands of evergreen and deciduous brush and mixed conifer forest. The higher elevations have very little vegetation, but five permanent glaciers exist. Northwest of the site is Black Butte, a volcanic plug dome with an elevation of 6,325 feet. The butte is readily identifiable by its nearly conical appearance and its isolation from other landmarks. Only scattered vegetation is found on its mostly bare slopes. West of the RCP site is Mt. Eddy, part of the Klamath Mountains. The mountain, with an elevation of 9,025 feet, is vegetated at its lower slopes. Mt. Eddy is part of a mountainous area that runs west and south of the RCP site. Also west of the site is Rainbow Ridge, a series of low hills. At the bottom of the slopes is Strawberry Valley, which has forest and meadow lands, along with some rural residences.

The Planning and Environmental Data Base states that "viewer volume" is most heavily concentrated on roads in the area. Among the important view corridors identified in that document are I-5 and Mt. Shasta Boulevard, both of which pass by the RCP site. The Data Base further states that strong natural landscape elements are present along most transportation corridors. One identified exception was I-5 at the RCP site. Past industrial operations have disturbed much of the western section of the site, and few mature trees remain there. **Figure 4.11-2** provides a view of the RCP site from I-5. The eastern section of the site contains forested area, though most of that forest is what remains of a tree plantation.

Views of the surrounding landscape from I-5 are generally unobstructed in the RCP area. Along Mt. Shasta Boulevard, views to the east in the southern half of the site are partially obstructed by hilly terrain, but unobstructed views in that direction are available further to the north. Views to the west are screened in one section by trees, but are otherwise unobstructed.

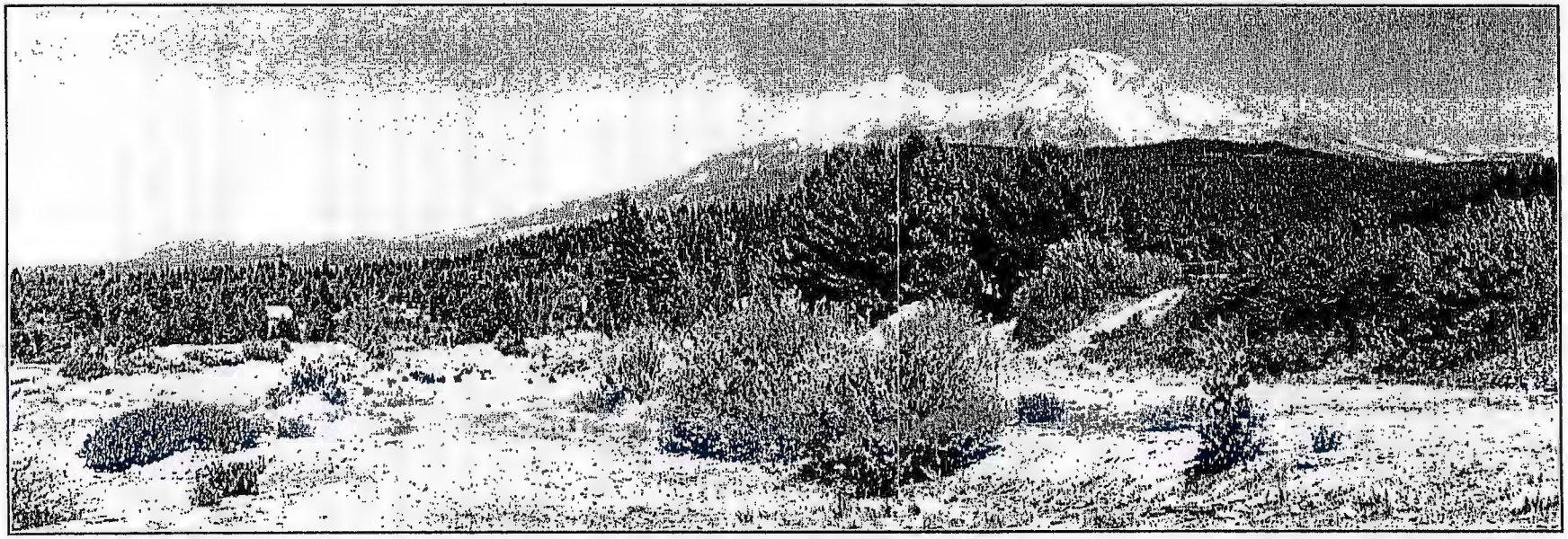


Figure 4.11-1
Views from the Site
View of Mt. Shasta from DA IV-B, looking northeast

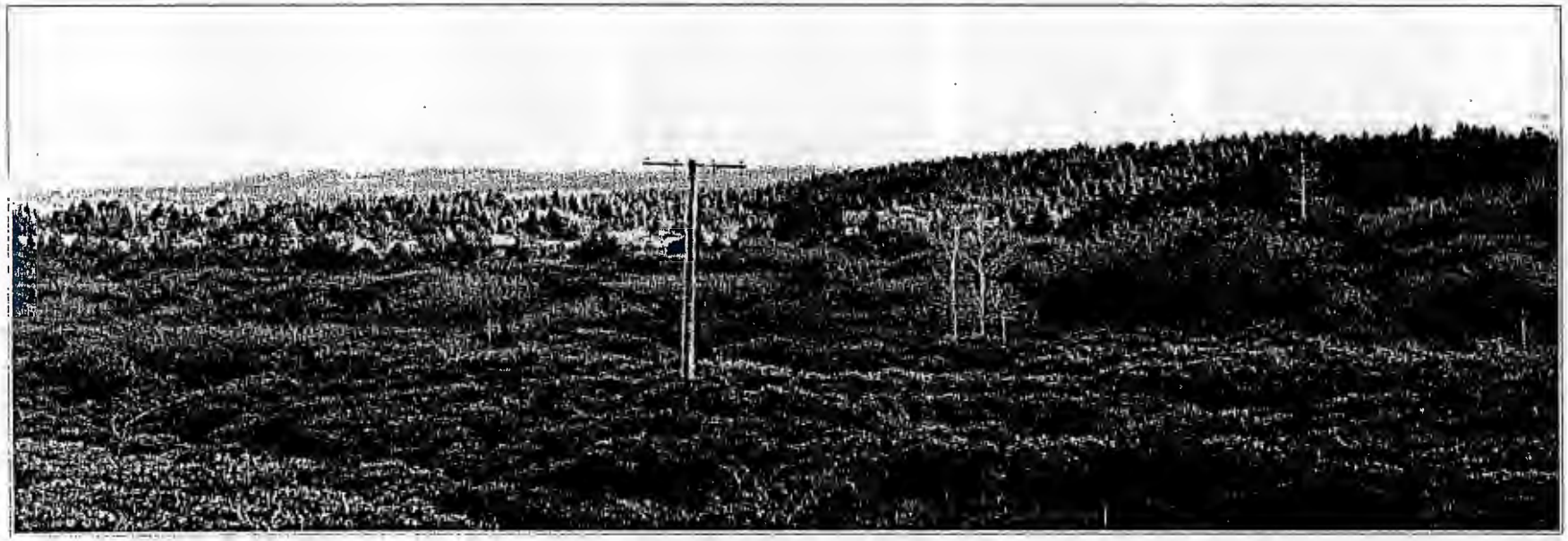


Figure 4.11-2
View of RCP Site, DA-IV from Interstate 5

URBAN VISUAL RESOURCES

No buildings exist on the RCP site, except for the vacant service station in the southeast portion of the eastern half of the site on Development Area (DA) I-H. This building, as discussed in the Section 4.12, Cultural Resources, has a distinct architectural style. However, most of the buildings adjacent to the site do not display a consistent architectural theme. The commercial and residential buildings in the RCP site vicinity are generally similar to such buildings commonly found elsewhere. The remaining portion of the eastern half of the RCP site contain trees and shrubs with the exception of DA I-K and a small portion of DA I-J, which have virtually no vegetation.

The western portion of the RCP site, west of Mt. Shasta Boulevard, contains remnants of the former lumber mill operation including building pads, graded and paved areas, and a large concrete retaining wall delineating the boundary between DA I and DA II (See **Figure 4.11-3**). These areas are devoid of vegetation. DA IV contains primarily disturbed and sparsely scattered vegetation in the northern portion of this development area and montane chaparral vegetation to the south. I-5 forms the southwestern boundary of DA IV; this development area is visible from the freeway.

In developed areas, light and glare associated with development are often a concern. Sources of light include parking lot lights, street lights, exterior building lighting and signs. Currently, there are no light emissions from the RCP site due to the lack of development. The commercial buildings nearby produce some light emissions, mainly from exterior lighting and signs. Nearby residences also emit light from outdoor lighting. However, the amount of lighting produced by these sources are relatively insignificant, since the area is not intensively developed. Glare is another potential concern. Glare is the excessive reflection of light from a surface. Surfaces prone to produce glare include glass, chrome and other shiny metals, and white-colored walls. Existing buildings in the Roseburg area have few reflective materials; hence, glare is not a significant problem.

The Planning and Environmental Data Base, prepared for the General Plan, identified "gateways" to the City - highway approaches used by travellers to enter the City. One of the principal gateways is the State Route 89/South Mt. Shasta Boulevard exit from I-5. The General Plan considers gateways important as they provide an opportunity to shape traveller and visitor impressions of the community and influence people to stop, stay or return to Mt. Shasta.

DRAFT DEVELOPMENT PLAN

The Draft Development Plan (DDP) contains general development standards that would apply to the entire RCP site which are designed to reduce the potential impacts development could have on the natural environment and the community. Because the RCP is highly visible from two major transportation corridors, I-5 and Mt. Shasta Boulevard, the DDP's standards were prepared as a guide to develop the RCP site in as attractive a manner as possible.

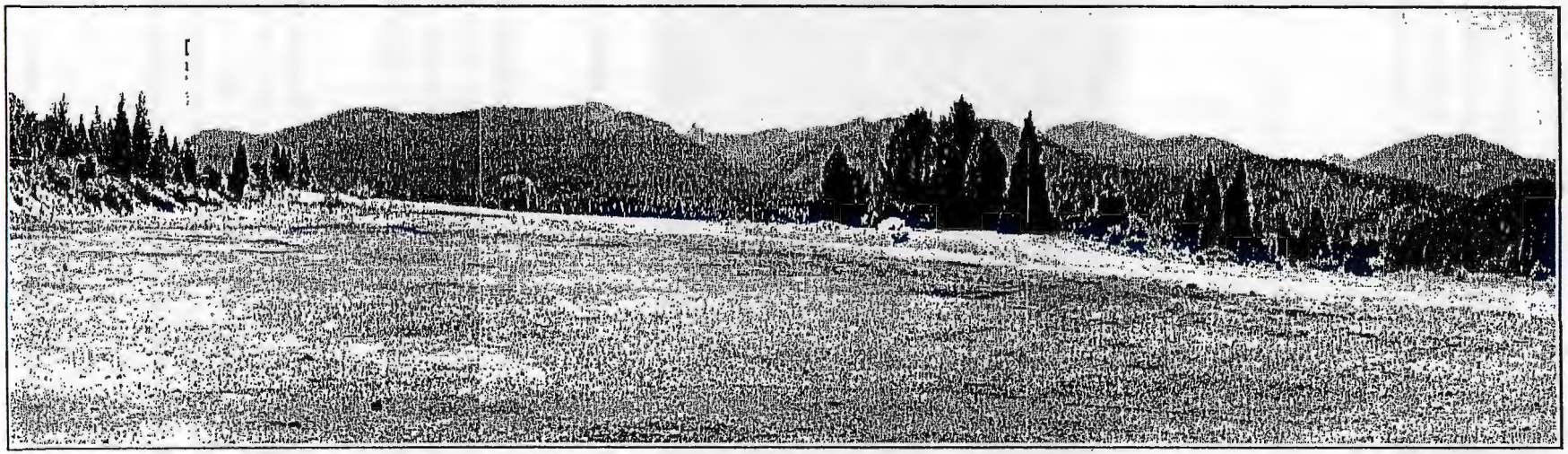


Figure 4.11-3
Western Portion of RCP Site
View of DA I- D, looking south to southwest

The DDP provides a cross-section view of a development concept for the site (Figures 3-2 and 3-3 of the DDP). The cross-section shows the relationship between internal parcels, architectural standards, height restrictions, and preservation of panoramic views to the west. **Figure 4.11-4** is the view for the development concept illustrated in the DDP from Mt. Shasta Boulevard west toward I-5.

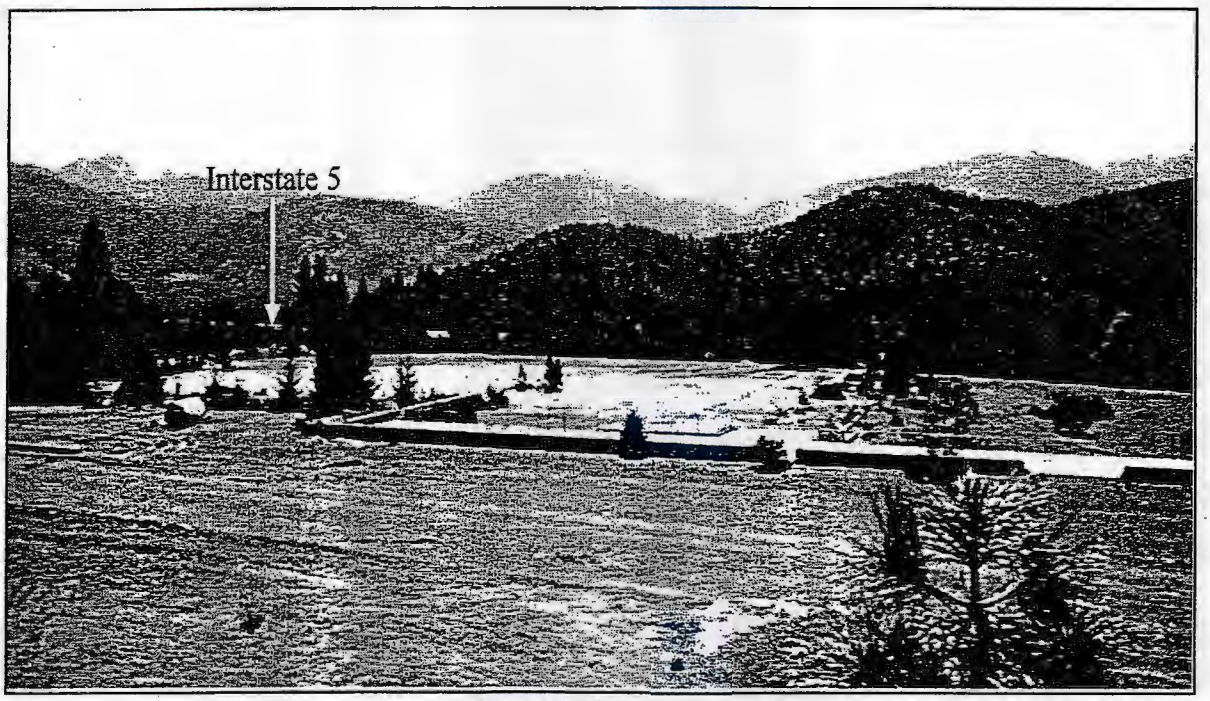


Figure 4.11-4
View from Mt. Shasta Boulevard, West

The general development standards contained in the DDP provide criteria for architectural design, landscaping, lighting, parking, and signs. The goals of these standards are to design and construct development that is harmonious with the community; enhance attractiveness of developed areas; to reduce impacts associated with lighting of the site without compromising public safety; and create no adverse aesthetic or safety impacts.

In addition to the general development standards, the DDP also establishes standards for each of the individual development areas. Development area standards include some of the following criteria: permitted, administrative, and conditional uses; maximum floor area ratios; building height limitations; setbacks from roadways and alleyways; and minimum landscape coverage. The purpose of the standards for development areas is to acknowledge the characteristics of particular areas within the RCP site.

4.11.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Impacts on aesthetics may be considered significant if implementation of the project will result in one or more of the following:

1) Substantial obstruction of scenic views from principal view corridors;

2) Degradation of existing scenic areas;

3) Substantial increase in the amount of light and/or glare produced; or

4) Built environment contributes to a significant, negative aesthetic effect.

METHODOLOGY

Evaluation of aesthetic issues was conducted by site reconnaissance, which included photographing the site and the surrounding area. Information about significant view corridors and gateways came from City documents.

PROJECT IMPACTS

Impact
4.11.1 Project implementation will alter the visual character of the RCP site. [LS]

The most visible portions of the RCP site are west of Mt. Shasta Boulevard. This area has been highly disturbed by improvements associated with the previous lumber mill use and would not be considered to have a high scenic value. Reestablishment of urban uses on the site would not alter any existing high quality landscapes and with proper site design, could improve the overall visual quality of the site while protection distant views.

Toward this end, the Draft Development Plan (DDP) for the RCP site sets forth standards for development that cover both the entire site and specific areas within the site. Many of these standards were established to promote an integrated site development that is compatible with the surrounding area. There are standards for architectural design, landscaping, grading, hillside development and other performance standards. Adherence to the standards set forth in the DDP would reduce aesthetic impacts and would contribute to enhancing a key "gateway" to the community. Therefore, this impact is considered **less than significant.**

Impact 4.11.2 **Certain types of development may obstruct scenic views from Mt. Shasta Boulevard and I-5. [LS]**

Buildings greater than one story could potentially obstruct scenic views, depending upon building height and distance from view corridors. The DDP contains standards for maximum height of buildings, which vary according to development area. The height standards were designed to maintain views of distant scenic areas, mainly from Mt. Shasta Boulevard and I-5. Also, certain setback standards in the DDP were incorporated in part to maintain scenic views. Adherence to the standards set forth in the DDP would reduce potential obstruction impacts to **less than significant.**

Impact 4.11.3 **Development at the RCP site would lead to an increased amount of light and glare emissions in the area. [LS]**

The DDP contains standards designed to reduce the amount of light and glare that could potentially be emitted as a result of development. Other City ordinances, such as the Sign Ordinance, regulates certain aspects of lighting and glare. Adherence to the Plan standards and the applicable provisions of other City ordinances would reduce impacts to a **less than significant** level.

CUMULATIVE IMPACTS

Impact 4.11.4 **The project would contribute to a general trend of urbanization in the community. [LS]**

The project would contribute to a general trend of urbanization within the community; however, because the site was previously developed and used for industrial uses in the past, this impact is considered less than significant.

REFERENCES

City of Mt. Shasta. 1992. *Planning and Environmental Data Base for the General Plan.* Mt. Shasta, Calif.

City of Mt. Shasta. 1993. *City of Mt. Shasta General Plan.* Mt. Shasta, Calif.

4.12 CULTURAL RESOURCES

This section evaluates potential impacts of RCP site development on cultural and historic resources. During the preparation of the City's General Plan, a portion of the RCP site was identified as possibly containing cultural resources. Also, lumber and related industries operated on the site for almost a century. To assess potential impacts, results of an archaeological inventory survey prepared by Jensen & Associates in 1997 were used, along with other documents discussing the history of the site (Appendix D).

4.12.1 SETTING

PREHISTORIC/ARCHAEOLOGICAL RESOURCES

Little is known about the prehistoric population that occupied the Mt. Shasta area. The Shasta Indian tribe occupied Shasta Valley and the area around Weed and Mt. Shasta City at the time of initial contact with white populations around 1850 (Jensen, 1997). Accounts of early travelers, native informants and early ethnographies document the existence of the Okwanuchu tribe in what is now Mt. Shasta City. However, very little is known about this tribe, except that it was linguistically related to the Shasta tribe (City of Mt. Shasta, 1992). Based on available information, the City's Planning Area was divided into areas of "cultural resource sensitivity". Places likely to contain prehistoric artifacts were rated as having a "high" cultural resource sensitivity. The RCP site was rated as having a "low" cultural resource sensitivity, except for most of the northern half of the eastern section. That area was considered to have "medium" cultural sensitivity.

In 1997, an archaeological inventory survey was conducted on the portion of the RCP site which is City property. The study consisted of a records search for previously recorded archaeological sites and a pedestrian field survey. The west-facing slopes of the eastern portion were extensively surveyed. The archaeological survey found no evidence of prehistoric presence or activities anywhere within the survey area. Two reasons were advanced for the negative findings: 1) the lack of a natural surface water source in the area, which made the area less likely to be used by prehistoric populations; and 2) extensive development and use of the area by sawmill and box factory operations, which likely destroyed any evidence of prehistoric presence. The privately owned parcels within the RCP area were not surveyed. However, all of those parcels were designated as having low cultural resource sensitivity.

HISTORIC RESOURCES

Historically, the Roseburg site has been used by lumber and associated industries. In 1887, a sawmill owned by Barnard, Huntington and Walbridge was established. The mill was located on the now nonexistent Barnard railroad spur near the mill pond. Over the years, several companies operated sawmills and box factories at both the Barnard spur and the Pioneer spur, also on the Roseburg site and eight-tenths of a mile south of the Barnard spur (Vaughan, 1996). In 1955, the RCP site was acquired by the Kimberly Clark Corporation. Kimberly Clark constructed several new mill structures near the center of the site. Remnants of these structures are visible today (Jensen,

1997). In 1978, the Roseburg Lumber Company acquired the property and used it for milling operations and a tree plantation. In 1989, the Roseburg Lumber Company ceased its operations and deeded the property to the City of Mt. Shasta. The last of the mill structures was demolished in 1996.

The archaeological inventory survey, described in the previous section, included an evaluation of historic resources on the portion of the site owned by the City. This evaluation relied upon books, articles, and interviews with local citizens. Particular attention was given to the remains of the mill structures located on the site. The conclusion of the survey was that development of the RCP site would not affect any structural remains of historic or potential historic significance, since none of the remains are older than 40-42 years.

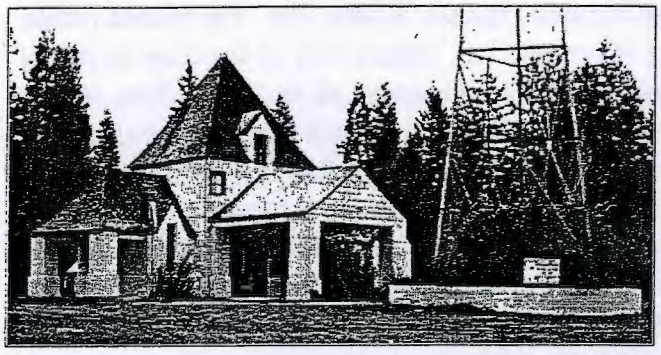


Figure 4.12-1
Vacant Service Station and Tower

One of the privately owned parcels within the RCP site contains one structure of potentially historic value. Along the east side of Mt. Shasta Boulevard in the southern part of the site is an abandoned service station building. The building was once one of a string of Richfield Beacon service stations that stretched from Blaine, Washington to El Centro, California along Highways 99 and 101 around 1930. The stations from Mt. Shasta north utilized a French Revival architectural style, characterized by steep roof lines and arched entry ways. The adjacent tower held a light beacon which was used by small planes, especially mail planes, for nighttime navigation (Livingston, 1997). The Mt. Shasta station is the only building of its kind that remains relatively intact, although it has been used as a retail ski shop and a real estate office since the service station was closed. Because of the age and unique character of the structure and accompanying tower, it is possible that they may be eligible for inclusion on the National Register of Historic Places.

Mt. Shasta Boulevard, which runs through the site, was at one time part of U.S. Highway 99. The original north-south route of what was to become Highway 99 was built or improved upon by the state from 1911 to 1915. Known as the "Pacific Highway" north of Sacramento, the road received its numerical designation in 1925. Further construction and improvements took place in the 1920s and 1930s, and the highway was periodically maintained afterwards until the construction of Interstate 5 (Livingston, 1996). Because of its key role in the development of California's transportation system, sections of the old highway have been designated Historic Routes by local governments such as the City of Dunsmuir and Tehama County. No such designation has been given by the City to the section of highway within the City limits.

GENERAL PLAN GOALS AND POLICIES

Goals and policies from the City's General Plan that are relevant to the issues discussed in this section are as follows:

Goal OC-7
Preserve areas of significant cultural resources.

Policy OC-7.1
Ensure that appropriate measures are undertaken concerning protection or study of significant cultural resources.

4.12.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Cultural resource impacts may be considered significant if implementation of the project will result in one or more of the following:

1) Disrupt or adversely affect a prehistoric or historic archaeological site; or

2) Adversely affect a property of historic or cultural significance to a community or ethnic or social group.

METHODOLOGY

An archaeological inventory survey of the portion of the RCP site owned by the City was conducted by Jensen & Associates. The survey included a records search and field work on the site December 10-15, 1997. Much of the information on the history of the RCP site came from a paper written by Trudy Vaughan, cited in the Reference section. The Jensen survey provided details on the site's more recent history, while an article in the *Siskiyou County Scene* described the history of the vacant gas station.

PROJECT IMPACTS

Impact
4.12.1 **Artifacts, objects, and structures associated with an event or person in California or American history or prehistory, may exist upon the project site. [SM]**

While the archaeological inventory survey did not find any prehistoric resources, it was an inventory-level surface survey only. It is possible that cultural resources may exist beneath the surface, although the likelihood of encountering such resources is small, for the reasons given in the Prehistoric/Archaeological Resources portion of the Setting section.

Mitigation

MM 4.12.1a **If cultural resources are encountered in the course of development or construction work, work shall stop immediately at the site where such resources are found, and a qualified archaeologist shall be consulted. All recommendations made by the archaeologist after the evaluation of the site shall be implemented.**

Significance After Mitigation

Implementation of the above mitigation measure would render potential impacts **less than significant.**

Impact 4.12.2 **The abandoned service station building on the site has potential historic value. [SM]**

The abandoned service station was once part of a string of Richfield Beacon service stations that stretched from Blaine, Washington to El Centro, California. The adjacent tower held a light beacon which was used by small planes, for nighttime navigation. Because of the age and unique character of the structure and accompanying tower, it is possible that the building and tower may be eligible for inclusion on the National Register of Historic Places. This is a **potentially significant impact and subject to mitigation.**

Mitigation

MM 4.12.2a **Prior to disturbance or alteration of the service station, tower or immediately surrounding property, the property owner or project applicant shall consult with the State Historic Preservation Officer (SHPO) to determine if the service station structure is eligible for inclusion on the National Register of Historic Places. If it is determined to be a historic structure, then the property owner or project applicant shall comply with all historic building criteria and applicable regulations.**

CUMULATIVE IMPACTS

Impact
4.12.3 **Due to the nature of cultural resources and the development history of the project site, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region. [LS]**

The proposed project is not anticipated to contribute to cumulative-significant impacts to cultural resources. Because the site was previously developed and used for lumber operations, cultural surveys concluded that future development on the RCP would not affect any structural remains of historic or potential historic significance, since none of the remains are older than 40 to 42 years. Therefore, this impact is considered to be less **than significant.**

REFERENCES

Jensen, Peter M. 1997. *Archaeological Inventory Survey, City of Mt. Shasta Proposed Roseburg Project, City of Mt. Shasta, Siskiyou County, California.* Chico, Calif.: Jensen & Associates.

Livingston, Jill. 1996. *That Ribbon of Highway: Highway 99 from the Oregon Border to the State Capital.* Klamath River, Calif.: Living Gold Press.

Livingston, Jill. "What Was It?" *Siskiyou County Scene*, Winter '97-'98, p. 15.

Vaughan, Trudy. 1996. *Lumber Operations at the Pioneer and Barnard Spurs (1887-1930), Mount Shasta, Siskiyou County, California: An Historical Context for Logging Sites Recorded in the Headwaters of the Sacramento River Watershed, Shasta-Trinity National Forests.* Redding, Calif.: Coyote & Fox Enterprises.

4.13 Risk of Upset

This section discusses potential impacts of past hazardous material use within the RCP site, as well as future activities which may utilize hazardous materials in, or as a result of their processes. Discussion of potential impacts is limited by the lack of current site assessment data. A preliminary work program has been proposed, and EPA is currently conducting a Phase 1 and Phase 2 assessment. Nevertheless, some information is available from a closure/post-closure plan for the former mill pond site.

4.13.1 SETTING

PAST HAZARDOUS MATERIAL USE

As discussed in the Cultural Resources section, the RCP site has been the location of sawmills and box factories. Known hazardous materials used on the property by these activities include sodium pentachlorophenate, antifreeze, oils, greases, thinner (containing less than 0.1% benzene), and methanol. Pentachlorophenol was reportedly used as a fungicide for stored logs, as was tetrachlorophenol (Palladino, 1998). Also left behind was a wood pile in the former mill pond, which reached a height of approximately 25 feet above the pond levee (Metcalf & Eddy, 1991).

After the Roseburg Lumber Company donated the property to the City in 1989, the City contracted with an engineering firm to develop a closure plan for the wood pile. As part of the site investigation, samples of the soil, groundwater and the wood pile in the former mill pond area were collected and analyzed for contaminants. One soil sample collected in the area of a dip tank indicated the presence of mercury at 0.2 milligrams per kilogram (mg/kg), but no phenolic compound contaminants were detected. Analytical results of wood pile samples indicated 17 to 57 mg/kg of gasoline, 0.059 mg/kg of pentachlorophenol, 0.034 mg/kg of 2,3,4,6-tetrachlorophenol, and 315 to 580 mg/kg of oil and grease (Metcalf & Eddy, Inc., 1991). Ground water samples indicated no phenols above detectable levels, but did contain mercury at 0.4 micrograms per liter (μg/l), nickel at 12 to 29 μg/l, and zinc at 34 to 58 μg/l (Palladino, 1998). The wood pile has been removed, and the former mill pond has been determined to be clean. However, other parts of the RCP site have been the location of lumber operations, and these areas have not been evaluated for possible contamination.

On January 28, 1998, City officials, the EPA and the Superfund Technical Assessment and Response Team (START) from Ecology and Environment, Inc. met to discuss the scope of EPA's involvement in the Roseburg project. From this meeting, the START developed a program to conduct site assessment activities. Because of the size of the property and time and resource constraints, the investigation will concentrate on areas of known industrial activities and determine the types of contaminants present. These areas include the mill pond, the mill facility, and the log storage yard. Surface soil samples, subsurface soil samples and groundwater samples will be collected from these sites and analyzed. Some property north of Mt. Shasta Boulevard will be subject to investigation, but only surface soil samples will be collected. Other areas will be assessed by a visual survey, with appropriate sampling in areas where potential contamination is identified. Preliminary results are

scheduled to be released in mid-June, and a final report is scheduled to be completed by the end of July. The results of this assessment will be incorporated in the final EIR.

One other area of possible concern is the former service station located on the project site. There are underground storage tanks that have remained in place. No site assessment has been made because the site is privately owned; however, there has been no surface evidence of any contamination at the site. The owner of the parcel has indicated that he will conduct a site assessment in the spring of 1998 (Bellcastro, pers. comm.).

POTENTIAL HAZARDS

Hazardous materials are transported in large volumes on I-5 and the railroad, both of which pass by the RCP site. Caltrans has indicated that nearly every conceivable type of hazardous material is transported over I-5, but the most common are gasoline and liquefied petroleum gas. The most common types of materials transported by rail are flammable and non-flammable gases, corrosives and flammable gases. The California Highway Patrol and the Union Pacific Railroad both maintain hazardous material response teams, but they are not locally based. Therefore, the Mt. Shasta Police and Fire Departments typically provide first response to any incidents. The City's General Plan contains policies and implementation programs for hazardous material incidents in its Safety Element. The policies are listed later in this section.

Potential industrial and commercial uses allowed on the RCP site by the DDP may use hazardous materials in their activities. The DDP contains standards regulating the use of hazardous materials. Activities that manufacture flammable and explosive materials are not permitted. Activities that store or distribute hazardous materials are also not permitted, except in limited circumstances (e.g., service stations). Any permitted hazardous materials must comply with the hazardous material procedures of Siskiyou County.

GENERAL PLAN GOALS AND POLICIES

Goals and policies from the City's General Plan that are relevant to the issues discussed in this section are as follows:

Goal SF-5
Protect people and the environment from hazardous materials exposure.

> Policy SF-5.1
> Assure that the use, storage and transportation of hazardous materials complies with Federal and State regulations.

Policy SF-5.2
Develop communications with the railroads concerning the transportation of hazardous materials.

4.13.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Risk of upset impacts may be considered significant if implementation of the project would result in one or more of the following:

1) Involve the use, production or disposal of materials which pose a hazard to people or plant or animal populations in the area;

2) Expose people to existing potential health hazards; or

3) Create a risk of explosion or release of hazardous substances in the event of an accident or upset conditions.

METHODOLOGY

For possible contamination on the site, information came from the Draft Closure/ Post-Closure Plan prepared by Metcalf & Eddy and from discussions with the Environmental Health Division of the Siskiyou County Department of Health. Information was also provided by a letter from Ecology and Environment, Inc. outlining the scope of the site assessment currently being conducted at the RCP site.

PROJECT IMPACTS

Impact
4.13.1 **Some contaminants may have been left over from previous industrial and commercial operations on the Roseburg site. These contaminants may adversely affect ground water quality, and users of the property may be exposed to these substances, among other impacts. [PSM]**

The possible presence of contaminants on site is a matter of concern. The City, in cooperation with the U.S. Environmental Protection Agency and Ecology and Environment, Inc., is conducting an assessment of areas of known industrial activity on the RCP site to determine the level and extent of possible contamination. Preliminary results of the assessment are scheduled to be available in mid-June 1998, with a final report completed by the end of July 1998. This impact is considered **potentially significant and subject to mitigation.**

Mitigation

MM 4.13.1a The City shall take appropriate measures to clean up any significant contamination found within the RCP site before development is permitted in these areas.

Significance After Mitigation

Implementation of the above mitigation measure would reduce potential impacts to a **less than significant** level.

CUMULATIVE IMPACTS

Impact 4.13.2 Risk of upset impacts are site-specific and are generally not affected by cumulative development in the region. [LS]

Because risk of upset impacts are site-specific, and not affected by cumulative development, this impact is considered **less than significant**.

