Draft EIR

Northeast Roseville Sewer Trunk Extension

State Clearinghouse No. 87070608

City of Roseville

October 1987

CITY OF ROSEVILLE
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TO: ALL INTERESTED PARTIES

FROM: FREDERICK L. BARNETT, DIRECTOR OF PUBLIC WORKS
CITY OF ROSEVILLE

DATE: OCTOBER 6, 1987

SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE NORTHEAST ROSEVILLE SEWER TRUNK EXTENSION

The City of Roseville Public Works 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 EIR in discussing possible impacts on the environment, mitigation measures, and alternatives to the project.

The Draft EIR 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 Public Works Department at the above address no later than 5:00 p.m., November 5, 1987. The Project Review Commission will potentially be considering this document at an as yet unscheduled meeting. Both written comments and oral testimony from the public hearings will be incorporated into the Final EIR. Please retain a copy of the Draft EIR. Unless substantial modifications are needed, the Draft EIR plus an addendum may serve as the Final EIR.

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 Public Works Department.

If you have any questions regarding this Draft EIR, please contact Jerry Jackson at (916) 783-9151.

Sincerely,

Frederick L. Barnett
Director of Public Works

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David Wade Associates	735 Sunrise Avenue, Roseville, CA 95661
William Zisk	205 Thomas, Roseville, CA 95678

DRAFT ENVIRONMENTAL IMPACT REPORT

NORTHEAST ROSEVILLE SEWER TRUNK EXTENSION

Prepared by

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October, 1987

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1 INTRODUCTION AND PROJECT DESCRIPTION

1.1 PROJECT LOCATION

The proposed Northeast Roseville Sewer Trunk Extension project is designed to serve the Northeast Roseville Specific Plan Area and portions of the North Central Roseville Specific Plan Area. The City of Roseville is located in southern Placer County (see Figure 1-1, Regional Location Map).

1.2 PROJECT CHARACTERISTICS

The proposed project involves construction of a major sewer trunk extension from the Roseville Wastewater Treatment Plant (WWTP), located in the southwestern portion of Roseville on Booth Road, to the Northeast Roseville Specific Plan Area (see Figure 1-2, Proposed Sewer Trunk Outfall Rights-of-Way). There are three outfall extensions involved in the project, as follows:

- The Dry Creek outfall, approximately 19,900 feet in length, would generally follow Dry Creek from the Roseville WWTP in an easterly direction under Riverside Drive to the confluence of Dry and Cirby Creeks, thence northwesterly parallel to Dry Creek to approximately the confluence of Dry, Antelope, and Miners' Ravine Creeks. The proposed right-of-way for this outfall is the publicly owned property parallel to Dry Creek.

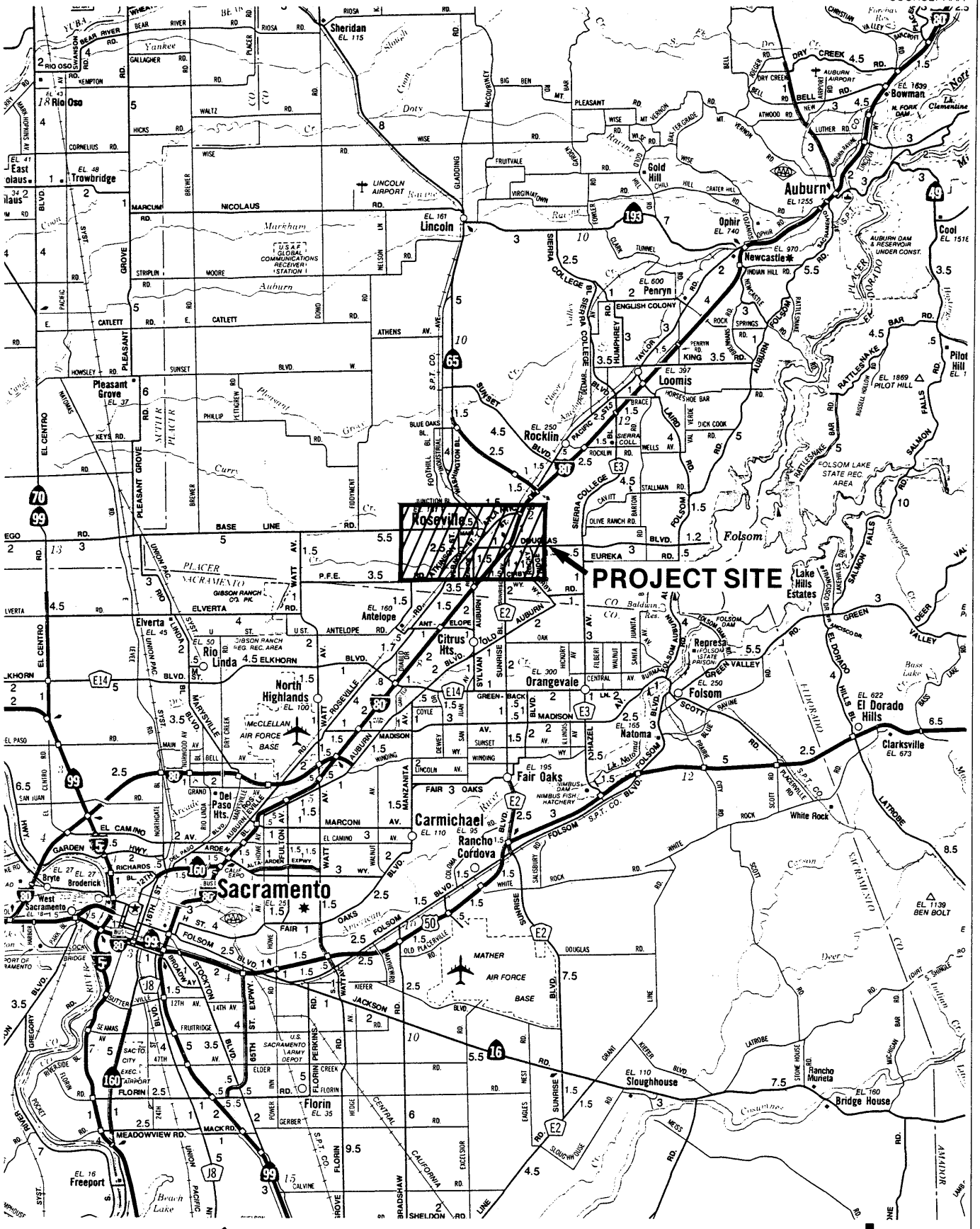
- The Northeast outfall, approximately 10,475 feet in length, would generally parallel Miners' Ravine Creek from its confluence with Dry and Antelope Creeks east under Harding Boulevard and Interstate 80 to a point 1,000 feet east of the proposed East Roseville Parkway overcrossing of Miners' Ravine Creek. The proposed right-of-way for this outfall is the property along the banks of Miners' Ravine Creek.

- The North Central outfall, approximately 3,500 feet in length, would generally parallel Antelope Creek from its confluence with Miners' Ravine and Dry Creeks northerly to Atlantic Street. The outfall would be tunnelled under Atlantic Street and the Southern Pacific Railroad right-of-way, proceeding northerly along a right-of-way immediately east of the Roseville Cemetery.

REGIONAL LOCATION MAP

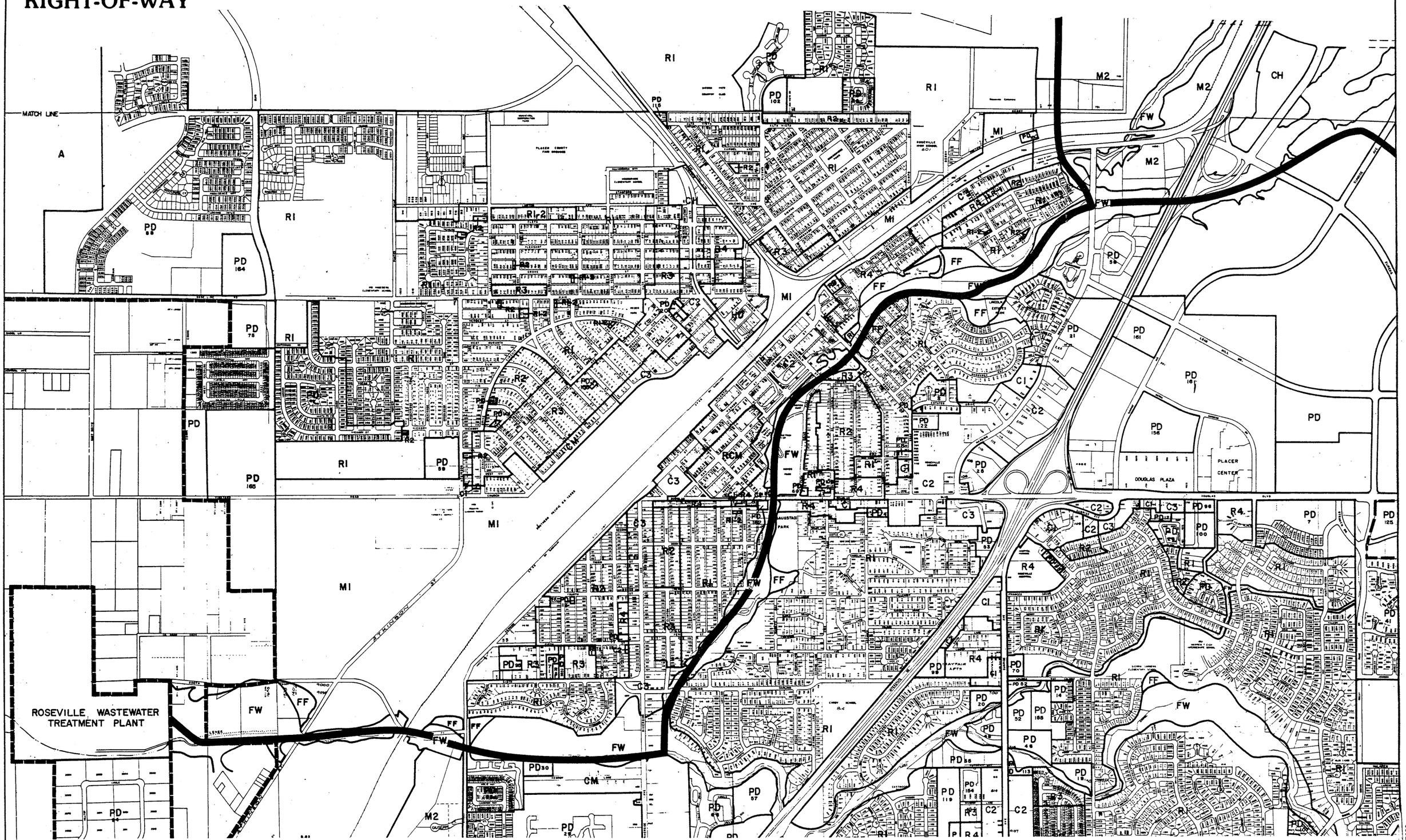
FIGURE 1-1

SOURCE: AAA



PROPOSED SEWER TRUNK EXTENSION RIGHT-OF-WAY

FIGURE 1-2



The proposed project is designed to carry 18.5 million gallons per day (mgd) and provide wastewater collection service to the Northeast and North Central Roseville Specific Plan areas. This would be accomplished by installing 19,900 lineal feet of 39-inch sewer trunk pipe along the Dry Creek alignment, as indicated in Figure 1-2, plus the North Central and Northeast outfalls. Proposed and possible additional service areas for the proposed project are shown on Figure 1-3.

