



CITY OF ROSEVILLE

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August 5 1988

To: Interested Parties

From: City of Roseville Planning Department
316 Vernon Street
Roseville, CA 95678

Subject: Draft Environmental Impact Report for the Northwest
Roseville Specific Plan

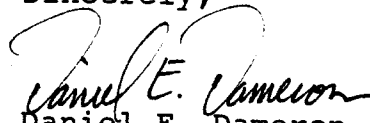
The Roseville Planning Department is forwarding this document for review and comment to all agencies, organizations, and interested persons indicated on the enclosed distribution list. Reviewers should focus on the comprehensiveness and accuracy of the E.I.R. in discussing possible impacts upon the environment, mitigation measures, and alternatives to the projects.

The Draft Environmental Impact Report is being circulated for a 30-day review period. Persons responding are urged to submit their comments in writing. All comments should be received by the Planning Department at the above address no later than 5:00 p.m., September 5, 1988. Both written comments and oral testimony from the public hearings will be incorporated into the Final E.I.R. Please retain a copy of the Draft E.I.R. Unless substantial modifications are needed, the Draft E.I.R. plus an addendum may serve as the final document.

A copy of this document has been forwarded for public review to the main branch of the Roseville City Library at 225 Taylor Street. In addition, a copy may be reviewed at the City Planning Department.

If you have any questions regarding this Draft E.I.R., please contact Daniel E. Dameron at (916) 781-0276.

Sincerely,


Daniel E. Dameron
Associate Planner

DED:ns

Enclosure

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**NORTHWEST ROSEVILLE SPECIFIC PLAN
DRAFT ENVIRONMENTAL IMPACT REPORT**

SCH# 88051623

**Prepared For
City of Roseville
August 2, 1988**

**Prepared by
R. C. Fuller Associates
5908 Fair Oaks Boulevard
Carmichael, California 95608**



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I. INTRODUCTION

A. Project Overview

In November of 1985, the Roseville City Council by Resolution amended the Land Use Element of the General Plan. This provided for the development of Specific Plans for three areas of the City, including the Northeast, North Central and Northwest. Tentative land use allocations were made, with final adoption contingent upon the presentation and approval of Specific Plans and Development Agreements for the subject properties. A Notice of Preparation was previously prepared for this project in August 1986, and a Draft EIR was circulated in July 1987. Since that time, refinement of the Specific Plan and preparation of a subsequent City-wide traffic analysis have resulted in the necessity to recirculate the CEQA documents. Consequently, a new NOP was prepared and circulated for this project on May 19, 1988, and this Draft EIR has been prepared for the current Specific Plan. The refined Specific Plan and accompanying land use maps, provides the basic information upon which this Environmental Impact Report is based. The Proponent Draft **Northwest Roseville Specific Plan** is appended to this report.

A Specific Plan is a policy document which bridges the gap between the City's General Plan and individual development proposals. Items established by a specific plan include: 1) Development standards and design guidelines for land use, buildings, public facilities, and roadways; 2) Population density and building intensity standards; 3) Open Space; 4) Project phasing in relation to infrastructure requirements; 5) Capital and improvement financing requirements.

As proposed, the Northwest Specific Plan area encompasses approximately 2,672 acres and provides for development of 8,194 residential units ranging in density from three to twenty units per acre. Although residential use is the principal land use, the Plan also includes public park sites, a public golf course, elementary and private school sites, church sites, and neighborhood oriented commercial and business-professional sites.



B. EIR Author

This environmental impact report has been prepared by R.C. Fuller Associates, a Sacramento based firm which specializes in research and analysis relating to land use change. Previous studies relating to the Plan areas prepared by R.C. Fuller Associates include the Highway 65 Transportation Corridor EIR, the R.C. Collet Aggregate Extraction Operation EIR, the Placer Whitney Industrial Park EIR, the Johnson Ranch Cable Data Environmental Assessment, the Diamond K Estates Environmental Impact Report dated October 1980, the Diamond K Meadows Subdivision EIR dated January 1980, the Larchmont Morning Star (Diamond K Meadows) EIR Addendum dated October 1980, and the Southeast Roseville Specific Plan EIR dated August 1987.

C. Project Developer

The Northwest Specific Plan includes property owned by several parties. Consequently, the proposed specific plan is the end product of a coordinated effort between the various land owners and the City of Roseville. Identification of specific developers will occur as individual projects are proposed.

D. Public Agencies Affected

The City of Roseville is the Lead Agency for the Specific Plan. No Responsible Agencies have been designated by the City.

E. Source of Funding

No specific funding source for development within the specific plan area has been identified at this stage. Funding for development of the residential, commercial, and industrial portion of the plan areas are anticipated to be from private sources. Development of roadways, utilities and other infrastructure will be from both public and private developer



sources. Parks and public land uses schools are anticipated to be funded through formation of an assessment district(s). Similarly, schools are anticipated to be funded through an assessment district(s) and/or development fees. Funding for the preparation of the Specific Plan and the EIR has been provided by the land owners.

F. Purpose and Scope of EIR

As provided in the California Environmental Quality Act (CEQA) Guidelines, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. In discharging this duty, the public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social (Section 15021). The EIR is an informational document, the purpose of which is to inform public agency decision makers and the general public of the significant environmental effects of a proposed project, to identify possible means to minimize the significant effects, and to describe reasonable alternatives to the project. The public agency is required to consider the information in the EIR along with any other information available in making its decision (Section 15121). Sections 15122 through 15132 describe the content requirement for Draft and Final EIRs. This information includes the environmental setting, environmental impact, mitigation measures, alternatives, short term uses vs. long term productivity, significant irreversible changes, growth inducing impacts, and cumulative impacts.

In accordance with CEQA Section 15182, no future EIR or negative declaration need be prepared for a residential project which is proposed in conformity with the respective Specific Plan. This includes land subdivisions, zoning changes, and residential planned unit developments.



G. Organization of EIR

The organization of this report is in accordance with the Roseville City outline format. Section I of this document is the Introduction; which includes a project overview, a description of the purpose and scope of the EIR, a description of the EIR organization, and a listing of related environmental documents.

Section II is a brief summary of the major findings of the EIR investigation, including an analysis of the potential effect of the implementation of the mitigation measures identified by the study. Section III contains the project description, location, description of the site and adjacent areas, and related material. Sections IV and V contain the baseline, impact, and mitigation measures discussion and analysis by subject. Section VI contains the alternative analysis, growth inducing discussion, and related sections required by CEQA or City Guidelines. Section VII contains the cumulative impacts analysis. Section VIII discusses local short term uses of the human environment in relation to the maintenance of long term productivity. Section IX and X discusses opposition to the project and environmental monitoring programs, respectively. Section XI lists persons and organizations consulted, Section XII lists publications utilized, and Section XIII is the Appendix.

H. Data Collection Methods

The information contained in this EIR was obtained from published sources, field investigation, interviews with City and other public officials, the project engineer, the project planner, and other knowledgeable individuals.

I. Existing Environmental Documents

Previously prepared environmental impact reports which cover portions of the plan area include the Diamond K Estates Environmental Impact Report dated October 1980, the Diamond K Meadows Subdivision EIR dated January 1980, the Larchmont Morning



Star (Diamond K Meadows) EIR Addendum dated October 1980, and the Roseville/Placer County/Rocklin Sewer Assessment District EIR, dated February 1982.

Other environmental documents which have been prepared for projects within the plan area include: the Preliminary Evaluation of Groundwater Recharge 2000 Acre Area North of Roseville, prepared by Wallace Van Alstine & Kuhl, dated February 13, 1986; the Supplemental Flood Plain Study, prepared by Nolte & Associates, dated August 1986; and numerous geotechnical engineering reports for already proposed, and in some cases approved, projects within the specific plan boundaries.

Other EIRs prepared for projects in the immediate vicinity include: the NEC Electronics USA EIR, prepared by R. C. Fuller Associates, dated October 1981; the NEC Plant Expansion EIR, prepared by R. C. Fuller Associates, dated July 1985; and the Hewlett Packard Plant EIR, prepared by CH2M Hill, the Highway 65 Bypass EIR prepared by Caltrans, dated June, 1983; and the Highway 65 Transportation Corridor EIR.



II. SUMMARY

Summary of Impacts and Mitigation Measures

A summary of suggested findings of significance for specific and cumulative impacts are found in Table B1. Further information and detail regarding these subjects is presented in the respective sections of the text of this report. Impacts are identified in this section as follows:

- L Less than Significant Impact
- M Mitigated to Less than Significant Impact
- S Significant Impact

In accordance with CEQA Guidelines Section 15126 (a), all of the impacts examined in detail in the body of this report are potentially significant. However, the Guidelines (CEQA Sections 15064, 15382 and CEQA Appendix G) require a very specific examination of significance in light of mitigation measures which can be utilized to reduce the impact. For the proposed project, impacts in the subject areas of water quality, localized carbon monoxide generation, vegetation and wildlife, and visual and aesthetic resources were judged to be significant. Subject areas in which significant cumulative conditions exist to which this project will contribute include hydrology and water quality, vegetation & wildlife, air quality, land use, and visual/aesthetic resources.

Cumulative impacts are discussed, based on a regional analysis, in the cumulative impact section. The final determination as to which impacts are judged to be significant is made by the City of Roseville so the classification given must be considered as suggestive.



**Table B1
Summary of Suggested Impacts and Mitigation Measures**

<u>Description of Impact</u>	<u>Plan Specific Impact/Mitigation</u>	<u>Cumulative Impact/Mitigation</u>
Geology, Seismicity, and Soils		
<p>The project will increase persons and property subject to groundshaking. The chance of seismic activity in the plan area will not be impacted.</p>	<p>L</p> <p>Adherence to the Uniform Building Code and the City of Roseville building standards which take into consideration the seismic nature of the region.</p>	<p>L</p> <p>Conformance to State and local building codes is suggested to reduce mitigate cumulative impacts.</p>
<p>Development will produce topographic changes. The chance of erosion and siltation will increase in areas of grading and trenching.</p>	<p>M</p> <p>Topographic impacts will be minimized by design of individual projects to conform to site conditions. Tentative maps will be subject to review by staff. The Plan includes measures to minimize grading and soil impacts.</p>	<p>L</p> <p>The project will not add to a significant cumulative erosion impact.</p>
<p>Soils in the plan area pose several development constraints including a clay hardpan, steepness of slopes, high shrink swell potential, slow permeability and frequent flooding.</p>	<p>M</p> <p>Mitigation has been identified for all of the constraints. Measures will be identified on tentative maps prior to project approval. All projects will have a geotechnical analysis prepared.</p>	<p>L</p> <p>Project specific mitigation for soil constraints will eliminate potential cumulative impacts.</p>



HYDROLOGY

The net impact to groundwater cannot be determined.

[L]

Impervious surface area will reduce the infiltration of surface water. Conversely, the year round presence of water will increase the amount of water available for infiltration.

[L]

Soils in the area exhibit limited permeability. Runoff may increase.

Construction will produce a short term increase in the sediment load of area waterways.

[M]

Erosion control and topsoil conservation mitigation measures will be implemented in all projects.

[L]

Construction is considered a short term activity and will not generate cumulative impacts.

Urban development of the plan area will contribute to the level of urban pollutants in area waterways and increased runoff.

[S]

This is an unavoidable impact associated with urban development.

[S]

Long term mitigation might include public education on pollutants. Manufacturing processes should be altered to utilize materials which are less hazardous to the environment.

A hydrologic study and a master drainage plan will be prepared for the plan area prior to review of individual projects.

Surface runoff can be conveyed from the plan area via the designated drainages. However, additional flows to Sutter County is suggested to be significant.



VEGETATION & WILDLIFE

Construction will temporarily displace wildlife from areas of the site and increase the potential for erosion and siltation of area waterways.

Development of the plan area will result in a reduction of available habitat and the disruption of the existing natural communities.

Overwatering, mismanagement, or abuse by future residents will contribute to the loss of some of native trees.

Chemical compound use by future residents of the area represents a potential hazard to wild life, natural communities and aquatic habitat within the Plan area.

M Erosion control measures, pursuant to those listed in the Geology and Hydrology sections of this report will be utilized.

The Plan includes specific policies for the preservation of quality open space, parkland, oak woodland and vernal pools as habitat.

S Complete mitigation of this impact cannot be achieved.

M Public awareness programs should be initiated for residents.

L Construction is a short term activity. Mitigation measures required for each individual project should eliminate cumulative impacts.

S Long term maintenance of quality natural areas within the Plan area will require City action.

M Measures in the plan include those which relate to the protection and preservation of open space and natural areas.



AIR QUALITY

Emissions from motor vehicle operations are anticipated to be the greatest long term air quality impact associated with development of the plan. Even though mitigation is identified in the plan to minimize project impacts, the project will add to regional pollutant levels. Because of the non-attainment status of the region, this contribution will be cumulatively significant.

Short term impacts include generation of dust associated with construction operations.

S

The NW plan area is mostly residential and located adjacent to major employment areas. This should shorten trips and allow for alternative transportation use. Pedestrian and bicycle pathways are included.

The City has an extensive TSM ordinance which requires major employers within the City to implement specific measures which encourage ridesharing, bicycling, and other alternative methods of transportation.

Even with implementation of these measures, CO levels at the major intersections are predicted to exceed the ambient standards.

M

Mitigation measures are proposed to minimize dust generation. All measures will be implemented consistent with the requirements of the Placer County APCD.

S

The NW Specific Plan will be subject to the policies of the new Air Quality Plan once adopted by the City. If necessary, the Specific plan will be revised to conform with the new Air Quality Plan.

L

Urban areas typically generate high levels of particulates. Measures to reduce dust generation will be implemented.



Carbon monoxide concentrations at major intersections within the plan area are predicted to exceed the ambient eight hour standard.

M Proposed locations of bus stops and transit facilities are identified in the specific plan.

Air Quality analysis will be submitted for individual projects as they are proposed.

Car pooling should be encouraged and park and ride lots should be incorporated into the plan.

S Motor vehicle emission impacts are being mitigated on a regional scale.

Measures to improve traffic flows can be considered as long term mitigation.

Means for financing of equipment and stations for air quality monitoring should be developed.

Recommendations by the Cleaner Air Partnership should be reviewed by policy makers and City staff.

NOISE

Construction will generate short term noise impacts, varying from 88 to 95 decibels.

Residents in the initial homes in the plan area will be exposed to construction noises in addition to "heavy" construction activities associated with on going building.

M Construction noise is short term in nature. Noise will be further reduced by limiting working hours, and limiting the types of equipment and areas where work may proceed relative to existing homes. All equipment used will utilize noise abaters.

L Enforcement of the existing nuisance ordinance can be utilized to control isolated disturbances which may arise as development continues throughout the plan area.

Developers of individual residential units will be required to include construction techniques which reduce interior noise levels to the State standard of less than 45 dB.



Long term noise will be generated. Traffic represents the most likely source for future noise violations within the plan area.

Traffic noises are predicted to range between 65.8 - 73.6 dB L_{dn} at major intersections within the plan area.

LAND USE

Implementation of the plan will change the area from mostly agricultural uses to an urban environment supporting residential and commercial land uses.

Continued development of commercial and business professional uses in the outlying areas of the City could contribute to the continued loss of such business to the downtown.

M Truck routes will be designated to minimize truck traffic in or adjacent to residential areas.

L Based on the limited agricultural potential of the soils and the presently idle condition of the land, conversion of the plan area to urban land uses is considered to be less than significant.

L The plan includes commercial and business professional land uses in accordance with the policies of the **Land Use Element** of the **Roseville General Plan**. The economic health of the City should be evaluated prior to approval of commercial projects larger than that recognized as neighborhood type.

L Traffic noises can be mitigated by common measures such as: setbacks, sound walls, berms, and dense landscaping.

S The change in land use will result in substantial physical change to the plan area. Although this change is consistent with the existing General Plan, it is suggested to be significant.

L As provided by the redevelopment plan, incentives programs should be offered to developers for implementation of projects in the downtown area.



Development of urban land uses in close proximity to electrical transmission facilities will result in exposure of persons to electromagnetic fields.

[M]

The potential adverse impacts can be mitigated through the provision of adequate separation of land uses from the powerline. The Specific Plan includes distances and use of the easement consistent with existing practices.

[M]

The seriousness of exposure is not understood, nor is there adequate evidence to support or reject the inferred relationship between exposure and development of cancer.

Schools will be setback 150 feet from the boundary of any powerline easement to meet State standards for placement adjacent to power line easements.

POPULATION, EMPLOYMENT, AND JOBS/HOUSING BALANCE

Buildout of the NW Specific plan area will support 19,355 residents.

[L]

The number of households proposed is consistent with the **General Plan**.

[L]

It is recognized that a job/housing imbalance is predicted to occur, and that this imbalance will represent a significant cumulative situation. However, this project will improve the situation rather than add to it, and consequently, the cumulative impact of this project is suggested to be less than significant.

Land uses in the Plan area are predicted to create approximately 5,519 jobs.

There is a predicted regional imbalance of 1.67 jobs for every employable person. As the plan area will provide more employees than jobs, it will assist in correcting the imbalance.

Build out of the plan area will generate approximately 1.75 persons for every job created.



AFFORDABLE HOUSING

Development of the Specific Plan will result in construction of 8,194 housing units.

Without implementation of affordable housing measures, all of these homes will be priced beyond the range of Very Low Income Families.

There will be a greater number of families desiring to purchase homes costing less than \$100,000 than are available in this price range.

TRANSPORTATION

Development of the specific plan will result in the generation of additional vehicular trips on area roadways, and create a need for improvements to existing roadways and construction of new roadways in the City.

M Plan area developers are agreeable to the recommendations of the Affordable Housing Task Force; 15% of the dwellings in the plan area will be in the affordable housing range.

M Specific mitigation for the roadways in the plan are listed in the traffic section of this report.

The Plan includes development of a bicycle/pedestrian pathway system.

The residential nature of the plan area will yield a community in close proximity to work destinations, thus reducing commute lengths.

M Observance of the recommendations by the Affordable Housing Task Force will continue to make affordable housing available to the Very Low and Low income families within the Plan area.

M The Plan provides a balance of land uses which will reduce the need for residents to travel beyond the area itself.

The City is involved in planning for the extension of the Light Rail system, has an aggressive ridesharing ordinance and encourages the use of TSM measures.



WATER SERVICE

Build out of the Plan area is predicted to require approximately 17 million gallons per day.

Development will require construction of infrastructure to provide water service to the plan area.

M

Mitigation measures include low flush volume toilets and flow restricted faucets, drought resistant landscaping species and automatic drip irrigation systems.

M

Formation of an Assessment District(s) is proposed to finance necessary improvements to the City wide water distribution system as well as throughout the plan area.

Individual projects will include design and construction of infrastructure to standards specified by City ordinance.

WASTEWATER DISPOSAL

Build out of the plan area will result in a projected increase of approximately 3.8 million gallons of wastewater from the Plan area.

Development will create the need for construction of infrastructure to serve the plan area.

M

The volume is consistent with the proposed capability of the City's treatment facilities. Sewage volume will be reduced by the use of low flush volume toilets and restricted faucets.

A master sewer plan to serve the area has been completed. In accordance with City policy, individual projects will be required to install on site sewer facilities to standards required by City ordinance.

M

Formation of an Mello-Roos or similar assessment district, or other appropriate financing mechanism, is proposed to facilitate extension of sewer facilities to the plan areas. The financing mechanism must be identified prior to approval of additional projects within the plan area.



NATURAL GAS

Development of the Plan area is predicted to create a demand for approximately 470 MCF/hr of natural gas and will potentially impact existing gas transmission facilities.

M

Transmission main capabilities are adequate to serve the projected additional load.

Developers will be required to provide adequate easements for all utility facilities within their developments.

Homes should be constructed with energy efficient heating and cooling systems.

M

Developers will be encouraged to consult with PG&E early in the planning process to ensure compatibility between projects and facilities.

ELECTRIC SERVICE

Development within the Plan area is predicted to increase the electrical load of the City by approximately 30 megawatts, and require additional transmission facilities and substations.

M

The City has contracts in place which are expected to provide adequate sources of power for the City.

Project proponents will bear the costs of installation of required distribution facilities in the Plan area.

Construction of well insulated, quality homes will reduce the demand for energy.

M

Developers will be encouraged to incorporate passive solar measures into structures whenever feasible and provide assistance to home buyers interested in incorporating more extensive energy alternatives.

Public utilities will be encouraged to provide programs for conservation of electricity, gas, and water. This could include low interest financing for energy conservation home improvements.



TELEPHONE SERVICE

Development of the plan area will require installation of facilities to provide telephone service to future residents of the plan area.

[M]

Proponents of the specific plan will cooperate with the Roseville Telephone Company for development of necessary facilities for the provision of service to the Plan area. Easements for new telephone lines will be identified on tentative maps.

[L]

No cumulative impacts are anticipated with provision of telephone service to the plan area.

POLICE PROTECTION

Development will require an increase in law enforcement services of approximately 25 additional officers to continue service at its present level.

[M]

Municipal services are funded through tax revenues. Taxes will be assessed to new plan area residents to finance expansion of law enforcement services.

All projects will be reviewed by the Police Dept. to identify safety and crime prevention measures.

[M]

Home construction within the plan area will utilize quality hardware. Some residents may choose to install alarm systems.

Neighborhood watch programs are recommended.



FIRE PROTECTION

Buildout of the plan area is expected to generate approximately 1,350 alarms per year and generate the need for increased fire and emergency services.

M
The Plan includes the construction of the new fire station on Junction Blvd, which has already occurred.

Municipal taxes will fund the expansion of the fire and emergency services.

M
All projects will be constructed to meet applicable fire codes and will be reviewed by the Fire Department.

Hydrants will be provided at the time of project development per approval by the Fire Dept.

SOLID WASTE

Buildout of the plan area is predicted to generate approximately 40 tons of solid waste per day. This volume will add to the need to expand the regional landfill.

M
Solid waste disposal service provided by the City is self sufficient, relying on the billing of customers for service. Future residents in the plan area will facilitate disposal service through payment of fees.

M
The volume of waste could be reduced by recycling of paper, cardboard, aluminum, plastic and glass, and composting of plant materials and garbage.



HAZARDOUS MATERIALS

Development of the plan area to urban land uses carries with it the use of hazardous materials by homeowners and businesses alike. Some hazardous materials will likely be released into the environment.

M Hazardous material use is regulated at all levels of government. Local enforcement of hazardous waste regulations is the responsibility of the City and is handled by the City Fire Dept.

M Prior to permitted use of hazardous materials within the City, the nearest fire station will acquire proper equipment and personnel will undergo training to handle emergencies involving the materials in use.

Transportation of hazardous waste will be along designated routes outside of residential areas.

SCHOOLS

Based on the yield rates provided by the various school districts, development of the plan area is predicted to generate approximately 5,265 students and will create a need for new facilities.

M The Plan includes a 41.6 acre site to serve the Roseville Joint Union High School District; a 12.1 acre elementary school site to serve the Roseville City School District; a 10 acre elementary school site and an 18 acre intermediate school site to serve the Dry Creek Elementary School District. The sites have been located with consideration of the possible health effects of exposure to electromagnetic fields emanating from high tension power lines.

M An additional site will need to be designated in the urban reserve portion of the plan to accommodate the numbers of students full build out of the plan area will generate.

Developers will cooperate with school districts and will participate in current financing mechanisms.



PARKS AND RECREATION

Development of the plan area will generate the need for open space and park area and facilities, and for additional park staff to patrol the new areas.

M

The specific plan designates approximately 131 acres of parks in 11 neighborhood and one community park. In addition a 30 acre site is been identified adjacent to the community park, and development of a bicycle/pedestrian pathway is proposed. Developers will pay the assessed fee.

M

Adherence to the City park dedication standards and continued collection of park fees, will ensure that an adequate amount of park and facilities are developed as the City grows.

LIBRARIES

Development of the Plan area will create the need for a branch library.

M

A branch library is included in the Plan and will be located in the Community Park.

L

No mitigation is required on a cumulative basis.

VISUAL AND AESTHETIC RESOURCES

As development progresses in the plan area, the semi-arid open landscape will be replaced with an urban environment dominated by residential and commercial land uses. Landscaping and irrigation will produce green vegetation year round.

S

It is not feasible to reduce the changes in the aesthetic environment to less than significant levels.

The specific plan identifies and preserves the more outstanding natural features of the area.

S

Creation of landscaped corridors along roadways, implementation of design and landscape guidelines, grading standards, tree preservation programs and scenic views are proposed to create an attractive character throughout the plan area.



FISCAL

Once built out, the specific plan area is predicted to generate approximately \$9,325,400 annually. The area will require \$7,659,200 annually for expenditures.

Based on the present development impact fee schedule, development of the plan area is predicted to generate approximately \$102,162,400 in one-time fees.

[L]

Implementation of the plan will produce a surplus of \$1,666,200.

[L]

No negative cumulative fiscal impacts are anticipated from buildout of the plan area.

ARCHAEOLOGY AND HISTORY

No significant archaeological or historic sites have been identified in the plan area. Development may result in the discovery of as yet unrecorded cultural resources and subsurface deposits.

[L]

In the event any historic surface or subsurface archaeological features or deposits are uncovered during construction, work in that immediate area will halt immediately and the State Historic Preservation Officer in Sacramento will be contacted for determination of resource significance. Finds will be given to the Maidu Park Native American Center.

[L]

The practice of conducting archaeological and/or historic surveys prior to development provides the opportunity to identify and protect potentially significant sites. The implementation of mitigation for discovered sites constitutes cumulative mitigation.



GROWTH INDUCING

Development of the plan area will require extension of public services and utilities, and upgrading of infrastructure outside of the plan area.

Approval of the plan will result in rural areas becoming contiguous with approved development and could contribute to the cessation of some agricultural activities in the vicinity.

Predictions indicate that buildout of the **Roseville General Plan** will produce a greater number of jobs than residents to fill available positions, creating a high demand for employees.

M

The Plan includes a phasing plan which identifies an orderly progression for development of the plan area.

L

The Northwest Plan area is predominantly residential and will generate more employees than jobs, thus contributing to a reduction of the predicted jobs/housing balance.

M

Most of the land use allocations allowed by the **Roseville Specific Plan** have been allocated, and development of the urban reserve areas beyond the Plan area would require amendment to the **General Plan**.

L

It is recognized that a job/housing imbalance is predicted to develop which will be a significant cumulative situation. However, this project will improve the situation rather than add to it, and consequently, the cumulative impact of this project is suggested to be less than significant.



III. PROJECT DESCRIPTION

A. Location

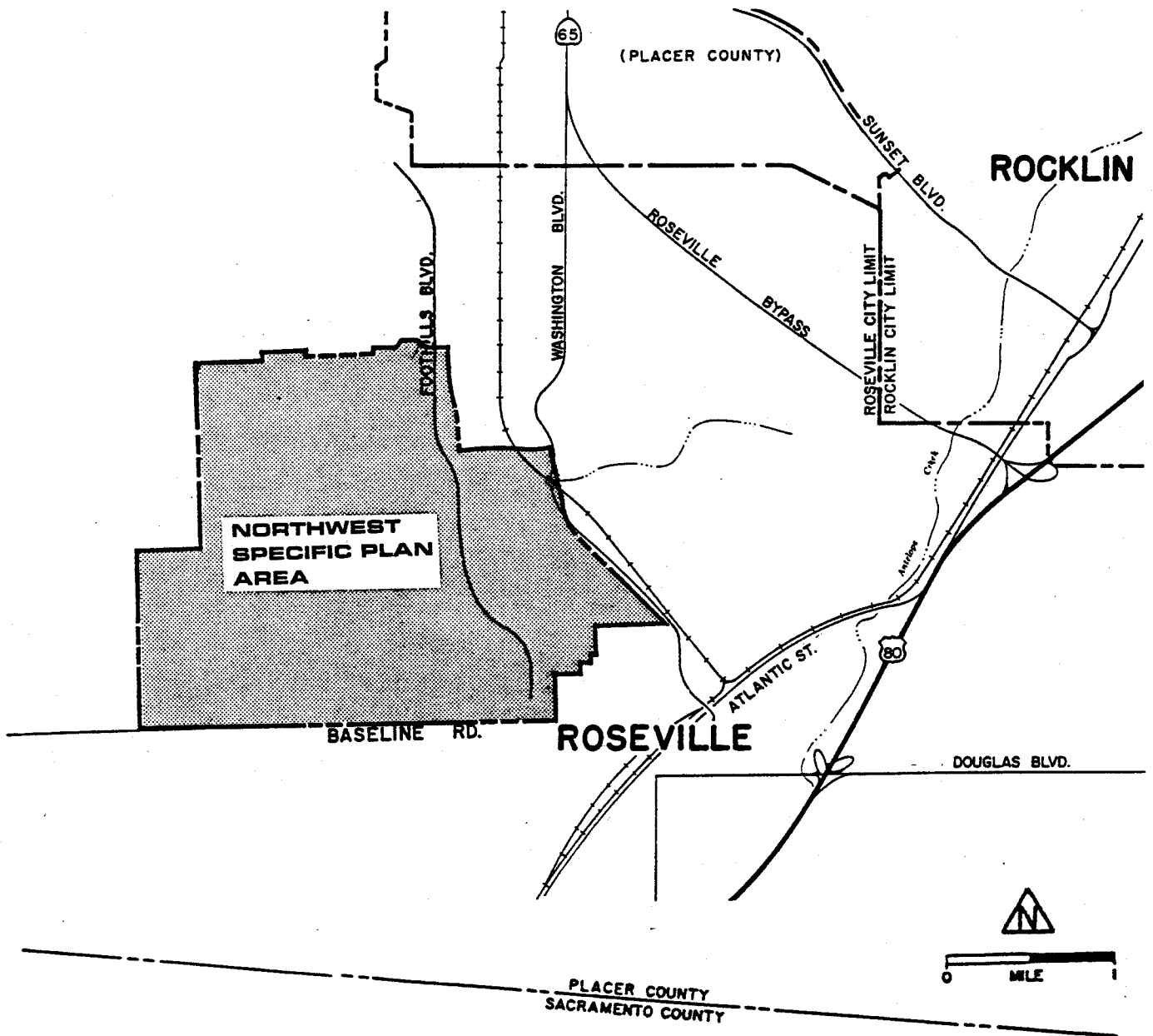
The City of Roseville is located in the Central Valley of northern California, within comfortable driving distance of both the Sierra Nevada Mountains and the Pacific Coast. As shown in Figure C1, Roseville is located along Interstate 80 approximately midway between Sacramento and Auburn. Interstate 80 provides a direct link between Roseville and San Francisco or the Lake Tahoe region. Locally, the proximity of Roseville to the prospering Sacramento metropolitan area has made the City an attractive location for development, and as a result, unprecedented growth is occurring throughout the City. Roseville currently recognizes six planning areas which are generally situated around the downtown core of the City. The relative locations of these planning areas are shown in Figure C2. To date, Specific Plans have been adopted for the Southeast and Northeast Planning areas. Specific Plans are currently being prepared for the Northwest and North Central planning areas.

The area included within the Northwest Roseville Specific Plan encompasses approximately 2,672 acres, and as shown in Figure C3, is bounded on the north by the North Roseville Industrial Area, on the east by Washington Boulevard (State Highway 65) and the Southern Pacific Railroad line, and on the south by Baseline Road. There are no distinct landmarks indicating the western plan area boundary which is marked by fencelines located approximately one-half mile and one mile east of Fiddymont Road.

B. Project Site Description

The City of Roseville is located in an area which is generally regarded as transitional between the flat open terrain of the Central Valley, and the rolling foothills of the Sierra Nevada Mountains. The Northwest Specific Plan area typifies terrain and vegetation common to the vicinity.

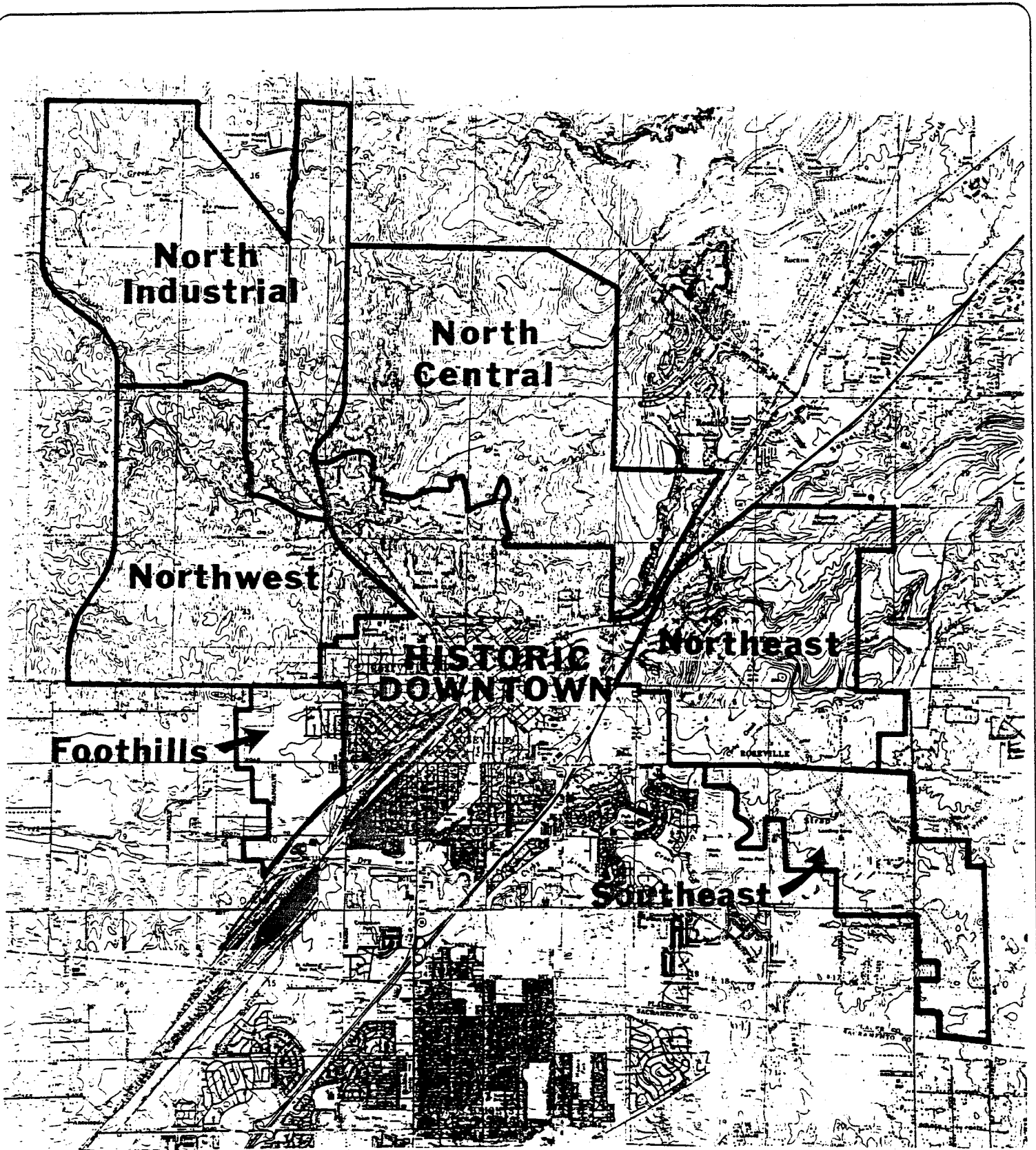




REGIONAL LOCATION MAP

FIGURE C1





PLANNING AREAS MAP

FIGURE C2

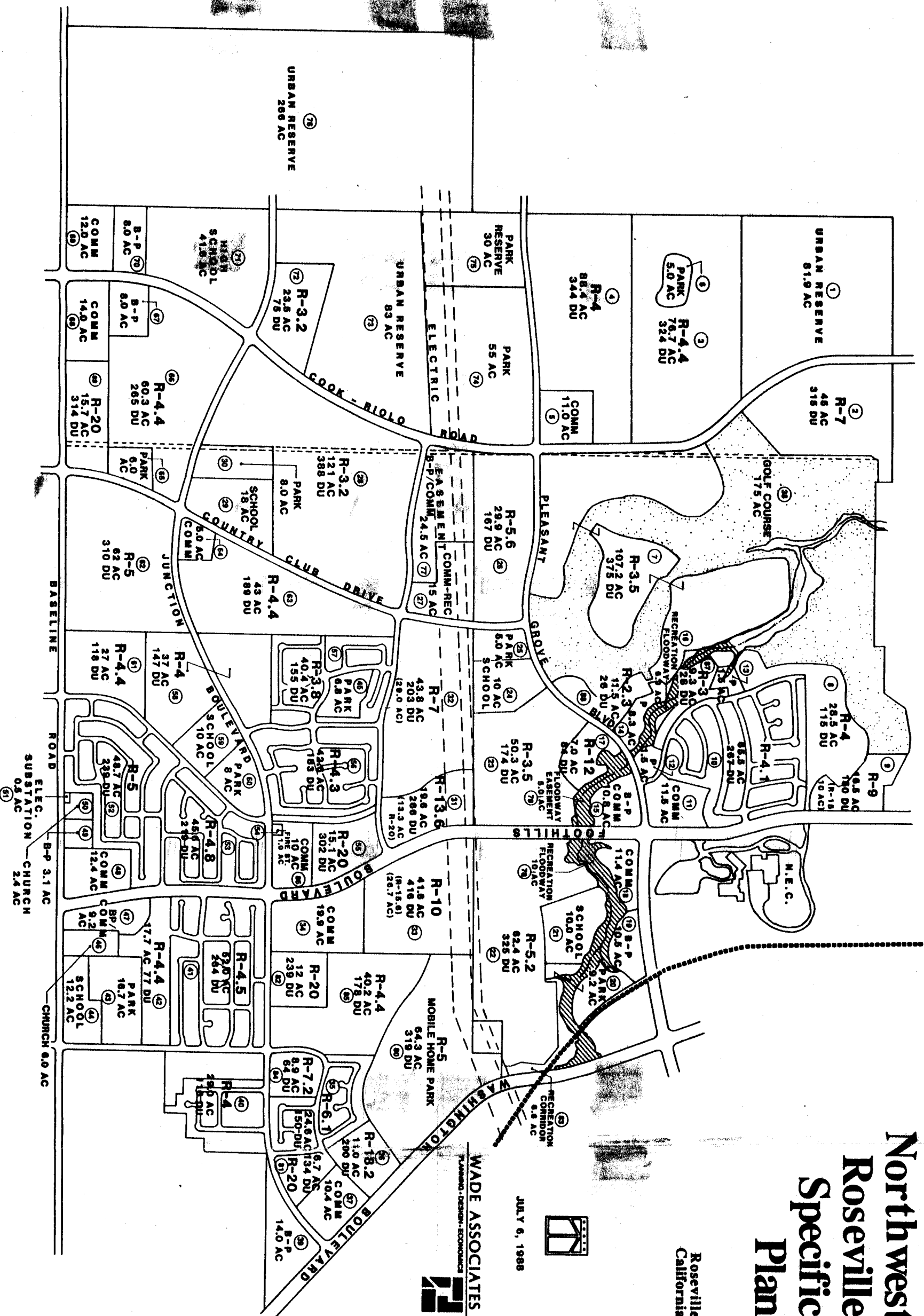


Northwest Roseville Specific Plan

Roseville
California

JULY 6, 1988

WADE ASSOCIATES
PLANNING - DESIGN - ECONOMICS



NORTHWEST ROSEVILLE SPECIFIC PLAN MAP

FIGURE C3

NORTHWEST ROSEVILLE

C-4

SPECIFIC PLAN EIR



Vegetation within the Northwest Roseville Specific Plan area is dominated by open grassland interspersed with groves of native oak trees and corridors of limited riparian vegetation along the principal drainages. Several concentrations of vernal pools have been identified in the specific plan area. These pools support a wide diversity of plant species which are unique to vernal pool habitat.

The majority of plan area is drained by South Branch Pleasant Grove Creek. Other portions of the plan area are drained by Kaseberg Creek or Curry Creek. South Branch Pleasant Grove Creek and Kaseberg Creek flow into Pleasant Grove Creek west of the City of Roseville. Pleasant Grove Creek and Curry Creek outlet to the Pleasant Grove Creek Canal approximately eight miles west of Roseville.

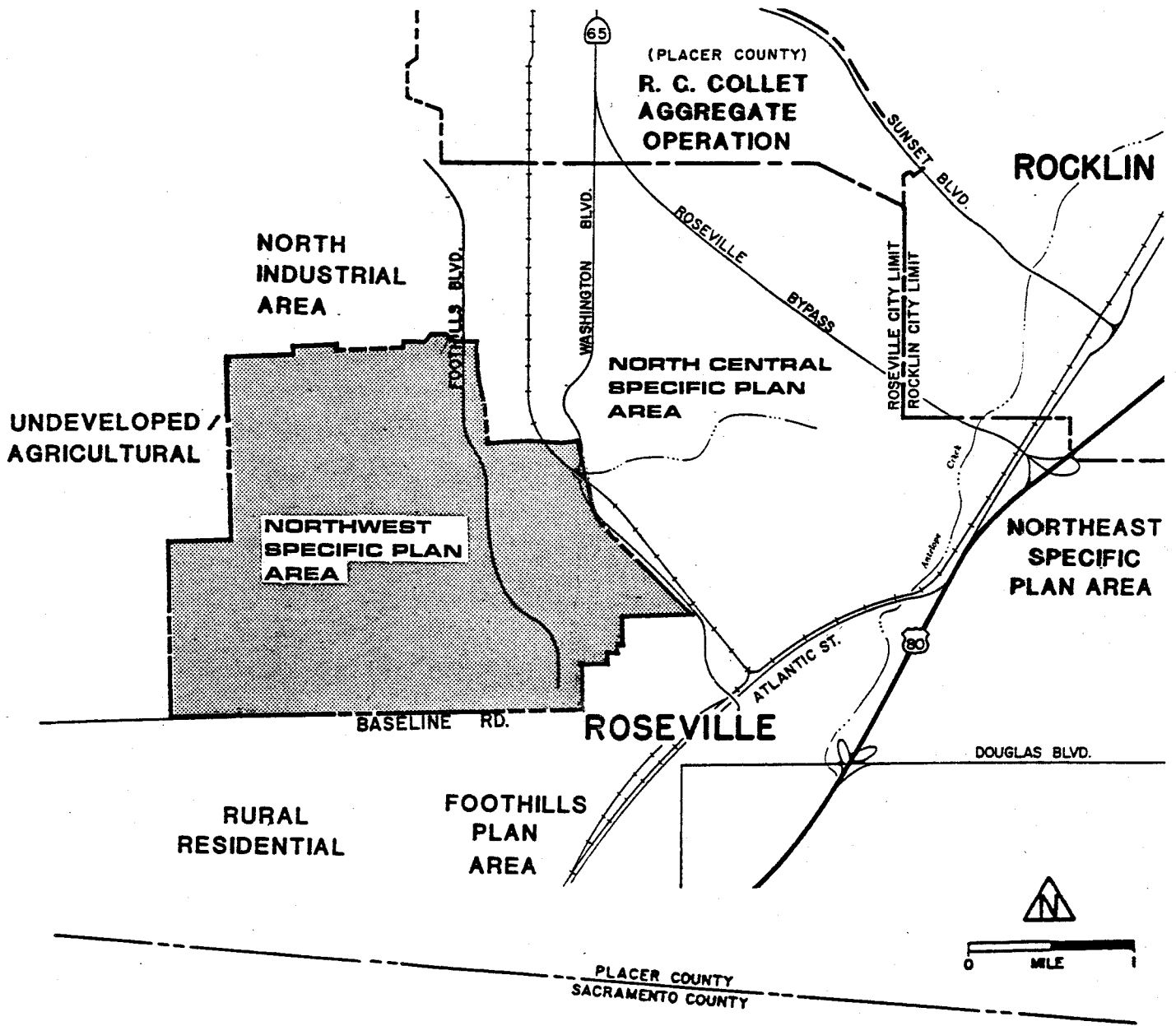
Geologically, the Roseville area lies between the relatively flat alluvial deposits typical to the Central Valley, and the granitic substratum which is predominant in the Sierras. The highest elevation in the plan area, located on any of several scattered hillocks, is approximately 160 feet above mean sea level. The lowest elevation in the plan area is approximately 100 feet above mean sea level and occurs in the stream course of South Branch Pleasant Grove Creek.

C. Land Use of the Plan Area and Adjacent Parcels

Beginning with the Kaseberg Ranch operation which dates from the 1850's, the predominant use of the Roseville area has been grazing, both of sheep and cattle. At one time, the Whitney Ranch encompassed 13,000 acres, and grazed 4000 sheep. Grazing remains the predominant use of the grassland of the region.

As shown in Figure C4, several residential projects have already been approved within the Northwest Specific Plan area. These projects, although included in the plan area, are not subject to the specific plan.





LAND USES IN THE VICINITY

FIGURE C4



The plan area is surrounded by a variety of land uses. The North Roseville Industrial Area is located immediately north of the plan area. The majority of this area is presently undeveloped, but anticipated to support light industrial and industrial land uses as the area develops. Existing business located in the north industrial area include Hewlett Packard, NEC, American Olean Tile, Lantham Lumber and H. B. Fuller. The eastern extent of the plan area is delineated by Washington Boulevard (Highway 65) and a Southern Pacific railroad line. The transportation corridor created by Highway 65 and the railroad separates the plan area from the older neighborhoods of the City which are located farther to the east. A mixture of old and new residential neighborhoods are situated along Baseline Road which forms the southern boundary of the plan area. The area located south of Baseline Road and just west of Foothills Boulevard is outside of the Roseville City limit in the unincorporated area of Placer County. Land use in this area is dominated by large lot rural residential neighborhoods. West of the Specific Plan area, prevailing land uses include open grassland and scattered oak woodland. Predominant use of the area is grazing. The Roseville City limit is located approximately one mile west of the plan area. Lands situated between the plan area and the City limit are designated as urban reserve.

D. Project Description

The project consists of adoption of the proposed Northwest Roseville Specific Plan. The purpose of the Specific Plan is to establish goals, policies, and guidelines for development within the Northwest Roseville Specific Plan area. As indicated in Table C1, residential land use, which will cover approximately 59% of the plan area, includes 8,194 homes on ±1,552 acres. Other land uses proposed include neighborhood oriented business professional and commercial uses, ± 221 acres (8%); recreation areas including parks, recreation floodway corridors, and a public golf course, ±359 acres (13%); schools, churches, floodway, a fire station, and an electrical substation, ± 116 acres (4%); and urban reserve ± 431 acres (16%).



Table C1
Proposed Land Uses

	Acres	Dwellings
Business Professional	43.6	
Commercial	141.8	
Combined Commercial and BP	<u>35.3</u>	
Sub-Total	220.7	
Urban Reserve	430.9	
Parks	131.0	
Park Reserve	30.0	
Floodway/Fringe Areas	21.9	
Golf Course	<u>175.0</u>	
Sub-Total	788.8	
Recreation Corridor	6.6	
Electrical Substation	.5	
Fire Station	1.0	
Schools (K-6)	42.2	
School (7-8)	18.0	
High School	41.6	
Churches	<u>8.4</u>	
Sub-Total	118.3	
R-2.3	11.5	26
R-3.0	9.3	28
R-3.2	144.5	463
R-3.5	157.5	549
R-3.8	40.4	155
R-3.9	88.4	344
R-4.0	94.5	378
R-4.1	65.5	267
R-4.2	76.7	324
R-4.3	42.6	183
R-4.4	188.2	827
R-4.5	52.0	234
R-4.8	45.6	219
R-4.9	48.7	239
R-5.0	126.3	629
R-5.2	62.4	325
R-5.6	29.9	167
R-6.1	24.6	150
R-7.0	88.8	518
R-7.2	8.9	64
R-12.0	7.0	84
R-15.0	16.5	150
R-15.6	41.6	416
R-18.2	11.0	200
R-19.9	12.0	239
R-20.0	<u>57.0</u>	<u>1016</u>
Sub-Total	1,551.4	8,194
 Total Specific Plan Area	 2,679.2	 8,194



E. Required Approvals

Full implementation of the land uses described in the Specific Plan would include the following approvals:

- 1) EIR Certification
- 2) Specific Plan approval/General Plan Amendment
- 3) Approval of zoning consistent with specific plan land uses.
- 4) Development Agreement
- 5) Final Subdivision Map approval for the major parcels into which the Plan area is to be subdivided.
- 6) Granting of use permits for individual projects.
- 7) Approval of tentative and final maps for individual projects.
- 8) Building permits for all structures within the Plan area.
- 9) Stream Alteration Agreements from the California Department of Fish and Game may be required for individual projects which could affect streambeds within the Plan area.
- 10) Potential requirement for a U.S. Army Corps of Engineers permit under Section 404 of the Clean Water Act.

F. Objectives of Project

The purpose of the Northwest Roseville Specific Plan is to establish a planning framework of greater specificity than the General Plan, but which further implements the goals of the General Plan, and is fully consistent with the General Plan. In a more general sense, the purpose of the plan is to provide for the ultimate orderly and efficient development of the plan area.

G. Project Costs and Development Schedule

The Specific Plan does not address individual development proposals, so no particular schedule or cost information is available on a project by project basis. For regional planning and forecasting purposes, it has been assumed that approximately two thirds of each Plan area will build out by the year 2005.



IV. GENERAL PLAN CONSISTENCY

This purpose of this section is to evaluate the consistency of policies contained in the proposed Northwest Roseville Specific Plan with those of the City of Roseville General Plan. California law requires that policies of the Specific Plan be consistent with those of the General Plan. Policies are presented in this section in the order that the General Plan identifies them, separated into the respective General Plan elements.

GROWTH MANAGEMENT ELEMENT

Growth Management Element Policy 1: Potential population growth in Roseville must be based on the long term carry capacities of the roadway system, calculated by Level of Service "C", sewer and water treatment facilities, and electrical utility service, as defined in the Circulation and Public Services and Facilities Element.

Consistent. Providers of public utilities have indicated an ability and willingness to extend services to the specific plan area. Roadway mitigation improvements have been proposed which are predicted to provide the required LOS. The project is not predicted to create traffic conditions less than LOS "C" with implementation of mitigation measures.

Growth Management Element Policy 2: For purposes of land use allocation, the potential population of Roseville, based on infrastructure limits, must not exceed 92,000 people.

Consistent. Population predictions are derived from the number of dwellings. The Specific Plan includes a total number of dwellings consistent with that specified by the General Plan. The General Plan allocates dwellings based on the number expected to support an ultimate population of 91,500 people.

Growth Management Element Policy 3: Growth and development must occur at a rate commensurate with the availability of desired facilities capacity and the attainment of desired level of service for public activities as defined in the Public Services and Facilities Element.

Consistent. The proposed phasing plan mandates the placement of adequate public services prior to development within the phase. No phasing is proposed which would require



development prior to the availability of services. The City retains the ability to review individual projects and regulate the development rate of the specific plan area.

Growth Management Element Policy 4: Growth must occur in a manner that makes efficient use of the land, but recognizes the need to preserve environmentally sensitive areas.

Consistent. A fundamental objective of the Specific Plan is to develop a coordinated and efficient proposal for development of the plan area. The Plan includes policies and measures to ensure that environmentally sensitive areas, such as oak woodland, vernal pools and flood plains, will be preserved.

Growth Management Element Policy 5: Growth must provide a strong diversified economic base and a balance between new employment and affordable housing opportunities.

Consistent. The Northwest Roseville Specific Plan is predominantly residential and will consequently produce a greater number of employable residents than jobs. This is contrary to the forecasted job:housing balance for the City and region which predicts a greater number of jobs than resident employees. Consequently, the Northwest Roseville Specific Plan will positively impact the jobs:housing balance.

Growth Management Element Policy 6: Growth and development must occur on the basis that projected revenues shall be sufficient to meet public costs.

Consistent. The fiscal report prepared for the Specific Plan indicates that a net positive fiscal impact is predicted with development of the plan area.

Growth Management Element Policy 7: Because of common concerns and problems, growth and development must be viewed on a regional perspective by coordinating activities with adjacent jurisdictions.

Consistent. The City of Roseville is a member of the South Placer Policy Committee. In accordance with CEQA guidelines, this document has been made available for comment to adjacent municipalities.

Growth Management Element Policy 8: To preserve the integrity of planning efforts, the City of Roseville and Placer County must formally adopt a policy relating to the development within the City's sphere of influence and to maintain the County's policy of non-urban development.



Consistent: The plan area is within the municipal boundaries of the City, and consequently, this policy does not apply to the Specific Plan area.

Growth Management Element Policy 9: To allow flexibility in meeting the goals of the General Plan, a portion of the urban development capacity must be kept in reserve in order to utilize concepts of density bonuses, development incentives, and specific plan implementation.

Consistent. The Specific Plan includes 423.7 acres of area designated as urban reserve. In addition, the City has retained a 1,000 unit surplus for potential use for density bonuses.

Growth Management Element Policy 10: Growth management techniques to be utilized in addition to existing methods will be:

- a. Monitoring of development activity, public service levels, facilities, capacities, revenues and public costs;
- b. Use of development zones for monitoring the capacity of growth;
- c. Prepare an annual report on the findings of growth, level of service and facilities capacities to be reviewed concurrently with the City budget;
- d. Use specific plans for new growth areas;
- e. Establish an urban limit line beyond urban development will not be considered;
- f. Allocation of resources shall be indicated annually for each land use category;
- g. Implement a point scale evaluation system to supplement normal project review processing.

Consistent. Preparation of the Specific Plan is consistent with item (d) of this policy, and does not conflict with implementation of the remaining items of this policy.

LAND USE ELEMENT

Land Use Element Policy 1: To provide sufficient affordable housing in conjunction with anticipated employment, the allocation of an additional 12,000 dwelling units, City wide, shall be at an average density of not less than 6 dwelling units per acre or not to exceed a maximum of an additional 2000 acres of residential land use.



Consistent. City-wide distribution of these dwellings resulted in allocation of 5,000 additional dwellings to the portion of the City encompassed by the **Northwest Roseville Specific Plan** and the **North Central Roseville Specific Plan**. The **Northwest Roseville Specific Plan** identifies 2,837 dwellings to be developed at a density of six units per acre or greater. Preliminary land use designations in the **North Central Specific Plan** identify 3,356 dwellings at these densities. The combined plans identify a total of 6,193 dwellings to be developed at densities greater than or equal to 6 units/acre.

Land Use Element Policy 2: In order to provide the basic commercial goods and services for an ultimate population of 92,000, a maximum of 2000 acres shall be allocated for commercial land use.

Consistent. The **Northwest Roseville Specific Plan** proposes to develop approximately 177 acres of commercial/office land use. This area is proposed as neighborhood oriented facilities to serve the plan area, and, according to planning staff, is within the 2000 acre maximum established for the City.

Land Use Element Policy 2-a: Establish a separate land use category for business and professional office land use, and establish a profile of the type and intensity of uses to be permitted.

Consistent. The Specific Plan distinguishes between the 43.6 acres designated for business professional development and the 35.3 acres which are designated as a combined land use which incorporates commercial and business professional uses. Section 2, the Land Use Element, of the Specific Plan includes a description of the proposed type and intensity of these land uses.

Land Use Element Policy 3: In order to maintain an equilibrium between jobs and housing, the total amount of industrial land use and potential total employment shall be reduced or maintained by either:

- a) placing acreage in a long-term industrial reserve, not to be considered for development for ten years; and/or,
- b) replacing industrial land use with residential land use; and/or,
- c) reducing the overall intensity levels for industrial land use; and/or,
- d) not rezoning additional properties for industrial land use.



Consistent. This policy is not applicable as no industrial land uses are proposed within the Northwest Roseville Specific Plan area.

Land Use Element Policy 4: The allocation of land use shall not occur unless public facility needs have been thoroughly calculated and the mechanism for implementation of such facilities has been determined. However, the City may grant land use to a property owner or owners if it is determined to be in the public interest and if such land use commitment is contingent upon the property owners guaranteeing to provide a fair and equitable share of public facilities costs that is yet to be determined.

Consistent. The Specific Plan document includes policies which specify that necessary assessment districts and funding mechanisms will be established prior to development. As specified by City policy, the Specific Plan clearly indicates that future development is not guaranteed by adoption of the Specific Plan, but rather contingent upon property owners guaranteeing to provide a fair and equitable share of public facilities costs that are yet to be determined.

Land Use Element Policy 5: The method of guaranteeing land use in return for some public improvements shall be done by either formal development agreement at the time land use is adopted, as part of the adoption of a specific plan, or as a conditional action on adopting land use that requires a formal development agreement prior to the adoption of zoning.

Consistent. A formal development agreement will be required prior to the adoption of zoning.

Land Use Element Policy 6: Urban land use on the Mehrten formations shall be limited to non-residential activities or high-density residential where normal landscaping amenities can be provided.

Consistent: The plan area does not contain any Mehrten material.

Land Use Element Policy 7: The City should include as part of the Land Use Plan, designated vernal pool sites, or portions of sites that coincide with designated sites (Nos. 1, 2, 7, 17, 19, 20, 22 and 24 as shown on the exhibit map Vernal Pool Resources, Inventory and Evaluation, City of Roseville, prepared by Western Ecological Services Company, August 31, 1982, on file in the Roseville Planning Department.

Consistent. A more detailed and accurate inventory of vernal pool resources than that performed by WESCO has been



completed within the all of plan area except the extreme southwestern corner. This 266 acre area is designated as Urban Reserve, and no land use entitlements will granted for this area until such a survey is completed. The specific plan includes policies and a program to provide preservation of vernal pool resources consistent with the recommendations of Dr. Larry Stromberg, Ph.D. the consulting plant biologist.

Land Use Element Policy 8: Unsurveyed vernal pool sites shall be analyzed as part of any land use, zoning or development plan applications. These sites are designated as Nos. 1, 2, 7, 17, 19, 20, 22 and 24, as shown on the exhibit map, Vernal Pool Resources, Inventory and Evaluation, City of Roseville, prepared by Western Ecological Services Company, August 31, 1982, on file in the Roseville planning Department.

Consistent. A more detailed and accurate inventory of vernal pool resources than that performed by WESCO has been completed within the all of plan area except the extreme southwestern corner. This 266 acre area is designated as Urban Reserve, and no land use entitlements will granted for this area until such a survey is completed. The specific plan includes policies and a program to ensure preservation of vernal pool resources consistent with the recommendations of Dr. Larry Stromberg, Ph.D. the consulting plant biologist.

Land Use Element Policy 9: Preliminary allocation of additional residential units, according to development area, shall be as follows:

North Area	5,000 units
West Area	500 units
Central Area	500 units
East Area	5,000 units

1,000 units will be held in reserve for future density bonuses allocation. Adjustments to this allocation scheme may occur when the Land Use Plan is considered and after review of the General Plan Environmental Impact Report.

Consistent. The Northwest Roseville Specific Plan includes a proportionate share of the additional residential units allocated by the General Plan.

Land Use Element Policy 10: Preliminary allocation of additional residential units by density average, according to development area, shall be as follows:

North Area:

Average of 10 dwelling units per acre -- minimum 3,000 units
Average of 15 dwelling units per acre -- minimum 2,000 units



West Area and Central Area:

Average of 6 dwelling units per acre -- maximum 1,000 units

East Area:

Average of 3 dwelling units per acre -- maximum 1,000 units

Average of 10 dwelling units per acre -- maximum 2,000 units

Average of 15 dwelling units per acre -- minimum 2,000 units

1,000 units will be held in reserve for future density bonuses allocation.

Consistent. The combined totals of the North Central and Northwest Specific Plans provide in excess of 3,556 units at actual densities greater than 10 units per acre. The average density of these units is 14.2 units per acre. Using densities between R-7.5 to R-12, 3,000 units will be provided at an average density of 10.0 units per acre. Using densities equal to or greater than R-13.6, 2,000 units will be provided at an average density of 15.9 units per acre.