REFERENCES

Bellcastro, Gene. Environmental Health Officer, Siskiyou County Department of Health. Personal communication, February 1998.

City of Mt. Shasta. 1992. *Planning and Environmental Data Base for the General Plan.* Mt. Shasta, Calif.

City of Mt. Shasta. 1993. *City of Mt. Shasta General Plan.* Mt. Shasta, Calif.

Metcalf & Eddy, Inc. 1991. *Draft Closure/Post-Closure Plan, Wood Waste Pile (Former Roseburg Mill Site).* Chico, CA: Metcalf & Eddy, Inc.

Palladino, Carl. 1998. *City of Mt. Shasta, CA - Roseburg Brownfields Project, Scope of Field Activities.* Letter, February 1998.

4.14 Economic Impacts

This section summarizes the potential economic impacts associated with implementation of the Roseburg Commerce Park Development Plan, in terms of both benefits and costs. Under the CEQA Guidelines, economic changes resulting from a project are not to be treated as significant effects on the environment (CEQA Guidelines Section 15064[f]). However, the Guidelines do permit the presentation of economic information in an EIR, particularly if economic changes lead to physical environmental changes (CEQA Guidelines Section 15131).

Development of the RCP site is anticipated to significantly influence the local economy in several ways. Impacts could occur on governmental revenues and expenditures, employment opportunities, business activity in the downtown area, and the tourism sector. While there are other economic impacts that may occur, these are considered the most significant issues. Evaluation of these impacts was based primarily on analytical work performed by PMC staff.

4.14.1 SETTING

Historically, the economy of Mt. Shasta has been dependent on the timber industry. Shortly after the first railroad tracks were laid in the area, a sawmill was established in the vicinity. From the late nineteenth century to 1985, sawmills and wood products factories have been in operation in the Mt. Shasta area (Vaughan, 1996; Jensen, 1997). In recent years, the timber industry has been in decline, due to increased foreign competition and more stringent government regulations affecting forest lands. Increased mechanization in timber processing has also reduced the demand for timber workers. The last sawmill in operation in Mt. Shasta - the Roseburg Lumber Company mill - ceased activity in 1985.

As the role of timber has shrunk, other economic sectors have assumed increasing importance, and the composition of the Mt. Shasta labor force has changed (Table 4.14-1). The largest single economic sector is professional, with many of its members coming from the health care field. Approximately one-fourth of Mt. Shasta's work force is employed by Mercy Medical Center and Siskiyou Medical Group. Retail trade accounted for about 25 percent of employment in Mt. Shasta. Tourism is also becoming more significant. Two of Mt. Shasta's largest employers are visitor-serving facilities (The Tree House and Mt. Shasta Resort). By all indications, Mt. Shasta is making a transition from a resource-dependent economy to a service economy.

Most businesses in Mt. Shasta are small - there are only four businesses that employ 50 or more people. Many of these businesses are located in the City's downtown, a ten-block area surrounding the intersection of Mt. Shasta Boulevard and Lake Street. Most of the remaining businesses are concentrated along Mt. Shasta Boulevard and Lake Street. There is only one major shopping center in the City - the Mt. Shasta Shopping Center, located near the intersection of Lake Street and Interstate 5. There are few major chain stores or franchise operations in the City. Light industrial

TABLE 4.14-1
COMPOSITION OF MT. SHASTA LABOR FORCE

JOB CLASSIFICATION	NUMBER EMPLOYED		PERCENT OF TOTAL FORCE	
	1980	1990	1980	1990
Managerial	138	200	10.8	13.4
Professional	202	277	15.8	18.6
Technical	34	33	2.7	2.2
Sales	149	174	11.7	11.7
Farming, forestry and fishing	39	38	3.0	2.5
Administrative support	167	211	13.1	14.2
Service	196	219	15.3	14.7
Precision production, craft and repair	109	108	8.5	7.3
Operators, fabricators and laborers	244	229	19.1	15.4
Total	1,278	1,489	100.0	100.0

Source: U.S. Bureau of the Census

operations can be found in the northern part of the City along Mt. Shasta Boulevard, and in the area between Ream Avenue and the railroad tracks.

For the 1996-97 fiscal year, the budget for the City of Mt. Shasta had $1,900,026 in revenues and $1,964,047 in expenditures (Table 4.14-2). With a balance in the General Fund of $278,532 at the beginning of the fiscal year, the City had a surplus of $214,511. The largest revenue source was sales and use taxes, which were approximately 31 percent of total revenues. The next largest source was the transient occupancy tax (15 percent), which is a levy on the use of lodging facilities. Property taxes (13 percent) and service charges (12 percent) also are significant sources of income for the City. Public safety (police and fire) had the largest share of expenditures at 38 percent, followed by public works (31 percent) and general government (25 percent).

As part of a previous attempt to annex the RCP site, the City and Siskiyou County agreed on the sharing of tax revenues generated by future development. Under this agreement, Siskiyou County will receive 100 percent of all property tax revenue, while the City will retain all sales and transient occupancy taxes from development. For this analysis, this agreement is assumed to remain in force. Therefore, the only revenues that will accrue to the City upon development of the RCP site will be from sales taxes, transient occupancy taxes and any licensing and permit fees.

TABLE 4.14-2
MT. SHASTA CITY REVENUES AND EXPENDITURES, FY 1996-97

REVENUES		EXPENDITURES	
Sales tax	$586,969	Public safety	$745,928
Transient occupancy tax	$268,084	Public works	$599,265
Property tax	$240,585	General government	$490,460
Other taxes	$79,087	Other expenditures	$128,394
Service charges	$231,761		
Intergovernmental payments	$156,749		
Other revenues	$336,790		
Total	$1,900,026	**Total**	$1,964,047

Sums may not equal totals due to rounding.
Source: City of Mt. Shasta

4.14.2 ANALYSIS OF ECONOMIC IMPACTS

The analysis presented below provides a summary of selected key variables to determine the level of economic impacts on the City, surrounding businesses and tourism as a result of site development. The evaluation of economic and fiscal impacts associated with RCP development include figures from the proposed 1997-98 City budget and the preliminary land use plan developed as part of the comprehensive planning process. Use of the current City budget presents a realistic picture of the City's current financial situation and provides a reasonable baseline from which to forecast future economic and fiscal conditions directly attributable to the RCP buildout. In fiscal year 1997-98, revenues are projected to be $2,020,939 and expenditures $2,233,463. The beginning balance for the year was $214,511.

The evaluation of economic impacts also use the initial land use program and preliminary engineering estimates that were prepared to determine the physical feasibility of site buildout. Any prudent development program involves an iterative process of the physical and economic opportunities and constraints of the development opportunity. Each phase of the process, including preliminary land use planning, engineering, design, market assessments and financial feasibility, provide the information necessary to proceed in the most optimum manner with the least amount of risk. Since actual development plans, land use mix, costs, site disposition, and developer interest are not known, this analysis provides a "snap shot" of the economic impacts resulting from the pro forma land use plan. At the time actual development is contemplated, the City must evaluate in

detail, the fiscal impacts (costs versus revenue) resulting from the project or each phase of development that is likely to occur. Until actual development is known, any such information as presented in this report should be used to determine, under reasonable assumptions, if it is feasible to proceed with the next step of the planning and development process. The findings of this analysis indicate that the project will provide a net positive impact to existing businesses by attracting a larger customer base and increased employment in the City and surrounding community. The increase in buying power results in increased spending and consumer demand in the City. As such, the City 's net revenue directly attributable to the project is estimated to increase by $190,000 to $200,000 per annum.

EMPLOYMENT OPPORTUNITIES

The number of jobs that will be created by development at the RCP site is a preliminary estimate since both the extent and the type of development that will occur are not known at this time. For this analysis, the site development scenario presented in Table 3-2 of this EIR was used to determine the pro forma impacts at buildout.

To estimate the potential number of jobs created by site development, the square feet of commercial and industrial buildings space at buildout was estimated. This was accomplished by converting the total acreage in Table 3-2 to square feet, exclusive of the land area dedicated to governmental and motel uses, and multiplying the square feet by the average FAR of 0.25. Using this method, the buildout scenario allows for approximately 462,825 square feet of floor area of which 38,115 square feet would be designated for industrial use and 424,710 square feet would be used for various commercial, office and motel uses.

Industry standards for the average number of employees per square foot of developed building space were used to calculate employment. Industrial uses generate approximately one employee per 300 square feet of net leasable area, and commercial land uses typically employ one person per 500 square feet of net leasable area. By applying these ratios to the appropriate square footage, it is estimated that development at the RCP site could create up to 976 jobs. This assumes that office and business park uses noted in Table 3-2 have the same ratio of employment/square footage as commercial uses. It is not known what impact the governmental center will have on the employment situation.

The direct effects of increased employment are not limited to reducing joblessness. Increased direct employment produces a multiplier effect on a local economy as provide in the following explanation. Increased employment produces increased buying power in the City. This increased buying power increases the demand for goods and services. Employees and owners of these businesses, in turn, have greater disposable incomes to spend on local goods and services. This further results in indirect employment due to the needs to service the additional demands. Also, greater incomes mean more savings, which then can be used to finance the establishment or expansion of local businesses.

While the multiplier effect of employment is well known, a quantification of this effect on the local economy is beyond the scope of this analysis.

GOVERNMENT REVENUES AND EXPENDITURES

Revenues

Sales taxes generated by development of the site are expected to be derived from retail expenditures made by local residents and visitors. Currently, the City receives 1 percent of all taxable transactions. The Urban Land Institute has developed factors for sales per square footage of various types of land uses. By calculating the projected square footage and applying the appropriate factors to the proposed land uses (governmental, hotel/motel and service station uses were excluded), it was estimated that the taxable sales generated by development at the site would be approximately $73,030,009 (Table 4.14-3). Therefore, the estimated sales tax revenue for the City would be $730,300. By comparison, the sales tax revenue for the City in fiscal year 1997-98 is estimated to be $619,000.

TABLE 4.14-3
ESTIMATED TAXABLE SALES GENERATED BY RCP DEVELOPMENT
(1993 DOLLARS)

LAND USE	AVAILABLE SQUARE FOOTAGE	TAXABLE SALES PER SQUARE FOOT	TOTAL TAXABLE SALES
Business Park	103,455	$212.32	$21,965,565
Office Park	76,230	$168.52	$12,846,279
Industrial Park	38,115	$212.32	$8,092,577
Amusement Center	65,340	$212.32	$13,872,988
2 Fast-Food Restaurants	5,000	$153.64	$768,200
2 Sit-Down Restaurants	10,000	$184.24	$1,842,400
Quality Restaurant	5,000	$184.24	$921,200
Service Station	2,500	$249.88	$624,700
5 Specialty Retail Stores	25,000	$138.46	$3,461,500
Automobile Dealership	20,000	$431.73	$8,634,600
		Total	$73,030,009

Available square footage for some uses calculated by converting acreage to square footage, then multiplying by average FAR of 0.25.
Source of taxable sales per square foot: Urban Land Institute (1993).

The estimate of taxable sales from the proposed automobile dealership could provide a significant increase in sales tax revenue but must be treated differently than the pro forma industrial and commercial buildout calculations. No sales per square footage factor for dealerships actually exists, since there is a great variety of both sizes of dealerships and types of cars sold. According to the National Automobile Dealers Association, the average amount of sales for an automobile dealership is $21,586,711. The methodology used for this analysis provided for a much more conservative estimate than the national average. First, the average sales figure was divided by 50,000 square feet, which is towards the high end of size for dealerships (Anderson, pers. comm.). Then the result was multiplied by 20,000 square feet, which is generally the smallest size for dealerships. Because of these assumptions, the $730,300 figure should be treated as only a very preliminary estimate at this time.

The City can also expect to collect additional transient occupancy tax revenues from lodging facilities allowed by the Development Plan. Potential estimated revenues from this source are discussed in this section under Visitor Impacts. Other types of revenues the City would collect from development at the site are service charges and permit fees. Estimates of additional revenue from these sources are beyond the scope of this analysis.

Expenditures

Expenditures discussed here are those from the City's General Fund. General Fund expenditures can be placed in three broad categories: Public Works, Public Safety (police and fire) and General Government. The first step in estimating the additional expenditures from RCP development is to calculate the per capita cost of providing the municipal services paid for by the General Fund. Based on estimated fiscal year 1997-98 expenditures, the per capita cost is $639.96. Next, the per capita impact per additional employee was calculated using a formula by the Institute for Urban Studies and Community Service. From these two figures, and using the estimated number of new jobs calculated earlier, it was estimated that development of the RCP site would lead to additional expenditures of $191,601 (Table 4.14-4).

TABLE 4.14-4
ESTIMATED ADDITIONAL CITY EXPENDITURES FROM RCP SITE DEVELOPMENT

PER CAPITA IMPACT PER ADDITIONAL EMPLOYEE	POTENTIAL NUMBER OF JOBS CREATED	TOTAL IMPACT OF ADDITIONAL EMPLOYEES	CURRENT PER CAPITA EXPENDITURE	CHANGE IN PER CAPITA EXPENDITURE	CURRENT POPULATION	TOTAL FISCAL IMPACT
0.0000879	976	0.0857904	$639.96	$54.90	3,490	$191,601

Another set of expenditures that must be considered are the capital improvements necessary to make the RCP site developable. A significant characteristic of these expenditures is that most of them would come at the beginning of site development, while the sales tax revenues estimated earlier would be generated much later. Moreover, since the City owns most of the property, the City would shoulder most of the development costs. Therefore, in the short run, the City can expect to spend more money on site development than it would receive from sales tax revenues. It is anticipated that any development interest in the site would be responsible for their fair share of these costs. At the time actual development is contemplated, the City should develop a plan of finance which could provide a series of creative financing options in where the City and private development interest act in partnership to secure financing. This will involve a specific financial feasibility analysis, an actual finance plan, and negotiations with the private developer.

The Draft Development Plan's Capital Improvement Plan (CIP) indicates that improvements to the RCP site would cost approximately $3,236,200. If this cost is amortized over twenty years, average annual expenditures for capital improvements would be $161,810. This does not include potential interest payments the City would have to make if it financed these improvements by loans or sale of bonds. In addition, once the improvements are in place, there will be maintenance costs and costs for emergency repairs.

VISITOR IMPACTS

Tourism is an economic sector that has become increasingly significant for the City and for Siskiyou County. In 1996, approximately 1.4 million people visited Siskiyou County. In addition, traffic counts by Caltrans suggest that 6.4 million trips per year, northbound and southbound, occur on the section of Interstate 5 that passes through the City. Near the City, Mt. Shasta Ski Park attracts approximately 158,000 visitors per year, and the Mt. Shasta Resort southwest of the City receives approximately 17,500 guests per year.

To estimate the number of visitors to the City of Mt. Shasta, it is assumed that the proportion of City visitors to County visitors is the same as the proportion of visitor spending in the City to that of the County. From 1992 to 1995, visitors on average contributed approximately $137,593,000 per year to the Siskiyou County economy (Sheffield and Warren, 1996). The amount of visitor spending in the City is roughly the sum of the retail sales to visitors and the expenditures on City accommodations. Since retail sales between visitors and residents cannot be distinguished, an estimate of visitor retail sales was produced using leakage/capture analysis (see Appendix E). From that analysis, estimated retail sales to visitors in 1995 was $19,864,670. Expenditures on accommodations were obtained by dividing the transient occupancy tax rate of 10 percent into the amount of transient occupancy tax revenues collected by the City in FY 1995-96. Total visitor expenditures in the City in 1995, therefore, are estimated to have been $22,545,510, or approximately 16.4 percent of visitor expenditures in Siskiyou County. Applying this percentage to the number of visitors in the County, the potential number of visitors to the City is approximately 229,600.

Tourism has fiscal impacts on the City. It generates revenues for the City through sales taxes and transient occupancy taxes. On the other hand, visitors place a demand on community services such as police and fire protection, water supply and wastewater treatment. In determining the additional costs visitors place on City services, the following assumptions were made:

1) Each visitor stayed for two days.

2) Impacts created by visitors are commensurate with those created by residents.

3) The average cost per day of providing municipal services is constant.

Using the estimated City expenditures for fiscal year 1997-98 as a baseline, average cost per day of per capita expenditures was calculated. From the number of potential visitors and the assumed length of stay, it is estimated that the cost of providing municipal services to Mt. Shasta visitors would be approximately $803,600 (Table 4.14-5).

TABLE 4.14-5
POTENTIAL IMPACT OF VISITORS ON CITY EXPENDITURES

FY 1997-98 Expenditures	Current Per Capita Expenditures	Average Cost Per Day	Potential Visitors	No. of Days	Estimated Cost
$2,233,464	$639.96	$1.75	229,600	2	$803,600

Revenues from tourism are principally in the form of transient occupancy taxes (TOT). To develop an estimate of the potential TOT revenue from the RCP site, the following information is required:

1) The number of new hotel/motel rooms to become available at the site. Table 3-2 of this EIR identifies 50 motel rooms and 100 resort hotel rooms.

2) The daily hotel/motel occupancy rate. For this analysis, the average occupancy rate for California in 1997 was used. This average comes from the California Hotel/Motel Association.

3) The average daily room rate. For the motel rooms, the average was obtained from a price listing of all motels in the City, provided by the Mt. Shasta Visitors' Bureau. For the resort hotel rooms, this analysis used the average room rate for the Mt. Shasta Resort, a comparable resort hotel.

Based on the above information, it is estimated that the TOT revenues to be generated by development of the RCP site, in accordance with the Development Plan, would be approximately $214,620 (Table 4.14-6).

TABLE 4.14-6
ESTIMATED TRANSIENT OCCUPANCY TAX REVENUE GENERATION

Facility Type	No. of New Rooms	Aver. Daily Occupancy Rate	No. of Rooms Rented Daily	Aver. Daily Room Rate	TOT Rate	No. of Days	Additional TOT Revenues
Economy Hotel/Motel	50	48%	24	$45.00	10%	365	$39,420
Resort Hotel	100	48%	48	$100.00	10%	365	$175,200
						Total	$214,620

However, this does not present all the fiscal impacts associated with visitors and tourists. Visitor expenditures generate sales tax revenues for the City. An estimate of this additional revenue can be obtained by taking the 1995 retail sales to visitors estimated earlier, then multiplying by 1 percent. The result is approximately $198,647. Also, this analysis does not take into account the multiplier effect this visitor spending would have on the local economy, which could mean additional sales tax revenues. Quantification of this multiplier effect is beyond the scope of this analysis.

One possible adverse effect of the additional lodging would be that it would draw overnight visitors away from existing motels in the City. This would be a problem if no additional visitors stayed in Mt. Shasta. Not only would the City not gain any additional revenue, but the decrease in occupancies could make it very difficult for some existing motels to continue their operations. Moreover, research by PMC indicates that the current occupancy rate of Mt. Shasta motels ranges from 36 percent to 54 percent. Without an increase in visitors, a new motel could depress those occupancy rates further.

Under current conditions, the proposed motel may cause a loss of business at other City motels. If visitor traffic should increase, however, the motel may have a smaller or no impact.

The proposed resort hotel probably would not have as great an impact, since it would serve a different class of visitors from those served by most City motels. In fact, a resort hotel may be a benefit to the City, since its sole competitor, the Mt. Shasta Resort, is under the jurisdiction of Siskiyou County. However, the potential benefit will not be realized if the market for resort hotels in the Mt. Shasta area proves inadequate.

RETENTION OF DOWNTOWN BUSINESSES

One issue of major concern related to economic growth and development in the City is the maintenance of a viable downtown area. One reason is that downtown Mt. Shasta has a significant concentration of businesses. Another is that the downtown area, like those in other cities and towns, is the traditional "center" of the community, a place where people shop, conduct personal business, and gather either informally or for special events. Besides businesses, City Hall, the police station and the main fire station are located downtown, and the Post Office is located nearby.

The Mt. Shasta Community Action Plan, prepared by the City Economic Development Advisory Committee (CEDAC) in 1998, has identified the preservation and enhancement of the downtown district as a significant issue. In its assessment of the situation, the CEDAC report states that "the downtown area of Mount Shasta is vulnerable to the loss of its character, attractiveness and economic vitality due to such influences as the development of large discount stores and shopping malls and the inadequacy of traffic and parking spaces and facilities. Failure to maintain and improve the appearance of buildings and landscaping, inadequate public facilities and utilities, and poor development planning, including the introduction of development which conflicts with the preferred land use mix and design character of established downtown areas, add to the vulnerability of the situation" (CEDAC, 1998, p. 18).

Currently, the downtown area displays no apparent signs of deterioration or business flight. Few vacant store areas exist, and most buildings appear to be in good condition. Downtown Mt. Shasta has only one significant competitor for businesses - the Mt. Shasta Shopping Center, a small regional shopping center with Rite Aid and Ray's Food Center as "anchor stores." However, it is conceivable that the type of development that would be permitted at the RCP site under the Development Plan could compete with the downtown area for patronage and new businesses. Given the location near major roadways and greater amount of developable land, businesses locating on the site could have an advantage over downtown businesses, to the detriment of downtown.

One strategy to avoid any negative impacts of RCP development to the downtown area is to encourage businesses to locate at the site that could not feasibly locate in downtown and would not directly compete with existing downtown businesses. Examples of such businesses, applicable to the City's situation, are automobile dealerships and lodging facilities. Conversely, businesses and offices that may compete with existing businesses in downtown should be discouraged. The Development Plan encourages the establishment of businesses that do not currently exist in downtown. However, it also permits, by right or conditionally, businesses that would compete with existing downtown stores and offices. With more available building and parking space, some downtown businesses may be attracted to the RCP site. If the resulting vacancies are not filled, then the condition in the downtown area may deteriorate. Fewer people may choose to shop downtown, and the general aesthetic quality of the area will decline.

The Development Plan does grant the City some latitude in deciding what uses may locate in the RCP site. Thus, potentially competitive activities could be disallowed. However, this alone will not guarantee the continued viability of the downtown area. The CEDAC report identified potential problems that currently exist in downtown, which if not addressed would make alternate locations more appealing. Other measures, therefore, need to be considered. An article in *American City & County* identifies seven tools used in successful downtown revitalization programs (Palma and Hyett, 1995):

1) *"One-Stop Shops"*. These are single locations where business owners can file for, and obtain, all required approvals without going from one city hall department to another in an endless quest to complete all necessary paperwork. In smaller communities, the one-stop-shop might operate on a part-time basis.

2) *Streamlined processes*. Municipal governments can streamline their review processes to make downtown locations more enticing. For example, a city in Michigan gave its building inspector increased administrative authority to review and approve all plans that meet the city's guidelines, thereby allowing applicants to receive approvals more quickly than they could when all applications were required to go before the city's planning commission. In a Georgia city, building officials meet with interested business owners and building owners to explain local code requirements and then work with the parties throughout the development process to ensure timely completions. And in California, one town eased its parking requirements to make it more attractive and profitable for businesses to locate downtown.

3) *Real estate orchestration*. Municipal officials across the nation have found that, sometimes, a little "orchestration" on their part is required to increase the appeal of downtown's real estate to business owners. Examples include a comprehensive revitalization of a downtown's streetscape and roadway systems, and land swaps that allow a company to build a new, enlarged facility on city-owned property.

4) *Improved perception of safety*. This tool is probably not applicable to the City's situation, since there are no apparent crime or safety problems in the downtown area.

5) *Convenient parking*. The CEDAC report identified parking as a problem. One solution implemented by a city was the construction of a multi-purpose shed in the heart of downtown, creating both a convenient new covered parking area and a strong new downtown anchor. The land under the shed is used for parking most of the time and is also the site of a popular farmers' market. Another town modified its parking restrictions to make it possible for more restaurants to locate downtown, allowing their patrons to use convenient existing on- and off-street public parking spaces.

6) *Realistic market information.* Within any given community, business owners often have a variety of commercial areas in which they can choose to locate. Municipal leaders and downtown businesses have found that a recent market analysis, showing a strong market for particular goods and services, is highly effective in convincing business owners to choose downtown locations.

7) *Expanded markets and anchors.* Today, smart business owners understand that a group of businesses sharing customers will ultimately expand, rather than divide, its total market by providing variety and convenience. Downtown, consequently, becomes a more convenient and attractive business location when it has clusters of compatible businesses. Understanding this, entrepreneurial municipal governments and business organizations are defining and implementing "clustering plans" for their downtowns. These plans should be based on market analyses and should specify both the types of businesses that can be most profitable in downtown and where those businesses should locate to best share customers.

Other measures the City may wish to consider include downtown beautification (which has been pursued), infrastructure upgrades, and new attractions like a movie theater or railroad excursions. In short, decisions concerning development of the RCP site should be part of a more holistic approach to the maintenance of the City's downtown, one developed by City officials and citizens.

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5.0 ALTERNATIVES TO THE PROJECT

5.1 PURPOSE AND METHODOLOGY

GENERAL CEQA REQUIREMENTS

The CEQA Guidelines state that alternatives to a proposed project should describe and analyze a range of reasonable alternatives which would feasibly attain most of the basic objectives of the project but avoid or substantially lessen any of the significant environmental effects of the project. The purpose of this process is to provide decision makers and the public with a discussion of viable development options, and to document that other options were considered within the application process (CEQA Guidelines, Section 15126 [d]).

This section identifies and examines a range of alternatives:

Alternative 1- No Development
Alternative 2- Buildout Under Existing County Zoning
Alternative 3- Reduced Intensity Alternative

The discussion below focuses on substantial changes in project impacts anticipated with the alternatives in comparison with the proposed project. Environmental impacts associated with each of these alternatives are compared with those resulting from the proposed project and are summarized at the conclusion of this section. This summary also includes the identification of the "environmentally superior" alternative as mandated by CEQA Guidelines Section 15126[d](2).

It should be noted that alternative locations were not considered for the project. There is no other available property in the Mt. Shasta area with the appropriate characteristics necessary to accommodate the envisioned mix of commercial, industrial, and office uses. The only area that could conceivably accommodate this development is Springhill, located in the northern part of the City. However, under the City's General Plan, Employment Center uses are restricted, and a large portion of the area is designated for residential development. Moreover, the RCP site historically has been a commercial and industrial area, while most of the Springhill area has been undeveloped. Another area is located on the west side of I-5 off of Hatchery Lane. This area is approximately 30 acres in size, is undeveloped, and has an unclassified zoning district. The General Plan designation is commercial center. The property has biotic, service and access restrictions, and is much smaller than the RCP site. North of the City, a site was recently purchased and the County is currently processing a development request for a Dannon Natural Spring Water Bottling Facility. Therefore, it was concluded that there are no feasible alternative locations for the project.

5.2 DEVELOPMENT OF ALTERNATIVES

For each of the project alternatives discussed below, the significant environmental impacts of the alternative are identified, as well as impacts of the proposed project that would be reduced or avoided. As allowed in Section 15126(d)(3) of the CEQA Guidelines, the alternatives are evaluated

in less detail than the proposed project. If a significant project-related impact would be avoided under the alternative, or if the alternative would cause a significant impact that would not occur under the proposed project, the impact category is generally discussed below. Environmental impact categories that are not anticipated to change substantially are not discussed.

An important benchmark that is used in comparing the alternatives is their ability to meet the project's objectives. Although these objectives are listed in Section 3.4 of this EIR, they are reiterated here for convenience:

- To provide guidance for the development of the Roseburg Commerce Park (RCP) site that reflects the desires of the Mt. Shasta community.
- To ensure that development within the RCP site is well integrated and is harmonious with the surrounding natural and built environment.
- To encourage the development of the site by establishing defined criteria that project applicants must meet.
- To provide a baseline for the evaluation of the environmental impacts associated with annexation and development of the RCP parcels.
- To expedite the annexation of the RCP parcels by providing a more detailed application and environmental review process to the Local Agency Formation Commission (LAFCo).
- To develop an infrastructure and phasing plan for the site.

5.3 ALTERNATIVES

ALTERNATIVE 1 - NO DEVELOPMENT

Comparative Analysis

Under the No Development Alternative, the existing environmental setting would remain unchanged. Most of the project impacts discussed in Section 4.0, Environmental Setting, Impacts, and Mitigation Measures, of this EIR would not occur, assuming that the City does not annex the site. If the City does annex the site, it would be responsible for providing fire and police protection to the site which may be more difficult without roadway improvements, especially in the steeper and more forested terrain in the eastern portion of the site. The City would maintain jurisdiction over the property and would be liable for any acts occurring there that cause injury.

Cumulative impacts, as presented in Section 6.0, Cumulative Impact Summary, would be reduced, as would growth-inducing impacts. However, beneficial impacts such as the generation of

employment opportunities and the creation of recreational opportunities would not occur. Also, while the forested area in the eastern section would remain intact, the western portion of the RCP site would remain in its current state, and the remnants of past mill operations would remain visible. The Draft Development Plan (DDP) has designated a portion of the site, DA VII, for public uses which could be developed as a park area and/or wetland and natural habitat enhancement area to be used for recreational purposes, such as pedestrian trails and bike paths. This option would not be available under the No Project Alternative.

Conclusion

The No Project Alternative would avoid many of the environmental impacts of the proposed project. However, without the proposed project the site would remain in its current state which is highly disturbed from the former lumber mill operations. The site's state of disrepair and minimal habitat in the western portion, contributes to the poor aesthetic quality in the area, especially when viewed from Mt. Shasta Boulevard. In addition, the No Project Alternative would not meet most of the project objectives, nor would it conform to General Plan designations for the site. Although potentially significant impacts would be avoided with this Alternative, such as traffic and noise issues, the opportunity to generate potential beneficial impacts would be lost.

ALTERNATIVE 2 - BUILDOUT UNDER EXISTING COUNTY ZONING

Under this Alternative, buildout of the RCP site would take place under the existing County zoning designations as illustrated in Section 4.2, Land Use, Figure 4.2-1. The western portion of the site is currently zoned M-H, Heavy Industrial, except for the southernmost portion which is zoned C-U, Neighborhood Commercial. The City-owned property in the eastern portion of the RCP site is zoned R-R-B-40, Rural Residential Agricultural - 40 acre minimum. The privately owned parcel in the southern portion of the project site is zoned C-U. Since the zoning for the site has been designated by the County, it is assumed that the site would not be annexed by the City under this Alternative. Therefore, the provisions and standards established in the DDP would not apply.

The Heavy Industrial (M-H) Zone permits a variety of industrial activities. Along with light industry, it allows for canneries and agricultural processing, creameries, truck terminals, ice manufacturing, vehicle assembly, bottling works, recycling plants, dyeing facilities, and fertilizer production. Conditional uses include any use involving offensive odors, dust, noise, bright light, vibration, or storage of explosive or dangerous materials. Other conditional uses are auto wrecking yards and junk yards, airstrips, sawmills, power generation, and slaughterhouses.

Uses permitted in the Neighborhood Commercial (C-U) Zone include automobile service stations and repair garages, professional offices, convenience stores, retail nurseries, copying and printing establishments, and liquor establishments. Multiple-family dwellings, apartments, rooming and boarding houses are also permitted. Conditional uses include single-family dwellings, social halls, day care facilities, motor vehicle sales, theaters, health clubs, and retail fuel sales.

The Rural Residential Agricultural (R-R-B-40) Zone is actually a combined zoning designation. The Rural Residential Agricultural Zone (R-R) is combined with a special "B" zone that denotes various minimum parcel sizes. In this case, the minimum parcel size is 40 acres. Uses permitted in the R-R-B-40 zone includes one single-family dwelling, crop and tree farming, small acreage farming (with several exceptions), and accessory buildings. Conditional uses include churches, schools, parks and playgrounds, raising of fur-bearing animals and poultry (within a building), home occupations, and heavy equipment and vehicle parking.

Under this Alternative, roads in the eastern section would likely not be built, except for the State Route 89 bypass proposed in the General Plan. The extent of road construction in the western section would depend on the type and extent of development there.

Comparative Analysis

Issues not discussed in this section are either unaffected by this Alternative or have impacts similar to those under the proposed project.

Land Use

Under existing zoning, industrial activities not allowed under the proposed DDP would be permitted in the western portion of the site. Many industrial activities may be incompatible with the residential areas north and northeast of the site.

Transportation/Circulation

This alternative would generate a proportionately reduced number of daily and peak trips. Under this Alternative, proposed industrial uses would reduce the attractors to the site, such as less employment opportunities and fewer retail and visitor oriented uses.

Noise

County zoning allows for heavy industrial uses on the site which could allow for the development of potential noise sources in proximity to sensitive receptors to the north and east of the western portion of the site along Mt. Shasta Boulevard.

Air Quality

Heavy industrial uses that would be allowed under County zoning could produce offensive odors and dust that would be limited or avoided under the proposed project. These industrial uses would be developed in proximity to general commercial and residential uses located along Mt. Shasta Boulevard, creating the potential for more severe air quality conflicts.

Water Quality and Surface Hydrology

The amount of impervious surface may increase with full development in the western section of the site. However, the amount of impervious surface in the eastern section would be less than under the proposed project.

Biological Resources

Wetland areas in the northern part of the site could potentially be impacted by fill and development, although such development would likely require federal permits. Development in the eastern section would be more limited, however the forested habitat in this area could still be affected.

Water/Wastewater Systems

The Heavy Industrial and Neighborhood Commercial designations would allow more industrial development on the site than that allowed under the proposed project. Demand on water supplies and wastewater disposal could potentially be greater or less depending on the type of industry that would be developed on the site; uses may be water intensive or have minimal demand with little or not water required in product processing.

Community Services

Park and open space areas would not be created under this Alternative. While the City currently has adequate park space, as defined by standards in the General Plan, the possible growth-inducing impacts would place increased demands on the other park facilities.

Aesthetics

Site design would be subject to existing County ordinances and regulations, rather than site-specific standards. Thus, it is possible that development of the site would be less integrated and more aesthetically displeasing. Depending on the height and placement of permitted buildings, views west of Mt. Shasta Boulevard could be obstructed.

Risk of Upset

More hazardous materials could be used and stored at the site due to the broader number of industrial activities permitted, particularly the conditionally permitted activities.