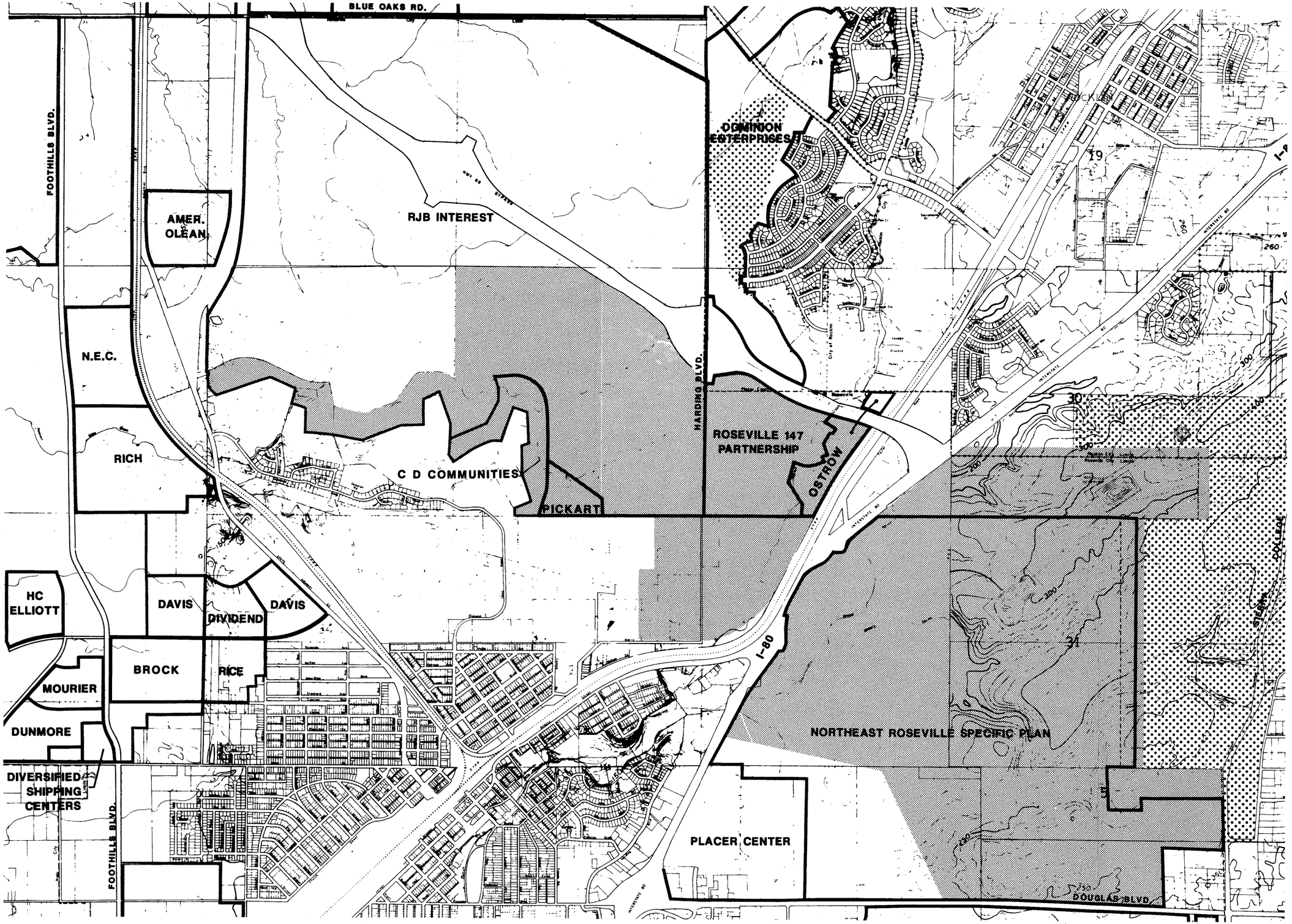
Construction of the sewer trunk extension would be conducted between the hours of 7:30 a.m. and 4:30 p.m., Monday through Friday. Construction activities would typically begin with clearing and grading vegetation from the right-of-way, using graders, bulldozers and dump trucks. Trenching would be accomplished with a backhoe, backfilling of the trench with a bulldozer and compactor. It is anticipated that approximately 500 feet of sewer trunk line would be installed per day along the creek bed rights-of-way or other undeveloped land, with approximately 300 feet of trench open at any given time.

Construction along rights-of-way which lie within transportation corridors, e.g., the Atlantic/Vernon Streets Alternative, would proceed at a rate of approximately 200 feet per day, with approximately 100 feet of trench open at any given time.

There are two other possible component alternatives for the proposed project in regards to wastewater carrying capacity and sewer pipe sizes. One alternative is designed to provide wastewater collection service only for the Northeast Roseville Specific Plan area, including the urban reserve areas, for a capacity of 6.1 mgd. This would be accomplished by installing 19,900 feet of 24-inch sewer pipe along the Dry Creek route indicated on Figure 1-2. The second component alternative would provide wastewater collection services for all of the Northeast and North Central Roseville Specific Plan areas plus expansion capability to accommodate the anticipated future demand of 20.1 mgd in the South Placer Municipal Utility District. This would be accomplished by installing 14,750 feet of 39-inch sewer pipe and 5,150 feet of 54-inch sewer pipe along the Dry Creek alignment. The 54-inch pipe segments would be installed only in areas of the existing Dry Creek alignment where the right-of-way is very narrow and there is room for installation of only one more pipeline.

PROPOSED PROJECT SERVICE AREAS

FIGURE 1-3



Proposed Service Area

Possible Additional Service Area

eip

87090

In addition to the project component alternatives discussed above, there are three alternative pipeline alignments being considered in this document. These alternatives, as well as the No-Project alternative, are discussed in Section 4 of this document.

It should be noted that the project described and analyzed in this EIR has been revised since the Notice of Preparation (see Appendix A) was circulated. Most of the revisions have been related to the alternatives to the project which have been selected for comparative analysis.

1.3 PURPOSE AND SCOPE OF ENVIRONMENTAL REPORT (EIR)

The purpose of this Environmental Impact Report (EIR) is to analyze the potential effects that would result from implementation of the project as described herein. The proposed Northeast Roseville Sewer Trunk Extension project is considered to be a "project" as defined by the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

The Guidelines require preparation of an Initial Study to evaluate a project's potential effect on the environment. The Initial Study for this project was prepared by EIP Associates and is included in Appendix A of this document. After reviewing the Initial Study the City of Roseville, as Lead Agency for this project, determined that the project could have significant effects on the environment and required preparation of an EIR. As provided for in the Guidelines, the focus of this Draft EIR is limited to those specific issues and concerns identified as possibly significant in the Initial Study and in the responses to the Notice of Preparation of the EIR circulated by the City.

This EIR has been prepared pursuant to CEQA and related State and City Guidelines. The Draft EIR is an informational document designed to provide the basis for the local planning and decision making process. The Draft EIR assesses the potential individual and cumulative impacts that this project might have on the environment, identifies means of minimizing potential adverse impacts, and evaluates reasonable alternatives to the proposed project.

Other public agencies which may be affected by this project, and may issue permits or other approvals related to construction, include the following:

California Department of Transportation — Encroachment Permit for construction within State rights-of-way.

California Department of Water Resources, Board of Reclamation — Encroachment Permit for construction within Dry Creek Designated Floodway.

California Department of Fish and Game — Stream Alteration Agreement (Section 1601-1603, California Fish and Game Code).

United States Department of the Army — Section 404 Permit, Clean Water Act.

City of Roseville Encroachment Permit(s)

2 SUMMARY

2.1 PROJECT DESCRIPTION

The proposed project includes an extension of a major sewer outfall from the east side of Interstate 80 southwest, parallel with Dry Creek for approximately 19,900 feet, to the Roseville wastewater treatment plant. The Roseville wastewater treatment plant has a design capacity of 11.75 million gallons per day (mgd). The plant currently operates at an average 6.0 mgd. Additional elements include:

- A 10,475-foot outfall northeast from the confluence of Antelope, Miner's Ravine and Dry Creeks, parallel to Miner's Ravine Creek to a point 1,000 feet east of the proposed East Roseville Parkway overcrossing of Miner's Creek (the Northeast outfall).
- An outfall approximately 3,500 feet in length, generally parallel to Antelope Creek from its confluence with Miner's Ravine and Dry Creeks northerly to Atlantic Street. The outfall would be tunnelled under the Southern Pacific Railroad right-of-way, proceeding northerly along a right-of-way immediately east of the Roseville cemetery.

2.2 PROJECT ALTERNATIVES

2.2.1 NO PROJECT ALTERNATIVE

The No-Project alternative is based on the assumption that there will be no extension of additional sewer trunk service to the Northeast Roseville Specific Plan area, the North Central Specific Plan area, or the South Placer Municipal Utility District (SPMUD) service area by the proposed project route.

2.2.2 PROJECT COMPONENT ALTERNATIVES

There are three possible component alternatives for the proposed project related to wastewater carrying capacity and sewer pipe sizing. All three of these component alternatives follow the proposed project right-of-way which parallels Dry Creek from its

confluence with Antelope and Miner's Ravine Creeks to its confluence with Cirby Creek (see Figure 1-2):

- Installation of 24-inch sewer pipe for a carrying capacity of 6.1 mgd.
- Installation of 39-inch sewer pipe for a carrying capacity of 18.5 mgd.
- Installation of 39- and 54-inch sewer pipe capacity for a current carrying capacity of 18.5 mgd and future carrying capacity of an additional 20.1 mgd to accommodate anticipated future growth in the SPMUD area.

2.2.3 ATLANTIC/VERNON STREET ALIGNMENT ALTERNATIVE

This alternative would route the sewer trunk extension from a new lift station at the intersection of Harding and Miner's Ravine Creek, via force main up Atlantic Street to approximately the point where the continuation high school fronts on Atlantic Street. From this point, the extension would consist of a gravity main along Atlantic Street, behind City Hall and southwest along Vernon Street to the subway. A gravity main would parallel Dry Creek and the Subway Road westerly to the treatment plant. This alternative is depicted graphically on Figure 4-1 in Section 4 of this document.

2.2.4 CIRBY CREEK ALIGNMENT ALTERNATIVE

This alternative would provide wastewater collection service for the Northeast Roseville Specific Plan area only, excluding both the North Central Roseville Specific Plan Service area and the South Placer Municipal Utility District Service area. This alternative would involve construction of a new lift station on the east side of the intersection of Miner's Ravine Creek and Interstate 80. From this lift station, a force main would carry the wastewater back to a tributary of Cirby Creek, with a gravity line down this tributary along Cirby Creek to its intersection with Dry Creek, and a gravity line parallel to Dry Creek southwesterly to the treatment plant. This alternative is depicted graphically on Figure 4-2 in Section 4 of this document.

2.2.5 PLEASANT GROVE CREEK ALIGNMENT ALTERNATIVE

This alternative involves construction of two new lift stations. A lift station at the intersection of Harding Boulevard and Miner's Ravine Creek would pump the wastewater in a force main back to the northwest into a gravity line to a second lift station in Pleasant Grove Creek. The second lift station would pump the wastewater by force main to the treatment plant. This alternative is depicted graphically on Figure 4-3 in Section 4 of this document.

2.3 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED PROJECT

TABLE 2-1
SUMMARY OF
ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES
FOR THE PROPOSED PROJECT

Chapter 3 Section Topic	Level of Significance Without Mitigation	With Mitigation	Mitigation Responsibility
3.1 Geology/Soils, Hydrology, and Water Quality			
Impacts: Potential construction-caused soil erosion and loss of bank stability along creeks paralleling sewer routes.	Moderate	Low	Project Sponsor
Mitigation: Carefully designed and implemented erosion control measures. Revegetation of all disturbed areas immediately upon completion of construction.			
Impact: Introduction of storm water into wastewater system in areas where turn sewer lines will be installed below 100-year floodplain.	Moderate	Low	Project Sponsor
Mitigation: Install sealed manhole covers and protect upper portion of manholes from flood-caused damage.			
Impact: Contamination of surface waters by construction refueling operations and the accidental deposit of toxic materials into creeks.	Moderate	Low	Project Sponsor
Mitigation: Perform all refueling away from excavation areas and creek banks. Identify all potentially toxic materials that must be excavated along sewer routes; develop special provisions for handling, where necessary.			

Table 2-1, continued

Section Topic	Level of Significance Without Mitigation	With Mitigation	Mitigation Responsibility
3.1 Geology/Soils, Hydrology, and Water Quality (continued)			
Impact: Significant disturbance of existing creek environment at the many anticipated inverted siphon crossings. Mitigation: Reduce number of crossings by checking hydraulic feasibility of combining existing and proposed wastewater flows at some of the existing siphons. Also examine Miner's Ravine route for design alternates that require fewer stream crossings.	Moderate	Moderate	Project Sponsor
Impact: Excessive disturbance of existing buildings and improvements along sewer route caused by clearance problems at existing sewer crossings. Mitigation: Combine existing and proposed sewer lines with junction manholes, where feasible, to facilitate the construction process.	Moderate	Low	Project Sponsor
Impact: Increased potential for wastewater spills caused by sewer line breaks within creek floodways. Mitigation: Selection of corrosion resistant sewer pipe materials, and proper bedding and protection of the completed pipelines.	Moderate	Low	Project Sponsor

Table 2-1, continued

Section Topic	Level of Significance: Without Mitigation	With Mitigation	Mitigation Responsibility
3.2 Vegetation and Wildlife			
Impact: Sewer trunk construction activities may result in losses of creekside riparian habitat and trees. Mitigation: Avoid pipe alignments through high quality riparian area; minimize tree removal; revegetate disturbed areas with native trees and shrubs.	Significant	Moderate	Project Applicant
Impact: Creek crossings and construction immediately adjacent to creek beds may cause sedimentation of the stream, negatively impacting aquatic species. Mitigation: Develop specific erosion and sediment control measures for inclusion in all construction contracts and specifications prior to commencing construction to reduce impacts. Limit construction activities to summer low flow period.	Significant	Moderate	Project Applicant
Impact: Sewer trunk alignment of the Northeast Outfall could result in losses of oak forest habitat. Mitigation: Develop specific tree preservation and management measures for inclusion in all construction contracts and specifications prior to construction. Avoid	Significant	Moderate	Project Applicant

Table 2-1, continued

Section Topic	Level of Significance Without Mitigation	With Mitigation	Mitigation Responsibility
3.2 Vegetation and Wildlife (continued)			
impacts to oak trees where possible by modifying alignment of trunk lines. Identify species and sizes of trees to be removed, as well as species, sizes, and sources of replacements.			
Impact: Construction activities could impact Coopers' hawks if they nest in the project area.	Significant	Low	Project Applicant
Mitigation: Conduct spring raptor nest survey to determine nesting species and sites. If nesting sites are found in trees scheduled for removal, or adjacent to construction activities, postpone construction in that area until young have fledged in August.			
3.3 Transportation and Circulation			
Impact: Construction activities could impact traffic flows on surface streets.	Significant	Moderate	Project Applicant, City of Roseville
Mitigation: Limit times and durations of traffic flow obstructions to off peak hours whenever possible.			
For sewer trunk crossings under Douglas Boulevard, Atlantic and Vernon Streets and Riverside Avenue, designate detours during periods of closure. Do not allow closure of more than one of these streets at the same time.			