Land Use Element Policy 11: For the purpose of allocating residential land use, total allowable dwelling units shall not exceed 34,700, or 12,000 above the current adopted General Plan.

Consistent. The Northwest Roseville Specific Plan includes 8,194 dwelling units. According to planning staff, the total number of dwellings in the existing City plus the number of dwellings proposed in the NW, NC, NE, and SE specific plan areas is roughly 30,000 units, well below the 34,700 allowed by the General Plan.

Land Use Element Policy 12: Calculate the number of residential units in projects that developed below adopted density levels, and make the excess units available to new development if traffic circulation is not adversely affected.

Consistent. This can be implemented by staff as individual projects are proposed.

Land Use Element Policy 13: Residential land use with the average of 3 dwelling units per acre shall be located in accordance with the following general criteria: a. not adjacent to heavy industrial areas; b. not adjacent to intensive commercial development unless appropriately buffered; c. not adjacent to freeways or railroads; d. not adjacent to arterial roadways unless appropriate noise attenuation can be implemented.

Consistent. The Northwest Roseville Specific Plan has been designed consistent with the General Plan and includes: buffering along major arterials, including use of landscape setbacks and soundwalls; and development of standards for commercial or office use adjacent to residential uses.



Land Use Element Policy 14: Residential land use with an average of 10 dwelling units per acre shall be located in accordance with the following general criteria: **a.** adjacent to or as part of a low-density-mixed development if in a predominantly undeveloped area; **b.** not in a predominantly established single-family residential area unless as an in fill project adjacent to a major arterial roadway; **c.** adjacent to higher-density developments, serving as a transition to lower density projects.

Consistent. No housing is proposed in the plan area at densities greater than 10 but less than 15 dwellings per acre.

Land Use Element Policy 15: Residential land use with an average of 15 dwelling units per acre shall be located in accordance with the following general criteria: **a.** only along arterial roadways providing appropriate sound attenuation can be implemented; **b.** adjacent to commercial areas where possible; **c.** adjacent to residential density range of 6-9 dwelling units per acres or as a part of a mixed development or specific plan that is preplanned; **d.** not adjacent to single-family residential unless appropriate design controls are associated with the zoning; **e.** adjacent to freeways only if appropriate noise attenuation and site design can be implemented.

Consistent. High density residential areas are located in accordance with this policy. As required by the Element, those units proposed to be located adjacent to arterial roadways will incorporate noise reduction measures into specific projects prior to approval.

Land Use Element Policy 16: Commercial land uses shall consist primarily of those activities that involve retail trade and services, and secondarily business profession office uses.

Consistent. The specific plan recognizes Commercial and Business Professional land uses as separate land uses, and appropriately identifies nonresidential land uses as Commercial or Business Professional sites. In addition to these land use designations, the plan identifies locations where a combination of these land uses is envisioned as Commercial and Business Professional.

Land Use Element Policy 17: Commercial land uses shall be located in accordance with the following general criteria: **a.** adjacent to arterial roadways, and, if possible, adjacent to intersections of arterial roadways or at the intersection of an arterial roadway and collector street; **b.** commercial land uses located in predominantly residential areas or in close proximity to residential areas shall consist primarily of retail activities; **c.** commercial land use sites located in predominantly residential areas shall be a minimum of 10 acres in size and shall, when possible, include a retail food market; **d.** intensive



commercial uses, serving other than local residential neighborhoods, shall be located on sites of over 10 acres where surrounding land use is predominantly non-residential (except for high-density residential); e. continuous commercial development along arterial roadways (where development does not currently exist) shall be prohibited unless such development is part of a specific development plan that coordinates use and design with adjacent properties; minimizes access to arterial roadways; and, maintains aesthetic standards of the Scenic Highway Element.

Inconsistent. The specific plan includes two commercial sites of less than 10 acres in size which are located in predominantly residential areas.

Land Use Element Policy 18: Designate the Old Town Historic District and the Oak Street/Vernon Street area as possible redevelopment areas and proceed with the necessary studies to make such a determination.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Land Use Element Policy 19: An employee density of 20 per acre shall not be exceeded for any individual development projects, and an average employee density of 10 per acre shall be maintained for all projects combined in the General Industrial land use. A maximum average employee density for Light Industrial land use shall only be imposed if cumulative development indicates that future utility, roadway, housing or public service capacities will be exceeded.

Consistent. Commercial and Business Professional land uses within the plan area will comply with this policy. Individual projects will be subject to staff review as they are proposed.

Land Use Element Policy 20: The Light Industrial Development Guidelines shall be modified so that permitted uses will not include retail commercial uses, and business, administration and professional office uses.

Consistent. No industrial land use is proposed in the Plan.

Land Use Element Policy 21: The number and location of Public elementary and secondary school facilities shall be in accordance with the following general criteria: 1. Elementary schools shall be located to serve neighborhoods and secondary schools shall be centralized to serve a larger population; 2. Elementary school sites under this criteria of site selection, should be ten (10) net acres and planned cooperatively with the City Parks and Recreation Department. The actual school site may



be less than 10 acres when the total school/park site equals or exceeds ten (10) acres; 3. Secondary intermediate school sites would be fifteen (15-20 net) acres depending upon educational programs and planned cooperatively with the City Parks & Recreation Department. The actual school site may be less than fifteen (15) acres when the total school/park site equals or exceeds fifteen (15) acres. High school sites should be 40-45 net acres; 4. Schools should be located in an area that is safe and easily accessible away from major street arterials; 5. Elementary schools should be master planned to accommodate approximately 400-600 students depending upon the educational program; 6. Secondary intermediate schools should be master planned to accommodate approximately 600-850 students depending upon the educational program; 9. Size, capacity, and number of buildings for initial construction shall be determined by each individual district's enrollments, both current and anticipated. Changes and/or additions may result from district revisions regarding pupil/teacher ratios and other related variables.

Consistent. The Specific Plan includes one high school, one intermediate school, and four elementary school sites. The proposed sites and facilities are consistent with the requirements of the individual school districts and this policy. The current plan map shows the location of three of the four elementary sites. The fourth site is proposed to be situated in the area designated as urban reserve. The Specific Plan document includes policies which specify that this additional site will be provided in accordance with the requirements of the school district and this policy. All school sites allow adequate separation from powerline easements per State requirements.

Land Use Element Policy 23: Because of acreage required, the number of new school sites needed at the high school level, specific site location and standards shall be determined through the coordination of the City and the Roseville High School District as part of the present and on-going planning and approval process.

Consistent. The Roseville High School District was consulted in selection of the proposed high school site, and the site is acceptable to the District.

Land Use Element Policy 24: A land use category shall be created for designating areas as open space where development cannot or shall not occur because of physical, cultural or historical qualities. Use of such property may be public or private.

Consistent. Section 2 of the Specific Plan, the Open Space and Resources Management Element, identifies open space in accordance with this policy. Most of this open space is associated with floodway, parks and the golf course.



Land Use Element Policy 25: All lands subject to flooding, according to the most accurate and current data, shall be designated as a Floodway land use, and where there is not a conflict with some reasonable and environmentally acceptable urban land use, such areas shall be designated as open space. Periodic review of conditions and data shall be made, and boundaries shall be modified, if necessary.

Consistent. Floodways which have been surveyed are designated on the Plan map. Those which have not will be surveyed. A drainage plan will be required prior to development. All areas within the 100 year floodway will be dedicated to the City.

Land Use Element Policy 26: An Urban Reserve land use designation shall be used for all lands where future urban expansion may occur, but such urban expansion development cannot take place in the immediate future because of unavailable utility lines, utility capacities, roadways, or public services.

Consistent. Urban Reserve areas are designated within the specific plan area at the furthest edge of development area.

HOUSING ELEMENT

Housing Element Policy 1: Roseville will work to accommodate the housing needs of its current and future residents by providing a range of purchase and rental units affordable to all income groups and to guarantee affordability over time through the adoption of policies and implementation of action plans listed in the Housing Element.

Consistent. The Specific Plan includes policies in support of the City-wide affordable housing program. Consistent with this program, 15% of the housing in the plan area will be developed as affordable housing.

Housing Element, Policy 2: The City should try to maintain an overall vacancy rate of 5% for both owner-occupied and rental units. This figure represents a general measuring device used by the State to determine whether a jurisdiction has sufficient housing available to meet demand.

Consistent. Designation of predominantly residential land use in the plan area will help to provide an adequate supply of housing in the City.



Housing Element Policy 3: Existing and new federal and state subsidies shall be continuously sought for both the construction of new rental/housing and subsidizing existing units affordable to the very low/low income households.

Households with moderate incomes are not currently having their purchase housing needs met. Consequently, the City will pursue federal, state housing programs and local initiatives to provide affordable purchase housing for this group.

Consistent. The Specific Plan includes policies which directly support the affordable housing program being developed by the City. Consistent with this program, 15% of the housing in the plan area will be developed as affordable housing.

Housing Element Policy 4: Provide adequate housing at affordable costs for existing and future residents from all income groups by establishing a minimum number of housing units needed each year, broken down by unit type and targeted to specific income groups.

Encourage the production of high density multi-family units, both rental and purchase, to meet the needs of very low, low and moderate income groups.

Establish a monitoring program to determine whether the City is making progress toward meeting its Housing Element goals.

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 5: The City will attempt to meet the housing needs of its existing residents through government rental assistance programs and encourage the construction of rental units affordable to the low/very low income.

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 6: Provide low income, handicapped and elderly renter households housing assistance through direct rental subsidies and below market rate financing through governmental programs for the construction of affordable rental units adopted to their needs.



Continue the City's housing rehabilitation loan and grant program for the low-income, elderly and handicapped, both for owner-occupied and rental properties, financed through the federal, state and city government.

Investigate the possibility of creating a home equity conversion program (reverse annuity mortgage) in conjunction with local financial institutions to allow elderly homeowners a method of extracting the equity out of their homes to allow them to make repairs and supplement their income.

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 7: Encourage the construction of 3+ bedroom units in multi-family rental complexes to help meet the housing needs of the low-income large families.

(Refer to Policy 6A)

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 8: Refer to Policy 6A.

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 9: In order to preserve, maintain and improve its supply of older housing units, the City shall continue its Housing Rehabilitation Program and expand its area of operation into other planning areas.

Consistent. This policy does not concern the Specific Plan.

Housing Element Policy 10: Refer to Policy 9A.

The City will prohibit the conversion of rental units to condominiums unless the City's rental vacancy rate reaches 5% or until a formal condominium conversion ordinance is adopted by the City Council.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Housing Element Policy 11: In order to minimize tenant displacement and to maintain a supply of affordable housing, the City shall consider an ordinance limiting the number of residential conversions to office space on an annual basis. The ordinance will carry a provision which allows conversion if replacement housing is provided to any low-income tenant, who would be displaced by the action.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Housing Element Policy 12: The City will investigate the feasibility of establishing redevelopment areas and pursuing all sources of funding, private and public to provide financing for the repair and upgrading of these areas.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Housing Element Policy 12(a): An affordable housing development agreement shall be required whenever the land use on a piece of property is being changed to a density in excess of ten (10) dwelling units per acre. The affordable housing agreement will be a part of the land use and zoning change and will stipulate the number of affordable units to be constructed, the unit price or rent range, the income group to which the affordable units will be targeted, and the length of time the units will remain affordable.

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program. Affordable housing responsibilities will be detailed in the Specific Plan Development Agreements.

Housing Element Policy 13: Identify and rezone existing single-family detached sites to a mixture of single-family attached and multi-family densities to allow for and encourage the construction of more affordable rental and sale units.

Identify and rezone existing multi-family sites, with densities of less than r-20 to a density of r-20+ to meet the projected demand for high-density units.



The City will investigate various methods of providing necessary infrastructure, such as through fees developer land dedication, detailed site review of needed services, etc. to sites currently zoned residential, but which cannot be developed because they lack adequate public services.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Housing Element Policy 14: Upon adoption of the Growth Management Plan and Circulation Element, the City will begin investigating the feasibility of reclassifying suitable sites to high-density residential land use.

While surveying potential sites for rezoning to higher densities, staff will insure a mix of housing types and costs in order that one or more selected areas do not receive the vast majority of multi-family units.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Housing Element Policy 15: The City shall adopt an ordinance to implement the State-sponsored concept of constructing second units "granny flats" on property occupied by single-family units as a means of providing affordable rental housing.

The City should designate specific sites for use as mobile home parks and encourage developers to use manufactured units in their housing projects. If proven feasible, the City should reduce fees on manufactured housing as recommended by the Affordable Housing Task Force.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Housing Element Policy 16: Revise the current planning process to require that all discretionary actions for residential projects will be processed concurrently.

Consistent. Individual projects within the Specific Plan area will be processed in accordance with the process at the time of project submittals.

Housing Element Policy 17: Implement the necessary enabling legislation that will create a Zoning Administrator for routine and minor planning matters to be processed at staff level.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Housing Element Policy 18: Explore the financial impact a use or graduated-type fee assessment system will have on City revenues. If such a fee system will continue to provide adequate revenues at the same level as current flat-rate system, then the institution of use or graduated fees should be considered for the production of affordable housing.

Consistent. Individual projects within the Specific Plan area will be subject to whatever fee structure is in place at the time the various projects are submitted for review.

Housing Element Policy 19: Review subdivision standards, and if practical, modify the standards to make them similar to Sacramento County's to aid in the development of affordable housing.

Consistent. Individual projects within the Specific Plan area will be subject to the standards in place at the time the various projects are submitted for review.

Housing Element Policy 20: At this point in time, rent control is not considered to be a viable option for the City's housing policy. Consequently, Roseville has no intention to implement any form of rent control.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Housing Element Policy 21: The City of Roseville will attempt to implement a Mortgage Revenue Bond Program for both owner-occupied and rental properties, by placing a Mortgage Revenue Bond ballot measure before the voters before the end of 1984.

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 22: Identify and attempt to implement financing programs and mechanisms, such as the Mortgage Revenue Bond Program and other state and federal programs, which can provide financing at affordable rates and terms for both developers of ownership and rental units and homebuyers.

Consistent. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 15% of the housing included in the Specific Plan will be available for participation on the affordable housing program.



Housing Element Policy 23: Encourage land holders to open their properties up to residential construction, particularly higher density, multi family units.

Consistent. The majority of the plan area is proposed as residential land use.

Housing Element Policy 24: The City will continue operating its existing energy conservation programs and will consider the implementation of those proposed programs, which prove to be cost effective.

Consistent. Operation of this program does not pertain to the Specific Plan.

Housing Element Policy 25: The City will continue to provide assistance regarding equal housing opportunities through its Housing Office and Housing Authority.

Consistent. This policy is not relevant to adoption of the Specific Plan.

CIRCULATION ELEMENT

Circulation Element Policy 1: For the City of Roseville, the Level of Service C shall be used in determining the roadway capacities and intersection delays for all freeway, arterial and collector streets. For long-range development, Level of Service C need not be strictly maintained if other policies and action plans indicate that a lesser level of service may be acceptable on a short term basis providing there are sufficient overriding considerations.

Consistent. The traffic analysis indicates that, with implementation of the identified mitigation infrastructure, LOS C will be maintained at all intersections within the plan area, and that implementation of the plan will not produce unacceptable levels of service at intersections in the vicinity.

Circulation Element Policy 2: If an ultimate population of 92,000 is to be allowed in the City of Roseville, then the incremental growth of 22,000 to 27,000 additional people should be allocated on the basis of maintaining a balance of jobs and housing to minimize impacts on the intra-city road systems.

Consistent. The Northwest Roseville Specific Plan is predominantly residential and will consequently produce a greater number of employable residents than jobs. This is contrary to the forecasted job:housing balance for the City and region which predicts a greater number of jobs than resident employees. Consequently, the Northwest Roseville



Specific Plan will positively impact the jobs:housing balance.

Circulation Element Policies 3: In order to meet the projected travel demands, major additional highway capacity (expressed as screenlines that are a composite of individual roadways within a corridor) that will be needed City-wide includes:

- a. Eight (8) highway lanes east of I-80, running in an east/west direction, to supplement existing capacity of Douglas and Cirby;
- b. Twelve (12) additional lanes across I-80;
- c. Six to eight (6-8) lanes across the railroad tracks in the central area of Roseville;
- d. Major improvements in highway capacity between I-80/Riverside and Subway undercrossing of the railroad;
- e. Eight to twelve (8-12) lanes in a north/south direction to supplement existing highway lanes in the northwest of the City on the existing Route 65 corridor between Baseline and Blue Oaks;
- f. Six to eight (6-8) lanes in an arc across the northern side of the City from Douglas/Rocky Ridge to Highway 65;
- g. Four (4) additional highway lanes on the east side of the City in a north/south direction;
- h. An east-west arterial system in the northwest of the City.

Consistent. The specific plan includes provisions to implement the needed improvements per the most recent City-wide traffic analysis.

Circulation Element Policy 4: In order to meet projected travel demands in the eastern area of the City, the following improvements need to be implemented:

- a. Douglas to six lane arterial;
- b. Rocky Ridge to four lane arterial;
- c. Sierra College to four lane arterial;
- d. Possible need for improvements to Sunrise Avenue;
- e. North Cirby Way as four lane arterial;
- f. New two lane roadway running north and/or west from Rocky Ridge/Douglas, to connect across I-80 to north of the City.

Consistent. The specific plan includes provisions to implement the needed improvements per the most recent City-wide traffic analysis. None of the improvements identified in this policy are within the plan area.

Circulation Element Policy 5: In order to meet projected travel demands in the central area of the City, the following improvements need to be implemented:

- a. Placer Center Arterial overcrossing as four lane arterial;
- b. New I-80 overcrossing as four lane arterial;
- c. Reconstruction of the Subway undercrossing to a four or six lane highway;



- d. Provision of two additional lanes across the tracks, somewhere between Route 65 and the southern City limit;
- e. Major improvements to the approach roads on either side of the railroad, including Vernon, Cirby and Riverside;
- f. New Foothills Boulevard extension from Baseline to Riverside as four or six lane arterial.

Consistent. The specific plan includes provisions to implement the needed improvements per the most recent City-wide traffic analysis. None of the improvements identified in this policy are within the plan area.

Circulation Element Policy 6: In order to meet projected travel demand in the northwest area of the City, the following improvements need to be implemented:

- a. Foothills Boulevard to six lane arterial;
- b. Route 65 to four lane arterial;
- c. Route A to four lane arterial;
- d. Blue Oaks to six lane arterial;
- e. Four lane arterial east of and parallel to route 65;
- f. Six lanes of east/west arterial between Route A and Blue Oaks Road.

Consistent. The specific plan includes provisions to implement the needed improvements.

Circulation Element Policy 7: Based on the amount, location and timing of future growth in Roseville, specific roadway improvements should be implemented as indicated on the following tables:

Table 1	(current to about 1985)
Table 2	(1985 to 1995)
Table 3	(1995 to 2010)

Consistent. The specific plan includes provisions to implement the needed improvements within the Northwest Roseville Specific Plan area in a timely manner.

Circulation Element Policy 8: In order to produce sufficient revenue to implement necessary roadway improvement, the traffic impact fee should be increased from 1% to 1.5% of construction value.

Consistent. Individual projects will be subject to the traffic impact fees in place at the time the various projects are submitted for review.

Circulation Element Policy 9: In order to monitor and evaluate the effects of development projects on the City-wide roadway systems, the Roadway Needs Manual Analysis Tool, as provided in Technical Memorandum 5 of the Roseville Traffic Circulation Study, by PRC Voorhees, shall be utilized.



Consistent. The specific plan includes provisions to implement the needed improvements per the most recent City-wide traffic analysis.

TRANSPORTATION ELEMENT

Transportation Element Policy 1: Develop a bicycle plan to be added to the City's General Plan.

Consistent. The specific plan includes policies for development of a bicycle/pedestrian network within the plan area.

Transportation Element Policy 2: Provide bicycle routes on major streets leading through the City and into outlying areas.

Consistent. The specific plan includes provisions for development of Class I and II bicycle lanes along major streets and utility easements.

Transportation Element Policy 3: Provide an internal system leading to and from convenient shopping and public service areas.

Consistent. The specific plan identifies potential routes and contains policies to implement such a system which will tie into a City-wide system.

Transportation Element Policy 4: Provide adequate bike lanes to allow children easy access to and from existing schools and recreation areas.

Consistent. The specific plan identifies bike lanes along major streets and utility easements. This network connects the principal neighborhoods, parks and schools in the plan area.

TRANSIT ELEMENT

Transit Element Policy 1: Provide a mass transit system that is most suited in convenience and efficiency for the citizens of Roseville at a cost that is not prohibitive to any segment of the community.

Consistent. The plan includes policies requiring development of bus turn-outs, and shelter facilities within the area. Further, the proposed design of the arterial roadway network provides efficient routes of travel within the Plan area as well as adjoining areas of the City.



Transit Element Policy 2: Continue use of the Transportation Commission, to monitor the needs of the community in order to serve the largest possible number of citizens and provide the best possible transit system.

Consistent. This policy is not relevant to adoption of the Specific Plan.

SCENIC HIGHWAYS ELEMENT

Scenic Highways Element Policy 1: Preserve, enhance and create the necessary amenities along major roadways linking Roseville with adjacent jurisdictions in order to maintain the community identity of Roseville.

Consistent. The specific plan includes landscape design guidelines along all roadways to implement this policy.

Scenic Highways Element Policy 2: Designate which major roadways should serve as corridors to preserve community identity.

Consistent. The specific plan identifies major collectors and neighborhood streets. Presently, the only City designated scenic route through the Plan area is Baseline Road. This designation will be retained.

Scenic Highways Element Policy 3: Encourage Placer County to adopt consistent policies relating to those roadway corridors now serving both jurisdictions, but will eventually be within the Roseville City limits.

Consistent. This policy is not relevant to adoption of the Specific Plan.

OPEN SPACE AND CONSERVATION ELEMENT

Open Space and Conservation Element Policy 1: Open space shall be treated as a by-product of other land uses where the primary land use function establishes the need for preservation.

Consistent. The specific plan designates open space in accordance with this policy.

Open Space and Conservation Element Policy 2: Provide for purchase of desirable lands by allocating funds in the City budget to be used for land acquisition projects.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Open Space and Conservation Element Policy 3: Provide for the preservation of diverse habitats (e.g.-- riparian habitats), native trees and unique plant species or habitats.

Consistent. The Specific Plan designates riparian corridor, oak woodland and vernal pool areas for preservation.

Open Space and Conservation Element Policy 4: Provide for the preservation of the streambed systems to insure (a) public safety from storm runoff; (b) to allow for proper maintenance; and (c) public access, use and enjoyment.

Consistent. The Specific Plan specifies that all area within the 100 year floodway will be dedicated to the City with the intention of this area remaining in its natural condition.

Open Space and Conservation Element Policy 5: Those soils which currently support viable agricultural activities, such as grain production, shall not be converted to urban development prior to development of the less valuable, for agricultural uses, lands consisting of the Mehrten formations and associated soils.

Consistent. No portion of the plan area is currently utilized for crop production.

Open Space and Conservation Element Policy 6: Allow broad development flexibility on lands designated as the Mehrten formations as a recognition of the physical constraints on the land, and as a means to permit reasonable, economic development.

Consistent. No Mehrten material exists in the plan area.

Open Space and Conservation Element Policy 7: Encourage continued production of grain and other viable agricultural activities such as raising turkeys and growing orchards, and encourage the conversion of marginal grazing lands for urban uses in place of the more valuable agricultural lands when such conversion complies with an adopted growth policy.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Open Space and Conservation Element Policy 8: Provide for the use and preservation of mineral deposits within the Strap Ravine Plan Area if subsequent geologic studies are conducted to verify the extent and importance of such deposits.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Open Space and Conservation Element Policy 9: Provide for the preservation of lands that possess scenic qualities or are associated with roadways that are recognized as community corridors in the Scenic Highway Element.

Consistent. Baseline Road is the only roadway recognized by the Scenic Highways Element that borders or is within the plan area. The Specific Plan includes development of landscaped corridors along collector roadways, and preservation of oak woodland and vernal pool areas within the plan area.

Open Space and Conservation Element Policy 10: Provide for the preservation and identification of historically and culturally significant sites within the plan

Consistent. An archaeologic/historic survey of the plan area has been conducted, and the appropriate recommendations have been incorporated into the plan.

Open Space and Conservation Element Policy 11: Provide for adequate park and recreational facilities for all existing and future neighborhoods.

Consistent. An appropriate amount of parkland has been proposed in conjunction with development of the plan area.

Open Space and Conservation Element Policy 12: Provide for a hierarchy of public parks and recreational programs to serve the entire plan area.

Consistent. The plan area designates neighborhood parks and a community sized park with an adjacent park reserve which may be added at some future date to allow expansion of the community facility. A public golf course is also proposed.

Open Space and Conservation Element Policy 13: Provide for continued public park/school development.

Consistent. The Specific Plan includes co-location of parks and school sites.

Open Space and Conservation Element Policy 14: Provide for use of all major utility easements to encourage intra-city recreational link up.

Consistent. The plan proposes use of the utility easements as pedestrian pathway routes between major activity centers.



Open Space and Conservation Element Policy 15: Provide for timely improvement of parks when surrounding development warrants it.

Consistent. The Specific Plan provides parkland dedication per City requirements. Development of park facilities is the responsibility of the City, but may be facilitated through development agreement(s) with individual projects as they are proposed.

Open Space and Conservation Element Policy 16: Provide for park trails to be used by pedestrians, bicyclists and other alternative transportation modes.

Consistent. The Specific Plan identifies routes for development of a pedestrian/bicycle pathway system.

NOISE ELEMENT

Noise Element Policy 1: Provide a guide that relates acceptable noise levels to type of land use.

Consistent. The Specific Plan is subject to the noise standards established by the Roseville Noise Element.

Noise Element Policy 2: Provide a land use plan that considers proper noise levels between various land uses.

Consistent. The specific plan includes land uses located in accordance with the policies of the **Land Use Element of the General Plan**. Design and location of land uses within the plan area is proposed to minimize the potential for land use conflicts, including noise. Where appropriate, noise mitigation measures will be implemented.

Noise Element Policy 3: Provide flexibility in the use of the various techniques that are necessary to meet acceptable noise levels.

Consistent. Specific techniques for noise mitigation will be identified as individual projects are proposed. The Specific Plan does not limit techniques which may be implemented.

Noise Element Policy 4: Adopt enforceable noise standards for all land uses.

Consistent. The Specific Plan is subject to the noise standards established by the Roseville Noise Element.



Noise Element Policy 5: Support legislative efforts directed at source control of noise emissions.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Noise Element Policy 6: Encourage State and Federal agencies to enforce and implement existing noise emission standards.

Consistent. This policy is not relevant to adoption of the Specific Plan.

SEISMIC SAFETY ELEMENT

Seismic Safety Policy 1: Insure that future land uses are compatible with the goal and policies of this element.

Consistent. All land uses proposed in the specific plan area are recognized by the Roseville General Plan.

Seismic Safety Policy 2: Insure that future development is designed and sited in a way which will reduce any potential seismic hazard to an "acceptable level of risk" as defined in the Technical Addendum of this element. A registered geologist should be consulted, as necessary, during the actual siting of specific projects.

Consistent. All structures within the plan area will be constructed to the standards of the Roseville Building Code. This code specifies the level of structural integrity required based upon the calculated geologic hazard of the area. Roseville is classified as a low risk seismic area.

Seismic Safety Policy 3: Utilize all available seismic safety data to review and evaluate all proposed projects.

Consistent. The Specific Plan specifies that prior to approval of individual developments, appropriate geotechnical analysis will be completed on project sites.

Seismic Safety Policy 4: Reduce the potential danger posed by existing land uses and buildings to an "acceptable level of risk" through appropriate mitigation measures.

Consistent. All structures within the plan area will be constructed to the standards of the Roseville Building Code. This code specifies the level of structural integrity required based upon the calculated geologic hazard of the area. Roseville is classified as a low risk seismic area.



Seismic Safety Policy 5: Continue to study and evaluate all potential faults in the Roseville area. Any fault which is found to be "active" should be defined in the Technical Addendum of this element.

Consistent. This policy is not relevant to adoption of the Specific Plan. No faults have been identified in the plan area.

Seismic Safety Policy 6: Fully comply with State seismic safety standards for public schools, hospitals and all public buildings.

Consistent. All structures within the plan area will be constructed to the standards of the Roseville Building Code. This code specifies the level of structural integrity required based upon the calculated geologic hazard of the area. Roseville is classified as a low risk seismic area.

Seismic Safety Policy 7: Respect environmental and aesthetic considerations in determining appropriate solutions to seismic hazards.

Consistent. All structures will be subject to City review prior to approval.

Seismic Safety Policy 8: Consider public and private costs of reducing and/or eliminating seismic hazards in mitigation programs.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Seismic Safety Policy 9: Periodically update the Roseville Emergency Plan to insure its adequacy for dealing with seismic events and other natural disasters.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Seismic Safety Policy 10: Amend other elements of this General Plan to conform to this element.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Seismic Safety Policy 11: Seismic studies, prepared for the Auburn Dam project, should be incorporated as a part of this document.



Consistent. This policy is not relevant to adoption of the Specific Plan.

GENERAL SAFETY ELEMENT

1. FLOODING

General Safety Element Policy 1: It is the policy of the City of Roseville to:

- a. Provide accurate flood warning and forecasting information to community residents;
- b. Maintain accurate flood fighting and emergency evacuation plans;
- c. Reduce floatable material in floodplain areas;
- d. Use the concept of floodway zoning to restrict development in areas which are susceptible to flooding;
- e. Provide appropriate facilities for reducing the likelihood of flooding in all parts of the community through such means as retention ponds and enlarged culverts.

Consistent. The Specific Plan utilizes the most current floodway study to designate 100 year floodway. This floodway will be dedicated to the City. A master storm drain plan has been developed and is subject to City review as will storm drain facilities in individual projects. These facilities will be designed in accordance with City standards.

2. GEOLOGIC HAZARDS

Geologic Hazards Element Policy 2 : It is the policy of the City of Roseville to:

- a. Identify areas having erosion, subsidence, or expansive soil problems.
- b. Continue to mitigate the potential impacts of geologic hazards through subdivision reviews and building permit inspections.
- c. Minimize soil problems by maintaining compatible land use and suitable building designs and construction techniques.

Consistent. The specific plan identifies measures to minimize erosion and provides for protection of areas along major water courses, such as hay bales or other sediment barriers, berms, energy dissipaters and prompt revegetation of disturbed areas. Individual projects will be subject to review at the Tentative Map stage.



ENERGY ELEMENT

Energy Element Policy 1: The City shall set an example, thus providing energy education and leadership, by reducing energy consumption in (all) public buildings, vehicles and services.

Consistent. This policy is not relevant to adoption of the Specific Plan. Public buildings within the plan area will be subject to design review prior to approval.

Energy Element Policy 2: Principles of energy conservation be integrated into existing school curricula.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Energy Element Policy 3: The City should continue to provide an electric utility.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Energy Element Policy 4: Encourage and promote the use of cost-effective, alternate energy sources.

Consistent. This policy is not relevant to adoption of the Specific Plan. However, it is recommended that developers provide information regarding cost-effective, alternate energy sources to the prospective residents in their projects.

Energy Element Policy 5: Promote and establish building and appliance standards that will reduce energy consumption in the residential sector.

Consistent. Builders within the plan area will be subject to Roseville building standards.

Energy Element Policy 6: Encourage innovative site designs and orientation techniques which incorporate passive and active solar designs and natural cooling techniques in the residential sector.

Consistent. This policy is not relevant to adoption of the Specific Plan. Individual projects will be subject to review at the Tentative Map stage.

Energy Element Policy 7: Promote a weatherization and retrofit program within the existing residential sector.



Consistent. This policy is not relevant to adoption of the Specific Plan.

Energy Element Policy 8: Promote energy-efficient land use planning by incorporating energy conservation as a major criterion for future decision making.

Consistent. The Specific Plan has been designed based on a neighborhood concept which incorporates convenient location of parks, commercial areas, and public facilities. This type of land use planning reduces the length and number of vehicular trips undertaken by the general public.

Energy Element Policy 9: Energy conservation education and measures be implemented to encourage energy savings by residents.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Energy Element Policy 10: Encourage innovative site design and orientation techniques which incorporate passive and active solar design and natural cooling techniques in the commercial and industrial sectors when they are found to be cost effective.

Consistent. This policy is not relevant to adoption of the Specific Plan. Individual projects will be subject to review at the Tentative Map stage.

Energy Element Policy 11: Encourage energy-efficient use of lighting and landscaping in the design of new commercial and industrial uses.

Consistent. This policy is not relevant to adoption of the Specific Plan. Individual projects will be subject to review at the Tentative Map stage.

Energy Element Policy 12: Provide the commercial and industrial sector with a wide variety of energy conservation techniques which can be easily adapted to existing buildings.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Energy Element Policy 13: Encourage large industrial employers to provide energy-saving modes of transportation for their employees.

Consistent. This policy is implemented through enforcement of the Roseville Ridesharing Ordinance. As appropriate



employers within the plan area will be subject the the ridesharing ordinance.

Energy Element Policy 14: Provide energy conservation education and techniques to the commercial and industrial sector so that optimum energy-efficiency is obtained.

Consistent. This policy is not relevant to adoption of the Specific Plan. Individual projects will be subject to review at the Tentative Map stage.

Energy Element Policy 15: The City should pursue methods to make existing public facilities as energy efficient as possible.

All new public facilities shall be designed and built for energy efficiency.

The City should establish a program for replacement of energy-inefficient street light fixtures.

The City should establish, as part of their replacement program for vehicles, a high priority for fuel-efficient vehicles.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Energy Element Policy 16: Develop procedures to analyze and control land use impacts on peak electrical demands.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Energy Element Policy 17: Encourage the implementation of load management strategies to reduce peak demands and avoid emergency high-demand episodes.

Consistent. This policy is not relevant to adoption of the Specific Plan.

PUBLIC SERVICES AND FACILITIES ELEMENT

Public Services and Facilities Element Policy 1: In order to evaluate city facility capacity and service levels, the City will establish an annual monitoring and reporting program that will be a part of the annual budgetary process.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Public Services and Facilities Element Policy 2: To insure that major City facilities are available to accommodate existing and future growth, the City will formulate and adopt a coordinated 5-year capital improvement plan for such facilities. The capital improvement plan will be prepared annually as a five-year projection of needs for analysis concurrent with the budgetary process.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 3: The City shall adopt appropriate fee schedules relating to new developments in order to pay for adversely impacted public facilities and services.

Consistent. The Specific Plan identifies methods for financing extension of infrastructure facilities and City services to the plan area.

Public Services and Facilities Element Policy 4: The City shall require dedication of lands within newly developing areas for public purposes when it is found that a facility is needed.

Consistent. The plan will include dedication as required by the City.

Public Services and Facilities Element Policy 5: The City shall provide for detailed review of all development plans to insure adequate public services and facilities are available.

Consistent. Individual projects within the plan area will be subject to review prior to approval.

Public Services and Facilities Element Policy 6: The City shall continue to provide an adequate wastewater treatment facility to take care of present and projected sewer needs for all types of land uses.

Consistent. The Specific Plan is included in the area proposed to be serviced by planned expansion of the treatment facility.

Public Services and Facilities Element Policy 7: The City shall investigate the possibility of providing a separate wastewater treatment facility for the north industrial area.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Public Services and Facilities Element Policy 8: The City shall extend new sewer lines to the east side of the City in order to meet existing and future sewer needs.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 9: The City shall adopt a fee schedule which requires new development to pay for sewerline extensions or plant expansion caused by such developments.

Consistent. This policy is not relevant to adoption of the Specific Plan. Projects within the plan area will be subject to the fee schedule adopted by the City.

Public Services and Facilities Element Policy 10: The City shall continue its on-going maintenance program of sewer lines to insure satisfactory service in the future.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 11: Pursue and consider alternatives for locating a new treatment plant in the north area industrial sector.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 12: The City shall continue to maintain a contract with the Bureau of Reclamation for sufficient water to meet the City's long-range needs in addition to providing an adequate back-up well system.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 13: The City shall expand the Water Treatment Plant when it is found to be necessary.

Consistent. This policy is not relevant to adoption of the Specific Plan except that the Specific Plan and subsequent Development Agreement will identify financing mechanisms to facilitate expansion as required by development of the plan area.



Public Services and Facilities Element Policy 14: The City shall seek to provide water service to all developing areas of town.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 15: The City shall promote water conservation programs in order to control the use of water.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 16: The City shall adopt a fee schedule which requires new development to pay for major water lines, extensions or water plant expansions which are caused by such developments.

Consistent. Projects within the plan area will be subject to the adopted fee schedule.

Public Services and Facilities Element Policy 17: The City shall continue to provide an efficient Electrical Distribution System which is as inexpensive as possible.

Consistent. This policy is not relevant to adoption of the Specific Plan. The electrical distribution within the plan area will be developed consistent with the requirements of the Roseville Electric Department.

Public Services and Facilities Element Policy 18: The City shall pursue cost-effective alternative energy sources.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 19: The City shall adopt a fee schedule which requires new development to pay for expansions of electrical systems and facilities which are caused by such developments.

Consistent. Projects within the plan area will be subject to the adopted fee schedule.

Public Services and Facilities Element Policy 20: The City shall continue to maintain a power contract with the Bureau of Reclamation.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Public Services and Facilities Element Policy 21: The City will continue to provide a refuse collection site that satisfies the needs of the refuse disposal operation and for use by City residents.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 21⁺: The City shall provide adequate Park and Recreation facilities for all existing and future neighborhoods.

(⁺ incorrectly numbered in the General Plan.)

Consistent. The Specific Plan provides parkland in accordance with City requirements.

Public Services and Facilities Element Policy 22: The City shall continue to coordinate park/school development whenever feasible.

Consistent. The Specific Plan includes coordinated park/school sites.

Public Services and Facilities Element Policy 23: The City shall insure timely development of park sites to satisfy newly-developed areas and neighborhood needs.

Consistent. The Specific Plan provides parkland dedication per City requirements. Development of park facilities is the responsibility of the City, but may be facilitated through development agreement(s) with individual projects as they are proposed.

Public Services and Facilities Element Policy 24: Whenever possible, the City shall provide for the use of large utility easements for recreational park use.

Consistent. The Specific Plan proposes passive recreational use of easements, predominantly as routes for the proposed bicycle/pedestrian pathway.

Public Services and Facilities Element Policy 25: Whenever possible, the City shall use Floodway and creek areas for public pathway development.

Consistent. The Specific Plan proposes passive recreational use of the floodway, predominantly as a route for the proposed bicycle/pedestrian pathway.



Public Services and Facilities Element Policy 26: The City shall adopt and implement a creek maintenance program for both publicly-owned and privately-owned creek areas.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 27: Require as part of project development approval that predetermined park sites be set aside for future acquisition and development.

Consistent. The specific plan identifies park sites to be dedicated to the City.

Public Services and Facilities Element Policy 28: Require dedication of potential park land and public pathways that are located in the Floodplain areas.

Consistent. The specific plan specifies that the 100 year floodway will not be developed, and will be dedicated to the City.

Public Services and Facilities Element Policy 29: Adopt the following park standards as minimum requirements for developing new park facilities, allowing flexibility to make adjustments in the standards depending on the size and uniqueness of the service areas.

Consistent. The Specific Plan provides parkland dedication per City requirements.

Public Services and Facilities Element Policy 28⁺: The City shall examine alternatives for expanding City Hall either by remodeling the existing building or finding alternative sites for existing City Hall functions.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 29⁺: Fund a study to determine actual needs and space requirement for City Hall functions and the alternatives available for remodeling City Hall.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Public Services and Facilities Element Policy 30: Provide financing to remodel City Hall to find alternative sites based upon the needs.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 31: The City shall expand the Corporation Yard to meet the needs of the City department operating from it.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 32: The City shall maintain adequate space to house the police and fire functions.

Consistent. The plan includes a fire station as required by the Fire Department.

Public Services and Facilities Element Policy 33: The City shall provide new fire stations and training facilities for the Fire Department as needed.

Consistent. The plan includes a fire station as required by the Fire Department.

Public Services and Facilities Element Policy 34: The City shall provide a high-quality library service and adequate facilities to handle library facilities.

Consistent. The Specific Plan includes a site for a branch library.

Public Services and Facilities Element Policy 35: The City shall provide branch library facilities on the north side of the City to replace the closure of the Carnegie Branch.

Consistent. The Specific Plan includes a site for a branch library.

Public Services and Facilities Element Policy 36: The City shall encourage efficient use of existing school facilities and help coordinate the use of those facilities for City-sponsored programs whenever it is possible.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Public Services and Facilities Element Policy 37: The City shall continue to require impact mitigation on developments which are identified as adversely impacting the school districts.

Consistent. The Specific Plan will be subject to school impact fees per appropriate State legislation.

Public Services and Facilities Element Policy 38: The City should seek to develop neighborhood park facilities in conjunction with school sites whenever it is determined to be feasible.

Consistent. The Specific Plan includes several coordinated school/park sites.

Public Services and Facilities Element Policy 39: The City shall work with the school districts in identifying and acquiring future school sites by identifying those sites on the General Plan and on specific development plans.

Consistent. This policy is not relevant to adoption of the Specific Plan. The Specific Plan designates school sites consistent with the requirements of the concerned school districts.

Public Services and Facilities Element Policy 40: Adequacy of public services will be evaluated annually concurrent with the City budget process.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Public Services and Facilities Element Policy 41: Prior to the budget review process, each City activity shall be analyzed according to the following:

1. establishment of goals and objectives;
2. formulation of key indicators relating to activity efficiency that can be monitored throughout the year;
3. line item cost for each tool or objective.

Consistent. This policy is not relevant to adoption of the Specific Plan.

FIRE SERVICES COMPONENT

Fire Services Component Policy 1: The Fire Department shall strive to obtain an Insurance Service Organization (ISO) rating of No. 3 or better.



Consistent. This policy is not relevant to adoption of the Specific Plan, except that the Plan includes a fire station per Fire Department requirements.

Fire Services Component Policy 2: The City shall monitor the Fire Department's service levels annually concurrent with the City budget process.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 3: Prior to budget review, the Fire Department shall be evaluated according to the following:

1. establishment of goals and objectives;
2. formulation of key indicators relating to activities -- efficiency that can be monitored throughout the year;
3. line item cost for each program or objective.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 4: The City shall adopt a development fee which would require new development to pay for new fire facilities.

Consistent. Projects within the plan area will be subject to adopted impact fees.

Fire Services Component Policy 5: The Fire Department shall seek to control all fires before they become large by responding to them quickly with highly-trained and equipped personnel.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 6: Adopt fire fighting capacity of 500 gallons per minute within 10 minutes of an alarm as a minimum level of service. Continue to utilize full-time call-backs, reserves and Mutual AID Agreements with adjacent fire agencies and departments.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 7: Adopt a 4-minute response time as minimum basic level of service for as much of the City as possible or practical for all emergency calls.



Consistent. Development of a fire station within the plan area is predicted to provide a 4-minute or less response time.

Fire Services Component Policy 8: Adopt the following for major fire emergencies: deploy a programmed reserve and Automatic AID force of six (6) engines, three (3) ladder companies and three (3) chief officers within 15-20 minutes of a third alarm. In order to maintain this level of service, Mutual Aid Response Agreements with adjacent fire district/departments will have to be maintained. The City, at this time, does not operate ladder companies.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 9: Adopt as a minimum level of service for fires in petroleum storage and production areas the deployment within 10 minutes of special light water or foam fire fighting equipment. The City currently has this capability.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 10: Maintain and deploy one unit within four (4) minutes for all light rescues. Light rescues relate to all trapped persons that can be extricated with forcible entry and rescue equipment.

Consistent. Development of a fire station within the plan area is predicted to provide a 4-minute or less response time.

Fire Services Component Policy 11: The City shall formulate a funding mechanism to finance new fire stations, including land costs, building construction and equipment.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 12: Based upon the new fire service areas depicted on the Land Use Map, the following station development should be followed:

1. Priority No. 1 -- Northwest area of town along the Foothills Corridor.
2. Priority No. 2 -- Development of a station east of the Freeway I-80 along the Douglas corridor. This is also high priority.
3. Priority No. 3 and 4 -- Priority No. 3 would be a station to be located southeast of Maidu Park and Priority No. 4 would be for a station to be located north of the Golf Course.



Consistent. The station within the plan area is already operational.

Fire Services Component Policy 13: The Fire Department shall seek to provide a comprehensive Emergency Medical Service to aid the citizens in need of rescue or Emergency Medical Service.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 14: Adopt as a minimum level of service the deployment of one (1) basic life support team, trained at a level of at least EMT I, within four (4) minutes of a medical emergency.

Consistent. Development of a fire station within the plan area is predicted to provide a 4-minute or less response time.

Fire Services Component Policy 16⁺: The Fire Department shall provide public outreach programs to train the general public in basic first aid techniques in concert with other public and private agencies.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 17: The City should establish a well-rounded fire prevention program by providing the following types of prevention programs: planning; general code and ordinance development; inspections/code enforcement; fire data analysis; training; plan checks for new construction; hazardous materials and processes (inspections); fire investigations; public education; home inspections.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 18: The City shall seek to reduce fires by fully investigating the cause of each fire. Results of the investigations are to be compiled with yearly and analyzed to determine what programs would be the best to pursue.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 19: The City shall reduce the impacts of fire emergencies through the use of early warning devices, such as, automatic sprinkler devices, automatic detection and reporting devices and smoke detectors.



Consistent. As appropriate, the City can recommend or require appropriate facilities during review of the Tentative Map and prior to project approval.

Fire Services Component Policy 20: The Fire Department shall provide education programs to assist Roseville residents in the use of the 911 telephone number in reporting emergencies, thus minimizing lapse time between detection and reporting.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 21: Inform the public of their role and responsibilities as they pertain to disasters.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 22: Provide the management, fire control and rescue service as assigned in the adopted "Roseville Emergency Plan".

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 23: Continually update the plan and insure, on an annual basis, the participants are prepared to carry out assigned functions.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 24: Develop a Hazardous Materials Information Data Base.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 25: Develop and program a basic Hazardous Materials Response Team capability within the fire Department.

Consistent. This policy is not relevant to adoption of the Specific Plan.



Fire Services Component Policy 26: Provide technical training to those personnel assigned to any hazardous materials incident response.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Fire Services Component Policy 27: The City shall pursue land acquisition and funding techniques to provide an adequate fire training facility in the North industrial area.

Consistent. This policy is not relevant to adoption of the Specific Plan.

Schools Component

School Element Policy Alternative A-1: To preserve the sovereignty of each elementary (K-8) school district, all district boundaries will remain as currently adopted.

Consistent. This policy is not relevant to adoption of the Specific Plan.

School Element Policy Alternative A-2: To make more efficient use of existing school facilities and attendance areas, the elementary school districts are encouraged to make adjustments in district boundaries where found feasible.

Consistent. This policy is not relevant to adoption of the Specific Plan. However, the school district boundary within the plan area has been adjusted to align with Foothills Boulevard.

School Element Policy Alternative A-3: To make most efficient use of existing school facilities and future school sites and to reduce the total number and related cost of school facilities, the elementary school districts are encouraged to consolidate boundaries to create one elementary school district.

Consistent. This policy is not relevant to adoption of the Specific Plan.

School Element Policy Alternative B-1: Each elementary and high school district will maintain its own yield rate factors which are to be based on annual surveys within the district.

Consistent. The Specific Plan utilizes current yield rates as provided by the respective school districts.



School Element Policy Alternative B-2: The yield rates for the elementary school districts will be calculated as a weighted average of the unit/student ratio within all K-8 districts combined. The yield rates are to be utilized for mitigation and future site calculations.

Consistent. The Specific Plan utilizes current yield rates as provided by the school districts.

School Element Policy Alternative B-3: a. The yield rates for all elementary school districts will be the same and will be determined by an annual study of development within each district. These yield rates shall be utilized in calculating short-term mitigation fees. The yield rates for the high school district will also be determined by an annual study. b. When calculating the number of future K-8 school sites, a yield rate that is representative of mature neighborhoods shall be considered for residential land use density categories of eight dwelling units or less. c. Request of the high school district an analysis of the effects of a "maturation" yield rate in calculating future 9-12 grade facility needs. d. Request of the high school and elementary school district an analysis of school facility replacement in calculating future school site needs.

Consistent. The Specific Plan utilizes current yield rates provided by the school districts.

School Element Policy Alternative C-1: The land use density/yield rate ratio will be examined periodically and updated if necessary.

Consistent. The Specific Plan utilizes current yield rates provided by the school districts.

School Element Policy Alternative E-1: The cost of a portable classroom will be evaluated annually and updated as deemed necessary by the City Council and affected school districts.

Consistent. This policy is not relevant to adoption of the Specific Plan.

School Element Policy Alternative F-1: To insure that the cost of providing school sites is spread evenly among landowners and/or developers within affected school districts and consistent with State legislation, acquisition of school sites will be by one of the following methods:

1. Purchase by the school district at fair market value.
2. Dedication in-lieu of payment of school fees with the value of credit based on fair market value.



Consistent. This policy is not relevant to adoption of the Specific Plan.

School Element Policy Alternative G-1: The following standards will apply to calculate the maximum acreage for each school:

K-6: 0.02 acres per student
7-8: 0.024 acres per student
9-12: 0.03 acres per student

Consistent. Elementary school sites in the plan area are at least ten acres in size, the intermediate school site is 18 acres in size, the high school site is 41.6 acres in size. Each elementary site is located adjacent to a City park.

School Element Policy Alternative I-1: a. By negotiated agreement, the City of Roseville and affected school districts will share common facilities where feasible. b. To the extent that a school district can reduce the total cost of a school facility by joint use with the City, the reduction of such total cost will be reflected in reduced mitigation fees. c. The City will pursue ownership of shared facilities where appropriate and agreed upon by the affected school district.

Consistent. The elementary and intermediate school sites identified in the Specific Plan are adjacent to park facilities.

School Element Policy Alternative J-1: The number of school sites to be implemented in the future will be based on student capacity criteria and school type as determined by each school district.

Consistent. The number of school sites are consistent with the requirements of the school districts.

School Element Policy Alternative K-1: a. School financing assistant will be the same as proposed by pending legislation represented in AB2926, SB2068 and SB327 and any related "clean up" legislation subsequently adopted.

Consistent. These measures are proposed as financing mechanisms in the Specific Plan area.

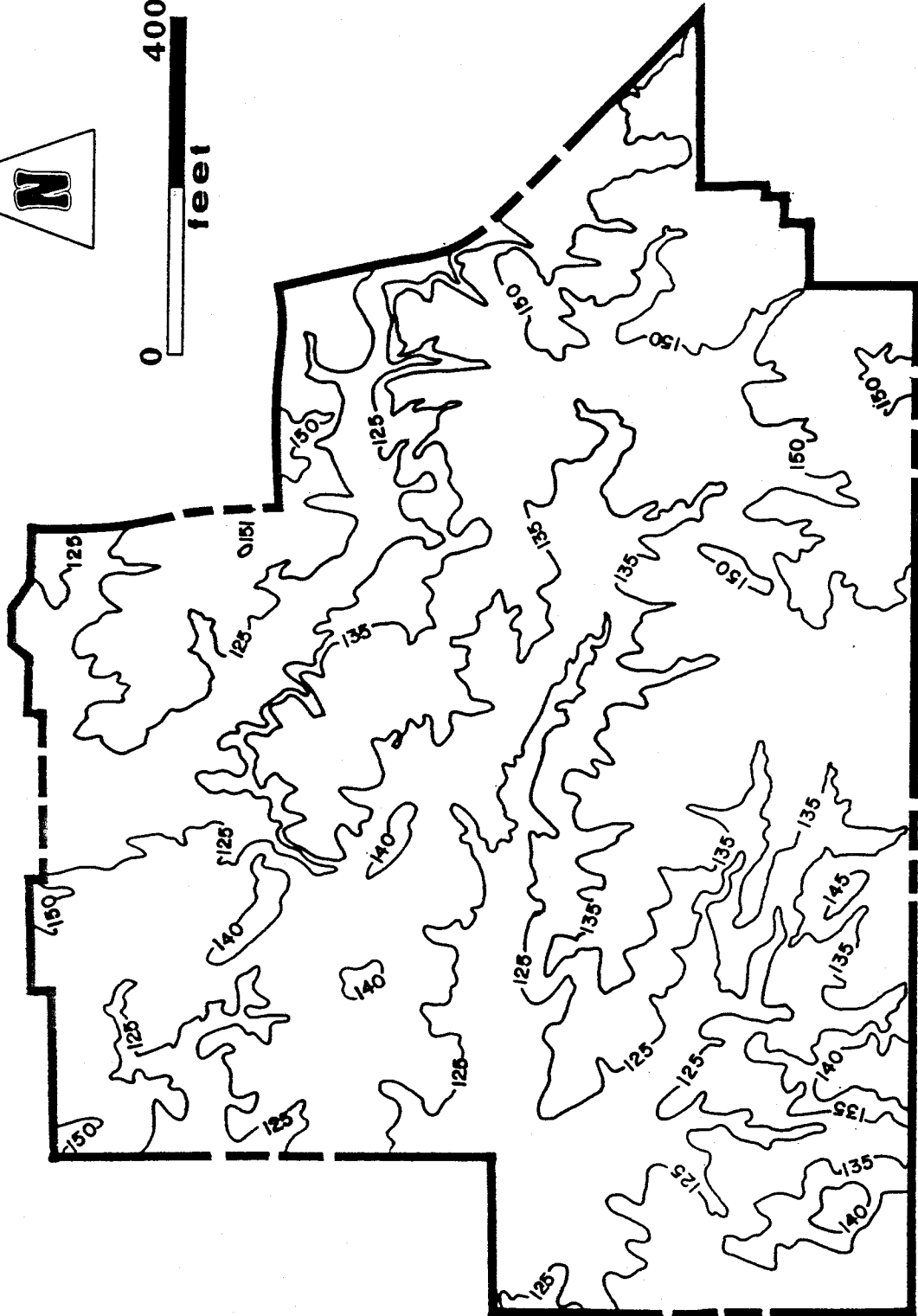
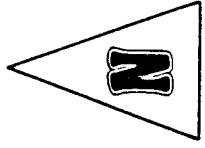


V. NATURAL ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

Geology. Although the Sacramento Valley, the Sierra Nevada Mountains, and the Coast mountain ranges are generally recognized as a unique geographic regions, these areas share a common origin, and consequently, are composed of the same geologic parent materials. The granitic plate which underlies northern California and western Nevada was at one time relatively flat. However, as a result of geologic processes, the plate was buckled and the outer edges were forced upward forming the Sierra Nevada and Coast Mountain ranges. The present day Central Valley region represents the basin created between the upheaved plate edges. This valley extends from south of Bakersfield to north of Redding. The northern end of the valley is closed by the Klamath and southern Cascade ranges including such notable volcanic formations as Mount Shasta and Lassen. The southern end of the valley is created by the merging of the Tehachapi range of the Sierras with the southern coast ranges. The Carquinez Strait, which opens to the Pacific coast, constitutes the only major gap in the surrounding mountains.

Eroded material from the uplifted mountains was carried into the basin, forming the soils of the present day Sacramento Valley. Roseville is located approximately three-fourths of the way across the valley, nearer to the Sierras than to the coast ranges. The terrain of the vicinity is more rolling than that found farther west, and represents a transition area between the more level valley floor and the rolling foothills of the Sierra Nevada Mountains. Topographic information from the USGS 7.5 minute series, Roseville Quadrangle, is presented in Figure D1. As shown, the highest elevation in the plan area, approximately 160 feet above mean sea level (msl), occurs at several locations near the southeastern corner of the plan area. The terrain in the plan area generally slopes northwesterly away from the existing neighborhoods of the City, resulting in the lowest elevations in the plan area being located in the stream channels of South Branch Pleasant Grove Creek and Kaseberg Creek. The elevation where these stream courses leave the plan area is approximately 105 feet msl.

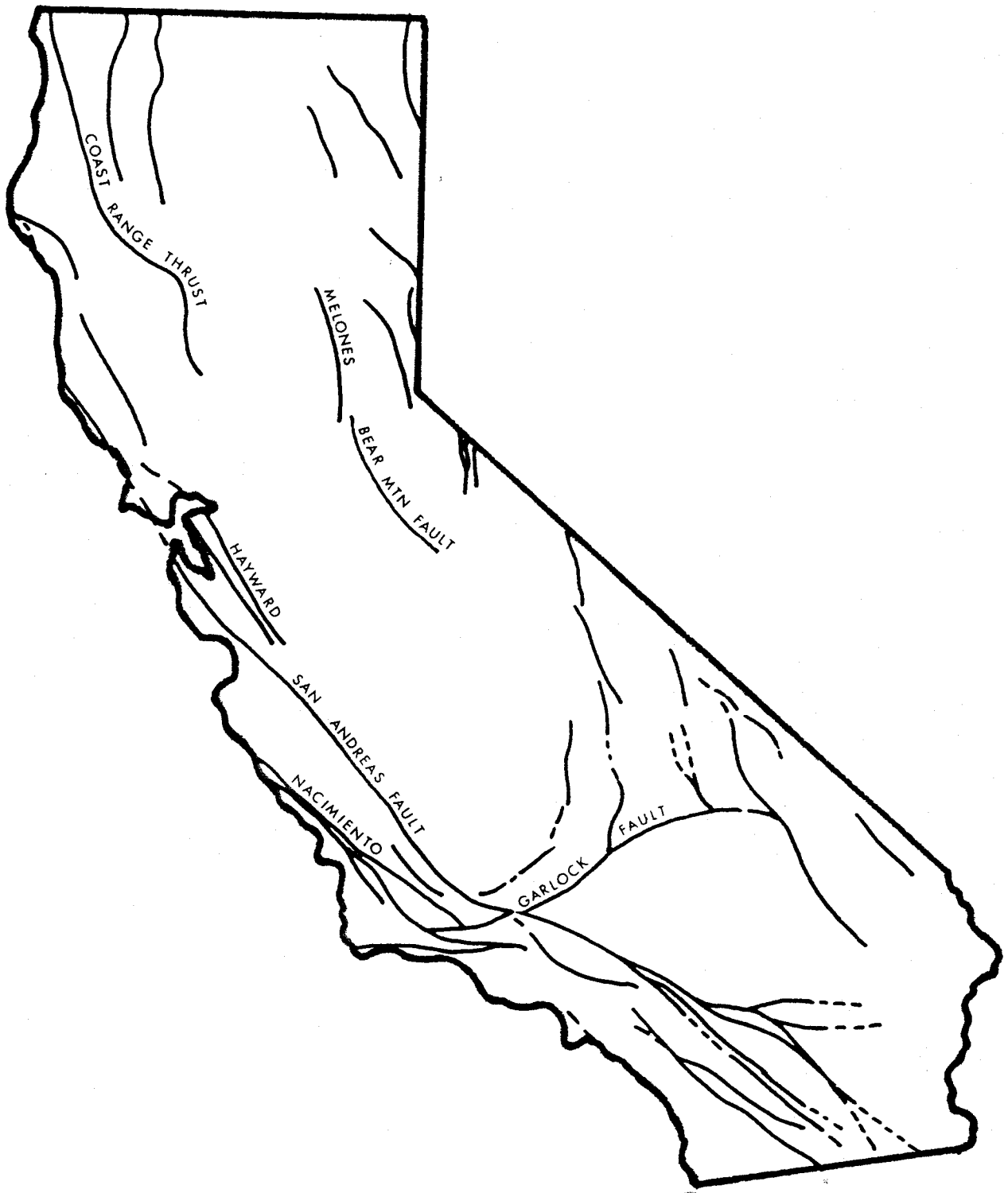




According to the **Geologic Map of California, Sacramento Sheet**, the vicinity is composed of transitional formations between the alluvial deposits of the valley and granitic material characteristic of the Sierra Nevada Mountains. The Roseville area is principally underlain by relatively recent Plio-Pleistocene nonmarine sedimentary deposits formed during the Cenozoic period. The California Division of Mines and Geology identifies the Turlock Lake Formation as the predominant geologic material underlying the plan area. Development constraints created by geologic formations typically relate to underlying stability and water bearing capability. In the region, exposure of granitic outcroppings is a common characteristic which poses obvious obstacles to construction. However, material associated with the Turlock formation is alluvial in nature, and easily worked by most construction equipment. Similarly, the material is relatively stable consisting of partially consolidated sand, silt, and gravel derived mainly from Sierran granitic and metamorphic rocks. A principal constraint associated with the Turlock formation is the relative impermeability and limited water holding capability of the material. These characteristics do not represent serious obstacles to development of the proposed plan because water will be provided by the Roseville municipal water system, and the project includes construction of a storm drain system capable of handling volumes anticipated in conjunction with the relatively impervious geologic and soils materials of the vicinity.