Other

The DDP contains standards for emissions into the air, discharges into water, electromagnetic interference, vibrations and odors. Development under this Alternative would not be subject to these standards, but under applicable federal, State, and County regulations.

Conclusion

Environmental impacts in the eastern section of the RCP site would be reduced under this Alternative than the proposed project because the R-R-B-40 zoning designation would restrict this 51 acre parcel to one lot. However, impacts in the western section could potentially be greater. The M-H would permit a greater variety of industrial activities than would the proposed project; many of these activities could have adverse impacts. Overall, the Buildout Under Existing County Zoning Alternative could have greater environmental impacts than the proposed project.

ALTERNATIVE 3 - REDUCED INTENSITY ALTERNATIVE

This Alternative is a modification of the proposed project. Development of the site would be confined mainly to the western portion of the RCP site and the development areas immediately adjacent to Mt. Shasta Boulevard in the eastern section. Development would also be permitted on the privately owned parcel in the eastern section. No urban development would occur in Development Area V, which is owned by the City. This City-owned property would be kept primarily as open space with possibly some passive recreational opportunities. The buildout scenario used throughout this EIR was based on an evaluation of roadway and infrastructure capacity limiting buildout to a total Average Daily Trip (ADT) generation of approximately 16,000. By identifying a reasonable mix of uses, the 16,000 ADT threshold was translated into a reasonable mix of uses based on market conditions. Based on the proposed buildout scenario this Alternative proposes to reduce development of the 47.5 acres by 25 percent, thereby allowing development of 35 acres of the 81 acres of developable area (See Table 3-2 in Section 3.0, Project Description). However, development of the RCP site under this Alternative would be similar to that envisioned in the DDP. The provisions and standards of the DDP would apply to the areas where development is permitted.

Comparative Analysis

Issues not discussed in this section are either unaffected by this Alternative or have impacts similar to those under the proposed project.

Transportation/Circulation

This is a less intensive development scenario, with fewer trips generated by the alternative. This alternative would generate a proportionately reduced number of daily and peak trips. However, General Plan policies and implementation measures identified in Section 4.3, Transportation/Circulation, would still be necessary in order to mitigate any potential impacts, since the precise extent and mix of development likely to occur within the RCP site are unknown.

Noise

Noise generated by the implementation of this Alternative would be slightly less intensive than the project due to a combination of fewer vehicles and less development in proximity to sensitive receptors. However, significant and unavoidable impacts would likely remain the same.

Air Quality

Air quality impacts, both from mobile and stationary sources, would be reduced under this Alternative proportionate to the reduction in development and consequent vehicle trips.

Geology and Soils

Both this Alternative and the proposed project restrict development on steep slopes. However, under this Alternative, development would not take place on City property in the eastern section with the

exception of the area immediately adjacent to Mt. Shasta Boulevard. The City property contains hilly terrain with soils moderately susceptible to erosion. Therefore, erosion and grading impacts would be reduced.

Water Quality and Surface Hydrology
Surface runoff would be less than under the proposed project, since there would be less development in the eastern section. There would also be less siltation from the eastern section that could reach streams. However, there still would be more runoff and potentially more siltation than under existing conditions.

Biological Resources
Forested habitat in the eastern section would be left undisturbed, as would potential jurisdictional wetlands. Wetlands in the western section would be within a park area, as in the proposed project.

Community Services
With less development area, this Alternative would have a slightly less severe impact upon public services.

Aesthetics
With no development in the eastern section, scenic views east of Mt. Shasta Boulevard would be unobstructed. DDP standards applicable to maintaining scenic views and reducing light and glare emissions would apply to the developable areas on the RCP site.

Conclusion

Alternative 3 offers fewer environmental impacts in certain areas than the proposed project. However, there would still be impacts from development in the western portion of the site that are similar to those under the proposed project. The overall impact on noise, traffic, and the provision of services would be reduced.

5.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Alternative 3, the Reduced Intensity Alternative, is considered the environmentally superior alternative to the proposed project. Negative aesthetic conditions would remain under Alternative 1, and enhancement of the natural environment by the potential creation of a park with wetlands and an Open Space Parkway would not be performed. In addition, Alternative 1 would not meet the project's objectives; however, Alternative 3 would retain those features. Alternative 3 would also attain most of the project objectives for the RCP site. Although, impacts would remain under this Alternative, standards in the DDP and mitigation measures contained in this EIR would reduce those impacts to less than significant levels. Alternative 3 would be the environmentally superior alternative.

Alternative 2 would result in significant environmental effects and would not meet some or most of the project's objectives. Alternative 2, the Buildout Under County Zoning Alternative, has less environmental impacts. Under Alternative 2, land in the eastern section would be zoned for Rural Residential Agricultural 40 acre minimum uses, and thus would not be intensively developed. However, development in the western section would allow heavy industrial uses, thus creating significant impacts in land use compatibility, biological resources, water service, aesthetics, and risk of upset.

A comparison of the degree of the environmental impacts of each alternative, relative to the proposed project, is presented in Table 5-1 below.

TABLE 5-1
SUMMARY OF COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

Alternative	4.2 Land Use	4.3 Transportation Circulation	4.4 Noise	4.5 Air Quality	4.6 Water Quality Surface Hydro	4.7 Biological Resources
Alt. 1 No Development	B	B	B	B	B	B
Alt. 2 County Zoning	W	B/W	W	W	W	W
Alt. 3 Reduced Intensity	B	B	B	B	B	B

Alternative	4.8 Geology and Soils	4.9 Community Service	4.10 Water Wastewater	4.11 Aesthetics	4.12 Cultural Resources	4.13 Risk of Upset
Alt. 1 No Development	B	B	B	B	B	B
Alt. 2 County Zoning	B/S	B/W	B/W	W	B	W
Alt. 3 Reduced Intensity	B	B	B	B	B	B

In terms of environmental impact:

B = Better than the Project
S = Similar impact as would occur with the Project
R = Reduces impact of the project, yet impact remains significant and unavoidable
W = Worse than the Project

6.0 CUMULATIVE IMPACT SUMMARY

6.1 LEGAL CONSIDERATIONS

According to CEQA Guidelines Section 15130[a], an environmental impact report must discuss "cumulative impacts" when they are significant. Cumulative impacts are defined in the CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15335[b] states that a cumulative impact occurs from:

> ". . .the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

In addition, Section 15130[b] identifies that the following three elements are necessary for an adequate cumulative analysis:

1) A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency (list approach); or a summary of projections contained in an adopted General Plan or related planning document which is designed to evaluate regional or area-wide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency (plan approach).

2) A summary of expected environmental effects to be produced by those projects, with specific reference to additional information stating where that information is available.

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigation or avoiding any significant cumulative effects of a proposed project.

CEQA Guidelines only requires the use of one method of cumulative analysis, either the list of projects approach or summary of projections approach. In this EIR, a combination of the General Plan projections and the list of projects approach was used.

6.2 CUMULATIVE SETTING

The City of Mt. Shasta General Plan (adopted January 1993) provides for the long range direction and development of land within the City's Planning Area. The Planning Area includes both land within the City limits and land area outside these limits which the City Council has determined to have a relationship to Mt. Shasta's long-term growth and development. The City's General Plan identifies and plans for future development densities and intensities throughout the City's Planning Area. The land area and assigned densities under the General Plan can accommodate a population

of 10,201. The expected population in the Planning Area over the next twenty years is between 6,500 and 8,500, depending on the growth rate that occurs.

Under the General Plan, there are three areas where commercial and industrial uses are concentrated. The first is the Springhill area in the northern part of the City. This area is currently undeveloped; however, development is anticipated. Most of the land in Springhill is designated Commercial Center, with a relatively small area for Employment Center uses. The second area designated for commercial and industrial uses is downtown and along West Lake Street, which is mostly developed with commercial uses. The third area is located in the southern part of the City and extends to State Route 89. This area includes the RCP site. Most of lands designated Employment Center by the General Plan are located in this area. There is also a significant amount of Commercial Center land.

There is one major project currently being planned in the Mt. Shasta area, the Dannon water plant. The plant would be built north of Mt. Shasta just outside the City limits. At this time, no new projects are anticipated in the area surrounding the RCP site. However, northeast of the site two residential subdivisions (Shadowbrook and Mt. Shasta Village) are presently being developed. In addition, three residential subdivisions south of State Route 89 are being developed. These subdivisions are under the County's jurisdiction; however, they are within the City's Planning Area. Future development in the Roseburg area could possibly include an ice skating rink on property recently donated to the Recreation District. This property is located east of Mt. Shasta Boulevard, north of the eastern portion of the RCP site.

6.3 CUMULATIVE IMPACT ANALYSIS

For the purposes of this EIR, cumulative impacts have been assessed based on surrounding land uses and local growth patterns. Based upon the land use designations and potential buildout of the General Plan in this part of the City, we can estimate how the RCP project contributes positively or negatively to the local environment when combined with other future growth in the immediate area.

Identified below is a compilation of the cumulative impacts that would result from the implementation of the project and future development in the vicinity. The cumulative impacts, and corresponding mitigation measures, are also contained in each of the Environmental Analysis Sections of this EIR (see Sections 4.2 to 4.14). As described above, cumulative impacts are two or more effects that, when combined, are considerable or compound other environmental effects. Each cumulative impact is determined to have one of the following levels of significance: less than significant (LS), potentially significant (PSM), significant but subject to mitigation (SM), or significant and unavoidable (SU). For the purposes of this EIR, the following cumulative impacts (both significant and insignificant) have been identified:

LAND USE

The proposed project would be consistent with the land use pattern of the area and meets General Plan goals and policies for the City of Mt. Shasta. Cumulative development, proposed and anticipated, throughout the City's Planning Area would change existing rural and open space land uses to more developed uses. However, if development occurs pursuant to planned uses, as designated in the General Plan, the changes in land use would not be cumulatively adverse. As indicated within Section 4.2 of this EIR, project impacts relative to land use are anticipated to be less than significant.

TRANSPORTATION AND CIRCULATION

As indicated by the report in Section 4.3, the project will contribute to potentially significant traffic conditions. Much of the traffic problem in the area is anticipated to be mitigated through General Plan policies and implementation measures. The General Plan mandates the continuing evaluation of the impacts of development with the goal of identifying applicable mitigation measures as projects are proposed. Development of new streets and/or local capacity enhancements are presented as potential mitigation measures. Specific development proposals within the RCP site shall adhere to General Plan requirements for subsequent analysis and for "fair-share" participation in mitigation measures. The General Plan's policies and implementation measures, together with project-specific improvements and mitigation, would alleviate and effectively mitigate cumulative traffic conditions.

NOISE

Section 4.4 of the EIR provides an analysis of future noise conditions based on project development. The impact of cumulative noise generation is expected to increase over existing conditions due to new development and increased traffic. However, future noise levels without the proposed project would likely increase because of vehicular traffic growth that is expected within the area. As indicated by the predicted noise levels in that section, the impact of cumulative noise generation along Mt. Shasta Boulevard, north of the project site, is anticipated to be significant and unavoidable.

AIR QUALITY

The City and County are experiencing moderate growth. Cumulative development within the area is likely to add new emissions of criteria pollutants. As indicated with Section 4.5 of this EIR, project relate impacts can be mitigated to a less than significant level. The combined effect of the project and proposed development in the vicinity could lead to an increase in emissions of criteria pollutants and a consequent decrease in air quality in the Mt. Shasta area. Because cumulative development may generate vehicle emissions that exceed significance thresholds for carbon monoxide, the project's incremental contribution to vehicle emissions is considered a significant and unavoidable effect of project implementation.

WATER QUALITY AND SURFACE HYDROLOGY

Cumulative development would not result in a combined impact greater than the individual projects themselves. With regard to water quality, construction activities and urban runoff from new urban development does have the potential to degrade surface water quality downstream. However, the General Plan and the DDP contain implementation measures and development standards that would reduce impacts to less than significant levels. Assuming these measures are required for other projects, the cumulative effect of development to surface water quality should not be considered significant.

BIOLOGICAL RESOURCES

Cumulative development would contribute to the ongoing loss of natural undisturbed open space in the region, increase human intrusion and activity levels in proximity to habitat areas, and remove potential habitat for federally and State-listed and other special-status species.

Implementation of the proposed project, in conjunction with other reasonably foreseeable future developments in the project vicinity, would contribute to the ongoing loss of natural, undisturbed open space in the region, resulting in a decline of biological resources and species diversity. However, the proposed project and DDP's proposed layout for the Development Areas reduces the site-specific impacts to biological resources to less than significant levels. Because environmental review would be required as part of all future projects' in the City, mitigation would be developed for site-specific impacts at that time. Therefore, cumulative impacts on biological resources are considered less than significant.

GEOLOGY AND SOILS

No significant cumulative impacts are predicted relative to geology or geologic hazards. Due to the nature of geology and soils, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region.

COMMUNITY SERVICES

Development at the RCP site and anticipated development elsewhere in Mt. Shasta would require the additional Fire Department personnel, equipment, and facilities. The Department anticipates that the fire fighting force will need to be increased to 40 to cover both the RCP site and the Springhill area in the northern part of the City. The force could remain volunteer, but it is possible that salaried positions would be needed. MM 4.7.4a of this EIR states that the City shall assist the Fire Department in adding necessary personnel to maintain an effective fire fighting force. With the implementation of this mitigation measure, potential cumulative impacts would be less than significant.

WATER AND WASTEWATER SYSTEMS

Along with the RCP site, development is planned for the Springhill area in north Mt. Shasta. As the population grows, residential development in other parts of Mt. Shasta could intensify. Improving economic conditions could lead to further development of the area south of the RCP site. All of these potential developments will place demands on the local water resources. A 1984 study by PACE Engineering and ground water hydrology studies conducted in conjunction with the Springhill annexation indicated that wells of several hundred gallons per minute yield should be developable throughout the area. Due to the extent of water resources and the underlying geology, well interference would be unlikely. Potential cumulative impacts, therefore, are considered less than significant.

The projected additional wastewater flow from the Roseburg Commerce Park site, along with flows from other projects, may cause total wastewater flows to exceed 75 percent of the treatment plant's capacity. Once the 75 percent threshold is exceeded, the City must plan for expansion of the treatment plant. At the initial phase of buildout, which would take place on 46 acres, it is estimated that the RCP site would generate up to 63,480 gpd of wastewater. While this amount of wastewater is below the available capacity, it is possible that expansion of the wastewater treatment plant (WWTP) will be necessary before the initial phase of buildout can be completed. The General Plan requires the City to plan for expansion when plant use reaches 75 percent of capacity. With other anticipated projects in the Mt. Shasta area, mainly the Dannon water plant, additional capacity may be required. Currently, the WWTP is operating under a Cease and Desist Order from the Regional Water Quality Control Board (RWQCB). RWQCB issued the order when the WWTP exceeded some water quality parameters contained in its discharge permit. This order prohibits further expansion of the treatment plant until the deficiencies have been corrected. Until the order is lifted, development at the RCP site would have to be reviewed to determine if plant capacity is available. Available capacity could be expanded if infiltration and inflow problems in the wastewater system are reduced or eliminated.

Mitigation measure, MM 4.10.3a of this EIR states that the City shall review all proposed projects in the RCP site to determine if there is adequate capacity to handle wastewater flows generated by the project. If projected flows cause the total wastewater flows to exceed 75 percent of plant capacity, the City shall plan for an expansion of the plant, including plans for design and financing. Also, MM 4.8.3b of this EIR mitigates potential cumulative impacts by having the City correct all wastewater treatment deficiencies as expeditiously as possible so that the Cease and Desist Order may be removed. Finally, the City has recently retained a consultant to conduct an analysis of infiltration and inflow into the existing wastewater system. Recommendations generated by this analysis could make more pipe capacity available throughout the wastewater system. MM 4.8.2a requires the City to implement all feasible recommendations concerning reduction of infiltration and inflow that are generated by a consultant analysis. Implementation of the above mitigation measures would reduce potential impacts to a less than significant level.

AESTHETICS/LIGHT AND GLARE

The DDP sets forth standards for development that are applicable to the entire project site and specific areas within the site. Many of these standards promote an integrated site development that is compatible with the surrounding area: adherence to these standards reduce potential aesthetic impacts to less than significant levels. In addition, the most visible portions of the RCP site are highly disturbed by improvements associated with the former lumber mill operations; therefore reestablishment of urban uses on the site would not alter any existing high quality landscapes. Although the project would contribute to a general trend of urbanization within the community, when considered cumulatively with other projects, the project does not result in significant cumulative visual effects.

CULTURAL RESOURCES

Due to the nature of cultural resources and the development history of the project site, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region.

RISK OF UPSET

Risk of upset impacts are site-specific and are generally not affected by cumulative development in the region. Therefore, risk of upset impacts are considered less than significant.

7.0 Other Sections Required By CEQA

7.1 GROWTH INDUCEMENT

Public Resources Code Section 21100(a)(5), a part of CEQA, requires that the growth-inducing impacts of a project be addressed in the environmental impact report. A proposed project may result in direct and/or indirect growth-inducing impacts. To assess the potential for such impacts, project characteristics must be evaluated for their potential to facilitate activities which may individually or cumulatively affect the environment.

Direct growth-inducing impacts result when the development associated with a project directly induces population growth or the construction of additional developments within the same geographic area. These impacts may impose burdens on a community or encourage new local development, thereby triggering subsequent growth-related impacts. The analysis of potential growth-inducing impacts includes a determination of whether a project would remove physical obstacles to population growth. This often occurs with the extension of infrastructure facilities that can provide services to new development. Indirect growth-inducing impacts result from projects that serve as catalysts for future unrelated development in an area. Development of public institutions, such as colleges, and the introduction of employment opportunities within an area are examples of projects that may result in indirect growth-inducing impacts.

Approval of the DDP would facilitate the development of a 127.5 acre site just south of the City. The Plan provides for a variety of commercial, industrial and office uses on the site. In preparation for development, the Plan includes provisions to make internal road improvements and to extend water and wastewater services. These improvements would serve to remove physical obstacles to development within the Plan area. The extension of water and wastewater services to the site also could facilitate the extension of such services to locations south of the site, making these areas more attractive for development.

The City's General Plan has designated much of the area south of the City for Commercial and Employment Center uses. On the RCP site itself, there is more land designated for Employment Center uses than allowed in the DDP. Since Employment Center uses tend to induce indirect impacts on growth because of their greater provision of employment opportunities, the Plan will have less of an impact than the current General Plan designations. In any case, the General Plan accommodates any expected population and housing increases resulting from buildout under its land use designations.

The General Plan also plans for potential development south of the RCP site by designating commercial and residential lands. Some development already exists in that area, with some permitted development not yet built out. Further development in this area will be constrained by the presence of National Forest land to the east. Overall, the growth-inducing impacts of this project are expected to be less than significant and have been anticipated in the City's General Plan.

7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

CEQA Section 21100(b)(2) and 21100.1(a) require that EIRs prepared for the adoption of a plan, policy, or ordinance of a public agency must include a discussion of significant irreversible environmental changes of project implementation. CEQA Guidelines Section 15126(e) gives the following description of irreversible environmental changes:

> "Use of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources make removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

Much of the land within the RCP site has been previously developed. The City-owned property on the eastern section of the site has a landscape that appears natural, although this area was once the location of a tree plantation. Development of this site under the DDP, although somewhat limited, would constitute a long-term commitment to more urbanized land uses. It is unlikely that circumstances would arise that would justify the return of any developed land to its original condition. Alteration of the RCP site is consistent with the land use designations, goals, objectives, and policies of the City's General Plan.

Development of the RCP site would irretrievably commit building materials and energy to the construction and maintenance of buildings and infrastructure proposed. Nonrenewable and limited resources that would likely be consumed as part of project site development would include, but are not limited to, oil, gasoline, lumber, sand and gravel, asphalt, water, steel and similar materials. In addition, development would result in an increase in demand on public services and utilities. These impacts are discussed in Sections 4.9, Community Services and Section 4.8, Water/Wastewater.

7.3 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

CEQA Section 21100(b)(2) provides that an EIR shall include a detailed statement setting forth "[i]n a separate section...[a]ny significant effect on the environment that cannot be avoided if the project is implemented." Accordingly, this section identifies the significant environmental impacts of the proposed Project that cannot be mitigated to less-than-significant.

NOISE

Impact 4.4.5 **The increase in traffic noise levels along Mt. Shasta Boulevard due to project added traffic would range from 3 dB to 5.9 dB. [SU]**

Impact 4.4.7 **Exterior cumulative noise levels at the project site are expected to increase over existing conditions. [SU]**

AIR QUALITY

Impact 4.5.4 **Development of other areas in and around Mt. Shasta, along with the RCP site, could lead to an increase in emissions of criteria pollutants and a consequent decrease in air quality in the Mt. Shasta area. [SU]**

8.0 REPORT PREPARERS AND REFERENCES

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9.0 ACRONYMS

AAQS	Ambient Air Quality Standards
AB 939	Assembly Bill 939-California Integrated Waste Management Act of 1989
AB 2588	Assembly Bill 2588-Air Toxics Hotspots Information Assessment Act
ACMs	Asbestos Containing Materials
ADF	Average Daily Flow
ADT	Average Daily Traffic
ADW	Average Dry Weather
ANSI	American National Standards Institute
APCD	Air Pollution Control District
AQAP	Air Quality Attainment Plans
BMP	Best Management Practices
CAA	(California) Clean Air Act
CAAQS	California Ambient Air Quality Standards
CALOSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CDMG	California Department of Mines and Geology
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CNEC	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
Corps	Army Corps of Engineers
CWA	Clean Water Act
dB	Decibel
dBA	Decibel (A-weighted)
DDP	Draft Development Plan
DOT	Department of Transportation
DWR	(California) Department of Water Resources
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act

FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FIRM	Federal Insurance Rating Maps
GPD	Gallons Per Day
GPM	Gallons Per Minute
ITE	Institute of Transportation Engineers
LAFCo	Local Agency Formation Commission
LDN	Day/Night Average level
LEQ	Average Hourly Noise Levels
LMAX	Maximum Hourly Noise Levels
LOS	Level of Service
LS	Less than Significant
MDF	Maximum Daily Flow
MGD	Million Gallons per Day
MSRPD	Mt. Shasta Recreation and Parks District
NAAQS	National Ambient Air Quality Standards
NEHRP	National Earthquake Hazards Reduction Program
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NOX	Nitrogen Oxides
NOC	Notice of Completion
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NSAQMD	Northern Sierra Air Quality Management District
NSR	New Source Review
O3	Ozone
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric
PM10	Particulate Matter less than 10 microns in diameter
PPM	parts per million
PSM	Potentially Significant Impact (subject to mitigation)
RCP	Roseburg Commerce Park
ROC	Reactive Organic Compounds

ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SCS	Soil Conservation Service
SM	Significant Impact (subject to mitigation)
SOI	Sphere of Influence
SOX	Sulfur Dioxide
SU	Significant and Unavoidable Impact
SWPPP	Stormwater Pollution Prevention Plan
TAC	Toxic Air Contaminant
TIM	Traffic Impact Mitigation
UBC	Uniform Building Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank

APPENDIX A
NOTICE OF PREPARATION AND RESPONSES

CITY OF MT. SHASTA

305 North Mt. Shasta Boulevard
Mt. Shasta, California 96067
(916) 926-3464 • Telephone
(916) 926-0339 • Fax

NOTICE OF PREPARATION

To: Responsible Agencies

From: Joseph T. Riker , III, City Administrator
City of Mt. Shasta
305 North Mt. Shasta Boulevard
Mt. Shasta, CA 96067
530/926-3464

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Roseburg Commerce Park, Planned Unit Development Prezoning and Annexation

The City of Mt. Shasta will be the Lead Agency and will prepare an environmental impact report for the project identified below. The City needs to know the views of your agency as to the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in conjunction with the proposed project. Your agency will need to use the EIR prepared by the City of Mt. Shasta when considering your permit or other approval for the project.

The project description, location and the probable environmental effects are contained in the attached materials. A copy of the initial study is attached to this notice.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but ***not later than 30 days after the receipt of this notice.***

Please send your response, **by Monday, April 6, 1998,** to Joseph T. Riker, III, City Administrator, City of Mt. Shasta, at the address shown above. Because of a concern that all comments be legible and available for review by the General Public, the City cannot accept faxed responses.

Project Title: Roseburg Commerce Park, Planned Unit Development Prezoning and Annexation

Project Applicant: City of Mt. Shasta

Date: March 2, 1998 Signature: _____

Title Mark Teague, Contract Planner

Telephone 530/926-3464

CITY OF MT. SHASTA

305 North Mt. Shasta Boulevard
Mt. Shasta, California 96067
(916) 926-3464 • Telephone
(916) 926-0339 • Fax

PUBLIC HEARING AND NOTICE OF AVAILABILITY

NOTICE IS HEREBY GIVEN that the following initial studies are available for review and comment at the Mt. Shasta City Hall, 305 North Mt. Shasta Boulevard, Mt. Shasta, CA 96067. The Planning Commission will accept public written and oral comment on the following environmental determinations at their regular meeting of March 17, 1998, at the hour of 7:00 p.m. within the Council Chambers of the Mt. Shasta Community Center, 629 Alder Street, Mt. Shasta, California:

PROJECT NO. 97.44 Parcel Map and Design Review. The proposed project will divide approximately 17.04 acres of commercially zoned land into four (4) lots; 2.00 acres, 0.91 acres, 6.28 acres and 7.85 acres. The 7.85 acre parcel will be utilized for open space. All of the parcels will have direct access to power, telephone and sewer. Water will be provided by private well. In addition to the lot split, the proposed project includes design review for a 2,400 square foot gas station and a convenience store located on the 2.00 acre parcel. The proposed project is located on the northeast corner of the intersection of Abrams Lake Road and Spring Hill Drive. The property is more particularly described as Lot 2, as shown on the map of Tract 1084 for Springhill Enterprises being a portion of Section 5, Township 40 North, Range 4 West., M.D.M. The environmental initial study for this project includes mitigation measures that can reduce the impacts to a less than significant level. As a result of the initial study, **a mitigated negative declaration is proposed.** The project is tentatively scheduled for a public hearing before the Planning Commission on April 21, 1998.

PROJECT NO. 97.35 Roseburg Commerce Park Planned Unit Development and Annexation. The proposed project will prezone approximately 147 acres into Planned Unit Development and R-1, Single Family Residential and C-2, Commercial. The project will also amend the Land Use Element of the General Plan to change the designation of existing residential homes from Commercial Center to General Residential. After prezoning, the property will be proposed for annexation. The property is located on south Mt. Shasta Boulevard and is more particularly described as Siskiyou County Assessor's Parcel Numbers 37-220-040, 080 120, 130, 37-240-010-100, 140, and 37-260-010. The City has determined, because of the initial study prepared for the project, that **an environmental impact report is required** for the project. The environmental initial study, notice of preparation, project description and Roseburg Commerce Draft Development Plan are available for public review at both Mt. Shasta City Hall and at the Mt. Shasta Library.

The project files for the above projects are available for public review at Mt. Shasta City Hall 305 North Mt. Shasta Boulevard, Mt. Shasta, CA 96067, during business hours (10:00 am to 4:00 pm Monday through Friday) All interested persons are invited to review the project files. Please provide written comments for the above projects by 4:00 p.m., April 2, 1998, to the Joseph T. Riker III, City Administrator, City of Mt. Shasta, 305 North Mt. Shasta Boulevard, Mt. Shasta, CA, 96067. For further information regarding the above projects, please contact Mt. Shasta City Hall at (530) 926-3464.

Mt. Shasta Planning Department
Joseph Riker III, Planning Director

CITY OF MT. SHASTA — Initial Environmental Study

1. **Project Title:** Roseburg Commerce Park, Prezoning and Annexation
2. **Lead Agency:** City of Mt. Shasta, 305 No. Mt. Shasta Boulevard, Mt. Shasta, California 96067
3. **Contact Person:** Mark Teague, Contract Planner 530/926-3464
4. **Project Location:** South end of Mt. Shasta Boulevard adjacent to City Limits [see Figure 1]
   APN 37-22-4,8, 37-24-1-7,9,10,12,13,14,16, 37-26-1,2, 57-58-24,
   City of Mt. Shasta, Siskiyou County, California
5. **Project Sponsor:** City of Mt. Shasta, Contact: Joseph T. Riker III, City Administrator 530/926-3464
6. **Land Use & Zoning:** See Table 1
7. **Description of Project:** Prezoning and Annexation of approximately 147 acres to the City of Mt. Shasta. See Attachment A for full description of project.
8. **Surrounding Land Uses and Setting:**

	Designation	Actual Use
North	Commercial Center General Residential	Developed Commercial & Employment Uses Along Mt. Shasta Blvd Developed Residential Off of Mt. Shasta Blvd
South	Commercial Center Employment Center	Vacant Land, Highway 89 interchange
East	Commercial Center Employment Center	Vacant, Forest Service Land
West	Employment Center	Vacant Land, Union Pacific Railroad, Interstate 5 Developed Residential

9. **City Approval Required:**

Approval	Timing
California Environmental Quality Act	Prior to Project Consideration
General Plan Amendment	Prior to Prezoning Certain Parcels
Prezoning	Prior to Annexation Request
Protest Hearing	Following LAFCo Determination
Conditional Use Permit	As Needed
Subdivision/Parcel Maps	As Needed
City Encroachment Permits & City Service Extension	As Needed

10. **Other agencies whose approval is required:**

Agency	Action/Permit	Timing
Local Agency Formation Commission	Consider Annexation Request	After Prezone

Figure 1, Project Location Map

Parcels Within Proposed Roseburg Annexation

Assessor's Parcel No.	Property Owner	Acreage	Existing Land Use	General Plan Designation		Zoning		Within Roseburg Commerce Park?
				Existing	Proposed	Existing	Proposed	
37-220-040	City of Mt. Shasta	21.3	Vacant	CC/EC/Pub.	Same	M-H	Public	Y
37-220-080		44.4	Vacant	CC/EC	Same	M-H	PUD	Y
37-240-130		51.0	Vacant	CC	Same	R-R-B-40	PUD	Y
37-260-020		0.3	Vacant	CC	Same	C-U	PUD	Y
37-240-010	C & C	0.8	Warehouse	CC	Same	M-M	C-2	N
37-240-020	Rousseau, R.L., Eila E. & R.J.	1.3	Motel/Res.	CC	Same	C-H	C-2	N
37-240-090		1.0	Vacant	CC	GR	R-R-B-1	R-1	N
37-240-030	Lyman, Luther Reed Jr. & Margaret Tr.	0.6	Health club/ Residence	CC	Same	C-U	C-2	N
37-240-040	Zeigler, Dale S. & Karen A.	1.1	Auto repair	CC	Same	M-M	C-2	N
37-240-070		1.5	Street	CC	Same	--	C-2	N
37-240-050	Mount Shasta Church of Christ, Inc.	1.0	Church	CC	GR	C-U	R-1	N
37-240-060	Richardson, Aaron L. & Illa I. Trust	1.0	Equipment Yard	CC	Same	C-U	C-2	N
37-240-100	Olkkola, Laura Trust	2.1	Vacant	CC	GR	R-R-B-1	R-1	N
37-240-120	Fidler, Ron M. & Roberta M.	1.4	Residence	CC	GR	R-R-B-1	R-1	N
37-240-160		1.8	Vacant	CC	GR	R-R-B-1	R-1	
37-240-140	Erickson, Gene A. & Lavada I. Family Trust	6.0	Vacant	CC	Same	C-U	PUD	Y
37-260-010	Franklin, Ralph J.	4.1	Vacant	CC	Same	C-U	PUD	Y
Total Acreage		140.7						

City General Plan Designations:
G-R - General Residential
CC - Commercial Center
EC - Employment Center

Existing County Zoning:
R-R-B Rural Residential Ag.
C-U - Neighborhood Commercial
C-H - Highway Commercial
M-H - Heavy Industrial
M-M - Light Industrial

Proposed City Zoning:
P - Public
R-1 - Single Family Residential
C-2 - General Commercial
PUD - Planned Unit Development (Roseburg Commerce Park)

ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project DOES NOT have a significant effect on the environment, and therefore is categorically exempt from the requirement of CEQA. A NOTICE OF EXEMPTION will be prepared. ☐

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in the attached report have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared. ☐

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☒

I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "Potentially Significant Impact" or "Potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that, although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects have; (a) been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. ☐

Signature	3-2-98 Date
Mark Teague Printed Name	Mt. Shasta Planning Department For

The following checklist indicates the potential level of impact and is abbreviated as follows:

PS - Potentially Significant Impact: The impact is known to be significant or potentially significant, or the City lacks sufficient information to make a finding of insignificance.

PS/M -Potential Significant Unless Mitigated: This determination applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact."

LS - Less than Significant Impact: The effect may apply to projects like this, but in light of the factors evaluated, the City finds the impact is less-than-significant.

NI - No Impact: The effect is known not to apply to projects as proposed. Documentation referenced in this initial study supports this finding.