Table 2-1, continued

Section Topic	Level of Significance Without Mitigation	With Mitigation	Mitigation Responsibility
3.4 Land Use			
Impact: The proposed sewer trunk extension is consistent with the Northeast Roseville Specific Plan, no impacts are anticipated to land use.	--	--	--
Mitigation: None required.			
3.5 Parks and Recreation			
Impact: Physical disturbance and disruption of use of parks and school recreation areas.	Moderate	Low	Project Applicant, City, School District
Mitigation: (1) Early review and comment of project by City Parks and Recreation Department and affected schools; (2) Timing of construction during off-peak hours of parks and schools; (3) Barricading construction zones to exclude unauthorized persons (especially in school areas).			
Impact: Loud noises from construction equipment for a maximum duration of five days at any one point.	Moderate	Low	Project Applicant
Mitigation: Install noise muffling devices on the equipment.			

Table 2-1, continued

Section Topic	Level of Significance: Without Mitigation	With Mitigation	Mitigation Responsibility
3.5 Parks and Recreation (continued)			
Impact: Disturbance of local traffic patterns around and access to recreation areas.	Low	Low	--
Mitigation: None available.			
3.6 Air Quality			
Impact: Construction activities will generate equipment exhaust and fugitive dust emissions for the duration of construction.	Low	Insignificant	Project Applicant
Mitigation: Apply water to exposed earth surfaces to reduce fugitive dust generation.			
3.7 Noise			
Impact: Construction equipment will generate noise nuisances near residences and the Roseville Public Library	Moderate	Low	Project Applicant
Mitigation: Ensure that all equipment has exhaust mufflers. Limit construction to the hours between 7:00 a.m. and 4:30 p.m.			

Table 2-1, continued

Section Topic	Level of Significance Without Mitigation	With Mitigation	Mitigation Responsibility
3.8 Cultural Resources			
Impact: Project may impact known prehistoric cultural resources.	Moderate	Low	Project Applicant
Mitigation: Qualified archaeologist to survey exact limits of known sites and to spot-check resurvey Dry Creek prior to final sewer alignments. Alignment to be modified to avoid impacts to known resources, if possible. If realignment is not feasible, develop and implement appropriate mitigation plan in consulation with the State Office of Historic Preservation and local Native American Groups.			
Impact: Project may impact previously undiscovered archaeological resources.	Moderate	Low	Project Applicant
Mitigation: In the event that construction activities disturb a suspected archaeological site, halt construction in the area until a qualified archaeologist can evaluate the site.			

2.4 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

There are no environmental impacts which remain significant despite mitigation measures.

2.5 IRREVERSIBLE IMPACTS/IRRETRIEVABLE COMMITMENT OF RESOURCES

There are no significant irretrievable impacts associated with the proposed project. The only irretrievable commitment of resources would be the construction materials used in constructing the sewer trunk extension.

2.6 AREAS OF CONTROVERSY AND ISSUES FOR RESOLUTION

There are currently no known areas of controversy surrounding the proposed project, nor any particular issues for resolution. Responses to the Notice of Preparation of the Draft EIR have been limited in number (less than 10) and have primarily dealt with protection of the biotic resources along the Dry Creek right-of-way and with mitigation measures to ensure compliance with ambient air quality standards and regulations. Public controversy may arise during the public review period of this Draft EIR. Any issues raised during this period which have not been specifically discussed in the Draft EIR would be addressed in the Final EIR.

3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

3.1 GEOLOGY, SOILS, HYDROLOGY AND WATER QUALITY

The proposed project does not entail either the long-term modification of the ground surface or the placement of structures along its alignment. Consequently, the geological and water quality impacts of the project will primarily occur during the construction period required for the sewer line's installation. For this reason, both these issues will be discussed in this single section that concentrates on the existing environment the line will cross, and the construction processes that will be employed. Long-term impacts, as they apply, will also be addressed within this section.

3.1.1 SETTING

General Discussion

The project proposes the construction of three distinct sections of sanitary sewer trunk line. The first two, upstream sections, will extend sewer collection service into presently undeveloped areas of Roseville. The North Central line begins at the confluence of Dry Creek and Antelope Creek, and then runs overland (after a short stretch paralleling Antelope Creek) almost due north for approximately 3,500 feet to a terminus located west of a privately owned sanitary landfill which has recently been converted to a transfer station. The Northeast line begins at the same point, only it runs in a northeasterly direction, following Miner's Ravine (and its perennial stream) for a distance of nearly 8,000 feet. Both lines are proposed to pass through some marginally developed lands at their downstream ends, but the bulk of their lengths will cross land that is currently either vacant or used as pasture.

The third segment will follow Dry Creek downstream from Antelope Creek and Miner's Ravine, through the center of Roseville, to the Roseville Waste Water Treatment Plant. Two sewer trunk lines already exist along this alignment, running (with exceptions noted

below) just a few feet apart for most of the way. The development of Roseville restricted access to portions of the original sewer's route by the time the second line was installed in 1974. This forced the separation of the two lines through several sections where they now run on opposite sides of Dry Creek. The proposed sewer is presently designed to parallel the newer (1974) existing line, where access, although tighter than in 1974, is still better than along the original route.

Each of the proposed sewer trunk segments will be discussed individually, in greater detail, later in this and the following sections.

Soils/Geology

Because the proposed lines follow existing stream beds for virtually their entire length, the underlying strata is primarily a consolidated alluvium common to watercourses throughout the western Sierra Nevada foothills. This mixture of gravel, sand and silt is generally composed of volcanic and granitic fragments that originated in the mountains to the east during the Tertiary era. Although relatively susceptible to erosion, the existing creek floodplains appear to be fairly well stabilized, with only isolated sections where concentrated overland flows are eroding the upper creek banks (where the proposed sewer will be located).

The primary soil type found along the sewer route is either a frequently or moderately flooded Xerofluvent, as classified by the U.S. Department of Agriculture, Soils and Conservation Service. This poorly drained recent alluvium is a mixture of "stratified gravelly sandy loams, gravelly loams, and gravelly clay loams that generally grade to sand and gravel with increasing depth." Deposits of these soils are usually greater than 36" in depth, and their erosion hazard is high, partly due to their location within a floodplain.

Some Inks cobbly loam (2% - 30% slope) exists in the upper reaches of Miner's Ravine, where the natural creek floodplain reaches up the adjacent volcanic slopes. This is a well-drained, cobbly loam whose shallow depth to the underlying andesitic conglomerates may cause some excavation difficulties. The only other major soil type is a combination of Cometa sandy loam and Fiddyment silty loam found along the North Central route. Both are relatively deep, well-drained soils with low permeability. The only construction limitation appears to be the shrink-swell potential of the Cometa soil, which should not be a major factor for pipeline installation along relatively level ground.

Seismic activity is relatively low in the Roseville area, with very few earthquakes of moderate intensity occurring within the last century. The nearest mapped fault is the inactive Bear Mountain Fault Zone, located approximately ten miles east southeast of the City. Consequently, the only significant earthquake hazard for the project would be the landslide potential in areas of steep or unstable slopes. This will be addressed further in the individual route discussions.

Hydrology/Water Quality

As noted above, the proposed project will not entail any significant, long-term modification of the existing ground surface. There will be no resulting change in the volumes of stormwater runoff along the sewer route, so the creeks' drainage patterns and flow capacities would not be affected. For this reason, the existing hydrologic and hydraulic characteristics of the creeks will not discussed in this section.

The configuration of the creeks, however, would significantly affect the construction of the proposed pipelines. Dry Creek, Antelope Creek, and Miner's Ravine all flow year round in fairly well established channels. Within Dry Creek and Antelope Creek, the floodplain is defined by the edges of developed land that adjoins the creeks. In many cases, it is this adjacent land that most inhibits construction by restricting access to the pipe alignment. Specific locations of these restrictions will be discussed in the following descriptions of each route.

The location of the 100-year floodplain for each creek would also affect construction when the pipe is forced to pass through low areas that may be subject to future flooding. These areas were already identified for installation of the existing sewer line on Dry Creek, and Antelope Creek is confined between a residential development and Harding Boulevard. Miner's Ravine, on the other hand, represents a new alignment, and would require a more careful design to avoid flooding and erosion prone areas whenever possible.

Route Descriptions

In this section, each of the trunk line segments will be discussed in detail. The segments will be further broken down where applicable into reaches in which similar existing conditions and construction problems may be encountered. Reference will be made to these same reaches in the following section on project impacts.

North Central Extension. Beginning at Dry Creek, the proposed sewer line would parallel Harding Boulevard, within the Antelope Creek floodplain, for approximately 650 feet to Atlantic Boulevard. It would then cross Antelope Creek, Atlantic Boulevard, and the Southern Pacific Railroad (SPRR) right-of-way before entering vacant industrial land adjacent to a concrete plant. The remaining 2,000-foot section will then cross Berry Street, and finally run through a combination of pasture land and vacant or marginally used industrial land. The Roseville Cemetery lies to the west of the alignment, and a privately owned Sanitary Landfill/transfer station lies to the east.

The natural ground rises rapidly between Atlantic Boulevard, which is located on the edge of the Antelope Creek floodplain, and the SPRR. Beyond the railroad, the terrain slopes gradually northward toward the sewer line's terminus. However, there is a low area located where the line will pass west of the landfill. This depression, located between two higher ridges that cross the pipe alignment, appears to be the beginning of an intermittent stream that runs east away from the back of the landfill.

Northeast Extension - Miner's Ravine. The sewer pipe route follows the Miner's Ravine stream for approximately 8,000 feet above its beginning at Dry Creek and Harding Boulevard. The stream meanders eastward through gently rolling countryside that often ends abruptly in high banks above the water's edge. The floodplain is generally very wide, although the broad, open areas that are suitable for sewer line construction (because of their lower elevations which are needed to maintain a constant pipe gradient) move from side to side across the stream. As a result, there is no single route that can follow one side of the stream and avoid repeated stream crossings.

The pipeline must cross two existing roads, Harding Boulevard and Interstate 80. The bridges that presently carry the roads above Miner's Ravine each have adequate room on at least one side of the streambed for future sewer construction. The approximately 1,100 feet between the two bridges contain the only piece of developed property along the sewer route—a lumber yard/truss plant on the north side of the stream. This plant is scheduled to be moved to a new location as part of the reconstruction of the Atlantic Street interchange.

The low ground within and above the stream's floodplain upstream of Interstate 80 is largely covered by dredge tailings and the remains of placer mining operations. These activities have thoroughly disturbed the natural ground contours, leaving a very irregular

surface with relatively poor drainage. Some vernal pools may exist in those areas where the mining was performed directly on top of the volcanic formations protruding through the consolidated alluvial substrata. However, no vernal pool habitat is located within the project area (see Section 3.2, Vegetation and Wildlife).

Dry Creek. This alignment begins at the confluence of Antelope Creek and Miner's Ravine and follows Dry Creek downstream through the center of Roseville to the wastewater treatment plant on the southwest edge of town. As mentioned above, the route will parallel the trunk sewer installed in 1974, except in those areas where continued development may force some minor changes.

The first 1,300-foot section below Antelope Creek runs along a benched area on the gently sloping upper edge of the natural flood channel. The existing lines are located between 30 and 150 feet from the water's edge, passing through scattered trees in a meadow of sparse grass. An existing subdivision backs up to the top of the bank, at the edge of the floodplain. For the next 2,400 feet, the sewer lines swing away from the creek, bypassing an old gravel pit that is now being filled. The route stays on the edge of the residential areas that are set back up to 700 feet from the creekbed. The lines pass through pasture land, vacant ground, and one residential property located within the creek's floodplain. At one point, between Thomas and Eagleston Streets, the alignment passes below a high, eroding embankment at the rear of the upland residential lots. This bank is presently being repaired, apparently by the homeowner.

The sewer lines return to the creek channel as the floodplain narrows and becomes more well defined within the next 1,700 feet of the alignment. The older line crosses the creek at the beginning of this section, and runs behind an established subdivision that reaches to the top of the steep bank above the water's edge. The proposed sewer alignment remains with the newer of the existing lines on top of a bench in the opposite creek bank. This is a generally broad area with adequate room for new construction, although in one section above Folsom Street the existing line was apparently cut into a very steep bank, leaving little room for new pipe installation. Below Folsom Street, the route crosses several commercial driveways, some storage/parking areas, and a drainage ditch.

At Lincoln Street, the alignment enters the highly urbanized downtown area, where existing utility lines cross the sewer alignment at several locations. Installation of the

new line would be through streets and a parking lot for approximately 500 feet, before crossing Dry Creek into Royer Park just below the pedestrian bridge. The creek crossing would be made in a 130-foot inverted siphon that ends behind the Veteran's Building at the north end of the park. The top of bank drops approximately ten feet from the west to the east side of Dry Creek in this area, which would place the manholes in the park below the 100-year flood elevation (which is forced high above the creekbed by the relatively narrow, low-capacity channel in this area).

The proposed alignment would generally parallel the creek for approximately 2900 feet through Royer Park. It skirts a few buildings, the zoo, and many large trees before entering the open, grassed areas and ball fields that begin around the Douglas Boulevard bridge. At the beginning of this run, the alignment is particularly crowded along the top of the creek bank where the older sewer line rejoins the new route behind the Veteran's Building. Away from this area, the asphalt path and the irrigation system provide the major construction obstacles. The older sewer line crosses Douglas Boulevard before it reaches the Dry Creek bridge, while the newer line runs underneath the bridge, in the approximately 12-foot wide path between the creek and the toe of the bridge abutment. Beyond Douglas Boulevard, the floodplain widens out, raising the ground around the manholes above the 100-year flood once again.