Seismicity. Simply as a result of being situated in California, the vicinity will almost certainly be subjected to seismically induced groundshaking at some point in time. Although faults occur throughout the Central Valley, the major fault zones are generally located in conjunction with fractures in the underlying plate which occurred with uplifting of the Sierra Nevada and Coast Mountain ranges. As shown in Figure D2, the most extensive concentrations of faults in the region lie in northwest/southeast trending alignments along the base of the adjoining mountain ranges. These areas are generally referred to as the Coast Range Fault Zone and the Foothills Fault Zone.





REGIONAL FAULT MAP

FIGURE D2



According to the California Division of Mines and Geology bulletin, **Urban Geology - Master Plan for California**, the Sacramento/Roseville area is classified as a low severity earthquake zone. The probable maximum expected earthquake intensity which may be anticipated in this zone would be VI or VII on the Modified Mercalli Scale. Typical effects of such an event would likely include: some cracks in weak masonry and chimneys; trees and bushes may be visibly shaken or heard to rustle; furniture could be moved; pictures, knickknacks, glasses, or china could be broken. The last geologic activity recorded in the area with an intensity of 4 or greater, measured on the Richter Scale, occurred in 1908. The epicenter of this event was located on a north/south line between Folsom and Auburn and on an east/west line between Placerville and Roseville. There have been several less severe events since 1908, but no significant activity has been recorded in the specific plan vicinities. However, increased volcanic activity ranging from Alaska to South America, including California, may be indicative of increasing tectonic movement and represent potential reactivation of many currently "inactive" fault systems. The Bear Mountain Fault zone, which runs northwest/southeast, passing near Placerville and Auburn, is one of the faults which has exhibited potential reactivation.

No active faults are known to exist within Placer County, and therefore, not within the City of Roseville. However, several inactive faults have been identified in the vicinity. The **Loomis Basin Draft Environmental Impact Report** identifies three inactive faults in the Roseville area. The first of these faults extends east/west between the City of Rocklin and Folsom Lake. Although the alignment of this fault is uncertain, it is probable that it connects to the Bear Mountain fault system, branches of which are known to lie beneath Folsom Lake. The second inactive fault identified by the Loomis Basin Plan is referred to as the "Linda Creek Fault", and is recognized by the California Department of Mines and Geology. As the name implies, this fault is believed to follow the channel alignment of Linda Creek eastward from Roseville into Placer County. Geologic consultants hired by the City of Roseville investigated this "supposed fault" and determined that the "fault" is not actually a fault, but rather



one of a number of northwest/southeast alignments linking drainage features, depressions, slumps, and sinks. The State, in disagreement with the findings of the private study, contends that the fault exists; the City concurs with the findings of the private consultant. This discrepancy has not been resolved. The approximate location of these faults is shown in Figure D3, the Vicinity Fault Map. The third fault identified by the **Loomis Basin General Plan** is known as the Volcano Hill Fault. This is mapped as a very short fault associated with Volcano Hill. No evidence of activity has been recorded in conjunction with this fault, and it is unknown whether the fault even extends beyond the Volcano Hill vicinity.

Soils. Predominant soils which occur in the plan area, as identified by the **Soil Survey of Placer County, California, Western Part**, include: Cometa-Fiddymment complex, 1 to 5 percent slopes; Cometa-Ramona sandy loams, 1 to 5 percent slopes; Fiddymment loam, 1 to 8 percent slopes; Fiddymment-Kaseberg loams, 2 to 9 percent slopes; and Xerofluvents, frequently flooded. The distribution of these soils in the plan area is shown in Figure D4.

Soil capability classes, which range from I-VIII, are used to represent the relative ability of individual soils to support farm crops, and more specifically to identify specific limitations of individual soils. Specific soil limitations are identified by a small letter following the classification numeral. Letters associated with area soils include "e" to designate erosion problems; "s" to designate shallowness or stonyness; and "w" to designate water complications. Soils classified in higher capability classes generally pose greater limitations to agricultural crop production than those with lower ratings. The Storie Index is a rating system used to rate soils according to their suitability for agricultural use. The Storie Index ranges from 0-100 with the most agriculturally valuable soils having the higher scores. Storie classification is based on soil profile, texture, slope, and "other" considerations. The Soil capability classifications and Storie Indexes for the soils which occur in the plan area are presented in Table D1.



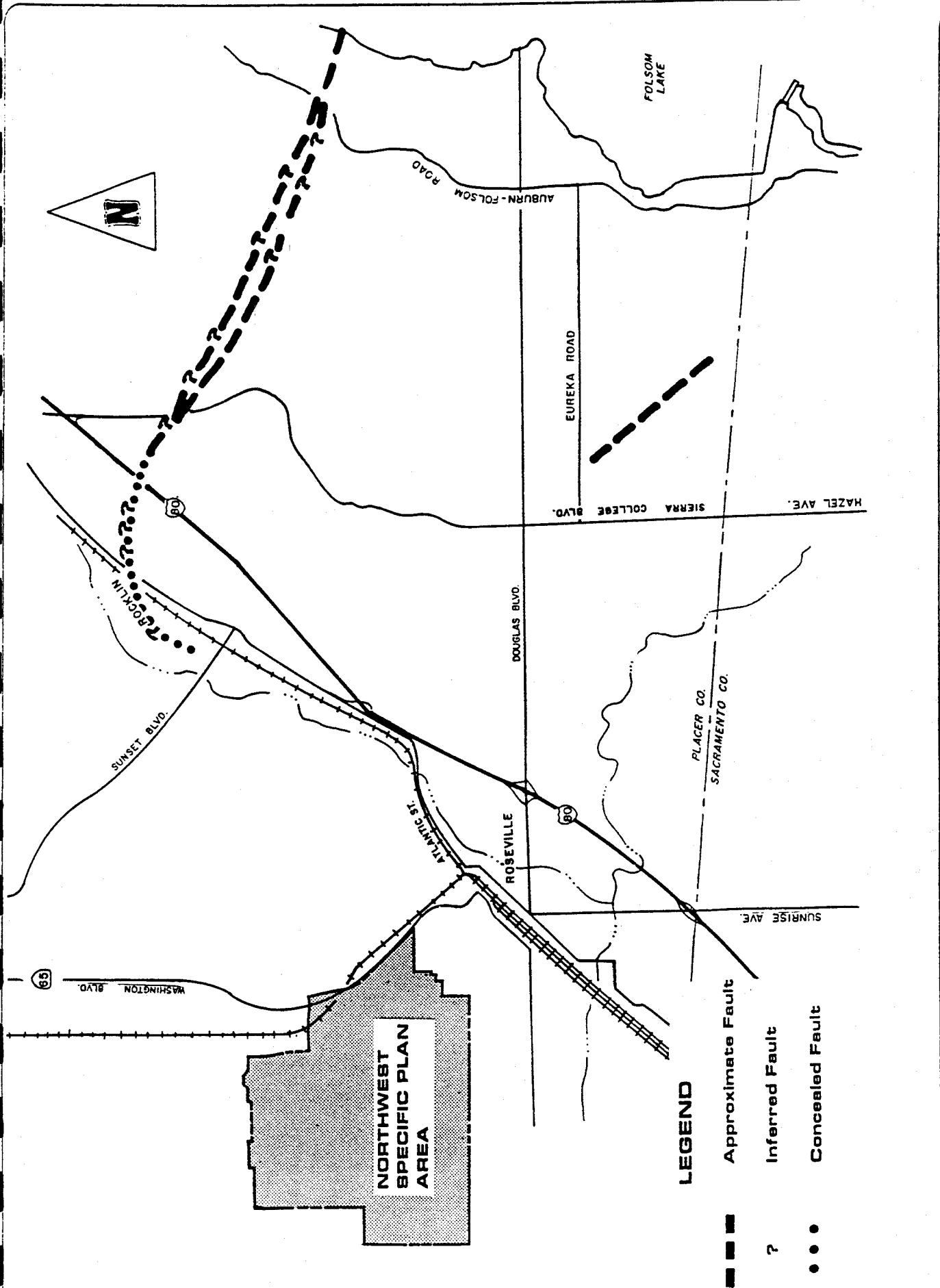


FIGURE D3

VICINITY FAULT MAP

R.C. Fuller Associates



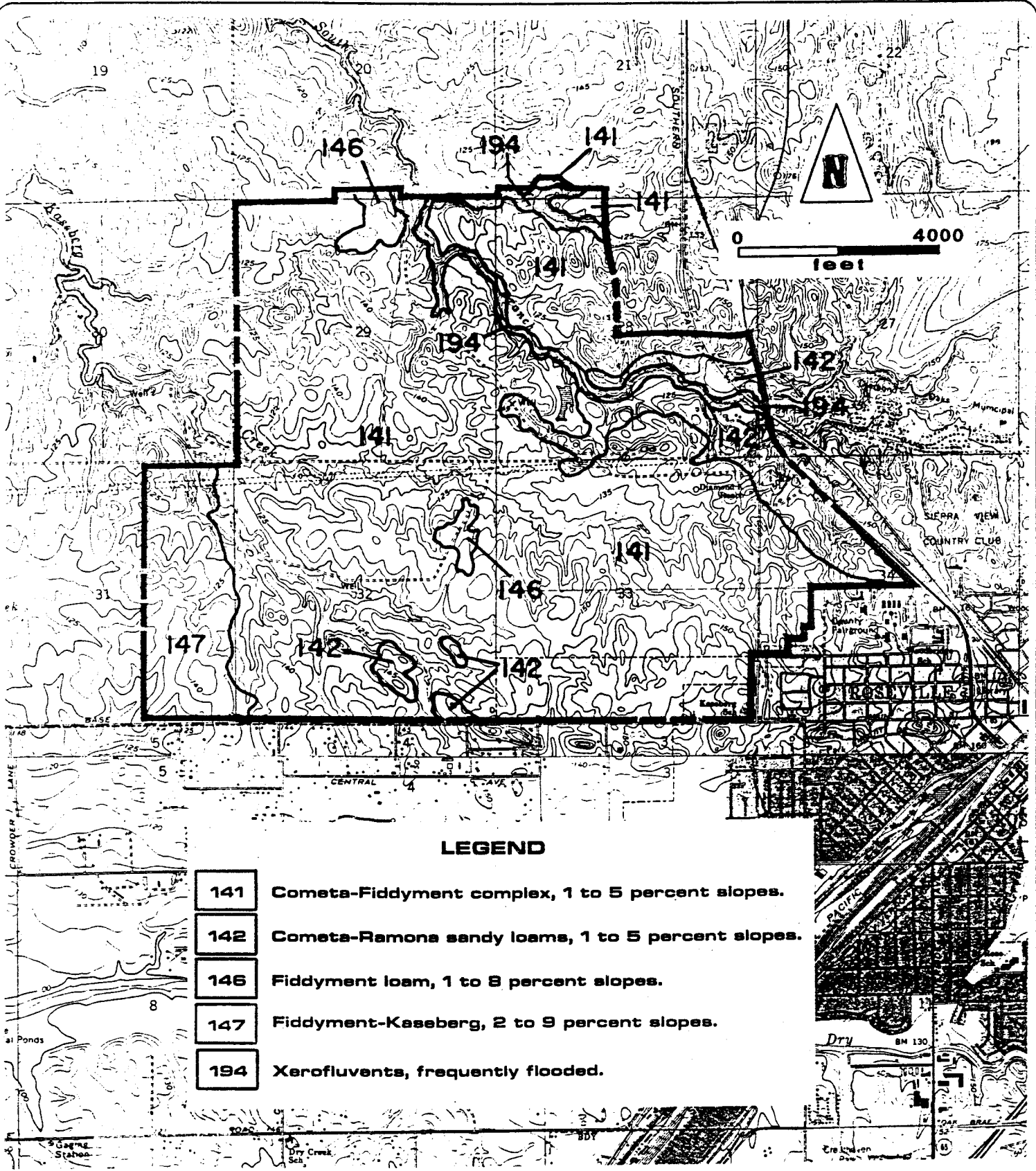
Table D1
Agricultural Classification of Area Soils

<u>Soil Name</u>	<u>Capability Class</u>	<u>Storie Index</u>
Cometa Fiddymment complex	IVe-3	34
Cometa Ramona loams	IIIe-3	50
Fiddymment loam	IVe-3	23
Fiddymment Kaseberg	IVe-3	24
Xerofluvents	IVw-2	36

SOURCE: Soil Survey of Placer County, Western Part, California.

According to the USDA Soil Conservation Service, none of the soils in the plan area are classified as being of prime agricultural value. The **Soil Survey of Placer County, California, Western Part**, identifies specific soil constraints to building site development. In the plan area, the constraints include depth to rock, too clayey, hardpan, shrink-swell potential, and wetness. The soil survey classifies these constraints as either slight, moderate or severe. Table D2 presents the constraints identified in the soil survey by soil type. The relative amount of each of the identified soils within the plan area is presented in Table D3.





LEGEND

- 141** Cometa-Fiddymont complex, 1 to 5 percent slopes.
- 142** Cometa-Ramona sandy loams, 1 to 5 percent slopes.
- 146** Fiddymont loam, 1 to 8 percent slopes.
- 147** Fiddymont-Kaseberg, 2 to 9 percent slopes.
- 194** Xerofluvents, frequently flooded.

SOILS MAP

FIGURE D4



Table D2
Soil Constraints to Building Site Development

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial building	Local roads and streets
Soil 141: Cometa-Fiddymment complex, 1 to 5 percent slopes Cometa	Severe: too clayey	Severe: shrink-swell low strength	Severe: shrink-swell low strength	Severe: shrink-swell low strength	Severe: shrink-swell low strength
Fiddymment	Moderate: too clayey cemented pan depth to rock	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell
Soil 142: Cometa-Ramona loams, 1 to 5 percent slopes Cometa	Severe: too clayey	Severe: shrink-swell low strength	Severe: shrink-swell low strength	Severe: shrink-swell low strength	Severe: shrink-swell low strength
Ramona	Slight	Slight	Slight	Slight	Slight
Soil 146: Fiddymment loam, 1 to 8 percent slopes Fiddymment	Moderate: too clayey cemented pan depth to rock	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell
Soil 147: Fiddymment-Kaseberg, 2 to 9 percent slopes Fiddymment	Moderate: too clayey cemented pan depth to rock	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell
Kaseberg	Severe: depth to rock cemented pan	Severe: depth to rock cemented pan	Severe: depth to rock cemented pan	Severe: depth to rock cemented pan	Severe: cemented pan depth to rock
Soil 194: Xerofluvents Xerofluvents	Severe: floods wetness	Severe: floods wetness	Severe: floods wetness	Severe: floods wetness	Severe: floods



Table D3
Soils in the Northwest Roseville Specific Plan Area

USDA-SCS Map Symbol	Soil Name	Approximate Portion of the Plan Area
141	Cometa-Fiddymment complex, 1 to 5 percent slopes	79%
142	Cometa-Ramona sandy loams, 1 to 5 percent slopes	10%
146	Fiddymment loam, 1 to 8 percent slopes	2%
147	Fiddymment-Kaseberg loams, 2 to 9 percent slopes	2%
194	Xerofluvents, frequently flooded	7%

Cometa-Fiddymment complex. The Cometa-Fiddymment complex, 1 to 5 percent slopes is the predominant soil type which occurs in the Northwest Roseville Specific Plan area. Areas mapped as this soil complex can include any of several different loams and clays, but as the name implies, the Cometa and Fiddymment soils are predominant. Typically the areas include a mixture of approximately 35% Cometa soils, 35% Fiddymment soils, and 30% sandy loams, loams, and clay.

The Cometa soil is generally deep, extending to approximately 18 inches in depth, consisting of a surface layer of brown sandy loam formed of alluvium, mainly from granitic sources. The subsoil is composed of brown clay which extends to approximately 29 inches in depth, below which a compacted very pale brown sandy loam is found. The Cometa soil is described as well drained with very slow permeability, slow surface runoff, and slight hazard of erosion. The soil may remain saturated for a period following an intense rainstorm. Fiddymment is described as a well drained soil that is moderately deep formed over a hardpan. Typically, the surface area consists of a light yellowish brown loam and silt loam about 12 inches thick. The subsoil is yellowish brown and brown dense clay loam. At a depth of 28 inches is silica-indurated siltstone. Similar to the Cometa soil, permeability of the Fiddymment soil is very slow, surface runoff is slow, and hazard of erosion is slight. Several occurrences of Fiddymment



loam exclusive of the other soils associated with the Cometa-Fiddymment association occur in the Plan area. These areas, identified as Fiddymment loam, 1 to 8 percent slopes, occur in the relative central portion of the Plan area as shown in Figure D5.

Cometa-Ramona sandy loam. Cometa Ramona sandy loam, 1 to 5 percent slopes, occurs as islands surrounded by the more prevalent Cometa-Fiddymment complex. These occurrences are located on low terraces in the Kaseberg Creek drainage. The Cometa soil found in association with Ramona sandy loam is a deep well drained claypan soil formed of granitic alluvium. Typically, the surface layer consists of a brown sandy loam about 18 inches thick. A subsoil of brown clay extends to a depth of approximately 29 inches where a pale brown sandy loam is encountered. Permeability of this soil is considered very slow, largely as a result of the dense clay subsoil. The clay also restricts the effective rooting depth to 18 inches. Surface runoff is slow. Erosion Hazard is slight. After intense rainstorms the soil may remain saturated for a short period of time. The Ramona soil is typically very deep and well drained. Typically, the surface layer is brown and light brown sandy loam and loam about 14 inches thick. The subsoil is a mixed reddish yellow and yellowish red sandy clay loam about 41 inches thick. Below this the substratum material is a reddish yellow gravelly sandy loam. Permeability of this soil is moderately slow with an effective rooting depth of 60 or more inches. Surface runoff is medium and the erosion potential is slight. Due to the well drained character and deep rooting depth of these soils, clusters of native oaks are found in association with this soil occurrence within the plan area.

Fiddymment-Kaseberg loams. The Fiddymment soils which exist in the Fiddymment-Kaseberg association are similar to the Fiddymment soils described above in the Cometa-Fiddymment complex. Kaseberg soils are well drained and formed over a hardpan. Typically the surface layer is approximately 6 inches thick consisting of a light brownish gray loam with yellowish brown mottles. The subsoil is a pale brown loam which extends to approximately 15



inches in depth. Below the sub-soil horizon, a one inch silica-indurated hardpan occurs. Siltstone is the prevalent material below the hardpan at a depth of approximately 17 inches. Permeability of the soil is moderate, and the effective rooting depth extends to 20 inches in some locations. The hazard of erosion is slight to moderate. After intense rainstorms, the soil is saturated for a short time.

Xerofluvents. Xerofluvents located within the Northwest Roseville Specific Plan area are limited to areas immediately adjacent to tributaries of South Branch Pleasant Grove Creek or Kaseberg Creek. Xerofluvents are composed of alluvial material which is deposited with the frequent flooding which occurs. The material is of varied coloring and includes stratified gravelly sandy loams, gravelly loams, and gravelly clay loams that generally grade to sand and gravel with increasing depth. The depth to underlying restrictive material is greater than 36 inches.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

M The principal characteristics of the Turlock Lake Formation which relate to development include limited water holding capability and relative impermeability. Mitigation is proposed to alleviate these constraints.

L The likelihood of seismic activity occurring within the plan areas will not be impacted by urban development. However, the potential for personal and/or property damage to result from seismic activity within the plan area will be increased due to the increased presence of people and property. Seismicity in the area is not considered a significant constraint to development.



- M** Development will produce topographic alterations of the plan area. The potential erosion will be increased in areas where grading and trenching occur. Associated with the increased erosion is the potential for siltation of area waterways including Antelope Creek, Pleasant Grove and South Branch Pleasant Grove Creeks, and Kaseberg Creek.
- M** Development of the specific plan area as proposed will include construction of structures and facilities on soil types which have identified constraints to urban development. Specific constraints include the shallowness to clay hardpan, steepness of slopes, high shrink swell potential, slow permeability, and frequent flooding.
- M** Construction and development in general will increase the potential for erosion.
- M** Development of the areas will result in an increased amount of impervious surface within the plan area, resulting in a higher runoff rate than that of the undeveloped property. This impact and appropriate mitigation is discussed in the hydrology section of this EIR.

Mitigation Measures

- o The geologic constraints of limited permeability and water holding capability will be mitigated through provision of water from the Roseville municipal water system, and the construction of a storm drain system capable of handling volumes anticipated in conjunction with the relatively impervious geologic and soil materials of the vicinity. Design and construction of water and storm drain facilities will be provided by the project proponents.
- o The potential for personal and property damage resulting from seismic activity cannot be totally mitigated. However, adherence to the Uniform Building Code and City of Roseville building standards is assumed to reduce the potential of



injury or damage to less than significant levels. Builders within the plan area will be subject to Roseville building codes.

- o Implementation of the topographic impacts cannot be realistically avoided if development is to proceed. However, the magnitude of these changes can be minimized through efficient design of individual projects to conform to existing site conditions. As per City policy, staff will review individual projects at the Tentative Map stage.

- o Accepted engineering and construction techniques exist which can be utilized to compensate for all identified soil constraints. Examples of such practices include rip-rap, diversion dams, gravel subdrains, cut and fill design, or similar measures to stabilize soil on slopes; storm drain systems, artificial swales, protection of floodplain, and connection to the regional sewer system will compensate for the impermeability of the soils; strengthened building foundations, concrete piers, imported base material, and/or subdrains to compensate for high shrink swell potential and low weight bearing capability beneath building pads. Site specific geotechnical studies will be prepared for individual projects to identify specific development constraints and mitigation measures. As appropriate, a geotechnical engineer will be retained to ensure that projects are designed to compensate for soil constraints.

- o Erosion related impacts can be mitigated to less than significant levels through the use of several common measures. These measures should be included in the Specific Plan As appropriate, these measures will be included on tentative maps. Developers will be required to abide by the following conditions:
 - Grading and trenching activities will be restricted to the dry season, and will not be conducted during rainy weather.
 - Sprinkling will be utilized during dry weather to minimize soil loss due to wind erosion. Grading and similar activities will not be conducted during windy weather.



- In areas where soil is exposed, prompt replanting with native compatible, drought resistant vegetation will be performed. No areas will be left exposed over the winter season.
- During construction, measures to prevent eroded soil from entering area waterways will be implemented. As appropriate, measures will include placement of hay bales or other accepted materials as sediment barriers, development of temporary settling areas, energy dissipaters, and other acceptable means of slowing runoff and reducing sediment loads.



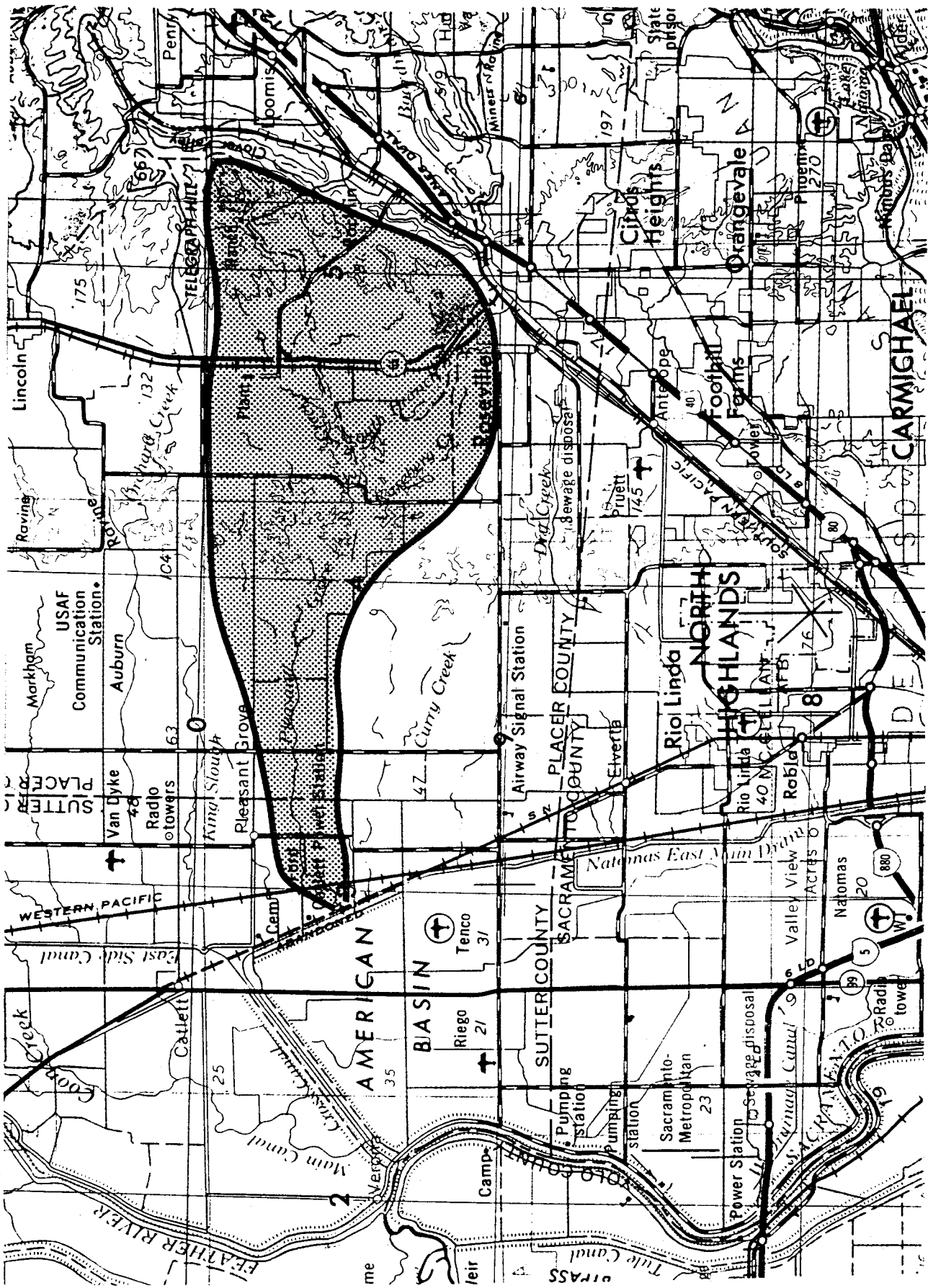
Hydrology and Water Quality

The hydrologic characteristics of the plan area are largely a function of the climate of the region. The "valley climate" is polarized between summer and winter seasons. The winter season is characterized as rainy and cool. Of the 25 inches of annual precipitation that Roseville receives, nearly 90 percent falls between November and April. The summer is characterized as dry with an average high temperature of 90°F. Consequently, the majority of the watercourses in the area are seasonal, supporting flows only during the rainy season.

As shown in Figure E1, the majority of the Northwest Roseville Specific Plan area is within the Pleasant Grove Creek Watershed, however, none of the plan area drains directly into Pleasant Grove Creek. Rather, the majority of the plan area is drained by two drainagesheds, South Branch Pleasant Grove Creek and Kaseberg Creek, which in turn outlet to Pleasant Grove Creek. The extreme southwestern corner of the plan area is within the Curry Creek drainageshed. Figure E2 shows the relative location of these watersheds within the plan area, and Figure E3 shows the location of the principal channels within these drainages. As shown in by these Figures, although the Curry Creek drainageshed extends onto the extreme corner of the plan area, none of the Curry Creek stream channel extends into the plan area. Pleasant Grove Creek and Kaseberg Creek empty into Pleasant Grove Creek downstream of the plan area. Pleasant Grove Creek drains westward emptying into the Pleasant Grove Creek Canal. Curry Creek, similar to Pleasant Grove Creek, flows westward eventually emptying into the Pleasant Grove Creek Canal. The Pleasant Grove Creek Canal flows northward emptying into the Cross Creek Canal, which in turn outlets into the Sacramento River just south of its confluence with the Feather River.

Calculations indicate that there is sufficient capacity in the canal system to pass 100 year storm flows from the Pleasant Grove and Curry Creek drainages. Flooding in these drainages is recognized as a problem upstream of the canal system where channel improvements have not been implemented. During heavy flows, water escapes from unimproved segments of the channels and

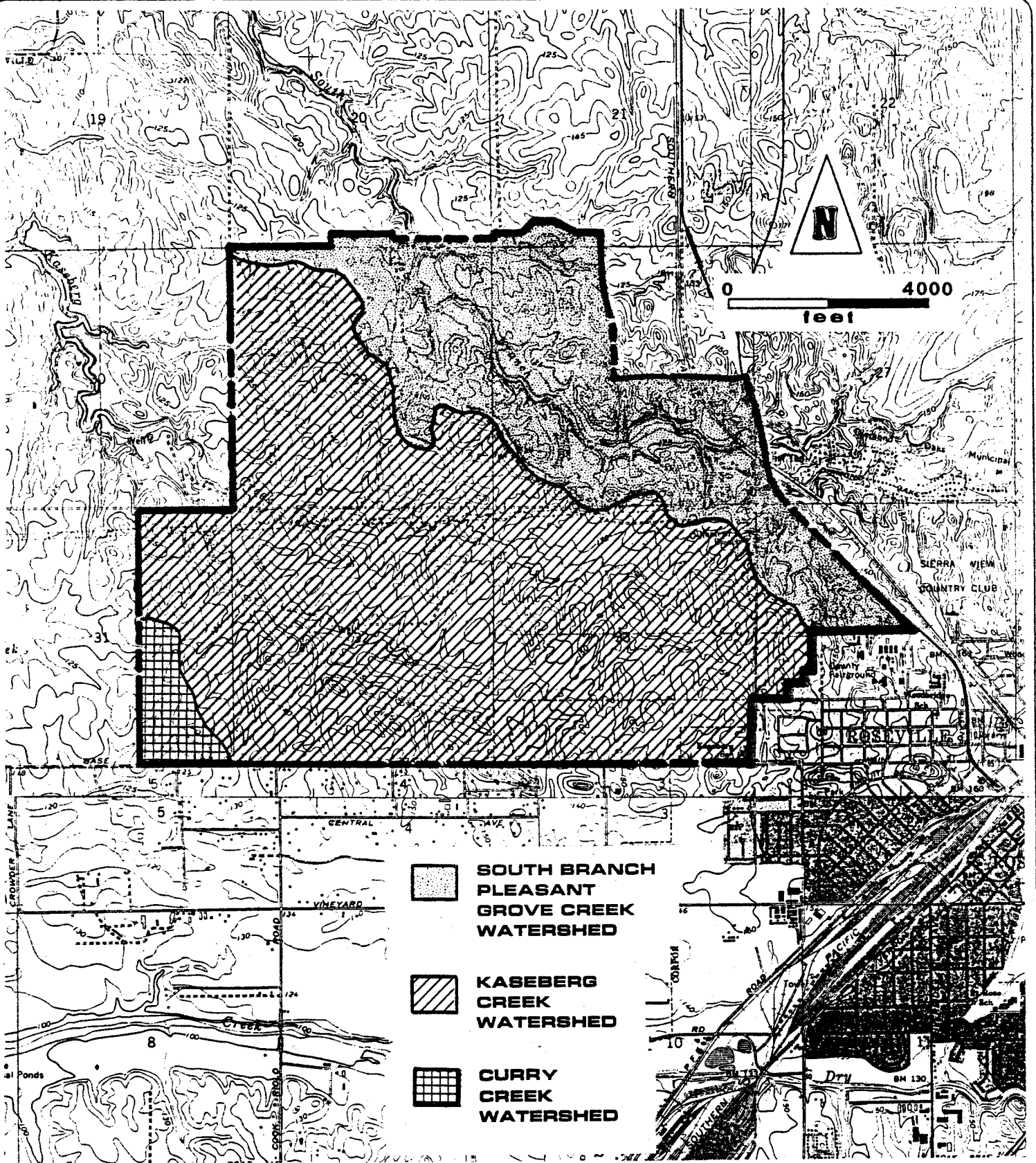




PLEASANT GROVE CREEK WATERSHED

FIGURE E1





DRAINAGESHED MAP

FIGURE E2



becomes trapped behind the levees of the downstream improved sections. This trapped water must be siphoned and/or pumped through the levees into the canal system.

The **Sutter-Placer Watershed Area Study** (USDA, 1982) evaluated various alternatives which could be implemented to alleviate the flooding problems along Pleasant Grove and Curry Creeks. Major recommendations included channel improvements, protection of natural channels from development, and development of retention facilities. In accordance with these recommendations, and City of Roseville policy, the specific plan specifies that all area within the 100 year flood plain in the plan area will be left undeveloped and dedicated to the City. The plan area is located near the top of the watershed, and consequently, because of the relatively low volume of runoff, is not an optimal location for development of retention facilities. The Watershed Area Study identifies potential sites for channel improvements and retention facilities, none of which are within the plan area. No major segments of channel improvements were identified as necessary on Pleasant Grove Creek, however, a potential retention site has been identified downstream of the City of Roseville.

In response to increasing regional flooding problems, the City of Roseville, along with Rocklin, Lincoln, Loomis, Auburn, Colfax, and Placer County, have proposed formation of a regional flood control district. It is anticipated that this district will formulate a regional strategy for flood control management.

The South Branch Pleasant Grove Creek drainageshed encompasses approximately 16.7 square miles, mostly within the City of Roseville. The upper reaches of this watershed are located south of the Highway 65 Bypass and west of the Antelope Creek drainage. South Branch Pleasant Grove Creek flows under Highway 65 and the SPRR tracks, entering the plan area from Diamond Oaks. South Branch Pleasant Grove Creek flows northwesterly through the plan area, exiting near the center of the northern plan boundary, west of the Hewlett-Packard site. This watershed includes approximately 28% of the Northwest Roseville Specific Plan area. The plan area represents approximately 7% of this watershed.



The Kaseberg Creek drainageshed encompasses approximately 6.1 square miles situated in south Placer County and the City of Roseville. The Kaseberg Creek drainageshed is situated west of the South Branch Pleasant Grove Creek drainage, and extends south of Baseline Road. Kaseberg Creek, which drains the southern portion of the plan area, flows northwesterly exiting the plan area at the approximate mid-point of the western boundary. Approximately 68% of the plan area is within the Kaseberg Creek drainageshed. The plan area includes approximately 47% of this drainageshed.

Only a very small portion of the Curry Creek Drainage is located within the plan area. Approximately 86 acres of the Curry Creek Drainage, 3% of the plan area, are located in the extreme southwesterly corner of the plan area, all within the portion of the plan area designated as urban reserve.

According to the Sutter-Placer Watershed Area Study (1982), the northwest plan area is situated within subarea 05 of the Valley Unit. This subarea generally includes all of the area south of Pleasant Grove Creek but within the drainages of Pleasant Grove Creek or Curry Creek. The depth to groundwater in this subarea generally ranges from 70 to 100 feet. However, largely as a result of pumping for farm irrigation, groundwater resources in this subarea are being overdrafted at a rate equivalent to an annual change in depth to groundwater by 3.5 feet. According to a study by the firm of Wallace Van Alstine & Kuhl (1986), the plan area is underlain by a 500 foot thick layer of Tertiary and early Pleistocene alluvial deposits. These deposits include impervious layers which severely limit direct infiltration of surface water. Consistent with the findings of the Sutter-Placer Watershed Study, this report indicates that ground water in the area is located at a depth of approximately 100 feet, and that recharge from surface sources is minimal.

Development will increase the potential for erosion in the plan area. Construction generally represents the phase of development most prone to erosion impacts. As development progresses, landscaping and re-establishment of vegetation reduces the erosion potential created during construction. No data was



located concerning the quality of runoff from the plan area. However, no major sources of pollution are known to exist in the plan area, and runoff is filtered through the grasses and natural cover. Urban land use invariably poses the potential for degradation of runoff water quality. Runoff from urban areas typically contains petroleum, phosphates, nitrates, metals, chlorides, and other "by products" of the urban lifestyle. The water quality characteristics of several streams are presented in Table E1. These characteristics are presented as examples of streams whose watersheds contain substantial urban land use.

Table E1
Water Quality Characteristics of Selected Urban Waterways

<u>Water Characteristics</u>	<u>Sacramento*</u> <u>River</u>	<u>Arcade*</u> <u>Creek</u>	<u>Dry**</u> <u>Creek</u>
pH	7.3-7.9	-	7.0
Temp (C)	7.7-13.2	-	18.0
DO (mg/l)	10.4-11.6	-	8.7
 <u>Common Pollutants</u>			
Nitrate (mgN/l)	0.03-28.0	0.43-0.57	0.02
Nitrite (mgN/l)	0.02-0.02	-	<0.01
Total (NH ₃)	-	-	0.30
Total Kjeldahl N (mgN/l)	0.10-1.20	1.20-2.90	0.61
Total Phosphate (mgP/l)	0.03-0.50	0.12-0.57	0.16
Oil and Grease (mg/l)	10.0-11.3	0.60-23.2	-

* SRAPC, 1978

** Dewante and Stowell, 1980

Runoff characteristics are a product of the soils and varying slopes which comprise the plan area. The impervious character of the soils and underlying geologic material precludes substantial groundwater recharge in the plan area. The impervious characteristics of the soils are largely associated with subsurface soil horizons, consequently, some infiltration of the surface soils undoubtedly occurs. This infiltration as well as the irregular soil surface and obstructions presented by vegetation, act to slow runoff from the undeveloped terrain. This condition exists to some degree in most undeveloped areas.



Urban development produces an increase in the amount of smooth impervious surface, i.e. streets, sidewalks, roofs, storm drains, etc. As the amount of these surfaces increases, the potential for infiltration decreases, and consequently the volume of runoff increases. Similarly, elimination of constraints to flow reduces the time required to achieve peak runoff conditions. The magnitude of these impacts in the plan area will be less than that which would be observed in areas with more permeable soils and heavier vegetation.

As a consequence of the undeveloped condition of the majority of the plan area, the relatively small size of the drainagesheds, and the location of the plan area near the top of the drainageshed, flooding within the plan area is not presently a problem. Flooding has been a major problem in some areas of Roseville and the City has taken steps to correct the specific problems. A City wide strategy to delay peaking of Dry Creek and its tributaries while maintaining the early peaking characteristics of Cirby Creek and its tributaries has been adopted to relieve flooding within the City (Williams, 1983). Because the plan area is not within either of these drainages, development of the plan area will not exacerbate existing flooding conditions within the City. Immediate action being considered by the City includes consideration of an early warning flood alarm system. Although such a system would not mitigate flooding conditions, it should be considered as a realistically implementable measure which could reduce property and personal damage in areas subject to flooding. Such a system is being considered only as a short term mitigation, and not as a solution to the current flooding situation.

As an ongoing component of the City-wide flood protection program, the firm of Nolte and Associates was retained to prepare a detailed hydrologic study of streams identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Study. The resulting hydrologic study identifies discharge conditions for 10-, 50-, 100-, and 500- year storm events and flood elevations associated with a 100 year storm event for existing (1985) and future conditions. Peak discharge rates were calculated consistent with FEMA requirements. Calculations for future



conditions assumed buildout of the City of Roseville and relevant portions of Placer County.

South Branch Pleasant Grove Creek is the only stream within the Northwest Roseville Specific Plan area which was examined by the Supplemental Flood Plain Study. Pleasant Grove Creek, which is outside of the plan area but within the drainageshed, was also studied. Existing and future peak discharge conditions for South Branch Pleasant Grove Creek are presented in Table E2. The peak discharge conditions presented in Table E2 are for the location on South Branch Pleasant Grove Creek upstream of the confluence with Pleasant Grove Creek. The information presented in Table E3 represents conditions on Pleasant Grove Creek at the point where the stream exits the corporate boundary of the City of Roseville.

Table E2
Peak Discharge Conditions
South Branch of Pleasant Grove Creek
(upstream of confluence with Pleasant Grove Creek)

-----Peak Discharges (cfs)-----

<u>Source</u>	<u>500-yr</u>	<u>100-yr</u>	<u>50-yr</u>	<u>10-yr</u>	<u>100-yr Elevation (feet)</u>
1985 Conditions	1,170	880	740	470	85.8
Future Buildout	1,890	1,480	1,330	910	86.7
Net Increase	720	450	590	440	0.9
% Increase	62%	51%	80%	94%	



Table E3
Peak Discharge Conditions on Pleasant Grove Creek
(at corporate boundary where stream leaves City)

-----Peak Discharges (cfs)-----

	<u>500-yr</u>	<u>100-yr</u>	<u>50-yr</u>	<u>10-yr</u>	<u>100-yr Elevation (feet)</u>
Future Buildout	5,270	4,190	3,670	2,550	91.9
1985 Conditions	<u>3,750</u>	<u>2,830</u>	<u>2,380</u>	<u>1,530</u>	<u>89.7</u>
Net Increase	1,520	1,360	1,290	1,020	2.2
% Increase	29%	32%	35%	40%	

South Branch Pleasant Grove Creek originates in the North Central Roseville Specific Plan area and flows westward beneath Highway 65 and the SPRR tracks into the Northwest Roseville Specific Plan area. The Nolte Supplemental Flood Plain Study indicates that flows in South Branch Pleasant Grove Creek resulting from a 100 year storm and existing (1985) land use conditions would be approximately 640 cfs at the location where the creek enters the plan area, and approximately 685 cfs at the location where the creek leaves the plan area. Consequently, at the location where the creek leaves the plan area, runoff from the undeveloped plan area contributes approximately 45 cfs, and the water surface elevation associated with the 100 year storm under existing land use conditions would be approximately 104.8 feet.

The Nolte Supplemental Flood Plain Study indicates that future flows produced by a 100 year storm (assuming buildout of the watershed) are predicted to be approximately 1,090 cfs at the location where the creek enters the plan area, and approximately 1,150 cfs at the location where the creek leaves the plan area. Consequently, the developed plan area is predicted to contribute approximately 60 cfs to flows in South Branch Pleasant Grove



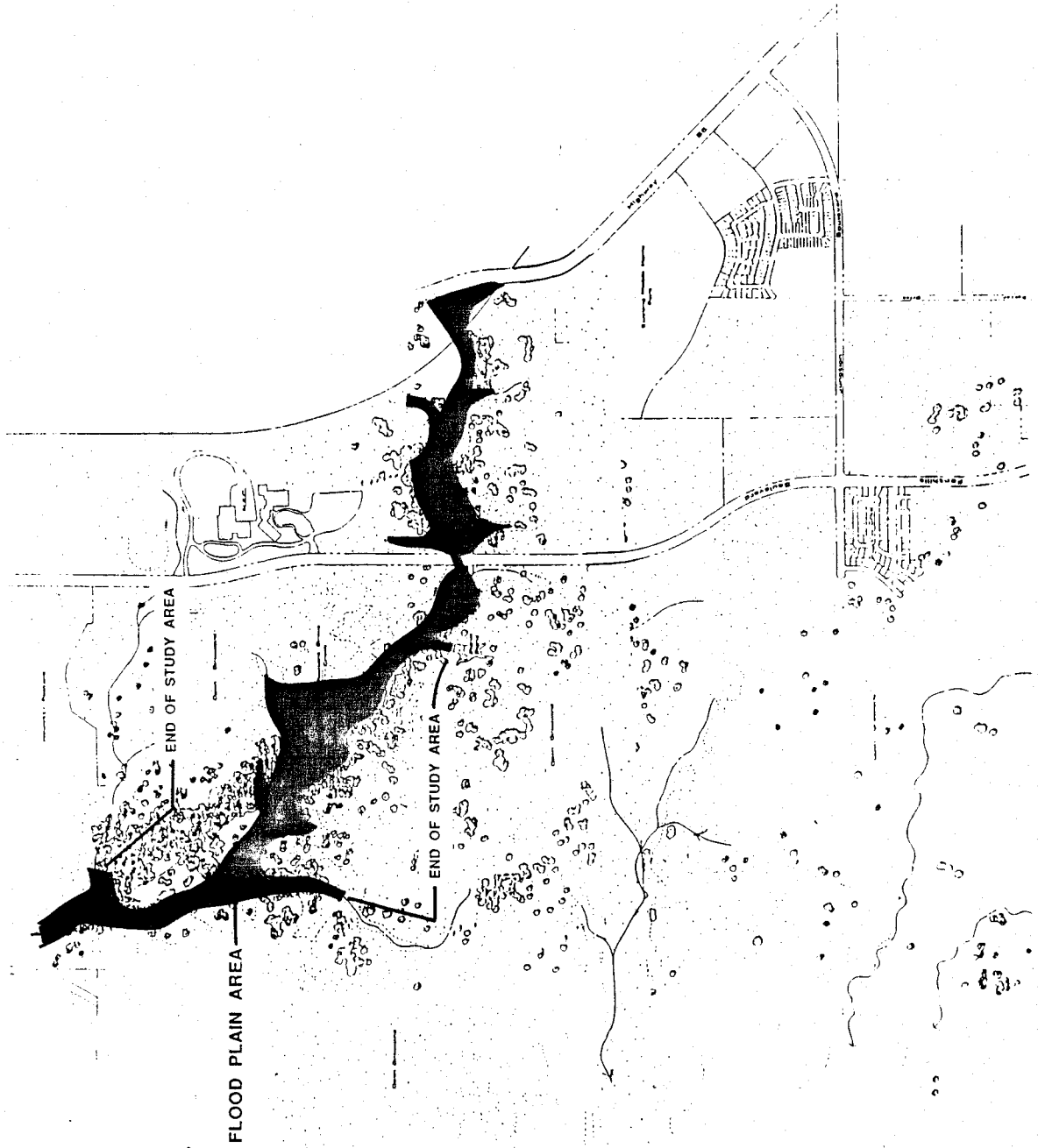
Creek. At the location where South Branch Pleasant Grove Creek leaves the plan area, the water surface elevation which would result from a 100 year storm under future developed conditions would be approximately 106.2 feet.

As indicated in the preceding discussion, development of the South Branch Pleasant Grove Creek drainageshed is predicted to increase the water surface elevation at the location where the creek leaves the plan area by 1.4 feet. This increase in the water surface elevation is predicted to result from a 465 cfs increase in flows, of which development of the plan area is predicted to contribute approximately 3%. Figure E4 shows the 100 year flood plain as identified by the Nolte study.

Hydrologic analysis of the Kaseberg Creek and Curry Creek drainages within the plan area has not been performed. Consequently, limited hydrologic information is available on these drainagesheds. Because of the minimal amount of the plan area within the Curry Creek drainageshed, development of the plan area is predicted to have a less than perceivable impact on flows in that drainage. Prior to development, an assessment of the hydrologic impacts should be completed.

Those individuals requiring more detailed hydrologic information are referred to the Supplemental Flood Plain Study prepared by Nolte & Associates which is available from the Roseville Public Works Department.





THIS MAP HAS BEEN FORGOTTEN

PREPARED BY



Impacts

As discussed in the Introduction, impacts are identified in this section as follows: **L** Less than significant, **S** Significant, or **M** Mitigated to less than significant.

L Development of impervious surfaces will reduce the area available for infiltration of surface water. Conversely, the year round presence of water will increase the amount of water available for infiltration. The net impact of these contradicting impacts cannot be readily determined. However, considering that water will be provided to the plan area from the Roseville municipal system, which predominantly relies on surface water sources; that groundwater in the vicinity occurs 70 to 100 feet below the surface; and that most soils in the area exhibit limited permeability as a result of clay content and/or existence of a hardpan, the impact to groundwater is suggested to be less than significant.

M Construction will produce a short term increase in the sediment load of area waterways. During construction, runoff from disturbed areas will likely contain silt and debris. The significance of this impact will vary depending on the level of construction activity, weather conditions, soil conditions, etc. Mitigation has been proposed to minimize this impact.

S Urban development of the plan area will contribute to the level of urban pollutants in area waterways. This is a significant unavoidable impact associated with urban development.

M Within the plan area, development will produce an increase in runoff volume and a decrease in the time required to reach peak discharge for areas within the South Branch Pleasant Grove Creek, Kaseberg Creek, and Curry Creek drainagesheds. Mitigation is proposed to reduce the on-site impacts to less than significant levels.



Mitigation Measures

- o Erosion related impacts can be mitigated to less than significant levels through the use of several common measures. These measures should be included in the Specific Plan as appropriate, these measures will be included on tentative maps. Developers will be required to abide by the following conditions:
 - Grading and trenching activities will be restricted to the dry season, and will not be conducted during rainy weather.
 - Sprinkling will be utilized during dry weather to minimize soil loss due to wind erosion. Grading and similar activities will not be conducted during windy weather.
 - In areas where soil is exposed, prompt replanting with native compatible, drought resistant vegetation will be performed. No areas will be left exposed over the winter season.
 - During construction, measures to prevent eroded soil from entering area waterways will be implemented. As appropriate, measures will include placement of hay bales or other accepted materials as sediment barriers, development of temporary settling areas, energy dissipaters, and other acceptable means of slowing runoff and reducing sediment loads.
- o Protection of the natural floodways, and maintenance of vegetated buffer strips and open area are probably the most common methods for reducing the pollutant content of urban runoff. These types of measures treat the problem by filtering, but do not address the more serious source of the pollutants. The specific plan includes these types of measures. However, many pollutants are too small to be filtered. The most effective means of addressing the problem would be education of the general population as to the importance of properly disposing of materials which would be detrimental to the environment. Similarly, manufacturing processes should be altered to utilize materials which are less detrimental to the environment. Educational programs should be instituted by all levels of government and stricter environmental standards for products should be adopted.



- o In order to ensure that development is in accordance with FEMA flood prevention standards and City of Roseville policy, a hydrologic study of the Kaseberg and Curry Creek drainagesheds will be completed prior to development within these drainagesheds.
- o A master drainage plan will be prepared for the plan area prior to review of individual projects. This master plan will include estimates of future flows and design of principal storm drains to serve the Plan area. In accordance with City Ordinance, drainage facilities will be designed to accommodate ultimate projected flows with no obstruction.
- o The 100 year flood plain will be designated on tentative maps of projects which abut watercourses within the plan area. This area will be dedicated to the City. Development will be precluded from the future 100 year floodplain except as necessary for road crossings, emplacement of infrastructure, channel improvements, bike trails, or other activities allowed by the City. These areas are to be maintained as vegetated corridors which will provide natural buffering of runoff as well as capacity for storm runoff. No grading or development will be permitted within the floodway except in conjunction with roadway crossing as approved by the City. Any construction within the 100 year flood plain will require a streambed alteration agreement from the Department of Fish and Game, and a 404 permit from the Army Corps of Engineers.
- o Design of all drainage facilities will be subject to Public Works review prior to approval of individual projects.
- o The results of the Nolte study indicate that surface runoff can be conveyed from the plan area via the designated drainages. However, as discussed in the cumulative section of this report, the contribution of additional flows to Sutter County is suggested to be significant. Consequently, investigation of alternative measures for handling runoff beyond those proposed should be investigated. Potential solutions could include retention and/or infiltration.



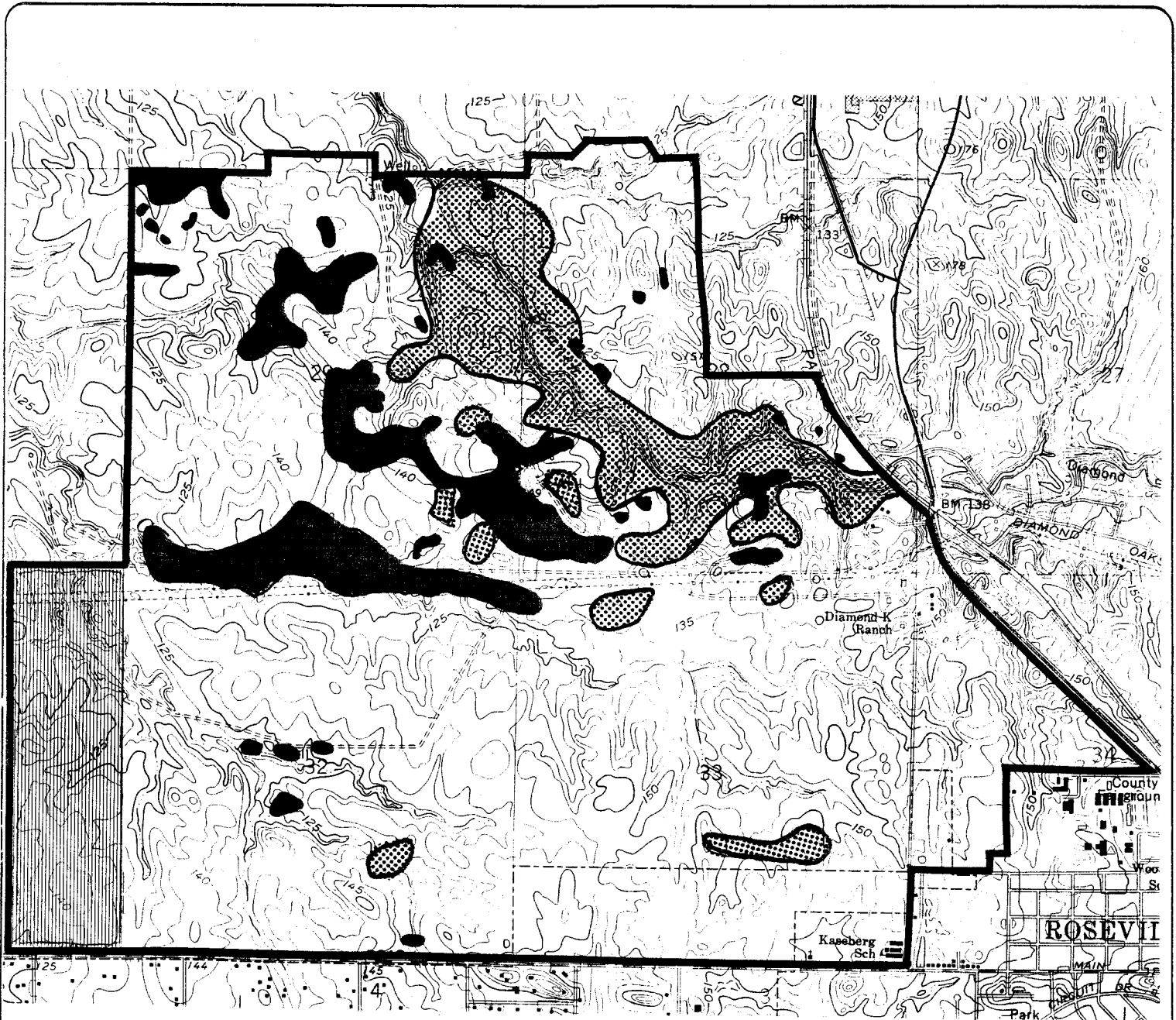
Vegetation and Wildlife

The Northwest Roseville Specific Plan area is situated on the northwestern edge of development in the City of Roseville, and consequently, a portion of the plan area has already been developed. This area generally consists of the southwestern one-third of the plan area. The remainder of the plan area is largely undeveloped. Nonetheless, the vicinity has been significantly altered by human occupation. Historically, portions of the plan area have been cleared for grazing, trees have been removed as timber or for firewood, fences have been erected, roads have been constructed, and other impacts associated with rural use of the area have occurred.





The distribution of the major vegetation communities within the plan area is presented in Figure F1. The undeveloped portion of the plan area is typical of undeveloped land in the Roseville vicinity. Grassland interspersed with clustered native oaks is the predominant vegetation community, representing approximately 90% of this area. The remaining 10% of the undeveloped area consists of oak woodland concentrated along South Branch Pleasant Grove Creek. Riparian vegetation is limited to isolated spots along South Branch Pleasant Grove Creek and Kaseberg Creek and represents less than 1% of the undeveloped plan area. Vernal pools occur within both of these vegetation communities, but are most common in the grassland.

The grassland community has been perpetuated throughout the region by grazing, burning, and related agricultural activities. Prior to european influence, numerous native grass species are known to have occurred throughout the central valley. Settlement of the region brought with it cattle and sheep grazing and a demand for hardier varieties of European grasses. Because of their inability to compete with the imported grasses, most native species were replaced by the hardier european varieties. Common grass species which occur in the plan area today include Wild Oats (*Avena* sp.), Wild Barley (*Hordeum* sp.), and Chess (*Bromis* sp.).





LEGEND

-  AREAS NOT YET SURVEYED FOR VERNAL POOLS
-  VERNAL POOLS AREAS
-  ANNUAL GRASSLAND
-  OAK WOODLAND

VEGETATION MAP

FIGURE F1

NORTHWEST ROSEVILLE

F-2

SPECIFIC PLAN EIR



Oak woodland in the plan area is limited to the Pleasant Grove Creek corridor. Adjacent to the creek, the trees are located closely enough to create interlocking canopies, providing a true woodland atmosphere. Moving away from the creek, the density of the trees gradually decreases, yielding to larger open grown trees, and finally to open grassland. The oak woodland is dominated by blue oak (*Quercus douglasii*), interior live oak (*Q. wizlensii*), digger pine (*Pinus sabiana*) and to a lesser degree Valley oak (*Quercus lobata*), many in excess of 30 feet in height. The majority of the trees exceed 12" dbh (diameter breast height, measured 48" above the ground), with a disproportionate number of trees in excess of 20" dbh. All trees over 12" dbh are considered heritage trees by definition in the preliminary tree preservation ordinance being considered by Roseville. The woodland area has been subjected to extensive grazing, and consequently, is relatively open with minimal understory and middlestory growth, including limited evidence of oak regeneration. In locations where conditions have permitted establishment, brush species including buckbrush (*Caenothus cuneatus*), coffeeberry (*Rhamnus californica*), poison oak (*Rhus diversiloba*), and yerba santa (*Eriodictyon californicum*) occur in conjunction with the native oaks.

The intermittent character of the streams within the plan area severely limits the extent of riparian vegetation which occurs along the drainage courses. Limited riparian growth occurs in locations where water pools in the channels. Common riparian species which occur in the vicinity include willows (*Salix* sp.), Fremont's cottonwood (*Populus fremontii*), buckeye (*Aesculus californica*), California blackberries (*Rubus ursinus*), wild rose (*Rosa californica*), and wild grape (*Vitus californica*).

A single stock pond exists in the plan area. This pond is located within the flood plain of South Branch Pleasant Grove Creek in the northeastern portion of the plan area. The pond appears relatively shallow and is devoid of tulés, cattails, or other noteworthy vegetation. The perimeter of the pond, consisting of sunbaked clay and cobbles, is similarly devoid of any sizeable vegetation. This pond represents the only location of year round water in the plan area.



Vernal pools represent the only significant "wetlands" which occur in the plan area. Much of the uniqueness of vernal pools lies in their relatively limited natural occurrence and distribution. Outside of California, similar pools are only known to occur in Africa. Once common throughout the margins of the Central Valley, it is estimated that vernal pools have been reduced to less than 12 percent of their original abundance.