Subject		PS	PS/M	LS	NI
I. **LAND USE AND PLANNING.**	*Would the proposal:*				
a)	Conflict with the City's General Plan, Zoning Ordinance or Specific Plan?	☐	☒	☐	☐

The proposed project could result in a conflict with the General Plan because some of the parcels included in the prezone area are already largely developed as single family homes but are designated community commercial in the *Land Use Element* of the *City of Mt. Shasta General Plan.* Further, most of these parcels would not qualify for commercial zoning under the *General Plan* or zoning ordinance because they do not front onto collector. In order to avoid a potential conflict between these existing uses and the General Plan Designation, the proposed project will include a General Plan Amendment for parcels 37-24-5, 6, 7, 9, 10, 12 & 16. Since these lots are already in existence, and developed at significantly less than the General Plan Designation, the impact of this General Plan Amendment is considered less than significant and will not be studied in-depth in the EIR. The EIR will focus on the remaining approximately 131 acres of land that is proposed for prezoning to Planned Unit Development. The EIR will include a General Plan consistency review.

b)	Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	☐	☐	☐	☒

The City Council has determined that the project is of sufficient size to warrant an Environmental Impact Report. The EIR will be consistent with the General Plan and any adopted environmental policies of the City of Mt. Shasta.

c)	Be incompatible with existing or proposed land use in the vicinity?	☐	☒	☐	☐

As indicated in a) above, uses to the north of the proposed project are primarily residential, although the General Plan designates them as commercial. The Planned Unit Development Zone includes project design provisions intended to "buffer" existing residential homes from new non-residential development. The potential for conflict exists primarily on the east side of Mt. Shasta Boulevard. On the west side of Mt. Shasta Boulevard, the *Land Use Element* identifies the north end of parcel 37-22-04 is designated as public land and parks, with this area envisioned as a future park. With careful design, a "park" could provide an adequate buffer for most commercial and select industrial uses. The proposed planned unit development will include performance standards designed to ensure compatibility with both existing and proposed land uses.

d)	Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses)?	☐	☐	☒	☐

Subject	PS	PS/M	LS	NI

The west side of the property, the site of the former mill, is heavily disturbed and has not been used for agriculture or farming in at least 100 years. Most of the property on the east side of Mt. Shasta Boulevard is in forest plantation and has had periodic harvests, the most recent in 1992 (Timber Harvest Plan 2-92-57-SIS(6)). The developing forest area is seen as an asset to future commercial development of the property. Since any future logging will be subject to another Timber Harvest Plan and subsequent environmental review, and the fact that the forested area is too small to sustain extensive commercial logging, potential impact to agriculture in the region is considered less than significant.

e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? ☐ ☐ ☐ ☒

No housing is proposed within the annexation boundary. No housing units will be relocated or destroyed as a result of the proposed project. Since no housing exists on site, no neighborhoods will be affected.

II. **POPULATION AND HOUSING.** *Would the proposal:*

a) Cumulatively exceed official regional or local population projections? ☐ ☐ ☒ ☐

The project will not directly affect population growth. Indirectly the increase in job opportunities may result in population growth within Mt. Shasta and the southern Siskiyou County region. The EIR will evaluate the population growth potential attributed to future jobs. It is anticipated that the percentage of growth attributed to the proposed project would be within the parameters evaluated in the City of Mt. Shasta General Plan.

b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? ☒ ☐ ☐ ☐

City services would be extended to this site and would be available for future development. City services could also be extended to properties along Highway 89 resulting in the potential for significant growth. Growth in jobs and employment opportunity is the primary goal of the proposed project. This impact is considered significant and will be evaluated in the EIR.

c) Displace existing housing, especially affordable housing? ☐ ☐ ☐ ☒

No new housing is proposed within the annexation boundary. No housing units will be relocated or destroyed as a result of the proposed project.

III. **GEOLOGIC PROBLEMS.** *Would the proposal result in or expose people to potential impacts involving:*

a) Fault rupture? ☐ ☐ ☐ ☒

There are no known active or potentially active faults within the city limits. A north-south trending fault runs through the top of Mount Shasta. However, mapping undertaken during preparation of the Siskiyou County General Plan revealed no geologic hazards east of Interstate 5—where most of the City, including the proposed project site, is located.

b) Seismic ground shaking? ☐ ☐ ☐ ☒

The City, along with all of Siskiyou County, is located in Uniform Building Code (UBC) zone "3". This indicates that the area is subject to earthquakes that may cause minor to moderate structural damage. Earthquakes centered about 20 miles east of Mt. Shasta were recorded in 1978, with Richter magnitudes of 4.0 to 4.6. However, an earthquake history compiled for the Seismic Safety and Safety Element of the Siskiyou County General Plan indicated that over a 120-year period, no deaths related to earthquakes have been recorded, and reported building damage has never been more than "minor". All future construction will be subject to the 1994 Uniform Building Code for seismic zone 3.

Subject	PS	PS/M	LS	NI
c) Seismic ground failure, including liquefaction?	☐	☐	☐	☒

The California Division of Mines and Geology has identified soils in the Mt. Shasta area that may be subject to liquefaction as a result of seismic activity. Soils underlain with glacial outwash deposits consisting of loose sands, silty sands and gravely sands may be subject to this condition. Soils of this type have been discovered at the Sisson Elementary School site. No other such sites have been identified.

d) Seiche, tsunami, or volcanic hazard?	☐	☐	☒	☐

This City is located approximately 10 miles from the dormant Mount Shasta volcano. The risk of volcanic eruption is considered minor because of the infrequent nature of volcanic eruptions, and the forewarning typically provided to allow safe evacuation of area occupants. Mount Shasta has erupted at least once every 600-800 years, with its last eruption occurring about 200 years ago. The chance of an eruption in any one decade is 1 in 25 to 30, based on past history. The City's General Plan Environmental Impact Report and Planning & Environmental Database have evaluated this potential risk and have recommended emergency preparation and contingency plans and emergency escape routes.

There are no seiche or tsunami hazards in the Mt. Shasta area.

e) Landslides or mudflows?	☐	☐	☒	☐

The U.S. Geological Survey study indicates that some of the Mt. Shasta area lies within Mudflow Hazard Zone "B". Zone "B" indicates areas where future mudflows are possible. The remainder of the Mt. Shasta area, including this project site, lies within Mudflow Hazard Zone "C". Zone "C" designates areas where future mudflows are possible, but none have occurred in the last 9,000 years (PEDB, Appendix C). The risk of volcanic mudflows in the area is considered minor. (Mt. Shasta, General Plan Figure 6-1, Mudflow Hazard Zones)

The site contains some steep slopes that might be subject to failure in certain conditions. All development within the project area will be subject to erosion and slope stabilization control. Development standards for the project will be included in the EIR.

f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?	☐	☒	☐	☐

Substantial alteration of ground contours will be needed in some areas to provide roadways and building pads. The site has significant man-made topography on the west side of Mt. Shasta Boulevard that was created for the former mill operations. Some of the material on site is considered unsuitable for construction due to high organic content. It is likely that significant fill will required in some locations. Contours on the east side of Mt. Shasta Boulevard are more natural with few alterations related to logging and mill operations.

The project site is over five acres in size, and will need to obtain a National Pollution Discharge Elimination Permit [NPDES] from the California Regional Water Quality Control Board. The NPDES permit typically requires on-site measures designed to prevent erosion of soil into waterways. Mitigation measures will be included in the project design parameters, and the EIR, to reduce the impact from grading to a less than significant level. It is important to note that a large portion of the site west of Mt. Shasta Boulevard is devoid of vegetation and subject currently subject to erosion.

g) Subsidence of the land?	☐	☐	☐	☒

See f) above.

h) Expansive soils?	☐	☐	☐	☒

Subject	PS	PS/M	LS	NI

The Soil Survey of Siskiyou County, Central Part, prepared by the Soil Conservation Service also identifies Ponto-Neer. [See Sheet #32] This soil is comprised of approximately 60 percent Ponto sandy loam and 30 percent Neer gravelly sandy loam. The soil is generally very deep and well drained formed in volcanic ash.. Permeability of this soil type is moderately. Runoff is medium and the hazard of water erosion is moderate. This soil is not considered expansive. As indicated in f) above, in some locations on the site there is a significant organic component to the soil—typically bark from the former mill operations. While not expansive, this organic material may need to be removed or relocated prior to construction.

i) Unique geologic or physical features? ☐ ☐ ☐ ☒

The USGS quad map, and site observation, identified no geologic or physical features unique to the City that are not found throughout the area. The site has significant man-made topography, especially west of Mt. Shasta Boulevard. On the east side of Mt. Shasta Boulevard, a portion of the site has slope in excess of 30 percent, sufficient to restrict some types of construction.

IV. **WATER.** *Would the proposed project result in:*

a) Changes in absorption rates, drainage patterns, or the rate and amount of surface run-off? ☐ ☒ ☐ ☐

Proposed development of the project area will significantly increase the amount of paved surface and potential storm water runoff. The Planned Unit Development includes standards for the development of storm drainage facilities to serve large industrial or commercial projects. The EIR will discuss potential runoff and provide mitigation measures designed to address the impact.

b) Exposure of people or property to water related hazards such as flooding? ☐ ☐ ☒ ☐

The City has designated a Public Land and Parks site on the northern portion of the property on the west side of Mt. Shasta Blvd. A component of the park may be a pond and/or storm water detention basin that would place a pond on the up-hill side of the site. The "pond" is not part of this project, and is not likely to be large enough to qualify as a dam, but will be subject to structural analysis before construction. If constructed, the pond will be located on City-owned land.

Development requirements in the Planned Unit Development District will establish storm drainage requirements designed to prevent the flooding of structures. The project will also be subject of the provisions of a NPDES permit to control erosion and runoff.

c) Discharge into surface waters or other alteration of surface water quality (e.g. temperature, dissolved oxygen, or turbidity? ☐ ☐ ☒ ☐

See b) above. All stormwater runoff will be subject to the City's ordinances and an NPDES permit.

d) Changes in the amount of surface water in any water body? ☐ ☐ ☒ ☐

See b) above.

e) Changes in currents, or the course or direction of water movements? ☐ ☒ ☐ ☐

The project will not alter the course, current or direction of water movement. On-site drainage will be modified through grading, see a) above.

f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations? ☐ ☒ ☐ ☐

Subject	PS	PS/M	LS	NI

The project will be connected to City utilities, including water. At the northern end of the site, west of Mt. Shasta Boulevard, in the area designated for public use, there are a number of springs in the bottom of the existing basin. Toward the southern end of the site there is significant grading and change in topography so that the southern end of the property is approximately 45 feet below the level of the springs. On several site visits over a number of years and seasons, no seepage of groundwater was observed at the southern end of the site. Except for the springs in the existing basin there is no other natural water surfacing on the site. According to local well drilling companies, groundwater levels in the project area can range from 80 to 150 feet depending on location. There is a potential for the need to use groundwater to meet part of the full buildout water demands of the project. Since the project will be part of the City's overall water distribution system, additional wells can be added at different locations throughout the community to obtain the best quantity and quality of water. Because of the unique volcanic geology of the region, high quality groundwater is available throughout the Mt. Shasta area. This impact is not considered significant. Discussion of the extent of water demand for the proposed project will be discussed in the EIR.

g)	Altered direction or rate of flow of groundwater?	☐	☐	☒	☐

See f) above.

h)	Impacts to groundwater quality?	☐	☐	☒	☐

See f) above. The proposed project will be connected to both City water and sewer services.

i)	Substantial reduction in the amount of groundwater otherwise available for public water supplies?	☐	☒	☐	☐

See f) above. The City receives most of its water from a natural spring that feeds a gravity system. It is likely that the project will need either additional water pipes or new water source at buildout. The provision of water will be discussed in the EIR.

V. AIR QUALITY. *Would the proposal:*

a)	Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐

Siskiyou County is in attainment of national and state air quality standards and for all criteria pollutants except fine particulate matter. Sources of particulate matter include major forest fires, slash burning, wood stove use, dust from unpaved roads, sand and gravel operations. Temporary degradation of local air quality is likely during future construction and grading. All new construction must comply with the regional air quality control standards. All roadways within the project area will be paved. With adherence to the policies of the Air Pollution Control District and the development standards of the City of Mt. Shasta, this impact is considered less than significant.

b)	Expose sensitive receptors to pollutants?	☐	☒	☐	☐

Pollutant sources might include new uses and the existing railroad. Sensitive receptors include existing housing to the north and future occupants of buildings on-site. The allowable uses indicated in the Planned Unit Development zone are designed to reduce or eliminate conflict between industrial and residential uses.

c)	Alter air movement, moisture, or temperature, or cause any change in climate?	☐	☐	☐	☒

Other than localized disturbance of air movement around structures, the proposed project will not affect air movement, moisture or temperature or cause change in the climate.

d)	Create objectionable odors?	☐	☐	☐	☒

Subject	PS	PS/M	LS	NI

Land uses with the potential to create odors will be conditional uses within the Planned Unit Development zone,. Conditional uses are required to obtain additional environmental clearance.

VI. **TRANSPORTATION/CIRCULATION.** *Would the proposed project result in:*

a) Increased vehicle trips or traffic congestion? ☐ ☒ ☐ ☐

A traffic study will be conducted to determine the project's impact on the local and regional transportation corridors. The EIR will include measures designed to mitigate traffic impacts.

b) Hazards to safety from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. large trucks)? ☐ ☒ ☐ ☐

See a) above. The traffic study will include discussion of traffic hazards.

c) Inadequate emergency access or access to nearby uses? ☐ ☐ ☒ ☐

See a) above.

d) Insufficient parking capacity on-site or off-site? ☐ ☐ ☒ ☐

Parking standards are a component of the Planned Unit Development. As envisioned, no parking will be permitted within the right of way on the west side of South Mt. Shasta Boulevard. Parking may also be restricted or prohibited on the interior loop roadway. All parking will be required to be on individual project sites.

e) Hazards or barriers for pedestrians or bicyclists? ☐ ☐ ☒ ☐

Design of the Planned Unit Development is intended to permit pedestrian traffic within and through the development. While not a part of this project, there is an opportunity for a walking trail along the railroad tracks and throughout the area designated for public use.

f) Conflicts with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)? ☐ ☐ ☒ ☐

Since the property is vacant, it is no currently on a local bus route. The bus route could be extended as need dictates. All development will be consistent with the Circulation Element of the City of Mt. Shasta General Plan.

g) Rail, waterborne or air traffic impacts? ☐ ☐ ☐ ☒

The proposed project is adjacent to the Union Pacific Railroad tracks and could develop a spur at a later date. During the operation of the mill there was an active spur line which was removed prior to closure of the mill. The City does not have an airport or any water port. There is no waterborne traffic in the region.

VII. **BIOLOGICAL RESOURCES.** *Would the project result in impacts to:*

a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)? ☐ ☒ ☐ ☐

A biological analysis of the property was conducted as a part of the opportunities and constraints analysis prepared before the Planned Unit Development was designed. Results of the analysis will be included in the EIR.

b) Locally designated species (e.g. heritage trees)? ☐ ☒ ☐ ☐

Subject	PS	PS/M	LS	NI

There are no locally designated species that will be disturbed by the project. Wetlands, a prevalent local habitat, will be protected and enhanced by design of the Planned Unit Development. Trees on the west side of Mt. Shasta Boulevard are seen as an asset to the site and will be maintained to the extent feasible. The forested area has been harvested in the past, and it is likely that additional harvest will occur before full buildout.

c) Locally designated natural communities (e.g. oak forest, coastal habitat, etc.)? ☐ ☒ ☐ ☐

See b) above.

d) Wetland habitat (e.g. marsh, riparian and vernal pool? ☐ ☒ ☐ ☐

Wetlands are known to occur on the site and have been avoided in the project design. There is a future opportunity to enhance the wetlands however this will require a wetlands alternation permit. Future development in and around the property will be required to either avoid or obtain a permit to modify wetlands. The EIR will discuss wetlands, and will establish development criteria.

e) Wildlife dispersal or migration corridors? ☐ ☐ ☒ ☐

See b) above.

VIII. ENERGY AND MINERAL RESOURCES. *Would the proposed project:*

a) Conflict with adopted energy conservation plans? ☐ ☐ ☒ ☐

The project will be constructed under the 1994 Uniform Building Code that establishes energy efficiency ratings for all construction. Historically, Pacific Power and Light has indicated a willingness and ability to provide power services to new construction. Provision of power will be discussed in the EIR.

b) Use non-renewable natural resources in a wasteful and inefficient manner? ☐ ☐ ☐ ☒

Non-renewable resources will be used to construct roadways and buildings on-site. The use of construction materials will be consistent with typical practices.

c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State? ☐ ☐ ☐ ☒

There are no identified mineral resources within the project site.

IX. HAZARDS. *Would the proposed project involve:*

a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)? ☐ ☐ ☒ ☐

Land uses that may result in accidental explosion or release of hazardous substances are considered conditional, and will be evaluated on an individual basis. City and County ordinances restrict the use and storage of hazardous materials.

b) Possible interference with an emergency response plan or emergency evacuation plan? ☐ ☐ ☐ ☒

The City of Mt. Shasta has an adopted Standardized Emergency Management System [SEMS], Resolution CCR-97-10. In the adopted SEMS South Mt. Shasta Boulevard is a designated evacuation route. The proposed project will provide improvements to the roadway to accommodate additional traffic consistent with the General Plan and the needs of the project. Full build out of the project may involve the installation of traffic signals which could impede traffic flow during an emergency and/or power failure. Evacuation procedures adopted by the City include traffic control on the designated evacuation routes. In the opinion of the Police Chief, the proposed project will not affect the adopted emergency response plan for the City of Mt. Shasta.

Subject	PS	PS/M	LS	NI
c) The creation of any health hazard or potential health hazard?	☐	☐	☐	☒

See a) above.

d) Exposure of people to existing sources of potential health hazards?	☐	☒	☐	☐

See a) above.

e) Increased fire hazard in areas with flammable brush, grass, or trees?	☐	☒	☐	☐

The proposed project will install fire hydrants to City standards. Maintenance of landscaping will further reduce the fire hazard. All structures will be required to meet the 1994 Uniform Fire Code.

X. **NOISE.** *Would the proposed project result in:*

a) Increase in existing noise levels?	☐	☒	☐	☐

Noise levels will vary by use type within the project site. The EIR will include a noise study that analyzes both on and off-site noise potential.

b) Exposure of people to severe noise levels?	☐	☒	☐	☐

See a) above.

XI. **PUBLIC SERVICES.** *Would the proposed project have an effect upon, or result in a need for new or altered governmental services in any of the following areas:*

a) Fire Protection?	☐	☒	☐	☐

The proposed project will require improvements to the water system to meet the minimum fire flow. The extent and cost of improvements will be included in the Public Services section of the EIR.

b) Police Protection?	☐	☒	☐	☐

The Police Department has indicated that they can provide service to the site. Design components in the Planned Unit Development will help address public safety on the property. The public safety issues will be addressed in the EIR.

c) Schools?	☐	☐	☐	☒

The proposed project will not create housing or generate any student impact on the school district. The project will be required to pay school fees.

d) Maintenance of public facilities, including roads?	☐	☒	☐	☐

Additional roadways will be created in the project area that will need snow plowing and maintenance. The annexation property tax sharing agreement between the City of Mt. Shasta and Siskiyou County provides for the County to receive all property tax revenues after annexation. This may reduce the amount of revenue available to the City to perform routine road maintenance. It is envisioned that this project will generate jobs and additional revenue from sales and transient occupancy tax which may off-set the cost of providing road maintenance. The anticipated revenue from the project will be discussed in the EIR.

e) Other governmental services?	☐	☐	☐	☒

No other governmental services are impacted by this project.

Subject	PS	PS/M	LS	NI

XII. UTILITIES AND SERVICE SYSTEMS. *Would the proposed project result in a need for new systems, or substantial alterations to the following utilities:*

a) Power or natural gas? ☐ ☐ ☒ ☐

There are no natural gas lines in the Mt. Shasta area. The utility companies have indicated that their infrastructure is sufficient to accommodate growth. This impact is not considered significant.

b) Communication systems? ☐ ☐ ☒ ☐

Pacific Bell is the most prevalent provider of communications in the Mt. Shasta area. The utility companies have indicated that their infrastructure is sufficient to accommodate growth.

c) Local or regional water treatment or distribution facilities? ☐ ☒ ☐ ☐

The proposed project will require an extension of City utilities including water, wastewater and storm drainage. Extension of the services will be discussed in the EIR.

d) Sewer or septic tanks? ☐ ☒ ☐ ☐

The City is currently operating under a cease and desist order issued by the California Regional Water Quality Control Board. The Order requires the City to address inflow and infiltration of stormwater into the sewer line. Extensive Inflow and Infiltration causes the inflow to overwhelm both the collection and treatment system resulting in treatment. The City is working with the State Division of Water Resources under a Clean Water Grant to address the issues raised in the Cease and Desist Order. The EIR will indicate the sewer services that will need to be extended to the project.

e) Storm water drainage systems? ☐ ☒ ☐ ☐

A combination of on-site detention basins and pipes will be used to accommodate both storm drainage from development on site and drainage passing through the site. The EIR will discuss storm drainage facilities proposed to serve the project.

f) Solid waste disposal? ☐ ☐ ☒ ☐

Solid waste pick up service is required of City residents, and will be required for newly annexed residents within the project area. Collection services are provided under franchise by John Smith Sanitation of Dunsmuir. Solid waste collection services can be expected to expand to meet increased demand. Solid waste disposal takes place at the Black Butte Landfill, which is managed by Siskiyou County. The Siskiyou County Department of Public Works estimated life of the landfill is in excess of ten years.

Solid waste landfill capacity is provided via a solid waste fee assessed against property owners. Also, the California Integrated Waste Management Act of 1989 requires all counties and cities to prepare plans that include Source Reduction and Recycling Element (SRRE). The objective of SRRE is to reduce waste volumes sent to landfills by 25% by 1995 and by 50% by 2000. Siskiyou County Department of Public Works has indicated that the Black Butte landfill separates recyclable materials from received wastes in an amount that approximately reaches SRRE targets. The City instituted a pilot recycling program in 1990 that included curbside pickup, block recycling, collection centers and source separation. The program has been judged relatively successful. In June 1992, the City was awarded a grant to continue the Siskiyou Opportunity Center recycling program. Solid waste generated by the project will be estimated in the EIR. The County has stated that sufficient landfill capacity exists in Siskiyou County to accommodate normal growth for a period of xx to xxx years. It is likely that the Black Butte land fill will ultimately reach capacity and be forced to close, which may result in increased hauling costs for solid waste. Since capacity in County landfills is known to exist, and the only impact over time will be the possible increase in hauling costs, this impact is not considered significant.

Subject	PS	PS/M	LS	NI
g) Local or regional water supplies?	☐	☒	☐	☐

Water lines will need to be extended to the property. The City receives its water from natural springs and wells. New water lines will need to be extended to the property to serve development. The EIR will discuss the availability of water and the extent of infrastructure needed to serve the project.

XIII.AESTHETICS. *Would the proposed project:*

a) Affect a scenic vista or scenic highway?	☐	☒	☐	☐

The project is visible from Interstate 5 and includes Mt. Shasta in the viewshed from the interstate. Views from South Mt. Shasta Boulevard include Castle Crags, Mt. Eddy, and Rainbow Ridge. Design components of the project, including architectural controls, lighting standards and height restrictions, are intended to help preserve the viewsheds. The EIR will discuss aesthetics.

b) Have a demonstrable negative aesthetic effect?	☐	☒	☐	☐

See a) above.

c) Create light or glare?	☐	☒	☐	☐

See a) above.

XIV.CULTURAL RESOURCES. *Would the proposal:*

a) Disturb paleontological resources?	☐	☐	☐	☒

An archeological and historical study will be completed for the project area and included in the EIR.

b) Disturb archeological resources?	☐	☐	☐	☒

See a) above.

c) Affect historical resources?	☐	☒	☐	☐

See a) above. Only one significant structure remains standing within the area to be annexed: a vacant former service station and an associated tower just east of Mt. Shasta Boulevard near the southern edge of the project site on one of the two private parcels within the RCP. The structure was originally built in the late 20's as part of a string of Richfield Beacon Stations that stretched from Blaine, Washington to El Centro, California along Highways 99 and 101. The stations from Mt. Shasta north utilized a French Revival architectural style characterized by steep roof lines and arched entry ways. The 125 foot tower in front of the building held a light beacon that was utilized by small planes as a navigational aid. This structure is located on private land, and has undergone largely interior modifications over time that may have diminished its historical value. The building is currently for sale and has been used for a retail ski shop and a real estate office since the service station was closed. Because of the age and unique character of the structure and accompanying tower, and the fact that few of these structures remain intact, it is likely that they may be eligible for inclusion on the National Register of Historic Places. The EIR will discuss the process involved with determining the historical importance of the facility and establish mitigation measures designed to address this potential resource.

d) Have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☐	☐	☒

See a) above.

e) Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	☒

Subject	PS	PS/M	LS	NI

There are no religious or sacred uses within the project site.

X. **RECREATION.** *Would the proposal:*

a) Increase the demand for neighborhood or regional parks or other recreational facilities? ☐ ☐ ☐ ☒

No residential development will occur within the project site. A portion of the project site is designated for public uses and is intended for development as a park. Development of recreational uses for off-site needs is not a part of this project and will not be discussed in the EIR..

b) Affect existing recreational opportunities? ☐ ☐ ☐ ☒

See a) above. A portion of the site is designated public use and parks in the Land Use Element of the General Plan. Previous plans for this area have included creation of a pond in the existing basin (former bark pile) and a surrounding park. Community discussion regarding development of a park and pond has been on-going for over five years, with no consensus or plan formally adopted by the City. There has been public concern voiced over whether there is adequate water available to the pond to prevent stagnation, mosquitoes or other impacts on the adjacent neighborhood. Questions have also been raised over who would accept liability for the pond and pay for maintenance of the park. The Planned Unit Development provides area for open space and trails, particularly adjacent to the public use and parks area and the Union Pacific Railroad. A well designed community park on the site would be beneficial to future commercial and industrial development providing a means of extending the landscaping theme throughout the development. Park and open space could also act as a buffer between non-residential uses on the project site and existing residential uses to the north of the site. Development of recreational facilities is outside the scope of the project and will not be discussed in the EIR.

XVI.MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ☐ ☒ ☐ ☐

The EIR will discuss the project's impact on the environment.

b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? ☐ ☒ ☐ ☐

The project has the potential to increase traffic, light and glare and affect the aesthetic quality of the property. These issues will be discussed in the EIR.

c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects) ☐ ☒ ☐ ☐

The project has the potential to increase traffic and result in job creation (growth inducement). The project may also cumulatively affect aesthetics and result in a general increase of light and glare. The EIR will discuss these issues.

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ☐ ☒ ☐ ☐

Subject	PS	PS/M	LS	NI

The project has the potential to increase traffic and result in job creation (growth inducement). The project may also cumulatively affect aesthetics and result in a general increase of light and glare. The EIR will discuss these issues.

Authorities Cited:

1. City of Mt. Shasta General Plan
2. City of Mt. Shasta General Plan EIR
3. City of Mt. Shasta Planning Database
4. City of Mt. Shasta Zoning Ordinance
5. City of Mt. Shasta Subdivision Improvement Standards

ATTACHMENT A

ROSEBURG COMMERCE PARK
PLANNED UNIT DEVELOPMENT
PROJECT DESCRIPTION

PROJECT OVERVIEW

The City of Mt. Shasta owns approximately 117 acres of land that was the former Roseburg Mill Site. The City wishes to annex the land into the City to all for commercial and industrial development. In order to facilitate reasonable commercial and industrial development, most of the annexation site will be prezoned as the Roseburg Commerce Park Planned Unit Development [PUD]. The PUD establishes development standards, allowable uses and expectations for development. The PUD, also referred to as the Roseburg Commerce Park [RCP], will apply to all of the City owned land, and two privately held parcels (see Table 1).

In order to result in logical City boundaries after annexation, the Local Agency Formation Commission [LAFCo] is requesting that the City also annex some existing development on the east side of South Mt. Shasta Boulevard. A few of these properties are already developed with a mixture of commercial and residential uses and are designated commercial in the City's General Plan. (see Table 1) Most of these properties do not meet the minimum criteria established in the General Plan for commercially designated land. A General Plan Amendment to designate those properties without frontage onto Mt. Shasta Boulevard as General Residential is also part of this project.

This Initial Study and the resulting EIR will concentrate on the impacts associated with the Roseburg Commerce Park for the following reasons:

1. The area included in the annexation by LAFCo is small, less than 14 acres, and is essentially fully developed.
2. The area that comprises the Roseburg Commerce Park is much larger, over 133 acres, and will generate significantly more impact to the City and the Region.
3. The City's General Plan will be amended to change the designation of the 14 acres from Commercial Center to General Residential which is a much less intensive use than considered in the City's General Plan EIR.
4. The traffic impact of the existing development within the 14 acres has already been factored into the analysis for the Roseburg Commerce Park.

Unless specifically noted otherwise, the terms "project area" and "project site" refer to land within the Roseburg Commerce Park.

Existing Conditions

The former Roseburg Mill site is essentially vacant. There are remnants of the former lumber operations including: the empty mill pond, the uniform plantation grown trees on the eastern portion of the site, abandoned/dilapidated infrastructure, and concrete slabs and guard rails in the center of the western portion of the site. The only significant structure remaining within the Roseburg Commerce Park area is a vacant former service station and an associated tower just east of Mt. Shasta Boulevard near the southern edge of the project site. The structure is located on a private parcel and is currently for sale. Originally constructed as a service station, the building has also been used as a retail ski shop and a real estate office. The structure was originally built in the late 20's as part of a string of Richfield Beacon Stations that stretched from Blaine, Washington to El Centro, California along Highways 99 and 101. The stations from Mt. Shasta north utilized a French Revival architectural style characterized by steep roof lines and arched entry ways. The 125 foot tower held a light beacon that was utilized by small planes as a navigational aid. Because of the age and unique character of the structure and accompanying tower it is likely that they may be eligible for inclusion on the National Register of Historic Places.

A tree plantation formerly managed by the lumber company primarily occupies the eastern portion of the project area. This portion of the site slopes moderately upwards to the southeast with some steeper slopes in the northeast corner. Elevations range from 3,500 feet near Mt. Shasta Boulevard in the west to roughly 3,625 feet in the east. Currently there are no urban uses on this half of the project site. The western portion of the project site is where the past lumber operations were located. This area has been extensively altered and remnants of the lumber operations can be found throughout the site although all buildings and major improvements have been removed. This half of the site slopes gradually downward from east to west with elevations ranging from approximately 3500 feet at Mt. Shasta Boulevard to 3,460 feet at the western property line near I-5.

The 13.6 acres outside of the Roseburg Commerce Park boundaries but included in the annexation request consists of eleven parcels. The majority of the area is developed with a mix of uses including a health club, a motel, a trucking operation, a machine shop, the Mt. Shasta Church of Christ and several single family residences. Two of the parcels in the eastern portion of this area are undeveloped.

Project Objectives

In January 1998 a Draft Development Plan was prepared for the proposed Roseburg Commerce Park. The information and analyses included in the Development Plan defines the project evaluated in this environmental analysis. The Development Plan identifies development concepts, buildout scenarios, and allowed uses and standards for the development of the majority of the project site being considered for annexation. The 13.6 acres outside the RCP are already

developed and will have a minimal contribution on the environmental impacts generated by the project. A copy of the Draft Development Plan is available for review at the Mt. Shasta City Planning Department.

Since the City received title to the Roseburg property in 1990, it has supported potential commercial or industrial development of the site and explored various options to annex the property. The Draft Development Plan and supporting documents were prepared to facilitate the achievement of both of these objectives. Consistent with these objectives the RCP property is within the City's Sphere of Influence and has been designated in the General Plan for Commercial and Employment Center and Park land uses. Following acceptance and adoption of the Roseburg Commerce Park Development Plan and certification of this Environmental Impact Report (EIR), the City intends to submit an application to the Siskiyou County Local Agency Formation Commission (LAFCo) requesting annexation of the property.

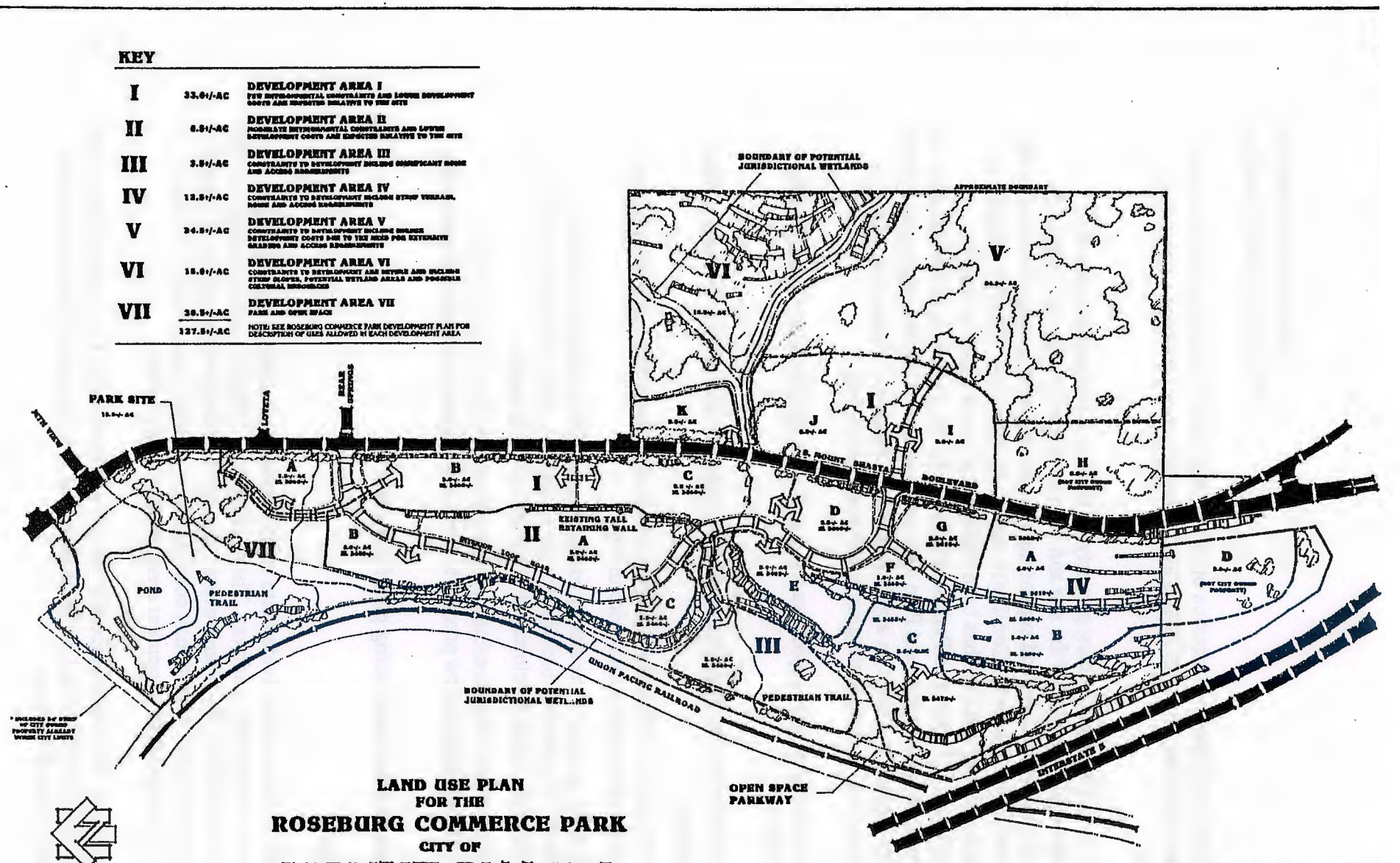
Listed below are the proposed project objectives as identified in the Roseburg Commerce Park Draft Development Plan:

- To provide guidance for the development of the Roseburg site that reflects the desires of the Mt. Shasta community.
- To ensure that development within the Roseburg site is well integrated and is harmonious with the surrounding natural and built environment.
- To encourage the development of the site by establishing defined criteria that project applicants must meet. To provide a baseline for the evaluation of the environmental impacts associated with annexation and development of the Roseburg property.
- To expedite the annexation of the Roseburg property by providing a more detailed application and environmental review process to the Local Agency Formation Commission (LAFCo).
- To develop an infrastructure and phasing plan for the site.