After the park, the existing lines continue for nearly 1,100 feet through undeveloped woods and grassy areas, staying between 60 and 120 feet from the meandering creek. They then cross some residential yards and unmaintained areas behind the houses and apartments that return to the creek bank before Darling Way. This 1,000 foot reach ends with a heavily overgrown, very steep bank section in the final 200 feet before the Darling Way bridge. Both existing lines cross Darling Way in the pavement on the eastern side of the bridge abutment. The 1974 line then crosses the creek immediately downstream of the bridge in a 170-foot inverted siphon. The older one continues on the eastern side of Dry Creek another 900 feet to its crossing at the confluence with Cirby Creek.

Below Darling Way, the proposed alignment follows the newer existing line along the western side of the creek behind the commercial/industrial properties that front along Riverside Boulevard. This 900-foot stretch runs across vacant land and several asphalt parking lots/storage areas that back up to the creek. The alignment roughly follows the relatively low top of bank, staying well back from the steep sides of the channel proper.

After rejoining the older existing sewer line at Cirby Creek, the alignment turns right to closely follow Dry Creek approximately 250 feet to Riverside Boulevard. The lines cross the pavement before the bridge and then strike out across nearly 2,600 feet of lightly wooded grassland that follow the broad Dry Creek floodplain from Riverside Boulevard to Vernon Street. The existing route ranges up to 200 feet from the creek through this section, seeking the higher ground near the edges of the floodplain. The manholes are elevated several feet above the ground surface to remain above the 100-year flood elevation.

From Vernon Street, Subway Road runs between the pipe alignment and Dry Creek for nearly 800 feet to the SPRR. The older sewer line runs through the creek culverts beneath the railroad, while the newer one was jacked and bored through almost 300 feet of embankment. Both lines then follow the creek for 1,500 feet to the next railroad crossing at Atkinson Street. Through this area, the alignment moves to the back side of the low levee that begins a few hundred feet downstream of the first railroad culvert. The route crosses mostly vacant industrial land against the creek flood plain in this section. Some existing oil storage ponds located close to the levee may encroach slightly on the proposed alignment. The project proponent intends to modify the sewer trunk alignment to avoid any impacts to the oil storage ponds.

Below the jack and bore crossings of the railroad at Atkinson Street, the existing lines remain behind the levee, running past a small equipment storage/landfill area before striking out through farmland to the waste water treatment plant. The route hugs the toe of the levee until the final 600 feet, when it cuts overland to miss the treatment ponds located adjacent to Dry Creek.

3.1.2 IMPACTS

General Comments

The geology and water quality impacts of the proposed project would occur only during construction of the new sewer trunk lines. The impacts, therefore, are directly related to the specific construction methods that must be employed to install the lines along the chosen alignment. In most areas, the existing conditions would allow a very straightforward installation that should pose few environmental problems. Several locations along the route would require special attention to prevent or reduce

potential adverse impacts. These areas will be individually addressed in the separate route discussions at the end of this section.

The two project alternatives (the limited and expanded projects) are not relevant to the discussion of the proposed project's geology or water quality impacts. Making the proposed sewer trunk lines slightly larger or smaller would not change the nature or the extent of construction that must be performed (except in a few special cases that will be discussed below), and so would not affect the project's impact. Consequently, the following discussions will not directly address these two alternatives, since all identified impacts would apply equally to all three project proposals.

A Section 1601-03 Agreement must be obtained from the California Department of Fish and Game for all construction proposed within the 100-year flood plain of perennial and intermittent streams. This agreement provides a mechanism to identify existing riparian habitats and endangered species that may be affected by the construction, and to recommend mitigation strategies designed for their protection. The short-term construction process is not expected to present serious problems that would prevent Fish and Game approval.

The new sewer trunk lines would be installed outside the creeks' 100-year floodplain, where possible. This requirement keeps the manholes above all but the highest flood waters, ensures that service access to the lines can be maintained in all conditions, and protects the pipelines from being undermined by future flood-caused meandering of the creeks. As can be seen along the existing Dry Creek alignment, there is occasionally insufficient room to accomplish this objective. Manholes within the floodplain must then be either sealed or raised above the surrounding ground to prevent inflow of stormwater during flood stages. In most of these areas, the flood water depth would be very shallow along the pipe alignment, so the system will remain accessible. In addition, the creeks' existing channels are relatively well established, making major flood-induced changes in their alignments unlikely. As a result, except for a portion of Miner's Ravine (which will be discussed below), construction of the proposed sewer lines should not be seriously constrained by the location of the 100-year floodplain.

Soils/Geology

Installation of the proposed trunk sewer lines would not significantly alter the ground surface or subsurface along the pipe alignment. The major impacts would occur in areas of limited room or construction access, where the existing creek banks force the route across steep or potentially unstable slopes. These sections would have to be carefully designed and constructed to guarantee both their short- and long-term stability throughout the project's serviceable life. The route discussions below will identify several areas that may require this special design consideration.

All areas disturbed by the pipeline installation would have to be completely revegetated at the completion of construction. The relatively flat, natural ground slope along most of the sewer route would make serious erosion unlikely in most areas, but the natural terrain should be returned to its original condition to reduce the aesthetic impacts of the proposed construction. Revegetation, however, would be particularly important in the steep bank areas mentioned above, because even slight erosion can quickly undermine an entire slope once the winter rains begin. The project sponsor would have to maintain these problem areas until a healthy growth of either grass or shrubs is fully established.

Water Quality

The principal water quality impact would be the erosion or deposition of silt and sediment into the creeks along the pipelines' route. This would primarily occur during the project's construction phase, although, the proper placement and removal of trench spoils should keep virtually all excavated materials out of the creek. The construction of temporary access roads, however, may also contribute to this problem, since the precise location of these roads is generally difficult to control. The alignment of the proposed sewer lines would be accurately established, however access roads change frequently on a linear project such as this, often forcing compromises with the surrounding landscape. It is recommended that the location of construction access roads be addressed during the design phase of the project, and made a firm part of the contract specifications.

Since the pipelines would primarily run along a fairly high bank adjacent to a creek, it is expected that pipe installation would be above the groundwater table. Some locations, such as the inverted siphons, would be well into the groundwater, and would probably

require dewatering. Soil and groundwater studies can estimate where and how much pumping would be needed, and the volume of sediment the water is likely to contain. Based on this information, provisions can be made to remove much of this material before the groundwater's final discharge into the creeks.

Equipment refueling and maintenance should be performed well away from the creeks' edge throughout the construction process. Spilled fuels can be easily washed into the creeks or mixed with bank soils if these operations are performed in the water's vicinity. Containment of these substances should be made a high priority within the project's construction specifications.

Construction of the inverted siphons will also deposit material in the creeks when flow is diverted by the placement of earth dams across each channel. Specific construction specifications should be developed to guide this work, and to ensure that the diversion culverts are adequately sized to prevent the failure of the temporary dams. The Standard Construction Specifications contained in the Soils and Conservation Service's National Engineering Handbook should be used as a basis for these specifications. In particular, equipment should be kept out of all waterways, and silt dams should be utilized downstream of each crossing. In addition, no construction should be performed in the creeks during the rainy season.

Consideration should also be given to the elimination of new inverted siphons wherever possible. As an example, the existing siphon at Royer Park can theoretically carry twice the capacity of the existing 24" trunk sewer with less than a 1.5 foot increase in upstream head. Since the line is quite deep in this area, such a small change may not adversely affect upstream flows, while actually increasing cleansing velocities within the siphon. The use of a similar approach at all existing siphons could significantly reduce the project's impact along Dry Creek.

Installation of the new sewer lines would increase the long-term potential for wastewater spills, and surface and groundwater contamination, especially along the creek alignments. This risk can be largely controlled through proper design and construction of the pipelines. Pipe materials should be selected that are resistant to corrosion or deterioration within the soils found in the project area. Trench excavation and backfill should be

carefully performed to ensure the stability of the completed lines, and leakage tests should be used to verify the integrity of the entire system. Catastrophic failures, such as a major, flood-induced bank collapse along a creek after the line is placed in service, cannot be prevented. However, the resulting wastewater discharge from a ruptured pipe should be of short duration, and would generally coincide with extraordinary flood flows that will help dilute the pollution impacts.

Route Discussions

Project impacts along each of the three separate trunk sewer segments will be addressed individually. Discussions will focus on those specific portions of each line that pose construction problems not already covered in the preceding Geology and Water Quality sections.

North Central Extension. Most of this proposed line would run overland, away from Antelope Creek and other natural drainage channels. There would be little opportunity for erosion, and access should not be restrictive along its entire length. The jack and bore through the SPRR embankment adjacent to Atlantic Boulevard, and the inverted siphon underneath Antelope Creek at Harding Boulevard would be the major construction problems. This siphon may prove unnecessary if the pipe could be suspended on the Harding Boulevard bridge. The substantially higher ground elevations that begin at the railroad right-of-way should provide the grade differential needed for this alternative, although the existing ditch between Atlantic Boulevard and the railroad may prevent its construction.

The natural depression behind the sanitary landfill, through which the line is proposed to run, could cause gradient problems crossing the downstream area approaching the railroad. This may force the sewer very deep below the existing ground, possibly into the underlying bedrock. As a result, the final alignment should not be approved until the area's topographical limitations are better identified.

The alignment along Antelope Creek, below Atlantic Boulevard, should be kept close to Harding Boulevard. This will place it, if not outside the 100-year floodplain, at least on its edge. This location will also minimize the disturbance within the low, riparian environment paralleling the creek between Dry Creek and Atlantic Boulevard.

Northeast Extension - Miner's Ravine. Selection of the final pipe alignment through this undeveloped area will be complicated by the constantly changing Miner's Ravine stream channel. It appears that several stream crossings may be needed to maintain the continual fall of the sewer line through sections of varying topography. The very broad, low floodplain within Miner's Ravine could make construction of inverted siphons difficult, because there is often no clearly defined high ground to set the limits of the siphon. This is particularly true where a very broad, natural depression joins Miner's Ravine from the north, approximately 6,000 feet above Interstate 80. The extent of this low area, and the existence of high ground on the opposite side of the stream, may require the installation of a waste water pumping station as part of the gravity sewer system shown in the schematic designs prepared to date.

Because of the problems expected with the Miner's Ravine alignment and the number of stream crossings that may be required, it is recommended that alternate trunk line routes, possibly in conjunction with a wastewater pumping station, be considered before final project approvals are granted. The adverse environmental impact of repeated stream crossings, and the general constructability restrictions all along Miner's Ravine, may outweigh the disadvantages of longer, alternative routes (particularly since a pumping station may be needed in any event). Erosion and sedimentation should not present major problems throughout this segment of the proposed project. There is generally adequate room to set the pipeline well back from the stream channel (except in the crossing locations mentioned above), on the higher, flatter ground at the edge of the floodplain. Construction through steep, existing banks will require special attention to ensure the banks' stability, but the absence of adjoining developed land will allow this to be more easily accomplished than downstream along Dry Creek.

A very high existing bank on the south side of Miner's Ravine, between Harding Boulevard and Interstate 80, would force the sewer alignment to the developed side of the stream, through the truss plant/lumber yard. Since this area is proposed to be taken for future ramp additions on Interstate 80, acquisition of the necessary right-of-way, outside the stream's defined floodplain, should not pose a major problem. The ground elevation, how ever, is fairly low, and may place the pipeline within the creek's 100-year floodplain.

The proposed trunk sewer line would have to recross the stream just upstream of Harding Boulevard if the alignment is designed to run underneath the Harding Boulevard bridge. There is not enough room to install the pipe on the north side of the stream, between the water's edge and the toe of the bridge abutment. As a result, it is recommended that the sewer be jacked and bored under Harding Boulevard, through the high embankment on which the road is constructed. The Miner's Ravine line will then end on the same side of Dry Creek as both the siphon carrying an existing sewer across Antelope Creek, and the downstream terminus of the North Central Extension. The Northeast and North Central Extensions are proposed to join at this point and parallel the existing sewer line downstream along Dry Creek. As at all existing siphon locations, it is recommended that the feasibility of combining all wastewater flows into the single, existing crossing be explored.

Dry Creek. Along most portions of this route, the existing sewer line(s) are far enough removed from the actual creek channel to preserve a wide, grassy buffer between the work site and the water's edge. Slopes are sufficiently gentle (or virtually flat in some areas) to prevent properly handled trench spoils from falling or washing into the creek. Several areas, though, would require special attention to prevent this occurrence.

Construction along the very tight existing bank upstream of Folsom Street would be one of the worst of these areas. The slope below the pipe alignment is very steep, and would not support loose mounds of earth. There would also be no room on the uphill side of the excavation, since the pipe must be installed at the toe of the upper bank. Direct truck loading of all trench spoils may be needed through this area of limited working space.

The short approach to Darling Way, where the existing sewer lines run along the side and on top of another steep bank section, would also present a risk of increased sedimentation in Dry Creek. Substantial regrading may be needed to provide equipment access through this area directly above the creek channel. An alternate siphon crossing, approximately 200 feet before Darling Way, could avoid construction on this bank by running on the opposite side from the existing sewer lines. This would prevent the possible double use of the existing siphon just below the Darling Way Bridge, but it will protect a part of the creek's floodway that has been very constrained by residential development.

Along most of their length, the existing sewer lines' rights-of-way are located at the upper edge of the creek's publicly owned flood channel. Installation of a third line would require additional right-of-way, which, if it is to remain on public land, will be lower into the floodplain. This will not always be possible (because of the topography conditions described above), so the new line would have to cross the alignment of at least the newer of the existing sewer lines to reach higher, more buildable ground. To avoid the gradient and pipe clearance problems such crossings cause (especially when dealing with two existing lines that already cross paths in many locations), it is recommended that junction manholes be used to make these crossings. This may not be hydraulically feasible with both of the existing lines, but joining the new trunk sewer with at least one of the existing lines may substantially simplify the pipeline installation, and reduce the resulting environmental impacts.