The water regime of a vernal pool is seasonal, generally involving recharge during the winter and spring seasons, then relying on stores of water into the summer, eventually drying up until the winter season. Individual pools may vary in the length of time they remain wet. The real value of the pools evolves around the unique assemblage of native plant species which are often associated with them. Many of the native plant species have adapted to the unique pool habitat, and as such are limited in their distribution to pool areas. Disturbance of areas around vernal pools or interruption of their seasonal water regime can result in loss of the plants which naturally occur in the pools or in destruction of the pools themselves.

The California Department of Fish and Game maintains the Natural Diversity Data Base (NDDB) which includes known locations of plant and animal species which are officially listed as (State and Federal) endangered, rare, and threatened plus those species considered by the scientific community to be deserving of such listing. The NDDB incorporates the **1984 Inventory of Rare and Endangered Vascular Plants of California** compiled by the California Native Plant Society (CNPS). Prominent vernal pool species which are identified in the data base are shown in Table F1. As indicated in the table, special plants have been assigned a Rarity-Endangerment-Distribution (R-E-D) code. The R-E-D code was created by the CNPS in order to more accurately evaluate the status of individual plant species throughout the State. Explanation of the R-E-D classification system is presented in Table F2.



Table F1
Prominent Special Plant Species Which Occur With Vernal Pools

<u>Species</u>	<u>Federal Status</u>	<u>State Status</u>	<u>CNPS Status</u>	<u>CNPS R-E-D Code</u>
Sacramento Orcutt Grass (<i>Orcuttia viscida</i>)	C1	E	1b	3-3-3
Slender Orcutt Grass (<i>Orcuttia tenuis</i>)	C1	E	1b	3-3-3
Greene's tuctoria (<i>Tuctoria greenei</i>)	C1	E	1b	3-3-3
Hoover's spurge (<i>Chamaesyce hooveri</i>)	-	-	1b	3-3-3
* Bogg's Lake hedge hyssop (<i>Gratiola heterosepala</i>)	C2	E	1b	3-3-2
Green's legenera (<i>Legenera limosa</i>)	C2	-	1b	3-3-3
* Dwarf dowingia (<i>Dowingia humilis</i>)	C3c	-	4	1-2-3
Red Bluff rush (<i>Juncus leiospermus</i>)	-	-	4	1-1-3
* Vernal pool brodiaea (<i>Dichelostemma lacuna-vernalis</i>)	-	-	4	1-1-3
Bogg's Lake Dodder (<i>Cuscuta howelliana</i>)	C3c	-	4	1-1-3

Notes:

* Species identified in the Northwest Roseville Specific Plan

Federal Status- C1 species which are candidates for federal listing but which have not been listed; C2 species for which data regarding distribution or threat is inadequate to support listing; C3c species are too widespread and/or not seriously enough threatened to support listing.

State Status- E indicates that the species is listed by the State as endangered.

CNPS Status- List 1b species are considered rare and endangered in California and elsewhere; List 4 species are on the "watch list" and are of sufficiently limited distribution to warrant continued monitoring.



Table F2
R-E-D Classification System

R (Rarity)

- 1 - Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time
- 2 - Occurrence confined to several populations or to one extended population.
- 3 - Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

E (Endangerment)

- 1 - Not endangered
- 2 - Endangered in a portion of its range
- 3 - Endangered throughout its range

D (Distribution)

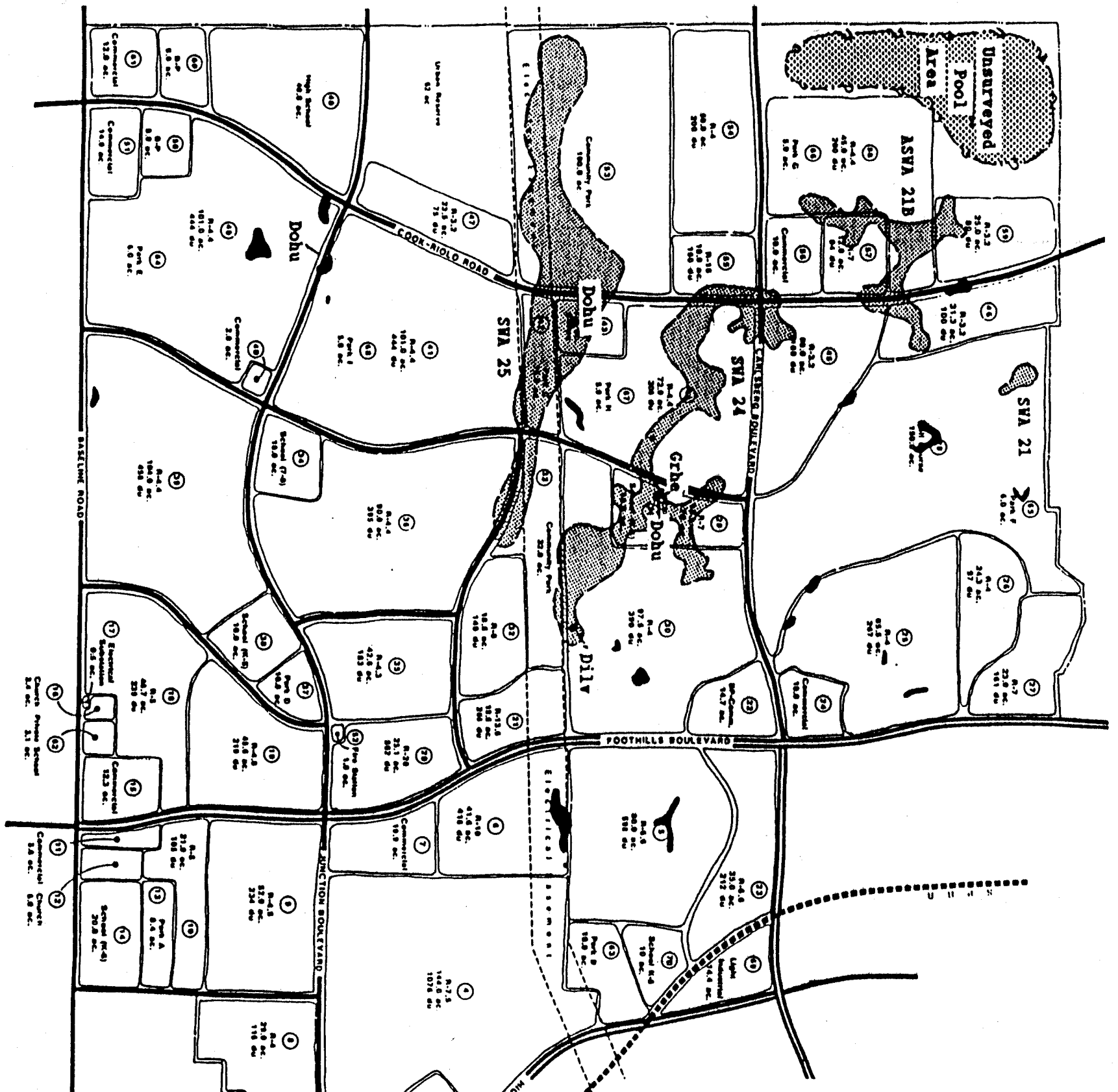
- 1 - More or less widespread outside of California
- 2 - Rare outside of California
- 3 - Endemic to California

In 1982, the City of Roseville retained Western Ecological Services Company (WESCO) to complete an inventory and evaluation of vernal pool resources in the City, and adopted as part of the **General Plan**, measures to ensure protection and preservation of vernal pool resources. Since preparation of the WESCO study, more detailed inventories of vernal pool resources have been performed in areas proposed for development. In conjunction with this EIR, an extensive survey of vernal pool resources within the plan area was performed by Dr. Laurence P. Stromberg, PhD. With the exception of the 266 acre area designated as urban reserve in the southwestern corner of the plan, the entire plan area has been surveyed for vernal pools. This area must be surveyed prior to development. Approximately 329 vernal pools have been identified in the plan area. In most instances, pools were concentrated into definable groups, or SWA's. The locations of these concentrations are depicted in Figure F2.



Northwest Roseville Specific Plan

Roseville
California



LEGEND:

- Redefined SVA or new ASVA
- Area of concentrated pools (other than SVAs and ASVAs)
- Sensitive plant locations

Four-letter symbol indicates species; number indicates number of populations

Dohu = *Downingia humilis*
 Grhe = *Gratiola heterosepala*
 Dilv = *Dichelostemma lacuna-vernalis*

VERNAL POOL MAP

FIGURE F2



According to the appended vernal pool survey, pools are most abundant in locations where the mound-and-depression microtopography is well developed. No pools occur on the xerofluvents or on the Fiddymment series soils, but are widely distributed over the Cometa-Fiddymment complex and Cometa-Ramona sandy loam soils in the northern half of the plan area. A greater number of pools may have occurred in the southern half of the plan area where dry land farming has been practiced for several years. A 1985 aerial photograph revealed small sites that appeared to be saturated in this area. Field investigation of these sites revealed shallow depressions which may have been pools at one time, but subsequent farming and discing has eliminated any vernal pools which may have occurred in this area.

A complete listing of the plant species identified during the survey is appended to this report. Noteworthy species which are common to vernal pools and occur in pools within the plan area include pogogyne (*Pogogyne* sp.), popcorn flower (*Allocarya stipitata*), navarretia (*Navarretia leucocephala*), toad rush (*Juncus bufonius*), goldfields (*Lasthenia chrysostoma*), coyote thistle (*Eryngium vaseyi*), hairgrass (*Deschampsia danthonioides*), and wooly marbles (*Psilocarphus*).

As indicated in Figure F2, three sensitive plant species have been identified in the vernal pools in the plan area. These include Bogg's Lake Hedge Hyssop (*Gratiola heterosepala*), dwarf dowingia (*Dowingia humilis*) and vernal pool brodiaea (*Dichelostemma lacuna-vernalis*). Bogg's Lake hedge Hyssop is recognized as an endangered species by the State of California. The remaining two species, dwarf dowingia and vernal pool brodiaea are included on the California Native Plant Society list 4. The classification of these species is presented in Table F1.

Vernal pool areas within the plan area were ranked based a numerous characteristics including number of pools, number of pools per acre, size and depth of pools, diversity of species, presence of rare plant species, etc. A detailed discussion of the ranking methodology is included in the appended Vernal Pool Survey and Evaluation. Overall, the pools in SWA 24 are the most highly ranked. They are not the largest pools, but pool density



and coverage are high, and they are on the average, the deepest and floristically richest pools in the plan area. One pool contains two sensitive species, Bogg's Lake hedge hyssop and dwarf dowingia. SWA 21 ranks slightly lower than SWA 24 but, based on simple sums and Euclidean Metrics, SWA 25 and ASWA 21B are of much lower value. On the average, SWA 21 contains the largest pools, but most of the pools in it are quite small. The high average pool size and pool coverage are overly influenced by one pool with an area exceeding 14,000 square feet. Actually, average pool size in SWA 21 more closely resembles that in ASWA 21B. Except for the one pool, the pools in SWA 24 are larger than those in SWA 21.

The deepest pools in the plan area also occur in SWA 24. With one exception, the pools in SWA 21 are shallow and washy. The pools in SWA 25 and ASWA 21B have been affected by dryland wheat farming, the physical effect of which appears to have been diminishment of the original microrelief.

The large pool in SWA 21 is unique in the plan area. It contains virtually every vernal pool species that could be expected in this region. No other pool is as large or deep; none of the "next-larger" pools is anywhere near as rich floristically and none of the pools of close but lesser floristic richness is anywhere near as large or deep.

Both the discing and chemical spraying associated with dryland wheat farming have obviously affected species richness and the relative abundance of pool and non-pool species. The pools in SWA 25 are in an area that was farmed until three years ago; wheat farming was discontinued in the area containing ASWA 21B eight years earlier. No such practices ever occurred in the area containing SWAs 21 and 24. SWA 25 has the lowest total number of vernal pool species (21) and ASWA 21B the next least (26). SWAs 21 and 24 support considerably more, 36 and 46 species, respectively, but they also contain more non-pool species. Discing and spraying have suppressed all species, lowering the total number present. Although no quantitative data were collected, non-pool species appear to contribute greater total cover in SWA25 than in ASWA 21B, and the greater total cover in



wither of these two pool areas than in SWAs 21 and 24. The time required for recovery (with or without the effects of cattle grazing) is not known.

Historically, the emphasis of research has focused on the more conspicuous assemblage of plant species which are unique to the vernal habitat, and consequently little is known about the invertebrate populations which occur within the pool environments. Except for the Delta green ground beetle (*Elaphrus viridis*), which is classified as threatened by the Fish and Wildlife Service, no invertebrate species associated with vernal pool habitat are classified as rare, threatened, or endangered by the Fish and Wildlife Service, and no species are include on any candidate list for future consideration. The Delta green ground beetle is presently only known to occur in Solano County in conjunction with large vernal pools on pescadero soils. No beetles have been reported in the Sacramento region, and the type of pools which occur in the Roseville area are not consistent with the known habitat of the beetle.

Predominant invertebrates which occur in vernal pools include crustaceans and insects. Common crustaceans which have been reported (FWS, 1987) include fairy shrimp, water fleas, clam shrimp, seed shrimp, and rotifers. A more complete listing of crustacean species is appended to this report.

Similar to crustaceans, numerous types of insects are supported by vernal pool habitat. The predominant insects identified in vernal pools (FWS, 1987) include dragonflies, water beetles, mosquitoes, mayflies, water bugs, water boatman, water striders, and back swimmers. A more complete listing of insect species which occur in vernal pools is appended to this report.

Several isolated occurrences of the valley longhorn beetle (*Desmoscrus californicus dimorphus*) have been reported in the the Sacramento region. The valley elderberry longhorn beetle is an invertebrate species listed as threatened by the Federal Government (U.S. Fish and Wildlife Service, 1984). This beetle only reproduces in stands of elderberry (*Sambucus mexicanus*). Elderberry requires a moist environment in which to grow, and



reported occurrences of the beetle have been in stands of elderberry along the American and Sacramento Rivers. The dry conditions which are prevalent throughout the plan area are not supportive of elderberry growth, and field investigation of the plan area failed to identify any elderberry growth.

Wildlife species likely to frequent the project vicinity include **a) mammals:** mule deer (*Odocoileus hemionus*); coyote (*Canis latrans*); Gray fox (*Urocyon cinereoargenteus*); Striped skunk (*Mephitis mephitis*); opossum (*Didelphis marsupialis*); blacktailed jackrabbit (*Lepus californicus*); California Ground Squirrel (*Citellus beecheyi*); Pocket gopher (*Thomomys bottae*); and Deer mouse (*Peromyscus maniculatus*); **b) birds:** Redtailed hawk (*Buteo jamaicensis*); Kestrel (*Falco sparverius*); California quail (*Lophortyx californicus*); Mourning dove (*Zenaida macroura*); White crowned sparrow (*Zonotrichia leucophrys*); Anna's hummingbird (*Calpte anna*); Scrub jay (*Aphelocoma coerulescens*); Mockingbird (*Mimus polyglottos*); and Western meadowlark (*Sturnella neglecta*) and **c) reptiles and amphibians:** Western toad (*Bufo boreas*); Foothill Alligator lizard (*Gerrhonotus multicarinatus*); Gopher snake (*Pituophis eatenifer*); Common kingsnake (*Lampropeltis getulus*); Western garter snake (*Thamnophis elegans*); skinks (*Eumeces* sp.); Western fence lizard (*Sceloporus occidentalis*); Slender salamander (*Batrachoseps* sp.). A more complete listing of wildlife which are known to inhabit the region is included in the Appendix of this report.

In addition to wildlife species which occur in the region on year round basis, vernal pools likely attract migratory bird species for varying periods of the year. According to Cay Goude (1988), a biologist for the California Department of Fish and Game, vernal pools are a vital habitat utilized by migratory waterfowl. In the Sacramento region, such pools are utilized by essentially all species of migratory waterfowl. A list of wildlife species, including waterfowl, which frequent vernal pool habitat in the Sacramento region is appended to this report. The seasonal wetlands created by the vernal pools provide resting and feeding areas for birds migrating through the region. Typically, most species arrive in the area in early winter. Some species stay for short periods before continuing southward, while others



remain until late spring when they return northward for the summer season. Many species, such as the common mallard and cinnamon teal, nest in the vicinity and raise a brood prior to departing in the spring.

Sampling of local fish populations has been conducted by the California Department of Fish and Game, and, more recently by Jones and Stokes Associates in conjunction with preparation of the Northeast Roseville Specific Plan EIR. Common species identified in area waterways include Sacramento squawfish, bluegill, green sunfish, Sacramento perch, and brown bullhead. In addition, some area streams, namely Secret Ravine and Miners Ravine Creeks, are known to support annual populations of spawning salmon and trout. However, as a result of the extremely intermittent character of the watercourses within the plan area, on site fisheries are limited. It is likely that the smaller species, particularly minnows and mosquito fish, likely exhibit a seasonal presence within the plan area. However, the limited seasonal flow affords minimal habitat for the larger species which commonly occur in the more stable aquatic environments downstream of the site.

No rare or endangered wildlife species are known to inhabit the project site. The ranges of the Bald Eagle and American Peregrine Falcon, both endangered species, include the Sacramento Valley region. No falcons have been reported in the vicinity of the project site. Bald eagles have been reported in the area surrounding Folsom Lake, approximately six miles east of the Plan areas. The Cooper's Hawk (*Accipiter cooperii*) is on the California Fish and Game list of Species of Special Concern. Although no evidence of Cooper's hawks has been reported within the plan area, there are known nesting sites within the City of Roseville, and the birds have been sighted in the plan vicinity. It is likely that Cooper's hawks hunt in the plan area.

The tiger salamander (*Ambystoma tigrinum*) is a California species of special concern and a candidate for Federal protection. During the spring, the species reproduces in stagnant or slow moving water bodies such as vernal pools, and the larvae initially reside in the pools. However, adult salamanders spend



the majority of their lives in underground burrows. Consequently, it is extremely difficult, if not impossible, to survey the species except during a brief period when they migrate to the surface to breed. This period typically occurs in early winter. Identification of salamander larvae in vernal pools during the spring would be indicative of the species presence, however, an adult salamander survey during the mating period would be required to determine the extent of salamander populations on the site or in the vicinity. A tiger salamander survey was conducted, and no evidence of their presence was found within the specific plan area. Since vernal pools represent the suspected salamander habitat within the plan area, the salamander survey was conducted as a part of the vernal pool survey which is appended to this EIR.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

Development of the plan area will result in an overall reduction of wildlife habitat. The specific impacts can be divided into:

- 1) those short term impacts generated by construction activities;
- 2) those impacts which will initially result from physical alteration of the area to support urban land uses; and
- 3) those impacts which will result from long term urban use of the plan area.

Construction represents a short term activity which has the potential to produce significant impacts if conducted in a reckless manner. Implementation of identified mitigation measures and the application of good engineering practice and common sense should ensure impacts of a less than significant magnitude. Some measures which should be implemented to minimize construction impacts are already mandated through ordinance by



the City of Roseville, others will need to be identified as conditions on individual project maps.

M During construction, wildlife species will be temporarily displaced due to attendant noise, dust and physical disturbances created. Because construction activities are of a relatively short duration and occur in relatively small areas at any given time, construction impacts to wildlife are not anticipated to be significant. Wildlife will likely avoid areas where construction activities are in progress, only to return to those areas when the construction activity changes location. Construction in itself is not anticipated to significantly impact wildlife, although as discussed further, the change in habitat which will exist following construction will produce permanent changes in habitat.

M Negligent operation of construction equipment can result in damage or loss vegetation, most notably trees, which might otherwise be preserved and incorporated into a project.

M Of all the activities associated with development, grading, trenching, emplacement of utility lines, and roadway construction have the greatest potential to produce erosion and subsequent siltation of area watercourses resulting in degradation of aquatic habitat. These activities typically require exposure of soils and often disturbance in sensitive areas, i.e. crossings of floodways or placement of facilities within floodway corridors.

M Development of the plan area includes construction of a 15" sewer line within the Pleasant Grove Creek corridor. The impacts associated with placement of the sewer line will largely include impacts associated with short term construction activity and vegetation removal. Once the line is installed, the corridor will be allowed to return to its natural condition. Placement of the sewer line is an individual project within the specific plan, and is not examined in detail in this report. Consequently, the project may be subject to additional environmental review as



the specific location and engineering details of construction are developed.

The greatest overall impact to the natural communities within the plan areas will result from the dramatic change in land use which will occur. This change will represent an unavoidable significant impact which must be contended with whenever urban development occurs in an undeveloped area. In actuality, complete mitigation of this impact cannot be achieved, but the magnitude of the impacts can be reduced through efficient planning and inclusion of natural areas within developing urban areas.

[S] Development of the plan area will result in a reduction of available habitat and disruption of the existing natural communities. Impacts will include replacement of native vegetation with roadways, homes, businesses, parking lots, schools and other structures associated with urban land use. New habitat conditions will be created through the introduction of domestic trees, shrubs, and grasses. Irrigation will create habitat conditions dominated by landscaped areas of year round greenery. This change will not be agreeable to all species, and many species will gradually vacate the area. Species which are less sensitive to human environments will adapt to the new conditions and continue to occupy the area, some in fewer numbers, and some, who find their preferred habitat improved, will actually occupy the area in greater numbers.

[S] Development of the plan area will result in loss of approximately 80% of the vernal pool resources within the plan area. This loss will include disruption of known populations of *Gratiola heterosepala*, *Downingia humilis*, and *Dichelostemma lacuna-vernalis*. Even though mitigation is proposed, the magnitude of this impact cannot be reduced to less than significant levels.



Following establishment of the urban environment, the potential for impacts to the wildlife in the area will continue to exist. Even though the Specific Plan will designate areas as open space, parks, and floodplain, irresponsible actions by future residents could compromise the value of these areas for wildlife.

- M** Although extensive measures are proposed to retain native oak trees in the plan area, overwatering, mismanagement, or abuse by future residents will likely contribute to loss of some of these trees.
- M** The use of pesticides, herbicides, and fertilizers by future residents of the area represents a potential hazard to wildlife and natural communities. Contamination of runoff would contribute to deterioration of aquatic habitat in area streams.
- M** Domestic pets present a direct threat to wildlife populations. Unlike humans, who are largely unaware of wildlife presence except for occasional sightings, pets often prey upon native species and contribute to the loss/displacement of wildlife from natural areas within urban settings.

Mitigation Measures

- o Thoughtful land use planning represents a fundamental method of minimizing wildlife and vegetation impacts. Measures which can be implemented early in the planning stage include the provision of undeveloped space within the plan area, avoidance of development in sensitive areas, and location of low intensity land uses adjacent to proposed undeveloped areas. The Northwest Roseville Specific Plan includes designation of 1) 17 acres as floodway, 2) 29 acres as vernal pool preserve, 3) 161 acres as parks, and 4) 424 acres as urban reserve.



- o Erosion control measures will be utilized to reduce water quality impacts and protect aquatic habitats. Specific measures for erosion control are identified in the Geology, Seismicity, and Soils section of this report, and include such measures as restricting grading, development of sediment traps, and prompt replanting of disturbed areas.

- o The plan includes designation of two vernal pool preserves. The location of these preserves is shown in Figure F3. These preserves include many of the highest quality vernal pools in the vicinity. Associated with designation of these preserves are measures to ensure protection of the areas from impacts on adjoining properties. The City will be required to establish a monitoring system to ensure that once established, the preserves are protected. Following is a summarized discussion of the proposed preserves. Those individuals requiring detailed information are referred to the appended vernal pool surveys.

As shown in Figure F4, the "golf course preserve" is approximately 14 acres in size and contains 25 existing vernal pools, harboring an average of 15.9 vernal pool plant species per pool. The average size of pools in this preserve is 774 square feet, and the total water surface area of existing pools is approximately 0.44 acres. Among the pools protected in this preserve is a very high quality pool which contains both dwarf dowingia and the State-listed Bogg's Lake hedge hyssop. As shown in Figure F5, the "park preserve" is approximately five acres in size and includes four vernal pools. Pools in this preserve support an average of 17.8 vernal pool plant species per pool. The average size of pools in this preserve (5,481 sq.ft.) is misleading. This preserve would protect one very large pool and three much smaller satellite pools. The total water surface area of these pools is approximately 0.50 acres.



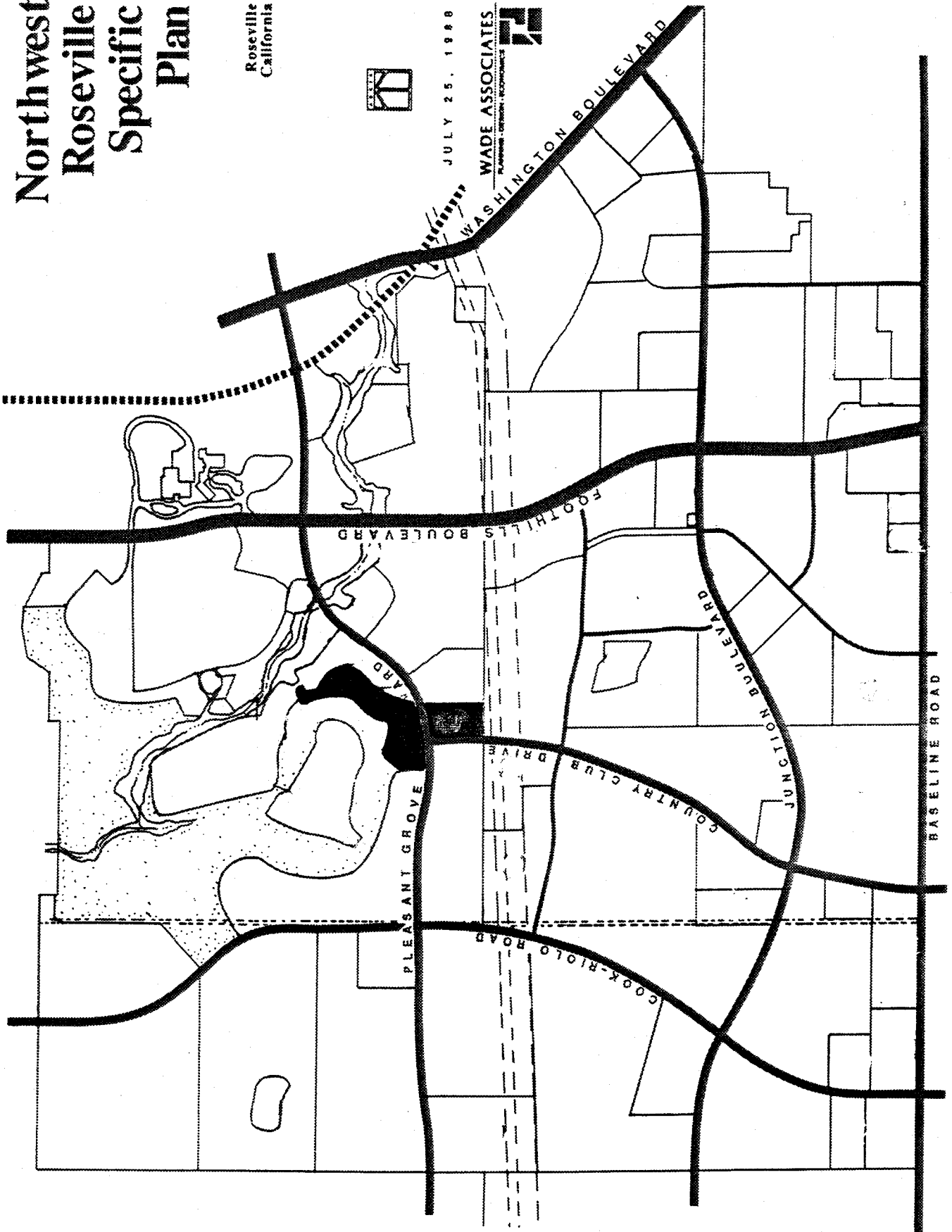
Northwest Roseville Specific Plan

Roseville
California



JULY 25, 1988

WADE ASSOCIATES

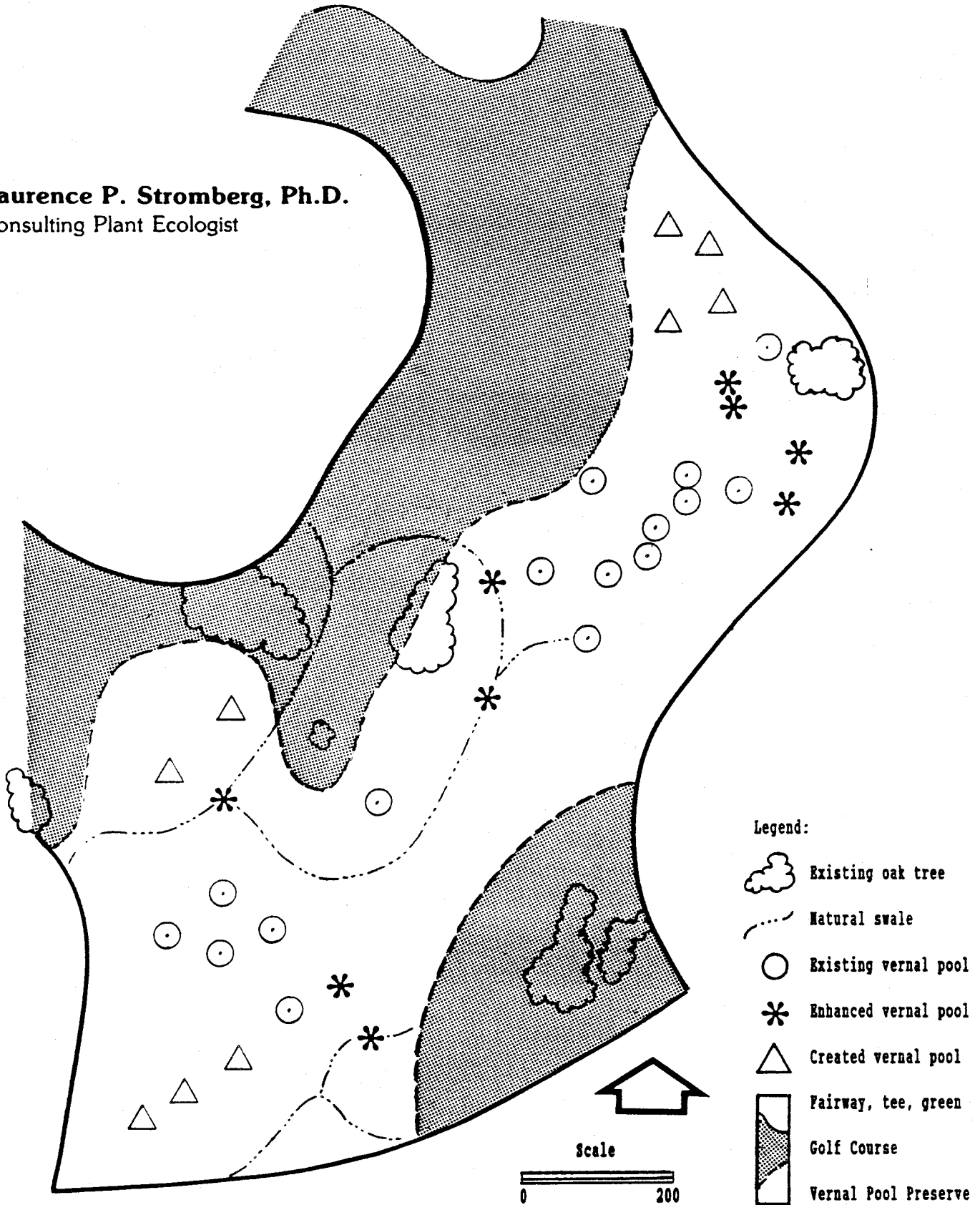


LOCATION OF VERNAL POOL PRESERVES

FIGURE F3



Laurence P. Stromberg, Ph.D.
 Consulting Plant Ecologist



GOLF COURSE PRESERVE

FIGURE F4

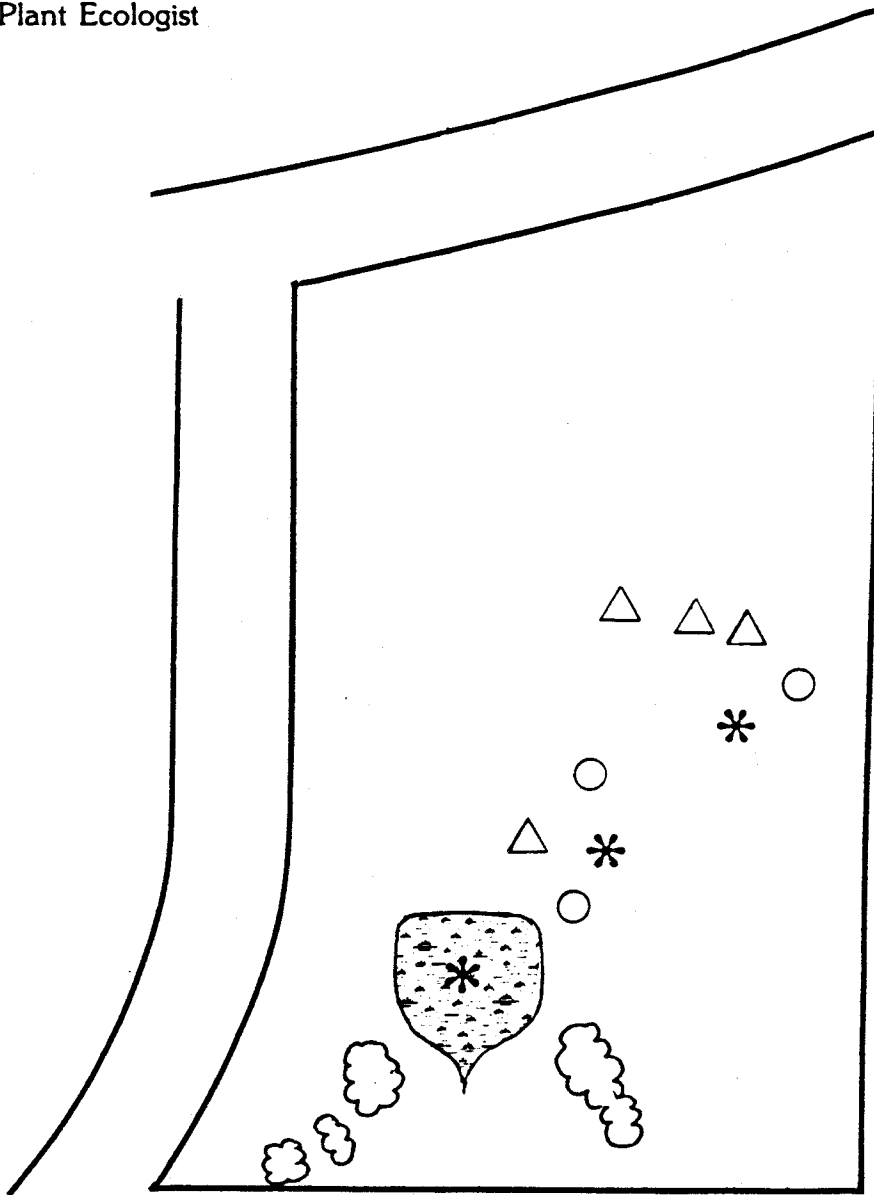
NORTHWEST ROSEVILLE

F-19








SPECIFIC PLAN EIR



Laurence P. Stromberg, Ph.D.
Consulting Plant Ecologist



Legend:

-  Existing oak tree
 -  Large teardrop pool
 -  Other existing vernal pools
 -  Enhanced vernal pool
 -  Created vernal pool
- 
- Scale

0 200

PARK PRESERVE

FIGURE F5

NORTHWEST ROSEVILLE

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SPECIFIC PLAN EIR



- o In addition to preservation of existing pools, a program is proposed to enhance the preserved pools and establish new pools within the preserve areas. It is proposed that seed material, collected from pools which will be lost, be introduced into preserved pools as well as new pools which may be created within the designated preserves. It is estimated by the biological consultant that nine new pools could be created in the golf course preserve and four new pools in the smaller park preserve.
- o Development of any area which directly impacts vernal pools will not occur until the vernal pool issue has been resolved to the satisfaction of the City of Roseville. Further, development of vernal pool sites will be subject to review by State and Federal agencies, namely the California Department of Fish and Game and the U.S. Army Corps of Engineers. Depending on pool size and species present, these agencies may have jurisdiction beyond that of the City.
- o Long term maintenance of quality natural areas within the Specific Plan area will require action by the City to protect the sites similar to that afforded existing natural areas within the city. Measures should include restricted use of these areas for passive recreation or activities which are compatible with the natural communities. Motorcycles, hunting, dumping, unleashed pets, or other activities which could be detrimental to wildlife should be prohibited.
- o The State Department of Fish and Game recommends that a mitigation plan be developed that is based upon the concept of "no net loss" to wetland habitat values or acreage and no adverse impact upon any State listed sensitive plant or animal species.
- o A 100 foot and 50 foot nonstructure setback buffer should be established along each side of all permanent and intermittent streams to protect their fish and/or wildlife value.



o Often the key to successful implementation of conservation programs is public awareness. The City of Roseville should initiate programs to familiarize residents with environmental concerns which directly affect the standard of living in Roseville. Such programs could address such issues as:

- maintenance and protection of native trees, including the potential for damage by overwatering and fertilizing.
- habitat requirements of wildlife species which reside within the City, including the potential damage which can be done by domestic pets.
- contamination of the environment through improper use and disposal of household products. The County of Sacramento sponsors a program which routinely offers special locations for the pick up of hazardous wastes such as automotive oil, old pesticide and herbicide containers, paints and thinners, or other wastes which require special consideration for disposal. A similar program should be encouraged in Roseville.

Measures identified in the Specific Plan which relate to the protection and preservation of open space and natural areas in the plan area include:

Open Space Management Policies

- o Open space areas shall be incorporated into all multi-family projects and commercial projects.
- o Special areas of riparian or other botanical habitat shall be preserved by incorporating the open space into specific project designs or by dedications of open space.
- o Street and other public infrastructure improvements shall be sited so as to minimize intrusion upon open areas, particularly stream courses.
- o Open spaces shall be visually and physically linked to the maximum extent possible.
- o Development within the 100 year floodplain shall be prohibited through one or more of the following measures:



- The City may acquire an irrevocable offer to grant a conservation and floodway easement for the area within the 100 year floodplain and riparian habitat as permanent open space.
 - The City may acquire title to the floodway, or to drainage, floodway maintenance, or access easements over such lands.
 - The City will specifically prohibit construction of habitable structures, fill which would cause an increase in the up and downstream (off plan site) flood surface elevation, and structures intended to dam the flow of water.
- o Street and other public infrastructure improvements required within the floodplain and riparian habitat shall be designed and sited to minimize the impact on the natural environment. This will be achieved by observing the following guidelines:
- Minimize the number of trees removed.
 - Promptly revegetate cleared areas with native species.
 - Place foot and bike paths/trails so that snags and trees favored by raptors are avoided.
 - Locate creek crossings and sewer interceptors so that they minimize intrusion into riparian vegetation areas.
 - Minimize the number of paths/trails.
 - Design all stream crossings to permit movement of wildlife beneath them.
 - Design all stream crossings for 100 year event.
 - Design stream crossings such that approaches are as close to a right angle as possible.
 - Require specific erosion and sediment control plans for all construction activity. (No. "i" in specific plan.)
 - Limit construction activities in channel to the summer, low flow period.
 - Require input from biologists when designing any improvements/structures intended to occur or be developed within areas identified in the project EIR as riparian habitat areas.



Vernal Pool Policies

- o A chainlink fence shall be installed along the boundary of the vernal pool preserve prior to construction, grading to movement of material or machinery onto the site, approval of improvement plans or the issuance of any permits. The fencing shall not be removed until the completion of construction activity. Written release from the Planning Department must be received prior to the removal of any fencing. No activity of any type, except for that approved by the Planning Commission, shall occur within the preserve area.
- o A minimum 12" x 12" sign shall be erected along every 50 feet of fencing or portion thereof. The sign shall indicate that the area is a vernal pool preserve and that unauthorized trespassing is prohibited. The appropriate City code section shall be referenced.
- o A minimum \$10,000 bond or other security deemed appropriate by the Planning Commission and the City Attorney shall be posted to insure the preservation of the vernal pools during construction. Each occurrence of violation of any condition regarding vernal pool preservation shall result in forfeiture of the security.
- o The Vernal Pool Preservation Areas shall be dedicated to the City for protection and enhancement.
- o A vernal pool analysis shall be prepared by a qualified plant ecologist identifying any additional mitigation measures which should be incorporated during project construction. This report shall be submitted concurrently with development plans for Planning Commission review and action.
- o A vernal pool enhancement and creation plan shall be prepared by a qualified plant ecologist to direct the implementation of a specific City preservation and maintenance program.



Oak Woodland Policies

The City of Roseville Tree Ordinance, when adopted, will apply to the Northwest Roseville Specific Plan. In addition, the following standards shall apply. Where inconsistencies exist between the two, the more restrictive shall apply.

- o The cutting or removal of trees prior to specific development plan approval shall be prohibited. The sole exceptions shall be for City-approved roadways, sewer and utility extensions, removal suggested by an arborist, public health and safety or for other reasons as shall be determined by the City. An Arborist's report submitted concurrently with development plans is required for all projects with trees on the subject property. At the time of development plan submittal to the City, all trees six inches or greater in diameter at 48" above ground will be mapped. Those to be removed shall be identified and their removal shall be approved by action of the Project Review Commission, Planning Commission or the City Council, or as otherwise required by local ordinance or regulation.
- o The arborist's report and mapping shall serve as the basis for preparation of a plan to protect trees. The plan shall contain any recommendations from the required arborist's report as well as the policies expressed here.
- o Submittal of a bond or other security from the developer's contractor in a form and amount approved by the reviewing City body shall be required for all development projects to ensure replacement of trees damaged or destroyed during construction. The amount of bond or security shall relate to the value and number of trees on the site.
- o Chain link fencing shall be installed one foot outside the driplines of trees identified to be preserved on the property prior to project construction, grading, the movement of materials or machinery onto the site, the approval of improvement plans or the issuance of any permits, to avoid damage to the trees and their root systems. Fencing shall



not be removed until the completion of construction activity. Written release from the Planning department must be received prior to the removal of any fencing. During the period of road construction all trees within the road right-of-way or abutting the road right-of-way which are threatened by construction or related activities and identified by the reviewing City body to be preserved shall be fenced in accordance with the above requirement.

- o Prior to commencement of any road construction, the developer must receive written release from the Planning Department that all trees identified to be preserved are properly protected.
- o Paving within the driplines of trees identified to be protected shall be stringently minimized. When determined to be absolutely necessary by the reviewing City body, porous materials shall be used along with aeration systems where appropriate.
- o Signs, ropes, cables, and other items shall not be attached to trees identified to be preserved.
- o No employee vehicles, construction equipment, mobile offices, supplies, materials, or facilities are allowed to be parked, stockpiled, or located within the driplines of trees identified to be preserved.
- o No artificial irrigation within the driplines of indigenous oak trees shall be permitted unless recommended by a licensed arborist. Irrigation of planted oak trees in new landscape areas may be acceptable as determined by a licensed Landscape Architect or certified arborist.
- o Landscaping beneath indigenous oak trees may include non-plant materials such as boulders, cobbles, etc. Plant species planted within the driplines of indigenous oak trees shall be generally limited to those which are tolerant of the natural semi-arid environs of the trees.



- o Native trees six inches in diameter or greater at 48 inches above grade which are approved for removal shall be replaced on a two-for-one basis. Replacement shall be by use of a tree size determined appropriate by the reviewing City body in consideration of the soil conditions, the availability of water, and the ability of trees to survive transplanting. The standard shall prevail as amended by City ordinance. Replacement locations shall include the City parks, along the bikeway/pedestrian path in the powerline easement corridor, and along public rights-of-way and adjacent landscape corridors.

- o Soil disruption within the dripline of trees shall be avoided. In those cases where it is determined by the reviewing City body that disruption is absolutely unavoidable, the following guidelines along with arborist recommendations, shall apply:
 - Soil surface removal shall not occur within the driplines of trees identified to be preserved.
 - Earthen fill shall not be placed within the driplines of trees identified to be preserved.
 - If cuts or fills are made near trees identified to be preserved beyond their dripline, adequate drainage and/or supplemental irrigation shall be provided to mitigate the adverse effects caused by elevation changes.
 - No trenching shall be allowed within the driplines of trees identified to be preserved. If it is absolutely necessary to install underground utilities within the dripline of such trees, a single trench for all utilities should be either bored or drilled, but not within six feet of tree trunks. After trenching within the dripline, the tree should be pruned to remove canopy material proportional to the roots damaged or lost.
 - Where soil compaction occurs within the dripline of a tree identified to be preserved, measures as recommended by an arborist shall be taken to restore soil condition and integrity.

- o Once construction is completed and bond or other security released no tree identified for preservation in approved plans may be removed or significantly altered without approval by the Planning Department.



- o Tree preservation and site development policies set forth herein shall be incorporated into Covenants, Conditions and Restrictions (CC&Rs) for all subdivisions within the Plan Area to ensure that subsequent property owners are apprised of the obligation to preserve natural site features.

- o The residential lot pattern and street alignments shall relate to the natural topography and vegetation cover of the woodland area.

Soil Protection Policies (related to wildlife)

- o Specific erosion control measures shall be adopted for all development plans. These measures shall include, but not necessarily be limited to, seeding of graded areas, watering during grading activities to reduce wind erosion, and use of hay bales and filter cloth to prevent siltation of stream courses.



Climate

The geographic location of the City of Roseville in the Central Valley Region of California plays a significant role in the climate of the vicinity. The Central Valley, which extends from south of Bakersfield to north of Redding, is bounded by the Sierra Nevada Mountains on the east, the Coast Range on the west, the Tehachapi Range on the south, and the Cascade Mountains on the north. These mountain ranges tend to isolate the Valley from the prevailing west coast weather pattern. The only breach in this barrier is the Carquinez Straits which exposes the mid-section of the Valley to the Pacific Coast marine weather regime. The Sacramento/Roseville area is noticeably affected by this marine influence, the major effect of which is to moderate the climatic extremes. This is especially evident on summer evenings when cooling occurs as a result of the penetration of the sea breeze into the central portion of the Central Valley.

The climate of the area is typically polarized between summer and winter seasons. The winter season is characterized by overcast days and lengthy periods of rain and drizzle. Winter temperatures range from an average low of 40°F to an average high of 57°F, with occasional overnight freezing temperatures. Annual precipitation averages 25 inches, 90 percent of which falls from November through April. Summer temperatures range from an average low of 70°F to an average high of 90°F, with temperatures in excess of 100 degrees being fairly common. This high average summer temperature, combined with very low relative humidity, produces hot, dry summers. Prevailing winds are from the southwest with a secondary concentration from the northwest. Air stagnation due to surface and/or elevated inversion formation is common in the late summer and fall. Surface inversions are formed when cool air is trapped close to the surface by a layer of warm air above it. Elevated inversions occur when a layer of cool air is suspended between warm air layers above and below it. Stagnation allows for the concentration of contaminants, subjecting persons in the region to elevated pollution levels and consequent increases in hazards to health.



Air Quality. For purposes of monitoring, the State of California has been divided into fourteen air basins. The southern portion of Placer County, including Roseville, is located within the Sacramento Valley Air Basin along with Sacramento, Yolo, Sutter, Shasta, Yuba, Glenn, Butte, Tehama, and a portion of Solano Counties. The project site lies within the jurisdiction of the Placer County Air Pollution Control District (APCD). Although primary responsibility for attainment and maintenance of air quality standards lies with the local air pollution control district, the area is also subject to the regulations of the Sacramento Valley Air Basin, the California Air Resources Board and the United States Environmental Protection Agency (EPA). Both the State of California and the Environmental Protection Agency have established ambient air quality standards. These standards are shown in Table G1.

Due to its proximity to the greater Sacramento metropolitan area and the prevailing southwesterly winds, the ambient air quality of the project area is subject to heavy influence from pollutants originating in Sacramento and areas to the south and west, including pollutants generated as far away as the San Francisco Bay area. Consequently, southern Placer County is included in the Sacramento Air Quality Maintenance Area (AQMA). Under the Clean Air Act of 1977, the Sacramento AQMA was designated as a nonattainment area for ozone, and was recognized as an area subject to localized violation of the carbon monoxide standard. In order to facilitate attainment of the ambient air quality standards the Sacramento Air Quality Plan was prepared. Measures identified in the Air Quality Plan were intended to achieve attainment of the ambient air quality standards by December 1987, the EPA deadline. However, the Air Quality Plan expired at the close of 1987, and attainment of the ambient air quality standards was never achieved. The Sacramento Area Council of Governments (SACOG) is currently in the process of preparing a new air quality plan. The City of Roseville was a participant in the now defunct air quality plan, and is currently a participant in preparation of the the new plan. City participation includes funding of the Phase 1 Study; provision of a member to Technical Advisory Committee; and contribution of in-kind staff services.



**TABLE G1
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Oxidant ¹⁰	1 hour	0.10 ppm (200 ug/m ³)	Ultraviolet Photometry	-	-	-
Ozone	1 hour	-	-	0.12 ppm (236 ug/m ³)	Same as Primary Standards	Ethylene Chemiluminescence
Carbon Monoxide	8 hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Spectroscopy	9.0 ppm (10 mg/m ³)	Same as Primary Standards	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23mg/m ³)	(NDIR)	35 ppm (40 mg/m ³)		
Nitrogen Dioxide	Annual Average	-	Gas Phase Chemilumi- nescence	100 ug/m ³ (0.05 ppm)	Same as Primary Standards	Gas Phase Chemiluminescence
	1 hour	0.25 ppm (470 ug/m ³)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	80 ug/m ³	-	Pararosaniline
	24 hour	0.05 ppm ⁹		365 ug/m ³	-	
	3 hour	-		-	1300 ug/m ³	
	1 hour	0.25 ppm (655 ug/m ³)		-	-	
Suspended Particulate Matter PM ₁₀	Annual Geometric Mean	30 ug/m ³	PM ₁₀	Annual Arithmetic Mean = 50 ug/m ³	-	-
	24 hour	50 ug/m ³		150 ug/m ³	-	
Sulfates	24 hour	25 ug/m ³	Turbidimetric Barium Sulfate	-	-	-
Lead	30 day Average	1.5 ug/m ³	Atomic Absorption	-	-	-
	Calendar Quarter	-	-	1.5 ug/m ³	Same as Primary Standards	Atomic Absorption
Hydrogen	1 hour	0.03 ppm (42 ug/m ³)	Cadmium Hydroxide STRactan	-	-	-
Vinyl Chloride (Chloroethene)	24 hour	0.010 ppm (26 ug/m ³)	Tedlar Bag Collection, Gas Chromatography	-	-	-
Visibility Reducing Particles	1 observation	Insufficient amount to reduce the prevailing visibility ⁸ to less than 10 miles when the relative humidity is less than 70%.		-	-	-

- 1) California standards, other than carbon monoxide, sulfur dioxide (1 hour) and particulate matter - PM₁₀, are values that are not to be equaled or exceeded. The carbon monoxide, sulfur dioxide (1 hour) and particulate matter - PM₁₀ standards are not to be exceeded.
- 2) National standards, other than ozone and those based on annual averages or annual geometric means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
- 3) Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of Hg (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4) Any equivalent procedure which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
- 5) National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the Environmental Protection Agency (EPA).
- 6) National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.
- 7) Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8) Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.
- 9) At locations where the state standards for oxidant and/or suspended particulate matter are violated. National standards apply elsewhere.
- 10) Measured as ozone.



The AQMA continues to be designated as a nonattainment area for ozone, and localized violation of the CO standard continues to occur at major intersections. In addition, the area experiences violation of the recently adopted particulate (PM₁₀) standard.

Ozone. Ozone is a pollutant of concern because high levels of ozone have been linked to damage and deterioration of the air sacs within the lungs, decrements in pulmonary function, and impairment of disease resistance mechanisms in humans, reduced yields in domestic crops, and defoliation of coniferous forests (ARB, 1987). Elderly people and people with respiratory ailments are most likely to suffer from elevated levels of ozone. However, because of the damaging properties of ozone on the air sacs of the lungs, athletes and persons participating in vigorous physical activity may also be affected by ozone. Because of the similarity of the Central Valley to the Los Angeles basin, and the frequency of atmospheric inversions in the Sacramento area, increasing ozone levels are of special concern in the Sacramento region.

The nearest ozone measuring air sampling station to the plan area is located in Citrus Heights on Sunrise Boulevard. However, the Placer County 1985 Air Monitoring Report, prepared in 1986, stipulates that ozone levels monitored in Folsom should be considered worst case for the AQMA. As indicated in Table G2, even though total hydrocarbon emissions have been reduced by 20 to 25 percent in the Sacramento region since 1979 (SACOG, 1985), the AQMA continues to experience violation of the ozone standard.

Primary or direct pollutants are those pollutants which are created and subsequently emitted into the environment. Hydrocarbons and nitric oxides are primary pollutants generated by motor vehicle operation and emitted as exhaust. Secondary or indirect pollutants are those pollutants which are formed in the atmosphere, often as the result of a reaction involving primary pollutants. Ozone is a secondary pollutant which forms as a result of the interaction of ultra-violet light, hydrocarbons, (HCs) and nitric oxides (NO_x). Commuter traffic is the principle source of the hydrocarbons and nitric oxides necessary for the formation of ozone in the Sacramento area.



Table G2
Annual Statistics
Ozone Levels Measured at Folsom Monitoring Station (ppm)

	Hourly Conc.		8 Hour Mean		Occurrences of Hourly Conc. > .12	
	1st high	2nd high	1st high	2nd high	days	hours
1986	.15	.15	.028	.058	7	13
1985	.17	.17	.027	.058	13	37
1984	.18	.16	.026	.058	19	40
1983	.14	.14	.024	.051	7	15

*Data are valid, but incomplete as insufficient number of points were collected to meet EPA and/or ARB criteria.

SOURCE: California Air Quality Data Summaries 1983-1986, ARB

Ozone tends to be a highly reactive molecule which readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high hydrocarbon and NO_x levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because of the direct link between vehicular emissions and ozone formation, past air quality programs have focused on reduction of mobile source emissions, and significant reductions have been achieved, most notably through the mandated state inspection program. Generally speaking, new cars are 90% cleaner than cars manufactured prior to 1979, and as older vehicles are slowly removed from the transportation fleet, continued reduction in vehicular emissions may be expected. Unfortunately, although the ozone formation process is thought to be well understood, reductions in hydrocarbons and NO_x have not resulted in a corresponding decline in ozone violations in the Sacramento area.

Because ozone is a secondary pollutant whose formation is dependent upon atmospheric conditions, there is not an accurate method of predicting the amount of ozone which would be generated by any given activity. However, since ozone production is dependent upon the level of hydrocarbons present in the atmosphere, it may be concluded that ozone generation should be similar in magnitude to the production of hydrocarbons from any given activity. Hydrocarbon production from motor vehicle



operation can be estimated based the predicted number and length of vehicular trips. In order to predict future emissions associated with proposed land uses, the Air Resources Board developed the urban emission model, URBEMIS. Inputs to the model include land use, temperature, year of project, and estimates of trip generation, destination (distance) and speed. The results of the model include a predicted number of annual trips, miles traveled, and emissions generated. URBEMIS was used to predict emissions from future land uses in the plan area. The result of the analysis is presented under **Impacts** later in this section.

Carbon Monoxide. Carbon monoxide represents a health concern in that it more readily combines with hemoglobin in the human body than does oxygen, and thus prevents oxygen from entering the bloodstream. The consequences of breathing prolonged high CO concentrations is comparable to suffocation. Elderly people or people with heart conditions and/or respiratory ailments are more susceptible to complications resulting from high levels of carbon monoxide than the population at large.

The nearest CO monitoring station to the project site is located in Citrus Heights, Sacramento County. The observed CO concentrations at this station are presented in Table G3, and as can be seen, the Federal eight hour standard for CO was not exceeded between 1983 and 1986, the period for which data is available from this station.

Table G3
CO Levels Measured in Citrus Heights (ppm) and the
Number of Days that the Federal Standard was Exceeded

	Hourly Conc.		8 Hour Mean		Occurrences of 8 Hour Conc. > 9.0	
	1st high	2nd high	1st high	2nd high	days	hours
1986	11.0	10.0	6.1	6.0	0	0
1985	9.0	9.0	7.4	6.5	0	0
1984	9.0	8.0	5.1	5.1	0	0
1983	9.0	8.0	5.4	5.3	0	0

SOURCE: California Air Quality Data Summaries 1983-1986, ARB



Combustion of petroleum fuels is the principal source of carbon monoxide (CO) generation in the vicinity. Like ozone, CO tends to dissipate rapidly into the atmosphere, and consequently, violations of the CO standard are generally limited to major intersections during peak hour traffic conditions.

Carbon monoxide concentrations can be predicted along roadways and at intersections using CALINE4, the fourth generation California Line Source Dispersion Model, developed by Caltrans. Input data for this model includes meteorology, street network geometrics, site data, traffic volumes, and emission generation rates. Meteorological data required includes temperature, wind angle, and wind speed. Street network geometrics require use of an x,y coordinate system onto which the modelled roadway can be overlaid in order to identify the relative locations of the traffic lane(s) and nearby receptor(s). Site data includes a basic description of the terrain surrounding the modelled location. Required traffic information generally includes peak hour traffic volumes, average speed, and when modelling an intersection, signal cycle times. Emission generation data is obtained from the emission factor program, EMFAC7PC, which requires input information relating to vehicle mix, temperature, hot/cold start percentages, and year to be modelled.

Output from the model includes one-hour carbon monoxide concentrations (ppm) at the selected receptor location(s). In order to reflect total concentrations, the ambient CO concentration of the vicinity must be added to the CO concentration predicted by CALINE4. The ambient concentration is calculated using one of two methods, 1) the average of the second highest annual eight-hour observation at the nearest CO monitoring station over the past three years, or 2) if no representative station exists, using a recommended default value as identified by Caltrans (Caltrans, 1985).

Carbon monoxide concentrations surrounding key intersections in the plan area were calculated for peak traffic conditions determined from the project traffic analysis. These worst case conditions were modeled for the year 2005, the earliest year in which full buildout of all four specific plan areas could occur.



Four receptors were assumed, one located on each quadrant of the intersection, 100 feet from the roadways. A background concentration of 5.9 ppm and a persistence factor of 0.72 were calculated. Table G4 presents the results for the receptor exposed to the highest concentrations at each intersection. Violation of the Federal ambient eight-hour standard and the California eight-hour and one-hour standards is predicted to occur at the modelled locations under worst case conditions.

Table G4

Worst Case Predicted CO Concentrations at Selected Intersections

	Concentration (ppm)	
	<u>One Hour</u>	<u>Eight Hour</u>
Federal Standard	35.0	9.0
California Standard	20.0	9.0
Foothills Blvd./Pleasant Grove Blvd.	26.9	19.4
Washington Blvd./Pleasant Grove Blvd.	27.4	19.7

Particulate Matter. Suspended particulate matter refers to particles of dust and small debris which are suspended in the air. Common health complications related to suspended particulates are generally short term in nature and produce obvious symptoms, such as watery eyes, itchy skin, or coughing. However, recent focus has been on the effects of long term exposure to high particulate levels, particularly inhalable particles. Such exposure, depending on the material inhaled, may contribute to the development of more serious respiratory disorders such as emphysema or lung cancer.