PROJECT OBJECTIVES

The Roseburg Commerce Park site is divided into seven "development areas" containing individual parcels plus an open space parkway. The boundaries of these areas are depicted on the Land Use Map shown as Figure 2. The Plan's overall goal is the unified development of a range of anticipated land uses including recreational, commercial, industrial, government, business park, and office uses. The various development areas are described below:

Development Area I (DA-I): The area adjacent to Mt. Shasta Boulevard. DA-I generally has few environmental constraints to development, and it is expected that the costs of development here will be lower than other areas at the site.



Roseburg Commerce Park
Project Description
Figure 1

Development Area II (DA-II): The area within the western section of the site generally between DA-I and the Union Pacific railroad tracks. DA-II has moderate constraints to development, but the costs of development should be reasonable.

Development Area III (DA-III): The area within the western section of the site, located in the south and southwestern part. Constraints to development include noise and access.

Development Area IV (DA-IV): The southernmost part of the western section of the site, adjacent to Interstate 5. Steep terrain, noise and access pose constraints to development in this area. Visibility from the Interstate is an important planning consideration.

Development Area V (DA-V): The area located in the eastern section of the site, occupying most of the southern half. Constraints include higher development costs due to the need for extensive grading and access requirements.

Development Area VI (DA-VI): The area within the eastern section of site, in the northeastern part. Constraints to development are severe, due to the presence of steep slopes, wetland areas and possible cultural resources. It is anticipated that development in this area will be limited to trails and other nonstructural uses.

Development Area VII (DA-VII): The northernmost part of the western section of the site. Most of this area has been designated for parkland use in the City's General Plan, and it is designated as park area in this Development Plan.

MT. SHASTA PLANNING COMMISSION MINUTE ORDER

March 17, 1998
Approved as Submitted - April 21, 1998

2. Roll Call

Present: Commissioners Tadina, Jaffe, Apperson, Auxter, Schnabel, and Chairman Cole
Absent: Commissioner Moore

7. PUBLIC HEARING

Project No. 97.35 **Planned Unit Development and Annexation**
Roseburg Commerce Park **South Mt. Shasta Boulevard**
Assessor's Parcel Nos. 37-220-040, 080, 120, 130; 37-240-010 – 100, 140; 37-260-010

City Administrator Riker stated that this public hearing was intended to provide an opportunity for the public to comment on the Initial Study and Notice of Preparation circulated for the above project. The proposed project consists of a General Plan Amendment and prezoning intended to result in the annexation of the former Roseburg Mill site and some adjacent private land. City Administrator Riker stated that this project would be subject to an Environmental Impact Report. He added that no decision would be made by the Planning Commission at this meeting. The EIR for this project would be circulated for public review following the close of the Notice of Preparation review period. City Administrator Riker advised that an additional public notice would be given prior to consideration of the EIR and any action concerning this project.

Chairman Cole opened the public input portion of the public hearing.

Noting no public comments, Chairman Cole closed the public input portion of the public hearing.

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO 95814

:TE WILSON
GOVERNOR

PAUL F MINER
DIRECTOR

RECEIVED
3-11-98
CITY OF MT. SHASTA

DATE: March 5, 1998

TO: Reviewing Agencies

RE: ROSEBURG COMMERCE PARK REZONING AND ANNEXATION
SCH# 98032006

Attached for your comment is the Notice of Preparation for the ROSEBURG COMMERCE PARK REZONING AND ANNEXATION draft Environmental Impact Report (EIR).

Responsible agencies must transmit their concerns and comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

MARK TEAGUE
CITY OF MT. SHASTA
305 NORTH MT. SHASTA BLVD
MT. SHASTA, CA 96067

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Kristen Derscheid at (916) 445-0613.

Sincerely,

Antero A. Rivasplata

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Attachments

cc: Lead Agency

Resources Agency

- [x] **Nadell Gayou**
Resources Agency
1020 Ninth Street, Third Floor
Sacramento, CA 95814
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45 Fremont Street, Suite 1970
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- [ ] **Reed Holderman**
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- [ ] **Environmental Review**
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- [ ] **Steve McAdam**
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- [ ] **Kim Dinh**
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- [ ] **Brian Hunter**, Regional Manager
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- [ ] **George Nokes**, Regional Manager
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- [ ] **Department of Fish and Game**
Environmental Services
330 Golden Shore, Suite 50
Long Beach, CA 90802
310/590-5132 Fax 310/590-5192

Independent Commissions/Agencies

- [ ] **California Energy Commission**
1516 Nioth Street, MS-15
Sacramento, CA 95814
916/654-3944

- [x] **Native American Heritage Comm.**
915 Capitol Mall, Room 364
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- [ ] **Andrew Barnsdale**
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- [x] **Betty Silva**
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Sacramento, CA 95826
916/574-1872 Fax 916/574-1885

- [ ] **Gerald R. Zimmerman**
Colorado River Board
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Glendale, CA 91203-1035
818/543-4676 Fax 818/543-543-4685

- [ ] **Tahoe Regional Planning**
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Zephyr Cove, NV 89448
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- [ ] **John Rowden**, Manager
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Rancho Cordova, CA 95670
916/464-1014

- [ ] **Debby Eddy**
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Department of Transportation
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- [ ] **Jeff Pulverman**
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- [ ] **Phillip Badal**
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- [ ] **Robert Ruhnke**
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- [ ] **Ed Fuentes**
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- [ ] **Sandy Hesnard**
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- [ ] **Jeanie Blakeslee**
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- [x] **Wayne Hubbard**
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- [ ] **Phil Zentner**
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- [ ] **Mike Falkenstein**
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- [ ] **Dept. of Toxic Substances Control**
CEQA Tracking Center
400 P Street, Fourth Floor
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Sacramento, CA 95812-0806
916/324-3119 Fax 916/324-1788

Regional Water Quality Control Board

- [ ] **NORTH COAST REGION (1)**
5550 Skyline Blvd., Suite A
Santa Rosa, CA 95403
707/576-2220 Fax 707/523-0135

- [ ] **SAN FRANCISCO BAY REGION (2)**
2101 Webster, Suite 500
Oakland, CA 94612
510/286-1255 Fax 510/286-1380

- [ ] **CENTRAL COAST REGION (3)**
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5427
805/549-3147 Fax 805/543-0397

- [ ] **LOS ANGELES REGION (4)**
101 Centre Plaza Drive
Monterey Park, CA 91754-2156
213/266-7556 Fax 213/266-7600

- [ ] **CENTRAL VALLEY REGION (5)**
3443 Routier Road, Suite A
Sacramento, CA 95827-3098
916/255-3000 Fax 916/255-3015

  - [ ] **Fresno Branch Office**
  3614 East Ashlan Avenue
  Fresno, CA 93726
  209/445-5116 Fax 209/445-5910

  - [x] **Redding Branch Office**
  415 Knollcrest Drive
  Redding, CA 96002
  916/224-4845 Fax 916/224-4857

- [ ] **LAHONTAN REGION (6)**
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
916/542-5400 Fax 916/544-2271

  - [ ] **Victorville Branch Office**
  15428 Civic Drive, Suite 100
  Victorville, CA 92392-2359
  619/241-6583 Fax 619/241-7308

- [ ] **COLORADO RIVER BASIN REGION (7)**
73720 Fred Waring Drive, #100
Palm Desert, CA 92260-2564
619/346-7491 Fax 619/341-6820

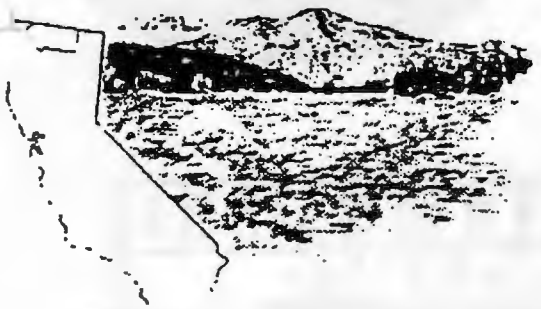
- [ ] **SANTA ANA REGION (8)**
3737 Main Street, Suite 500
Riverside, CA 92501-3339
714/782-4130 Fax 909/781-6288

- [ ] **SAN DIEGO REGION (9)**
9771 Clairemont Mesa Blvd., Suite B
San Diego, CA 92124-1331
619/467-2952 Fax 619/571-6972

- [ ] OTHER: _____

- [ ] OTHER: _____

SCH



Siskiyou County
DEPARTMENT OF PUBLIC WORKS

305 BUTTE STREET
YREKA, CALIFORNIA 96097
Phone: (916) 842-8250
Fax (916) 842-8288

DAVID A. GRAVENKAMP
Director
LARRY INMAN
Deputy Director/Administration
BRIAN D. McDERMOTT
Deputy Director/Roads

TO: Wayne Virag, Assistant Planning Director
Siskiyou County Planning Dept.

FROM: Larry Evans, Engineering Tech III

DATE: March 24, 1998

SUBJECT: City of Mt. Shasta EIR for Roseburg Commerce Park Annexation

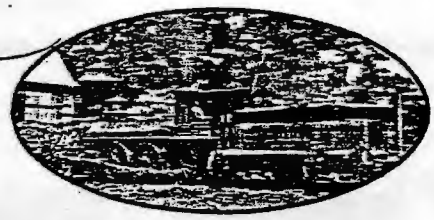
Please be advised that Siskiyou County Public Works requests that Mt. Shasta Blvd. (2M55) be added to the City road system from the south boundary of said project, north to the existing City limits.

LE/sj

Post-it® Fax Note 7671	Date 3/24	# of pages ▶ 1
To MARK TEAGUE	From WAYNE VIRAG	
Co./Dept.	Co.	
Phone #	Phone # 842-8202	
Fax # 926-0339	Fax #	

CITY OF DUNSMUIR

DUNSMUIR, CALIFORNIA 96025
PHONE (916) 235-4822



March 6, 1998

Joseph T. Riker, III
City Administrator
City of Mt. Shasta
305 N. Mt. Shasta Blvd.
Mt. Shasta, CA 96067

RECEIVED
3/9/98 SC
CITY OF MT. SHASTA

Subject: Draft EIR-Roseburg Commerce Park

Dear Mr. Riker:

The City of Dunsmuir has not statutory authority over the project. Due to the proximity of our two cities, and the probable location of the aquifer that serves Dunsmuir, we would request that adequate groundwater and geologic components be included in the Draft EIR.

Very truly yours,

Michael Powers
City Manager

CALIFORNIA REGION WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

415 Knollcrest Drive, Suite 100
Redding, CA 96002
Phone (530) 224-4845
FAX (530) 224-4857

Cal/EPA

Pete Wilson, *Governor*

10 March 1998

Mr. Joseph T. Riker, III, City Administrator
City of Mt. Shasta
305 North Mt. Shasta Blvd.
Mt. Shasta, CA 96067

COMMENTS, ROSEBURG COMMERCE PARK, PLANNED UNIT DEVELOPMENT PREZONING AND ANNEXATION, MT. SHASTA, SISKIYOU COUNTY

We have reviewed the Initial Environmental Study and Notice of Preparation of a Draft Environmental Impact Report for the subject project. We have the following comments in reference to selected excerpts:

"City services would be extended to this site and would be available for future development....The proposed project will require an extension of City utilities including ... wastewater.." Given the current enforcement action which the Regional Board has taken against the City of Mt. Shasta's Wastewater Treatment Plant, Cease and Desist Order No. 97-092, staff is concerned how the proposed project would impact operations at the plant. We request that the EIR address the projected increase in wastewater load for the City's plant. The projection should include 1, 5, and 10 year estimates of the increase both as a direct result of the project and as a result of induced growth.

"Some of the material on site is considered unsuitable for construction due to high organic content...typically bark from the former mill operations...this organic material may need to be removed or relocated prior to construction." In the EIR please address how soil contaminated with organic matter will be handled (e.g. site of relocation).

"The project will need to obtain a National Pollution Discharge Elimination [System] Permit (NPDES) from the California Regional Water Quality Control Board." The General Construction Activities Storm Water Permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) prior to the onset of construction activities. A copy of the permit is available upon request.

"Wetlands are known to occur on the site and have been avoided in the project design. There is a future opportunity to enhance the wetlands however this will require a wetlands alteration permit. Future development in and around the property will be required to either avoid or obtain a permit to modify wetlands." Placement of fill in wetlands requires, in conjunction with a U.S. Army

Corps Section 404 permit, a Section 401 water quality certification from the Regional Board. A request for water quality certification must include a project description with the acreage of wetlands to be impacted and acreage of proposed mitigation.

If you have any questions, please contact me at (530) 224-4788 or the letterhead address.

Ann L Manji

Annie Manji
Environmental Specialist

ALM:tch

UNION PACIFIC RAILROAD COMPANY
Real Estate Department

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Assistant Vice President
J. A. Anthony
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J. L. Hawkins
Director-Operations Support
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D. H. Lightwine
Director-Real Estate
T. K. Love
Director-Real Estate

March 12, 1998

File 1669-81

Joseph T. Riker, III
City Administrator
City of Mt. Shasta
305 North Mt. Shasta Boulevard
Mt. Shasta, CA 96067

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Roseburg Commerce Park, Planned Unit Development Prezoning and Annexation

Dear Mr. Riker:

This is in reference to the "Notice of Preparation" dated March 2, 1998, regarding the proposed Roseburg Commerce Park Planned Unit Development. Union Pacific Railroad Company's main line operating corridor is along the westerly boundary of this proposed development.

It is noted that the Land Use Plan map provided shows a pedestrian trail that will follow the Railroad's right of way. For safety reasons, if such a trail is constructed, the Railroad would like the trail's developer to be required to erect a fence along our property boundary to prevent pedestrians and bicyclists from entering the right of way.

In addition, development plans must ensure that drainage patterns do not adversely affect the Railroad's right of way.

Safety of the general public and our employees is a primary concern of the Railroad. Your inclusion of these requirements in the proposed development will help us operate safely through this area.

If you have any questions, please call me at (402) 997-3621.

Sincerely,

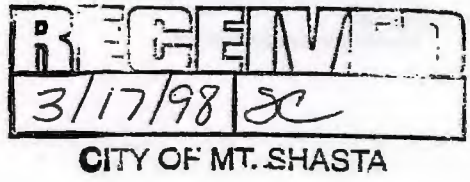
Lisa L. Burnside
Manager - Real Estate

DEPARTMENT OF FORESTRY
AND FIRE PROTECTION
P.O. BOX 128, YREKA,CA. 96097
(916) 842-3516

PETE WILSON
GOVERNOR

City of Mt. Shasta
305 North Mt. Shasta Boulevard
Mt Shasta,CA. 96067

Date March 12, 1998



ATTN: Joseph T. Riker City Administrator

PROJECT APPLICATION REVIEW

Roseburg Commerce Park

The California Department of Forestry and Fire Protection has the following Public Resources Code 4290 recommendations for the above referenced project:

1. **ROAD AND STREET NETWORKS-**
   1273.01, 1273.02, 1273.03, 1273.04, 1273.05, 1273.06, 1273.07, 1273.08, 1273.09.

2. **ROAD SIGNING-**
   1274.01, 1274.02, 1274.03, 1274.05, 1274.06, 1274.07

3. **WATER STANDARDS**
   1275.10 NOTE : CONTACT MT. SHASTA FIRE CHIEF JOE SPINI FOR SPECIFIC WATER REQUIREMENTS.

4. **FUEL MODIFICATION-**
   1276.02, 1276.03

SEE THE ATTACHED "4290 CHECKLIST" FOR SPECIFIC CODE REQUIREMENTS.

In addition to the Public Resources Code 4290 requirements, if timber is to be commercially harvested as part of this subdivision creation, the conditions set forth in the California Forest Practice Rules pertaining to Conversion of Timberland (Title 14, CCR, Article 7, Section 1104.02) must be adhered to.

DEPARTMENT OF FORESTRY
AND FIRE PROTECTION
P.O. BOX 128, YREKA,CA. 96097
(916) 842-3516

PETE WILSON
GOVERNOR

Additional Public Resources Code 4290 requirements that must be met during subsequent building permit applications are as follows:

1. **DRIVEWAY DESIGN AND SURFACE REQUIREMENTS-**
   1273.02, 1273.03, 1273.05, 1273.07, 1273.10, 1273.11

2. **ADDRESSES FOR BUILDING-**
   1274.08, 1274.09, 1274.10

3. **FUEL MODIFICATION AND STANDARDS-**
   1276.01, 1276.02, 1276.03

SEE THE ATTACHED "4290 CHECKLIST" FOR SPECIFIC CODE REQUIREMENTS.

If you have any questions, please call.

Sincerely,

Richard Just
Siskiyou Unit Chief

By: Bernie Paul
Battalion Chief

attachment
cc: MT. SHASTA FPD
file

4290 CHECKLIST

OTE: Authority cited: Section 4290 Public Resources Code.
eference: Sections 4290 and 4291 Public Resources Code.

Adopt Section 1273.00 as follows:

☐ 1273.00 Intent

Road and street networks, whether public or private, unless exempted under 1270.02(e) shall provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency consistent with 1273.00 through 1273.11

☐ 1273.01 Road Width

All roads shall be constructed to provide a minimum of two nine-foot traffic lanes providing two-way traffic flow, unless other standards are provided in this article, or additional requirements are mandated by local jurisdictions or local subdivision requirements.

☐ 1273.02 Roadway Surfaces

The surface shall provide unobstructed access to conventional drive vehicles, including sedans and fire engines. Surfaces should be established in conformance with local ordinances, and be capable of supporting a 40,000 pound load.

☐ 1273.03 Roadway Grades.

The grade for all roads, streets, private lanes and driveways shall not exceed 16 percent.

☐ 1273.04 Roadway Radius

A. No roadway shall have a horizontal inside radius of curvature of less than 50 feet and additional surface width of 4 feet shall be added to curves of 50-100 feet radius; 2 feet to those from 100-200 feet.

B. The length of vertical curves in roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall have a length of not less than 100 feet.

☐ 1273.05 Roadway Turnarounds

Turnarounds are required on driveways and dead-end roads as specified in this article. The minimum turning radius for a

turnaround shall be 50 feet from the center line of the road. If a hammerhead/T is used, the top of the "T" shall be a minimum of 60 feet in length.

☐ **1273.06 Roadway Turnouts**

Turnouts shall be a minimum of 10 feet wide and 30 feet long with a minimum 25 foot taper on each end.

☐ **1273.07 Roadway Structures**

A. All driveway, road, street, and private lane roadway structures shall be constructed to carry at least the maximum load and provide the minimum vertical clearance as required by the California Vehicle Code.

B. Appropriate signing, including but not limited to weight or vertical clearance limitations, one-way road or single lane conditions, shall reflect the capability of each bridge.

C. A bridge with only one traffic lane may be authorized by the local jurisdiction however it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

☐ **1273.08 One-Way Roads**

All one-way roads shall be constructed to provide a minimum of one 10-foot traffic lane. The local jurisdiction may approve one-way roads. All one-way roads shall connect to a two-lane roadway at both ends, and shall provide access to an area currently zoned for no more than 10 dwelling units. In no case shall it exceed 2640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each one-way road.

☐ **1273.09 Dead-End Roads**

A. The maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road shall not exceed the following cumulative lengths, regardless of the number of parcels served:

Parcels zoned for less than one acre	800 feet
Parcels zoned for 1 acre to 4.99 acres	1320 feet
Parcels zoned for 5 acres to 19.99 acres	2640 feet
Parcels zoned for 20 acres or larger	5280 feet

All lengths shall be measured from the edge of the roadway surface at the intersection that begins the road to the end of the road surface at its farthest point. Where a dead-end road

crosses areas of differing zoned parcel sizes, requiring different length limits, the shortest allowable length shall apply.

B. Where parcels are zoned 5 acres or larger, turnarounds shall be provided at a maximum of 1320 foot intervals.

C. Each dead-end road shall have a turnaround constructed at its terminus.

1273.10 Driveways

All driveways shall provide a minimum 10-foot traffic lane and unobstructed vertical clearance of 15 feet along its entire length.

A. Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.

B. A turnaround shall be provided at all building sites on driveways over 300 feet in length, and shall be within 50 feet of the building.

1273.11 Gate Entrances

A. Gate entrances shall be at least two feet wider than the width of the traffic lane(s) serving the gate.

B. All gates providing access from a road to a driveway shall be located at least 30 feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that road.

C. Where a one-way road with a single traffic lane provides access to a gated entrance a 40-foot turning radius shall be used.

Adopt Section 1274.00 as follows:

1274.00 Intent

To facilitate the location of a fire and to avoid delays in response, all newly constructed or approved roads, streets, and buildings shall be designated by names or numbers, posted on signs clearly visible and legible from the road-way. This section shall not restrict the size of letters or numbers appearing on street signs for other purposes.

1274.01 Size of Letters. Numbers and Symbols for Street and Road Signs

Minimum 3-inch letter height, 3/8-inch stroke, reflectorized, contrasting with the background color of the sign.

1274.02 Visibility and Legibility of Street and Road Signs

Street and road signs shall be visible and legible from both directions of vehicle travel for a distance of not less than 100 feet.

1274.03 Height of Street and Road Signs

Shall be uniform county wide, and meet the visibility and legibility standards of this article.

1274.04 Names and Numbers on Street and Road Signs

Newly constructed or approved public and private roads and streets must be identified by a name or number through a consistent county wide system that provides for sequenced or patterned numbering and/or non-duplicating naming within each county. All signs shall be mounted and oriented in a uniform manner. This section does not require any entity to rename or renumber existing roads or streets. Nor shall a roadway providing access only to a single commercial or industrial occupancy require naming or numbering.

1274.05 Intersecting Roads, Streets, and Private Lanes

Signs required by this article identifying intersecting roads, streets, and private lanes shall be placed at the intersection of those roads and/or streets.

1274.06 Signs Identifying Traffic Access Limitations

A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end road, one-way road or single lane conditions, shall be placed:

A. At the intersection preceding the traffic access limitation, and

B. No more than 100 feet before such traffic access limitation.

1274.07 Installation of Road and Street Signs

Signs required by this section shall be installed prior to final acceptance by the local jurisdiction of road improvements.

1274.08 Addresses for Buildings

All buildings shall be issued an address by the local jurisdiction which conforms to their overall address system. Accessory buildings will not be required to have a separate address, however, each dwelling unit within a building shall be separately identified.

1274.09 Size of Letters, Numbers, and Symbols for Addresses

Minimum 3-inch letter height, 3/8-inch stroke, reflectorized, contrasting with the background color of the sign.

1274.10 Installation, Location and Visibility of Addresses

A. All buildings shall have a permanently posted address which shall be placed at each driveway entrance, and visible from both directions of travel along the road. In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter and the address shall be visible and legible from the road on which it is addressed.

B. Address signs along one-way roads shall be visible from the intended direction of travel and the opposite direction.

C. Where multiple addresses are required at a single driveway, they shall be mounted on a single post.

D. Where a roadway provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest road intersection providing access to that site.

1275.00 Intent

To provide available and accessible emergency water for wildfire protection, in specified quantities and locations to attack a wildfire or defend property from a wildfire. Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or manmade containment structure, as long as the specified quantity is immediately available.

1275.01 Application

The provisions of this article shall apply when new parcels are approved by a local jurisdiction and shall be available on-site prior to the completion of road construction where a community water system is approved or prior to the completion of building construction, where an individual system is approved.

1275.10 General Standards

Water systems that meet or exceed the standards specified in Public Utilities Commission of California (PUC) revised General Order #103, Section VIII Fire Protection Standards and other applicable sections relating to fire protection water delivery systems, static water systems equaling or exceeding the National Fire Protection Association (NFPA) Standard 1231, "Standard on Water Supplies for Suburban and Rural Fire Fighting" or mobile water systems that meet the Insurance Services Office (ISO) rural class 8 standard shall be accepted as meeting the requirements of this article. Nothing in this article prohibits the combined storage of emergency wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency. Where freeze protection is required by local jurisdictions, such protection measures shall be provided.

1275.15 Hydrant/Fire Valve

A. The hydrant or fire valve shall be 18 inches above grade, 8 feet from flammable vegetation and no closer than 4 feet nor farther than 12 feet from a roadway and in a location where fire apparatus using it will not block the roadway.

The hydrant serving any building shall:

1. Not be less than 50 feet nor more than 1/2 mile by road from the building it is to serve, and

2. Be located at a turnout or turnaround, along the driveway to that building or along the road that intersects that driveway.

B. The hydrant head shall be brass with 2-1/2 inch National Hose male thread with cap for pressure and gravity flow systems and 4-1/2 inch for draft systems. Such hydrants shall be wet or dry barrel as required by the delivery system. It shall have suitable crash protection if required by the local jurisdiction.

☐ 1275.20 Signing of Water Sources

Each hydrant/fire valve or access to water shall be identified as follows:

A. If located along a driveway, a reflectorized blue marker, with a minimum dimension of 3 inches shall be located on the driveway address sign and mounted on a fire retardant post, or

B. If located along a street or road,

1. A reflectorized blue marker, with a minimum dimension of 3 inches shall be mounted on a fire retardant post. The sign post shall be within 3 feet of said hydrant/fire valve, with the sign no less than 3 feet nor greater than 5 feet above ground, in a horizontal position and visible from the driveway, or

2. As specified in the State Fire Marshal's Guidelines for fire Hydrant Markings Along State Highways and Freeways.

☐ 1276.00 Intent

To reduce the intensity of a wildfire by reducing the volume and density of flammable vegetation, these areas shall provide (1) increased safety for emergency fire equipment and evacuating civilians; and (2) a point of attack or defense from a wildfire; and (3) strategic siting for fuel modification and greenbelts.

☐ 1276.01 Setback for Structure Defensible Space

A. All parcels 1 acre and larger shall provide a minimum 30-foot setback for buildings and accessory buildings from all property lines and/or the center of a road; 50 feet from center line or 20 feet from property line or which is greater. (county standard)

B. For parcels less than 1 acre, local jurisdictions shall provide for the same practical effect.

☐ 1276.02 Disposal of Flammable Vegetation and Fuels Disposal, including chipping, burying, burning or removal to a landfill site approved by the local jurisdiction, of flammable vegetation and fuels caused by site development and construction, road and driveway construction, and fuel modification shall be completed prior to completion of road construction or final inspection of a building permit, whichever is appropriate.

] 1276.03 Compliance with Existing Fuel Modification Requirements. (see attachment)

All buildings, accessory buildings or any other development project that falls within the authority of this article shall comply with Section 4291 Public Resources Code.

] 1276.04 Greenbelts

Subdivisions and other developments, which propose greenbelts as a part of the development plan, shall locate said greenbelts strategically, as a separation between wildland fuels and structures, as approved by the inspection authority.

)MMENTS:

Fire HAZARD REDUCTION

For your Safety and Protection

Public Resources Code 4291

REMOVE

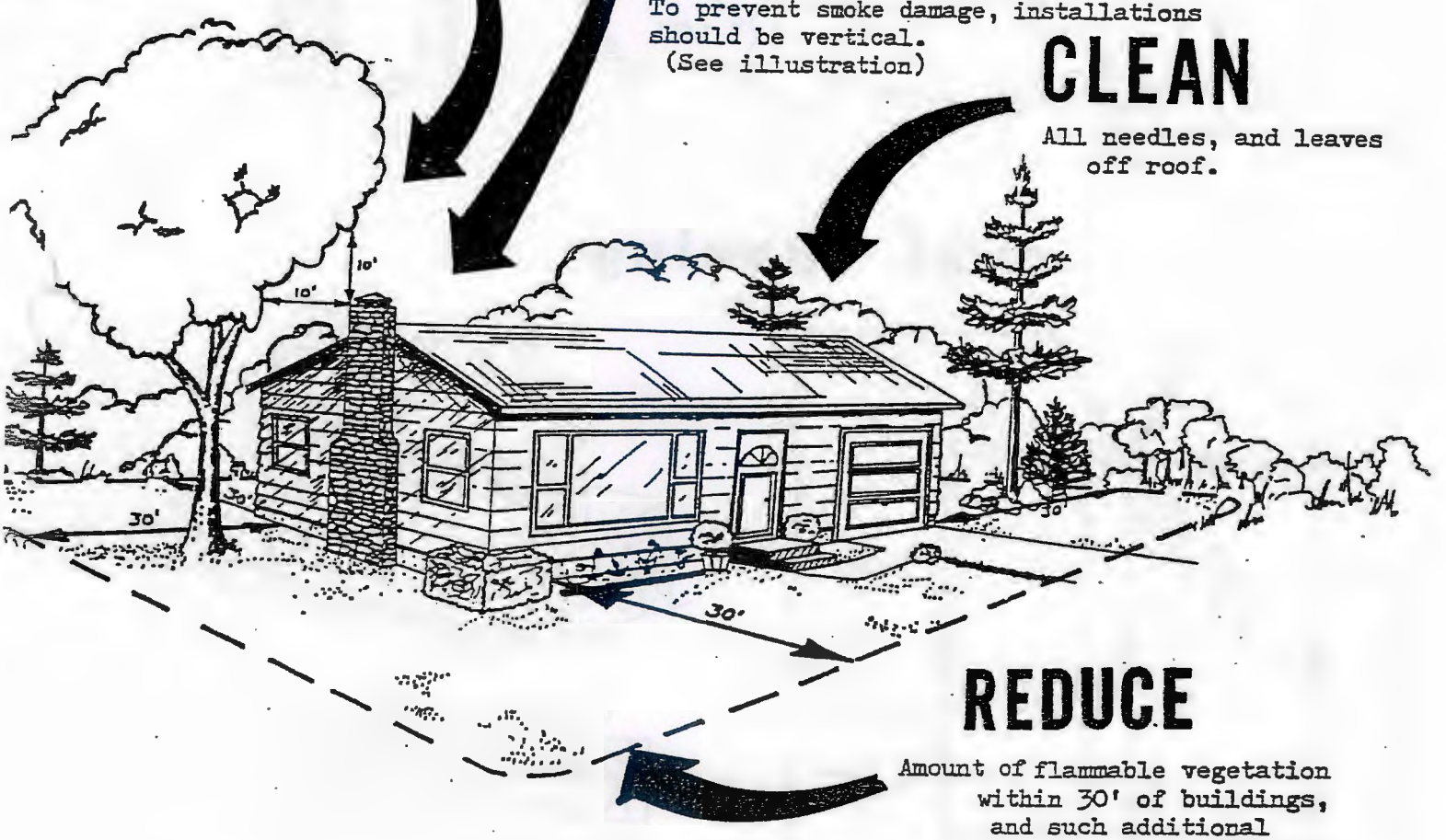
Limbs within 10' of chimney.
ad limbs overhanging building.

SCREEN

1/2" mesh screen on chimney outlet.
To prevent smoke damage, installations should be vertical.
(See illustration)

CLEAN

All needles, and leaves off roof.



REDUCE

Amount of flammable vegetation within 30' of buildings, and such additional clearance, up to 100 feet, as may be directed.

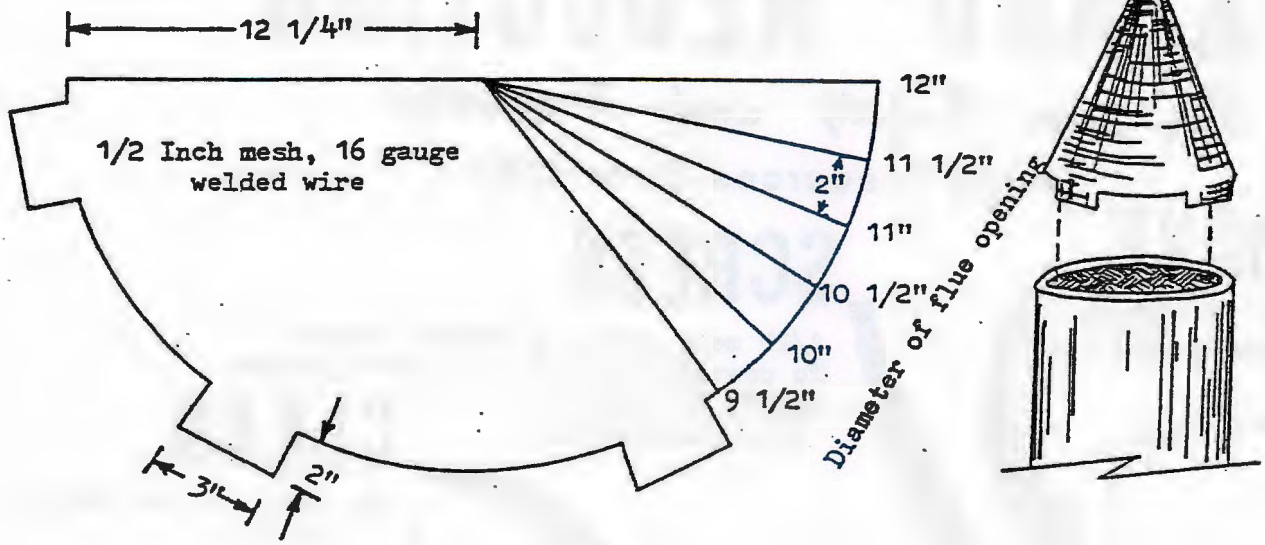
See reverse side for illustration of screen installation.

STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
AND FIRE PROTECTION

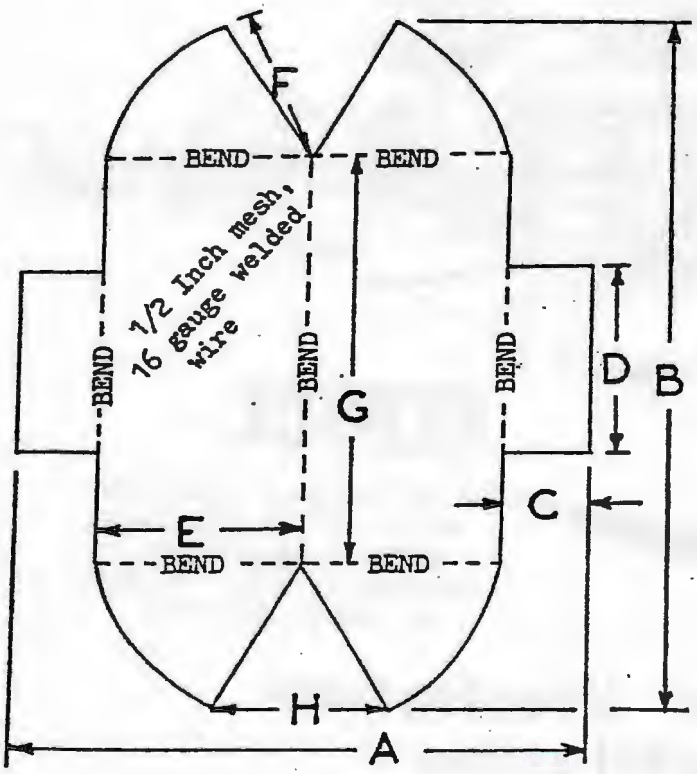
Prevent Roof Fires

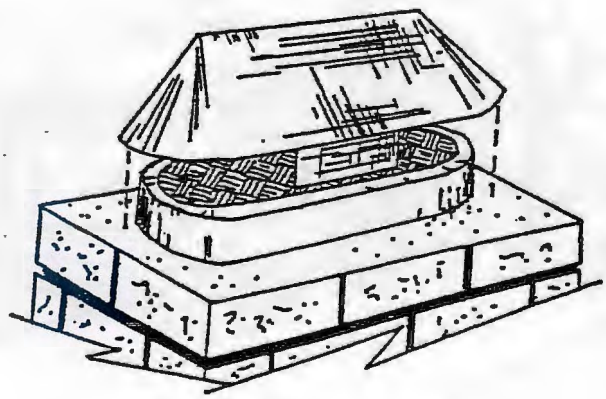
CHIMNEY SPARK ARRESTER PLANS

round opening



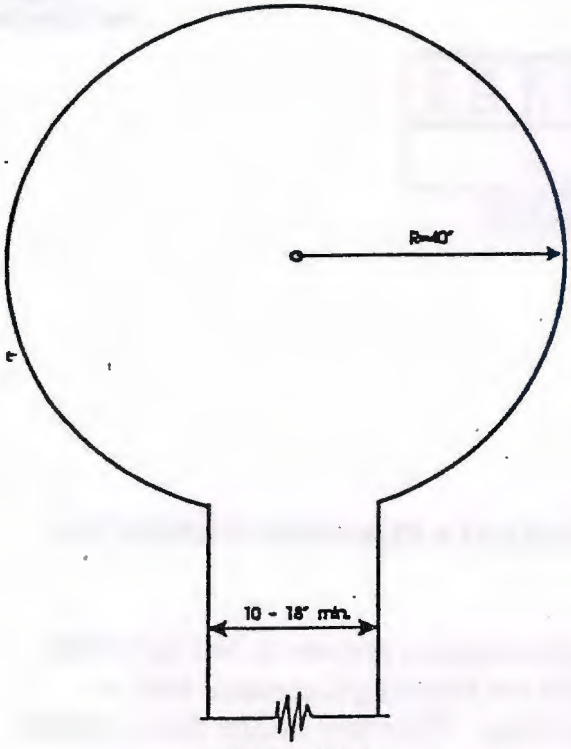
oval opening



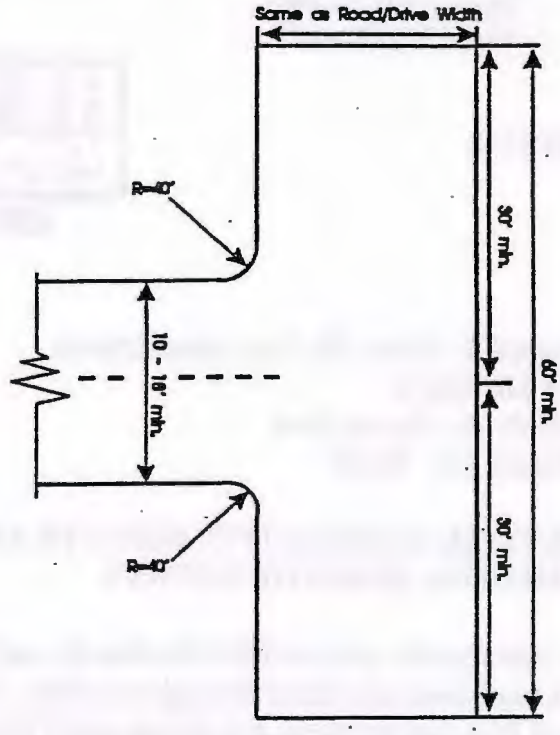


Oval flue opening size

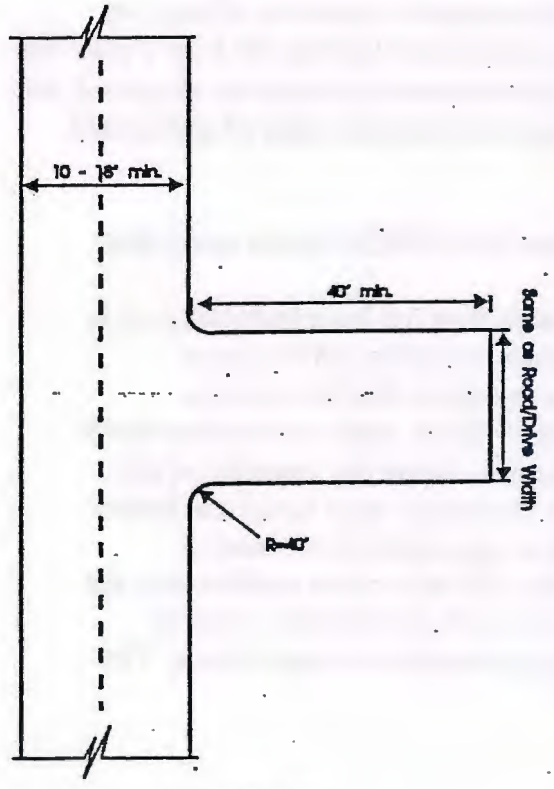
	6½ × 16	11 × 15	10 × 20
A	20"	24"	24"
B	22 1/2	23"	30"
C	3 1/4"	3 1/2"	3 1/2"
D	8"	8"	8"
E	6 3/4"	8 1/2"	8 1/2"
F	6 1/4"	7"	7"
G	12 1/4"	10 1/2"	18"
H	7"	7"	7"



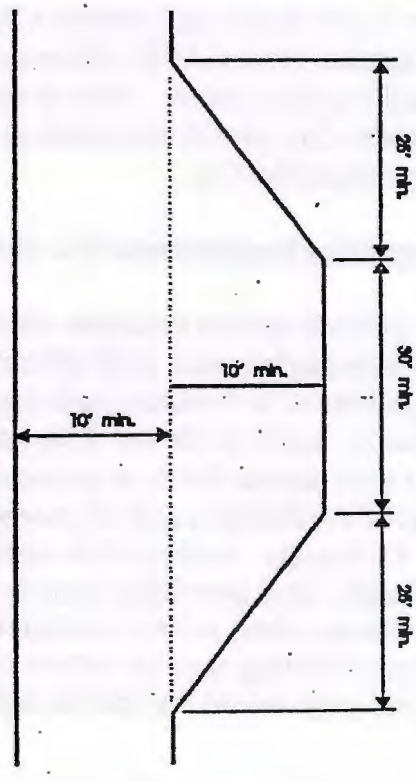
TURNAROUND



HAMMERHEAD/T



TURNAROUND



TURNOUT

CALIFORNIA REGIO _ WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

415 Knollcrest Drive, Suite 100
Redding, CA 96002
Phone (530) 224-4845
FAX (530) 224-4857

Cal/EPA

Pete Wilson, Gove

3 April 1998

Mr. Joseph T. Riker, III, City Administrator
City of Mt. Shasta
305 North Mt. Shasta Blvd.
Mt. Shasta, CA 96067

POTENTIAL CUMULATIVE IMPACTS, CITY OF MT. SHASTA PLANNING PROJECTS, MT. SHASTA, SISKIYOU COUNTY

In the past month, several Initial Studies for various planning/development projects in the City of Mt. Shasta have been circulated through our office. Projects include the Roseburg Commerce Park, a General Plan Amendment, and the Spinghill Enterprises Parcel Map. While individually these projects may not have a significant impact on the wastewater load for the City of Mt. Shasta's Wastewater Treatment Plant, we are concerned about potential cumulative impacts. This is especially of concern given the current Cease and Desist Order (No. 97-092) which has been issued to the City.

In response to the Roseburg Commerce Park project (the first document to reach our office), we requested that the proposed EIR address projected increases in wastewater load for the City's plant for one, five and ten year periods. Now as more (albeit smaller) developmental projects are proposed, we believe that the City should take a look at cumulative impacts on the treatment plant of anticipated growth throughout the City.

General Reporting Requirements B.5. of the Standard Provisions for NPDES Permits states that:

> "A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Board by 31 January. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Board may extend the time for submitting the report."

We request that a meeting be set up with James Rohrbach and myself to discuss this issue. Please contact me at the address above or (530) 224-4788.

Annie Manji
Environmental Specialist
Shasta Cascade Watershed

ALM:tch

cc: Siskiyou County Health Department, Division of Environmental Health, Yreka
City of Mt. Shasta, Public Works Department, Mt. Shasta

COUNTY OF SISKIYOU
DEPARTMENT OF PUBLIC HEALTH
David J. Herfindahl, M.D.
Public Health Director
Internet Address: herf@snowcrest.net
Web:http://www.snowcrest.net/herf/index.html
806 South Main Street
Yreka, CA 96097
TELEPHONE 530-841-4040
Fax 530-841-4076
Mount Shasta Office
101 Siskiyou Street
Mt, Shasta, CA 96067
Telephone 530-926-458

April 2, 1998

Joseph T. Riker, II, City Administrator
City of Mt. Shasta
305 N. Mt. Shasta Blvd.
Mt. Shasta, CA 96067

RE: Project #97.35 Roseburg Commerce Park Planned Unit Development and Annexation

Dear Mr. Riker:

This Department has reviewed the above noted development and environmental determination. As the project is proposed to be served by both public water and sewer systems, this Department has no objections to the commerce park development and annexation to the City of Mt. Shasta.

If you have further questions regarding this matter please feel free to contact me at this Department Tuesday thru Friday between the hours of 7:00 - 8:30 a.m. or 4:30 - 5:30 p.m.

Sincerely,
SISKIYOU COUNTY HEALTH DEPARTMENT

Rick J. Dean
REHS II

RJD/dd

State of California—Business, Transportation and Housing Agency PETE WILSON, Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
Mount Shasta Area
618 West Jessie Street
Mount Shasta, California 96067
(530) 926-2627
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

April 9, 1998

File No.: 146.A6874.8799

Joseph T. Riker, III
City Administrator
City of Mount Shasta
305 North Mount Shasta Boulevard
Mount Shasta, California 96067

Dear Mr. Riker:

The Mount Shasta Area has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Roseburg Commerce Park, Planned Unit Development Prezoning and Annexation as requested in your letter dated March 2, 1998. There does not appear to be any major impact for this department in regard to granting this project and related traffic safety issues should be manageable.

Thank you for the opportunity to respond to this issue. Should you have any questions, please feel free to contact me at the above listed address or telephone number.

Sincerely yours,

J. E. LOPEY, Lieutenant
Commander
Mount Shasta Area

APPENDIX B
NOISE ANALYSIS

APPENDIX A
ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

L_{dn}: Day-Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

L_{eq}: Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

Note: L_{dn} represents the daily level of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.

L_{max}: The maximum sound level recorded during a noise event.

L_n: The sound level exceeded "n" percent of the time during a sample interval. L_{10} equals the level exceeded 10 percent of the time (L_{90}, L_{50}, etc.)

BBA

APPENDIX A-2
ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS: Lines drawn about a noise source indicating constant levels of noise exposure. L_{dn} contours are frequently utilized to describe community exposure to noise.

SEL OR SENEL: Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure level for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL: 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 response of the human ear and gives good correlation with subjective reactions to noise.

BBA

APPENDIX B-1

FHWA Model RD-77-108: Brown-Buntin Associates, Inc.
Calveno Emission Curves Run Date: 03-27-1998
Project Number: 97-328 Run Time: 13:23:48
Year: Existing
Soft Site

INPUT DATA SUMMARY:

Segment	ADT	Day%	Eve%	Nite%	%MT	%HT	Speed	Distance	Offset
1	17100	69.5	0.0	30.5	3.3	27.0	65.0	500.0	-7.0
2	6700	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
3	3000	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
4	3000	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
5	750	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0

NOISE LEVELS:

evel, dB Ldn

gment	Distance	Offset	Autos	Med.Trk.	Hvy.Trk.	Total
1	500.0	-7.0	51.5	44.4	57.0	58.3
2	50.0	0.0	60.8	53.6	55.8	62.6
3	50.0	0.0	57.3	50.1	52.3	59.1
4	50.0	0.0	57.3	50.1	52.3	59.1
5	50.0	0.0	51.3	44.1	46.3	53.0

NOISE CONTOURS:

Distance to Ldn Contour, in feet

		Level, dB				
Segment	Offset	75	70	65	60	55
1	-7.0	38	83	178	384	826
2	0.0	7	16	34	74	159
3	0.0	4	9	20	43	93
4	0.0	4	9	20	43	93
5	0.0	2	4	8	17	37

FHWA Model RD-77-108: Brown-Buntin Associates, Inc.
Calveno Emission Curves Run Date: 03-27-1998
Project Number: 97-328 Run Time: 13:25:43
Year: Existing
Soft Site

INPUT DATA SUMMARY:

Segment	VPH	Day%	Eve%	Nite%	%MT	%HT	Speed	Distance	Offset
1	2150	0.0	0.0	0.0	3.3	27.0	65.0	500.0	-7.0
2	670	0.0	0.0	0.0	2.0	1.0	35.0	50.0	0.0
3	300	0.0	0.0	0.0	2.0	1.0	35.0	50.0	0.0
4	300	0.0	0.0	0.0	2.0	1.0	35.0	50.0	0.0
5	75	0.0	0.0	0.0	2.0	1.0	35.0	50.0	0.0

NOISE LEVELS:

Segment	Distance	Offset	Level, dB Leq Autos	Med.Trk.	Hvy.Trk.	Total
1	500.0	-7.0	50.6	43.5	56.1	57.3
2	50.0	0.0	61.2	54.0	56.2	63.0
3	50.0	0.0	57.7	50.5	52.7	59.5
4	50.0	0.0	57.7	50.5	52.7	59.5
5	50.0	0.0	51.7	44.5	46.7	53.5

NOISE CONTOURS:

Segment	Offset	Distance to Leq Contour, in feet Level, dB 72	67	65
1	-7.0	53	113	154
2	0.0	13	27	37
3	0.0	7	16	22
4	0.0	7	16	22
5	0.0	3	6	9

APPENDIX B-3

FHWA Model RD-77-108: Brown-Buntin Associates, Inc.
Calveno Emission Curves Run Date: 03-30-1998
Project Number: 97-328 Run Time: 13:29:33
Year: Future No Project
Soft Site

INPUT DATA SUMMARY:

Segment	ADT	Day%	Eve%	Nite%	%MT	%HT	Speed	Distance	Offset
1	31000	69.5	0.0	30.5	3.3	27.0	65.0	500.0	-7.0
2	10690	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
3	7740	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
4	7020	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
5	1230	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0

NOISE LEVELS:

Level, dB Ldn

Segment	Distance	Offset	Autos	Med.Trk.	Hvy.Trk.	Total
1	500.0	-7.0	54.1	47.0	59.6	60.9
2	50.0	0.0	62.8	55.6	57.8	64.6
3	50.0	0.0	61.4	54.2	56.4	63.2
4	50.0	0.0	61.0	53.8	56.0	62.8
5	50.0	0.0	53.4	46.2	48.4	55.2

NOISE CONTOURS:

Distance to Ldn Contour, in feet

		Level, dB				
Segment	Offset	75	70	65	60	55
1	-7.0	57	123	265	570	1228
2	0.0	10	22	47	101	218
3	0.0	8	18	38	81	176
4	0.0	8	16	35	76	165
5	0.0	2	5	11	24	52

FHWA Model RD-77-108: Brown-Buntin Associates, Inc.
Calveno Emission Curves Run Date: 03-30-1998
Project Number: 97-328 Run Time: 13:30:52
Year: Future No Project
Soft Site

INPUT DATA SUMMARY:

Segment	VPH	Day%	Eve%	Nite%	%MT	%HT	Speed	Distance	Offset
1	3100	69.5	0.0	30.5	3.3	27.0	65.0	500.0	-7.0
2	1069	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
3	774	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
4	702	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
5	123	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0

NOISE LEVELS:

Segment	Distance	Offset	Level, dB Leq Autos	Med.Trk.	Hvy.Trk.	Total
1	500.0	-7.0	52.2	45.1	57.7	58.9
2	50.0	0.0	63.2	56.1	58.3	65.0
3	50.0	0.0	61.8	54.7	56.8	63.6
4	50.0	0.0	61.4	54.2	56.4	63.2
5	50.0	0.0	53.8	46.7	48.9	55.6

NOISE CONTOURS:

Distance to Leq Contour, in feet

Segment	Offset	Level, dB 72	67	65
1	-7.0	67	145	197
2	0.0	17	37	50
3	0.0	14	30	40
4	0.0	13	28	38
5	0.0	4	9	12

APPENDIX B-5

FHWA Model RD-77-108: Brown-Buntin Associates, Inc.
Calveno Emission Curves Run Date: 03-30-1998
Project Number: 97-328 Run Time: 13:33:12
Year: Future With Project
Soft Site

INPUT DATA SUMMARY:

Segment	ADT	Day%	Eve%	Nite%	%MT	%HT	Speed	Distance	Offset
1	31000	69.5	0.0	30.5	3.3	27.0	65.0	500.0	-7.0
2	17500	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
3	13800	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
4	15700	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
5	4830	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0

NOISE LEVELS:

Level, dB Ldn

gment	Distance	Offset	Autos	Med. Trk.	Hvy. Trk.	Total
1	500.0	-7.0	54.1	47.0	59.6	60.9
2	50.0	0.0	64.9	57.8	60.0	66.7
3	50.0	0.0	63.9	56.7	58.9	65.7
4	50.0	0.0	64.5	57.3	59.5	66.3
5	50.0	0.0	59.3	52.2	54.4	61.1

NOISE CONTOURS:

Distance to Ldn Contour, in feet

		Level, dB				
Segment	Offset	75	70	65	60	55
1	-7.0	57	123	265	570	1228
2	0.0	14	30	65	140	302
3	0.0	12	26	56	120	258
4	0.0	13	28	61	131	281
5	0.0	6	13	28	60	128

FHWA Model RD-77-108: Brown-Buntin Associates, Inc.
Calveno Emission Curves Run Date: 03-30-1998
Project Number: 97-328 Run Time: 13:33:49
Year: Future With Project
Soft Site

INPUT DATA SUMMARY:

Segment	VPH	Day%	Eve%	Nite%	%MT	%HT	Speed	Distance	Offset
1	3100	69.5	0.0	30.5	4.3	27.0	65.0	500.0	-7.0
2	1750	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
3	1380	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
4	1570	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0
5	483	87.0	0.0	13.0	2.0	1.0	35.0	50.0	0.0

NOISE LEVELS:

Level, dB Leq

Segment	Distance	Offset	Autos	Med.Trk.	Hvy.Trk.	Total
1	500.0	-7.0	52.2	45.1	57.7	58.9
2	50.0	0.0	65.4	58.2	60.4	67.2
3	50.0	0.0	64.3	57.2	59.4	66.1
4	50.0	0.0	64.9	57.7	59.9	66.7
5	50.0	0.0	59.8	52.6	54.8	61.6

NOISE CONTOURS:

Distance to Leq Contour, in feet

		Level, dB		
Segment	Offset	72	67	65
1	-7.0	67	145	197
2	0.0	24	51	70
3	0.0	20	44	59
4	0.0	22	48	65
5	0.0	10	22	30

APPENDIX C
AIR QUALITY DATA

PROJECT NAME: Roseburg Commerce Park Date: 04-23-1998

Project Area: Other (rural and small urban)

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: Emfac7f1.1(12/93)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Tot Trips
Amusement Center	80.0/Acre	6	480
Quality Restaurant	96.5/1000 Sqft	5	483
Restaurant (Sit Down)	205.0/1000 Sqft	10	2050
Restaurant (Fast Food)	786.0/1000 Sqft	5	3930
Hotel	8.9/Unit	100	890
Motel	9.6/Unit	50	480
Specialty Retail	40.7/1000 Sqft	50	2035
Business Park	159.8/Acre	9	1438
Office Park	195.0/Acre	7	1365
Government Office Building	195.0/Acre	5	975
Industrial Park	63.0/Acre	4	252
Automobile Dealership	37.5/1000 Sqft	30	1125

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	72.3	0.0	100.0	0.0
Light Duty Trucks	16.3	0.0	100.0	0.0
Medium Duty Trucks	5.4	0.0	100.0	0.0
Heavy Duty Trucks	2.4	11.0	89.0	N/A
Heavy Duty Trucks	0.8	N/A	N/A	100.0
Motorcycles	2.8	100.0	N/A	N/A

Travel Conditions:

	Residential			Commercial	
	Home-Work	Home-Shop	Home-Other	Work	Non-Work
Trip Length	10.9	8.1	9.3	10.6	9.1
% Started Cold	88.7	40.5	59.0	78.0	27.8
Trip Speed	25	25	25	35	35
Percent Trip	27.3	21.2	51.5		

Summer

Project Emissions Report in Lb/Day:

Unit Type	TOG	ROG	CO	NO
Amusement Center	2.13	1.98	21.47	4.
Quality Restaurant	2.16	2.00	21.77	4.
Restaurant (Sit Down)	9.11	8.45	91.68	19
Restaurant (Fast Food)	17.47	16.21	175.76	37.
Hotel	3.96	3.67	39.80	8.
Motel	2.13	1.98	21.47	4.
Specialty Retail	8.97	8.32	90.19	19
Business Park	7.20	6.68	72.61	14
Office Park	6.83	6.34	68.91	13
Government Office Building	4.88	4.53	49.22	9
Industrial Park	1.24	1.15	12.50	2.
Automobile Dealership	4.96	4.60	49.86	10.
TOTALS	71.06	65.91	715.26	149.
Winter	86.49	80.26	972.62	184.

Project Emissions Report in Lb/Day (Continued)

Unit Type	FUEL (Gal.)	PM10	SO
Amusement Center	205.8	0.98	0.
Quality Restaurant	207.8	0.99	0.
Restaurant (Sit Down)	878.8	4.18	2.
Restaurant (Fast Food)	1684.7	8.00	5.
Hotel	381.5	1.81	1.
Motel	205.8	0.99	0.
Specialty Retail	868.1	4.12	2.
Business Park	659.9	3.14	2.
Office Park	626.3	2.98	2.
Government Office Building	447.3	2.13	1.
Industrial Park	114.5	0.54	0.
Automobile Dealership	479.9	2.28	1.
TOTALS	6760.2	32.12	21.
		32.12	21.

APPENDIX D
ARCHAEOLOGICAL INVENTORY SURVEY

ARCHAEOLOGICAL INVENTORY SURVEY

City of Mount Shasta Proposed Roseburg Annexation Project, City of Mount Shasta, Siskiyou County, California.

Prepared for

Kellog Engineering
Attention: Mark Teague
309A North Mount Shasta Blvd.
Mount Shasta, California 96067

Author

Jensen & Associates
Peter M. Jensen 34/5-9515

Keywords

Inventory Survey, USGS City of Mount Shasta, Ca. 7.5' Provisional Quad, 117 ac., Siskiyou County, CEQA and NEPA, No Resources.

December 19, 1997

EXECUTIVE SUMMARY

This report details the results of an archaeological inventory survey of a block of land of approximately 117 acres, located adjacent to the south side of Mt. Shasta City, Siskiyou County, California. The property is to be annexed to the City of Mt. Shasta corporate boundary. Following annexation, the property will likely be developed for various uses, including light industrial/commercial and/or residential and related developments.

Evaluation of possible impacts of the City's proposed undertaking to cultural resources is required by City and County rules and regulations, pursuant to the California Environmental Quality Act of 1970 (CEQA). Additionally, since federal funding and/or federal permits may be required, the project must also conform with federal guidelines for assessing effects to cultural resources, including in particular Section 106 of the National Historic Preservation Act and its implementing regulations.

Field work for the present project was undertaken between December 10 and 15, 1997, by Sean M. Jensen and Peter M. Jensen, and involved a 100% coverage, variable intensity pedestrian survey.

No prehistoric or historic sites exist within the project area. Although the property itself has been the site of historic milling operations since the turn-of-the-Century, property owners and mill operators since the 1950's have demolished all of the old structures and graded and regarded the property on several occasions as long landings and milled lumber storage facilities were moved from one location to another. As a consequence, the proposed further development of this property will not affect any structural remains of historic significance or potential significance, since none of the extant structural remains is older than about 40-42 years.

CONTENTS

INTRODUCTION

Project Background

This report details the results of an archaeological inventory survey of a block of land of approximately 117 acres, located adjacent to the south side of Mt. Shasta City, Siskiyou County, California (Figure 1). The property is owned by Roseburg Lumber Co., and is to be annexed to the City of Mt. Shasta. Following annexation, the property will likely be developed for various uses, including light industrial/commercial and/or residential and related developments.

According to agency definitions, the potential for altered land use and for future additional development constitutes an "undertaking" which could adversely affect various types of resources located within the Area of Potential Effect (APE), which consists of the 117-ac property itself. Evaluation of effects to such resources must be undertaken in conformity with City and County rules and regulations, in compliance with requirements of the California Environmental Quality Act of 1970, Public Resources Code, Section 21000, et seq. (CEQA), and The California Environmental Quality Act Guidelines, California Administrative Code, Section 15000 et seq. (Guidelines), prepared by the Office of Planning and Research and published in June of 1986. Additionally, however, the project could possibly involve federal funding and/or permitting, implying that various studies conducted prior to development must also conform with federal guidelines for evaluating effects to cultural resources, including in particular Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800), Section 2(b) of Executive Order 11593, Section 101(b)(4) of the National Environmental Policy Act, the Archaeological Resources Protection Act, the Native American Grave Protection and Repatriation Act of 1990, and other rules and regulations.

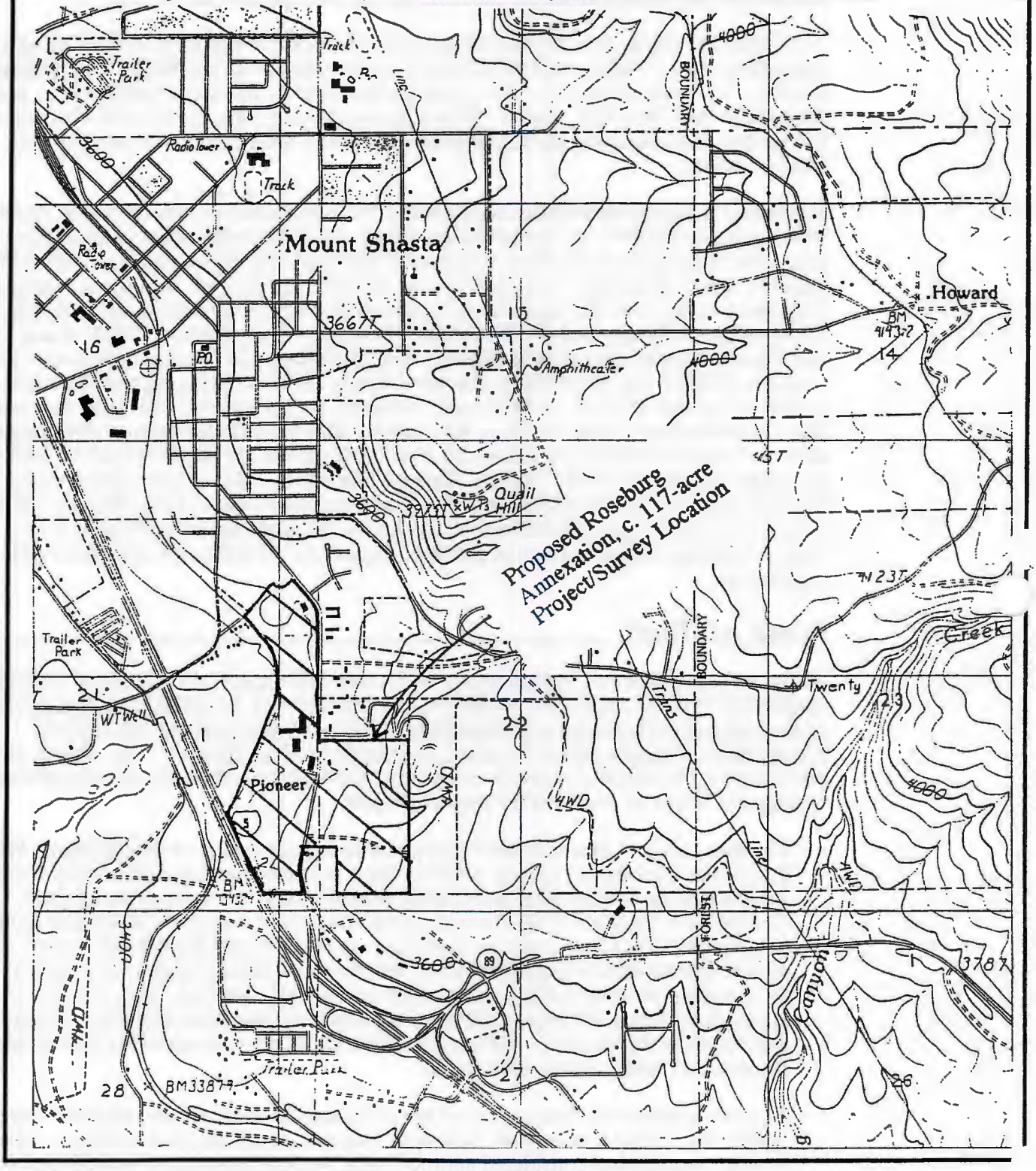
Scope of Work

At the most general level, compliance with Section 106 requires completion of projects in conformity with the standards, guidelines, and principles in the Advisory Council's Treatment of Archaeological Properties: A Handbook (1980), and Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (1983). Based on these publications, the following specific tasks were considered to constitute an adequate and appropriate Scope of Work for the present project:

- Conduct a records search at the Northeast Information Center of the California Historical Resources Information System at CSU-Chico to determine if any previously recorded sites exist within the project area, and consult with affected Native American groups. Collectively, the goals of the records search and consultation are to determine (a) the extent and distribution of previous archaeological surveys, (b) the locations of known archaeological sites and any previously recorded archaeological districts, and (c) the relationships between known sites and environmental variables. This step is designed to ensure that, during subsequent field survey work, all properties eligible or potentially eligible for inclusion on the National Register are discovered, correctly identified, fully documented, and properly interpreted.

- Conduct a pedestrian field survey of the APE in order to record and evaluate any previously unidentified cultural resources. Based on map review, a complete coverage, variable-intensity survey was considered appropriate, given the presence of variable sensitivity zones throughout different portions of the project area.

Figure 1
Project Location and Archaeological Survey Area Map
(from USGS City of Mt. Shasta, California [Provisional 7.5' Series])



The purpose of the pedestrian survey is to ensure that any previously recorded sites which may have been identified during the records search are re-located, evaluated, and site documents up-dated to current inventory-level standards. For any previously undocumented sites discovered, the field survey will involve formally recording these resources. For both previously identified and newly identified sites, the level of field work will be sufficient to recommend measures designed to avoid, minimize or mitigate potential adverse effects of the proposed undertaking.

- Upon completion of the records search and the pedestrian survey, a Final Report will be prepared which identifies project effects and recommends appropriate mitigation measures for sites found eligible, or potentially eligible for inclusion on the National Register of Historic Places and which might be affected by the proposed undertaking.

The remainder of the present report constitutes the Final Report for this project, and details the results of the records search and inventory survey work and provides recommendations for treatment of sites which could be affected by the proposed undertaking. All field work procedures followed guidelines provided by the State Historic Preservation Office (Sacramento) and are in conformity with accepted professional standards.

Location

The proposed Roseburg Annex will affect an estimated 117 acres of land located adjacent to the south side of Mt. Shasta City, being a portion of Sections 21 and 22, of Township 40 North, Range 4 West, as shown on the USGS City of Mt. Shasta, California, 7.5' Series (provisional) quad (see Figure 1).