The proposed trunk sewer alignment runs through several sections where commercial/industrial properties back up to the top of the bank above Dry Creek. The areas between Folsom and Lincoln Streets, between Darling Way and Cirby Creek, and between the two SPRR rights-of-way below Vernon Street are all sites of existing or former activities that may be potential sources of surface water contamination. In most cases, these sources are simply asphalt or aggregate parking areas, which appear quite stable at this time. There may, however, be some subsoil contamination within the old oil storage ponds area, in addition to the material that remains on the ground surface. In all cases, it is recommended that the extent of potential contamination be determined in pre-design soil analyses, and that specific provisions be included in the construction specifications to prevent the deposit of any hazardous material in Dry Creek.

3.1.3 MITIGATIONS

As mentioned previously, the proposed project is not expected to cause significant long-term geologic or water quality impacts. The following mitigation measures are designed to control the short-term impacts that may occur during the construction process. It is recommended that these measures be incorporated into the conditions of approval for the project.

1. A comprehensive erosion and sedimentation control plan should be prepared to govern all construction activities that are not completed before the beginning of the

rainy season. This plan should conform to the City of Roseville's design specifications, and to the guidelines published by the Soils and Conservation Service. It must be emphasized, though, that the project should be scheduled so all work is performed during the dry season, with wet-weather construction reserved as a contingency to accommodate unforeseen pipe installation difficulties.

2. All areas disturbed by construction activities, including access roads, should be fully revegetated when the project is completed. Those areas requiring special erosion control attention, such as the many steep creek banks along the proposed pipeline routes, should be sufficiently maintained by the project sponsors until a healthy growth of stabilizing vegetation is established. In addition, provisions should be made for mechanical slope stabilization, where needed, until revegetation is complete.

3. The proposed sewer trunk lines should be installed outside the creeks' 100-year floodplain, wherever possible. Sealed manhole lids and specially protected maintenance access routes should be provided along those segments that are constructed below this elevation control limit.

4. Construction access routes should be laid out during project design and incorporated into the contract specifications, especially in those areas constrained by encroaching development along Dry Creek.

5. All trench spoils should be placed well back from the edge of existing waterways to prevent loose earth from falling or washing into the creeks. In areas of limited construction access, direct truck loading of these spoils should be considered.

6. Provisions should be made to remove suspended materials from groundwater pumped out of pipe trenches that are located below the existing water table. Subsurface studies should be performed to estimate the volumes of groundwater that must be pumped, and the corresponding methods that will be needed to trap the sediments.

7. All equipment refueling should be performed away from the water's edge in such a manner to prevent accidental spills that can contaminate surface and subsurface waters.

8. All inverted siphon crossings should be constructed in conformance with guidelines published by the Soils and Conservation Service and the California Department of Fish and Game. Specific provisions regulating this construction should be included in the construction specifications.

9. The feasibility of using existing inverted siphons to carry both present and proposed wastewater flows at all stream crossings should be investigated by the project sponsors.

10. All creek banks that are disturbed by installation of the proposed trunk sewer lines should be thoroughly stabilized against collapse or other failure at all times. Subsurface studies should be performed to identify those areas that will require special construction methods to ensure this stability.

11. The Miner's Ravine route should be re-examined to determine whether alternate alignments cannot be utilized to reduce or eliminate the adverse construction impacts expected along its presently undeveloped floodway.

12. The hydraulic feasibility of combining the proposed trunk sewer line with existing line(s) along Dry Creek should be investigated by the project sponsors. Junction manholes may avoid many of the conflicts that will result as the new line is forced to repeatedly cross the existing pipelines.

13. All areas of potential surface or subsurface soil contaminants located along the selected pipe alignment should be identified by the project sponsors. Specific construction procedures designed to prevent these materials from entering the creeks should be made a part of the construction specifications.

[1]U.S. Geological Survey, Topographic Maps of the Roseville, Citrus Heights and Rockland 7.5 Minute Quadrangles, Scale 1:24,000.

[2]U.S. Department of Agriculture, Soil Survey of the Sacramento Area, California, 19854, Northeastern Sheet, Scale 1:63,360.

[3]California Division of Mines and Geology, Alquist-Priolo Special Studies Zone Act of 1972, revised January, 182.

[4]California Division of Mines and Geology, Fault Map of California, Geologic Data Map 1, 1975, Scale 1:750,000.

[5]Association of Bay Area Governments, Manual of Standards for Erosion and Sedimentation Control Measures, 1981.

[6]Federal Emergency Management Agency, Flood Insurance Rate Map, City of Roseville, 1976.

3.2 VEGETATION AND WILDLIFE

Because the proposed sewer pipeline would follow the course of Miner's Ravine Creek and Dry Creek, the potential impacts to the creekside vegetation and its associated wildlife was considered an important environmental concern to evaluate. A biological survey was conducted along the proposed sewer line on June 19 and July 1, 1987. A biologist walked along the proposed sewer line alignment to determine the type and value of the existing vegetation and made observations on wildlife use. Field survey information was supplemented with information from other reports for nearby projects and with interviews with knowledgeable agencies and individuals.

3.2.1 SETTING

The linear project site lies primarily adjacent to the flood plain of portions of Miner's Ravine Creek and Dry Creek. The proposed sewer outfall would run through the Northeast Roseville Specific Plan Area southwest through the center of the City to the Wastewater Treatment Plant in the southwestern portion of Roseville. The line would generally follow two existing sewer lines that are within the publicly-owned right-of-way along the banks of the creeks. The second of the two lines was installed in 1974. The proposed line, where it parallels the existing pipeline alignment will be referred to as the Dry Creek Outfall. The Northeast Outfall is a proposed extension of this alignment that would follow a northeasterly route 6,000 feet along Miner's Ravine Creek into the Northeast Roseville Specific Plan Area. The North Central Outfall would extend the existing sewer pipeline 3,500 feet north beneath Atlantic Street, then east of the Roseville Cemetery.

Miner's Ravine Creek and Dry Creek are naturally intermittent but have maintained summer flows for the last 50 years, probably as a result of the watering of lawns and landscaping in the City.

Vegetation

The dominant vegetation along Dry Creek and Miner's Ravine Creek is Riparian Woodland. At the water's edge are a variety of herbaceous species such as willow-herb (Epilobium paniculatum), nut-sedge (Cyperus sp.), cattail (Typha sp.), stinging nettle (Urtica holosericea), and rabbit's foot grass (Polypogon sp.), along with trees and shrubs such as

willows (Salix sp.), buttonbush (Cephalanthus occidentalis), and white alder (Alnus rhombifolia). Higher up on the banks of the creek grow additional white alder along with Fremont cottonwood (Populus fremontii), Oregon ash (Fraxinus latifolia), elderberry (Sambucus mexicana), Himalaya berry (Rubus procerus), coffeeberry (Rhamnus californica), and California buckeye (Aesculus californica). Typically on the higher slopes of the creek banks and along terraces adjacent to the creek are found occasional sycamore (Platanus racemosa) and several oak species including interior live oak (Quercus wislizenii), blue oak (Q. douglasii), and valley oak (Q. lobata).

A few patches of introduced invasive tree and shrub species grow in disturbed sites near the creek. These include tree-of-heaven (Ailanthus altissima), giant reed (Arundo donax), and common fennel (Foeniculum vulgare).

The riparian woodland generally appears as a narrow strip of trees and shrubs along the creek. The overstory is generally patchy and discontinuous. The shrub understory is also variable depending on the amount of recent disturbance and the amount of shade from overstory trees. Shrub cover is most dense where the overstory is non-existent or sparse, especially along the water's edge.

Along the 50-100 foot construction easement that was utilized for the previous sewer line in 1974, vegetation consists primarily of introduced weedy species such as Italian thistle (Carduus pycnocephalus), annual yellow sweetclover (Melilotus indica), fennel, black mustard (Brassica nigra), and introduced grasses such as soft-chess (Bromus mollis), rye grass (Lolium sp.), and wild-oats (Avena sp.). In areas that remain wet, the introduced spiny clotbur (Xanthium spinosum) and Himalaya berry are found.

The Dry Creek Outfall portion of the project follows the banks of Dry Creek. The backyards of residential development lie adjacent to much of the proposed sewer pipeline. The original sewer alignment is readily evident because few trees have been established. Weedy thistles and grasses dominate these disturbed sites. Portions of the alignment run through parkland. Large oaks and sycamores represent the natural upper terrace vegetation of Dry Creek. However, lawns are maintained beneath and adjacent to these trees, diminishing the natural values of these sites. Open space for pipeline construction away from trees is available here so that impacts to trees can be avoided. Parts of the

proposed alignment in the southwest portion of the project consist of parking areas that are paved or highly disturbed. No biotic values are present in these areas.

The Northeast Outfall, running along Miner's Ravine Creek within the Northeast Roseville Specific Plan Area would be located within a presently undeveloped area. Cattle grazing is the primary land use. The upper portions of the creek are open with scattered small trees of buckeye and buttonbush. Dense growth of oak forest extend up the creek banks into terrace lands in some areas. There is evidence of gold mining activities in some areas in the uneven topography and piles of dredge tailings that remain. Riparian woodland becomes wider and more diverse toward the south. Valley oak, Fremont's cottonwood, and white alder are found in greater numbers toward this end of Miner's Ravine Creek, as are larger patches of shrubs and blackberry brambles.

The North Central Outfall would follow the east side of Antelope Creek. The pipeline would go beneath Antelope Creek where it turns sharply to the east; it would then go beneath Atlantic Street and the Southern Pacific Railroad right-of-way. Further north, this pipeline would lie beneath a landfill and other disturbed lands adjacent to the Roseville Cemetery.

WILDLIFE

The moist conditions adjacent to the creek provide ideal conditions for a variety of wildlife species. Although the project site has been previously disturbed by construction of sewer lines, the adjacent riparian habitat is generally intact, providing important food, cover, and nesting resources to a diverse assemblage of wildlife species. Amphibians and reptiles include Pacific treefrog (Hyla regilla), bullfrog (Rana catesbeiana)*, and garter snake (Thamnophis sirtalis). Mammals utilizing the area include pocket gopher (Thomomys bottae)*, Deer mouse (Peromysus sp.)*, California vole (Microtus californicus), coyote (Canis latrans)*, raccoon (Procyon lotor)*, and blacktail hare (Lepus californicus)*. Beaver (Castor canadensis)* and muskrat (Ondatra zibethica)* also inhabit the creeks on the site.

Birds that utilize the project area riparian habitat include mockingbird (Mimus polyglottos)*, mourning dove (Zenaida macroura)*, European starling (Sturnus vulgaris)*,

*Asterisks denote species observed during field surveys.

green-backed heron (Butorides striatus)*, mallard (Anas platyrhynchos)*, song sparrow (Melospiza melodia)*, and dark-eyed junco (Junco Hyemalis)*.

Fish, including several sunfish species (Lepomis spp.)*, mosquito fish (Gambusia affinis)*, and carp (Cyrinus carpio)* utilize the aquatic habitat of the creeks.

Special Status Plants and Animals

A number of species of plants that are listed or candidates for listing by state and federal agencies or are considered rare or endangered by the California Native Plant Society (Smith and York 1984) are known from the Roseville area. A number of these plants are restricted to serpentine soils, typically within chaparral plant communities. These species include Calystegia stebbinsii, Ceanothus roderickii, Chlorogalum grandiflorum, Fremontodendron decumbens, Galium californicum ssp. sierrae, Senecio alyneae, and Wyethia reticulata. Serpentine soils do not occur in the project area, therefore these species would not be expected to grow along the project alignment.

A number of special status plants may be found in vernal pool habitat in the Roseville area. These include Chamaesyce hooveri, Cordylanthus mollis ssp. hisidus, Legenere limosa, Orcuttia tenuis, Orcuttia viscida, Tuctoria greenei, Cuscuta howelliana, Dichelostemma lacuna-vernalis, Downingia, humilis, Juncus leiospermus, and Plagiobothrys scriptus (Jones and Stokes 1986). No vernal pool habitat is located within the project site. For this reason, these species of concern are not expected to occur.

Special status animal species which may occur in the project vicinity include tiger salamander (Ambystoma tigrinum), western pond turtle (Clemmys marmorata), and Cooper's hawk (Accipiter cooperi).

Tiger salamanders are closely associated with small ponds and vernal pools which they require for egg-laying in winter (Stebbins 1985). They would not be expected to utilize Dry Creek because of the presence of predatory fishes such as sunfish. Because no vernal pool or pond habitat is found on the project site, tiger salamanders are not expected to occur.

The western pond turtle, designated a candidate (Category 2) species by the U.S. Fish and Wildlife Service is known from Miner's Ravine Creek (Jones and Stokes 1986) and would be expected within Dry Creek in the project area. It is highly aquatic, inhabiting marshes, creeks, and ponds lined with emergent vegetation (Stebbins 1985). Category 2 candidate species include Taxa for which the U.S. Fish and Wildlife Service requires further study before proposing to list the Taxa as threatened. Filling of wetlands and other loss of habitat as a result of agricultural development, water diversions, and urbanization has reduced the numbers of this species.

Cooper's hawk is listed as a "bird species of special concern in California" (Remsen 1978). It is on the "Third Priority" category which includes birds "not in any present danger of extirpation," having populations within most of their range not declining seriously. However, because of their small populations in California, "they are vulnerable to extirpation should a threat materialize" (Remsen 1978).