Total suspended particulate matter (TSP) has been monitored throughout California for several years. Until recently, the State of California Air Resources Board recognized 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of TSP as the standard. Recently, concern about the health effects associated with breathing particulates has resulted in revision of the standard to reflect particles which are small enough to be considered "inhalable". The new standards for particulate matter focus on the concentration of particles smaller than 10 microns in diameter. These particles are referred to as the PM_{10} . PM_{10} standards have



been developed for 24-hour and annual periods of time. The 24-hour standard reflects to the concentration of PM₁₀ particulates collected in a 24-hour period, while the annual standard is calculated as the geometric mean of the 24-hour samples collected during a given year. The California standards are 50 ug/m³ and 30 ug/m³, respectively. The Federal standards for PM₁₀ are 150 ug/m³ and 50 ug/m³. Similar to the State standards, the 24-hour standard reflects the concentration of particles collected during a 24-hour period. However, the more stringent annual standard is calculated as the arithmetic mean of the 24-hour samples collected in a given year.

Because PM₁₀ is a relatively recent method of reporting particulate levels, monitoring did not begin in the vicinity until 1984 when sampling was initiated at the Citrus Heights sampling station. In 1986 sampling was initiated at the Sierra College air sampling station in Rocklin. Recorded levels of PM₁₀ at these sampling stations are presented in Table G5. Although an adequate number of observations has not been collected to statistically validate the recorded PM₁₀ levels, indications are that both the 24 hour and annual geometric standards for PM₁₀ have been exceeded.

Table G5
Recorded PM₁₀ Levels at Sierra College (1986)
and Citrus Heights (micrograms/m³)

	Annual Statistics			Number of Samples			
	High	Low	Geometric Mean	>50	>100	>150	>250
1986	70	52	28.4*	2	0	0	0
1985	90	83	35.3*	10	0	0	0
1984	55	16	33.6*	2	0	0	0

* Data are valid, but incomplete as insufficient number of points were collected to meet EPA and/or ARB criteria.

SOURCE: California Air Quality Data Summaries 1984-1986, ARB



The composition of particulates can vary substantially depending on the types of activities and land uses in the region. For example, grading of an undeveloped area would be expected to generate dust principally composed of soil and vegetation particles. In contrast, particulates generated from agricultural operations may include pesticides or herbicides, while particulates from motor vehicle exhaust can contain metals and by-products of incomplete combustion. Dust, generated during grading and land clearing is generally the most obvious form of particulate generation associated with development. The level of dust generation at any given location can vary substantially from day to day depending on numerous factors, such as, percent silt content of the soil, moisture level of the soil, wind direction and velocity, and level of construction activity. Studies indicate that assuming a medium level of construction activity, moderate silt content of the soil, and semiarid climate conditions, approximately 1.2 tons of dust per acre per month of construction would be generated (EPA-450/3-74-037, 1974).

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

M Emissions from motor vehicle operation are anticipated to represent the greatest long term air quality impact associated with development of the plan area. URBEMIS2 was utilized to predict the quantities of future emissions which will be generated under buildout conditions, year 2005. The model indicates that new trips produced by residential development will generate approximately 2,516.6 tons per year of carbon monoxide, 221.2 tons per year of reactive organic gases, and 169.8 tons per year of nitric oxides. Nonresidential land uses proposed in the plan, i.e. schools, parks, commercial and business professional land uses, are intended to serve the plan area, and are not predicted to attract a substantial number of trips from other areas.



- M** Assuming that the amount of ozone that forms in the atmosphere will be similar in magnitude to the volume of NO_x generated, the plan area will be responsible for the formation of approximately 169.8 tons of ozone per year.
- S** Carbon monoxide concentrations at major intersections within the plan area are predicted to exceed the Federal ambient eight-hour standard and the California eight-hour and one-hour standards.
- M** The greatest short term air quality impact associated with development of the plan area will be the generation of dust during grading and construction activities.
- M** Areas which are presently dry and dusty will be covered with landscaping and impervious surface which will reduce particulate levels from these areas. However, urban activities, such as construction and operation of motor vehicles will generate new particulates in the area. It is not possible to assess the net change in particulate levels which will be generated by urban use of the plan area.

Mitigation Measures

- o The Specific Plan will be subject to the policies of the new Air Quality Plan once it is adopted by Roseville. If necessary, the Specific Plan will be revised to achieve conformance with the new Air Quality Plan.
- o Measures which are proposed to reduce particulate generation during construction include:
 - Sprinkling of disturbed areas during construction to minimize airborne dust.
 - Reseeding of disturbed areas following construction pursuant to erosion control measures as recommended in the Geology, Seismicity, and Soils section of this report.
 - Restriction of grading activities during periods of high winds.



- o The City of Roseville has adopted an extensive Transportation Management System (TSM) ordinance which requires employers within the City to implement specific measures which encourage ridesharing, bicycling, and other methods of alternative transportation. The City should review its TSM ordinance and look for ways to strengthen it.
- o The plan area is located in close proximity to proposed employment areas in the City of Roseville, i.e. the North Roseville Industrial area and the North Central Specific Plan area. It is anticipated that many future residents of the plan area will work in these nearby employment centers, thus reducing the need for employees from outside of the area. Development of the plan area to predominantly residential land use will reduce the number and length of vehicular trips undertaken.
- o Bus stops and public transit facilities are included in the specific plan. Roseville Area Dial-A-Ride (RADAR) currently serves all of the City including the plan area. The Roseville Urban Shuttle (RUSH) program has fixed routes within the City. As a result of increased ridership and demand, the RUSH program is considering doubling the routes currently provided. Routes are established based on the number of requests for service from different areas of the City, and as demand warrants, it is anticipated that fixed route service will be extended to the plan area. RADAR and RUSH both offer cooperative transfer agreements with Sacramento RT and Auburn Transit Service.
- o Inclusion of pedestrian and bicycle pathways are proposed to link residential neighborhoods with the parks, commercial and business-professional uses. In addition to bikeways along major roadways in the plan area, stream corridors and utility easements will be utilized as pathway alignments.
- o Motor vehicle emissions are being partially mitigated on a regional scale, primarily by State mandated emission controls and the recently initiated motor vehicle emission inspection program. Table G6 shows the recent trends in carbon monoxide



emissions in Sacramento County. As can be seen in the table, the trend is downward, with a more pronounced decrease when implementation of controls is considered.

Table G6
Carbon Monoxide Emissions In Sacramento County
(Average Annual Day)

	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>1985</u>	<u>1987</u>	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>
Tons per day (Baseline)	618	582	567	547	522	504	501	499	494
Tons per day (Controlled)				453	433	419	418	417	414

Source: Report on Reasonable Further Progress during Calendar Year 1983. Sacramento Area Council of Governments.

- o Particulates are more commonly recognized as dust, and it is difficult to identify specific measures which may be utilized to reduce long term dust generation rates in urban areas. Obvious, but unquantifiable, measures could include minimizing erosion and exposed soil areas, frequent cleaning of streets, sidewalks, and paved areas, lawn sprinkling, and planting of trees and vegetation.
- o A park and ride facility has not been proposed in the plan area. Since car pooling represents one of the most easily implemented and successful TSM measures, appropriate facilities should be identified in the plan area.
- o The City of Roseville is an active participant in the planning for the regional extension of light rail. Currently, a City of Roseville representative (Phil Ozenick) serves on the RT Policy Advisory Committee and two representatives (Steve Dillon, Larry Pagel) serve on the RT Technical Advisory Committee.



- o Because motor vehicle emissions rise as vehicle speeds decrease, measures to improve overall traffic flow are recognized as effective measures for reducing vehicular emissions. As discussed in the Traffic Section of this report, the roadway network proposed in the specific plan area is designed to maintain LOS C.

- o The Cleaner Air Partnership, a joint project of the American Lung Association of Sacramento and the Sacramento Metropolitan Chamber of Commerce, has identified five policy recommendations for the improvement of air quality. These recommendations should be reviewed by policy-makers and responsible individuals:
 - 1) Upgrade trip reduction ordinances and regulations;
 - 2) Evaluate methanol conversion and implement if found acceptable;
 - 3) Develop a transportation emissions accounting systems to be submitted to the legislative bodies;
 - 4) Educate the public on smog and the smoggy season; and,
 - 5) Encourage elected officials' endorsement for the continuation of the Partnership and that local governments participate in joint public-private funding of Partnership activities: continue developing recommendations, respond to the public views, and respond to local, state and federal policy proposals affecting the ability to obtain clean air as soon as possible.



Noise

Noise is a fundamental component of the human environment. Outdoor ambient noise levels tend to be higher in urban settings than those associated with more rural land uses. These higher noise levels can be detrimental to the health and well being of residents of urban environs.

Although the physical intensity of a sound can be easily measured, the seriousness of the resulting impact on individuals is a complex and intangible value which must consider both physical and social factors. The seriousness of any given sound is a combination of its intensity and duration, and time of day. Louder noises are perceived as acceptable if they last for shorter periods of time. Similarly, levels which may be regarded as acceptable during the day, can be annoying or intolerable during evening or nighttime periods. The "loudness" of a sound is measured in decibels, dB.

The noise environment includes a multitude of sounds, many of which are beyond the range of human hearing. In order to realistically assess noise impacts to people, noise measurements are often performed with an "A" filter. An "A" filter replicates the human range of hearing, and when utilized the measurement is denoted as dB(A). Table H1 is a "noise thermometer" which indicates the approximate decibel levels, dB(A), associated with noise producing activities.

In order to evaluate noises in urban environments, two principal methods of noise expression have been developed, the Community Noise Equivalent Level (C_{NEL}) and the Day-Night Average Sound Level (L_{dn}). Most communities recognize one or both of these measurements; Roseville recognizes L_{dn} . These methods are used to describe average noise levels over a period of time, generally 24 hours. Noises during evening or nighttime periods are weighted to account for the increased sensitivity of the community to noises during these periods. These methods are only applicable to relatively constant sounds, such as traffic or train noise. The impacts of intermittent noise, sounds which are relatively loud for short periods, may be underestimated by L_{dn} or C_{NEL} .



**Table H1
Noise Thermometer**

dB(A)	Noise Source	Subjective Description
120	Amplified Rock 'n Roll Band	Deafening
110	Commercial Jet Takeoff (@ 200 ft.)	
100		
90	Busy Urban Street	Very Loud
80		
70	Freeway Traffic (@ 50 ft.)	Loud
60	Normal Conversation (@ 6 ft.)	
50	Typical Office (Interior)	Moderate
40	Soft Radio Music	
30	Typical Residential (Interior)	Faint
20	Typical Whisper (@ 6 ft.)	
10	Human Breathing	Very Faint

SOURCE: Brown-Buntin Associates, Fair Oaks, California

Intermittent noise can pose a unique situation for regulation. Because of its intermittent nature, this type of noise may produce unusually loud sounds for short periods of time, but because of the averaging nature of L_{dn} or C_{NEL} , not result in a violation. These brief but loud sounds can be as annoying and disruptive to the community as noise of longer duration but less volume. In response to this type of situation, many communities have adopted performance standards as a method of regulating intermittent noise. Performance standards entail limiting the amount of time that sounds in excess of a specified level may be generated. For example, a manufacturing plant may be allowed to generate exterior sounds in excess of 60 dB for a total of five minutes in every hour.



The adopted practice for noise regulation in the United States is to identify acceptable noise levels which can be associated with a particular land use or zoning designation. In California, establishment and enforcement of noise standards is largely the responsibility of local communities, and standards are established through adoption of a Noise Element to a General Plan. Although specific noise standards for community land uses are not established at the State level, the State has established stringent requirements for multi-family dwellings. Title 24 of the California Administrative Code specifically requires acoustical analysis for multi-family dwellings proposed for location within the 60 dB L_{dn} contour, with a maximum allowable interior noise level of 45 dB L_{dn} specified for habitable rooms.

In order to assist local communities in the implementation of noise elements, the California Department of Health, Office of Noise Control (ONC), has published extensive material on assessment and regulation of noise. Perhaps the most widely utilized noise related publication produced by the ONC is **Guidelines for the Preparation and Content of Noise Elements of the General Plan**, prepared by the Office of Noise Control in coordination with the Office of Planning and Research. This publication includes recommendations for C_{NEL} or L_{dn} levels associated with various land uses. The City of Roseville Noise Element utilizes the criteria identified in this ONC publication. The standards included in the **Noise Element of the City of Roseville General Plan** are presented in Table H2. Roseville currently does not utilize any sort of performance standard for control of intermittent noise. However, the **Noise Element** is scheduled for revision in near future and performance standards may be incorporated at that time.

Sounds generated in the undeveloped portion of the plan area include noise produced by wind, wildlife, and other natural sources. Ambient noise levels are relatively low and are actually dominated by sounds generated by urban land uses in the vicinity. Background noise which can be heard in the undeveloped portion of the site includes traffic noise from adjacent roadways and residential sounds from the already developed neighborhoods in the southeastern portion of the plan area.



Table H2
Land Use Compatibility for Community Noise Environments

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L _{dn} OR CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL – LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES						
RESIDENTIAL – MULTI. FAMILY						
TRANSIENT LODGING – MOTELS, HOTELS						
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES						
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES						
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS						
PLAYGROUNDS, NEIGHBORHOOD PARKS						
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES						
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL						
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE						

INTERPRETATION



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

Source: Roseville General Plan, Noise Element



Noises generated by individual residences, such as stereos or dog barking, are subject to control through nuisance noise ordinances. Traffic generated noise on the other hand, is recognized as an unavoidable component of the urban environment, and is controlled through efficient planning which provides adequate setbacks, posted speed limits, and/or limitations on roadway use. As discussed previously in this section, relatively constant noises, such as traffic, are generally evaluated using such methods as L_{dn} or C_{NEL} , both of which express noise as an average over a 24 hour period. Although numerous factors may be evaluated in the determination of traffic generated noise, the principal considerations are vehicle type and speed, and the distribution of the traffic over time. The Federal Highway Administration (FHWA) has developed the FHWA-RD-77-108 model to predict traffic noise impacts along roadways. This model is founded on the premise that noise attenuates over distance. For example, noise produced by traffic could be 75 dB at its source. However, as the sound travels away from the road, its volume will decrease proportionate to the distance traveled. At fifty feet from the roadway, the same sound may be only 70 dB, and at 100 feet may be less than 60 dB. From this information, sound contours can be plotted for the various noise levels. Because roadway noise is a function of traffic traveling in both directions, distances to contours are calculated from the centerline of the roadway. The model does not take into consideration any obstructions to noise, such as fences, irregular terrain, or structures. Consequently, predictions from the model are considered worst case, and in actuality, noise impacts may be significantly less than those identified by the model. Inputs to the model include vehicle type mix, traffic distribution data, travel speed, and roadway width. The model can be configured to predict the distance to various noise contours, as well as levels at specific receptor locations. The results of the FHWA modelling are shown in Table H3. In order to assume worst case conditions, traffic volumes associated with build out conditions for all four Specific Plan areas were utilized. As can be seen in the Table, total noise levels at the modelled intersections range between 65.8 dB to 71.3 dB L_{dn} .



Table H3
Distance to Noise Contours from Roadway Centerline (Feet)
(Calculated using FHWA Model, L_{dn}, dBA)

<u>Roadway</u>	<u>ADT</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>Total</u>
Foothills Boulevard						
south of Carlsberg Blvd	28,740	282	131	61	28	71.3
north of Carlsberg Blvd	18,560	211	98	45	21	69.4
Washington Boulevard						
north of Carlsberg Blvd	8,130	122	56	26	12	65.8
south of Carlsberg Blvd	18,130	208	96	45	21	69.3
Carlsberg Boulevard						
west of Highway 65	48,940	403	187	87	40	73.6
west of Foothills Blvd	21,500	233	108	50	23	70.0

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: **[L]** Less than significant, **[S]** Significant, or **[M]** Mitigated to less than significant.

[M] In areas of new development, the most significant initial noises will be produced by heavy construction equipment. The noise levels produced by grading and scraping, road construction, building construction, and landscaping will be short term in nature and can be expected to generate noise levels ranging from 70 to 95 dB(A), as presented in Table H4.

[M] In addition to these "heavy" construction activities, sounds generated by builders will be produced at varying locations within the plan area. Residents of initial homes in the plan area, as well as adjoining neighborhoods, will be exposed to noises associated with ongoing home construction. These sounds will include power tools, hammering, and other general construction noises. Although construction noises may be annoying to some residents, such activity can be performed without violation of the recognized noise standards.



Table H4
Construction Equipment Noise Levels

<u>Equipment Type</u>	<u>Maximum Level dB(A)</u> <u>(Measured at 50 feet)</u>
Scrapers	88
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85
Chain Saw	95

Source: Patrick Cuniff, Environmental Noise Pollution, 1977.

M Blasting is prohibited by City policy, and development of the plan area is proposed without blasting. Nonetheless, it is possible that an unavoidable situation could arise where blasting would be required for the installation of underground facilities. If blasting were to occur, noise in excess of 100 dB(A) within 50 feet of detonation would be expected.

L Long term sounds, which will become characteristic of the residential environment in the plan area, will include lawn mowers, stereos, traffic, and kids at play. Of all the typical residential sounds which will be generated in the plan area, none, with the possible exception of traffic, are anticipated to violate the recognized standards. Traffic noise is discussed in the following impact.

M As predicted with the FHWA model, traffic noises at major intersections within the Plan area are expected to range between 65.8 dB to 73.6 dB L_{dn} .



Mitigation Measures

- o Construction activity commonly occurs in already developed residential areas. Practical consideration and common sense have, in practice, minimized noise impacts. All equipment will utilize mufflers, enclosure panels, or other noise suppression attachments as appropriate. However, should the need arise, construction noise is subject to regulation through existing ordinances. In instances where difficulties arise, the City will restrict the hours that noisy activities can be conducted to 7am-7pm weekdays, and 8am-8pm weekends.

- o Should a situation arise where blasting is considered unavoidable, the City will be petitioned for the appropriate action to allow blasting. If blasting is performed, it would be conducted in accordance with City imposed conditions. If the activity is required in the proximity of existing development, property owners will be notified in advance as to the time and location of the blasting, and all reasonably recognized precautions to minimize surrounding impacts would be utilized. The radius for notification of blasting would be dependent upon such considerations as the type and extent of blasting proposed and site characteristics. Specific distances must be identified by the engineer performing the blasting. This distance should be no less than one quarter mile from the blasting site.

- o As specific projects are proposed for construction, they should be subjected to a noise analysis, including, as appropriate, an onsite noise assessment to determine the actual location of noise contours. The need for such analysis will be at the discretion of the City. In situations where the predicted 60 dB(A) noise contour falls outside of the roadway right of way and within residential property, projects will be required to implement measures to reduce the noise to the recognized standards included in the **Roseville General Plan Noise Element**. Typical measures which may be implemented include setbacks, sound walls, and landscaped berms.



- o Developers of individual residential units should be encouraged to include construction techniques which reduce interior noise levels such as in wall insulation, double pane windows, properly sealed joints, and placement of bedrooms away from noise sources. In accordance with State standards, residential housing must attain interior noise levels of less than 45dB.
- o As appropriate, performance standards for non-residential land uses will be established at the time such projects are submitted for approval.
- o Design of the Specific Plan includes location of noise sensitive land uses, such as libraries, schools, and residential areas away from noise generators.
- o As appropriate, buffering should be provided around parks and similar noise generating land uses. Wherever possible, noisy activities should be oriented away from sensitive land uses.
- o Truck routes will be designated throughout the Plan area to minimize truck traffic in or adjacent to residential areas.



VI. EXISTING CULTURAL CONDITIONS, PROJECT IMPACTS AND MITIGATION MEASURES

A. Social and Economic Factors

Land Use

The Northwest Roseville Specific Plan area encompasses approximately 2,672 acres located northwest of downtown Roseville. The area is bounded on the south by Baseline Road and on the east by Highway 65. The western boundary of the plan area is approximately one-half mile east of Fiddymont Road and the northern boundary abuts the North Industrial area, including the Hewlett-Packard property which currently exists in that area.

Historical Land Use. Past use of the Northwest Specific Plan area has been dominated by ranching. In the mid 1800's most of the plan area was owned by Stephen A. Boutwell, William Dunlap and James W. Kaseberg, who cooperatively raised sheep, shearing as many as 30,000 sheep per year. By 1887, Kaseberg had bought out his two partners and had increased the operation, known as the Kaseberg Ranch, to an estimated 50,000 acres. His holdings were adjoined on the north by the Spring Valley Ranch and by a smaller ranch owned by Walter Fiddymont. By the late nineteenth century, Kaseberg had sold much of his holdings and had built a Victorian mansion on a wooded knoll just west of present Highway 65. By the time of his death in 1905, his ranch included 8000 acres of land along Kaseberg and Pleasant Grove creeks and the mansion. His son, William, continued to graze sheep and cattle and live in the mansion until his death in 1954. The mansion and associated buildings, now located on the Diamond K Ranch, was nominated to the National Register of Historic Places in 1978. Although a portion of the plan area has recently been developed, livestock grazing remains the predominant land use within the plan area to this day.

The Vernon Street/Riverside Avenue/Douglas Boulevard area has constituted the commercial core of the City of Roseville since its establishment. For many years, commercial activity in the



City was oriented toward the SPRR railroad yard, the most prominent employer in the City. In addition to providing a significant number of local jobs, the railroad attracted other uses including depots and warehouses for rail transported goods, and restaurants, department stores, and specialty shops to serve the retail needs of railroad employees and their families. As the railroad era declined, Roseville became more typical of an agricultural community, relying more heavily on traditional and farming related businesses for the livelihood of its residents. Throughout this period of slow but steady growth, the commercial center of the City continued to evolve around the historic downtown area. This situation was altered significantly in the early 1960's when Roseville Square opened, and again in the early 1970's when Sunrise Mall opened in Citrus Heights to the south within Sacramento County. These changes, coupled with traffic circulation changes and changing patterns of commuting and shopping, have resulted in a net decline in overall retail activity within the Roseville commercial core. Coupled with this decline has been an overall shift in the type of businesses operating downtown. Primarily, this has been a shift from the larger department store type of retail business to smaller specialty shops, including antique dealers, specialty restaurants, antique shops, pharmacies, clothing shops, and offices. The most economically beneficial trend, from the point of view of City economics, is and has been the concentration of automobile dealers along Riverside Boulevard.

Current Land Use. Roseville is predicted to continue to grow at a rapid rate, more than doubling in population by the year 2005. In addition to the Northwest Roseville Specific Plan area, there are currently proposals for development within the North Central Roseville Specific Plan area, the Northeast Roseville Specific Plan area, the Southeast Roseville Specific Plan area, and the North Industrial area. Presently, the majority of the area within the various specific plans is undeveloped. Construction of already approved development is occurring in the Southeast, Northeast, and Northwest Specific Plan areas. Although all of the plan areas are proposed to contain a mixture of land uses, proposed land use in the Southeast and Northwest plan areas is dominated by residential development. The Northeast and North



Central plan areas are proposed to include a substantial amount of industrial and/or commercial land uses in addition to residential land uses. As the name implies, the North Industrial area area is proposed to include predominantly industrial land uses, and is the present location of several light industrial operations, some of which have been in the area for many years.

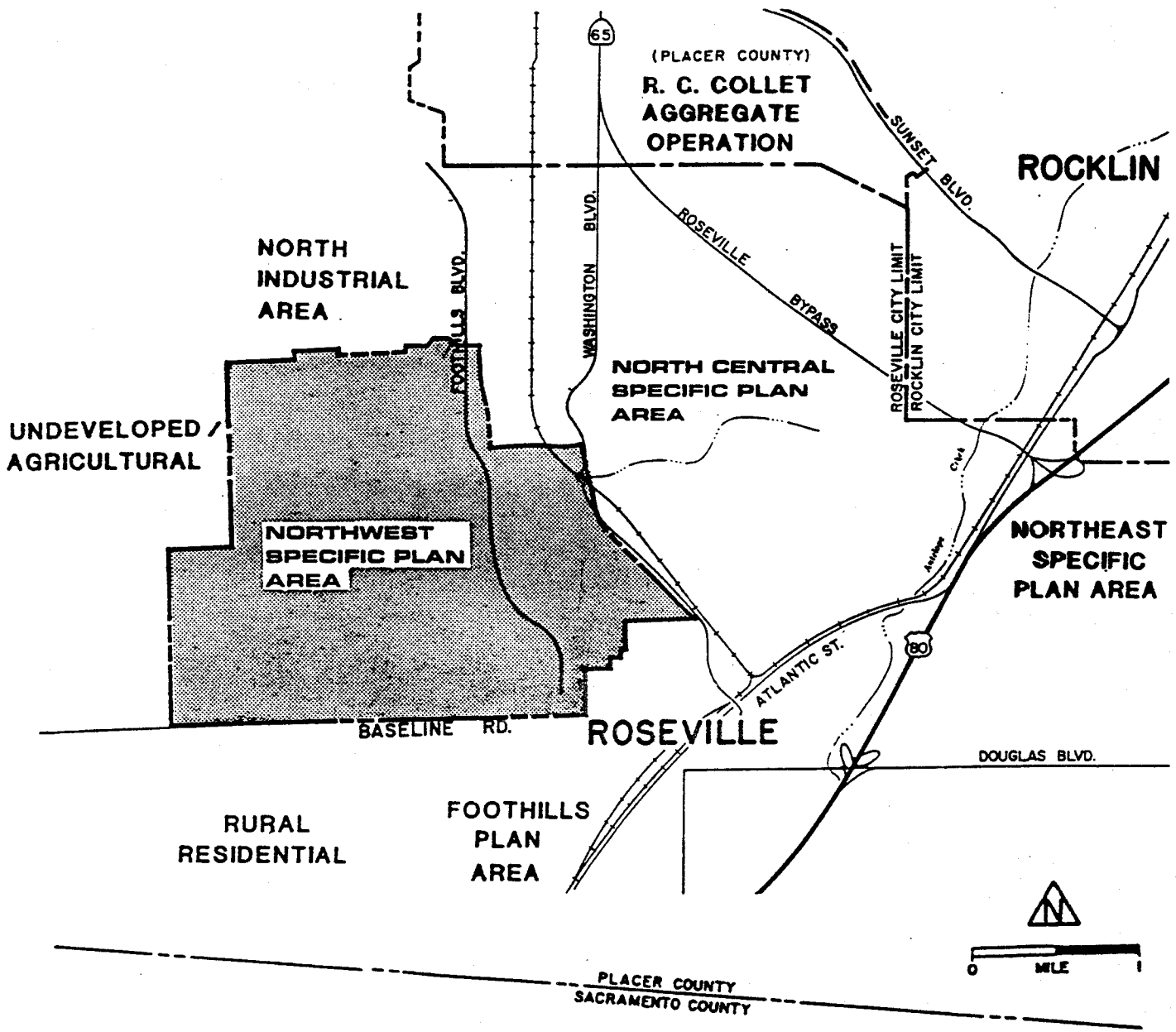
As depicted in Figure 11, the Surrounding Land Use Map, the plan area is situated contiguous to already developed areas of Roseville. The Roseville municipal boundary is situated approximately one-half mile west of the westernmost extent of the plan area. Two parcels situated west of the plan area, but still within the City, are currently under Williamson Act contract. However, formal action has been initiated to terminate both of these contracts, and the Williamson Act designation is expected to be removed by 1989. Predominant land use in this area is undeveloped property and low intensity agriculture, mostly dry land wheat farming and livestock grazing.

The North Industrial area is situated on the north side of the Northwest Specific plan. The north industrial area is anticipated to become the principal industrial area within the City. Existing corporations which have established plants in this area include American Olean Tile, Hewlett-Packard, NEC Electronics, and H.B. Fuller. Development of an Albertsons Supermarkets distribution center has recently been approved.

The eastern boundary of the plan area abuts the SPRR tracks and Highway 65 (Washington Street). The North Central Plan area is situated east of Highway 65. Central Roseville is located southeast of the plan area, and the largely completed Foothills Plan area is located in this vicinity.

South of Baseline Road, the western municipal limit of Roseville extends to just west of the Foothills Boulevard/Baseline Road intersection. From this location, the municipal limit follows Baseline Boulevard west to Fiddymont Road before turning north. Rural residential is the predominant land use south of Baseline Road and west of the Roseville municipal limit. This area is within the unincorporated portion of Placer County.





SURROUNDING LAND USE MAP

FIGURE 11



The area included within the Northwest Roseville Specific Plan encompasses approximately 2,672 acres, and as shown in Figure I2, is bounded on the north by the North Roseville Industrial Area, on the east by Washington Boulevard (State Highway 65) and the Southern Pacific Railroad line, and on the south by Baseline Road. There are no distinct landmarks indicating the western plan area boundary which is marked by fencelines located approximately one-half mile and one mile east of Fiddymont Road.

The project consists of adoption of the proposed Northwest Roseville Specific Plan. The purpose of the Specific Plan is to establish goals, policies, and guidelines for development within the Northwest Roseville Specific Plan area. As indicated in Table I1, residential land use; which will cover approximately 59% of the plan area, includes 8,194 homes on $\pm 1,552$ acres. Other land uses proposed include neighborhood oriented business professional and commercial uses, ± 221 acres (8%); recreation areas including parks, recreation floodway corridors, and a public golf course, ± 359 acres (13%); schools, churches, floodway, a fire station, and an electrical substation, ± 116 acres (4%); and urban reserve ± 431 acres (16%).

The majority plan area is currently vacant. However, as discussed in various section of this report, urban development has already occurred in the southeastern portion of the plan area. Development which has occurred represents contiguous growth outward from City.

None of the area within the specific plan area is currently utilized for agricultural production. Past uses have included dry land wheat farming and livestock grazing. As discussed in the soils section of this report, none of the soils within the specific plan area are recognized as prime agricultural soils. All of the soils have severe limitations reflected by irrigated and non-irrigated capability classes of III and IV, and Storie indexes ranging from 23 to 50. Erosion is identified as the principal limitation to agricultural use, but the impermeable subsoil horizons also pose major constraints to crop production.



Table I1
Proposed Land Uses in the Plan Area

	Acres	Dwellings
Business Professional	43.6	
Commercial	141.8	
Combined Commercial and BP	<u>35.3</u>	
Sub-Total	220.7	
Urban Reserve	430.9	
Parks	131.0	
Park Reserve	30.0	
Floodway/Fringe Areas	21.9	
Golf Course	<u>175.0</u>	
Sub-Total	788.8	
Recreation Corridor	6.6	
Electrical Substation	.5	
Fire Station	1.0	
Schools (K-6)	42.2	
School (7-8)	18.0	
High School	41.6	
Churches	<u>8.4</u>	
Sub-Total	118.3	
R-2.3	11.5	26
R-3.0	9.3	28
R-3.2	144.5	463
R-3.5	157.5	549
R-3.8	40.4	155
R-3.9	88.4	344
R-4.0	94.5	378
R-4.1	65.5	267
R-4.2	76.7	324
R-4.3	42.6	183
R-4.4	188.2	827
R-4.5	52.0	234
R-4.8	45.6	219
R-4.9	48.7	239
R-5.0	126.3	629
R-5.2	62.4	325
R-5.6	29.9	167
R-6.1	24.6	150
R-7.0	88.8	518
R-7.2	8.9	64
R-12.0	7.0	84
R-15.0	16.5	150
R-15.6	41.6	416
R-18.2	11.0	200
R-19.9	12.0	239
R-20.0	<u>57.0</u>	<u>1016</u>
Sub-Total	1,551.4	8,194
Total Specific Plan Area	2,679.2	8,194

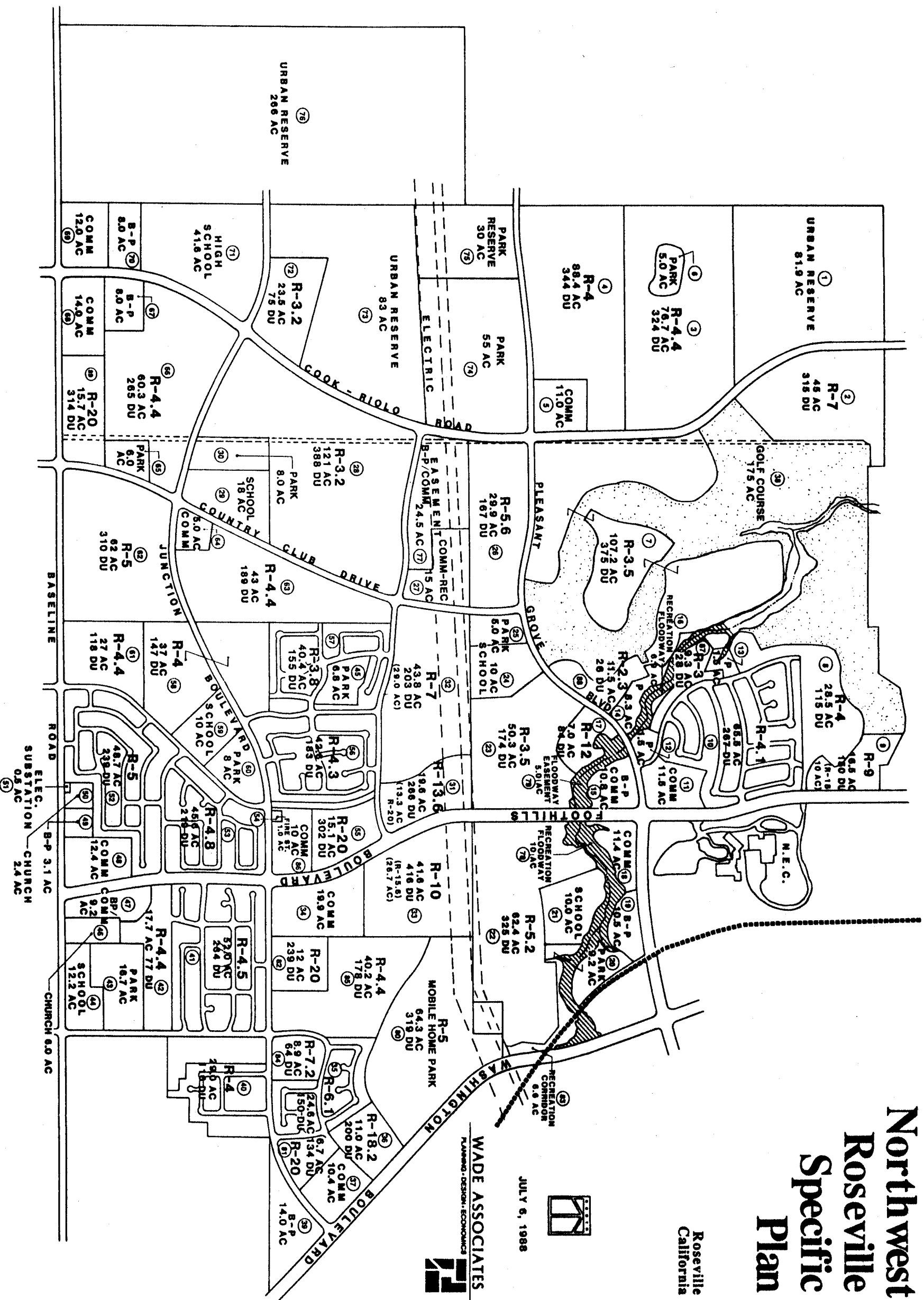


Northwest Roseville Specific Plan

Roseville
California

JULY 6, 1988

WADE ASSOCIATES
PLANNING • DESIGN • ECONOMICS



NORTHWEST ROSEVILLE SPECIFIC PLAN AREA MAP

FIGURE 12

NORTHWEST ROSEVILLE

I-7

SPECIFIC PLAN EIR

A.C. Fuller Associates



The Northwest Roseville Specific Plan represents a proposal to develop a predominantly residential community contiguous to the existing neighborhoods of Roseville. The proposal appears to represent a logical progression of growth outward from existing residential areas. Non-residential land uses included in the plan are solely proposed as neighborhood oriented facilities intended to serve residents of the plan area. The mixture of land uses within the Specific Plan is proposed to create a balanced community capable of providing required services and facilities to the residential neighborhoods. Commercial and business professional centers, shopping opportunities, and park and recreation facilities are located within convenient bicycle/walking distance of any neighborhood in the plan area. To promote pedestrian bicycle/circulation, all major land uses within the plan area will be connected by a pathway system.

On a City-wide basis, the Northwest Specific Plan area will generate a substantially greater number of employable residents than it will job opportunities. However, this imbalance is recognized and deliberate. As discussed in the jobs/housing balance section of this report, the north Roseville industrial area and the North Central Roseville Specific Plan area are proposed to create a greater number of jobs than employable residents. In fact, the number of jobs predicted in these areas is so great that a regional imbalance of 1 employable person for every 1.2 jobs is predicted to result. Consequently, development of the Northwest Roseville Specific Plan area is expected to help reduce the predicted jobs/housing imbalance.

The South Placer Policy Plan is a planning document utilized by municipalities to coordinate planning and growth activities in the south Placer region. Guidelines established by the South Placer Policy Plan are for the protection of viable agricultural areas within the County, and concentration of urban development within the established municipal limits of the various incorporated communities. By establishment of growth ceilings in the **General Plans** of the respective communities, it is an intent of the South Placer Policy Plan to maintain the integrity of the rural agricultural areas in Placer County. The Northwest Roseville Specific Plan represents a planned and logical



extension of urban land use within the City of Roseville, and is generally consistent with the goals of the South Placer Policy Plan. Design of the Specific Plan is generally consistent with the growth objectives in that higher density land uses are concentrated in the eastern half of the plan area, and lower density land uses, those more compatible with rural activities, are situated in the western portion of the plan area. Finally, the westernmost extent of the specific plan area is roughly one mile inside of the Roseville municipal boundary, providing a buffer within the City, between developing urban land use and the unincorporated area of the County.

Use of Electrical Transmission Easements. Historically, it has been accepted practice for municipalities and private sector firms alike to utilize the area within utility easements for active and passive recreational facilities, parking areas, equipment storage, or other miscellaneous uses. Restrictions on use of such areas are established by the State in cooperation with the concerned utility companies. Prior to location of any land use within such an easement, it is necessary to contact the utility company to check the acceptability of the proposed use. Generally, restrictions prohibit the construction of permanent structures, but allow such improvements as turf fields, trails, playground equipment, picnic areas, small lakes, and structures without foundations. Activities which have the potential to interfere with or damage the transmission facilities, or place the participant in a dangerous situation, are prohibited.

Recently, several studies have hypothesized that there could be a relationship between exposure to electromagnetic fields and the occurrence of cancer in humans. However, this is a controversial issue, and an insufficient amount of evidence exists to support or to disprove the inferred relationship. Of particular concern in the Northwest Roseville Specific Plan area is the high voltage transmission corridor which bisects the plan area in an east-west direction. The Western Area Power Administration (WAPA), the Sacramento Municipal Utility District (SMUD), and the Pacific Gas and Electric Company (PG&E) all operate facilities in this corridor. The Specific Plan proposes use of this easement for parking facilities at the community park, as a corridor for the



bicycle/pedestrian pathway, and for development of facilities associated with a private recreation club. Further, extensive residential housing borders the powerline right of way. Because of the potential for serious health risks which may be posed by exposure to electromagnetic fields, the City of Roseville Planning Department has been provided with an extensive amount of literature and research reports on the subject. It is not the intent or purpose of this EIR to present an exhaustive discussion of the implications of situating land uses within or immediately adjacent to such easements. Persons interested in researching this issue in more detail than presented in this EIR are referred to the Roseville Planning Department. Following is a brief overview of the material reviewed.

In recent years, both the number and the capacity of electrical transmission lines has increased for reasons of efficiency, reliability and the need to transmit bulk power over long distances. The wide transmission corridors which traverse the landscape are constant reminders of this tremendous electrical network, and often provide natural areas of wildlife habitat, recreation space, or limited community facilities. Accepted land use planning technique often allows for development of residential uses in close but "safe" proximity to such corridors. However, traditional "safe" considerations have focused on adequate separation to prevent electrical shock.

It has long been known that electrical and magnetic fields are generated by transmission lines, household wiring, and even household appliances. The characteristics of these fields can vary depending upon thousands of independent variables such as weather, type of wiring, type of current, voltage, etc. Curiously enough, the effect of these fields on the human body is not well documented and has only relatively recently caught the attention of the public and the scientific community. In fact, research to date is severely limited, and claims that such fields cause cancer or adversely affect human growth and development may be creating undue concern. Conversely, there is evidence that these fields may have effects which are not fully understood, and the potential for adverse effects has not been disproven.



The first evidence of a possible connection between high voltage fields and human health was reported in the early seventies by Soviet scientists who discovered a correlation between workers at 500 KV substations and the incidence of short-term nausea and headache. Since this initial finding, subsequent research projects, mostly in the United States, have isolated additional effects which include decreased growth in seedlings and chickens, decreased in-vitro growth of embryonic tissue cells, and behavioral and physiologic changes in laboratory rats including impaired learning ability. However, these findings were created under laboratory situations involving exposure to considerably higher fields than generally occur around power lines.

Outside of the laboratory, statistically significant evidence of correlations between power lines and human health has been much more difficult to prove. The majority of "in the field" research efforts have consistently failed to identify a correlation between exposure to power lines and any adverse effects on humans. However, some investigations of behavior and brain function showed small but consistent changes in human body rhythms relating to normal sleep patterns, and pain responses. The most highly publicized findings of research efforts to date reported an increase in the incidence of cancer cases among children living in homes located near overhead distribution lines. Although a statistical relationship was isolated, no mechanism was identified which could explain the apparent correlation, and it may be surmised that other factors beyond the scope of the research project could have contributed to the findings. According to Dr. Savitz, principal researcher on the project, "There is no solid evidence that people should be worried, even if they live under a power line. The bottom line is that the evidence falls short of proving that electric or magnetic fields are a health hazard. On the other hand, questions have been raised that haven't been answered. So from a public health perspective, there is a reason for concern."

In summary, there is neither sufficient evidence to support the hypothesis nor to disprove the inferred relationship between exposure to electromagnetic fields and the occurrence of cancer and other human disorders.



Impacts

As discussed in the Introduction, impacts are identified in this section as follows: [L] Less than significant, [S] Significant, or [M] Mitigated to less than significant.

- [S] Implementation of the Northwest Roseville Specific Plan would produce a substantial change in the land use and character of the plan area. The plan area would change from a rural setting to an urban environment supporting residential and commercial land use. The change in land use will result in substantial physical change to the plan area, and although this change is consistent with the **General Plan**, the impact is suggested to be significant.
- [L] Continued development of major commercial and business professional uses in the outlying areas of the City could contribute to continued deterioration of the downtown commercial and business community. The Northwest Roseville Specific Plan will include neighborhood oriented commercial and BP uses, and consequently, is not anticipated to substantially contribute to this decline.
- [M] Development of urban land uses in close proximity to electrical transmission facilities and use of the electrical transmission easement will result in exposure of persons to electromagnetic fields. The seriousness of this exposure is not understood, and there is neither adequate evidence to support or reject the inferred relationship between exposure and development of cancer.
- [M] Commercial and business professional land uses are situated in the plan area in accordance with the policies of the **Land Use Element** of the **Roseville General Plan**. At the time that individual projects are proposed, they will be subject to staff review and could require issuance of use permits to ensure compatibility with adjacent residential housing.



- L** Based on the limited agricultural potential of the soils and the presently idle condition of the land, conversion of the plan area to urban land uses is less than significant.

Mitigation Measures

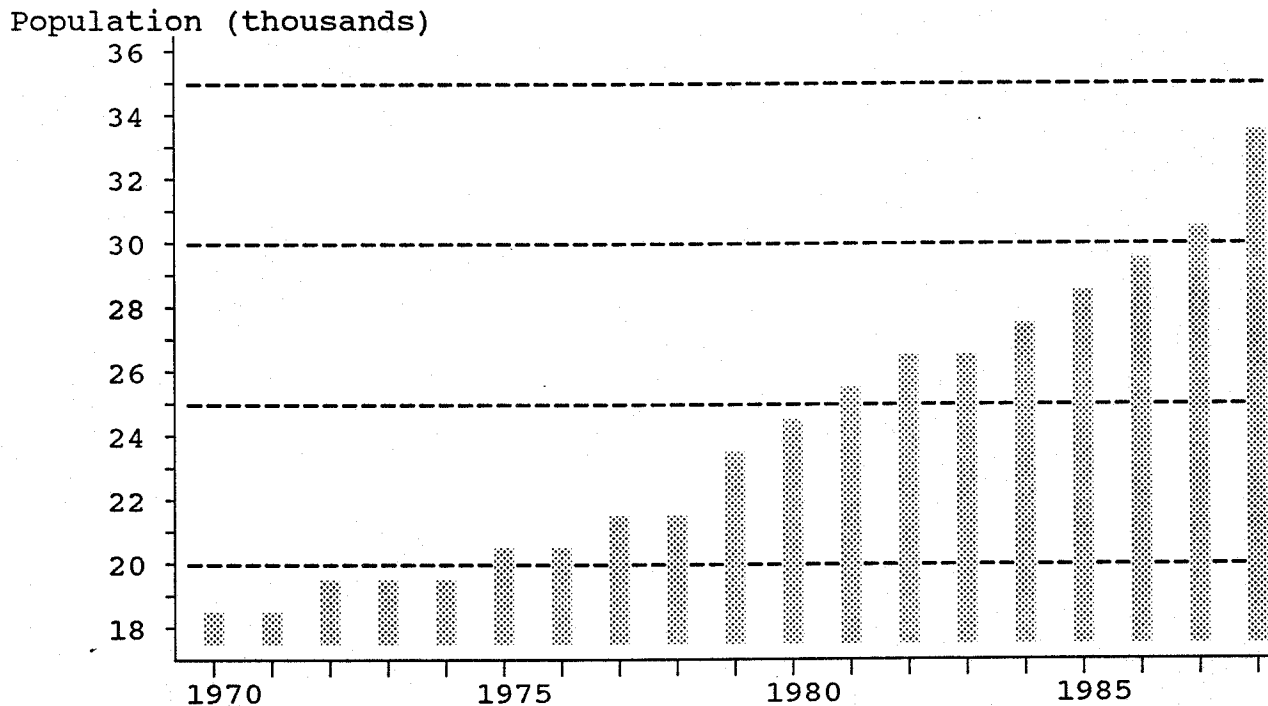
- o As growth continues throughout the region, there will be an increasing need for additional commercial and business professional space to serve the growing population. As preservation and redevelopment of the historic downtown area is a recognized goal of the City of Roseville, it is recommended that regular assessment of the economic health of the City be evaluated prior to approval of commercial projects larger than that recognized as neighborhood oriented. As provided by the redevelopment plan, incentives should be offered to developers for implementation of projects in the downtown area.
- o According to the California Department of Education, the school site proposed very close to the powerline easement must be set back 400 feet from the edge of the easement to classrooms occupied for several hours per day by students, or relocated in order to meet State standards. However, based upon the current evidence, this is a very conservative recommendation. The Specific Plan has set forth that the perimeter of school facilities will be located no less than 150 feet from the boundary of any powerline easement area.
- o The Specific Plan should include siting, buffering and performance standards for non-residential land uses next to residential land uses.
- o The potential adverse impacts associated with exposure to electromagnetic fields can be mitigated through the provision of adequate separation of land uses from the powerline. It is not clear what constitutes adequate separation. The Specific Plan incorporates distances and use of the easement consistent with existing practice.



Population, Employment, and Jobs/Housing Balance

Population. The Sacramento Metropolitan area is recognized as one of the fastest growing regions in the Country. The municipalities likely to be most impacted by this growth are the smaller outlying communities around Sacramento which have the undeveloped area available for extensive development. Roseville, situated on the fringe of urban growth has already begun to experience accelerated growth. As shown in Figure I3, the population of Roseville has grown from roughly 18,000 in 1970 to nearly 35,000 in 1988. During this period annual growth rates ranged from 1.8% (1973-1988) to 8.0% (1987-88), producing an average annual growth rate of 3.6% for this 18 year period. Predictions are that the City will continue this trend, growing by an additional 126% between 1970 and 2005, with the most vigorous growth (6.1% annually) predicted to occur between 1987 and 1995. In comparison, Angus McDonald and Associates forecast a 49% increase in population for the Sacramento region as a whole for this same period.

Figure I3
Roseville Population



The Northwest Roseville Specific Plan area is predicted to support the greatest concentration of residential development with 36% of the residential growth; 21% of the growth is forecasted to occur in the Southeast Specific Plan area; and 17% is predicted to occur in the North Central Specific Plan area.

Assuming 2.64 persons per household (less than R-6), 2.06 persons per household (R-6 to R-9), and 1.76 persons per household (R-10 and above), buildout of the Northwest Specific Plan area will support 19,355 residents.

Regardless of the rate at which growth occurs, the **Roseville General Plan**, based on infrastructure constraints, limits the ultimate population of the City to 92,000 people.

Based on growth projections throughout the City, it is anticipated that roughly two-thirds of the plan area will be developed by the year 2005. Beyond 2005, the growth rate of the City is projected to slow, with full buildout of the plan area expected by 2020.

Employment. As discussed throughout this report, the Northwest Specific Plan is predominantly residential in nature, and commercial and business professional uses included in the plan area are relatively small and intended as neighborhood oriented centers. As shown in Table I2, land uses in the Northwest Roseville Specific Plan area are predicted to create approximately 5,519 jobs.

Table I2
Job Generation in the Plan Area

	<u>Acres</u>	<u>Employees/Acre</u>	<u>Jobs</u>
Business Professional	78.9	34	2,683
Commercial	141.8	20	2,836
Total			5,519



Jobs/Housing Balance. As discussed under population, the population of Roseville is predicted to increase by 126% during the period between 1987 and 2005. During this same period, employment opportunities in the City will increase by an estimated 226%.

According to the traffic analysis prepared for this report (Fehr & Peers, 1988) the population of the South Placer Region is predicted to grow from the current estimate of 80,000 persons to to in excess of 165,000 persons by the year 2005. Assuming that 50% of this population will be employed, the future labor force would be expected to number roughly 83,000 persons. At the same time, the number of jobs available in the region is projected to increase to about 100,000 by 2005, approximately 64,000 of which are anticipated to be in Roseville, and 20,000 in Rocklin. These conditions would create a regional job/housing imbalance of 1.20 jobs for every employed resident.

By the year 2005, the City is predicted to offer in excess of 64,000 jobs, while producing only 37,000 employable residents. This imbalance equates to approximately 1.74 jobs/employee within the City. Obviously, a portion of this discrepancy will be satisfied by the immigration of employees from other areas of the south Placer region. However, even with south Placer taken into consideration, a regional imbalance of 1.20 jobs/person is anticipated.

A worst case planning scenario developed for analysis of the various Roseville Specific Plans assumes buildout of the plan areas by the year 2005. Under this scenario, the total number of employed residents in the south Placer region is predicted to be approximately 90,000 persons; the number of jobs would be roughly 109,000. The resulting jobs/housing balance of 1.21 would be only marginally worst than the 1.20 predicted to occur under more reasonable growth rate assumptions. Within Roseville, buildout of the four specific plan areas by the year 2005 would be expected to provide 73,000 jobs while generating only 44,000 employed residents, resulting in an jobs/housing imbalance of roughly 1.67.



Assuming that 50% of the population of the plan area would be employed, buildout of the Northwest Specific Plan would generate approximately 9,678 employed residents. As discussed in the preceding employment section, non-residential land uses in the plan area are predicted to create approximately 5,519 employment opportunities. Consequently, buildout of the Northwest Roseville Specific Plan area will generate an internal jobs/housing imbalance of 1.75 persons for every job. The net effect of this situation will be that residents of the plan area will have to commute outside of the plan area for employment. However, as discussed above, Roseville and the region as a whole is predicted to experience an imbalance in the other direction, i.e. a greater number of jobs available than employees available to fill them. The greatest concentration of jobs in Roseville is predicted to occur in the north Roseville industrial area and the North Central Specific Plan area, both of which are adjacent to the Northwest Specific Plan area. Consequently, residents of the Northwest Plan area are predicted to make short commutes to the readily available jobs in the nearby plan areas, and will contribute to reducing the predicted regional jobs/housing imbalance.

The consequences of the drastic imbalance of jobs to housing will significantly impact the urban environment of the region. Perhaps the most basic consequence would be a continuing growth inducing impact resulting from the overall demand for additional population to fill the available job vacancies. As long as the demand for workers exceeds the available work force, competition among employers for available employees should result in a strong salary and benefit structure. This will in turn attract employees from other locations, many of whom will desire to reside in Roseville, thus increasing the demand for housing in the area resulting in escalated home prices. Another significant consequence of this imbalance will be the attraction of employees from other areas in Sacramento and the foothill communities. As the number of commuters increases, the level of service on area roadways will decrease and the amount of vehicular emissions will increase. Vehicular emissions will increase as a result of slower less efficient travel speeds as well as increased numbers of vehicles on the roadways.



Impacts

As discussed in the Introduction, impacts are identified in this section as follows: **L** Less than significant, **S** Significant, or **M** Mitigated to less than significant.

- L** Assuming 2.64 persons per household (less than R-6), 2.06 persons per household (R-6 to R-9), and 1.76 persons per household (R-10 and above), buildout of the Northwest Specific Plan area will support 19,355 residents. The number of households proposed is consistent with the **General Plan**.
- L** As indicated in Table I2, land uses in the Northwest Roseville Specific Plan area are predicted to create approximately 5,519 jobs.
- L** Buildout of the Northwest Roseville Specific Plan area will generate an internal jobs/housing imbalance of approximately 1.75 persons for every job. This impact is less than significant because of two conditions, 1) an ample supply of jobs which will more than satisfy the demand created by the plan will be available in adjacent areas of Roseville, and 2) regionally an imbalance as great as 1.67 jobs for every employable person is predicted. Although the impacts of this project are suggested to be less than significant, a significant cumulative condition is predicted to occur. This project will not contribute to that problem.

Mitigation Measures

- o As already established, the monitoring program should be continued to annually assess the number and types of jobs being provided in the South Placer region. Since actual development will likely differ from current predictions, a "wait and see" attitude may be justified in the short term. Long term planning should not perpetuate the concept of creating a greater number of jobs than employable residents. Depending on future conditions, amendment of the **General Plan** may be warranted to provide for a more equitable balance.



Affordable Housing

The late 1970's and early 1980's were periods of relatively high interest rates coupled with high inflation. As a result, the housing market was relatively stagnant, and multifamily housing, particularly condominiums, were particularly popular. However, the more favorable economic conditions of the past five years have reversed the previous trend, and single family housing is the most prominent residential land use being developed. Projections indicate that this trend is expected to continue well through the turn of the century. If this holds true, development of the Specific Plans as proposed will largely complete development to the **General Plan** limit of 92,000 residents.

Recognizing that there has historically been a discrepancy between the cost of housing in the City and the ability of many residents to afford homes, a key policy of the **Housing Element of the Roseville General Plan** is to provide a range of housing varying in type and price in order to fulfill the projected needs of the future residents of Roseville.

Realizing that affordability tends to increase with the density of residential dwellings, the City of Roseville initiated a plan to provide increased numbers of higher density units within the City through the allotment of 12,000 additional units to the then existing **General Plan**. In addition, numerous policies were adopted in the revised **General Plan** allowing for designation of higher densities throughout the City. Policies within the **Land Use Element of the General Plan** specified that a large portion of the preliminary allocation of 5,000 high density residential units in the North area has been designated by the City.

It is not critical for each plan area to contribute a specific portion of the 5,000 units as long as the two plan areas combined have the proper number of dwellings allocated. However, based on the number of dwelling units in each plan area, North Central should reasonably contribute 1,117 dwelling units of R-10 to R-15 and 744 dwelling units of R-15 and above. Northwest's contribution should be 1,883 dwelling units of R-10 to R-15 and 1,256 dwelling units of R-15 and above.



The City of Roseville **General Plan** provides a clear definition of "affordability", based upon household income, for both homeowner and renter categories. According to the **General Plan**:

"For households purchasing their units, maximum housing costs for moderate and above-moderate income households should not exceed the maximum percentage of gross income allowed by mortgage lenders in qualifying home buyers currently in the 35% range. Low-income households should not spend more than 30% of their gross income in principal, interest, taxes and insurance."

For renting households, the **General Plan** specifies that:

- "1. Very-low and low-income households should not spend more than 30% of their gross income on housing costs. This figure has been adopted by the federal government and is being implemented in their housing programs.
2. Middle-income households should not spend more than 35% of their gross income on housing costs.
3. Moderate and above-moderate income households are determined not to require rental housing assistance and the household should pay whatever it feels it can afford toward rent."

Income categories are defined as:

Very Low Income: Household income is 50% or less of the medium income for households of similar size.

Low Income: Household income is between 50% to 80% of the medium income for households of similar size.

Middle Income: Household income is between 80% to 100% of the medium income for households of similar size.

Moderate Income: Household income is between 100% to 120% of the medium income for households of similar size.

Above-Moderate Income: Household income is greater than 120% of the medium income for households of similar size.

Because the definition of "affordable" housing is based upon gross income, the actual value of affordable housing is subject to change as more current income data continually becomes available. Table I3 presents the most current income information as of August 1988.

Table I3
Median Household Income by Family Size for the
Sacramento SMSA as of January 15, 1988.*

<u>Family Size</u>	<u>Very Low Income</u>	<u>Low Income</u>	<u>Middle Income</u>	<u>Moderate Income</u>	<u>Above-Moderate Income</u>
1	\$11,850	\$18,950	\$23,688	\$28,426	\$28,426+
2	13,500	21,650	27,063	32,476	32,476+
3	15,200	24,350	30,438	36,526	36,526+
4	16,900	27,050	33,813	40,576	40,576+
5	18,250	28,750	35,938	43,126	43,126+
6	19,600	30,450	38,063	45,676	45,676+

* SOURCE: U.S. Department of Housing and Urban Development

Using the definition of affordable housing and the most recent median income information, Table I4 presents the current rent rates and purchase prices which would constitute affordable housing.

Table I4
Affordable Rent and Purchase Prices as of January 15, 1988

Family Size	<u>Very Low Income</u>	<u>Low Income</u>		<u>Middle Income</u>		<u>Moderate Income</u>	
	Max. Affordable Rent-30% of Gross Income	Max. Affordable Rent-30% of Gross Income	Max. Affordable Rent-30% of Gross Income	Max. Affordable Rent-35% of Gross Income	Max. Affordable Rent-35% of Gross Income	Max. Affordable Rent-35% of Gross Income	Max. Affordable Rent-35% of Gross Income
1	\$296	\$473	\$51,250	\$ 691	\$ 74,500	\$ 829	\$ 89,250
2	338	541	59,000	789	85,000	947	102,000
3	380	609	66,000	888	95,500	1,065	114,500
4	423	676	73,500	986	106,000	1,183	127,500
5	456	719	78,000	1,048	113,000	1,258	135,500
6	490	761	82,500	1,110	119,500	1,332	143,500

* Assumes 10% interest rate and 10% down payment

The Housing Element discusses several methods of implementing the affordable housing policies of the **General Plan**. These include measures to promote preservation of older housing throughout the City, discourage conversion of affordable housing to more expensive residential uses, discourage conversion of residential areas to business professional uses, target neighborhoods for



redevelopment programs, require the provision of affordable housing in development agreements, promote development of affordable housing through density bonuses, evaluate the existing **General Plan** to identify undeveloped areas which could be rezoned to higher residential densities, relax the processing and fee structure requirements for affordable housing projects, and promote financing programs and mechanisms to provide financing at affordable rates within the City.

In order to establish an aggressive program to provide affordable housing within the City of Roseville, the Roseville Affordable Housing Implementation Program is currently being developed. To date, recommendations have been proposed by the Affordable Housing Task Force (AHTF) for City Council consideration.

The specific findings of the Affordable Housing Task Force (AHTF) are listed below beginning with the projected subsidy needs.