All of the APE has been intensively developed for logging operations for nearly 100 years. The sequence of ownership, and the development history of the property through Roseburg's acquisition in the 1970's, is detailed below in the review of ***Historic Context***. The relevant fact here is that all of the property has been impacted by extensive bulldozing, multiple episodes of building construction followed by demolition and rebuilding, and grading and paving of large sections of the property. The consequence of these prior development activities is that prehistoric sites which might once have existed in the area are likely to have been totally destroyed, as well as many of the earlier historic structures which once occupied the property.

Overall, and notwithstanding the effects of prior development activities, the project area appeared to contain lands ranging from low to moderate in sensitivity for prehistoric sites, and moderate to high in sensitivity for historic-era sites and features.

Records Search

Prior to conducting the pedestrian field survey, the official Siskiyou County archaeological records maintained by the Northeast Information Center of the California Historical Resources Information System at CSU-Chico were examined for any existing recorded prehistoric or historic sites (Walk-in Records Search conducted on December 8, 1997, by Jensen & Associates). These records indicate the following existing conditions for the project area:

Northeast Information Center Records: None of the project area has been previously surveyed for cultural resources. Several linear and block surveys have been undertaken on nearby parcels, although there appears to be no overlap of these previous survey area boundaries into the present project area. No prehistoric or historic sites are currently documented within or adjacent to the project area.

Other Sources Consulted: In addition to examining the official records of Siskiyou County as maintained by the Northeast Information Center at CSU-Chico, the following additional sources were consulted:

1. The National Register of Historic Places (1979, 1989, Supplements to 12/92);
2. The California Inventory of Historic Resources (State of California 1976);
3. The California Historical Landmarks (State of California 1990);
4. Fred A. Case, Chair, Quartz Valley Indian Reservation;
5. Orbell Apperson, City of Mt. Shasta, California;
6. Elgin Bruster, City of Mt. Shasta, California;
7. Sisson Museum, City of Mt. Shasta, California;
8. Al Meneni, City of Mt. Shasta, California;
9. Joe Lombardi, City of Mt. Shasta, California;
10. Existing published and unpublished documents relevant to prehistory, ethnography, and early historic developments in the vicinity. These sources provided a general environmental and cultural context by means of which to assess likely site types and distribution patterns for the project area, and are summarized below under ***Project Context.***

PROJECT CONTEXT

Several types of information were considered relevant to evaluating the types of archaeological sites and site distribution which might be encountered within the project area. The information evaluated prior to conducting field work includes data on regional prehistory, ethnography, and early historic developments.

Prehistory: The earliest definite evidence of human occupation in north central California is from site CA-SHA-475 located north of Redding and south of the present project area on Squaw Creek, where a charcoal based C-14 date suggests initial Native American presence around 6,500 years ago. Continuous use of the region is indicated on the basis of evidence from this and other regional sites. Most of the artifactual material dating to this early time period suggests cultural affiliation with the Borax Lake area -- the presence of large wide-stemmed projectile points and manos and metates being the most prominent artifact types represented. The possibility exists that this early culture represents Hokan-speaking peoples who were related to those who subsequently expanded into the northern Sierra Nevada, the southern Cascade, the northern Coast Range, and the southern Klamath Mountains.

Sometime around AD 100-200, the first major disruption of this presumed Hokan-speaking population by Penutian immigrants occurred to the south. Eventually these later arrivals displaced at least some of the Hokan populations who had been occupying the Sacramento Valley floor and the margins of the Sacramento River, and may have forced migration northward of Hokan-speaking groups which had been occupying sections of the Sacramento River Canyon north of Redding and south of Mt. Shasta City and Weed. The Penutian-speaking immigrants were still expanding into areas previously occupied by Hokan-speakers at the time of initial contact with Euroamerican populations circa. AD 1850. Presumably introduced by the Penutian-speaking peoples were more extensive use of bulbs and other plant foods, animal and fishing products processed with mortars and pestles, and perhaps the bow and arrow and associated small stemmed- and corner-notched projectile points. In the northernmost Sacramento Valley, the so-called Shasta (archaeological) Complex represents the material culture record of the local Penutian speakers -- in the Redding area they were Wintu peoples.

In the present project area, the descendants of the earlier Hokan-speaking populations -- the Shasta Indians -- were still in control of Shasta Valley and the area around Weed and Mount Shasta City at the time of initial contact with White populations (*circa.* AD 1850).

Ethnography: As noted above, the project area is located within territory which was occupied by the Shasta Indians (Silver 1978: Figure 1), which was the case for much of Siskiyou County at the time of initial contact with Whites. The basic social unit for the Shasta was the family, although the village may also be considered a social, as well as a political and economic, unit. Villages, frequently located on flats adjoining streams, were inhabited primarily in the winter as it was necessary to go out into the hills and higher elevation zones to establish temporary camps during food gathering seasons (i.e., spring, summer and fall). Villages typically consisted of a scattering of bark houses, numbering from four or five to several dozen in larger villages, each house containing a single family of from three to seven people. Larger villages, with from twelve to fifteen or more houses, might also contain an earth lodge.

As with most other northern California Indian groups, economic life revolved around hunting, fishing and the collecting of plant foods, with deer, acorns, and salmon representing primary staples. The collection and processing of these various food resources was accomplished with the use of a wide variety of wooden, bone and stone artifacts. Moreover, the Shasta were very sophisticated in terms of their knowledge of the uses of local animals and plants, and of the availability of raw material sources which could be used in manufacturing an immense array of primary and secondary tools and implements. However, only fragmentary evidence of their material culture remains, due in part to perishability, and in part to the impacts to archaeological sites resulting from later (historic) land uses. Based on the results of previous survey work within the general and immediate project area, the expected range of prehistoric/aboriginal site types included the following:

- surface scatters of lithic artifacts and debitage associated with dark "midden" deposits resulting from village encampments, some of which were occupied nearly year-round. Typically, such sites tend to be located adjacent or close to perennial water sources, particularly where streams merge with one another. On the basis of map review, no such locations exist within the present project area.
- surface scatters of lithic artifacts and debitage without associated middens, resulting from short-term occupation and/or specialized economic activities;
- bedrock milling stations, including both mortar holes and metate slicks, where appropriate bedrock outcrops are available;
- petroglyphs;
- rock alignments, "sleeping circles", and other surface features, occasionally accompanied by accumulated midden and portable artifacts; and,
- isolated finds of aboriginal artifacts and flakes.

Clearly, it was not expected that all of these site types would be encountered within the Roseburg Annex property, but rather that these would be the most likely site *types* to be encountered if any sites were observed at all.

Historic Context: Historic evidence exists to document that some of the Spanish and Mexican expeditions and early fur trapping ventures may have come through and made brief stays within the general project vicinity. However, the first major incursion by White men occurred during the Gold Rush period. The placer lodes of regional streams, particularly around Yreka and within Scott, Jones and Quartz Valleys, were vigorously mined during the latter half of the 19th Century. The initial influx into Shasta Valley and Yreka occurred in

1851, and the name "Thompsons Dry Diggings", and then Shasta Butte City, was used to reference the early mining camp in this area.

The town of Weed, located north of the project area, was first settled in the 1860's by Abner Weed who started the first major commercial sawmill operation in the county. During this period, a system of roadways was constructed between Yreka and other areas in northern California and southern Oregon. One component of that system was North Old Stage Road, which connected Yreka with Mt. Shasta and areas along the Pit River.

Shortly after construction of the North Old Stage Road and related components, railroads were extended into the area. One of these was the California and Oregon Railroad (Central Pacific, eventually and presently the Southern Pacific) which proceeds adjacent to the west side of the present project area, while a second was the McCloud River Railroad.

The California & Oregon Railroad reached the town of Sisson (Mt. Shasta City) in November of 1886 (Brooks 1981:9; Signor 1982:7). Numerous sawmills sprang up along the new railroad line, and railroad spurs were added to provide access from these mills to the main line. One of these early sawmills was owned by the Pioneer Box Company. A brief historic overview of this operation is directly relevant to the present project, since the Roseburg property represents a portion of the original Pioneer Box Factory holdings. Details concerning these early historic developments have been assembled by T. Vaughan (1997), whose report has been used in assembling a portion of the present historic sequence.

The Pioneer Box Company (PBC), incorporated in 1884 in Sacramento, established the Pioneer Box Factory within the boundaries of the present project area in 1900. Numerous buildings and structures were constructed on the site at this time (but as will be noted below, none of these early structures remain today).

A slowdown in lumber sales occurred around 1910, and prompted a move by PBC. In April 1914, PBC moved its milling operation to Anderson, leasing facilities at Anderson from Shasta Land and Timber Company. The original PBC mill at Mt. Shasta may have been at least partially dismantled at this time, although the mill at the original Pioneer site (within the present project area) was back in operation by June of 1916.

A fire in early 1917 destroyed the Pioneer Dry-Kiln at the factory, an event which was immediately followed by rebuilding and expanding various facilities. By June of 1917, PBC had constructed another sawmill at the old WSLC location at Barnard (north of the present project area), and began operating both the sawmill at Barnard and the box factory at the original Pioneer site.

In November of 1921, Pioneer Box & Lumber Company (PB & LC) was incorporated, and on January 2, 1922, PB & LC acquired the lands of PBC. No decree of dissolution was filed for PBC, but the name of this corporation was no longer seen on any legal documents after this date. This merger was followed by a number of railroad and haul road expansion activities. Recorded deeds indicate that on June 23, 1922, PB & LC was granted a railroad right-of-way involving a portion of Section 21, presumably allowing for construction of the spur from the mail railroad line to service the box factory operations at the original Pioneer site.

Another fire swept through the plant and yards of PB & LC in 1924, destroying large sheds, offices, a boarding house, a cook house, cabins and dwellings.

In 1928, Mount Shasta Pine Manufacturing Company (MSPMC) acquired the mill site at Barnard and the box factory at Pioneer, and held the property until the 1950's.

Subsequent to about 1928, the history of ownership of the project area appears to have been as follows:

1928-1954?	Mt. Shasta Pine Manufacturing Co.
1954-1955?	Smith Lumber Co.
1955-1978	Kimberly-Clark Co.
1978-Present	Roseburg Lumber Co.

According to the Interstate 5 planning map, dated 1954, Mount Shasta Pine Manufacturing Company owned the property in 1954, although there is some hearsay evidence that the property had in fact been acquired by Smith by 1954. Several structures and features appear on this 1954 map, including: 1) a pond located within the northern portion of the property; 2) four mill-related structures (the mill, offices, and a boom rig) located adjacent to the south side of the pond; 3) a box factory structure located within the southwestern portion of the property, and; 4) approximately six smaller structures, of unknown specific function, scattered throughout the property. Mr. Elgin Bruster, resident of the City of Mount Shasta and employed by Mount Shasta Pine Manufacturing Company in 1945, confirmed the mapped locations for the box factory building, the mill site, and the pond, but had no direct knowledge of the remaining six or seven buildings (Personal Communication 1997). Mr. Orbell Apperson, local historian and resident of the City of Mount Shasta, likewise confirmed that the mill-related structures which appear on the Interstate 5 planning map were located and depicted accurately (Personal Communication 1997). Finally, an aerial photograph of the property, taken by the Shasta-Trinity National Forest in 1944, confirms these same locations for features which are indicated as present on the 1954 I-5 Planning Map.

According to Mr. Apperson, sometime around 1953, the Mount Shasta Pine Manufacturing Company sold the mill site to Mr. Ralph L. Smith, who shortly thereafter (1955), sold the land and improvements to Kimberly Clark Corporation of Wisconsin. The importance of this transfer is that Kimberly Clark is known to have undertaken wholesale modifications to and revamping of the milling operation acquired from Smith. The engineering staff at Kimberly Clark immediately began an ambitious plan to completely renovate and update all of the operations at the old Pioneer Mill site. The original mill structures in the northern portion of the property were abandoned and demolished, and several new mill structures were built near the east-central portion of the property.

Shasta-Trinity National Forest Service aerial photographs of the project area, taken in 1955, indicate that the pond was still located within the northern portion of the property. However, the mill structures formerly noted for this area on the 1954 I-5 Planning Map are completely absent. Likewise, the box factory formerly located within the southwestern portion of the property is not present in the 1955 Forest Service photograph. Three new mill structures do appear within the east-central portion of the property, however, confirming Mr. Apperson's recollection of Kimberly Clark's massive program of facility renovation and expansion.

Finally, the USGS Quad (City of Mount Shasta, Provisional 7.5' Series, dated 1986) shows three large structures that generally conform in both size and location with the mill structures erected by Kimberly Clark in and subsequent to 1955. The remnants of these structures -- primarily concrete footings, high stem walls, paved storage areas, etc. -- remain today.

In the late 1970's, the project area was sold to Roseburg Lumber Company. Roseburg continued mill operations at the site until the early 1990's. The mill structures, erected by Kimberly Clark in the mid-1950's, were disassembled shortly thereafter.

An aerial photograph taken around 1994 (available at the City of Mount Shasta) depicts the property in its entirety. No intact structures exist, while the concrete structural foundations ar slabs are all less than about 42 years old, most of which were constructed by Kimberly Clark.

Survey Strategy and Field Work

Survey Strategy: In view of variable sensitivity zones within the project area, a mixed survey strategy was employed.

A. Intensive-level field survey was undertaken along the west-facing slopes which dominate the eastern half of the project area. As well, intensive-level survey was undertaken at and around existing structures, and in areas where it appeared that older structures may once have existed. Within these area, estimated at approximately 50% of the project area, survey transects were spaced at c. 20-25 meter intervals.

B. General-level field survey was undertaken within the remaining 50% of the project area, which includes generally flat terrain away from natural water sources, and at which bulldozing and other land disturbance had obviously occurred. Most of these areas have been used for stacking and wetting logs prior to their delivery to the mill. These areas were subjected to general-level survey which was achieved by walking systematic transects spaced at approximate 40-60 meter intervals.

In searching for cultural resources, the surveyors took into account the results of background research, and were alert for any unusual contours, soil changes, distinctive vegetation patterns, exotic materials, artifacts, feature or feature remnants and other possible markers of cultural sites.

Field Work: Field work for the present project was undertaken between December 1 and 15, 1997, by Peter M. Jensen and Sean M. Jensen. No special problems were encountered during the course of field work, and all survey objectives are considered to have been satisfactorily achieved.

PROJECT FINDINGS

General Observations

As noted in previous discussions, disturbance to the ground surface has been substantial throughout the entire project area. All of the property has been bulldozed intensively, multiple episodes of building followed by demolition and rebuilding has occurred, and grading and paving of large sections has occurred throughout the property.

Specific Findings

Prehistoric Resources: No evidence of prehistoric presence or activities was observed anywhere within the project area. These negative findings are attributed to two primary factors. First, the area does not contain a natural surface water source and is not likely to have been utilized for intensive habitation during prehistoric times. Second and perhaps most important, any evidence of prehistoric presence is likely to have been destroyed by the extensive development and long history of use of the property for sawmill and box factory operations.

Historic Resources: No historic structures remain within the project area. A concerted effort was made to determine the age of, and establish ownership links among, the various concrete slabs and stem walls on the property. This effort involved evaluation of historic records, discussions with individuals who worked at the property between 1940 and the 1960's, and evaluation of various maps and aerial photographs dating to various time periods. These latter documents were particularly valuable in documenting that all of the extant structural remains date to 1955 or later, and are thus less than 45 years old. This information is detailed in the discussion above, "***Historic Context***."

FINAL PROJECT RECOMMENDATIONS

No prehistoric or historic sites exist within the project area. Although the property itself has been the site of historic milling operations since the turn-of-the-Century, property owners and mill operators since the 1950's have demolished all of the old structures and graded and regraded the property on several occasions. As a consequence, the proposed further development of this property will not affect any structural remains of historic significance or potential historic significance, since none of the extant structural remains is older than about 40-42 years.

In view of the absence of prehistoric and historic sites within the project area, archaeological clearance is recommended for proposed further development of this 117-ac property, with the following general provision:

> The present evaluation and recommendations are based on the findings of an inventory-level surface survey only. There is always the possibility that potentially significant unidentified cultural materials could be encountered on or below the surface during the course of future development or construction activities. In such a situation, archaeological consultation should be sought immediately.

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December 12, 1997

Quartz Valley Indian Reservation
Mr. Fred A. Case, Chairperson
9117 Sniktaw Lane
Fort Jones, California 96032

Subject: ***Proposed Roseburg Annexation of 117-acres to the City of Mount Shasta.***

Dear Mr. Case:

The City of Mount Shasta has developed a plan to annex approximately 117-acres of land, formerly owned by Roseburg Lumber Company, into the City's corporate boundary. The property is located south of the City boundary, and east of Interstate 5. The land area is identified on the attached map.

Since the project is located within traditional Shasta Indian territory, perhaps you or other tribal members have information concerning cultural resources within this area. If you would care to supply that information, I will make sure that your comments supplement the archaeological report being prepared for this project.

Sincerely yours,

Jensen & Associates

Peter M. Jensen

Encl.: USGS Quad map showing the location of the proposed annexation project.

APPENDIX E
ECONOMIC LEAKAGE/CAPTURE ANALYSIS

APPENDIX E - LEAKAGE/CAPTURE ANALYSIS

Leakage/capture analysis is a tool used in analyzing retail sales in a city. Sales revenues in a city are generated by the expenditures of two types of customers: city residents and people who live outside the city. Since no differentiation is made between visitor dollars and resident dollars, a method for estimating these dollars is required. The method used in this EIR compares the estimated potential demand of Mt. Shasta City residents for goods and services with actual captured sales for the year 1995, the most recent year for which sales data are available. The estimated potential demand is developed using sales data for Siskiyou County. The total retail sales in Siskiyou County are broken down into several categories, for which per capita expenditures are calculated (based on a County population of 44,650). The per capita figures are then multiplied by the population of Mt. Shasta (estimated at 3,550) to produce the estimated potential demand for each category. The estimated demands are compared to actual captured sales to determine sales leakage. The table below displays the results of the analysis.

CITY OF MT. SHASTA LEAKAGE/CAPTURE ANALYSIS

Siskiyou County				Mt. Shasta Trade Area			
Category	**Sales (1000 $)**	**Sales Distrib.**	**Aver. Per Capita Expend.**	**Est. Potential Demand**	**1995 Captured Sales**	**Sales Leakage**	**Leakage Rate**
Apparel	$3,250	1.5%	$72.79	$258,399	$1,142,000	$(883,601)	-342%
Gen. Merchandise	$21,330	10.2%	$477.72	$1,695,890	N/A	N/A	N/A
Drug Stores	$7,929	3.8%	$177.58	$630,413	N/A	N/A	N/A
Food Stores	$30,389	14.5%	$680.60	$2,416,147	$3,705,000	$(1,288,853)	-53%
Liquor Stores	$8,981	4.3%	$201.14	$714,055	N/A	N/A	N/A
Eating/Drinking	$31,792	15.2%	$712.03	$2,527,695	$7,374,000	$(4,846,305)	-192%
Home Furnishings	$6,761	3.2%	$151.42	$537,549	$2,072,000	$(1,534,451)	-285%
Bldg. Materials	$23,411	11.2%	$524.32	$1,861,345	$2,412,000	$(550,655)	-30%
Auto Dealers	$28,791	13.8%	$648.85	$2,303,405	$2,828,000	$(524,595)	-23%
Service Stations	$26,636	12.7%	$596.55	$2,117,756	$5,907,000	$(3,789,244)	-179%
Other Retail Stores	$20,384	9.7%	$456.53	$1,620,676	$11,108,000	$(9,487,324)	-585%
Total	$209,834	100.0%	$4,699.53	$16,683,330	$36,548,000	$(19,864,670)	119%

N/A - Not available

The analysis, although incomplete, indicates that retail sales in the City of Mt. Shasta exceed what the potential demand would be from its residents. This means that a considerable amount of sales were made to people living outside Mt. Shasta. The sale leakage total, therefore, actually represent a net inflow to Mt. Shasta, rather than a leakage. This does not necessarily means that all of these people were visitors or tourists. Some of them may have come from nearby towns or from unincorporated areas near Mt. Shasta. Even with this qualification, this analysis presents a reasonable picture of visitor spending in Mt. Shasta and its impact on the local economy.

A. PROJECT DESCRIPTION

The City of Mt. Shasta received the former Roseburg Mill site as a gift in 1989. The City adopted the current General Plan in 1993. The General Plan designates the property for Commercial Center and Employment Center Uses. While a number of separate annexation attempts have been made, this project effectively began when the City Council directed the Planning Commission to consider prezoning of the property[1].

The decision to utilize the Planned Unit Development process was made in an effort to recognize the existing physical constraints on the property, and to focus the environmental review on projects that may actually occur, rather than buildout of uses that are clearly unacceptable to the community. The Draft Development Plan for the Roseburg Commerce Park divides the property into development areas and establishes generalized development requirements *and* specific requirements based on development area. To ensure that the provisions of the Development Plan are implemented, the Development Plan will be incorporated into the Roseburg Commerce Park Planned Unit Development. The Development Plan for the Roseburg Commerce Park *does not* eliminate the City of Mt. Shasta General Plan, but rather refines the Goals and Policies found within the Plan to more clearly define development expectations. As such, the Goals and Policies of the General Plan, as well as the City's Municipal Code will still govern activity on the property.

As originally designed the project contained a mixture of retail and industrial uses. During the public review period for the document, several members of the business community voiced concerns over the establishment of a retail center at the south-end of the City. The City Council appointed a special Business Advisory Focus Group to work within the existing Community Economic Development Action Committee (CEDAC). This working group modified the original project and made tourism and recreation more of a focus, while downplaying or eliminating some of the conventional retail commercial uses. These changes were incorporated into a revised project and the Draft EIR was revised and recirculated for public comment.

Since there are no applications for development of the property and no infrastructure to serve development in the immediate future, the Environmental Impact Report addressing the Development Plan for the Roseburg Commerce Park was prepared under the Program EIR provisions of Section 15168 of the California Environmental Quality Act [CEQA]. The Roseburg Commerce Park Environmental Impact Report [EIR] is intended to serve as a "base line" document suitable to permit prezoning and annexation of the property, and to serve as a reference for subsequent environmental review of projects within the Roseburg Commerce Park. All projects within the Roseburg Commerce Park will be required to prepare project-specific environmental analysis and obtain design review and/or zoning approval prior to construction. These individual environmental approvals can tier off of the information and conclusions in this EIR.

A. INTRODUCTION

The Roseburg Commerce Park Environmental Impact Report (EIR) identified significant impacts associated with development pursuant to the Development Plan. Approval of a Project (i.e. the Planned Unit Development Zone) with significant impacts requires that findings be made by the City pursuant to the California Environmental Quality Act (CEQA, California Code of Regulations sections 21081 et seq.), and State CEQA Guidelines (California Code of Regulations, title 14, chapter 3) Section 15043, 15091, and 15093. Significant impacts of the Development Plan would either: 1) be avoided or mitigated

[1]City of Mt. Shasta City Council Resolution CCR-96-51

to a less than significant level pursuant to the policies of the existing General Plan and or adopted Development Standards in conjunction with mitigation measures identified as part of these findings; 2) be substantially lessened pursuant to the policies of the General Plan in conjunction with mitigation measures identified by the EIR, however, not to a less than significant level; 3) project changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or 4) policies and mitigation measures notwithstanding, have a residual significant impact that cannot be lessened by feasible mitigation, thus requiring adoption of a Statement of Overriding Consideration.

For purposes of CEQA and these Findings, the Record of Proceedings for the Project consists of the following documents, at a minimum:

- The Draft Development Plan for the Roseburg Commerce Park, including the project description, maps and all submittal materials associated with the Project;
- Report of the Business Advisory Focus Group (BAFG) amending the proposed project and developing Alternative 5 for the Recirculated EIR;
- The Notice of Preparation and all other public notices issued by the City in conjunction with the Project;
- The Draft, Recirculated Draft and Final EIR for the Roseburg Commerce Park (including all appendices);
- All comments submitted by agencies or members of the public during the 45-day public comment periods on the Draft EIR;
- All comments submitted by agencies or members of the public during the 45-day public comment period on the recirculated Draft EIR;
- All comments and correspondence submitted to the City with respect to the Project, in addition to timely comments on the Draft EIR;
- The mitigation monitoring and reporting program for the Project;
- All findings and resolutions adopted by City decision makers in connection with the Project, and all documents cited or referred to therein;
- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the Project prepared by the City, consultants to the City, or responsible or trustee agencies with respect to the City's compliance with the requirements of CEQA and with respect to the City's actions on the Project;
- All documents submitted to the City by other public agencies or members of the public in connection with the Project, up through the close of the public hearing by the City Council on March 27, 2000;
- Minutes and/or verbatim transcripts of all information sessions, public meetings, workshops and public hearings held by the City in connection with the Project;

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- Verbatim transcripts of the hearings of both the Planning Commission and City Council on the Project and its environmental documents;
- Any documentary or other evidence submitted to the City at such information sessions, public meetings, and public hearings;
- City of Mt. Shasta General Plan, January 17, 1993, including all tables, maps and diagrams;
- Planning and Environmental Database for the General Plan City of Mt. Shasta, March 1992;
- Shasta Mountain Lodge, Environmental Assessment & Initial Study, November 9, 1995;
- City of Mt. Shasta Municipal Code;
- City of Mt. Shasta Design and Improvement Standards adopted May 13, 1996;
- Matters of common knowledge to the City, including, but not limited to Federal, State, and local laws and regulations;
- Any documents expressly cited in these findings, in addition to those cited above; and
- Any other materials required to be in the record of proceedings by Public Resources Code Section 21167.6, subdivision (e).

The custodian of the documents comprising the record of proceedings is Joseph T. Riker III, City Administrator, whose office is located at Mt. Shasta City Hall, 305 North Mt. Shasta, Boulevard, Mt. Shasta, CA 96067. Office hours are from 9:00 a.m. through 4:00 p.m. Monday through Friday. City Hall may be reached at 530/926-7510.

The City Council has relied on all of the documents listed above in reaching its decision on the Roseburg Commerce Park, even if not every document was formally presented to the Council or Staff as part of the City files generated in connection with the Project. Without exception, any documents set forth above not found in the Project files fall into one of two categories. Many of them reflect prior planning or legislative decisions with which the Board was aware in approving the Project. (See City of Santa Cruz v. Local Agency Formation Commission (1978) 76 Cal.App.3d 381, 391-392 [142 Cal.Rptr. 873]; Dominey v. Department of Personnel Administration (1988) 205 Cal.App.3d 729, 738, fn. 6 [252 Cal.Rptr. 620].) Other documents influenced the expert advice provided to City Staff or consultants, who then provided advice to the Council. For that reason, such documents form part of the underlying factual basis for the Council's decisions relating to the adoption of Project. (See Pub. Resources Code, § 21167.6, subd. (e)(10); Browning-Ferris Industries v. City Council of City of San Jose (1986) 181 Cal.App.3d 852, 866 [226 Cal.Rptr. 575]; Stanislaus Audubon Society, Inc. v. County of Stanislaus (1995) 33 Cal.App.4th 144, 153, 155 [39 Cal.Rptr.2d 54].)

Findings Required under CEQA

Public Resources Code section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects[.]" (Emphasis added.) The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or

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feasible mitigation measures which will *avoid* or *substantially lessen* such significant effects." (Emphasis added.) Section 21002 goes on to state that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects."

The mandate and principles announced in Public Resources Code section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. (See Pub. Resources Code, § 21081, subd. (a); CEQA Guidelines, § 21002; CEQA Guidelines, § 15091, subd. (a).) For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that "[c]hanges or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR." (CEQA Guidelines, § 15091, subd. (a)(1).) The second permissible finding is that "[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency." (CEQA Guidelines, § 15091, subd. (a)(2).) The third potential conclusion is that "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR." (CEQA Guidelines, § 15091, subd. (a)(3).) Public Resources Code section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." CEQA Guidelines section 15364 adds another factor: "legal" considerations. (See also Citizens of Goleta Valley v. Board of Supervisors ("Goleta II") (1990) 52 Cal.3d 553, 565 [276 Cal. Rptr. 410].)

The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (City of Del Mar v. City of San Diego (1982) 133 Cal.App.3d 410, 417 [183 Cal.Rptr. 898].) "'[F]easibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." (Ibid.; see also Sequoyah Hills Homeowners Assn. v. City of Oakland (1993) 23 Cal.App.4th 704, 715 [29 Cal.Rptr.2d 182].)

The CEQA Guidelines do not define the difference between "avoiding" a significant environmental effect and merely "substantially lessening" such an effect. The City must therefore glean the meaning of these terms from the other contexts in which the terms are used. Public Resources Code section 21081, on which CEQA Guidelines section 15091 is based, uses the term "mitigate" rather than "substantially lessen." The CEQA Guidelines therefore equate "mitigating" with "substantially lessening." Such an understanding of the statutory term is consistent with the policies underlying CEQA, which include the policy that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." (Pub. Resources Code, § 21002.)

For purposes of these findings, the term "avoid" refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less than significant level. In contrast, the term "substantially lessen" refers to the effectiveness of such measure or measures to substantially reduce the severity of a significant effect, but not to reduce that effect to a less than significant level. These interpretations appear to be mandated by the holding in Laurel Hills Homeowners Association v. City Council (1978) 83 Cal.App.3d 515, 519-527 [147 Cal.Rptr. 842], in which the Court of Appeal held that an agency had satisfied its obligation to substantially lessen or avoid significant effects by adopting numerous mitigation measures, not all of which rendered the significant impacts in question (e.g., the "regional traffic problem") less than significant.

Although CEQA Guidelines section 15091 requires only that approving agencies specify that a particular significant effect is "avoid[ed] *or* substantially lessen[ed]," these findings, for purposes of clarity, in each case will specify whether the effect in question has been reduced to a less than significant level, or has simply been substantially lessened but remains significant.

Moreover, although section 15091, read literally, does not require findings to address environmental effects that an EIR identifies as merely "potentially significant," these findings will nevertheless fully account for all such effects identified in the Final EIR.

In short, CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where such changes are infeasible or where the responsibility for modifying the project lies with some other agency. (CEQA Guidelines, § 15091, subd. (a), (b).)

With respect to a project for which significant impacts are not avoided or substantially lessened either through the adoption of feasible mitigation measures or a feasible environmentally superior alternative, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (CEQA Guidelines, §§ 15093, 15043, subd. (b); see also Pub. Resources Code, § 21081, subd. (b).) The California Supreme Court has stated that, "[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (Goleta II, 52 Cal.3d at p. 576.)

B. FINDINGS ASSOCIATED WITH PROJECT IMPACTS

The Draft EIR identified a number of significant environmental effects (or "impacts") that the Roseburg Commerce Park will cause. Some of these significant effects can be fully avoided through the adoption of feasible mitigation measures. Because the property and project is in City ownership, some of the significant effects can be fully avoided through modifications to the project. Others can be substantially lessened, but not avoided, by feasible mitigation measures, and thus will remain significant. Still others can be neither substantially lessened nor avoided, and thus will also remain significant. In the Council's judgment, however, the negative consequences of all of these significant unavoidable impacts are outweighed by overriding considerations set forth in Section E. This section presents in greater detail the Council's findings with respect to the environmental impacts of the Project.

The level of significance for each impact examined in the Roseburg Commerce Park EIR was determined by considering the predicted magnitude of the impact against a threshold. Thresholds were developed using criteria from the California Environmental Quality Act (CEQA Guidelines), local/regional plans and ordinances, accepted practice, and/or consultation with recognized experts. Thresholds of significance are identified in each applicable chapter of the EIR. Four levels of impact significance are recognized by these findings:

- Less than Significant [LS] impacts would not cause a substantial change in the environment or are not disruptive enough to require mitigation, because they fall below the significance threshold.

- Potentially Significant [PSM] impacts may cause a significant effect on the environment, however, additional information is needed regarding the extent of the impact. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- Significant [SM] impacts would cause a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of the project effects using specified significance criteria. Mitigation measures are identified to avoid project impacts, thus reducing project effects to a less than significant level.

- Significant and Unavoidable [SU] impacts are significant adverse project impacts that cannot be avoided or mitigated to a less than significant level if the project is implemented.

The City Council of the City of Mt. Shasta, hereby adopts and makes the following findings relating to its adoption of the Roseburg Commerce Park Development Plan and Final Environmental Impact Report. For more detail regarding thresholds of significance, specific impact analysis and resulting level of significance, please refer to the Roseburg Commerce Park Draft and Final EIRs. Having received, reviewed, and considered the entire record, both written and oral, relating to the Roseburg Commerce Park Development Plan and associated Environmental Impact Report, the Planning Commission and City Council find as follows:

LAND USE[2]

1. Impact 4.2.1 Annexation of the project site would be consistent with the City of Mt. Shasta General Plan. [LS]

The proposed project is consistent with General Plan emphasis on commercial center and employment center uses for the property as shown on the Land Use Element Map of the City of Mt. Shasta General Plan. The proposed Planned Unit Development zone district which will implement the Roseburg Development Plan is consistent with, and borrows from, commercial, controlled manufacturing and industrial zone districts as indicated in Title 18 of the City of Mt. Shasta Municipal Code. The General Plan Amendment for a portion of the property is required to ensure that the resulting zoning is consistent with the goals and objectives of the Land Use Element of the City of Mt. Shasta General Plan.