Cooper's hawk is on the 1986 "Blue List" (Tate 1986), which is an early warning system for declining species of birds. Although these lists have no legal status under any state or federal endangered species legislation, this species warrants consideration under CEQA. Breeding populations have declined over the past two or three decades and have completely disappeared in some areas. Sharp declines have been noted in the Sacramento Valley (Gaines 1974, cited in Remsen 1978). Habitat destruction, primarily lowland riparian areas, is the main threat to the Cooper's hawk, although direct and indirect human disturbance at nest sites is also detrimental. Pesticides may also play a role in the reduced numbers of this species (Remsen 1978).

Cooper's hawk may nest in riparian areas within the Northeast Roseville Specific Plan Area (Jones and Stokes 1986). Individuals of this species were observed in the eastern and western portions of this area in 1986. Further observations made on the western portion of the site at the confluence of Secret Ravine and Miner's Ravine Creek revealed no evidence of nesting in that area (Jones and Stokes 1986). Field surveys on June 19 and July 1, 1987 revealed no recent nesting activities.

3.2.2 IMPACTS

Vegetation

The proposed Dry Creek Outfall would generally be placed within the construction easement previously disturbed in 1974 when a second sewer pipe was installed. Since that time, primarily weedy species have invaded the disturbed areas. Thistles, sweetclover, mustard, and introduced mediterranean grasses grow where once primarily native shrubs and trees grew. In some areas, mule fat, a native riparian species, has grown seven to ten feet tall, signalling the early successional development of riparian woodland. If construction disturbance is limited to within the previously disturbed areas, low levels of biological impacts would result. However, final designs for the proposed pipeline may result in losses of well-established riparian vegetation, especially where the publicly owned right-of-way is narrow. Where disturbed areas are too narrow for the placement of the third sewer pipe, vegetation adjacent to the creek bank may require removal, or additional creek crossings may be necessary. Any new losses of established shrubs and trees adjacent to Dry Creek would be a significant impact. Adherence to guidelines that would protect riparian habitat from construction impacts of the sewer line could reduce impacts to a less-than-significant level.

The Northeast Outfall proposed to run adjacent to Miner's Ravine Creek could be placed along terraces or within the upper floodplain to avoid most riparian woodland. However, because steep banks alternate sides along this creek, a number of creek crossings may be necessary. In addition, the alignment may require construction areas within oak forest near the creek. The loss of riparian and oak forest would be a significant impact. Mitigations that ensure replacement and maintenance of lost habitat would reduce impacts to less-than-significant levels.

The North Central Outfall would run adjacent to Antelope Creek out of riparian woodland. However, this outfall would cross the creek just below Atlantic Street, resulting in a small amount of riparian habitat loss. This loss is considered significant in light of the high value of this habitat for wildlife. Restoration of this crossing would mitigate for habitat losses. A California Department of Fish and Game Stream Alteration agreement will be necessary. Where the outfall would be placed on land adjacent to the Roseville Cemetery, no biotic impacts would occur.

Wildlife

Wildlife impacts would result from the destruction of established riparian habitat of shrubs and trees. Fragmentation of previously continuous vegetation would reduce its value for wildlife cover, impeding movements of wildlife along the creek. Reduction of the width of riparian habitat would have the same result. In areas where construction is limited to areas disturbed by previous construction activities, minimal biotic impacts would occur. However, temporary impacts from construction machinery activity and noise would result in significant biological impacts, primarily if construction takes place during the spring nesting season.

Impacts to fish and to the general biota of the stream could result from sedimentation of the stream due to erosion of disturbed soil, especially where stream crossings occur. Sites of stream crossings would also require dewatering of portions of the stream for short periods of time. These portions of the creek would be temporarily eliminated as aquatic habitat during this time.

Special Status Plants and Animals

No special status plants are found on the project site and thus no impacts on these plants would result. There is potential for the use of the northeastern portion of the site for nesting or foraging by Cooper's hawk. If trees containing nests of this species were cut down, or if machinery operation produced disturbance and noise near a nest, Cooper's hawks would incur significant impacts. After the development of a specific plan for sewer location, along with a construction easement corridor, spring nest searches should be conducted along the northeastern portion of the project alignment. Construction activities should be avoided near any nests that are found.

Western pond turtles probably utilize the aquatic habitat of Dry Creek. Construction activities within the creek, for example, where creek crossings would occur, could negatively impact this species. However, because it is a mobile animal, individuals could relocate to other portions of the creek until the temporary construction activities are completed. If creek flows return to normal conditions, no significant impacts would result from the project.

3.2.3 MITIGATION

1. To reduce the impacts of riparian habitat loss, place the sewer line and associated construction activities so as to minimize environmental impacts (as designated by the Northeast Roseville Specific Plan (City of Roseville)) by:

   a. Minimizing the number of trees removed. Within the Dry Creek Outfall area this can be done by primarily utilizing the construction easement previously used for a sewer pipeline in 1974.

   b. Replacing native trees with an equal or larger number of replacement trees of the same species within the natural portions of the project and provide for their maintenance.

   c. Promptly revegetating cleared areas with native species.

   d. Locating sewer pipe creek crossings to minimize riparian vegetation loss.

2. To ensure adherence to the above mitigations, the applicant should submit plans for the project showing the placement of the new sewer lines and the limits of the construction zone. A tree preservation and management plan should be prepared and submitted to the City Planning Department for approval before the issuance of grading and building permits. The plan should contain the following:

   a. Location of trees and generally undisturbed riparian vegetation designated for removal.

   b. Species and sizes of trees and shrubs to be removed.

   c. The location, species, and size of tree and shrub replacements.

In addition, other protections to existing riparian trees, especially oaks, should be implemented. The policies of the Northeast Roseville Specific Plan (City of Roseville 1987) provide useful mitigations. Adapted to this particular project, they include:

   a. Submittal of a bond or other security in a form and amount approved by the City.

   b. Installation of chain link fencing or similar protective barrier around driplines of trees designated for preservation within or near impact areas prior to project construction.

   c. Protection of trees by prohibition of attaching signs, ropes, cables, or other items to trees.

   d. Prohibition of vehicles, construction equipment, mobile offices, supplies or materials from being located or stored within the driplines of trees.

   e. Limits on the surface removal of 1 foot of soil within tree driplines, with no cuts whatsoever within 5 feet of trunks.

f. A maximum of 1 foot of fill placed over the roots of trees within their driplines, with no fill allowed within 5 feet of the trunk.

g. Maintenance of existing drainage to prevent changes in water availability to trees.

h. Utilization of drilled or bored trenches where pipelines are proposed beneath large oak trees (those having a diameter at breast height (dbh) of 8" or more).

i. Restoration of soil conditions where compaction has taken place beneath driplines of trees.

j. Limitation of irrigation to drip systems for establishing trees and shrubs that would replace those lost by construction.

k. Repair of tree limbs damaged during construction by making cuts flush with the main stem and painting the wound with "tree paint."

3. The above mitigations for loss of riparian vegetation will also result in mitigation for wildlife habitat losses over the long-term. However, temporary construction activities and associated noise could be further mitigated by prohibiting construction during the spring bird nesting season (March 1 - July 1).

4. Construction activities and potential tree removal could significantly impact Cooper's hawk if they nest in the project area. A spring raptor nest survey should be conducted before construction activities begin (late April through July). If a nest is discovered in a tree proposed for removal of adjacent to the proposed construction easement, construction activity should be postponed until the young have fledged in August. Potential impacts to Cooper's hawks would be reduced to less-than-significant levels with this mitigation.

5. To reduce any potential impacts to western pond turtle and other aquatic life, it is recommended (in accordance with the Northeast Roseville Specific Plan, City of Roseville, 1987) that;

   a. A specific erosion and sediment control plan be submitted as part of contract specifications to prevent stream siltation.

   b. Construction activities within the creek channel be limited to the summer low-flow period.

A California Department of Fish and Game Stream Alteration Agreement (Section 1601-1603 of the California Fish and Game Code) will be necessary for activities within the creek bed. This includes creek crossings primarily.

City of Roseville, 1987. Northeast Roseville Specific Plan.

Gaines, D. 1974. A new look at the nesting riparian avifauna of the Sacramento Valley, California. West. Birds 5:61-80.

Jones and Stokes, 1986. Draft Environmental Impact Report, Northeast Roseville Specific Plan.

Remsen, J.V., Jr. 1978. Bird species of special concern in California. California Department of Fish and Game, Nongame Wildlife Investigations, Wildlife Management Branch Administrative Report No. 78-1.

Smith, J.P. and R. York. 1984. Inventory of rare and endangered vascular plants of California. California Native Plant Society, Special Publication No. 1 (3rd edition).

Stebbins, R.C. A field guide to western amphibians and reptiles. Houghton Mifflin, Boston.

Tate, J., Jr. (1986) The blue list for 1986. American Birds 40 (2):227-236.

3.3 TRANSPORTATION AND CIRCULATION

3.3.1 SETTING

This analysis is based on traffic count data available from the City of Roseville and recent major EIRs prepared in the City. They represent 1986/1987 weekday peak hour and average daily traffic (ADT). Street widths and intersection geometrics were obtained from field inspections of existing conditions.

Capacity assumptions (maximum ADT per lane, maximum hourly intersection critical lane volume) are the same as those used in recent Roseville EIRs. Table 3-1 gives the ADT capacity assumptions for street segments, and Table 3-2 gives the peak-hour capacity assumptions for intersections. Level of Service (LOS) thresholds are given in Table 3-3 along with the "design capacities" (maximum acceptable volume) used in recent Roseville EIRs. Street segments are designed to operate at no worse than LOS C/D, and intersections no worse than mid-D.

Tables 3-4 through 3-7 give the results of the analysis. They cover, respectively:

- o Douglas Boulevard corridor
- o Atlantic/Vernon corridor
- o Dry Creek corridor
- o critical intersections.

Table 3-4 identifies existing conditions along Douglas Boulevard. Levels of Service are currently unacceptable along many of the two-lane and three-lane sections from Rocky Ridge to Sierra College. However, widening is currently taking place along portions of this segment. If the entire segment is widened to four lanes it will operate at acceptable service levels for the next 2-3 years.

Existing conditions are also unacceptable on Douglas near the I-80 interchange. These conditions will only improve with the completion of the new interchange at Atlantic and with the extension of Eureka Road north of Douglas to meet the new interchange. This project is planned for completion within about 2 years.

TABLE 3-1

ROADWAY CAPACITIES

Roadway Type	Number of Lanes	Maximum Daily Capacity (Both Directions)
Minor Arterial	2	16,000
Major Arterial	4	32,000
	6	48,000
Expressway	4	52,000
	6	78,000
Freeway Mainline	6	108,000
	8	144,000
	10	200,000
Freeway Ramp		
Loop	1	15,000
	2	26,000
Linear	1	17,000
	2	34,000

TABLE 3-2

INTERSECTION CAPACITIES

Type of Intersection	Phases	Critical Volume[1]
Four-Leg	2	1,500
	3	1,425
	4	1,375
Three-Leg	2	1,500
	3	1,425

[1]Critical volumes determined through procedures described in Transportation Research Board, Circular 212, Planning Techniques. Critical volumes generally represent 20% to 35% of total intersection approach volumes.

TABLE 3-3

LEVEL OF SERVICE DEFINITION
AND DESIGN STANDARDS

Volume/Capacity Ratio	Level of Service (LOS)	Design Standard (LOS Acceptable for)	
		Streets	Intersections
0.00 - 0.60	A	yes	yes
0.60 - 0.70	B	yes	yes
0.70 - 0.80	C	yes	yes
0.80 - 0.85	Low D	no	yes
0.85 - 0.90	High D	no	no
0.90 - 1.00	E	no	no
over 1.00	F	no	no

TABLE 3-4

CURRENT LINK VOLUME/CAPACITY RATIOS AND LEVELS OF SERVICE
DOUGLAS BOULEVARD

Location	No. Lanes	ADT Capacity	Current[1] Volume	Volume/ Capacity Ratio	Level of Service
Sierra College	2	16,000	21,500	1.34	F
Eureka	3	24,000	21,500	.90	E
Rocky Ridge (New)	3	24,000	16,500	.69	C
Rocky Ridge (Old)	3	24,000	21,200	.88	D
Sierra Gardens	5	40,000	20,800	.52	A
Santa Clara	6	48,000	34,300	.71	C
Sunrise	6	48,000	53,800	1.12	F
I-80 Ramps (E)	5	40,000	42,900	1.02	F
I-80 Ramps (W)	5	40,000	38,300	.96	E
Harding	4	32,000	30,400	.95	E
Folsom	4	32,000	16,200	.51	A
Judah	2	16,000	9,900	.62	B
Atlantic					

[1]City of Roseville 1985-1987 volume map and count sheets.

TABLE 3-5

CURRENT LINK VOLUME/CAPACITY RATIOS AND LEVELS OF SERVICE
VERNON/ATLANTIC STREET

Location	No. Lanes	ADT Capacity	Current[1] Volume	Volume/ Capacity Ratio	Level of Service
I-80	2	16,000	16,700	1.04	F
Harding	2	16,000	15,200	.95	E
Berry	2	16,000	13,000	.81	D
Yosemite	2	16,000	NA	--	--
Folsom	4	32,000	10,700	.33	A
Lincoln	4	32,000	NA	--	--
Grant	4	32,000	18,200	.57	A
Judah	4	32,000	NA	--	--
Douglas	2	16,000	6,400	.40	A
Subway	4	32,000	9,400	.29	A
Cirby					

NA = Data not available.