The Task Force has prepared a pro-forma of a standard multi-family complex to determine the subsidies needed to produce new rental units affordable to very low and low income households. Based on this pro-forma, the AHTF has projected the following subsidy ranges:

Low Income (51% - 80% of median income) -
\$25,505 to \$514/unit
Very Low Income (30% - 50% of median income) -
\$34,424 to \$25,505/unit

If the subsidies identified above are applied to the projected number of housing units affordable to low income households needed through 1991, then the following subsidies will be necessary:

\$ 49,195,275 - \$27,621,915 (1,083 Very Low Income Units)
\$ 18,746,175 - \$ 377,790 (735 Low Income Units)
\$ 67,941,450 - \$27,999,705
\$ 49,970,577 = average total subsidy needed



The AHTF projects \$10,905,530 in housing subsidies could be captured from existing State, Federal and Local programs over the remaining four years of the Housing Element assuming an aggressive, affordable housing program is instituted by the City.

The AHTF recommends the City adopt a 15% Affordable Housing Goal requiring 15% of all housing units developed in the SPAs, and infill areas of the City to be affordable to very low and low income households as follows:

- A. The 15% goal will be calculated for each SPA based on the total units allocated to the Plan.
- B. Infill projects in the developed areas of Roseville will be subject to the 15%, if the property receives a change in zoning/land use.

The Affordable Housing Goal has the potential of producing 550 units affordable to the very low/low income households. The Affordable Housing Goal represents 30% of the projected affordable housing need of 1,818 units. The following table indicates the distribution of housing unit need to January 1992.

<u>Goals</u>	<u>Number of Units</u>		<u>Total Units</u>
	<u>Number of Very Low Income</u>	<u>Number of Low Income</u>	
single family and multi family units	1,083	735	1,818

1,818 or 50% of the new units needed through 1991 will need to be affordable to very low/low income households to meet the projected housing demand. 1,359 or 75% of these affordable units will need to be multifamily rental units which offer the greatest opportunity to create affordable housing at the lowest cost.

Although the Affordable Housing Goal recommended by the AHTF is based on all units allocated to the SPAs and those infill units receiving a zoning/land use change, the Task Force relied on the two-thirds build out projections in the SPA EIRs to project



subsidy need. Based on a two-thirds build out, the projected subsidy needs are:

A. Subsidies Needed in the SPAs and Infill	\$35,405,147
B. Subsidies Required from State, Federal and Local sources	\$14,565,430
<hr/>	<hr/>
Total Projected Subsidies Needed	\$49,970,577

[NOTE: If the SPAs and/or Infill Areas experience a greater than two-thirds build out over the next 20 years, the subsidies needed to achieve the 15% Affordable Housing Goal will increase accordingly.]

Of the total \$49,970,577 in projected subsidy need, the AHTF estimates \$10,905,530 available in existing State, Federal and Local programs could be captured over the remaining four years assuming an aggressive housing program is instituted by the City. If these funds are obtained and applied towards the total projected subsidy need, a shortfall of \$3,659,900 would result. This shortfall would be made up through a combination of locally based programs and revenue sources.

The AHTF recognizes the Affordable Housing Goal it is recommending and the subsidies needed to achieve the goal will be very difficult to raise. In order to meet the goal during the remaining four years, an average of 454.5 affordable units per year would need to be constructed. To subsidize these units, an average of \$2,726,382.5 from existing State, Federal and Local programs would have to be captured each year and supplemented by an annual average of \$914,975 in subsidies raised from new local sources. In selecting this goal, the AHTF is anticipating increased funding from the State and Federal governments, which will enhance the community's ability to create affordable housing. The AHTF reasoned it will be easier for the City to lower its Affordable Housing Goal if the State and Federal governments do not increase their programs, than it would be for the City to increase the goal if these added funds become available.

An early and basic finding of the AHTF is the goal to provide housing to all income groups in the City. This is a societal goal and one which should be achieved through the efforts of the entire Roseville community. The responsibility of achieving the Affordable Housing Goal is not to be placed on one segment of the community, but rather used to encourage all segments of the community to forge a partnership and work together in a good faith effort in achieving the goal.

In order to achieve the 15% Affordable Housing Goal, specific roles have been identified for the City of Roseville, Development Community and Business Communities.

1. Recommended City Role - Establish an aggressive affordable housing program with the purpose of using the existing state, federal and local programs to their maximum potential and establishing new local programs. The new programs should concentrate on reducing housing costs and supplementing existing programs. In particular, the following programs will be considered:

- Provide additional financial support by dedicating a portion of the increases in revenue sources tied to growth such as: sales taxes, property taxes, utility users tax and others, to fund affordable housing programs.
- Density Bonus Program,
- Fast Track Processing of Projects,
- Reduction of subdivision Standards,
- Support the establishment of a locally based nonprofit Housing Development Corporation with the ability to develop, own and manage affordable housing,
- Develop an Article 34 referendum for approval by Roseville voters which would give the City authority to finance and possibly own and manage housing affordable to the low income, and
- Adopt a Second Unit Ordinance.

2. Recommended Developers Role - Each Specific Plan Area will be responsible for proposing to the City how, where and when it will achieve the 15% Affordable Housing Goal for each residential land

use category. The affordable housing plan established for each SPA must provide an estimated time frame as to when housing subsidies will be needed and identify the time frame the City will have in which to assemble the necessary subsidy package. The affordable housing plan prepared for each SPA will require City Council review and approval. Once approved, it will be incorporated into the SPA Development Agreement.

Individual property owners whose property has been designated in the SPA Development Agreement as having an affordable housing requirement will be required to follow the SPA's affordable housing plan and utilize the programs provided within their SPA. If adequate subsidies are not available to assist the developer in achieving the 15% Affordable Housing Goal, the goal will be deferred to a future date agreed upon by the property owner and City. Deferring the goal will give the City an opportunity to assemble the necessary financing. The developer will be given the option of achieving the full goal in a later phase of the development or giving the City the ability to provide subsidies at a later date after development has occurred, such as through rental assistance programs. However, if the needed subsidies can be assembled by the end of the deferment period, the Affordable Housing Goal can be eliminated.

The SPA Affordable Housing Plan will include a provision for the payment of a fee in-lieu of actually developing the affordable housing. The plan must describe the form an in-lieu fee would take i.e.: cash payment, land dedication, etc., under what circumstances an in-lieu fee can be used, and the amount per unit of the in-lieu fee. In all cases, the in-lieu fee must be adequate so the affordable unit can be developed on an alternate site. In all circumstances when an in-lieu fee is selected as an alternative to producing affordable units, City staff will review the project from the standpoint of:

- A. The owners good faith effort to use available subsidy programs.
- B. The type of residential project and its ability to absorb the affordable units.



Staff will include its recommendation as to whether a project should be expected to produce affordable units or pay an in-lieu fee in its staff report to the Commissions and Council.

3. Recommended Business Community's Role -

A. Participate in an investment fund created for the purpose of providing financing for the production of affordable housing.

B. The City will investigate the legal and fiscal ramifications of establishing a fee on non-residential construction to support the affordable housing programs.

4. Recommended Enforcement Mechanisms for Achievement of the 15% Affordable Housing Goal:

A monitoring program will be established by the City to follow overall SPA and individual project compliance with the 15% Affordable Housing Goal. The findings of the monitoring program will be included in the SPA annual report to the City Council as required by the Development Agreement. If a property owner fails to comply with any requirement in the Development Agreement, the City Council would have authority to find the property owner in default of the Agreement and refuse to allow or restrict further development on the owners' property located in the SPA.

In regards to projects or parcels designated in the SPA Development Agreement as being subject to an affordable housing requirement; the Project Review Commission, Planning Commission and City Council shall review each project and the staff report must detail the efforts made by the City and developer to comply with the 15% goal. If the Commissions or City Council find adequate subsidies were assembled to produce all or a portion of the affordable housing goal within such a project, but the affordable units will not be included as a result of developer reluctance to participate, project approval can be denied.

Assuming that homes in densities of 15 units per acre and greater will be rental units, development of the plan area will provide approximately 2,021 additional rental units in the City. In addition, buildout of the plan area will include a variety of homes ranging in price from \$60,000 up to \$350,000. An approximate breakdown of the type, number and purchase price of homes is presented in Table I5.

Table I5
Breakdown of Housing in the Plan Area by Number and Price

<u>Housing Density</u>	<u>Units in Plan</u>	<u>Purchase Price</u>
< R-3.0	26	\$350,000
R-3.0	28	\$275,000
R-3.1 through R-3.5	1,012	\$200,000
R-3.6 through R-4.2	1,468	\$155,000
R-4.3 through R-4.5	1,244	\$135,000
R-4.8 through R-5.2	1,412	\$115,000
R-6.1 through R-7.0	835	\$105,000
R-8.1 through R-9.1	64	\$75,000
R-11.1 through R-12	84	\$60,000
R-15.6 through R-20	2,021	Rentals

In order to evaluate the affordability of homes to future residents of the City, an estimate of the income distribution by household was developed. This estimate is based on figures provided by Roseville staff, and assumes that the future population of the City will exhibit a similar income distribution to that of the existing population. Table I6 presents the predicted breakdown of the new families in the plan area by household income based on the existing distribution in the City.

Table I6
Number of Households in the Plan Area by Income*

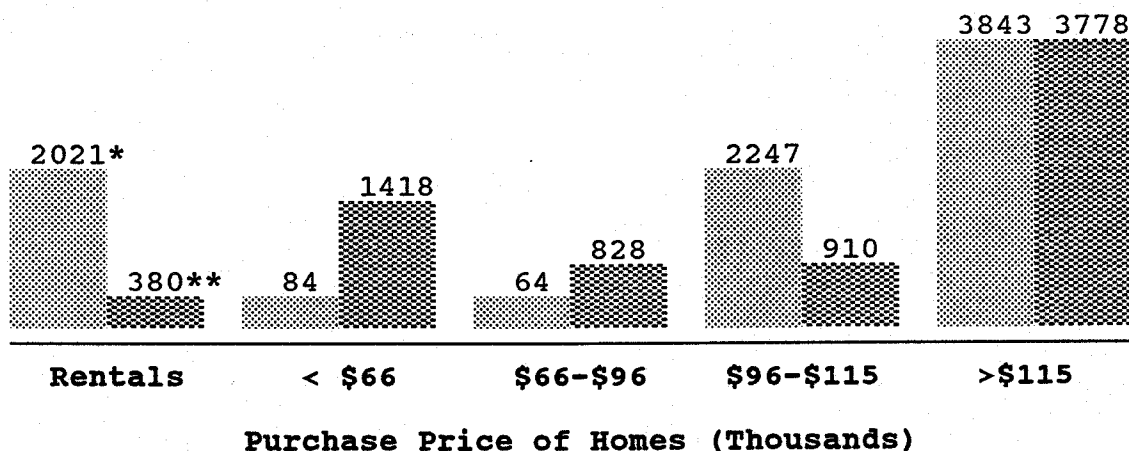
<u>Household Income</u>	<u>% of Population</u>	<u>Households in Plan</u>	<u>Max. Rent</u>	<u>Max. Purchase</u>
Very Low Income	14.4%	1,180	\$380	-
Low Income	17.3%	1,418	\$609	\$66,000
Middle Income	10.1%	828	\$888	\$95,500
Moderate Income	11.1%	910	\$1,065	\$114,500
Above Moderate Income	46.9%	3,843		



* For a family of three (City wide average is 2.6 persons/DU)



As shown in the Figure I4, approximately 2,021 dwellings (R-15+) in the plan area are assumed to be rental units and thus unavailable for purchase. Similarly, approximately 380 families will be unable to afford to purchase any of the housing developed in the plan area. It is also apparent in Figure I4 that there will be a shortage of housing priced less than \$100,000. Conversely, it appears that there may be ample housing to satisfy families purchasing homes costing between \$100,000 and \$115,000, and the proportion of housing costing in excess of \$115,000 is in relative proportion to the number of families which would be expected in this affordability category.

**Figure I4
Number of Homes/Families by Purchase Price/Ability**



 Number of homes proposed in the identified price range
 Number of families who will be able to afford home in the identified price range.

* These 2,021 units assumed to be rentals

** These 380 families cannot afford any homes

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: **[L]** Less than significant, **[S]** Significant, or **[M]** Mitigated to less than significant.



M Development of the specific plan will result in construction of 8,194 housing units. Without implementation of affordable housing measures, all of these homes will be priced beyond the ability of Very Low Income Families. Similarly, there will be a greater number of families desiring to purchase homes costing less than \$100,000 than there will be homes in this price range.

Mitigation Measures

- o The project proponents have indicated that, consistent with the recommendations of the affordable housing Task Force, 15% of the dwellings in the Northwest Specific Plan area will be made available to the affordable housing program.



Transportation

As a consequence of proposed growth throughout Roseville, the firm of Fehr & Peers was retained to prepare a comprehensive City-wide traffic analysis, from which the majority of this section is taken. Ideally, this analysis is intended to examine buildout conditions, thus ensuring that improvements are implemented which contribute to an ultimate roadway network. However, because of the diversity and magnitude of currently proposed development, it is likely that growth will not occur exactly as envisioned or in the time frame anticipated. In order to model future conditions, several fundamental assumptions concerning growth were developed. It is assumed that City-wide buildout would occur at some point in time beyond twenty years, and that twenty years represented the longest period of time for which any traffic model could be prepared which would produce reasonable results. Based on observed rates of growth in the region, approximately two-thirds of the proposed growth would be expected to occur by 2005, the year selected as the twenty year planning horizon. Consequently, scenarios were developed which examined varying levels of development between two-thirds and buildout of the proposed Specific Plan areas by the year 2005. The scenarios of future growth which were examined by the analysis include:

- A) no development in the various specific plan areas;
- B) buildout of the Northwest Specific Plan Area with expected 2005 development in the other specific plan areas;
- C1) buildout of the North Central Specific Plan Area with one regional shopping center, and expected 2005 development in the other specific plan areas;
- C2) buildout of the North Central Specific Plan Area with the equivalent of two regional shopping centers, and expected 2005 development in the other specific plan areas;
- D1) buildout of all four Roseville specific plan areas with one regional shopping center in the North Central Specific Plan;
- D2) buildout of all four Roseville specific plan areas with the equivalent of two regional shopping centers in the North Central Specific Plan.



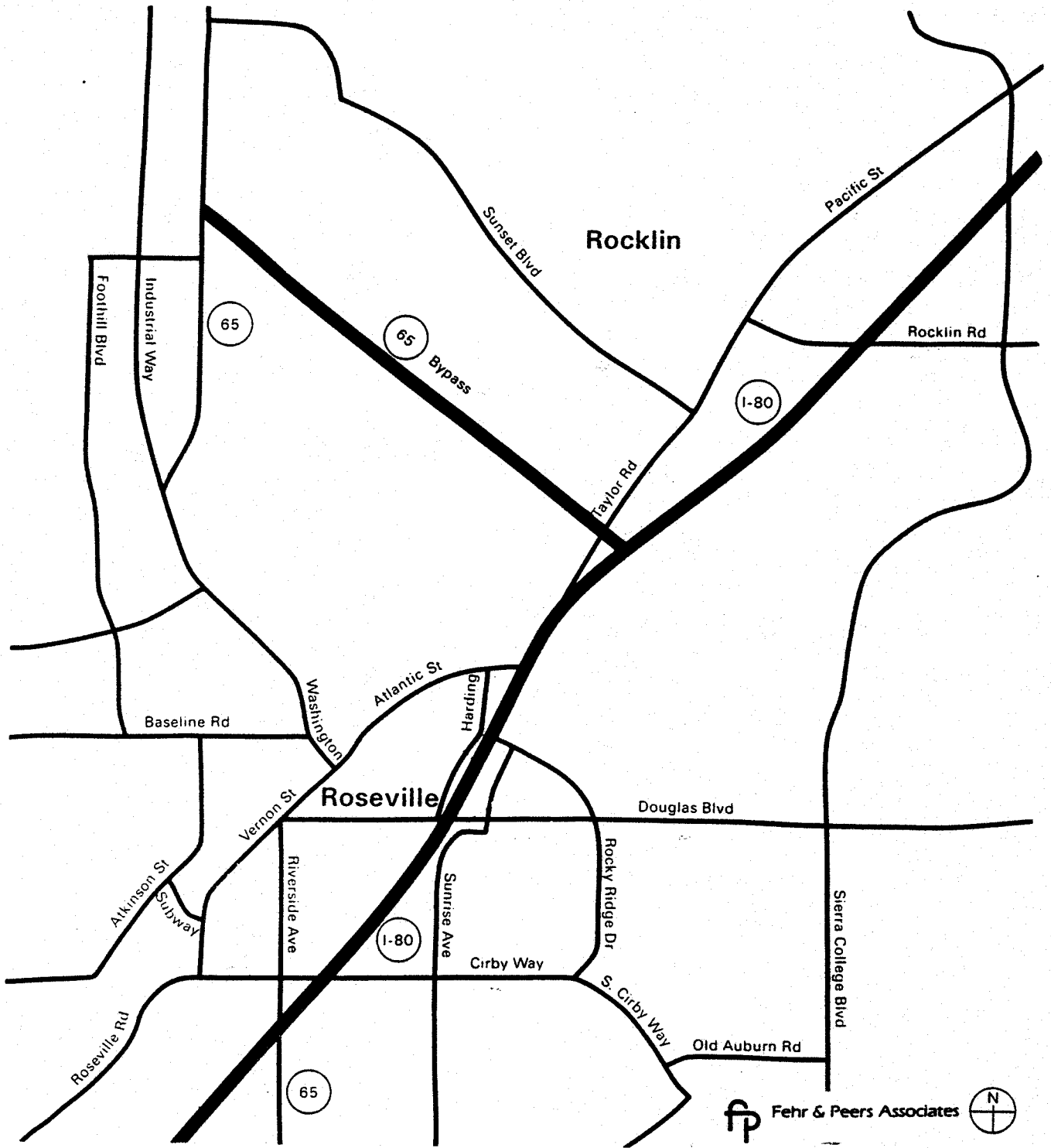
For the sake of simplicity, this environmental impact report discusses in detail only those scenarios which can be utilized to determine the impacts and mitigation related to development of the Northwest Roseville Specific Plan area, i.e. scenarios 1, 2, and 6. Persons requiring detailed information on any of the other scenarios are referred to the appended traffic analysis.

Existing Conditions. In order to facilitate orderly growth, the City of Roseville has developed a plan for construction of a City-wide roadway network. Future improvements, including key arterial roadways, have been in the four principal areas of proposed growth, i.e. the Northeast, Southeast, North Central, and Northwest specific plan areas, as well as improvement of facilities within existing parts of the City. As a consequence of approval of the Northeast and Southeast Specific Plans, construction of arterial roadways consistent with the City-wide plan has occurred. Similarly, initial segments of several major roadways have been constructed the Northwest Specific Plan area in conjunction with projects approved prior to adoption of that Specific Plan. Aside from completion of the Highway 65 Bypass, minimal roadway development has occurred in the North Central plan area. Existing key roadways are depicted in Figure J1.

Foothills Boulevard and Blue Oaks Road are new streets which provide direct access to the Northwest Roseville Specific Plan area. These streets are being built and widened as development occurs along their frontage. Each is currently at least four lanes throughout and is intended to ultimately be built to six lane standards throughout.

As shown in Figure J1, the North Roseville area, i.e. the Northwest and North Central Specific Plan areas, as well as the North Industrial area, are separated from central Roseville by the Southern Pacific Railroad yard and tracks. Presently, access between central Roseville and the north Roseville area is limited to old State Route 65 (Washington Boulevard) and Subway Road, both of which cross beneath the railroad facilities. Additional access to the north Roseville area has been recently provided by the Highway 65 Bypass which includes an overcrossing of the railroad near I-80.





EXISTING ROADWAY NETWORK

FIGURE J1



Between the plan area and downtown Roseville, Washington Boulevard is a four-lane arterial. Access to Washington Boulevard from the plan area is currently provided by Baseline Road and Junction Boulevard. North of the plan area, Blue Oaks Road provides access to both Washington Boulevard and the Highway 65 Bypass. From Washington Boulevard just east of downtown Roseville, a number of routes can be used to reach I-80, including Atlantic Street, Folsom Road, Douglas Boulevard, Vernon Street and Riverside Avenue. Subway Road is a two-lane facility which connects Vernon and Atkinson Streets.

The Highway 65 Bypass connects I-80 just north of Taylor Road with with Highway 65 near Blue Oaks Road. Between those points, it is presently a four-lane expressway, but will eventually be upgraded to freeway status with the construction of interchanges at major intersecting arterials to be built on the planned Harding extension and Carlsberg Boulevard.

I-80 is a six-lane interstate freeway east of the Riverside Avenue interchange. West of the interchange, I-80 widens to eight lanes. As part of proposed Caltrans improvements to the Atlantic and Taylor interchanges, I-80 is to be widened to eight lanes between the Douglas Boulevard and Highway 65 Bypass interchanges. On some sections the eight lanes will be supplemented with an auxiliary lane, forming five lanes in one direction.

Existing average daily traffic volumes (ADT) on area roadways are shown in Figure J2. Volumes are not available for the Route 65 Bypass, since it has just recently opened (summer of 1987).

As shown, I-80 carries about 56,000 to 79,000 average daily traffic (ADT) through the Roseville area. The most heavily used surface streets in Roseville are Douglas Boulevard and Riverside Avenue near the freeway. Douglas carries 51,000 ADT just east of the freeway, but less traffic (40,000 ADT) on the west side of the interchange, the route used to reach the Northwest and North Central areas. Riverside carries 36,000 ADT just north of I-80.



Other high volume streets affecting access to the Northwest Roseville Specific Plan area include: Washington Boulevard with 26,000 ADT at the railroad crossing south of Baseline Road, Douglas Boulevard west of Harding with 28,000 ADT, and Cirby west of Riverside with 14,000 to 21,000 ADT. As indicated by examination of Table J1, all of these facilities currently operate at or near their capacities.

**Table J1
Daily Roadway Capacities**

<u>Roadway Type</u>	<u>Number of Lanes</u>	<u>Maximum Daily Capacity (both directions)</u>
Minor Arterial	2	16,000
Major Arterial	4 6	32,000 48,000
Expressway	4 6	52,000 78,000
Freeway Mainline	6 8	108,000 144,000

As four lane facilities, Riverside and Douglas are operating at or above their maximum ratings at their highest volume locations near I-80. West of Harding, Douglas operates at 80% to 90% of its maximum rating and the same is true for Washington near Main Street. Atlantic, as a two-lane street, has reached its maximum capacity.

The capacity ratings presented in Table J1 are conservative, and streets are often found to carry more traffic in practice than their capacity ratings would suggest that they could. In Roseville, this already applies to sections of Douglas, Riverside, Sunrise and Atlantic. However, in order to incorporate a safety factor for future planning, and to remain consistent with capacity ratings used in other communities in the Sacramento region, the conservative values are used in the traffic analysis.



Based on existing daily traffic volumes, sections of Douglas Boulevard, Riverside Avenue, Sunrise Boulevard, and Atlantic Street currently operate at or near their capacities. Roadways which operate at or near their daily capacities, typically function at less than desirable levels during peak hour periods.

The criterion for assessing adequacy of intersection operation was based on the Level of Service concept as defined in the 1985 Highway Capacity Manual. This relates the volume/capacity ratio of an intersection to the expected amount of delay which motorists will experience. The relationships between volume capacity and LOS are only approximate, and they have been demonstrated to be conservative. As shown in Table J2, Levels of Service are categorized as A through F. Levels of Service A, B, and C generally indicate low to moderate levels of congestion. Level D is indicative of moderately congested conditions which are considered objectionable by some motorists. Level of service E identifies an intersection that is operating near its full capacity and at which long delays are likely to be experienced during peak traffic periods. Most urbanized communities in Northern California consider level E to be unacceptable. Level of Service F, with volume capacity ratios of about 1.0, indicates that the intersection operates at its full capacity for at least 15 minutes each day. Volume/capacity ratios significantly greater than 1.0 reflect cases in which the intersection operates at full capacity with long traffic delays for one hour or more on typical weekdays.

The City of Roseville has selected a Level of Service rating of C and a maximum volume/capacity ratio of 0.79 as its evaluation criterion, even though the TRB and other local research indicates that an intersection will operate safely under capacity and will have delays of about 25 seconds or less with planning volume/capacity ratios of up to 0.85. Therefore, this study defines street widenings and intersection improvements or urban interchanges in all cases where future volume/capacity ratios are projected to be 0.80 or greater. In addition to intersection conditions, this study evaluates the operation of individual street and freeway segments. Streets within the City of Roseville were designed to operate at 80% of capacity or less.



Table J2
Intersection Level of Service Definitions

<u>Level of Service</u>	<u>Typical V/C Ratio</u>	<u>Stopped Delay (Sec. per Veh.)</u>
A	0.00 - 0.59	Up to 5
B	0.60 - 0.69	5 - 15
C	0.70 - 0.79	15 - 25
D	0.80 - 0.89	25 - 40
E	0.90 - 1.00	40 - 60
F	1.00 +	60 +

As with the street capacities presented in Table J1, the LOS ratings presented in Table J2 are generally found to be conservative. For example, an intersection with a volume/capacity ratio calculated using planning techniques to be 0.85 can operate with less than 25 seconds of average delay. This corresponds to service level C conditions rather than service level D. However, as with basic street analysis, this study uses conservative techniques (and has used a v/c ratio of 0.8 to define the transition from LOS C to D) to evaluate intersection operating performance. The rating system presented in Table J2 provides a margin of safety in predicting future intersection levels of service and to remain consistent with previous studies in the Roseville area.

Table J3 presents the existing p.m. peak hour service level ratings for critical intersections in Roseville. These ratings represent conditions prior to the opening of the 65 Bypass, and therefore, do not reflect recent improvements produced by the Bypass at locations such as Riverside/Cirby and Washington/Main. The table indicates that three intersections in the central and western part of Roseville are now or until recently have been operating at service levels worse than C. These are: Sunrise/Douglas, Riverside/Cirby, Cirby/Sunrise.



Table J3
Existing Levels of Service at Critical Intersections

<u>Intersection</u>	<u>Volume/Capacity Ratio</u>	<u>Level of Service</u>
Douglas Blvd. & Sunrise Blvd.	0.95	E
Riverside & Cirby Way	0.95	E
Douglas Blvd. & Harding Avenue	0.77	C
Cirby Way & Sunrise Blvd.	0.95	E
Douglas Blvd. & Rocky Ridge	0.55	A
Douglas Blvd. & Sierra Gardens	0.56	A
Douglas Blvd. & Santa Clara	0.60	B
Junction Blvd. & Washington Blvd.	0.38	A
Foothill Blvd. & Baseline Road	0.23	A

Future Conditions. In order to realistically model future traffic conditions, it is necessary to recognize where and when land uses will likely develop, what roadway facilities will be in place to serve traffic, and finally what new roadway facilities would be required. The appended traffic report includes a detailed discussion of trip generation rates and modelling methodology employed in the traffic analysis. Inherent in this analysis is examination of the traffic origins and destinations. Because of the location of principal employment centers, it is generally recognized that a substantial amount of existing traffic commutes to the Sacramento area from outlying communities, and that the regional roadways which serve this need already experience periods of congestion. Consequently, significant freeway improvements are already planned. These include the upgrade of the 65 Bypass to freeway status and the I-80 widening to eight lanes from just north of Douglas to the 65 Bypass interchange, with new interchanges at Atlantic Street and Taylor Road.

Within the context of the City of Roseville, it is recognized that development in the northern parts of the City will generate a need for improved connections across the Southern Pacific railroad tracks. Initially this need will be to provide access to the I-80 corridor for commuters employed in the greater Sacramento metropolitan area. However, as a consequence of

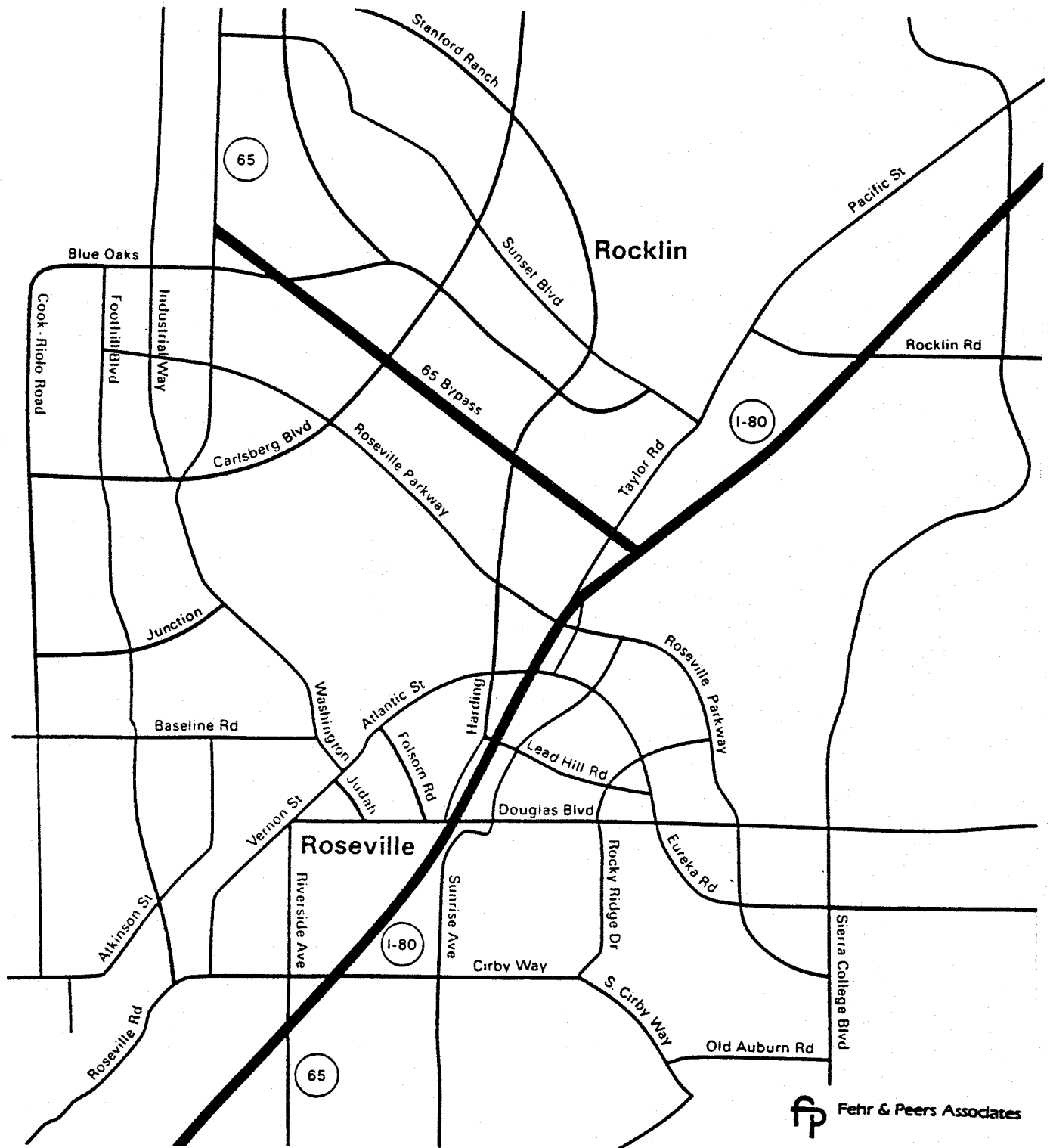


industrial and commercial growth in the North Industrial area and in the North Central Roseville Specific Plan area, it is anticipated that this condition will reverse itself, and the improved railroad crossings will be heavily utilized by commuters accessing northern Roseville. In either case, development of grade separated crossings of the Southern Pacific railroad tracks is considered essential to development of northern Roseville. To meet this predicted need, several key roadway improvements are already underway. The Foothills Boulevard extension is currently being developed and will provide a four-lane expressway extending south from Baseline Road to a new terminus at Roseville Road. This extension will include a four-lane overcrossing at the railroad right-of-way, replacing the existing Subway Road undercrossing. This project will be developed regardless of future development in the various specific plan areas.

Augmenting the Foothill extension are a number of additional roadway network expansions planned as part of major Roseville and Rocklin development proposals. Key roadway facilities that are to be constructed to support the major growth areas are illustrated in Figure J3. In addition to the Foothills extension, the key new facilities in north and west Roseville are Roseville Parkway, Carlsberg Boulevard and the Harding Boulevard extension. All three are planned to ultimately become six-lane arterials or expressway facilities. Roseville Parkway is proposed to extend through several of the major plan areas in both east and west Roseville, but it will not have an interchange at I-80. Carlsberg Boulevard will provide a connection between the Northwest and North Central Plan areas and direct access to the 65 Bypass. The Harding extension will provide an additional grade separated crossing of the railroad, and will connect the North Central Plan Area to the improved Atlantic/I-80 interchange. It will also provide direct access to the 65 Bypass via a new interchange and will connect northern Roseville to the developing areas of Rocklin just north of the Bypass.

In addition to Carlsberg Boulevard, two other new facilities are planned within the Northwest Roseville Plan area. These are the westerly extension of Junction Boulevard, and the northerly extension of Cook-Riolo Road, which currently terminates at





PROPOSED ROADWAY NETWORK

FIGURE J3



Baseline Road at the site's southwestern corner. As alternates to the freeway, Watt, Walegra and Cook-Riolo are links between the site and northwestern portions of Sacramento County, along with the Foothills Boulevard extension.

The analysis of year 2005 peak hour operating conditions on Roseville's streets and highways is based on standard analysis techniques prescribed by the Transportation Research Board in the 1985 Highway Capacity Manual. The analysis of street intersection operation is based on its configuration, signalization and predicted p.m. peak hour traffic volumes. The future geometry of each intersection was defined according to the following guidelines.

- o For existing intersections (such as Sunrise/Douglas), the existing lane geometry and signalization was assumed, plus any reasonable improvements that could be accomplished with minimal expansion of right-of-way and without grade separation.
- o For intersections in currently undeveloped areas which can be designed to the highest standards (such as Harding/Roseville Parkway), the highest-capacity geometries dictated by the overall street and right-of-way width were assumed. The basic geometric assumptions are indicated in Table J4. Along with these basic geometries, and multi-phase signal operation was assumed. In cases where projected turning volumes were significantly unbalanced, the lane designations were adjusted from the standard assumptions given in Table J4 to a configuration that would be most effective within the available right-of-way.

**Table J4
Assumed Lane Geometry for New Intersections**

Facility Type	Intsx. Type	Intersection Approach Lanes		
		Left	Thru	Right
6-lane arterial	Full	2	3	1
4-lane arterial	Full	1	2	1
2-lane arterial	Full	1	1	1
6-lane arterial	T	2	0	1
4-lane arterial	T	2	0	1
2-lane arterial	T	1	0	1



o At locations where at-grade improvements would not be sufficient and where reasonable right-of-way acquisition could be accomplished, construction of a grade separated interchange was called for. The standard assumption for such an improvement would be an "urban interchange" of the type recently installed at various locations Texas, Florida and Arizona. Such interchanges require minimal right-of-way. They allow the major through traffic movement to proceed uninhibited, and control all of the other movements at a single signalized intersection. They generally offer capacities which are 20% to 75% higher than those of an at-grade intersection and up to 10% higher than a standard diamond interchange.

2005 Traffic Conditions

No Development of the Roseville Specific Plan Areas

The street system planned to support expected year 2005 development includes several roadways proposed as part of the specific plans in North Central, Northwest, Northeast and Southeast Roseville. These roadways include the Roseville Parkway both east and west of I-80, Carlsberg Boulevard, the Eureka Road extension to Atlantic, and several minor arterials and collectors. The study has assumed that if the four Roseville specific plan areas did not develop, many of these roadways and roadway connections would not be constructed.

The traffic impacts associated with this case, i.e. no development of the four Roseville specific plan areas and the exclusion of the roadways (listed in the previous paragraph) supporting these specific plan areas, and expected 2005 development elsewhere, were evaluated. In this scenario, the only portion of Roseville which would experience substantial growth by the year 2005 would be the North Industrial area, with approximately 16,000 employees.

Intersections - Impacts: Since three intersections in Roseville (Douglas & Sunrise, Cirby & Riverside, and Cirby & Sunrise) are currently operating at worse than LOS C, and few new facilities would be constructed to reduce traffic pressures on them, their peak period traffic performance would worsen.

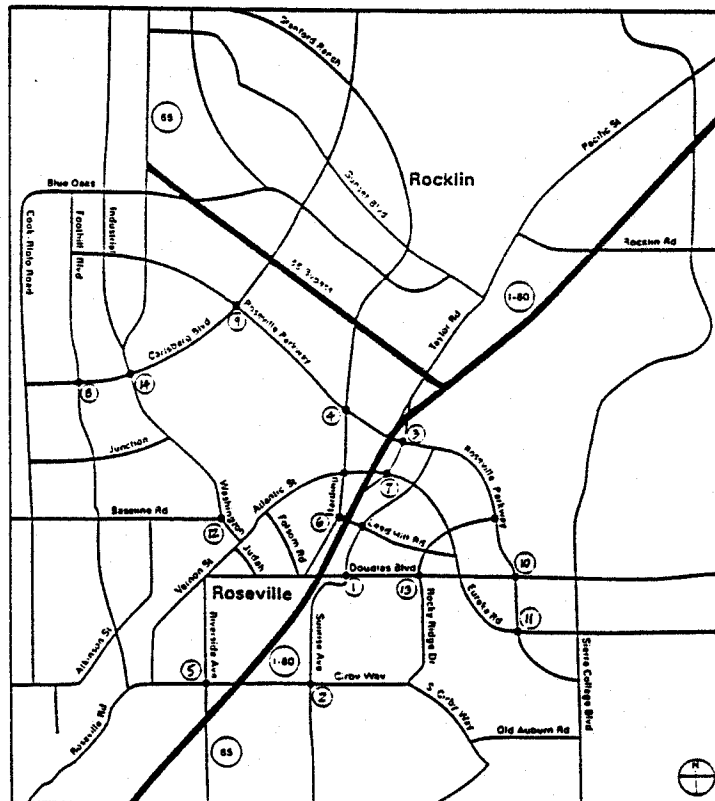
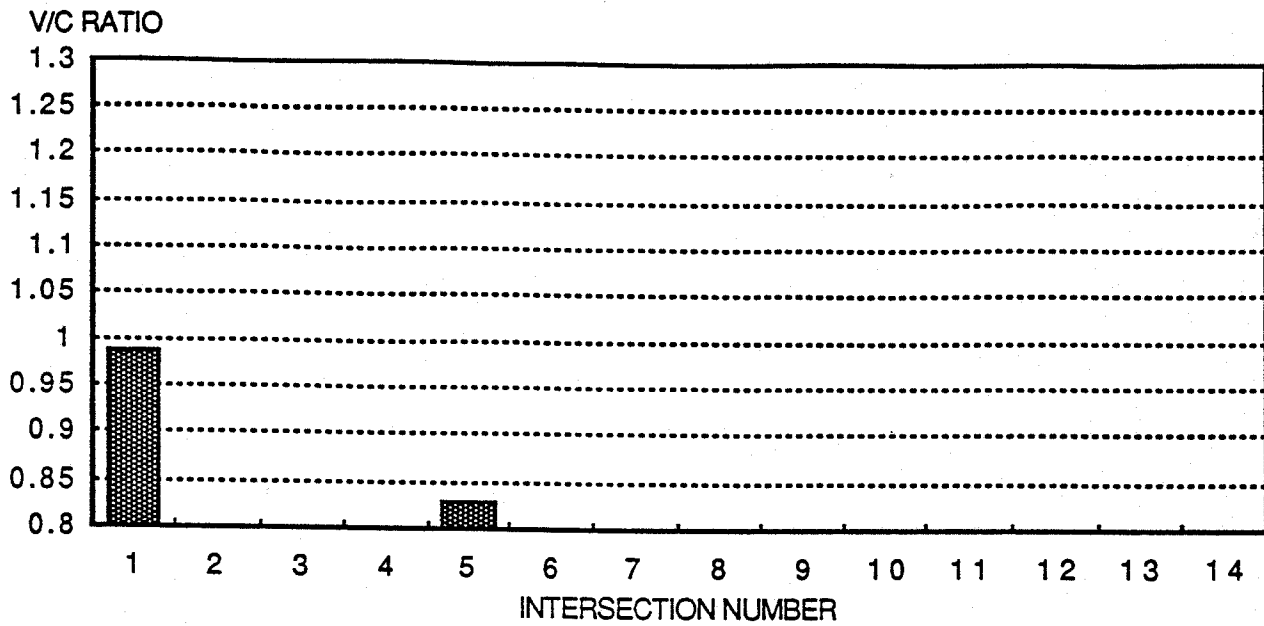
In determining the future v/c ratios of the existing Roseville intersections, it was assumed that the major arterials in Roseville today (Douglas, Sunrise (south of Cirby), Cirby and Riverside) would be widened to six lanes by year 2005, and that the major intersection approaches would have the maximum number of lanes feasible. The only exception to this would be at the Douglas & Sunrise intersection, where physical and right-of-way constraints prevent the widening of the intersection to two left-turn, three through lanes, and one right-turn lane per approach.

As shown in Figure J4, two intersections in Roseville would operate at a v/c ratio of 0.80 or greater in year 2005 without the development of the four Roseville specific plan areas. These intersections are Douglas & Sunrise (v/c ratio = 0.99) and Cirby & Riverside (v/c ratio = 0.83).

Intersections - Mitigations: The v/c ratios at these two intersections would be brought to less than 0.80 if grade separated improvements were constructed. With grade separation, Douglas & Sunrise would operate at 0.71 and Cirby & Riverside at 0.69. Additional mitigation measures such as transportation systems management (TSM) and peak hour turning movement prohibitions are discussed in Section E.

Freeways: The amount of traffic growth on I-80 and the 65 Bypass in the Roseville area is only partially dependent upon the level of development in Roseville. Unlike intersections which primarily serve local and sub-regional travel, regional facilities such as I-80 and the 65 Bypass serve a substantial portion of through travel, or trips traveling between points north of Roseville (such as Rocklin, Lincoln and Auburn) and points south of Roseville (primarily Sacramento). Since under expected 2005 conditions these areas surrounding Roseville are expected to grow steadily, so too are the traffic volumes on I-80 and the 65 Bypass.

The number of lanes which would be required on I-80 and the 65 Bypass were computed. The lane requirements were derived by using the following freeway capacities:



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**INTERSECTION VOLUME/CAPACITY RATIOS
2005 WITH NO DEVELOPMENT OF THE PLAN AREAS**

FIGURE J4



2,000 vehicles per lane for the mainline;
1,700 vehicles per lane for a linear ramp; and
1,500 vehicles per lane for a loop ramp.

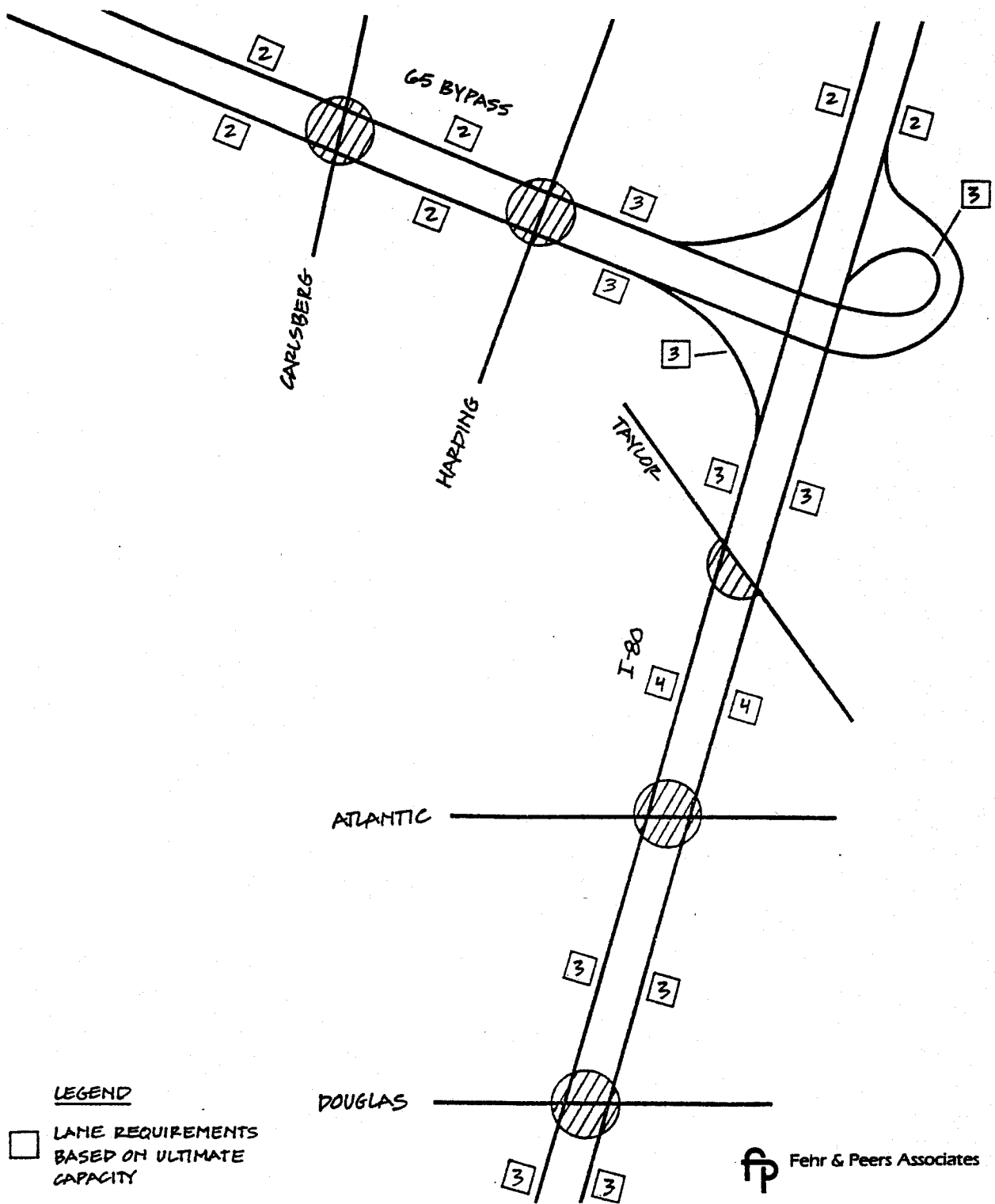
The number of lanes required on I-80 and the 65 Bypass assuming no development of the four Roseville Specific Plan Areas and expected 2005 development elsewhere are shown in Figure J5. On the 65 Bypass, peak hour traffic demand volumes warrant two lanes per direction from Blue Oaks to Harding Boulevard and three lanes per direction from Harding Boulevard to I-80. The demand volumes indicate the need for a three lane ramp from the 65 Bypass to southbound I-80 and a three-lane ramp connecting northbound I-80 to the 65 Bypass. Interstate 80 would require three lanes per direction from I-80 to Taylor Road, four lanes per direction from Taylor Road to Atlantic, and three lanes per direction from Atlantic to south of Douglas.

2005 With Buildout of the Northwest Plan Area

The traffic impacts which would result from the buildout of the Northwest Plan and expected 2005 development of the remainder Roseville and surrounding areas were analyzed. In this analysis it was assumed that there would be the equivalent of two regional shopping centers located in the North Central Specific Plan Area.

Intersections - Impacts: As shown in Table J5 and Figure J6, eight intersections in Roseville would operate at a v/c ratio of 0.80 or more if the Northwest Plan Area was fully built out and the remainder of Roseville and the region developed to expected 2005 levels. The Douglas & Sunrise and Roseville Parkway & Taylor intersections would operate at a v/c ratio of 1.0, while Baseline & Washington would operate at a v/c ratio of 0.93. The other five intersections would operate in the 0.83 to 0.88 range.

Intersections - Mitigations: The Baseline & Washington and Roseville Parkway & Taylor intersections are the intersections which could be brought to a v/c ratio of less than 0.80 with at-grade improvements alone. At the Baseline & Washington intersection, a second northbound to westbound left-turn lane on Washington would bring the v/c ratio to 0.77. At the Roseville Parkway & Taylor intersection, a second northbound to westbound left-turn lane would improve the v/c ratio from 1.00 to 0.78.



NUMBER OF LANES REQUIRED - 2005
WITH NO DEVELOPMENT OF THE PLAN AREAS

FIGURE J5



Table J5
Intersections with Volume/Capacity Ratios of 0.80 or more
2005 with Buildout of the Northwest Specific Plan Area

Intersection	Volume/Capacity Ratio	Level of Service
Douglas & Sunrise	1.14 (1.00)*	E/F
Roseville Pkwy & Taylor	1.08 (1.00)*	E/F
Roseville Pkwy & Harding	0.88	D
Cirby & Riverside	0.87	D
Eureka & Taylor	0.83	D
Foothill & Carlsberg	0.85	D
Roseville Pkwy & Carlsberg	0.86	D
Baseline & Washington	0.93	E

Note: Assumes two regional shopping centers in the North Central Plan Area.

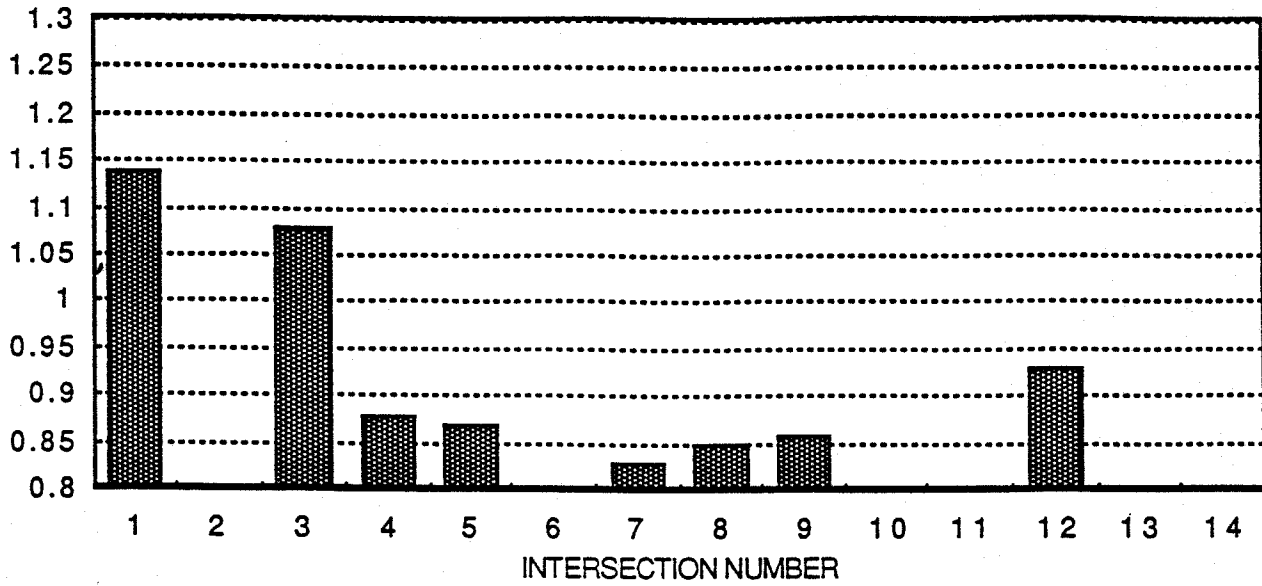
* Volume/capacity ratios of over 1.00 actually represent demand/capacity ratios. By definition volume/capacity ratios can not exceed 1.00. Historically, drivers travel at different times of the day or on different routes to avoid intersection overload.

The other four intersections (six without TSM or left-turn prohibitions) would require grade separation in order to achieve a v/c ratio of less than 0.80. The v/c ratios which would result from grade separation are shown in Table J6. Other mitigations such as TSM and turning movement prohibitions would preclude the need for grade separation improvements at Foothill & Carlsberg and Eureka & Taylor.

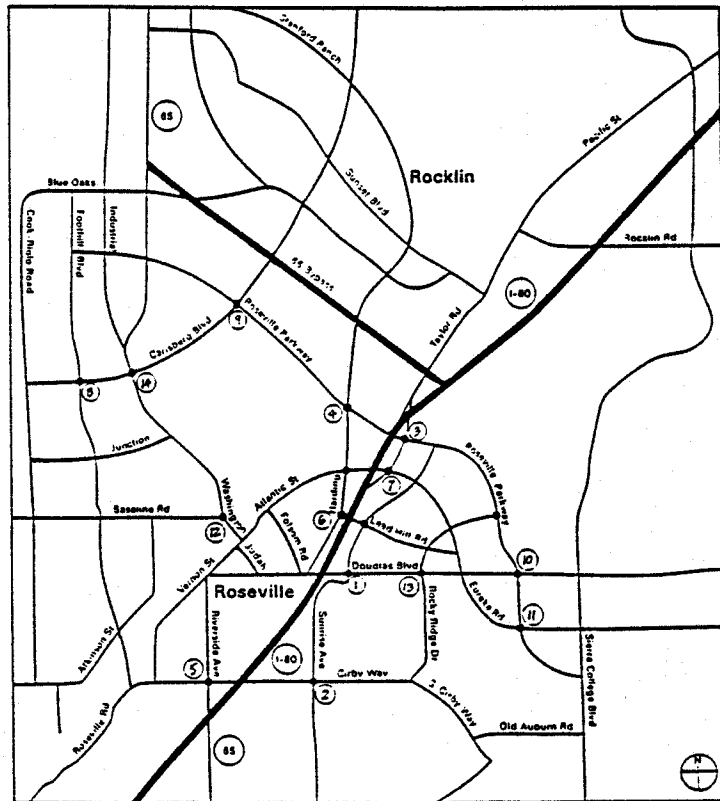
Freeways: The number of lanes per direction which would be required on the 65 Bypass and I-80 in 2005 with the buildout of the Northwest Specific Plan Area are presented in Figure J7. The demand volumes would require two lanes in each direction on the 65 Bypass from Blue Oaks to Carlsberg Boulevard, and three lanes per direction from Carlsberg Boulevard to I-80. The peak hour volumes would also require the ramps connecting the 65 Bypass to I-80 south to be three lanes. Interstate 80 would need to be three lanes from the 65 Bypass to Taylor Road, four lanes from Taylor Road to Douglas Boulevard, and five lanes south of Douglas Boulevard.



V/C/ RATIO



NOTE: 2 REG SHPG CNTRS IN N.CENTRAL PLAN



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INTERSECTION VOLUME/CAPACITY RATIOS
2005 WITH BUILDOUT OF THE NW PLAN AREA

FIGURE J6



Table J6
Intersection Volume/Capacity Ratios
after Grade Separation Improvements
2005 with Buildout of the Northwest Specific Plan Area
(Without TSM or turn prohibitions)

<u>Intersections Requiring Grade Separation</u>	<u>Volume/Capacity Ratio</u>	
	<u>W/O Grade* Separation</u>	<u>With Grade* Separation</u>
Douglas & Sunrise	1.14 (1.00)*	0.72
Roseville Parkway & Harding	0.88	0.66
Cirby & Riverside	0.87	0.73
Eureka & Taylor	0.83	0.43
Foothill & Carlsberg	0.85	0.66
Roseville Parkway & Carlsberg	0.86	0.56

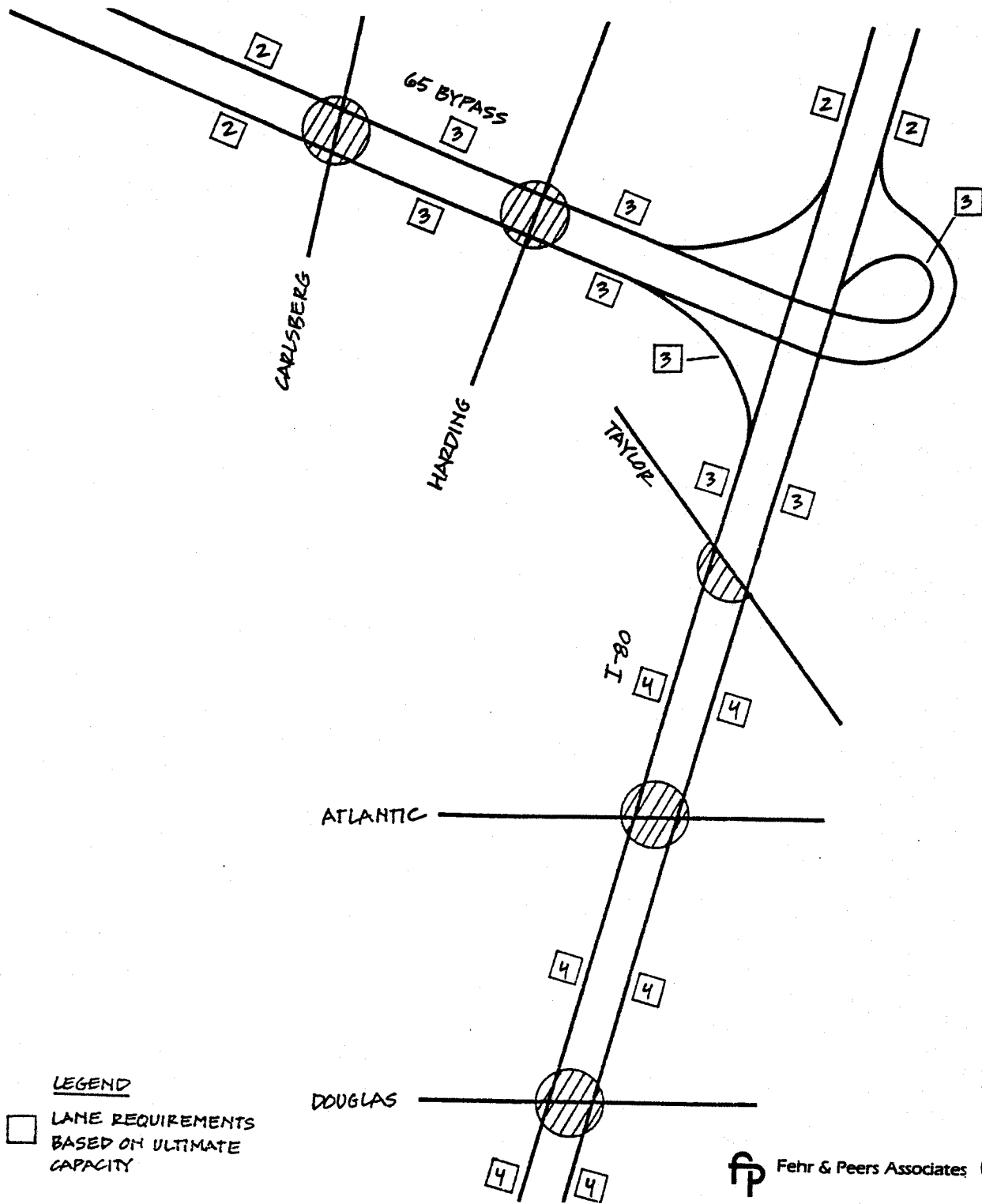
* Volume/capacity ratios of over 1.00 actually represent demand/capacity ratios. By definition volume/capacity ratios can not exceed 1.00. Historically, drivers travel at different times of the day or on different routes to avoid intersection overload.

2005 With Buildout of the Four Roseville Specific Plan Areas

The traffic impacts due to the buildout of all four Roseville Specific Plan Areas (North Central, Northwest, Northeast and Southeast) and expected 2005 conditions elsewhere were evaluated under two scenarios assuming -

1. One regional shopping center in the North Central Plan.
2. The equivalent of two regional shopping centers in the North Central Plan.





NUMBER OF LANES REQUIRED - 2005
 WITH BUILDOUT OF THE NW PLAN AREA

FIGURE J7



Intersections - Impacts: With buildout of the four Roseville Specific Plans and expected 2005 development elsewhere, twelve intersections in Roseville would operate at a v/c ratio of 0.80 or more, regardless of whether there were one or the equivalent of two shopping centers in the North Central Plan Area. The unmitigated v/c ratios and service levels of these twelve intersections are presented in Table J7 and are graphically illustrated in Figure J8.