Specifically this finding is based on the continued implementation of City of Mt. Shasta, General Plan Land Use Element Goals LU-1, LU-2, LU-6, LU-7, LU-8, LU-9, LU-10, and Policies LU-1.1, LU-2.1, LU-6.1, LU-7.1, LU7.2, LU-8.1, LU-9.1, LU-10.1.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

2. Impact 4.2.2 Project development may result in land use compatibility impacts with adjacent residential uses to the north of the project site. [LS]

Adjacent land uses to the project area are considered compatible, excepting the residential uses to the north of the western portion of the project site. The Development Plan includes standards such

[2]Land Use Impacts and Mitigation Measures are discussed on pages 4.2-9 through 4.2-15 of the DEIR.

as setback requirements, permitted uses, and development standards that reduce the potential impacts that would occur from development. In addition, the permitted uses within the development areas adjacent to these residential land uses include recreational, park and open space uses.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

Cumulative Land Use Impacts

3. Impact 4.2.3 The proposed project would be consistent with the land use pattern of the area and meets General Plan goals and policies for the City of Mt. Shasta. [LS]

Cumulative development, proposed and anticipated, throughout the City's Planning Area would change existing rural and open space land uses to more developed uses. However, if development occurs pursuant to planned uses, as designated in the General Plan, the chagnes in land use would not be cumulatively adverse.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

TRANSPORTATION/CIRCULATION[3]

4. Impact 4.3.1 Development of the project would increase the daily traffic volume on portions of Mt. Shasta Boulevard, with projected traffic volumes in excess of the City's LOS "D" threshold. [PSM]

The addition of project trips would increase the volume of traffic carried by local streets. Development of the project would increase the volume of traffic on Mt. Shasta Boulevard in the vicinity of the project, but the resulting traffic volumes would be within the LOS "D" threshold established in the Circulation Element of the General Plan.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

Specifically this finding is based on the continued implementation of City of Mt. Shasta, General Plan Land Use Element Goals CI-1, CI-2, and Policies CI-1.1, CI-1.1(a), CI-1.1(b), CI-1.2(a) through CI-1.2(f), CI-2.1(a) and CI-2.1(b), CI 2.2(a) through CI 2.2(d).

[3]Impacts and Mitigation Measures are discussed on pages 4.3-17 through 4.3-27 of the DEIR.

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5. Impact 4.3.2 Development of the project would increase the volume of traffic using the I-5/SR 89/South Mt. Shasta Boulevard ramp system, with resulting LOS on the short northbound weaving section in excess of City and Caltrans standard. [PSM]

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact, assuming City implementation of general plan programs relative to monitoring of roadways.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

Cumulative Transportation/Circulation Impacts

6. Impact 4.3.3 Cumulative traffic conditions at the Mt Shasta Boulevard / Lake Street intersection would remain within the City's LOS "D" standard. Queues can be expected on the northbound and eastbound approaches which could result in safety problems extending back into adjoining intersections. [PSM]

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below:

MM 4.3.3a If the City determines that it is necessary to increase the capacity of the intersection, applicable strategies to increase capacity may include modifying the traffic signal to provide protected left turns, and/or eliminating parking to provide auxiliary lanes.

7. Impact 4.3.4 Cumulative traffic conditions would result in long delays at the South Mt. Shasta Boulevard / Bear Springs Road intersection. [PSM]

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below:

MM 4.3.4a Install a traffic signal when warrants are actually met. With signalization, the intersection would operate at LOS "C" during the p.m. peak hour.

8. Impact 4.3.5 Full buildout of RCP site at maximum density may produce traffic volumes in excess of those assessed in the traffic study, with resulting traffic volumes on Mt Shasta Boulevard in excess of the City's LOS "D" standard. [PSM]

The traffic analysis in the EIR assumes a finite amount of development within the project area over the next twenty years. Although this analysis does assume a credible worst-case scenario based on the proposal, it is possible that economic conditions in the long term may result in demands for development at levels beyond that assessed in the EIR. Increased development levels are likely to result in future traffic volumes in excess of those projected herein and in greater impacts to the main routes serving the site. While additional analysis would be required to identify the complete extent of additional impacts, it is reasonable to conclude that traffic conditions on South Mt. Shasta Boulevard in the area of the project could be negatively impacted and that a four lane facility could be required.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact.

9. Impact 4.3.6 Cumulative traffic volumes may exceed the City's LOS "D" standard on portions of Mt Shasta Boulevard in the downtown area whether or not the RCP is developed. [PSM]

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact. The General Plan mandates continuing evaluation of the impacts of development with the goal of identifying applicable mitigation measures as projects are proposed. Development of new streets (i.e., West Lake/South Mt. Shasta Boulevard connection) and/or local capacity enhancements are presented as potential mitigation measures. Specific development proposals within the RCP should adhere to General Plan requirements for subsequent analysis and for "fair share" participation in mitigation measures.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

10. Impact 4.3.7 Cumulative traffic volumes on Mt Shasta Boulevard in the vicinity of the project may exceed the City's LOS "D" standard. [PSM]

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

General Plan policies and implementation measures identified under Impact 4.3.1 partially mitigate the above impact. Additional mitigation is provided below:

MM 4.3.7a Design of the project entryways, particularly the main entrance, shall include provisions for auxiliary through and exclusive turn lanes.

11. Impact 4.3.8 Cumulative traffic conditions may result in traffic volumes in excess of capacity on some of the ramps in the I-5 / SR 89 / South Mt Shasta Boulevard interchange system. [PSM]

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

General Plan policies and implementation measures identified under Impact 4.3.1 mitigate the above impact.

NOISE[4]

12. Impact 4.4.1 Interior traffic noise levels will comply with the interior noise level criterion of 45 dB Ldn. [LS]

To judge compliance with the 45 dB Ldn Leq interior traffic noise standard for the project it is necessary to determine the noise reduction provided by the building facade. Typical facade design and construction in accordance with prevailing industry practices would resulting in an exterior to interior traffic noise attenuation of 20 to 25 dB with windows closed, depending upon the materials used in construction. Since future traffic noise levels are expected to be less than 65 dB Ldn/Leq at the nearest building facades, it an be assumed that interior traffic noise levels will comply with the noise criterion.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

13. Impact 4.4.2 The interior spaces of office buildings located within 206 feet of the railroad track centerline may exceed the interior noise level criterion of 45 dB Leq. [PSM]

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

The following mitigation measure will reduce this impact to a less than significant level:

[4]Impacts and Mitigation Measures are discussed on pages 4.4-13 through 4.4-17 of the DEIR

MM 4.4.2a If project buildings located within 206 feet of the railroad tracks include office areas facing the railroad tracks, a detailed interior acoustical analysis shall be conducted when building plans and construction details are provided. The analysis shall focus on determining compliance with the interior noise level criterion of 45 dB Leq during peak hours of train operations.

14. Impact 4.4.3 Future traffic noise levels are not expected to exceed the exterior noise level standards contained within the General Plan Noise Element. [LS]

The portions of the project site within the development envelopes are located outside of the future 65 dB Ldn and 65 dB Leq, I-5 traffic noise level contours. It is also anticipated that the proposed building facades will be located a minimum of 70 feet from the South Mt. Shasta Boulevard center line, and therefore would be outside of the 65 dB Ldn/Leq noise contours.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

15. Impact 4.4.4 The proposed uses that would be located within Development Areas II, III and IV would comply with the Mt. Shasta General Plan Noise Element noise level criterion of 70 dB Ldn. [LS]

Portions of the development envelopes along the Union Pacific Rail Road tracks are within the 65 dB Ldn/Leq noise level contours. The proposed uses in these areas include Government, Office, Industrial and Commercial which is consistent with the noise element of the City of Mt. Shasta General Plan.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

16. Impact 4.4.5 The increase in traffic noise levels along Mt. Shasta Boulevard due to project traffic would range from 3 dB to 5.9 dB. [SU]

Some land uses which are considered noise-sensitive are located in the vicinity of the project site, and adjacent to South Mt. Shasta Boulevard. Noise-sensitive uses include residences and hotels/motels. In some instances residential uses are located within 50 feet of the center line of South Mt. Shasta Boulevard. This EIR identifies numerous mitigation measures to reduce the impacts associated with the proposed project, however, the project would still contribute to the increase in noise levels along Mt. Shasta Boulevard. Future noise levels along the Boulevard would range between 55.2 dB Ldn near the intersection of State Route 89 to 64.6 Ldn near Ream Avenue, at a distance of 50 feet from the roadway centerline. Implementation of the project will result in noise levels from 61.1 dB Ldn to 66.7 dB Ldn, respectively. The EIR indicates that existing uses north of the project site are already exposed to noise levels in excess in 60 db Ldn.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would substantially lessen the environmental effects thereof; however, there is no feasible way to avoid the significant effect as identified in the EIR.

Specifically this finding is based on the continued implementation of the Noise Element of the City of Mt. Shasta General Plan Goals NZ-1, NZ-2 and Policies NZ-1.1 through NZ-1.8, NZ-2.1.

17. Impact 4.4.5 On-site noise sources are not expected to adversely impact adjacent noise sensitive uses. [LS]

The Roseburg Commerce Park Development Plan took into consideration potential noise impacts on nearby noise sensitive uses. The Plan calls for open space, recreational uses, or a park adjacent to the residential uses along the northern boundary. Residential uses within the annexation area but outside of the Roseburg Commerce Park are located adjacent to DA VI which only allows minimal use. In addition the Development Plan includes performance standards that regulate on-site noise sources.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Cumulative Noise Impacts

18. Impact 4.4.7 Exterior cumulative noise levels at the project site are expected to increase over existing conditions. [SU]

Future cumulative noise levels at sensitive receptors nearest the proposed site are expected to increase over existing conditions. However, future noise levels without the proposed project would likely increase because of vehicle traffic growth anticipated within the General Plan. The General Plan Goals, Policies and Implementation Measures, and the Roseburg Commerce Park Development Plan performance standards assist in regulating and reducing noise impacts, but cannot eliminate the cumulative increase in noise.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would substantially lessen the environmental effects thereof; however, there is no feasible way to avoid the significant effect as identified in the EIR.

Specifically this finding is based on the continued implementation of the Noise Element of the City of Mt. Shasta General Plan Goals NZ-1, NZ-2 and Policies NZ-1.1 through NZ-1.8, NZ-2.1.

AIR QUALITY[5]

19. Impact 4.5.1 Construction activities would generate exhaust emissions, fugitive dust (PM_{10}) and evaporative emissions. [SM]

Sources of fugitive dust include site clearing, grading, cut and fill operations, vehicles and construction equipment traveling over dirt surfaces and wind-blown dust. The impact of dust emissions will be temporary and will cease at the conclusion of the construction.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure(s):

MM 4.5.1a All grading and construction activities shall be required to incorporate the following dust control measures:

- All active construction areas shall be watered at least twice daily.
- Soil stabilizers shall be applied to inactive construction areas, as needed.
- All unpaved access roads and staging areas at construction sites shall be paved, have soil stabilizers applied, or have water applied three times daily.
- Traffic speeds on unpaved roads shall be limited to 15 mph.
- Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and be watered twice daily or have soil binders added.
- All trucks hauling soil and other loose material shall be covered or have at least two feet of freeboard.
- If visible soil material is carried onto adjacent public streets, such streets shall be swept with water sweepers.
- Dust-producing activities shall be suspended when high winds create construction-induced visible dust plumes moving beyond the project site, in spite of dust control measures.

20. Impact 4.5.2 Exhaust from diesel- and gasoline-powered vehicles used in construction at the RCP site may contribute to increases in the levels of criteria pollutants. [LS]

Emissions from construction vehicles contain CO, Nox, Sox, PM10 and ROG (an ingredient of ozone). Impacts from construction vehicles will be temporary and will cease after construction is complete. The EIR performed an evaluation using assumptions from the largest reasonable development on the site, and found that the emissions were below the significance thresholds adopted by the Siskiyou County Air Pollution Control District.

The City Council finds that as to such effect identified above:

[5]Impacts and Mitigation Measures are discussed on pages 4.5-6 through 4.5-10 of the DEIR

WATER QUALITY AND SURFACE HYDROLOGY[1]

23. Impact 4.6.1 Grading and construction-related activities associated with the proposed project could result in degradation of surface and groundwater quality. [LS]

The Roseburg Commerce Park Development Plan contains performance standard concerning grading and erosion control.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the implementation of Sections 4.7 through 4.8, beginning on page 4-8, of the Development Plan for the Roseburg Commerce Park.

24. Impact 4.6.2 The proposed project would result in an increase in impervious surfaces thereby resulting in an increase in surface runoff. [LS]

Implementation Program CI-9.2(c) of the City's General Plan requires that proposed commercial development with new parking facilities submit a site drainage plan with permit applications. Also, the Capital Improvement Plan for the project area identifies drainage improvements.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the continued implementation of the Circulation Element of the City of Mt. Shasta General Plan Goal CI-9 and Policies CI-9.1 through CI-9.2.

25. Impact 4.6.3 Drainage from roadways and other impervious surfaces may result in the contamination of stormwater. [LS]

Stormwater runoff from development within the project area is governed by the state if over five acres in size, and by the County if hazardous materials are used on-site. In addition the Development Plan has restricts land use types that use hazardous materials as part of the manufacturing process.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

[1]Impacts and Mitigation Measures are discussed on pages 4.6-6 through 4.6-8 of the DEIR

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

21. Impact 4.5.3 RCP development would generate CO emissions that exceed significance thresholds. Among the sources of these emissions are vehicles traveling to and from the RCP site and permitted industrial activities. [SM]

Standards for the emission of all criteria pollutants from stationary sources has been established by the local APCD for all land use activities at the RCP site. The standards require that all emissions from stationary sources shall be in conformance with the conditions for the issuance of a permit to construct from the Siskiyou County APCD. Industrial and other uses that could result in increased emissions shall use the Best Available Control Techniques (BACTs) to reduce emissions.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure(s):

MM 4.5.3a The City shall encourage programs that reduce the amount of vehicle trips to and from the RCP site. Such programs may include, but are not limited to:

- Use of bicycles and construction of bike paths.
- Establishment of a STAGE bus stop at site.
- Creation of a shuttle bus system that connects lodging facilities to other parts of the City.

Cumulative Air Quality Impacts

22. Impact 4.5.4 Cumulative development, including the RCP site, could lead to an increase in emissions of criteria pollutants and a consequent decrease in air quality in the Mt. Shasta area. [SU]

The EIR identifies numerous mitigation measures to reduce the impacts associated with the proposed project, however the project would still contribute to an increase in emissions of criteria pollutants and a consequent decrease in air quality in the Mt. Shasta area.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would substantially lessen the environmental effects thereof; however, there is no feasible way to avoid the significant effect as identified in the EIR.

Specifically this finding is based on the implementation and monitoring of mitigation measures MM 4.5.1a and MM4.5.3a above and Siskiyou County Air Pollution Control District regulations and mitigation measures. While these efforts will lessen the cumulative impact they cannot eliminate the cumulative CO emissions.

Cumulative Water Quality and Surface Hydrology Impacts

26. Impact 4.6.4 Cumulative development in the area could increase stormwater runoff from the site. [LS]

The City requires that storm drainage be detained on site and not increase the peak flow from pre-development conditions. Further, the Development Plan proposes on-site detention basins and includes the cost of the basins in the Capital Improvement Program.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

BIOLOGICAL RESOURCES[2]

27. Impact 4.7.1 Development Area I-subareas H, I, and J, and Development Area V and VI are considered areas with potential habitat for special-status species. [PSM]

These areas contain forest stands that are potential habitat for raptors including the northern goshawk, Cooper's hawk and the sharp-shinned hawk which are species of special concern. Raptor nesting sites are protected under Fish and Game Code, Section 3503.5

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.7.1a Prior to the issuance of a grading permit for activities in Development Area I subareas H, I, J and Development Areas V and VI, a detailed wildlife and plant survey shall be conducted to determine the presence or absence of special status species in areas with potential habitat. Surveys should be conducted using the methods prescribed by the CDFG (1984). Results of the surveys shall be submitted to CDFG, USFWS, and the City prior to the issuance of grading permits for these areas. If no sensitive species are located on-site, no further mitigation is necessary. If listed species are located on the property, the applicant and City shall enter into informal consultation with CDFG and USFWS and begin preparation of a Biological Assessment or Habitat Conservation Plan, as applicable.

[2]Impacts and Mitigation Measures are discussed on pages 4.7-19 through 4.7-29 of the DEIR

The precise mitigation/compensation for direct and indirect impacts to sensitive species will depend on agency consultation and agreements. The project applicant shall implement all measures identified by the CDFG and USFWS to protected and mitigate impacts to listed and other special status species.

28. Impact 4.7.2 The RCP site may contain potential jurisdictional waters of the United States, including wetlands. [PSM]

Development area VI contains potential jurisdictional wetlands associated with a drainage and seep area and the former mill pond. The project has been designed to accommodate potential wetland areas by designating them for recreational or public use with minimal improvements. However, any proposed activities that may impact jurisdictional waters will require a detailed delineation to determine the extent and specific location of the impact. Determination of the level of impact and potential mitigation is within the jurisdiction of the U.S. Army Corps of Engineers.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measures:

MM 4.7.2a Prior to the issuance of a grading permit in areas identified as potential wetland locations, the project proponent shall conduct a detailed wetland delineation to determine the extent and specific location(s) of the jurisdictional waters and obtain written verification of the delineation from the Corps. The impact analysis shall include all project alternatives, including avoidance. If necessary, prepare a mitigation and monitoring plan for all loss of waters of the U.S. The mitigation plan should include measures for wetland habitat enhancement and creation, as appropriate for the level of impact, and be developed in coordination with the Corps.

MM 4.7.2b Prior to any issuance of a grading permit, the project proponent shall obtain and comply with the terms and conditions of the following permits which may be applicable to the project: a federal Section 404 Clean Water Act permit; a state Section 1601 et seq. Streambed Alteration Agreement from the Department of Fish and Game; and a Water Quality Certification (or waiver of certification) from the State Water Resources Quality Control Board.

MM 4.7.2c Development plans for enhancement of existing wetland habitats that impact waters of the U.S. would require the same delineation, impact analysis, and mitigation and monitoring plan (if necessary) required for direct development impacts.

Cumulative Biological Resources Impacts

29. Impact 4.7.3 Cumulative development would contribute to the loss of natural undisturbed open space, increase human intrusion and activity levels in proximity to habitat areas, and would remove potential habitat for federally and state listed and other special-status species. [LS]

It is likely that development of the proposed and/or anticipated projects throughout the City would result in significant impacts on vegetation and/or wildlife because they would eliminate habitat for both common and special status-species. However, the proposed project layout reduces site-specific impacts to a less than significant level by retaining potentially sensitive areas such as DA VI as primarily open space and designating DA VII to be developed as parkland, recreational use, wetland enhancement areas or natural community enhancement areas. Further, subsequent environmental review will be required of all development within the project area which will allow for mitigation for site-specific issues.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

GEOLOGY AND SOILS[3]

30. Impact 4.8.1 Development within the RCP site may be subjected to hazards caused by volcanic activity in and around Mt. Shasta, although the probability of such activity at any given time is low. [LS]

The Safety Element of the City of Mt. Shasta General Plan contains Goals and Policies designed to reduce the risk of hazards caused by volcanic activity. These actions include continued monitoring and review of evacuation plans to ensure the plans are up to date.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the continued implementation of the Safety Element of the City of Mt. Shasta General Plan Goals SF-2, SF-3 and Policies SF-2.1 and SF-3.1 through SF-3.2.

31. Impact 4.8.2 The Ponto soils that predominate on the RCP site have been rated as having moderate erosion hazard. Linked to this is the rating of moderate limitations on commercial building construction due to the presence of slopes. [LS]

The Development Plan contains development standards that address grading, erosion, and hillside development concerns and prohibits construction of buildings on slopes of 25 percent or greater.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

[3]Impacts and Mitigation Measures are discussed on pages 4.8-8 through 4.8-10 of the DEIR

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

32. Impact 4.8.3 Projects located on the RCP site are subject to seismic hazards of at least moderate intensity, although the probability of such activity at any given time is low. [LS]

The Uniform Building Code has placed the project site in Seismic Zone 3 which subjects building activities to more stringent building requirements.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

Cumulative Geology and Soils

33. Impact 4.8.4 Due to the nature of geology and soils, adverse impacts are site-specific and are generally not affected by, or don not affect, other development in the region. [LS]

The City's development standards require soils reports prior to any construction activity.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

COMMUNITY SERVICES[4]

34. Impact 4.9.1 The eastern section of the RCP site contains substantial tree and shrub growth. New development in this area would be exposed to a potential wildland fire hazard. [SM]

The forested area on the east side of South Mt. Shasta Boulevard is vulnerable to fire. While no development is projected until the looped water line is installed, development could occur ahead of the water line. The mitigation measure is designed to provide protection should the timing of development be accelerated.

The City Council finds that as to such effect identified above:

[4]Impacts and Mitigation Measures are discussed on pages 4.9-6 through 4.9-11 of the DEIR

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.9.1a Applicants for projects located in the eastern section of the Roseburg Commerce Park site shall comply with any additional fire safety recommendations made by the Fire Department, along with the performance standards in the DDP.

35. Impact 4.9.2 Development at the site, particularly the construction of any multi-story buildings, may require the Fire Department to obtain additional equipment and a new facility. [SM]

Development on the site may require additional fire equipment to ensure that the ISO rating for the City is not compromised.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measures:

MM 4.9.2a The City shall work with the Fire Department in maintaining the City's ISO rating of 5.

MM 4.9.2b The City shall begin planning for a new fire station to replace the existing Station #1 downtown prior to completion of Phase 1 of the Capital Improvement Plan for the site. Planning shall include the identification of measures to finance the new facility.

36. Impact 4.9.3 Anticipated commercial and industrial development would demand additional police protection services. [SM]

Full buildout of the site will require additional police personnel and equipment.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measures:

MM 4.9.3a The City shall provide for the necessary additional police personnel and equipment to ensure adequate protection for the site.

MM 4.9.3b The DDP shall incorporate the following security measures recommended by the Police Department:

- Security alarms shall be installed in all buildings.
- Developed sites shall provide adequate lighting for security, provided that such lighting is consistent with the development standards for lighting set forth in the DDP.
- The public area, if developed as a park, shall be adequately lighted and shall be accessible to police patrol cars.
- Dumpster areas shall be secured, fenced, and adequately lighted.

37. Impact 4.9.4 Streets and roads constructed on the site will require maintenance by the City, including snow removal. [LS]

The small amount of additional roadway will be constructed to industrial standards designed to accommodate the types of traffic associated with development on the project site.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

38. Impact 4.9.5 The potential park and Open Space Parkway would add more park acreage to the City, which already has more community park acreage per 1,000 population than is required by the General Plan. [LS]

The project does not contain residential development that would require additional park land or open space. The site could be used to provide private and public recreational uses for the community and region.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

Cumulative Community Services Impacts

39. Impact 4.9.6 Development at the RCP site and anticipated development elsewhere in Mt. Shasta would require the Fire Department to obtain additional personnel and a new facility. [SM]

Cumulative impacts of the project, as identified in the EIR, will result in the need for new fire personnel, equipment and facilities.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.9.6a The City shall assist the Fire Department in adding necessary personnel to maintain an effective firefighting force.

40. Impact 4.9.7 The project would contribute to cumulative demands for community services. [LS]

Cumulative impacts associated with the project are addressed through mitigation measures indicated above.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

WATER AND WASTEWATER SYSTEMS[1]

41. Impact 4.10.1 To supply the projected water demand at the Roseburg Commerce Park site, significant additions and extensions of the City's existing water system would need to be made, including new water mains and possibly new wells and tanks. [SM]

The Development Plan provides for a phased introduction of water lines into the project area. The Development Plan also requires development to connect to the water system concurrent with development.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

[1]Impacts and Mitigation Measures are discussed on pages 4.10-3 through 4.10-7 of the DEIR

MM 4.10.1a The City shall utilize appropriate sources to fund all proposed water system improvements in the Capital Improvement Plan. Such sources may include, but are not limited to, development impact fees, grant programs and special assessments.

MM 4.10.1b Prior to the issuance of a grading permit for a project at the site, the project developer shall install adequate water service infrastructure and present confirmation of an adequate water supply.

42. Impact 4.10.2 Wastewater flows from development may cause the Palmer Road/W. Ream Avenue sewer main to exceed pipe capacity when wet weather flows are taken into account. [SM]

The EIR indicates that there is sufficient theoretical capacity in the wastewater collection system to accommodate full buildout of the project site if inflow and infiltration from storm water is reduced. The Development Plan assumes a gradual increase in wastewater collection and treatment needs over time which allows the connection fees to provide for the expansion of the treatment facility to accommodate growth. Provisions of the Development Plan require any single user that generates 75 percent or more of the existing treatment capacity to perform additional studies and participate in expansion of the treatment facility.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.10.2a The City shall work toward implementing recommendations concerning reduction of infiltration and inflow that are generated by the consultant analysis.

MM 4.10.2b Prior to the issuance of a grading permit for a project on the site, confirmation of adequate capacity at the WWTP to accommodate project demands shall be required.

MM 4.10.2c Prior to the issuance of a grading permit for a project on the site, confirmation of adequate capacity of the Palmer Road main to accommodate project demands shall be required. Should the Palmer Road/W. Ream Avenue main be inadequate to accommodate the demand even after implementation of MM 4.10.2a, the City shall consider measures to provide additional capacity, including construction of the main proposed in Phase 3 of the CIP.

Cumulative Water and Wastewater Systems Impacts

43. Impact 4.10.3 Development at the RCP site, along with other projects and planned development in the Mt. Shasta area, would generate a substantial increase in the demand for water. [LS]

The EIR identifies the need for additional water wells to serve development of the project site. Previous studies indicate that there is sufficient groundwater to yield wells of several hundred gallons per minute throughout the area without interference with existing wells. The connection fees and master water system plan provide for the expansion of the water system.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

44. Impact 4.10.4 The projected additional wastewater flow from the RCP site at buildout, along with flows from other projects, may cause total wastewater flows to exceed 75 percent of the treatment plant's capacity. [SM]

Buildout of the facility may cause wastewater flows to exceed 75 percent of the treatment plant's capacity. Development with the project site will have to be individually reviewed to ensure treatment capacity exists. Addressing the inflow and infiltration issues in the collection system, will provide additional capacity at the wastewater treatment plant and collection system.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.10.4a The City shall review all proposed projects on the RCP site to determine if there is adequate capacity to handle wastewater flows generated by the project. If projected flows cause the total wastewater flows to exceed 75 percent of plant capacity, the City shall plan for an expansion of the plant, including plans for design and financing.

AESTHETICS/LIGHT AND GLARE[2]

45. Impact 4.11.1 Project implementation will alter the character of the RCP site. [LS]

Most of the project site has been highly disturbed as a result of previous mill activity and would not be considered to have high scenic value. Reestablishment of urban uses on the vacant site, with proper site design, could improve the overall visual quality of the site while protecting distant views. The Development Plan contains architectural design, landscaping, grading, hillside and other performance standards.

[2]Impacts and Mitigation Measures are discussed on pages 4.11-7 through 4.11-8 of the DEIR

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

46. Impact 4.11.2 Certain types of development may obstruct scenic views from South Mt. Shasta Boulevard and Interstate 5. [LS]

Buildings on the project site could potentially obstruct scenic views depending on the height and distance from view corridors. The Development Plan contains standards designed to maintain views of distant scenic areas, mainly from South Mt. Shasta Boulevard and Interstate 5.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

47. Impact 4.11.3 Development of the RCP site would lead to an increased amount of light and glare emissions in the area. [LS]

Development on the project site will increase the amount of existing lighting. The Development Plan, and the City's sign ordinance, establishes standards for lighting.
The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

Cumulative Aesthetics/Light and Glare Impacts

48. Impact 4.11.4 The project would contribute to a general trend of urbanization in the community. [LS]

The project would contribute to a general trend of urbanization within the community. The site was previously developed and used for industrial purposes.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

CULTURAL RESOURCES[3]

49. Impact 4.12.1 Artifacts, objects, and structures associated with an event or person in California or American history or prehistory, may exist upon the project site. [SM]

Although the archaeological study performed for the property did not uncover any cultural resources, it was an inventory-level surface survey only. It is possible that cultural resources exist beneath the surface.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.12.1a If cultural resources are encountered in the course of development or construction work, work shall stop immediately at the site where such resources are found, and a qualified archaeologist shall be consulted. All recommendations made by the archaeologist after evaluation of the site shall be implemented.

50. Impact 4.12.2 The abandoned service station building on the site has potential historic value. [SM]

The abandoned service station was once part of a string of Richfield Beacon service stations stretching from Blaine, Washington to El Centro California. The tower held a light beacon used by small planes for nighttime navigation. Because of the age and unique character of the structure, it may be eligible for inclusion on the National Register of Historic Places.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.12.2a Prior to disturbance or alteration of the service station, tower or immediately surrounding property, the property owner or project applicant shall consult with the State Historic Preservation Officer (SHPO) to determine if the service station structure is eligible for inclusion on the National Register of Historic Places. If it

[3]Impacts and Mitigation Measures are discussed on pages 4.12-3 through 4.12-5 of the DEIR

is determined to be a historic structure, then the property owner or project applicant shall comply with all historic building criteria and applicable regulations.

Cumulative Cultural Resources Impacts

51. Impact 4.12.3 Due to the nature of cultural resources and the development history of the project site, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region. [LS]

Mitigation measures indicated above, and in the City of Mt. Shasta General Plan, are designed to specifically address the site-specific cultural resource impact potential.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park.

RISK OF UPSET[4]

52. Impact 4.13.1 Some contaminants may have been left over from previous industrial and commercial operations on the Roseburg site. These contaminants may adversely affect ground water quality, and users of the property may be exposed to these substances, among other impacts. [SM]

The U.S. Environmental Protection Agency and Ecology and Environment, Inc., performed a Preliminary Site Assessment 1 and 2 for the site which included soil sampling and analysis. The study concluded that there were some locations in need of future remediation on the property but in general the site was comparatively free of contaminants.

The City Council finds that as to such effect identified above:

[X] Changes or alterations have been required in, or incorporated into, the Roseburg Commerce Park Development Plan which would avoid the significant environmental effects thereof, as identified in the EIR.

This finding is based on the fact that the City of Mt. Shasta shall monitor the implementation of the following mitigation measure:

MM 4.13.1a When applications for development projects in DA-2a or DA-2c are received, the City shall conduct additional investigation of the areas identified in the START report as areas of concern. Upon completion of these additional investigations, the City shall take the appropriate measures to remediate these sites before development can be permitted.

[4]Impacts and Mitigation Measures are discussed on pages 4.13-3 through 4.13-5 of the DEIR

Cumulative Risk of Upset Impacts

53. Impact 4.13.2 Risk of upset impacts are site-specific and are generally not affected by cumulative development in the region. [LS]

The Development Plan restricts the types of development and materials used in manufacturing within the project site. The Siskiyou County Health Department has established hazardous materials handling regulations that all development must comply with.

The City Council finds that as to such effect identified above:

[X] In accordance with CEQA, no mitigation measures are required for impacts that are less than significant (PRC 21002; CEQA Guidelines 15091).

Specifically this finding is based on the adherence of subsequent development to federal, state and local development requirements, and the implementation of the Development Standards for the Roseburg Commerce Park

OVERRIDING CONSIDERATIONS

Based upon the objectives identified in the Specific Plan and EIR and through the extensive public participation, the Planning Commission and City Council has determined that the Development Plan for the Roseburg Commerce Park should be approved and that any remaining unmitigated environmental impacts attributable to the Development Plan are outweighed by the following specific economic, fiscal, social, environmental, land-use and other overriding considerations.

Provision of Permanent Jobs and Temporary Construction Jobs. The proposed project is estimated to generate a possible 976 permanent jobs at buildout. Numerous temporary construction jobs will be generated during development of the infrastructure and buildings on the site. Permanent jobs are needed in Siskiyou County to replace those lost by the changes in the lumber industry. The project emphasis on professional office and industrial is designed to encourage permanent well-paying jobs.

Economic Benefits from Taxes Generated by the Project. The City will receive fifty (50) percent of any of the property tax increment, and fifty (50) percent of sales tax. All of the transient occupancy tax will be allocated to the City. With the modification to the project description recommended by the Business Advisory Focus Group (BAFG) and by the Planning Commission, it is anticipated that hotel, motel and convention development will occur onsite. Although retail commercial development is limited, there will also be some sales tax generated from the site. The implementation component of the Planned Unit Development requires a fiscal analysis for development greater than 10,000 square feet in size and establishes several goals of the study. The overall intent of the study is to encourage the *addition* of sales tax revenue rather that the *redistribution* of existing market share. While there is no way to accurately predict the total land use makeup of the project at this time, the absence of residential development and the potential for retail commercial, motels and hotels, makes a positive budget impact likely.

Cumulative Impacts Will Occur Regardless of Project Implementation. The impacts identified as significant and unavoidable are traffic related (traffic, noise and air quality) and will occur regardless of the implementation of the project. The implementation of the project will lessen the impacts but cannot eliminate the cumulative impact. All development within the project must comply with the General Plan, and participate in any long-range programs designed to mitigate cumulative impacts.

Development of the Project Site In the County Under County Zoning Could Result in Greater Impacts. If the property is not annexed, and the City is forced to sell the land to reduce its property tax burden of $6,300 per year, the existing commercial, industrial, and residential zoning would allow development without the standards included in the Development Plan for the Roseburg Commerce Park. The County's industrial zone district is considerably less restrictive than the City's, and does not have any design or architectural controls. Additionally, development outside of the City would have to obtain LAFCO approval to extend water and sewer lines, or develop on-site alternatives. Septic systems have the potential to degrade groundwater quality, and "package treatment plants" are both expensive to install and would either need to be zero discharge, or develop some discharge mechanism. Given the close proximity of the City's regional facility, individual wastewater treatment systems would not be cost effective. A separate water system could be developed, but would require significant storage to ensure adequate fire flow. The cost of developing and maintaining a private water system for an industrial park is similar to installing the improvements needed to connect to City water.

The Former Mill-Site Is An Eyesore, And Needs Redevelopment. The property on the west side of South Mt. Shasta Boulevard, roughly two-thirds of the project site, has been heavily disturbed and bears the scars of several years of industrial use. In some areas trees have started to grow, but in many areas the soil has been completely removed, compacted or covered to prevent growth of any kind. The property has significant concrete and metal remnants of the mill, and is generally a poor entry to the community. The site, and City, would benefit from the redevelopment of this site with architectural controls as provided in the PUD.