TABLE 3-6

CURRENT LINK VOLUME/CAPACITY RATIOS AND LEVELS OF SERVICE FOR ROAD LINKS CROSSING DRY CREEK

Location	No. Lanes	ADT Capacity	Current[1] Volume	Volume/ Capacity Ratio	Level of Service
Berry, N. of Atlantic	2	16,000	4,900	.31	A
Atlantic, E. of Harding	2	16,000	16,700	1.04	F
Harding, S. of Atlantic	3	24,000	10,400	.43	A
Folsom, N. of Sutter	2	16,000	5,000	.31	A
Douglas, E. of Judah	4	32,000	16,200	.51	A
Riverside, S. of Darling	4	32,000	23,500	.73	C
Vernon, S. of Subway	4	32,000	10,900	.34	A
Atkinson, S. of Subway	2	16,000	4,400	.28	A

TABLE 3-7

CURRENT INTERSECTION LEVELS OF SERVICE

Corridor	Intersection	Current Peak Hour Level of Service
Douglas	Sierra College	D
	Rocky Ridge (New)	A
	Rocky Ridge (Old)	A
	Sierra Gardens	A
	Santa Clara	B
	Sunrise	E
	I-80 Ramps (W)	A
	Harding	C
	Folsom	D
	Atlantic	B
Vernon	Douglas	A
	Subway	A[1]
	Cirby	C

[1] If signalized.

Table 3-5 presents the existing conditions along the Atlantic/Vernon corridor. Levels of Service are unacceptable east of Folsom Road but are acceptable south and east of Folsom. The unfavorable conditions will be improved by widening the 2-lane segments of Atlantic to 4 lanes, as called for in recent EIRs and the City's Circulation Plan and completion of the new Atlantic interchange. However, the timing of the first improvement is uncertain.

Table 3-6 gives existing Levels of Service on streets crossing Dry Creek. Except for Atlantic Street all of these facilities currently operate at acceptable service levels.

Table 3-7 identifies existing peak hour Levels of Service at key intersections along the alternative corridors. This information tends to reinforce the segment ADT analyses given in Tables 3-4 through 3-6. Conditions along Douglas near Sierra College and near the freeway interchange are unacceptable, while service levels near the south end of the Vernon corridor are acceptable.

3.3.2 IMPACTS

Based on this analysis it is evident that any sewer trunkline construction which disrupts traffic flows along Douglas Boulevard near I-80 would result in unacceptable traffic impacts. Sewer construction along Douglas east of the freeway or Atlantic from downtown to the freeway should occur only after planned street widenings are completed or where temporary replacement lanes can be added for the duration of construction. Sewer construction along Vernon Street from downtown to Subway Road should not cause significant impacts. Construction along Dry Creek should also be feasible as long as replacement lanes are added at Atlantic Street and there are limitations on the times and duration of any closures of Atlantic.

3.3.3 MITIGATION

For any project or alternative which includes sewer trunkline construction along Douglas Boulevard east of I-80 or Atlantic Street from downtown Roseville to I-80, construction should occur only after any planned street widening projects are completed in these areas. If sewer construction is scheduled prior to completion of these projects, temporary replacement lanes should be added for the duration of construction.

For sewer construction where new trunklines or outfalls will cross under Atlantic Street, Vernon Street, Douglas Boulevard, or Riverside Avenue, detours should be designated when street closures are necessary. In addition, closure periods should be restricted to off-peak travel times and no two of these throughfares should be closed at the same time.

3.4 LAND USE

SETTING

Substantial planning and development activities are occurring within the City of Roseville. The City has designated six major planning area: Foothills, North Central, Northwest, North Industrial, Northeast, and Southeast. The City Council revised the land uses for some of the specific plan areas in November, 1985 when it amended the land use map of the General Plan. The revisions required that several actions occur prior to increases in land use intensity. No increase in density, change in land use, or increase in land use intensity in the Northwest, North Central, North Industrial or Northeast areas could occur until a Specific Plan for the respective area is adopted by the City Council. The City Council adopted the Northeast Roseville Specific Plan on April 8, 1987. The Northwest and North Central Specific Plans, and accompanying EIRs, are currently being prepared.

The proposed sewer trunk extension is designed to provide service for the entire Northeast Roseville Specific Plan Area. The Specific Plan designates the areas south of Miner's Ravine Creek for mixed use development including residential, commercial, research and development, and business park/professional office uses. The area north of Miner's Ravine Creek is primarily designated as urban reserve. In addition, the proposed project would also provide sufficient capacity for anticipated development in the North Central Roseville Specific Plan Area and the South Placer Municipal Utility District.

IMPACTS

The proposed project will not have any significant impacts on land use in the Northeast or North Central Roseville Specific Plan areas. The sewer line extension for the North Central Outfall parallels Harding Boulevard for approximately 650 feet between Dry Creek and Atlantic Street. The remaining portion of this line crosses vacant industrial and pasture land. The proposed Northeast outfall follows Miner's Creek for approximately 8,000 feet, an alignment which is consistent with the sewer plan contained in the Northeast Roseville Specific Plan. Finally, the Dry Creek alignment generally parallels the course of Dry Creek, a route which is currently followed by two existing sewer lines.

MITIGATION

None required. The North Central Roseville Specific Plan, when adopted by the Roseville City Council, will provide guidelines for connections to the North Central outfall. The Northeast Outfall, as noted above, is consistent with the sewer plan shown in the Northeast Roseville Specific Plan, and the Dry Creek outfall is parallel to the rights-of-way of two existing sewer lines.

3.5 PARKS AND RECREATION

SETTING

Parks and recreation services and maintenance in the City of Roseville are provided by the Roseville City Parks and Recreation Department. Approximately 16 park sites exist in the City totalling 282 acres. Facilities include tennis courts, picnic areas, ballfields, play equipment, and a small zoo. The City also maintains 17 acres at school sites for joint school/park use.[1]

PROJECT

Along Dry Creek between I-80 and the Roseville Wastewater Treatment Plant there are three park sites and one school site.

Lincoln Estates Park

Lincoln Estates Park is a 5.4 acre park located approximately .25 miles downstream of the I-80 Cry Creek overcrossing on the left bank. The park consists primarily of an open grass field and softball field. The portion closest to the creek and the proposed sewer alignment is a small blacktop basketball court within the flood plain. No park use was observed at the time of inspection Friday afternoon, June 19, 1987.

Royer Park

Located on the east bank of Dry Creek immediately north of Douglas Boulevard is Royer Park, a 17.1 acre multi-use area. The park includes a small zoo, tree-shaded picnic areas, and open grass fields. The park was under moderate use at the time of inspection, but is a well-used community facility for a broad range of activities.

Sangstad Park

Found immediately south of Royer Park is Sangstad Park, a 25.5 acre area of open grass fields. Improvements include two softball diamonds and a parking lot. No use was observed at the time of inspection.

Saint Rose School

Saint Rose Church and School is a Catholic Church and parochial school located immediately south of Sangstad Park. A narrow grass field runs to the creek's edge and holds a ballfield. No use was observed at the time of inspection.

In addition to the recreational uses in established park areas along the creek, recreation was observed on the creek. On the day of inspection, at three different locations, people were observed walking, wading and fishing in the creek.

ALTERNATIVES

Atlantic/Vernon Street Alignment Alternative

The alignment proposed for this project alternative is not in the vicinity of any parks or recreational areas.

Cirby Creek Alignment Alternative

Eich Intermediate School. Located at the end of Sierra Gardens Drive, Eich School has large grass fields that abut the creek on the south bank.

Sierra Gardens Elementary School. Sierra Gardens School is located near the south bank of Cirby Creek at the end of Sierra Gardens Drive. Several acres of grass fields abut the creek and fall within the alternative alignment.

Eastwood Park. Eastwood Park is an approximately five acre community park located at the corner of Coral Drive and Madden Lane. A small edge of the park abuts Cirby Creek and falls with the alternative alignment.

Unnamed Park Parcel. Located at the confluence of Cirby and Dry Creeks, this park is an unimproved recreational area supporting water uses at the meeting of the creeks.

Pleasant Grove Creek Alignment Alternative

The only recreational area in the general vicinity of the Pleasant Grove Creek alignment alternative is the Diamond Oaks Golf Course. The specific alignment is not known at this time, and, therefore, proximity of the golf course to the alignment is not known.

IMPACTS

Impacts to parks and recreational areas will be limited to those areas where trenching is to be performed. These impacts will be temporary and typically include disruption of

recreational uses and increased local noise from the associated construction equipment. To a lesser extent, minor access and traffic related impacts may occur.

Duration of these impacts will be a function of the length of sewer line constructed in or near the recreational areas. Approximately 500 feet of gravity sewer line can be constructed per day. Generally, less than 300 feet of trench would be exposed at any time.[2]

PROJECT

Trenching and sewer line construction along the creek will temporarily impact nearby residents' use of the creek with increased noise levels and project-related traffic on local streets. The degree and duration of impact will depend on the proximity of project-related activities to the creek.

Specific impacts on recreational uses include the following:

Lincoln Estates Park

Tentative plans would place the sewer line approximately 100 feet from the park. Little to no impacts on recreational uses at the park would be anticipated. Impacts would be limited to minor noise increases for three to five days. No significant impacts would occur.

Royer Park

If the proposed sewer line is laid down the park's creek frontage road, temporary moderate impacts would occur. The necessary trenching, sewer line construction, and repaving would temporarily disrupt much of the park's use for three to five days. Impacts include: blockage of park accesses, increased noise levels that may discourage people from using the park and physical disruption of some park areas to the point they could not be used. The park's zoo animals would not be bothered by the construction activities.[3] No significant impacts would occur.

Sangstad Park

Tentative plans would have the proposed sewer line laid at the edge of Sangstad Park close to Dry Creek. Doing so would produce only minor, temporary impacts.

These impacts would last two to four days and would include the following: physical disruption of part of the ball field and increased noise levels to the degree that use near the construction zone would be impractical.

Saint Rose School

If constructed where tentatively planned, along the playfield's edge near Dry Creek, only the following minor, temporary impacts would occur, lasting two to four days: physical disruption of the field and increased noise levels. Depending upon the timing of construction activities, these impacts could create moderate impacts to the school's operation. Classroom instruction and use of the field during play times could be hampered from the increased noise and safety hazards to the school children.

ALTERNATIVES

All potential recreational impacts that may occur along alternative alignments would be minor and temporary and limited to those discussed above. None of the impacts anticipated along these alignments would last more than five days.

MITIGATION

Provide for early project review by City Parks and Recreation Department and Schools. Allow the City and the involved schools to review and comment on the intended alignment and timing of construction. Early review will also allow for advance planning by the involved parties to manage and mitigate impacts.

Time construction to take place during off-peak hours. To minimize impacts on park users and school children, construction activities should be scheduled for off-peak hours; for parks -weekdays, especially in the mornings; for schools -- weekday afternoons and weekends.

Install noise muffling measures on construction equipment. In order to minimize noise impacts on recreational users, noise muffling of construction equipment is recommended.

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[1]Northeast Specific Plan Draft EIR, Jones & Stokes Associates, October, 1986, pp. 6-20.

[2]Jim Barnts, Associate Civil Engineer, Spink Corporation, personal communication, July 9, 1987.

[3]Sandy Crowder, zookeeper, City of Roseville Parks and Recreation Department, personal communication, August 8, 1987.

3.6 AIR QUALITY

3.6.1 SETTING

The project site is within the Sacramento Valley which is bounded by the coastal ranges to the west and the Sierra Nevada to the east. A sea level gap in the Coast Range—the Carquinez Strait—is located 60 miles southwest, and the intervening terrain is very flat. The prevailing wind direction is southwesterly, resulting from marine breezes through the Carquinez Strait. During winter, when the sea breeze diminishes, northerly winds blow more frequently, but southerly winds still predominate.

The federal Clean Air Act established air quality standards for several pollutants. These standards are divided into primary standards which are designed to protect the public health and secondary standards which are intended to protect the public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage. In addition, the State of California has adopted its own standards.

Major sources of air pollutants in Placer County are vehicle exhausts, solvent use, pesticide application, petroleum processing, transfer, and storage, industrial processes and agricultural and waste burning. The automobile is the largest single source category for carbon monoxide, hydrocarbons, and oxides of nitrogen. The major source of particulate matter is construction.

Air quality is not measured within Roseville, but is measured in Rocklin and Auburn. The federal and state standards for ozone are exceeded several times per year at these locations.[1]

In 1977 the U.S. Environmental Protection Agency designated the Sacramento Air Quality Maintenance Area as a non-attainment area for these pollutants. The 1977 federal Clean Air Act requires that regional plans be prepared for non-attainment areas showing how the federal standards are going to be attained by 1987. The Sacramento Area Council of Governments and member government agencies have prepared programs designed to reduce emissions in the region through stationary source controls, transportation control measures, and mobile source controls. The California Air Resources Board is the planning agency for total suspended particulates and has the responsibility for preparing a plan for that pollutant.

3.6.2 IMPACTS

During construction, air quality impacts would be generated by construction equipment exhaust and fugitive dust. During construction, a backhoe, loader, dump truck, grader and compactor would be in operation. Exhaust emissions would consist of relatively small amounts of nitrogen dioxides, hydrocarbons, particulates, sulfur dioxide and carbon monoxide. Because of the limited amount and duration of these emissions, no significant local or regional impacts would be expected.

The excavation, loading, transport and grading of soil would result in particulate matter emitted to the atmosphere. Trucks hauling materials to the construction zone would also generate fugitive dust. A major portion of this dust would settle out within 100 feet or so of the construction zone. The major effect of this fugitive dust emission would be increased dustfall down wind of the construction zone. This increased dustfall would soil exposed surfaces, requiring more frequent washing.