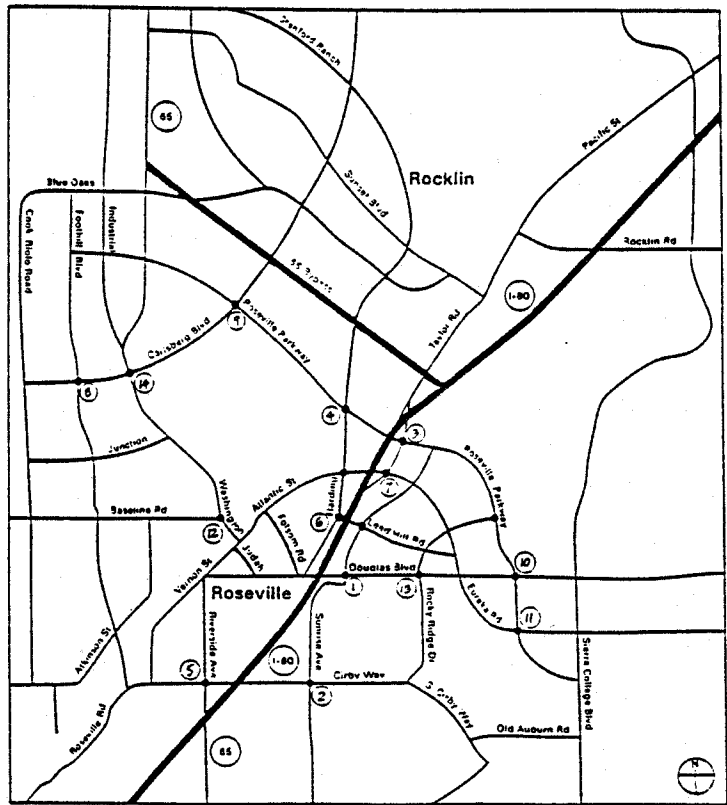
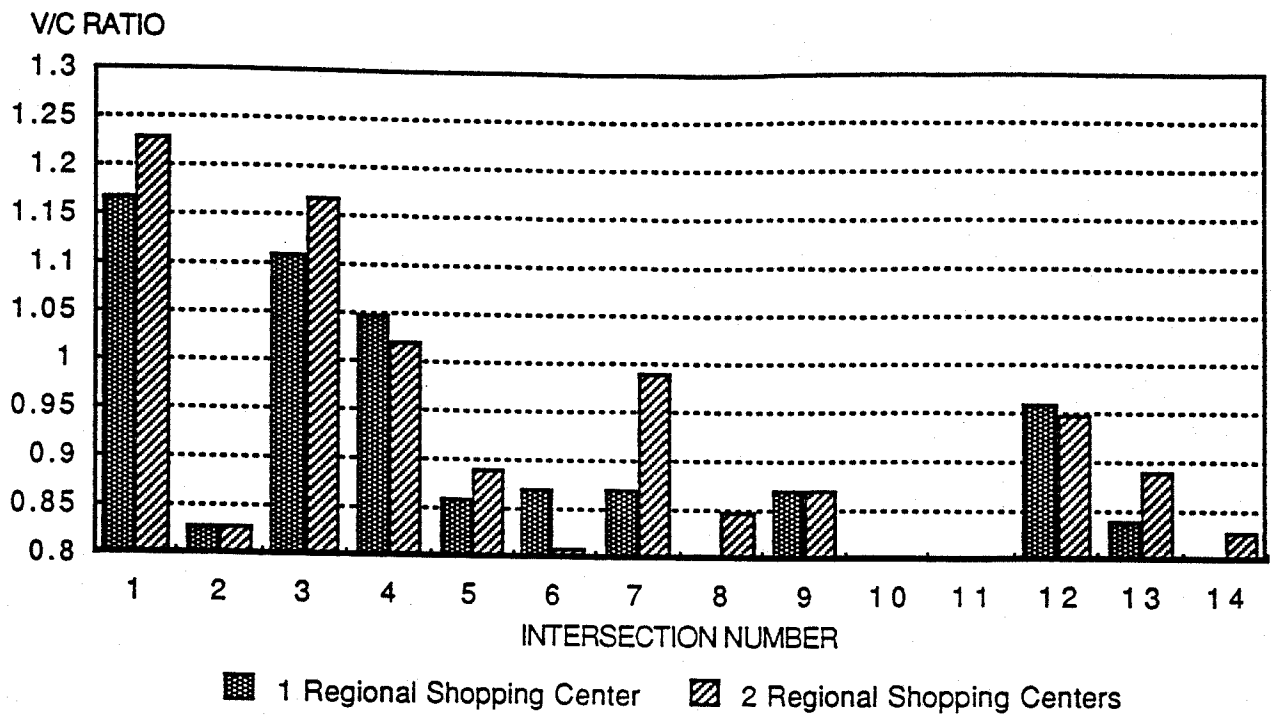
Table J7

Intersections with Volume/Capacity Ratios of 0.80 or more
2005 with Buildout of the Four Roseville Specific Plan Areas

Intersection	With 1 Regional Shopping Center		With 2 Regional Shopping Centers	
	V/C Ratio	LOS	V/C Ratio	LOS
Douglas & Sunrise	1.17 (1.00)*	E/F	1.23 (1.00)*	E/F
Cirby & Sunrise	0.83	D	0.83	D
Roseville Pkwy & Taylor	1.11 (1.00)*	E/F	1.17 (1.00)*	E/F
Roseville Pkwy & Harding	1.05 (1.00)*	E/F	1.02 (1.00)*	E/F
Cirby & Riverside	0.86	D	0.89	D
Lead Hill & Harding	0.87	D	0.81	D
Eureka & Taylor	0.87	D	0.99	E
Foothill & Carlsberg	0.80	D	0.85	D
Roseville Pkwy & Carlsberg	0.87	D	0.87	D
Baseline & Washington	0.96	E	0.95	E
Douglas & Rocky Ridge	0.84	D	0.89	D
Carlsberg & Washington	0.80	D	0.83	D

* Volume/capacity ratios of over 1.00 actually represent demand/capacity ratios. By definition volume/capacity ratios can not exceed 1.00. Historically, drivers travel at different times of the day or on different routes to avoid intersection overload.





fp Fehr & Peers Associates

**INTERSECTION VOLUME/CAPACITY RATIOS
2005 WITH BUILDOUT OF ALL FOUR PLAN AREAS** **FIGURE J8**



Intersections - Mitigations: At-grade intersection improvements would reduce the v/c ratios at three of the twelve intersections to levels less than 0.80. These mitigations and resulting v/c ratios are as follows:

<u>Intersection</u>	<u>Mitigation</u>	<u>1 Regional Shopping Center</u>		<u>2 Regional Shopping Centers</u>	
		<u>Without Mitigation</u>	<u>With Mitigation</u>	<u>Without Mitigation</u>	<u>With Mitigation</u>
Baseline & Washington	Add second NB left-turn lane	0.96	0.79	0.95	0.79
Douglas & Rocky Ridge	Widen Rocky Ridge to 6 lanes	0.84	0.67	0.89	0.72
Carlsberg & Washington	Add second NB left-turn lane	0.80	0.70	0.83	0.73

Other mitigations such as TSM and turning movement prohibitions would preclude the need for separation improvements at four of the nine intersections. These intersections are at Cirby & Sunrise, Lead Hill & Sunrise, Eureka & Taylor and Foothill & Carlsberg. The other nine intersections would require grade separation improvements in order to reduce their v/c ratios. As shown in Table J8, v/c ratios of less than 0.80 would result at all intersections due to grade separation improvements.

Freeways: The number of lanes which would be required on the 65 Bypass and I-80 are shown in Figure J9. On the 65 Bypass there would need to be two lanes per direction from Blue Oaks to Carlsberg Boulevard, and three lanes per direction from Carlsberg Boulevard to I-80. Interstate 80 would need to be three lanes per direction from the Bypass to Taylor Road, four lanes per direction from Taylor Road to Douglas Boulevard, and five lanes per direction south of Douglas Boulevard.



Table J8
Intersections with Volume/Capacity Ratios of 0.80 or more
2005 with Buildout of the Four Roseville Specific Plan Areas

<u>Intersection</u>	<u>Assuming 1 Regional Shopping Center</u>		<u>Assuming 2 Regional Shopping Centers</u>	
	<u>Grade Separation with</u>	<u>Grade Separation without</u>	<u>Grade Separation with</u>	<u>Grade Separation without</u>
Douglas & Sunrise	1.17 (1.00)*	0.77	1.23 (1.00)*	0.78
Cirby & Sunrise	0.83	0.60	0.83	0.60
Roseville Pkwy & Taylor	1.11 (1.00)*	0.45	1.17 (1.00)*	0.49 ¹
Roseville Pkwy & Harding	1.05 (1.00)*	0.74	1.02 (1.00)*	0.71
Cirby & Riverside	0.86	0.73	0.89	0.74
Lead Hill & Harding	0.87	0.53	0.81	0.52
Eureka & Taylor	0.87	0.44	0.99	0.49
Foothill & Carlsberg	0.80	0.61	0.85	0.66
Roseville Pkwy & Carlsberg	0.87	0.61	0.87	0.62

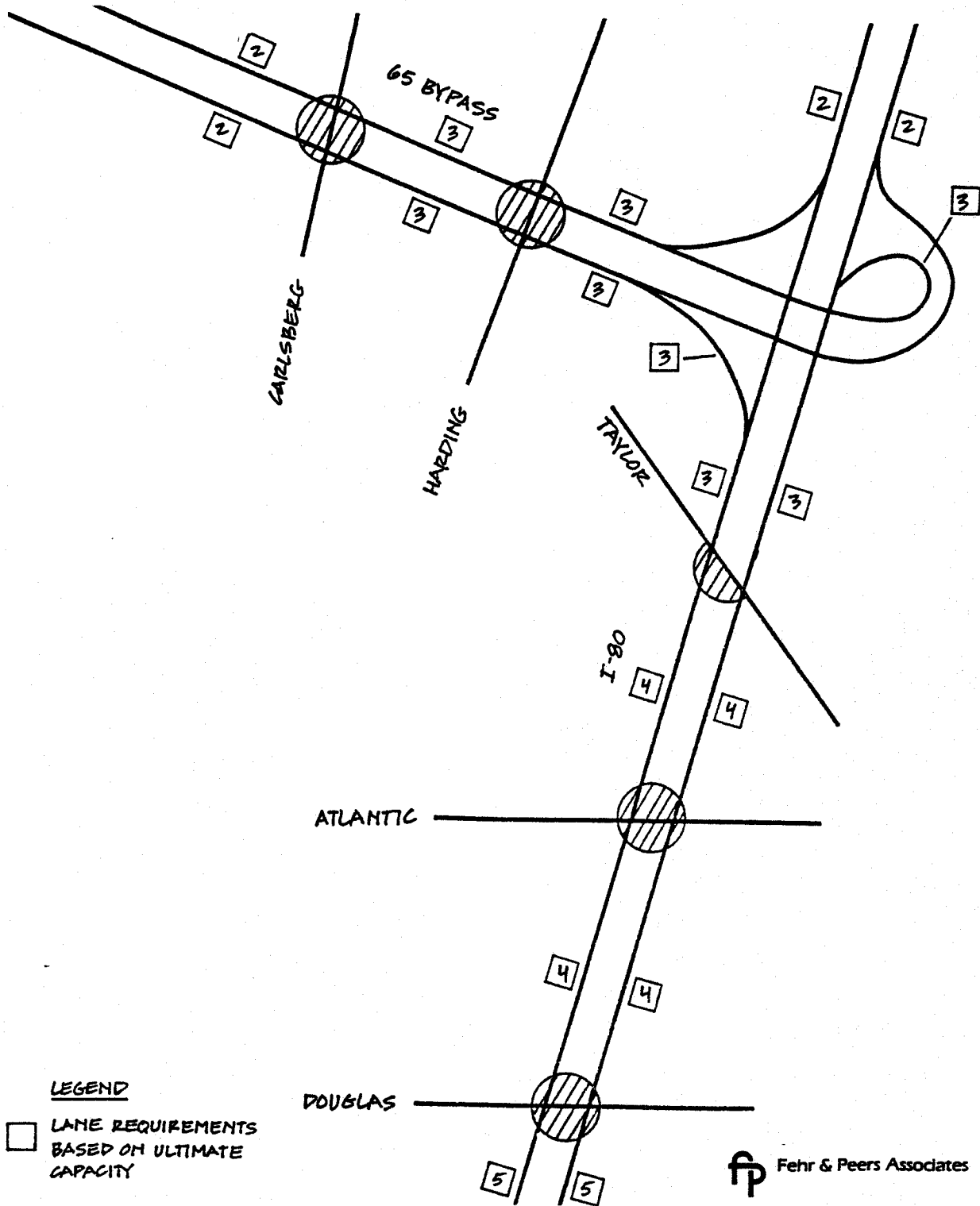
¹ Includes grade improvements described under Scenarios Analyzed

* Volume/capacity ratios of over 1.00 actually represent demand/capacity ratios. By definition volume/capacity ratios can not exceed 1.00. Historically, drivers travel at different times of the day or on different routes to avoid intersection overload.

Further Mitigations

As was shown in the previous section, a total of nine intersections would need to have grade separation improvements in the year 2005 with buildout of all four Roseville Specific Plan areas. If an intersection was expected to operate at a v/c ratio of 0.80 or more (using the Circular 212 Planning Method), and at-grade improvements would not bring its v/c ratio to less than 0.80, then an urban interchange would be needed. Although this analysis method is valid for planning purposes as it shows the expected magnitude and location of possible urban interchanges,





**NUMBER OF LANES REQUIRED - 2005
 WITH BUILDOUT OF ALL FOUR PLAN AREAS**

FIGURE J9



it does not necessarily determine what and where capital improvements will be made. For example, trip generation rates may be less than those assumed in this report due to the impact of measures such as Transportation Systems Management (TSM), a measure to reduce individuals driving alone during the peak hour.

Additionally, some intersections have, or would have adjacent land uses that are incompatible with a grade separated interchange, and others may be located in places where the topography or limited right of way precludes the building of an urban interchange.

Four of the nine locations which were earlier shown to need grade separation improvements are considered to be undesirable locations for urban interchanges. These four intersections are:

1. Eureka & Taylor - Because of the surrounding topography (there is a steep ravine just east of Taylor Road), it would be extremely difficult from an engineering standpoint to grade-separate Taylor & Eureka.
2. Lead Hill & Harding - Due to existing development adjacent to this intersection (there is a residential complex west of Harding Boulevard) and its closeness to I-80, the construction of a fly-over ramp would not be a feasible improvement.
3. Sunrise & Cirby - Existing development on all four intersection corners make the construction of an urban interchange unfeasible.
4. Foothill & Carlsberg - Anticipated development adjacent to the intersection would make the construction of an urban interchange undesirable.

Following discussions with City staff, an analysis was undertaken to investigate mitigation measures, other than constructing grade separation improvements, which would bring the v/c ratios at these four intersections to less than 0.80. The two types of mitigation measures investigated were Transportation System Management (TSM) and the prohibition of particular travel movements at intersections. Each of these items are discussed in more detail below. The impacts of these mitigations is reported for all nine intersections where urban interchanges have been suggested as possible mitigations.



TSM: Traffic impacts on Roseville roads can be reduced through TSM measures which encourage employees to rideshare and travel at times outside of the normal peak travel periods. Based on research conducted by Caltrans, the Institute of Transportation Engineers, and Fehr & Peers Associates, the traffic reductions which can reasonably be realized by these programs are as follows:

<u>Type of Employment</u>	<u>Ridesharing</u>	<u>Peak Hour Flex Time</u>	<u>Total Trip Reduction</u>
Business - Professional	7%	4%	11%
General Industrial	7%	9%	16%

Trip generation rates for B-P and industrial land uses in the North Central and Northwest Specific Plan Areas, as well as in the North Industrial area were reduced accordingly.

Turning Movement Prohibition: The Eureka & Taylor intersection is estimated to operate at a v/c ratio of 0.99 in the year 2005 assuming buildout of all four specific plan areas. Because the v/c ratio of 0.99 is substantially higher than the acceptable v/c threshold of 0.80, other measures to reduce the v/c ratio were investigated. One measure studied was the peak hour prohibition of left-turns from southbound Taylor Road to eastbound Eureka Road. The banning of this left-turn movement would divert traffic to the Roseville Parkway & Sunrise and Eureka & Sunrise intersections. Both of these intersections would have the capacity to handle the added traffic.

Results: TSM and the left-turn ban at Taylor & Eureka would have a positive effect on the intersection v/c ratios for the worst-case land use scenario; i.e. buildout of the four Roseville Specific Plan areas, two regional centers in the North Central Plan Area, and expected 2005 conditions elsewhere. The resulting v/c ratios are as follows:



<u>Intersection</u>	<u>Before TSM</u>	<u>After TSM</u>
Douglas & Sunrise	1.23 (1.00)*	1.19 (1.00)*
Cirby & Sunrise	0.83	0.79
Roseville Pkwy & Taylor	1.17 (1.00)*	1.20 (1.00)*
Roseville Pkwy & Harding	1.02 (1.00)*	0.99
Cirby & Riverside	0.89	0.90
Lead Hill & Harding	0.81	0.74
Eureka & Taylor	0.99	0.76 ¹
Foothill & Carlsberg	0.85	0.70
Roseville Pkwy & Carlsberg	0.87	0.85

¹Also includes peak hour left-turn prohibition from Taylor (SB) to Eureka (EB).

Summary of Impacts and Mitigations

In previous sections of this chapter, traffic impacts and mitigations were presented and discussed under a variety of land use scenarios. This final section of the chapter summarizes the overall findings under these scenarios.

M Development of the Northwest Roseville Specific Plan will result in the generation of additional vehicular trips on area roadways. These trips will create a need for improvements to existing roadways and construction of new roadways in the City. Depending on the development scenario assumed, improvements will be required at different locations at different times. In all cases, mitigation has been identified which is predicted to provide an acceptable level of service.

Intersections: A summary of the intersections which would require mitigations to bring their v/c ratios to less than 0.80 is shown in Table J9. The Douglas & Sunrise and Cirby & Riverside intersections would need grade separated improvements under all scenarios (including a "no-build" scenario for all specific plans). This holds true regardless of TSM impacts.

In all of the scenarios in which there is development in the Roseville Specific Plans (Scenarios B, C & D), grade separated improvements would be required at the Roseville Parkway & Harding intersection. This is in addition to the Douglas & Sunrise and Cirby & Riverside intersections. Grade separated improvements



would not be needed at the Eureka & Taylor and Foothill & Carlsberg intersections if TSM measures and the peak hour left-turn ban at Eureka & Taylor were implemented.

In addition to the five intersections listed in the paragraph above, grade separated improvements would also be required at the Roseville Parkway & Carlsberg intersection if the Northwest Plan were built-out, at the Roseville Parkway & Taylor intersection if the North Central Plan were built-out with two regional shopping centers, and at the Roseville Parkway & Taylor, Roseville Parkway & Carlsberg, Lead Hill & Harding, and Cirby & Sunrise intersections if all four specific plan areas were built-out. The latter two intersections, Lead Hill & Harding and Cirby & Sunrise, would not need grade separated improvements if TSM measures were implemented in the Northwest, North Central & North Industrial employment sectors.

The number of intersections which would require mitigations, both at-grade and grade separated, by scenario are shown in Table J10. With expected 2005 development outside of the Roseville specific plan areas, grade separated improvements would be required at eight intersections if all four specific plans were built-out, six and five intersections if the North Central Plan were built-out with two and one regional shopping centers, respectively, and six intersections if the Northwest Plan were built-out.

TSM and peak hour turning prohibition would preclude the need for grade separation improvements at four intersections: Cirby & Sunrise, Lead Hill & Harding, Eureka & Taylor and Foothill & Carlsberg.

Freeways: On the 65 Bypass, two lanes per direction are required between Blue Oaks and Carlsberg Boulevard and three lanes between Harding Boulevard and I-80 under all scenarios. The section of the 65 Bypass between Carlsberg Boulevard and Harding Boulevard is the only one which differs in lane requirements by scenario. With no development of the Roseville specific plan areas, two lanes per direction are required. With specific plan development of Scenarios B, C or D, three lanes per direction are required.



Table J9
Intersections Which Would Require Mitigations

<u>Intersections</u>	<u>Scenario</u>					
	<u>A</u>	<u>B</u>	<u>C1</u>	<u>C2</u>	<u>D1</u>	<u>D2</u>
Douglas & Sunrise	X	X	X	X	X	X
Cirby & Sunrise	-	-	-	-	X*	X*
Roseville Parkway & Taylor	N/A	O	O	X	X	X
Roseville Parkway & Harding	N/A	X	X	X	X	X
Cirby & Riverside	X	X	X	X	X	X
Lead Hill & Harding	-	-	-	-	X*	X*
Eureka & Taylor	N/A	X*	X*	X*	X*	X*
Foothill & Carlsberg	N/A	X*	X*	X*	X*	X*
Roseville Parkway & Carlsberg	N/A	X	-	-	X	X
Baseline & Washington	N/A	O	O	O	O	O
Douglas & Rocky Ridge	-	-	O	O	O	O
Carlsberg & Washington	N/A	-	-	-	O	O

Description of Scenarios

A - No development of four Roseville specific plan areas; expected 2005 development elsewhere.

B - Buildout of Northwest Plan Area; expected 2005 development elsewhere.

C1 - Buildout of North Central Plan Area with one regional shopping center in North Central Plan Area; expected 2005 development elsewhere.

C2 - Buildout of North Central Plan Area with two regional shopping centers in North Central Plan Area; expected 2005 development elsewhere.

D1 - Buildout of all four Roseville Specific Plan Areas with one regional shopping center in the North Central Plan Area; expected 2005 development elsewhere.

D2 - Buildout of all four Roseville Specific Plan Areas with two regional shopping centers in the North Central Plan Area; expected 2005 development elsewhere.

Legend:

- Does not need mitigation
- O Mitigated with at-grade improvements
- X Mitigated with grade-separated improvements
- * TSM and peak hour turning movement prohibitions preclude grade separation improvements
- N/A Will not exist under that scenario



Table J10
Number of Intersections Which Would Require Improvements

<u>Scenario</u>	<u>At-Grade Improvement</u>	<u>Grade-Separated Improvement</u>		<u>Total</u>	
		<u>W/O TSM</u>	<u>W/ TSM*</u>	<u>W/O TSM</u>	<u>W/ TSM*</u>
A	0	2	2	2	2
B	2	6	4	8	6
C1	3	5	3	8	6
C2	2	6	4	8	6
D1	3	9	5	12	8
D2	3	9	5	12	8

Key to Scenarios

A - No development of four Roseville specific plan areas; expected 2005 development elsewhere.

B - Buildout of Northwest Plan Area; expected 2005 development elsewhere.

C1 - Buildout of North Central Plan Area with one regional shopping center in North Central Plan Area; expected 2005 development elsewhere.

C2 - Buildout of North Central Plan Area with two regional shopping centers in North Central Plan Area; expected 2005 development elsewhere.

D1 - Buildout of all four Roseville Specific Plan Areas with one regional shopping center in the North Central Plan Area; expected 2005 development elsewhere.

D2 - Buildout of all four Roseville Specific Plan Areas with two regional shopping centers in the North Central Plan Area; expected 2005 development elsewhere.

* Including peak hour left-turn prohibition at Eureka & Taylor.

Traffic demand volumes dictate that the ramps connecting the 65 Bypass with I-80 south need to be three lanes wide, whether or not the Roseville specific plan areas are developed. This



indicates that the 65 Bypass primarily serves North Industrial area in Roseville and the Northwest Rocklin area, including Stanford Ranch.

The lane requirements on I-80 from the 65 Bypass to Atlantic are the same under all scenarios. Three lanes per direction are needed from the 65 Bypass to Taylor road, and four lanes per direction are needed from Taylor Road to Atlantic.

The section of I-80 between Atlantic & Douglas would require three lanes per direction if there was no development of the Roseville Specific Plan areas, and four lanes per direction if there was specific plan development as in Scenarios B, C & D.

The section of I-80 south Douglas would need three lanes per direction in year 2005 if no development occurred in the Roseville Specific Plan areas; four lanes per direction if the specific plan areas developed to expected 2005 levels and either the North Central or Northwest Specific Plan areas were built out; and five lanes per direction if all four Roseville specific plan areas were built out.

Other Mitigation Measures

- o The most substantial mitigation for traffic impacts is the development of roadway facilities throughout the City. Specific improvements have been identified in the traffic analysis and outlined in the preceding discussion.
- o The City of Roseville is an active participant in planning for extension of the light rail system. Currently Roseville has one person (Phil Ozenick) on the RT Policy Advisory Committee and two members (Steve Dillon, Larry Pagel) on the RT Technical Advisory Committee.
- o Increasing traffic volumes are a major concern as the south Placer region develops, and even the nominal reductions which may be achieved through the implementation of traffic system management (TSM) measures are becoming increasingly



important. TSM measures which are most often considered include include: ridesharing through either car or van pools, use of mass transit systems, school bus service, bicycles, and other alternative modes of travel. The effectiveness of such programs is largely dependent upon the willingness of individuals to participate in the programs. Developers of residential projects have little influence on the willingness of future residents to implement such programs. The City of Roseville has one of the most aggressive Ridesharing ordinances in the region. The focus of the Roseville ordinance is to achieve participation through employer incentives. Consequently, the ordinance requires major employers to designate ridesharing coordinators, provide special parking benefits, bicycle parking facilities, and other incentives. It seems apparent that the most effective promotion of such measures should be focused at local employers. Estimates of the effectiveness of such programs within a community range from negligible to greater than 50% reduction in peak traffic volumes. It is extremely difficult to estimate the level of participation of future residents. It is likely that future residents will implement these measures to some extent. The following table includes estimates of traffic reduction which may result from implementation of some of these mitigation measures.

**Estimated Reduction In Traffic Volume
Achievable With TSM Measures**

<u>Type of Employment</u>	<u>Ridesharing</u>	<u>Peak Hour Flex Time</u>	<u>Total Trip Reduction</u>
Business - Professional	7%	4%	11%
General Industrial	7%	9%	16%

- o The Specific Plan includes development of a bicycle/pedestrian pathway system which will link all of the major activity centers in the plan area. By providing a convenient route between parks, commercial, office, and residential areas, the pathway system will reduce the number of vehicular trips undertaken by future residents of the plan area.



- o The Northwest Specific Plan area is situated adjacent to the north Roseville industrial area and the North Central Specific Plan area. Both of these areas are predicted to generate a greater number of jobs than employees. The predominantly residential character of the Northwest Roseville Specific Plan area will provide a community in close proximity to the work destinations, and thus minimize the length and number of vehicular trips.
- o The design of the Northwest Roseville Specific Plan area provides a balance of land uses which will reduce the need for residents to travel beyond the plan area. The layout of the plan provides parks, commercial areas, business professional areas, and residential neighborhoods all within close proximity of each other. This design, coupled with the proposed pathway system will help reduce the length and number of vehicular trips undertaken from the plan area.
- o Facilities for extension of transit services are included in the Specific Plan. Bus turn-outs and shelters will be shown on Tentative Maps as individual projects are submitted for approval. Roseville RADAR is already available in the plan area, and when demand warrants, RUSH anticipates being able to establish a regular route through the plan area.



Public Services and Facilities

Water

The Northwest Roseville Specific Plan area is within the service area of the City of Roseville. The City obtains most of its water through the Federal Bureau of Reclamation from Folsom Lake. Roseville is guaranteed, by contract, 36,000 acre-feet of water per year. Of this allotment, the City presently utilizes approximately 11,000 acre-feet, or roughly 30 percent, per year.

In addition to Federal water sources, the City maintains a secondary water system which includes five deep wells, two reservoirs with one million gallons capacity each, and a pumping system capable of providing four million gallons per day. Of the five wells, two have been contaminated and three remain potable. Finally, the City utilizes a 6 million gallon storage tank, and has plans for construction of a second in the near future.

Although the City has rights to an adequate amount of water to meet the projected needs associated with proposed growth to date, the Roseville water treatment plant has a limited treatment capacity of 24 million gallons per day. Existing flows average approximately 9.5 mgd, however, peak flows of 22 mgd have occurred on isolated occasions. Considering that near capacity flows have been experienced under existing conditions, and a considerable amount of development has been approved but has not yet occurred, it is likely that buildout of already approved land uses could generate a demand for water beyond the capability of the treatment plant. Under such circumstances, the City would be forced to utilize the potable deep wells as supplemental water sources. In order to minimize reliance on the deep wells, the City has proposed expansion the water treatment facility to 48 mgd by May 1989. This expansion is anticipated to be completed prior to the majority of proposed development, and consequently, the limited capacity of the treatment plant is anticipated to be only a short term complication.

Table K1 presents the water consumption rates used by the Roseville Public Works Department for planning purposes.



Table K1
Water Consumption Rates by Land Use

<u>Land Use</u>	<u>Gallons per unit per day</u>
R-1 through R-5	2,030
R-6 through R-11	1,510
R-12 through R-15	660
R-16 through R-20	400
	<u>Gallons per acre per day</u>
Business Professional and Commercial	4,200
Elementary and Intermediate Schools	8,150
High Schools	9,600
Neighborhood, Community, and Regional Parks	8,150
Fire Station, Churches, etc.	4,200

Using the rates presented in Table K1, predicted water consumption by the major land uses within the specific plan area have been calculated and are shown in Table K2.

Table K2
Predicted Water Consumption of Major Land Uses*

<u>Land Use</u>	<u>Acres</u>	<u>Units</u>	<u>Gallons per day</u>
Business Professional & Commercial	205.7		864,000
Parks and Golf Course	349.7		2,850,000
Elementary and Intermediate Schools	60.2		491,000
High School	41.6		399,000
Other (churches, fire station, etc.)	9.9		42,000
R-1 through R-5		4865	9,876,000
R-6 through R-11		1224	1,848,000
R-12 through R-15		234	154,000
R-16 through R-20		1871	748,000
			<u>17,272,000</u>

* Figures are rounded to the nearest thousand.



Impacts

As discussed in the Introduction, impacts are identified in this section as follows: **L** Less than significant, **S** Significant, or **M** Mitigated to less than significant.

L As calculated in Table K2 using the water consumption rates provided by the Roseville Public Works Department, buildout of the Northwest Specific Plan area is predicted to require approximately 17 million gallons per day. This volume is equivalent to roughly 52 acre-feet per day or 18,900 acre-feet per year. According to the Public Works Department, this volume is consistent with long range plans for water use in the City.

M Development will require construction of infrastructure to provide water service to the plan area.

Mitigation Measures

- o A master plan for water distribution within the plan area has been developed, and is presented in Figure K1. Additional detail will be provided on a project by project basis as individual projects request connection to the system. The system will include properly sized and stubbed out facilities to serve individual projects within the plan area, and is designed to provide water at sufficient pressure to satisfy City requirements. The entire water distribution system will be subject to review by the Department of Public Works prior to implementation. Formation of an Assessment District(s) is proposed to finance necessary improvements to the City-wide water distribution system as well as for improvements within the plan area.
- o Individual projects will include design and construction of infrastructure to standards specified by City ordinance. Each project will be subject to review by the Public Works Department at the Tentative Map phase.



- o The City should promote measures to minimize water consumption by future land uses in the plan area. Such measures could include flow restricted faucets, low volume flush toilets, use of drought resistant landscaping, and use of automatic drip irrigation systems.

Sewer

Wastewater treatment for the City of Roseville is performed at the Roseville Wastewater Treatment Plant located on Booth Road near Dry Creek. Treated wastewater is discharged into Dry Creek. The treatment plant serves a regional area which includes the City of Roseville as well as the area within the Rocklin Loomis Municipal Utility District (RLMUD). As the name implies, the RLMUD generally includes a corridor which extends northeast of the City of Roseville and encompasses the municipalities of Rocklin and Loomis as well as a portion of the unincorporated area of Placer County.

The Roseville Wastewater Treatment Plant has an existing average capacity of approximately 12 million gallons per day (mgd). The public works department has indicated that for a short period (i.e. about a day) the plant can operate at a maximum rate of 21 mgd, however extended operation at this volume is not feasible. Average wastewater flows through the plant have been approximately 7 mgd. Under adverse conditions, flows of up to 18 mgd have been processed through the wastewater plant.

As a consequence of development already approved within the City, future wastewater volumes are predicted to exceed the current capacity of the treatment plant. In order to handle increasing flows, numerous upgrades of the treatment facility are proposed. Specifically, the facility is proposed to be upgraded to handle an additional 6 mgd (total 18 mgd) by 1990. Subsequent improvements will be implemented as necessary until ultimate expansion of the facility to handle average flows of 30 mgd is reached. Depending on future constraints in Dry Creek, peak capacity of the plant could be increased to 84 mgd.



City policy is to anticipate needed increases in capacity and implement improvements to the treatment facility prior to reaching 75% of plant capacity. State law requires that, upon reaching 75% utilization, improvements are mandatory prior to continued growth.

The Roseville Department of Public Works utilizes a sewer unit equal to 400 gallons per day as the basis for wastewater calculations. All residential dwellings are considered to represent a single sewer unit. Wastewater production for nonresidential land uses is calculated based on the square footage of building area. Building area is assumed to occupy a maximum of 25% of the parcel. Schools are assumed to occupy only 15% of a given site. Business professional and commercial land uses are assumed to generate wastewater at a rate of one sewer unit (400 gallons per day) per 3000 square feet of building space. Schools are assumed to generate wastewater at a rate of one sewer unit per 1500 square feet of building space. It is assumed that open space and parks produce a negligible amount of wastewater.

Using the generation rates provided by the City, predicted wastewater volumes which would be anticipated to be generated by major land uses in the plan area are presented in Table K3.

**Table K3
Predicted Wastewater Generation by Major Land Uses***

<u>Land Use</u>	<u>Acres</u>	<u>Units</u>	<u>Gallons per day</u>
Business Professional & Commercial	205.7		298,000
School Sites	101.8		177,000
R-1 through R-5		4865	1,946,000
R-6 through R-11		1224	490,000
R-12 through R-15		234	94,000
R-16 through R-20		1871	748,000
			3,753,000

* Figures are rounded to the nearest thousand.



Impacts

As discussed in the Introduction, impacts are identified in this section as follows: **L** Less than significant, **S** Significant, or **M** Mitigated to less than significant.

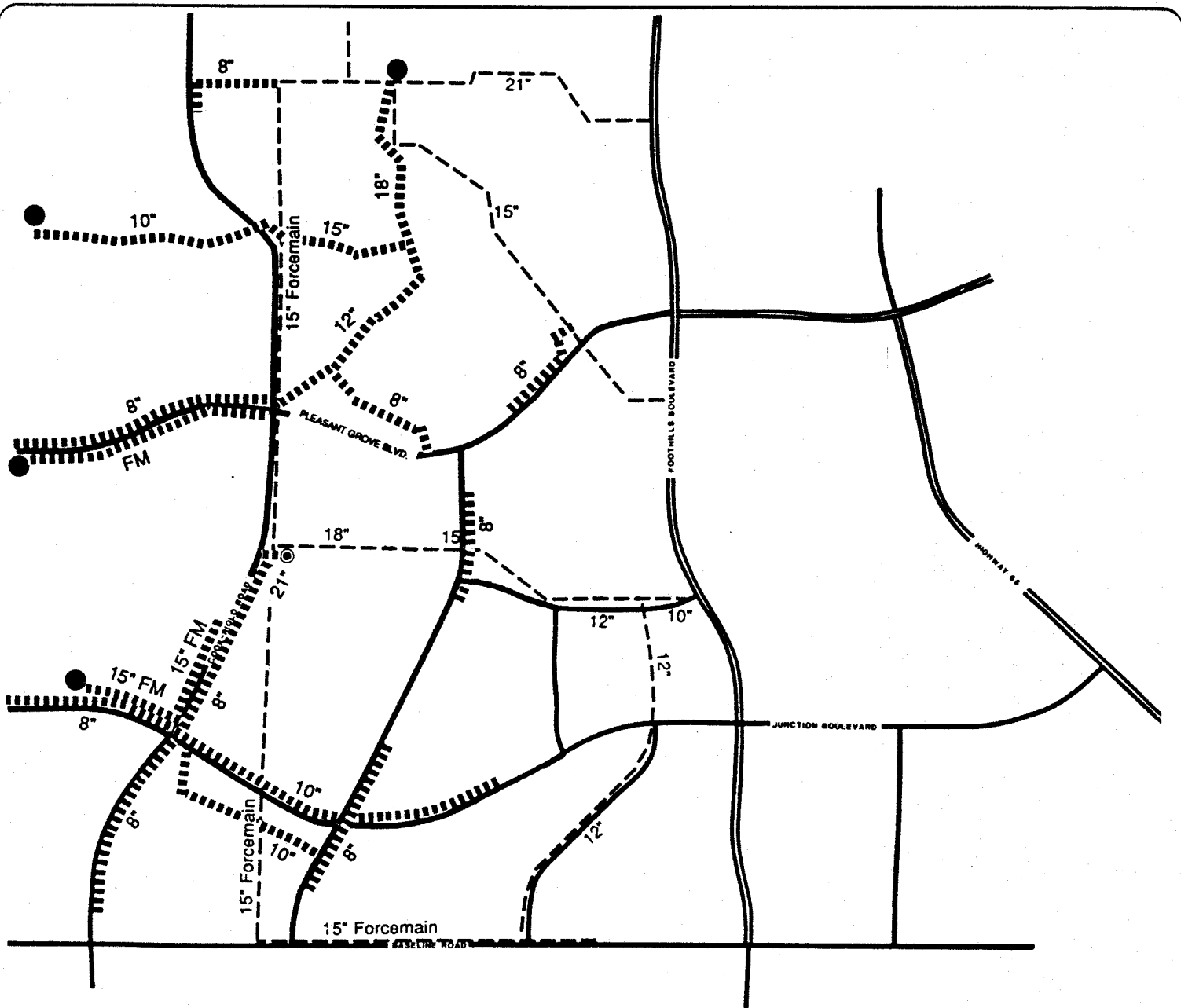
M Buildout of the plan area will result in a projected increase of approximately 3.8 million gallons of wastewater from the plan area. This volume is consistent with the proposed capability of the treatment facilities of the City.

M Development will create the need for construction of infrastructure to serve the plan area. Individual projects within the plan area will require development of site specific facilities.

Mitigation Measures

- o As shown in Figure K2, a master sewer plan to serve the area has been completed. Each system will include properly sized and stubbed out facilities to serve individual projects within the the specific plan areas. In accordance with City policy, individual projects will be required to install on site sewer facilities to standards required by City ordinance. Review of these systems will be required at the Tentative Map phase prior to approval.
- o Formation of an Assessment District, or other appropriate financing mechanism, is proposed to facilitate extension of sewer facilities to the plan areas.
- o Financing of sewage treatment plant expansion and other improvements can be facilitated through formation of a Mello-Roos or similar Assessment District, a reimbursement agreement with future developers, or other mechanisms deemed appropriate by the City. A financing mechanism must be identified prior to approval of additional projects within the Plan area.





WADE ASSOCIATES
 PLANNING • DESIGN • ECONOMICS



Existing ————

New ●●●●●●●●●●

Lift Station (existing) ⊙

New Lift Station (Proposed) ●

MASTER SEWER PLAN

FIGURE K2

NORTHWEST ROSEVILLE

K-8

SPECIFIC PLAN EIR



Natural Gas

Pacific Gas & Electric Company (PG&E) is the supplier of natural gas service within the City of Roseville. Natural gas service will be provided by PG&E in accordance with the rules and tariffs of the California Public Utility Commission.

PG&E has an existing network of gas transmission and distribution pipelines and regulator stations in the plan area. However, new development in the area would require additions to this system. The City of Roseville should take existing utility uses into consideration when determining zoning and approving projects in areas adjacent to existing PG&E facilities.

Although PG&E's long range plans provide for availability of gas service to accommodate increased demand, delivery of gas service to any particular development must be reviewed by PG&E to determine anticipated load for the proposed land use. Any new development will have a cumulative impact on PG&E's system outside the new development's boundaries.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

M According to a letter received from PG&E, development of the plan area is predicted to create a demand for approximately 470 MCF/hr of natural gas.

M Development of the plan area will have the potential to impact existing gas transmission facilities.



Mitigation Measures

- o According to PG&E, load growth of the projected magnitude can be easily handled by their normal distribution main extensions, distribution main reinforcements, and possible additional regulator stations. Transmission main capabilities are adequate to serve the projected additional load. Gas services will be supplied in accordance with PUC Rules 15 and 16.
- o In order to promote safe operation and maintenance of gas facilities, developers should be encouraged to consult with PG&E early in their planning process in order to ensure the greatest compatibility between a proposed development and PG&E's facilities.
- o To ensure that site development activities do not adversely affect the operation of PG&E's facilities, developers should be required to submit to PG&E all development plans which may adjoin transmission line easements as soon as these plans are available. As a condition of approval of any proposed development, the City should require the developer to obtain PG&E's consent to any development which may impact PG&E easements.
- o Developers will be required to provide adequate easements for all utility facilities within their developments. In addition to gas distribution lines, these may include other facilities such as gas transmission lines and gas regulator stations. Zoning ordinances and deed or subdivision restrictions must not preclude utility facilities from any zoning district or development.
- o Construction of well insulated quality homes with energy efficient air conditioning/heating systems will reduce the total amount of energy consumed.



- o Developers should be encouraged to incorporate passive solar measures whenever feasible in their homes, and provide direction to home buyers interested in incorporating more extensive passive systems into new homes.
- o Public utilities should be encouraged to provide programs for conservation of electricity, gas, and water. Such programs typically include low-interest financing for energy conservation home improvements.

Electric Service

Electric services to the plan area will be provided by the Roseville Electric Department. The City receives the majority of its electrical energy from the Federal Government, and, on the whole, this energy is generally less expensive than power purchased from private sources.

Currently, the City receives the first 69 megawatts of its power through a Federal allocation from the Western Area Power Administration (WAPA). This hydroelectric power is generated by numerous facilities located in California which are part of the Central Valley Project. The second major source of electrical power for the City is through the Northern California Power Agency (NCPA) of which Roseville is one of thirteen members. This agency is dedicated to the development and acquisition of electrical power for its members who own "shares" of the power provided. The NCPA, utilizing the pooled resources of its members, has been responsible for development of several new sources of power, namely two geothermal facilities and five combustion turbine generating facilities. These facilities are currently operating and provide Roseville with its fair share of the power generated. Further, the NCPA is currently constructing a new hydroelectric facility in Calaveras County on the Stanislaus River which is anticipated to be in operation by 1989. The NCPA is investigating the feasibility of numerous additional projects, however, most of these are still in the preliminary stages of planning. Another function of the NCPA is to purchase bulk power on the behalf of the various members from other



sources such as the Bonneville Power Administration. Finally, the City of Roseville has an existing contract with Pacific Gas and Electric Company (PG&E) to allow purchase of supplemental electrical power. This is considered a back up source as many of the previously discussed sources are less expensive.

As growth continues, the City will consume greater amounts of energy, eventually fully utilizing its Federal allocation. However, heavier use and additional growth will permit fuller utilization of the allocation in the non-summer months and will increase the City's entitlement to low cost energy from federal hydroelectric projects. In anticipation of increasing demand for electricity, the City has made a commitment to load management and conservation programs for both new and existing customers as well as encouraging the efficient use of electricity to reduce the need for additional resources. In addition to conserving resources, these programs are anticipated to maintain the ability to provide relatively inexpensive power to Roseville residents.

Currently, the bulk of federal power utilized by the City is received at the Berry Street receiving station. This power is distributed via a 60kV system to numerous distribution substations throughout the City. The current capacity of this system is approximately 105 megawatts. In order to fulfill the projected power needs of the planned developments, five additional distribution substations will be needed. In order to meet the anticipated power needs of buildout of the **General Plan**, six or seven additional substations with a total capacity of 120-140 megawatts will be required.

In order to increase reliability and provide a back up for the existing Berry Street receiving station, a second receiving station will be required. The Electric Department has indicated that this station should be located in the northwestern part of the City. Requirements for the second receiving station include a 600' x 800' flat parcel adjacent to the WAPA/SMUD transmission corridor as well as a 100' north-south power line corridor between Baseline Road and Blue Oaks Boulevard. For safety considerations, a 120 foot no-development buffer around the perimeter of the receiving station parcel would be required. The



Specific Plan does not include provisions for development of an additional receiving station, and it is envisioned by the plan proponents that such a station may be developed in the portion of the City west of the specific plan area.

Development of residential housing in the proximity of power lines is a land use issue of recent concern. A discussion of this topic is included within the Land Use section of this EIR.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

- M Development within the plan area is predicted to increase the electrical load of the City by approximately 30 megawatts. In conjunction with this increased demand for power, there will be a need for construction of additional transmission facilities and substations to serve the plan area.

Mitigation Measures

- o According to Ken Weisel, Director of the Roseville Electric Department, the City has contracts in place which are expected to provide adequate sources of power for the City through the year 1991. This includes service to proposed development in the respective specific plan areas. Further, the department feels confident that the electrical needs of the City can be met well beyond the year 1991, however, the contracts and mechanisms necessary to guarantee this service have not been completely established at this time.
- o The present policy in the City of Roseville is that costs of increased power supply are shared by all rate payers, while costs to install added distribution facilities are paid for by specific users prior to development. In accordance with



City policy, the proponents of the Northwest Roseville Specific Plan will bear the costs of installation of required distribution facilities.

- o Construction of well insulated quality homes with energy efficient air conditioning/heating systems will reduce the total amount of energy consumed.
- o Developers should be encouraged to incorporate passive solar measures whenever feasible in their homes, and provide direction to home buyers interested in incorporating more extensive passive systems into new homes.
- o Public utilities should be encouraged to provide programs for conservation of electricity, gas, and water. Such programs typically include low-interest financing for energy conservation home improvements.

Telephone Service

Roseville Telephone Company will provide service to the plan area in accordance with their filed tariffs. Infrastructure will be constructed in conjunction with development of individual projects. No unusual problems are anticipated in providing telephone service to this area, however, there could be line extension charges associated with the Specific Plan area, depending upon actual developmental phasing. Public utility easements will be required as will additional rights-of-way for installation of telephone equipment.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.



- M Development of the plan area will require the installation of facilities to provide telephone service to future residents of the plan area.

Mitigation Measures

- o In compliance with PUC regulations, proponents of the specific plan will cooperate with the Roseville Telephone Company to develop necessary facilities for the provision of service to the plan area. Easements for telephone line installation will be identified on Tentative Maps as projects are proposed.

Police Protection

Law enforcement services are currently provided to the plan area by the Roseville Police Department. Presently, the Department employs 38 sworn officers providing a ratio of approximately 1.3 officers per 1000 population.

The Police Department anticipates expanding to larger quarters in the downtown area in the near future. However, development of substations is not anticipated to be necessary to serve the City.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

- M Development will require an increase in the level of law enforcement services provided to the plan area. In order to maintain the present level of service, a need for approximately 25 additional officers will be generated by development in the plan area.



Mitigation Measures

- o As discussed in the fiscal section of this report, municipal services, including police, are funded through tax revenues. The mechanism for collection and distribution of taxes is already in place, and as development occurs in the plan area, taxes will be assessed to finance expansion of City services.
- o Home construction within the plan area will utilize quality door and window hardware. Although not proposed on all homes, it is anticipated that alarm systems will be included in many homes at the time of their construction. It is anticipated that alarm systems will be installed in an additional number of homes by homeowners. Similarly, it is common practice for commercial establishments to utilize alarm systems and/or the services of private security firms.
- o The implementation of "neighborhood watch" programs should be encouraged within the specific plan area.
- o All projects will be reviewed by the Police Department in order to identify safety and crime prevention measures.

Fire Protection

The City of Roseville Fire Department currently operates three fire stations, including the station within the plan area which is operational. In addition to the existing facilities, a new station in the Southeast Roseville Specific Plan area is anticipated to be operational by July 1989, and new stations in the Northeast and North Central Specific Plan areas are proposed to be constructed as those areas develop.

Presently, the department maintains three engines (one at each station), a ladder truck, a rescue vehicle, and two trucks equipped to fight grass fires. Based on 1987 data, the fire department experiences approximately 70 alarms per 1000 persons. Of these alarms, roughly 64% are for medical emergencies, 13% are fires, and 23% are for miscellaneous reasons.



The plan area is served by the new fire station located on Junction Boulevard west of the intersection of Junction and Foothills Boulevards. One fire engine and four personnel are assigned to the station, enabling the Fire Department to provide a four minute or less response time for fire and medical emergencies in the plan area.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

- M Development will generate the need for increased fire and emergency services to the plan area. Based on the ratio of 70 alarms per 1000 population, buildout of the plan area is predicted to generate approximately 1350 alarms per year.

Mitigation Measures

- o The specific plan includes construction of the new fire station on Junction Boulevard which has already occurred. This station will provide the plan area with an acceptable response time for fire and emergency services.
- o As discussed in the fiscal section of this report, municipal services, including fire and emergency services, are funded through tax revenues. The mechanism for collection and distribution of taxes is already in place, and as development occurs in the plan area, taxes will be assessed to finance expansion of City services.
- o All projects will be constructed to meet applicable fire codes. All projects will be reviewed by the Fire Department, and hydrants will be provided at the time of project development per approval by the Fire Department.



Solid Waste

Solid waste pickup within Roseville is provided by the City through the Solid Waste Division of the Department of Public Works. Presently, the City operates 11 waste collection trucks including four automated trucks, three front loading trucks, two rear loading trucks, and two roll off trucks. Waste is disposed of at the western Placer Regional Landfill on Fiddymont Road in Placer County. This 320 acre landfill was opened in 1979, and is currently predicted to have a remaining lifespan of 30 years. The operators of the landfill are currently negotiating to acquire additional property adjacent to the existing site with the intention of extending the useful life of the landfill.

Roseville trash disposal services do not include collection of recyclable materials. Although Roseville is exploring potential recycling actions which could be initiated, use of automated trash trucks has largely precluded curbside pick-up of recyclable materials as a function of the existing operation. Current programs available to City residents require participants to deliver recyclables to collection points. Two general types of collection points are available and include 1) drop off receptacles such as those typically found in commercial parking lots, or 2) recycling centers where the participants may be paid for their materials. In addition, collection of recyclable materials may be available on a limited basis from youth organizations which utilize the activity as a fund raising activity. Once trash has been collected in the City of Roseville, it is not subjected to any recycling measures by the Public-Works Department or the operator of the regional landfill.

Contrary to the preconceived notion that recycling is expensive, Paul Geisler of Davis Waste Disposal indicates that their firm can provide trash pick-up with recycling at a cheaper rate than trash pick-up alone. In fact, if the recycling component of their operation were discontinued, they would likely have to increase rates in order to be able to provide more traditional trash pick-up. From the private business perspective, recycling pays in several ways. First, the trash contractor sells the recyclable material which in turn allows him to provide services



to the City at a lower rate. At the same time, since the contractor pays to unload collected refuse at the landfill, material diverted from the waste stream directly reduces the cost to the contractor for disposal. A reduced cost to the community is realized through extended life of existing landfill sites, and composted material can be utilized as over fill at the landfill. Use of this material reduces the need to purchase and import material from other sources.

With the exception of the program operated in Davis, recycling programs in local municipalities are limited. Sacramento County offers curb-side pick-up service. Even though the County utilizes automated trash trucks, recycling service is made available through the use of separate vehicles dedicated solely to the collection of recyclables. Unfortunately, when the prices of recyclable materials increase, "scavengers" gather materials set out for curb side collection, and thereby reduce the amount of material available for County collection. Because a portion of the cost of operating a recycling program is offset by the sale of the collected materials, the actual cost of such programs to the community can substantially increase as a result of scavenger activity. As a consequence of scavenger activity and private recycling, municipal recycling routes in Sacramento County have been reduced to those neighborhoods where scavenger activity is relatively low and participation relatively high.

Similar conditions have prevailed in the City of Sacramento where until recently, separated newspapers have been collected as a part of the weekly trash pick up. As automated trash collection vehicles replace the older trucks, paper collection is being discontinued in some areas of the City. However, a pilot program providing separate paper collection has been initiated by the local conservation corps with City support. In addition to collection of paper, the City of Sacramento offers collection of brush and trimmings. This material is chopped and composted, and available for sale the following spring. Unfortunately, inadequate separation of these materials from noncompostable household trash requires sorting this material after collection, resulting in a significant increase in the cost of the program.



The Auburn Placer Disposal service which serves much of the unincorporated area of Placer County and outlying areas around Roseville, continues to utilize older trucks, and consequently continues to collect bundled newspapers for recycling.

As alluded to above, the most notable recycling program in the area is currently operated by the Davis Waste Disposal Service in the City of Davis. The firm of Davis Waste Disposal is a private contractor who, in addition to traditional trash pick up service also offers complete recycling. The program was essentially initiated by the City of Davis through the inclusion of recycling services in the bid specifications utilized in selecting a private trash disposal firm. The present service includes curbside pick-up of glass, aluminum, paper, and brush. Current estimates indicates that the recycling operation diverts approximately 21% of the residential waste flow. If you include tree trimmings, clippings, and brush which is chipped and composted, the estimated volume of the material diverted from the waste flow is as high as 47%. The City of Davis has an adopted "scavenger ordinance" which, with citizen support, has deterred scavenging of curbside materials.

Other notable recycling programs currently exist or are being initiated in several major communities in northern California. In Marin County, a highly successful recycling program is in effect which is a coalition of four local trash hauling firms. Similarly, Palo Alto has an extensive program which is noteworthy. Of particular interest is the proposed program in San Jose. This is one of the largest programs being initiated in the region. As proposed the project includes weekly curbside recycling services for the entire San Jose metropolitan area.

It should be recognized that the relative success of any such program is largely dependent upon public participation and support. However, it has been demonstrated that such programs can be financially justified and successfully operated on a community wide basis. Experience seems to indicate that successful programs are more easily implemented in smaller communities. Consequently, it is recommended that the City of Roseville seriously consider implementation of a City-wide



recycling program in the near future in order that such a program would be established prior to occurrence of the projected significant growth. Once established, expansion of the system to new areas of the City could be facilitated in conjunction with the provision of trash pick-up services.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

M Buildout of the plan area is predicted to generate approximately 40 tons of solid waste per day. This volume is based upon generation rates of 2.6 pounds per resident per day and one pound per 100 square feet of floor space for business professional, commercial, schools, and miscellaneous land uses. This volume will contribute to the need for expansion of the regional landfill.

Mitigation Measures

- o Solid waste disposal service provided by the City is self sufficient, relying on the billing of customers for service. The provision of waste disposal services will be facilitated through fees paid by future residents of the plan area.
- o The volume of solid waste generated by land uses within the plan area could be reduced by separation and recycling of certain wastes such as paper, cardboard, aluminum and glass. Although such operations involve some inconvenience, they provide a means of utilizing valuable reusable resources. Residents of the proposed project could also reduce the quantity of solid waste generated by composting yard clippings and other organic materials for use in yards and gardens.



Hazardous Materials

Hazardous material is a general classification which includes thousands of products, many of which are used daily by homeowners throughout the region. Pesticides, herbicides, swimming pool chemicals, solvents, cleaners, and thousands of other "everyday" products are classified as hazardous materials. The severity of misuse directly increases with the quantity of material involved, and consequently, measures to protect the public welfare have been established based on the quantity of material in use. Because the potential for serious ecological damage from misuse of small quantities is generally minimal, warning labels with instructions for use, and penalties for misuse are considered adequate to regulate consumer use of many hazardous products.

The potential for the serious threat to public health and ecological environments is judged to be most significant in situations where large quantities of material are involved. Specific legislation exists at all levels of government which clearly defines the acceptable methods for use, storage, transport, and disposal of hazardous materials. The quantity of materials judged to be potentially dangerous varies, and may be determined on a material by material basis. The City of Roseville generally recognizes hazardous material operators as those firms handling more than 500 pounds or 55 gallons of material per month.

Legislation concerning hazardous material is extensive and administered through numerous state, federal and local regulations. of which only the most prominent are discussed in this EIR. At the Federal level, the Environmental Protection Agency is the lead agency in defining and regulating use of hazardous materials. Principal legislation which directly effects the use and disposal of hazardous materials includes the Resource Conservation and Recovery Act, the Clean Air Act, and the Clean Water Act. In conjunction with the EPA, the Department of Transportation administers the Hazardous Materials Transportation Act which regulates the shipping of hazardous materials on the nation's highway system. Federal enabling legislation allows individual states to regulate and manage the



use of hazardous materials within their domain as long as State legislation is at least as stringent as Federal standards. Within California, monitoring of air emissions are conducted under the direction of the Air Resources Board; regulation of waterborne hazardous materials is the responsibility of the State Water Resources Board; the California Highway Patrol is charged with the cleanup and control of hazardous material incidents of State highways; and the Department of Health Services are responsible for administration of the federal Resource Conservation and Recovery Act within the state.

At the local level, the City of Roseville manages hazardous material use through Municipal Code, Chapters 9.60 and 14.26, and through the environmental review process. Principal implementation of hazardous material policies within the city are handled directly through the Roseville Fire Department, and indirectly through the Planning and Public Works Departments.

Roseville Municipal Code, Chapter 9.60, is the principal legislation pertaining to the use of hazardous materials within the community. This code defines the public "right to know" and requires that persons or firms handling more than 500 pounds or 55 gallons of hazardous materials per month submit an annual disclosure form to the Fire Chief describing the nature of the material, and any releases of the material within the community.

Roseville Municipal Code, Chapter 14.26, pertains to the composition of wastewater both entering and leaving the treatment facility. The City of Roseville, through the Public Works Department, has established wastewater standards which prohibit specific hazardous waste materials from being added to the system or discharged from the system into area waterways.

Finally, through implementation of the Roseville Zoning Ordinance, the planning department can facilitate development of hazardous waste operations in areas which are adequately separated from residential or other incompatible land uses. The compatibility of adjacent land uses is evaluated on a case by case basis.



Impacts

As discussed in the Introduction, impacts are identified in this section as follows: **L** Less than significant, **S** Significant, or **M** Mitigated to less than significant.

- M** Development of the plan area to urban land uses carries with it the use of hazardous materials by homeowners and businesses alike. These uses will indubitably include the release of some hazardous materials into the environment. Similarly, development of the northern portion of the plan area has the potential for development of residential areas adjacent to light industrial land uses, i.e. NEC, Hewlett Packard, or other uses which eventually locate in the north industrial area.

Mitigation Measures

- o As discussed, use of hazardous material is regulated at all levels of government. Use of small quantities of material is regulated by Federal and State laws which require proper labeling of product containers. Local enforcement of hazardous waste regulations is the responsibility of Roseville, and is handled by the Roseville Fire Department. No land uses which would be significant users of hazardous materials have been proposed within the plan area. The appropriateness of any proposed activities would be evaluated on a case by case basis by the City prior to issuance of a use permit or rezoning. Prior to permitted use of hazardous materials within the City, the nearest fire station should acquire proper equipment and training to handle emergencies involving the materials in use. As required by City ordinance, any activity which would use 55 gallons or more of hazardous material per month would be required to file a full disclosure form with the Fire Department.



- o Designation of truck routes can be utilized to prevent transport of hazardous materials through residential neighborhoods.

Schools

Elementary and intermediate education services (K-8) are provided to the portion of the plan area east of Foothills Boulevard by the Roseville City School District, while the Dry Creek Joint Elementary School District serves the portion of the plan area west of Foothills Boulevard. The Roseville Joint Union High School District serves the entire plan area.

School systems have traditionally relied upon local taxes to finance growth and facility development. Adoption of Proposition 13 eliminated this fundamental funding source in California. As school districts began to suffer the consequences of limited funding, State assistance in the form of SB201 fees, became available. Assembly Bill 2926, which became effective in January 1987, enables school districts to collect fees from new developments for the construction of permanent facilities. The fees which may be assessed are \$1.50 per square foot for residential buildings and \$.25 per square foot for non-residential buildings. Another funding alternative being examined by the concerned school districts is the creation of a Mello-Roos District to finance new school facilities.

By State definition, elementary schools are considered impacted when enrollments exceed 90%. Based on this criteria, four of the seven schools in the Roseville City School District are impacted. Portable units comprise 18.2% of all the K-8 classrooms in the district. Dry Creek Joint Elementary School District is presently operating at 88.6% of their capacity. Three of eight classrooms are portable units. Generally, high school facilities are considered impacted when enrollments exceed 85% of capacity. Currently, both high schools within the Roseville Joint Union High School District are impacted, and portable units represent 11.3% of the high school classrooms currently in use. Enrollment in the high school district was



approximately 3,300 students during the 1987-88 school year, and as a consequence of continuing growth is projected to increase to 6,621 students in the year 2006.

Each school district recognizes unique student generation rates for the various types of housing proposed in the plan area. The predicted number of students which will be generated in each school district is presented in Table K4.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

M Based on the yield rates provided by the various school districts, development of the plan area is predicted to generate approximately 914 students in grades K-8 in the Roseville City School District, 1,928 students in grades K-6 and 542 students in the grades 7-8 in the Dry Creek Joint Elementary School District, and 1,881 high school students in the Roseville Joint Union High School District. These students will create a need for new facilities including two elementary schools and one intermediate school in the Dry Creek Elementary School District, one elementary school in the Roseville City School District, and one high school facility in the Roseville Joint Union High School District.

Mitigation Measures

- o The specific plan includes a 41.6 acre high school site to serve the Roseville Joint Union High School.
- o The specific plan includes a 12.2 acre elementary school site to serve the Roseville City School District. This site is situated adjacent to a 16.7 acre park and is already developed as the Kaseberg Elementary School.



**Table K4
Projected Student Yield by School District**

Roseville City School District (K-8)

<u>Landuse</u>	<u>Number of Units</u>	<u>Density Ratio %</u>	<u>Yield Rates</u>	<u>Students Generated</u>
R-3 to R-5	1,249	100%	.5186	648
R-6 to R-8	214	50%	.5186	55
		50%	.2611	28
R-10 to R-12	0			0
R-14 to R-15	416	30%	.2611	33
		70%	.1740	51
R-20	573	100%	.1740	100
	<u>2,452</u>			<u>914</u>

Dry Creek Joint Elementary School District

<u>Landuse</u>	<u>Number of Units</u>	<u>Students*</u>		
		<u>K-6</u>	<u>7-8</u>	<u>Total</u>
R-3 to R-5	4,108	1,438 (.35)	411 (.10)	1,849
Multi Family	1,634	490 (.30)	131 (.08)	621
	<u>5,742</u>	<u>1,928</u>	<u>542</u>	<u>2,470</u>

* Yield rates (students per dwelling) are indicated in ()

Roseville Joint Union High School District

<u>Landuse</u>	<u>Number of Units</u>	<u>Density Ratio %</u>	<u>Yield Rates</u>	<u>Students Generated</u>
R-4	1,943	100%	0.3	583
R-5	2,922	100%	0.3	877
R-7	1,160	50%	0.3	174
		50%	0.1	58
R-8	64	50%	0.3	10
		50%	0.1	3
R-15	350	30%	0.15	16
		70%	0.08	20
R-20	1,755	100%	0.08	140
	<u>8,194</u>			<u>1,881</u>



- o The specific plan includes a 10 acre elementary school site and an 18 acre intermediate school site to serve the Dry Creek Elementary School District. Both of these sites are situated adjacent to parks. Buildout of the plan area is predicted to generate the need for an additional elementary school site in the Dry Creek Elementary School District. The proponents of the plan have indicated that an additional site which is acceptable to the School District will be designated in the urban reserve portion of the plan.

- o All school sites have been located with consideration of the possible health effects of exposure to electromagnetic fields emanating from high tension power lines. Although information on the effect of exposure over a period of time is not conclusive, there is sufficient concern to justify extra precaution in locating school facilities. Consequently, all school facilities within the plan area are located such that a buffer of not less than 150 feet (as required by the State for approval of school sites) from the edge of the power line easement to the boundary of the active portion of any school site is provided.

- o Developers within the plan area will participate in the financing mechanisms in effect at the time individual projects are approved. Such mechanisms may include AB2926 or formation of a Mello-Roos District.

Parks and Recreation

Regionally, the Sacramento metropolitan area is situated approximately halfway between the Pacific coast and the Sierra Nevada Mountains, both of which offer extensive recreation opportunities within easy driving distance. Exceptional local recreational opportunities are afforded by the Folsom Lake State Recreation Area, located approximately five miles east of the City, and the American River Corridor, located immediately south of the City in Sacramento County. In addition to programs sponsored by Roseville, the surrounding communities support numerous other recreational opportunities.



The City of Roseville recognizes a park acreage standard of nine acres per 1,000 residents. Ideally, the **Roseville General Plan** recommends that this acreage be distributed into three basic types of parks, neighborhood, community, and City-wide.

Neighborhood parks are generally intended to serve youngsters fifteen years or younger, and include such facilities as apparatus areas, paved areas for court games, turf areas, picnic areas, and play lots for preschoolers. Community parks are primarily used by youngsters fifteen years or older, adults and family groups. Facilities typically include sports fields, paved areas for court games, picnic areas, special events areas, night lighting, indoor center, and natural areas. A City-wide park serves all age groups and may includes such diverse facilities as a large picnic area, boating, swimming, athletic fields, play areas, trails, and natural area. Table K5 presents the recommended size, population served, and service radius for the various types of parks.

**Table K5
Roseville Park Standards**

	<u>Neighborhood Park</u>	<u>Community Park</u>	<u>City-wide Park</u>
Minimum acreage per 1,000	2.5 acres	1.5 acres	5 acres
Desired size for best results	12-16 acres	20-30 acres	100 acres
Population served	4,800-6,400	13,000-20,000	20,000+
Service radius	3/4-1 mile	1-2 miles	Total City

The Northwest Roseville Specific Plan, upon buildout, is predicted to provide housing for a population of 19,335 persons. Based on this population, approximately 174 acres of park land would be required to fulfill the City of Roseville park standard



in the plan area. However, several projects which are already approved within the plan area were permitted to fulfill the park acreage requirement by payment of fees in lieu of park land dedication. Consequently, remaining undeveloped projects within the plan area which are subject to the park dedication standard represent only 60% of the plan area population, i.e. 11,558 persons. Figure K3 shows those projects which are exempt from the parkland calculation. Based on this population, approximately 104 acres of park land are required to fulfill the park requirement in the plan area. Of this 104 acres, approximately 29 acres should be in neighborhood parks, 17 acres in community parks, and 58 acres in a City-wide park.

In addition to traditional parks situated throughout the City, Roseville is in the process of establishing a City-wide bicycle/pedestrian pathway system. The pathway system is intended to provide additional recreation opportunities as well as providing a practical alternative to motor vehicle transportation.

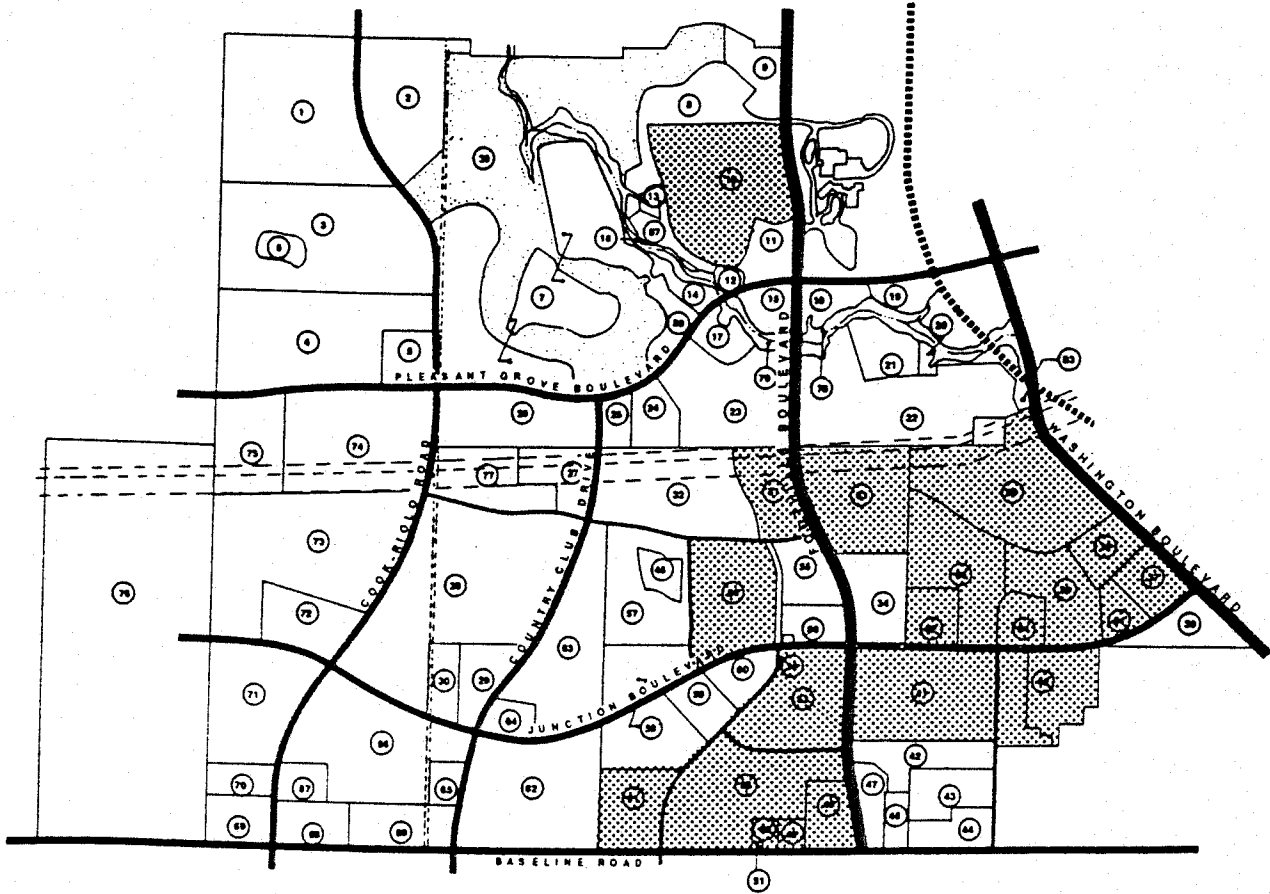
There are uncountable configurations and variations in the design of bicycle/pedestrian pathways, and numerous considerations must be evaluated in the development of the bicycle/pedestrian pathway system. No particular pathway configuration is best, and the most successful pathway systems integrate a variety of pathway types. Caltrans classifies bicycle pathways into three categories; Class I, II, and III.

Class I pathways are unique from the other classifications in that they are physically separated from streets. Consequently, these types of pathways are often developed to support pedestrian or equestrian uses as well as bicycles. Typically a Class I pathway includes at least eight feet of paved surface to allow travel in both directions. If the system is intended to serve pedestrian traffic as well, either wider pavement or ample shoulders may be warranted. If equestrian uses are proposed, there should be a separate path, preferably unpaved, to provide separation of horse and bicycle traffic.





WADE ASSOCIATES
PLANNING ENGINEERS ARCHITECTS



PROPERTIES WHICH ARE EXEMPT
FROM PARKLAND REQUIREMENTS

FIGURE K3

NORTHWEST ROSEVILLE

K-31

SPECIFIC PLAN EIR



Obviously, there is a wide range in the design and location of pathways which qualify as Class I. Generally, the two variations of Class I pathways proposed in the plan area include those located within a corridor along local streets, and those located in corridors which do not follow area roadways. Those pathways located within landscaped corridors along area roadways are typically described as meandering. Although the meandering nature of such pathways is attractive and desirable from a pedestrian perspective, it can create a conflict between bicycles and pedestrians. This type of facility is probably not appropriate for the bicycle commuter or serious rider who travel a higher rates of speed. Landscaping, meanders, berms, bus stop facilities, intersections, and fences can create a limited visibility situations with the potential for bicycle/pedestrian/automobile accidents. Conversely, casual bicyclists may be able to share such a pathway with pedestrians with little risk to either group.

Class II bicycle lanes commonly consist of additional pavement along the side of a street which is separated from the automobile lane by a painted stripe. In order to provide two-way travel and simultaneously avoid potential traffic conflicts, a one-way lane should be provided on each side of the roadway. In order to alert drivers to the presence of the path, bike lane signs should be routinely posted along the route. These lanes are typically not used by pedestrians except where other amenities, such as sidewalks, are not provided. Equestrian participants do not favor these types of lanes, and tend to avoid them because of their paved nature and the potential safety conflict with adjacent motor vehicles.

Class III bicycle pathways are typically provided along roadways where funding is not available, or bicycle/pedestrian volumes do not warrant more extensive facilities. A Class III pathway refers to nothing more than a street posted to alert drivers that the roadway is utilized as a bike route. Often Class III pathway segments may be utilized to connect Class I or II facilities which exist in heavier use areas.



As described above, there are numerous types of pathways which can be developed to serve a variety of uses. Following is an overview of the major advantages and disadvantages of the respective types of pathways proposed or recommended in the Plan area.

Land Acquisition and Construction. Obviously, Class II pathways are relatively easy to implement. As roadway alignments are selected, a wider right-of-way is acquired to allow development of the bicycle pathway at the same time as roadway construction. Simultaneous construction of the pathway and the roadway is highly cost efficient means of pathway development. However, since Class II pathways are not conducive to pedestrian travel, other facilities, such as sidewalks or meandering pedestrian paths are generally required in residential and commercial areas.

Land acquisition for Class I pathways is typically more involved than that required for Class II facilities. Between "along street" and "away from street" Class I facilities, those located in corridors which follow the streets are typically most easily implemented. As in the Class II situation, it can be relatively easy to acquire a wider right-of-way and allow development of a corridor along the street. Needless to say, the inclusion of landscaping and a separate paved pathway is more expensive than that of a Class II facility. However, depending upon the type and extent of use, a separate pathway may be able to serve bicycles and pedestrians. As discussed above, if relatively heavy bicycle use is anticipated, it is probably most desirable to separate pedestrian and bicycle traffic. Hence either a Class II bicycle facility with separate pedestrian walkways, or a more extensive Class I facility which provides adequate space for separation of bicycle/pedestrian travel would be desirable.

As a rule of thumb, extensive "away from street" pathways are more costly to develop and not realistic to include throughout all neighborhoods. A combination of Class I corridors along streets, and Class II bike lanes are probably the most practical means of providing safe pedestrian/bicycle pathway network which reaches all areas of the City. However, because of the "stop-go" nature of travel on these types of pathways, a system which



includes only these types of paths would not be particularly conducive to travel for any lengthy distance. Consequently, it would seem most appropriate that any type of "along street" pathways be designed to facilitate access to a more regional trunkline bicycle/pedestrian pathway system. The City of Roseville has already initiated development of a City-wide trail network which largely utilizes area stream corridors. It would seem to be most efficient for the Specific Plans to include pathway connections to this proposed system. An obvious corridor which could lend itself to development of a bicycle/pedestrian trunkline be the powerline easement which traverse both Plan areas.

Maintenance. Class II and III bicycle lanes are the easiest to maintain. Maintenance can be incorporated with an already established public works program which provides for roadway repair. Class I pathways are more expensive and difficult to care for in that they require additional attention to that already being provided area roadways. Such actions as brush trimming, pavement upkeep, and drainage facility maintenance on Class I pathways require continual upkeep. Consequently, it is not uncommon for these types of responsibilities to be included under the jurisdiction of a park department rather than public works, or in assessment districts, such as a landscape and lighting district.

Safety. Class II bicycle pathways pose the obvious disadvantage of requiring bicyclists to share the paved area with adjacent automobile use. Class I pathways which follow area streets are separated from vehicular traffic, but must still contend with potential conflicts at intersections or driveway crossings. However, from a police surveillance perspective, roadside pathways are easier to observe, can utilize common lighting facilities with roadways, and are readily accessible for emergency response personnel and equipment. Class I pathways which do not follow roadways, such as through the powerline corridor, can be designed to facilitate surveillance, but are not as easily patrolled as street side routes. Such pathways are commonly closed after dark to discourage vandalism and protect public welfare. Usually lighting is not provided. Because the



pathways are separated from area streets, special facilities, such as "knock-downs" and fencing is required to restrict vehicular access. Consequently, emergency access to some segments of such a trail systems can be more difficult to achieve than that available to street side pathways.

Aesthetics. An major advantage of a Class I pathway which follows a local creek or vegetated corridor is that it affords pathway users a more diverse environment in which to recreate. Often such a corridor attracts participants in nature study, picnicking, hiking, and other activities which would otherwise probably not be undertaken in a street side environment. It should be realized that development of bicycle/pedestrian pathways within natural corridors creates a land use which, although technically not a park, may be utilized and maintained as such. Class II pathways obviously do not offer comparable environments except where they follow rural roadways or roadways through parks. Class I pathways which follow local roadways can afford pleasant surroundings through the use of landscaping, but they seldom include adequate area to create settings comparable to those of a natural corridor.

It has been suggested that recreational facilities including parks and trails be constructed within power line easements. As discussed in the land use section of this report, there is some concern about health effects associated with exposure to electromagnetic fields generated by power lines. Although no conclusive evidence has been presented to substantiate the relationship, there appears to be adequate evidence to warrant concern.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.



M Undeveloped projects within the plan area which are subject to the park dedication standard represent 11,558 persons. Based on this population, approximately 104 acres of park land are required to fulfill the park requirement in the plan area. Of this 104 acres, approximately 29 acres should be in neighborhood parks, 17 acres in community parks, and 58 acres in a City-wide park.

M Development of the Plan area will generate the need for construction of a bicycle/pedestrian pathway system in the plan area.

M Development of the plan area will generate the need for open space areas in the plan area.

M Development of the Plan area will generate the need for active recreation facilities in the parks in the plan area. The Specific Plan identifies the number of facilities which will be required and the total proposed as follows:

<u>Facility</u>	<u>Number Required</u>	<u>Number Provided</u>
Baseball	2	2
Little League	4	4
Bobby Sox	3	2
Softball	4	4
Softball/Soccer		3
Regulation Soccer	6	6
Youth Soccer	3	3
Swimming Pool	1	1
Tennis Courts	7	7
Basketball Courts (Outdoors)	13	13
Playlots	13	13

M Provision of parks, open space, and a pedestrian pathway system in the plan area will generate the need for an additional park ranger to patrol these areas.



Mitigation Measures

- o The Specific Plan identifies 131 acres of park land in 11 neighborhood parks and one large community park. These sites represent 27 acres of park land in excess of the 104 acres required by the parkland dedication ordinance. Upon review and acceptance of the proposed sites by the Park and Recreation Director, the parks will be dedicated to the City. In addition to these designated park sites, a park reserve site of 30 acres has been identified to allow for expansion of the community park if so desired by the City. These facilities are supplemented by the open space corridors in the utility easements, the landscaped corridors along the major boulevards and drainages, recreation facilities at schools, and a municipal golf course.

- o The proposed park sites have been selected with consideration for facility layout and design, including co-location of park and school facilities. Development of facilities within the new parks sites will be financed through assessment of the adopted park fees against new developments and/or other financing mechanisms such as an assessment district(s), or Development Agreement(s). The proponents of the Specific Plan have proposed that parks be financed through a landscape and lighting district.

- o The Plan includes development of a bicycle/pedestrian pathway network consisting of three types of pathways. Primary pathways include Class I bike paths located within the power line easement corridor and along the floodway of Pleasant Grove Creek. Major arterial streets which will include a Class I pathway include Foothill Boulevard, Pleasant Grove Boulevard, Cook-Riolo Road, Junction Boulevard west of Americana Drive, and Baseline Road. This network will connect to the City-wide trail system on Washington Boulevard south of Junction, and on Pleasant Grove Boulevard. To support the primary pathways, a Class II lane system is proposed throughout the plan area within the right-of-way of collector streets and arterials. The bike lanes will be seven feet wide, located adjacent to the travel lanes and



marked by signage and a stripe on the pavement. All local streets within residential neighborhoods will serve as Class III on-street bikeways. A detailed description of this system is presented in the Specific Plan.

- o An additional ranger will be employed by the Park and Recreation Department.

Libraries

Roseville supports a public library system which serves the City as well as surrounding communities. The main library is located at the intersection of Royer Street and Taylor Street in downtown Roseville. For the convenience of patrons residing south of I-80, a station library is operated on Coloma Way in the southeastern sector of the City. The library system estimates that there are presently in excess of 36,000 card holders which utilize the Roseville libraries.

In addition to the services offered at the library facilities, the library system provides regular delivery and pick-up of materials to convalescent homes in the Roseville vicinity, a computer hook up facility at each of the local high schools. The Roseville Library system participates in the Interlibrary Loan and Universal Borrowing programs.

As a guideline, the current library facilities are estimated to be capable of providing optimal service to a population of 30,000 persons. As discussed above, it is estimated that approximately 36,000 library cards have already been provided to the community. As development continues throughout the City and surrounding area, the need for additional library services is expected to increase. For planning use only, the library system estimates that a branch library would be required to serve each 15,000 to 20,000 new residents in the City. Consequently, branch libraries are proposed in the Southeast, North Central, and Northwest Roseville Specific Plan areas. The library in the Southeast Specific Plan area is scheduled to be constructed in 1989. After opening, the station library on Coloma Way will close.



Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

- M Using the rule of thumb of one branch library for each 15,000 to 20,000 residents, development of the plan area is anticipated to generate the need for a branch library.

Mitigation Measures

- o The Specific Plan includes a community branch library to be located within the community park. Location of the library in the park is viewed as an efficient arrangement which enhances the attractiveness of both facilities. From a practical perspective, co-location of these use will provide for efficient use of common facilities and services, such as parking, lighting, security, and maintenance.



Visual and Aesthetic Resources

The visual and aesthetic environment of the plan area is dominated by open rolling grassland typical to the region. Interspersed throughout the grassland are clusters of native woodland dominated by blue oak, interior live oak, and digger Pine. Riparian vegetation occurs in isolated locations along the watercourses of the vicinity. As is characteristic in the Valley, the majority of vegetative growth occurs during the spring while the soils are saturated from the winter rainy season. However, the hot dry summer weather rapidly dries the soils and vegetation, producing the yellow and brown colors which dominate the landscape most of the summer season. In contrast to the browns and yellows, the native oaks maintain their waxy green colors throughout the summer.

View #1 presents a typical view of the plan area. This view, looking north from Baseline Road, typifies the open grassland interspersed with native oaks.



View #1: Open Grassland looking north from Baseline Road



There are numerous intermittent tributaries to Pleasant Grove Creek scattered over the Northwest Plan area. These drainages tend to be shallow swales made up of alluvial soils which have been deposited over time. As shown in View #2, of the Pleasant Grove Creek vicinity, the deeper soils support extensive oak trees on the shoulders and terraces of the drainage.



View #2: Oak Woodland typical to Pleasant Grove Creek

Views away from the Northwest Plan area are dominated by urban development to the south and east. South of the Plan area single family homes along Baseline Road are visible. Beyond these lies the Sacramento Metropolitan area. More easterly, existing residential neighborhoods in the City of Roseville are prominent. As is the case in the North Central Plan area, all of the existing industrial businesses are visible from the Northwest Plan area. Beyond Highway 65 is the North Central Specific Plan area. West of the Northwest Specific Plan area the predominant land use is agricultural and views are dominated by open grassland.



Vernal pools are a unique component of the landscape in the plan area. Pool areas tend to remain green later into the summer than the surrounding grasses, and typically support a multitude of flowering plants species which add a touch of color to an otherwise brown landscape. However, by mid summer, even the majority of the vernal pool areas have dried up to blend into the browns of the grassland.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

- S As development progresses in the plan area, the native character of the vicinity will become a secondary landscape to residential neighborhoods and commercial areas. The semi-arid open landscape will be replaced with an urban environment dominated by residential and commercial land uses. Landscaping and irrigation will produce green vegetation which will persist year round.

Mitigation Measures

- o It is not feasible to reduce the change in the aesthetic environment to less than significant levels. However, the change is not necessarily negative in nature. Many will find the developed character of the area much more appealing than the natural condition. However, it is a fundamental objective of the Specific Plan to identify and preserve the more outstanding natural traits of the site. Measures to ensure this include preservation of the most valuable vernal pools in preserves, minimal disturbance of the South Branch Pleasant Grove Creek floodway, and extensive efforts to protect and incorporate native oak trees into the plan.



- o As required by ordinance, all of the 100 year flood plain will be dedicated to the City. It is understood that the majority of this area will be left in its natural state.
- o Creation of landscape corridors along roadways, implementation of design and landscape guidelines, grading standards, and tree preservation programs are proposed to create an attractive character throughout the plan area.
- o During design review of individual projects, significant views should be considered and preserved where possible.



Fiscal Analysis

The Analytics Company was retained to determine the fiscal impacts associated with approval of the Northwest Roseville Specific Plan. Their findings are contained in a fiscal analysis which is appended to this EIR. This section of the EIR is a summary of the appended fiscal study, and most of the text included in this section has been taken from the appended analysis. Persons requiring more detailed information than that included in this section are referenced to the appended analysis.

The City of Roseville will collect revenues from and incur expenses for providing services to the new residents and businesses attracted to this area. The objective of this study is to estimate the net fiscal impact associated with the proposed development assuming no change in service levels, complete buildout under the proposed design, and constant dollars based on the 1988-89 Proposed Budget for the City of Roseville.

Results of the fiscal analysis indicate that the City will accrue a net annual surplus of approximately \$1,666,200 from the buildout Specific Plan area. The principal revenue sources are predicted to include property taxes totaling \$2,019,300 per year including residential, commercial and unsecured property taxes and penalties; sales tax totaling \$3,932,300 annually for the new population and commercial development; utility users' taxes of \$762,100 annually; and motor vehicle and trailer coach in lieu fees of \$599,100 annually. Principal additional costs incurred by the City include net annual outlays of \$2,214,700 for police services; \$946,100 for operation of a new fire station in the plan area; \$584,600 for street and highway maintenance; and \$645,600 for maintenance and operation of new parks and recreation programming. Utilities, transportation services, the proposed public golf course, and other miscellaneous functions will be self-supporting as a result of special tax districts or other revenue sources. Infrastructure for solid waste disposal, water, sewage disposal, storm drainage, and utilities are either adequate to absorb the additional development or planned for expansion as part of this plan, therefore no unreimbursed costs are predicted for these items.

Assuming continuation of the current household mix, development of the plan area is predicted to generate approximately 1,883 high school students whom would attend the Roseville Joint Union High School District, 2,490 elementary students (K-8) in the Dry Creek Joint Elementary School District, and 693 students (K-8) in the Roseville City Elementary School District. On-going costs associated with these students are assumed to be covered by property taxes accruing to the school districts and state subsidies for enrollment. Additionally, the districts are working with the City and the developers to implement Mello-Roos funding for capital costs which cannot be covered through mitigation fees paid by the developers or other funding sources presently available.

Although some development fees are uncertain or unknown at this time, the sum of known fees which would be assessed against projects within the plan area exceeds \$102 million. The most substantial fees will include traffic circulation fees (\$9.6 million), school and fire impact fees (\$24.5 and \$4.8 million respectively), and water connection charges (\$9.8 million). Additionally, known building permits and related fees which offset City operations will total approximately \$19.7 million. Sewer connection fees are estimated to be in excess of \$23.5 million. Impact fees for parks (\$3.1 million), home improvement fees (\$0.5 million) and refuse containers (\$0.5 million) represent additional fees which are used to offset one-time city costs.

The projected annual revenues and expenditures which will be generated by the Northwest Roseville Specific Plan are listed in Table M1. A summary of the developer fees anticipated with development of the plan area is presented in Table M2.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.



Table M1
Projected Annual Revenues and Expenditures
from the Northwest Roseville Specific Plan

Item	\$ Thousand
<u>Revenues</u>	
Property Tax	
Residential	\$ 1,545.9
Commercial	388.1
Unsecured	77.4
Penalties	7.9
Property Transfer Tax	64.3
Sales and Use Tax	3,932.3
Hotel and Motel Tax	93.0
Utilities Users' Tax	762.1
Franchises	51.0
Business License Tax	74.9
Fines	116.7
Motor Vehicle In-Lieu	585.0
Trailer Coach In-Lieu	14.1
Cigarette Tax	72.1
Construction Permits & Development Fees	1,468.5
Other Miscellaneous Revenues	72.1
	\$ 9,325.4
<u>Expenditures</u>	
General Government	\$2,170.9
Public Safety	
Police	2,214.7
Fire	946.1
Other Public Safety	24.2
Public Works and Planning	
Public Works Department	878.5
Planning & Other Related Functions	433.0
Library	346.2
Parks and Recreation	645.6
	\$ 7,659.2
Total Annual Revenues	\$ 9,325.4
Total Annual Expenditures	\$ 7,659.2
Annual Net Revenues	\$ 1,666.2

Source: Analytics Company



Table M2
Summary of Developer's Fees Associated with
Development of the Northwest Roseville Specific Plan area

<u>Item</u>	<u>Commercial</u>	<u>Residential</u>	<u>Total</u>
Building Permit	\$263,400	\$ 4,429,200	\$ 4,692,600
Plan Check Fee	171,200	4,253,800	4,425,000
Energy Plan Check Fee	85,600	64,600	150,200
Sewer Connection Fees	2,151,500	21,304,400	23,455,900
Water Connection Fee	unknown	9,768,600+	9,768,600+
Traffic Circulation Fee	1,278,800	8,355,100	9,633,900
Fire Tax Fee	639,400	n/a	639,400
Fire Services Contract Fee	n/a	4,177,600	4,177,600
Parking Fee	179,000	54,500	233,500
Strong Motion Tax	19,200	5,848,600	5,867,800
School Mitigation Fee			
Roseville High School Dist.	250,600	9,373,600	9,624,200
Dry Creek Elem. School Dist.	227,000	11,016,800	11,243,800
Roseville City Elem. Sch. Dist.	149,000	3,512,300	3,661,300
Home Improvement Fee	n/a	545,900+	545,900+
Park Tax Fee	n/a	3,126,800	3,126,800
Electrical Underground Fee	n/a	unknown	unknown
Electric Street Light Fee	unknown	n/a	unknown
Encroachment Permit	unknown	10,285,600+	10,285,600+
Grading Permit Fee	unknown	n/a	unknown
Tentative Subdivision Map	n/a	10,400+	10,400+
Final Subdivision Map	n/a	2,300+	2,300+
Traffic Signal Equip. Fee	n/a	126,000+	126,000+
Refuse Container Fee	unknown	491,600	491,600+
 Est. Taxes/Fees Paid by Developer	 \$5,414,700	 \$96,747,700	 \$102,162,400
 Est. Taxes per Comm. Sq.Ft.	 \$2.16		
Est. Taxes per Res. Dwelling Unit		\$11,807	

+ Indicates additional fees unidentified at this time.

Source: Analytics Company



L Once built out, the Northwest Roseville Specific Plan area is predicted to generate approximately \$9,325,400 annually. Under the same conditions, the plan area will require \$7,659,200 in annual expenditures. The balance of these figures, \$1,666,200, would be anticipated to accrue to the City as surplus funds from the plan area.

L Based on the present development impact fee schedule, development of the Northwest Roseville Specific Plan area is predicted to generate approximately \$102,162,400 in one-time fees.



Archaeology and History

Discovery and settlement of the Sacramento Valley Region of California is one of the most colorful and thoroughly researched histories of any in the State. Numerous archaeological and historic surveys have been conducted in the vicinity, as well as within the plan area itself. Surveys have been conducted for development, placement of transmission towers, and placement of a regional sewer system. The most comprehensive survey of the area is the Cultural Resource Inventory and Evaluation of Rich, Shenker, and Carlsberg Parcels, Roseville, Placer County, California, prepared by Public Anthropological Research (PAR). This survey was conducted in 1986 in response to proposals for development of approximately 2,052 acres of the plan area. This section contains information taken directly from these various reports.

Prior to exploration by Spanish explorers and American trappers, the region was inhabited by the Valley Nisenan. The term Nisenan ("of us" or "from our side") is applied to the southern Maidu Indians who made their home along the drainages of the American, Yuba, and Bear Rivers, and the lower reaches of the Feather River. Nisenan population prior to Euro-american contact is thought to have numbered about 9,000 individuals whom were scattered throughout the region in small "triblet" groups. The Nisenan economy relied on gathering acorns, grass seeds and roots along with the hunting of deer, elk, rabbits and small game. Fishing techniques employed nets, traps, and soaproot poison. Nisenan food technology and seasonal round are well established from ethnographic accounts, but place and village names are poorly known. It is known that two principal types of habitation sites existed, seasonal camps, which were utilized for food gathering, and permanent villages.

Numerous archaeological sites have been identified in the vicinity of the plan area. Many of these sites are evidenced by bedrock mortar milling stations and shallow midden deposits. A significant exception to these seasonal sites was identification of the "Evelyn" site in 1962. The Evelyn site was identified on the south bank of Dry Creek immediately downstream from the



confluence of Miner's Ravine and Antelope Creek, outside of the plan area. This large site was determined to have been a permanent village and cemetery site. Unfortunately, the site was severely vandalized by relic collectors, prior to evaluation by qualified archaeologists. Other documented sites include Ba mu ma which existed where the town of Lincoln stands, Pit chi ku where Roseville is located, and Ba ka cha at Rocklin, and a site of unknown Indian name but historically known as "Lincoln Mound" located along Auburn Ravine.

The first historical exploration of the areas is credited to the Spanish under Gabriel Moraga. The Moraga expedition visited the area between 1806 and 1808 for the purpose of identifying mission sites, searching for runaway Indians, and to punish those Indians found to be hostile to Spanish rule. There is no record of Nisenan from this vicinity being removed to the missions, but the Nisenan did accept runaways from Spanish missions.

The next recorded visitation to the area is credited to Jedediah Smith and his party of fur trappers who, with the approval of the Nisenan, established trapping camps in the area during the years of 1827 and 1828.

The most devastating blow to the Nisenan culture came in the form of a malaria epidemic in 1833. Thousands perished, and those who survived could not return to their aboriginal way of life.

The earliest euro-American use of the plan area was probably in the late 1840's when Placer and Sacramento Counties were swarming with men searching surface placer deposits for gold. By 1854 the plan area was sparsely settled and ranching had begun on a small scale. A man named Leet acquired 10,500 acres around this time and settled near Pleasant grove Creek. In 1865 he sold out to Stephen A. Boutwell, who began to acquire land near the California and Oregon Railroad (now Southern Pacific). Boutwell and his partner, William Dunlap, used their land as a sheep ranch, combining their holdings with those of a new partner, James W. Kaseberg, in 1864. It is reported that during the 1870's as many as 30,000 sheep were sheared on the ranch each year. By 1887, Kaseberg had bought out Boutwell and Dunlap and



had increased the ranch to to an estimated 50,000 acres. His holdings were adjoined on the north by the famous Spring Valley Ranch, operated by J. Parker Whitney, and by the smaller ranch of Walter Fiddymment.

By the late nineteenth century, Kaseberg had sold much of his holdings, and had build a Victorian mansion on a wooded knoll just west of the present Highway 65. By the time of his death in 1905, his ranch included 8,000 acres of land along Kaseberg and Pleasant Grove Creeks. His son, William, continued to graze cattle and sheep and live in the mansion until his death in 1954. The mansion and associated buildings, now located on the Diamond K Ranch, was nominated to the National Register of Historic Places in 1978.

As discussed at the opening of this section, a cultural resource investigation of approximately 2,052 acres within the plan area was conducted by Public Anthropological Research (see the appended report). Four historic and four prehistoric isolated artifacts were recorded during the survey. In addition, one previously recorded historic home site was revisited and the record updated. Identified artifacts included a unifacial mano, plow blades, a liquor bottle, a pestle, a metate, a historic hay binder, a bifacial mano, and several cast iron stove parts. According to Public Anthropological Research, the isolated artifacts found within the Plan Area are not considered unique artifacts under CEQA due to their isolated nature, and no further cultural resource management is recommended.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

L Even though no significant archaeological or historic sites were identified by the survey, development of the plan area will pose the potential for disturbance of presently unknown sites. As with any surface survey, vegetal cover inhibits



ground visibility in much of the project area. Therefore, it is possible that unrecorded cultural resources and subsurface deposits may be encountered during future construction.

Mitigation Measures

- o In the event any historic surface or subsurface archaeological features or deposits are uncovered during construction, work in that immediate vicinity will halt immediately and the State Historic Preservation Officer in Sacramento will be contacted for determination of resource significance.

- o If artifacts are discovered, which are determined by a qualified archaeologists to be "removable", they should be dedicated to the Maidu Park Native American Center.



VII. GROWTH INDUCING IMPACTS

Development of the plan area will contribute to growth within the City of Roseville. Growth inducing impacts are said to exist when development occurs in an unplanned manner, or when planned growth progresses at a rate faster than the rate that services and facilities can be extended to serve it.

Roseville is located on the fringe of the Sacramento metropolitan area, an area which has exhibited unprecedented growth in recent years. Initially, much of this growth was residential in nature, and outlying communities became commuter communities to the larger Sacramento commercial and industrial center. However, as the amount of readily available developable area within Sacramento has steadily decreased, the focus of industrial and commercial growth has shifted outward. Communities such as Rocklin, Roseville, and Folsom have attracted many large commercial and manufacturing firms, such as Hewlett Packard, NEC, 3M, and Intel. If growth continues as predicted, increased numbers of prospective developers will shift the focus of their development operations outward from Sacramento. As this occurs, smaller communities will be forced to re-evaluate, and in many cases, update their **General Plans** to cope with the impetus from development created by commercial and industrial growth.

Impacts

As discussed in the Introduction, impacts are identified in this section as follows: L Less than significant, S Significant, or M Mitigated to less than significant.

- M Development of the plan area will require extension of public services and utilities to the plan area. In conjunction with extension of these facilities, upgrading of infrastructure outside of the plan area, such as the water treatment plant, will occur. Extension of services and utilities to the plan area will increase the feasibility of development of properties beyond the plan area which are presently too far from existing infrastructure to be considered.

M Implementation of the Specific Plan will convert an undeveloped rural site into an urban community. Immediately west and south of this community are lands which are not currently proposed for development. Presently, the plan area represents an undeveloped gap between these properties and the developed portion of the City. Proposals to develop these properties at this time would constitute "leapfrog" growth, and is consequently, not feasible. However, approval of the plan will result in these properties becoming contiguous with approved development, and consequently, in a position to propose additional growth.

M Agricultural land use is predominant west of the plan area. It is recognized that some agricultural activities, such as chemical spraying, are not compatible with nearby residential land uses. Implementation of the Specific Plan could contribute to the cessation of some agricultural activities in the vicinity. The predominant agricultural practice in the vicinity of the plan area is livestock grazing, and consequently no such situation has been identified.

L Predictions indicate that buildout of the Roseville General Plan will produce a greater number of jobs than residents to fill available positions. A basic impact of this imbalance will be a higher than normal demand for employees. As long as the demand for employees exceeds the available work force, competition among employers can be expected to produce higher salaries and better benefits. This situation will in turn attract employees from other locations, many of whom will desire to reside in or near Roseville, thus increasing the demand for housing in the area, lowering the vacancy rate, and resulting in escalated purchase and rental prices. If an adequate amount of housing is not made available, which it cannot be under the current General Plan designations, this situation will result in employees commuting from other areas, thus contributing to traffic congestion, air quality deterioration, and noise. This imbalance will represent a significant cumulative condition, but the Northwest Specific Plan is not predicted to contribute to the situation.

Mitigation Measures

- o The Specific Plan includes a phasing plan which identifies an orderly progression for development of the Plan area. The proposed phasing plan places emphasis on development outward from the City.
- o Most of the land use allocations allowed by the Roseville General Plan have been allocated, and development of the urban reserve areas beyond the Specific Plan area would likely require a major update or amendment of the General Plan. This process can be utilized to ensure orderly development of additional areas as appropriate.
- o The predicted regional job/housing imbalance will constitute a significant cumulative situation, but the Northwest Roseville Specific Plan will not contribute to this situation. The Northwest Roseville Specific Plan is predominantly residential and will generate more employees than jobs, thus contributing to a reduction in the predicted jobs/housing imbalance.



VIII. ALTERNATIVES TO THE PROPOSED ACTION

Identification of alternatives for specific development proposals is a relatively simple process in which alternative sites and land uses are evaluated. However, application of the alternative analysis process to large planning areas, such as specific plan areas, is not so well defined. Alternatives which could be considered include the obvious "no project" alternative, but also such complex alternatives as rearrangement of the proposed land uses within the plan area, changing of the proposed land uses within the area, and development of a portion or all of the plan at another location.

No Project

The easiest implemented alternative to the development of the plan area would be the "no action" alternative which would produce no changes from the present condition of the plan area. This alternative would eliminate all of the impacts associated with implementation of the plan as identified in this report. However, considering the current rate of growth, favorable economic conditions, continuing growth on surrounding properties, and the current market value of the land, the "no action" alternative cannot be considered as realistic long term land use for the plan area. In addition, implementation of the no project alternative would avert the development of the plan area as a predominantly residential project. Failure to implement this Specific Plan would significantly aggravate the predicted regional jobs/housing imbalance in that it would remove from development projects which are predicted to generate a surplus of employees. Without these employees, the imbalance would be even farther out of balance.

Development of the Proposed Land Use at Another Location

Closely related to the No Project alternative, is development of the specific plan elsewhere in the vicinity. In addition to the proposed site, two separate locations exist within the City where



the plan could be implemented, 1) the urban reserve corridor immediately west of the proposed plan area, and 2) the urban reserve area north of the Highway 65 Bypass in the North Central Specific Plan area.

Development of the Specific Plan within the corridor along the western edge of the City poses several problems. First and most obvious, is the irregular shape of this area. It is not practical to assume that the entire specific plan could be arranged to fit into a corridor approximately one-mile wide. Development within this constraint would severely hamper the ability of the planner to design the plan to provide close convenient bicycle/pedestrian connections to major land uses. The "corridor" character of this area would require elongating the plan, resulting in a substantial distance between land uses at opposite ends. Such a design would not be conducive to efficient land use planning and internal circulation. Further, development of the plan in the corridor would not be contiguous with existing development in Roseville. The currently proposed site is situated between the developed portion of Roseville and the corridor site. Relocation of the residential land uses farther to the west into this corridor area would increase the distance between the residential neighborhoods and their presumed work destinations in the North Central Specific Plan area, resulting in longer commute trip lengths. Even if relocation of the Specific Plan to this site could be facilitated, as discussed under the "no project" scenario, leaving the plan area in an idle condition is not realistic, and it is likely the vacant site would generate a proposal for amendment of the **General Plan** to provide additional land uses beyond those already allocated within the City.

Relocation of the land uses in the Northwest Roseville Specific Plan to the area currently designated as urban reserve in the North Central Plan area carries with it many of the same complications identified above. Most notably, it is not realistic to assume that the northwest plan area could be left in an idle condition for any period of time, and development of the proposed land uses elsewhere in the vicinity would likely result in pressure to amend the **General Plan** to provide additional land



uses beyond those already allocated by the General Plan. A second set of considerations pertains to the desirability of the urban reserve portion of the North central Plan area. This area is adjacent to the Highway 65 Bypass and is better suited for commercial and business professional rather than residential land uses. Secondly, this urban reserve area is underlain by Mehrten mudflow and breccia. This material is highly impermeable and poses serious constraints to landscaping. Consequently, the Roseville General Plan specifies that land uses on this material shall be limited to non-residential uses or high density uses.

Once potential alternative sites within the City have been eliminated, the next logical area to which the proposed land uses could be relocated would be any of several large undeveloped tracts in the unincorporated portion of Placer County. Generally speaking, all of these tracts pose similar constraints to development. Most notably, it is contrary to Placer County Policy and the goals of the South Placer Policy Plan to promote extensive urban development in the undeveloped portion of the County, at least until such development constitutes contiguous growth outward from an already developed area. Since the northern and western portions of Roseville have not yet developed to the municipal limit, implementation of the proposed land uses on a site in this area of the County would not be contiguous with existing growth, would constitute "leapfrog" development. Leapfrog development of this project into Placer County would complicate extension of public services and facilities, create potential land use compatibility conflicts with surrounding rural and agricultural land uses, and provide the impetus for additional urban growth in the unincorporated area of the County.

Development of Different Land Uses within the Specific Plan

In order to identify reasonable alternatives in this category, it is necessary to examine land use planning on a City-wide scale. Land uses recognized by the Roseville General Plan can generally be divided into agricultural and open space uses, residential and related uses, commercial and business professional uses, and industrial land uses. The Roseville General Plan establishes the



relative amounts of these various land uses throughout the City. For the same reasons as identified in the "No Project" scenario, leaving the plan area in agricultural use is not a feasible alternative. It is recognized at the most fundamental planning levels, that many land uses are not compatible with one another. Consequently, efficient planning incorporates a separation of incompatible land uses. The proposed specific plan represents a residentially oriented project which incorporates only enough commercial and business professional land uses to serve future residents of the plan area. Conversely, the north industrial area and the North Central Roseville Specific Plan area are proposed to be oriented more toward commercial and industrial land uses. It would be feasible to develop a greater amount of commercial or industrial land uses in the Northwest Roseville Specific Plan area, but because of the constraints of the General Plan, a corresponding amount of residential area would have to be substituted into the North Central and/or north industrial areas. However, the North Central Roseville Specific Plan area already incorporates residential land uses in the portion of the plan area removed from the Highway 65 Bypass. Substitution of residential uses into the designated commercial area in the North Central Plan area would entail placement of residential land uses in relatively close proximity to the Bypass, an area much more appropriately suited for commercial land uses. In the interest of providing a separation between residential and industrial land uses, the north Roseville industrial area does not include any residential land use. To incorporate industrial land use into the northwest plan area would increase the potential for land use compatibility conflicts. Development of the Northwest Specific Plan area to nonresidential uses does not represent efficient land use planning in that it is located away from the major transportation corridors, and does not afford convenient access to the regional roadway network. Development of industrial uses in this area would result in an increase in the number and length of industrially generated trips using City roadways.



IX. CUMULATIVE IMPACTS

Cumulative refers to those impacts created by the combined effects of more than a single project. Even though the impacts associated with implementation of a single project may be less than significant, that impact when combined with impacts of other projects, could produce a significant impact. These impacts are discussed in the respective sections of the EIR, and are summarized and placed in a regional perspective in this section.

For the cumulative analysis, impacts of the Specific Plan were considered with buildout conditions of the **Roseville Specific Plan**, and as appropriate, with impacts of anticipated development of the larger regional area. In no instances were any impacts of the Specific Plan identified as the ultimate contribution which would turn a less than significant impact into a significant finding.

Project generated impacts in the subject areas of hydrology, air quality, vegetation and wildlife and transportation are suggested to contribute to significant cumulative conditions. In each of these subject areas, a significant cumulative impact is suggested to already exist regardless of the proposed Specific Plan. The impacts of the Specific Plan to these cumulative conditions may be relatively small, but nonetheless, incremental contributions to an existing significant condition must be recognized.

Growth predictions indicate that buildout of the **Roseville General Plan** will produce a greater number of jobs than residents to fill available positions. A basic impact of this imbalance will be a higher than normal demand for employees. As long as the demand for employees exceeds the available work force, competition among employers can be expected to produce higher salaries and more attractive employment opportunities. This situation will in turn attract employees from other locations, many of whom will desire to reside in or near Roseville, thus increasing the demand for housing in the area, lowering the vacancy rate, and resulting in escalated purchase and rental prices. If a jobs/housing balance is not achieved, which it cannot be under the current **General Plan** designations, this



situation will result in employees commuting from other areas, thus contributing to traffic congestion, air quality deterioration, and noise. This imbalance will represent a significant cumulative condition, which must be recognized. The Northwest Roseville Specific Plan includes predominantly residential land uses, and consequently, is expected to generate more employees than jobs. Because of the proximity of the Northwest Plan area to the predicted employment centers, i.e. the north industrial area and the North Central Specific Plan area, it is expected that many residents of the Northwest Specific Plan area will work in Roseville, thus helping rather than contributing to the cumulative condition. In the context of this EIR, cumulative impacts are suggested to be significant in situations where implementation of the Northwest Roseville Specific plan contributes to the problem. Although the jobs/housing balance is recognized as a significant cumulative condition, implementation of the Northwest Specific Plan is not predicted to exacerbate the situation, hence the cumulative impact in this EIR is suggested to be less than significant.

S Hydrology

As documented in the Hydrology Section of this report, increases in runoff which are predicted to occur as a consequence of development in Roseville are not predicted, in most cases, to produce a perceivable change in water surface elevations downstream of the City. The plan area is principally drained by two drainagesheds, South Branch Pleasant Grove Creek and Kaseberg Creek, both of which flow into Pleasant Grove Creek. In addition, a small area in the extreme southwestern corner of the plan area is within the Curry Creek drainageshed. Pleasant Grove Creek and Curry Creek drain westward emptying into the Pleasant Grove Creek Canal. The canal flows northward emptying into the Cross Creek Canal, which outlets into the Sacramento River.

Calculations indicate that there is sufficient capacity in the canal system to pass 100 year storm flows from the Pleasant Grove and Curry Creek drainages. Flooding in these drainages is recognized as a problem upstream of the canal system where



channel improvements have not been implemented. During heavy flows, water escapes from unimproved segments of the channels and becomes trapped behind the levees of the downstream improved sections. This trapped water must be siphoned and/or pumped through the levees into the canal system. Development in the Pleasant Grove and Curry Creek watersheds will produce increased flows, which will exacerbate the existing situation. Even though the contribution of runoff from the plan area is predicted to be relatively small when compared to flows from the entire drainageshed, it will constitute an incremental addition to a cumulative impact.

The Sutter-Placer Watershed Area Study (USDA, 1982) evaluated various alternatives which could be implemented to alleviate the flooding problems along Pleasant Grove and Curry Creeks. Major recommendations included channel improvements, protection of natural channels from development, recycling of irrigation waters, and development of retention facilities. In accordance with these recommendations, and City of Roseville policy, the specific plan specifies that all area within the 100 year flood plain in the plan area will be left undeveloped and dedicated to the City. The Watershed Area Study identifies potential sites for channel improvements and retention facilities, none of which are within the plan area. No major segments of channel improvements were identified as necessary on Pleasant Grove Creek, however, a major dam site was identified downstream of the City of Roseville. In response to increasing regional flooding problems, the City of Roseville, along with Rocklin, Lincoln, Loomis, Auburn, Colfax, and Placer County, have proposed formation of a regional flood control district. It is anticipated that this district will formulate a regional strategy for flood control management.

S Vegetation & Wildlife

As documented in the Land Use section of this report, development is predicted to continue throughout Roseville with buildout to the **General Plan** land uses predicted sometime beyond 2005. As development occurs, the amount of undeveloped area available for



wildlife use will continue to decrease in the Roseville vicinity. As the amount of habitat decreases, wildlife species which are incompatible with the urban environment will be displaced.

Mitigation to reduce the magnitude of this impact is discussed in Vegetation and Wildlife Section of this report, and includes the preservation of habitat in parks, stream corridors, vernal pool preserves, and open space areas. Even with this mitigation, a substantial change in the habitat will result as a consequence of the area transitioning to an urban environment. No rare, threatened or endangered wildlife species are known to reside in the plan area. However, several Cooper's hawks (*Accipiter cooperii*), a species of special concern, are known to nest in the City, and it is likely that the hawks utilize the undeveloped area around the City for hunting.

Of particular concern in the Central Valley is the preservation of vernal pools. As discussed in the vegetation and wildlife section of this EIR, such pools represent a relatively rare and rapidly disappearing natural community. Development throughout the Central Valley has extirpated thousands of pools, and proposed growth in the Roseville vicinity has the potential to essentially destroy the remaining pools in the vicinity. Although the Specific Plan proposes creation of two vernal pool preserves to protect selected pools, development will result in loss of approximately 80% of the vernal pool resources within the plan area. This impact will include disruption of known populations of *Gratiola heterosepala*, *Dowlingia humilis*, and *Dichelostemma lacuna-vernalis*.

S Air Quality

The Sacramento AQMA, which includes southern Placer County, is designated as nonattainment area for ozone and experiences localized violations of the CO and PM₁₀ standards. Peak hour motor vehicle operations are largely responsible for the ozone and CO violations. As a component of the Sacramento Air Quality Plan, attainment of the ozone standard was predicted by December 1987, the date at which the air quality plan expired. Contrary



to predictions, attainment of the ambient ozone standard was not achieved prior to expiration of the air quality plan, and consequently, the AQMA is still recognized as a nonattainment area. A new air quality plan, anticipated to include more stringent control measures, is being prepared. Although no plan is currently in place, measures identified under the now defunct plan are still in practice by local municipalities.

No substantial point sources are proposed in the Northwest Roseville Specific Plan area. As discussed in the Air Quality Section of this report, motor vehicle emissions are anticipated to represent the most substantial air quality impact associated with implementation of the plan. The Northwest Roseville Specific Plan is suggested to include adequate measures to mitigate air quality impacts at the project level. These measures include development of a bicycle/ pedestrian pathway network, construction of facilities to support extension of transit service, existence of transit services to serve the plan area, development of neighborhood oriented commercial, business, and park land uses, and construction of an adequately sized and efficiently designed roadway system.

Cumulatively, the air quality impacts of the Northwest Roseville Specific Plan are suggested to be significant. Although the plan contains measures to minimize plan generated air quality impacts, the incremental generation of any additional pollutants will make future attainment of the ambient ozone standard more difficult. Aside from implementation of the "no project" alternative, it is not realistically feasible to reduce the cumulative air quality impact of the plan to a less than significant level given existing technology.

S Transportation

The traffic impact section of this EIR and the appended traffic analysis prepared by Fehr & Peers Associates contain an analysis of cumulative traffic conditions projected to result with buildout of the City of Roseville to General Plan densities. As specified by the General Plan, the roadway system within the City



of Roseville is predicted to provide LOS C or better operating conditions. Consequently, traffic impacts associated with development of the Specific Plan area are suggested to be less than significant at the project level.

Contrary to future traffic conditions projected in Roseville, regional traffic conditions are predicted to worsen as outlying areas surrounding the Sacramento metropolitan area continue to develop into "bedroom communities". Roadways which function as commuter routes, such as Highway 50, Interstate 80, Interstate 5, Interstate 99 and Highway 65 already experience congested conditions during daily commute periods. Continued growth of outlying communities, including Roseville, are anticipated to exacerbate this situation. Presently, solutions to the predicted traffic conditions have not been identified. It is likely that the ultimate solution will include a combination of measures including promotion and development of an efficient regional transit system, expansion and promotion of the park and ride program, implementation of flex time by local employers, and improvement of the regional roadway network.



X. THE RELATIONSHIP BETWEEN LOCAL SHORT TERM USES OF THE HUMAN ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY.

The cumulative and long term effect of the proposed Specific Plan will be to introduce a residential and commercial environment into an area which is currently in a natural condition. This change will involve a substantial alteration of both the natural and the cultural environment of the plan area. Considering that urban development has already occurred within parts of the plan area, that the plan area abuts the already developed area of the City, and that the plan area is of limited agricultural value, development of the plan area appears to be the logical long term use of the area.

XI. ANY SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED.

The major irreversible change which will result from the proposed project will be the long term commitment of the resources of the property to the proposed uses. Off site irreversible changes will also result. These changes are described in detail in the appropriate sections and components of this EIR, and are summarized in Section B of this document. The most notable irreversible environmental changes will include conversion of vegetation and wildlife communities to an urban environment, loss of vernal pool habitat, and the generation of additional pollutants into the environment. These irreversible impacts are unavoidable consequences of urban growth and will continue to occur regionally regardless of action on this Specific Plan.

XII. OPPOSITION TO THE PROJECT.

No opposition to the proposed project has been expressed to date. However, the public review period for this document and subsequent public hearings have yet to occur, and opposition to the project may be voiced at these times.



XIII. PROPOSED ENVIRONMENTAL MONITORING PROGRAMS.

The vernal pool preservation program identified in the specific plan includes routine monitoring of the quality of the vernal pools in the proposed preserves. This action will be the responsibility of the City of Roseville.

The Public Works Department has a traffic monitoring program established which is utilized to determine when improvements to the roadway system are warranted. This program will have to be expanded to the plan area.

The Placer County Air Pollution Control District has recently established an air sampling station in Roseville.



XIV. PERSONS AND ORGANIZATIONS CONSULTED

Agid, Gary. Air Resources Board

Alvarado, Ron. Sammis Development

Barnett, Fred. Roseville Department of Public Works

Bingen, David. Placer County, Department of Public Works

Bonderson, Noel. Placer County Air Pollution Control District

Brow, Carol. California Waste Management Board

Broyles, Don. Captain, Roseville Police Department

Bush, Jim. Roseville City School District & Roseville Joint
Union High School District

Buckle, Larry. City of Roseville

Chaffin, Randy. Wade Associates

Chesney, Paul. Pacific Gas and Electric Company

Cook, Cindy. Roseville RUSH

Dameron, Daniel. City of Roseville

Davis, Cynthia. Analytics

Davis, Russ. Elliot Homes

Dillon, Steve. City of Roseville

Dixon, Jim. County of Sacramento

Dominguez, Eileen. Auburn Placer Disposal Service

Duarte, Bill. City of Roseville Electric Department

Foster, John and Daniel. Foothills Archaeological Service

Foust, R.W. County of Sacramento

Fraleigh, Douglas. County of Sacramento

Fua, Dan. California Regional Water Quality Control Board



Geisler, Paul. Davis Waste Disposal
Hall, Chief. Roseville Police Department
Holmes, Bob. Elliot Homes
Hoyt, Wendy. Sacramento Regional Transit
Hough, Kenneth. Sacramento Area Council of Governments
Imsdahl, Roger. Placer County, Department of Public Works
Jackson, Jerry. City of Roseville Public Works Department
James, Ken. Morton and Pitalo, Inc.
Johnson, Lynn. Placer County Health Department
Kersnar, Jere. Ralph Anderson and Associates
Kirschenstein, Joel. Dry Creek School District
LaFave, Cheryl. Roseville Public Works Department
Mahaney, Ed. City of Roseville
Matlock, Cheryl. Sacramento County Public Works
McKeen, Dave. Roseville Department of Solid Waste
Messersmith, James. Department of Fish and Game
Mohr, Selby. Sacramento Municipal Utility District
Moosakhanian, Arshavir. City of Rocklin
Morton, Richard. Morton and Pitalo, Inc.
Nickerson, Sue. Roseville Library Director
Pagel, Larry. Roseville Department of Public Works
Parks, Loren. The Analytics Company
Peers, Jack. Fehr and Peers Associates
Pelsor, David. City of Sacramento Refuse Department
Poulsen, Jack. Roseville Telephone Company



Saliger, Terry. Roseville Telephone Company
Smith, Brian. Marysville Department of Transportation
Selover, Kenneth. Placer County Air Pollution Control District
Sprague, John. Roseville Housing Department
Stromberg, Larry. Consulting Ecologist/Botanist
Telford, Alan. Fehr and Peers Associates
Wade, David. Wade Associates
Walters, Gerald. Fehr and Peers Associates
Weisel, Kenneth. City of Roseville Electric Department
White, W.O. Roseville Fire Department
Zanocco, Al. Yuba Sutter Disposal Company



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