Construction would proceed at a rate of about 500 feet per day. At this rate, any one location along the construction alignment would be affected by construction dust and exhaust emissions for perhaps 1 to 3 days. Due to this short duration, any nuisance caused by fugitive emissions and dustfall would not be considered significant.

After construction, the project's only air quality effects would be due to sporadic auto travel and equipment use generated by maintenance of the project.

3.6.3 MITIGATION

Control of fugitive dust emissions is normally accomplished through the application of water to exposed soil surfaces. Construction contracts should require that water be applied to any unpaved access roads and disturbed soil surfaces when construction is occurring in proximity to residences or other sensitive land uses. Twice-a-day application of water can reduce dust generation by up to 50%.

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[1] California Air Resources Board, California Air Quality Data, Annual Summary, Vol. XVII, 1986.

3.7 NOISE

3.7.1 SETTING

Environmental noise is measured in decibels (dB). The dBA, an A-weighted decibel, refers to a scale of noise measurement which approximates the range of sensitivity of the human ear to sounds of different frequencies. On this scale, the normal range of human hearing extends from about 3 dBA to about 140 dBA. A 10 dBA increase in the level of a continuous noise represents a perceived doubling of loudness; a 2 dBA increase is barely noticeable to most people.

Human response to noise is subjective, and varies considerably from individual to individual. The effects of noise can range from interference with sleep, concentration, and communication, to physiological and psychological stress, and at the highest levels, to hearing loss. The sound level of speech is typically about 60 to 65 dBA. Sleep disturbance occurs when interior noise levels exceed 40 to 50 dBA.

Environmental noise fluctuates in intensity over time and several descriptors of time-averaged noise levels are in use. Two most commonly used are Leq and Ldn. Leq, the energy equivalent noise level, is a measure of the average energy content (intensity) of noise over any given period of time. Ldn, the day-night average noise level, is the 24-hour average of the noise intensity with a 10 dBA "penalty" added for nighttime noise (10:00 p.m. to 7:00 a.m.) to account for the greater sensitivity to noise during this period. In situations where vehicles are the dominant source of noise, Leq for the peak commute hour, and Ldn at the location usually differ by less than 2 dBA.

The Roseville General Plan[1] Noise Element identifies the major sources of noise within Roseville as automobile traffic and railway operations. The project alignment passes through park lands, residential areas and open space where the noise level (Leq) can be expected to be 40-50 dBA. The alignment is crossed at several locations by transportation facilities generating higher noise levels (I-80, Douglas Boulevard, Riverside Avenue, Southern Pacific tracks). Near these transportation facilities the Leq would be between 60 and 80 dBA.

3.7.2 IMPACTS

During construction, a backhoe, loader, dump truck, grader and compactor would be in operation. Noise from this equipment would dominate the noise environment in the immediate vicinity. Construction noise levels would range from 70 to 90 dBA at a distance of 50 feet, and would drop off by 3 dBA with each doubling of distance. These noise levels would be a temporary nuisance at the more sensitive land uses along the project alignment, which include numerous residences and the Roseville Public Library.

Construction would proceed at a rate of about 500 feet per day. At this rate, any one location along the construction alignment would be affected by construction noise for perhaps 1 to 3 days. Due to this short duration, any nuisance caused by construction noise would not be considered significant.

After construction, the project's only noise effects would be due to sporadic auto travel and equipment use generated by maintenance of the project.

3.7.3 MITIGATION

Construction would occur only between the hours of 7:00 a.m. and 4:30 p.m., limiting the nuisance potential for construction noise. All equipment should be fitted with exhaust mufflers and appropriate noise-muffling devices. Equipment and vehicles should be turned off when not in use.

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[1]City of Roseville, Roseville General Plan, June 1977 (Amended 1983, 1984, 1985).

3.8 CULTURAL RESOURCES

The primary objectives of the archaeological research described herein were: 1) to locate and identify any cultural resources of demonstrated or potential significance within the confines of the proposed Northeast Roseville Sewer Trunk Extension project area, and 2) to formulate and submit to the project sponsor appropriate recommendations for the further investigation of, and/or mitigation of adverse impacts to, any identified resources.

3.8.1 SETTING

In July 1987, an archaeological inventory was conducted by the Department of Anthropology, California State University, Sacramento, to identify prehistoric and historic sites lying within or adjacent to the project corridor. The following discussion is based on the findings of that inventory.

Four sites of prehistoric importance have been documented in the vicinity of the project area. The project runs through, or adjacent to two of these sites along the banks of Dry Creek. Two additional sites are nearby but do not appear to be within the project impact zone. These sites have evidence characteristic of village sites including bedrock mortars, stone artifacts, and cooking rocks. Three of these sites have evidence of human burials. This makes them of even greater concern both scientifically and with respect to the living Native Americans in the Sacramento/Placer area.

Archival research revealed that no previously recorded historic archaeological sites are known to occur within or adjacent to the project area. A review of historic references (California Department of Parks and Recreation, 1977; Gudde 1969; Hoover et.al., 1966) mentions the following local features of historic importance: The First Transcontinental Railroad (now Southern Pacific), the California Central Railroad from Folsom to Marysville (now dismantled and exact location unknown in project area), the town of Roseville itself, which grew up around the railroad, and the Haman House (a National Register site in Roseville). A great deal of the project area has been previously surveyed and there are numerous other projects in the surrounding vicinity. Dry Creek, along the entire extent of the project, has been surveyed (Palumbo 1966), and the small portion to the east of Highway 80 on Miner's Ravine was surveyed in 1980 by Peck. The Cirby Creek section and two small segments at either end of the main project alignments have not been examined.

3.8.2 IMPACTS

Based upon the above information and the local topography the sensitivity for this project ranges from very high to probably quite low. Areas that have been previously surveyed with negative results are of fairly low sensitivity (there is always the potential for buried remains and sites which have since been exposed by erosion etc.). Those areas which have not been surveyed are assumed to be of fairly high or at least moderate sensitivity due to the many sites that have been recorded in this region in similar physical surroundings (drainages for instance).

The areas within and immediately surrounding sites showing evidence of human burial are considered to be of very high sensitivity, and there is a potential for the project to impact these sites adversely.

3.8.3 MITIGATION

A partial archaeological survey is recommended to ensure protection of known sensitive resource areas. In addition, a spot check resurvey of the Dry Creek corridor should be performed in locations that still appear likely to have archaeological deposits. The original survey work in this area is over 20 years old, and many changes have occurred, both in the environment and in the techniques of archaeological survey. It is quite possible that a site or sites were missed.

The survey field work and cultural resources evaluation recommended above is currently underway. The resulting report will be summarized in the Final EIR and will include a description of the project and background of the history and archaeology of the area, results of the field survey, complete records of any remains found (eligible for State Trinomial designations), an analysis of the potential significance of those remains if they do occur and recommendations for their preservation and/or mitigation.

In the event that previously unknown cultural resources are discovered during construction activities, it is recommended that all further activity in the area be halted until the project sponsor retains the services of a qualified archaeological consultant. The consultant shall examine the resources, assess the significance, and develop further exploratory procedures or data recovery plans deemed appropriate for mitigation.

A copy of any further archaeological reports produced in conjunction with this report should be forwarded to: North Central Information Center, Department of Anthropology, California State University, Sacramento, 6000 J Street, Sacramento, CA 95819 for inclusion in their records.

4 STATUTORY SECTIONS

4.1 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

There are no impacts which remain significant after implementation of mitigation measures.

4.2 GROWTH INDUCING IMPACTS

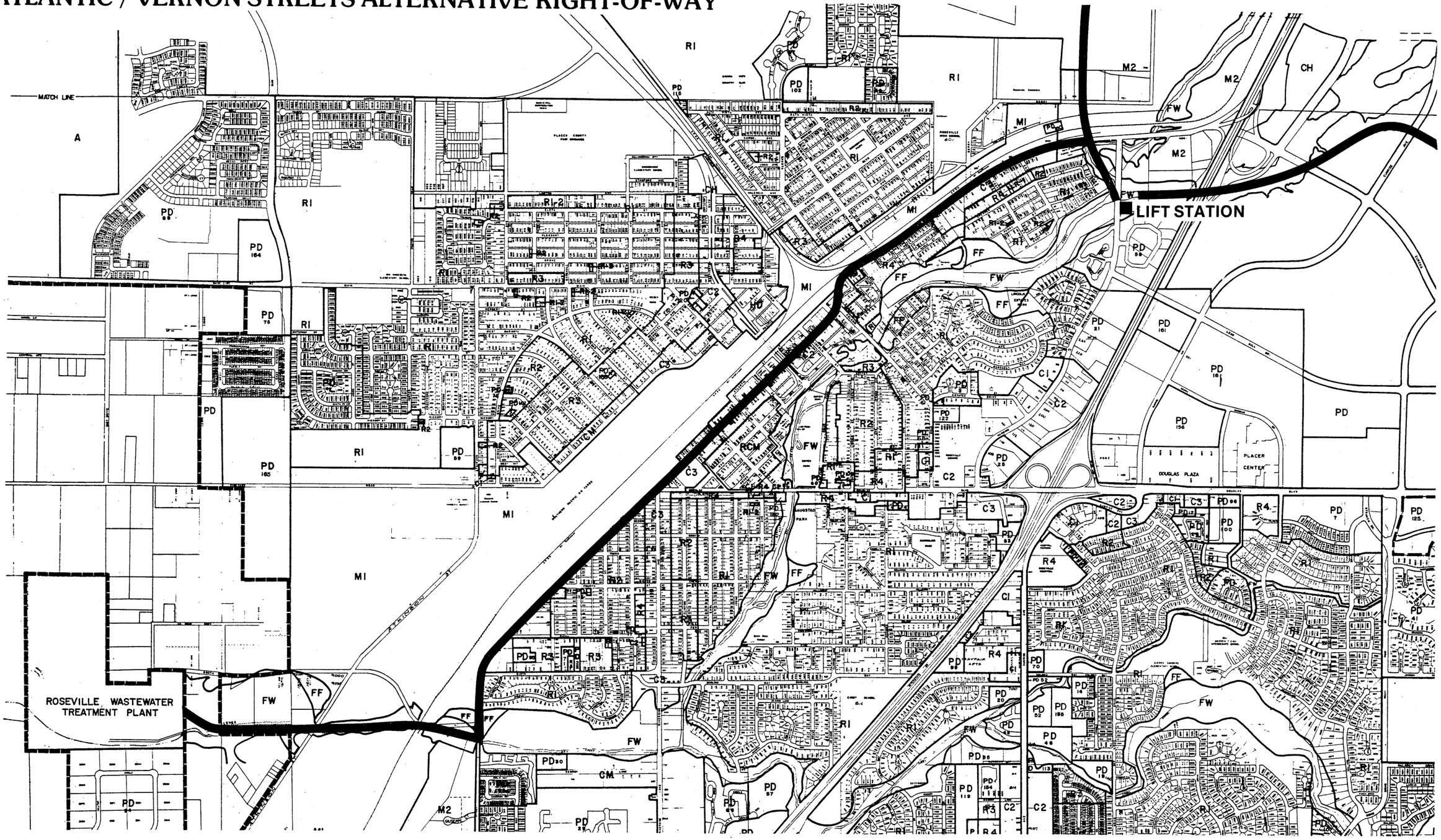
The Northeast Roseville Specific Plan was adopted by the Roseville City Council on April 8, 1986. The Plan includes zoning approvals for that portion of the Northeast Roseville Specific Plan area south of Miner's Ravine Creek, which is the service area for the proposed project. Therefore, the proposed project will serve an area for which planned growth has been approved by the City and is considered to be responsive to City policies.

There is a potential for this project to induce growth in those areas within the North Central Specific Plan service area and the South Placer Municipal Utility District service area which would ultimately be served by this project. Currently, neither of these areas have wastewater collection service capacity available which would allow development of the areas beyond their current primarily agricultural uses. Provision of wastewater collection capacity in the form of a major sewer trunk extension to the areas could serve to accelerate development and growth in those areas.

It should be noted, however, that the proposed project is designed primarily to provide wastewater collection services to areas within the Northeast Roseville Specific Plan Area which have already been approved for development by the adoption of the Northeast Roseville Specific Plan. Provision of oversize pipes within already congested utility corridors as part of this project to provide for anticipated future growth in outlying areas is consistent with recognized growth trends and is considered to be good planning practice.

PROPOSED SEWER TRUNK EXTENSION
ATLANTIC / VERNON STREETS ALTERNATIVE RIGHT-OF-WAY

FIGURE 4-1



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The Rocklin-Loomis Municipal Utility District (now South Placer Municipal Utility District) 1986 Sewer Master Plan, prepared in July 1986 by Harris and Associates, describes the Dry Creek Sewer trunk alignment for the Roseville Parallel Trunk Sewer as follows (underlining added for emphasis):

> "Based on the projected ultimate development in the service area, the peak flow will be 24.37 mgd. The slope of the parallel pipe will have to be the same as the 0.0014 slope of the existing 24" pipe, since there is only one feasible alignment to the Roseville Regional Wastewater Treatment Plant. At this slope, a 42" pipe is required in parallel to the existing 24" pipe to carry the projected ultimate flow."
>
> (Rocklin-Loomis Municipal Utility District 1986 Sewer Master Plan, July 1986, Page 6-4, paragraph 5)

More detailed descriptions of each of the alternatives, and their respective impacts, are found in the following subsections.

4.4.1 NO PROJECT ALTERNATIVE

The No-Project alternative is based on the assumption that there will be no extension of additional sewer trunk service to the Northeast Roseville Specific Plan area or the North Central Specific Plan area.

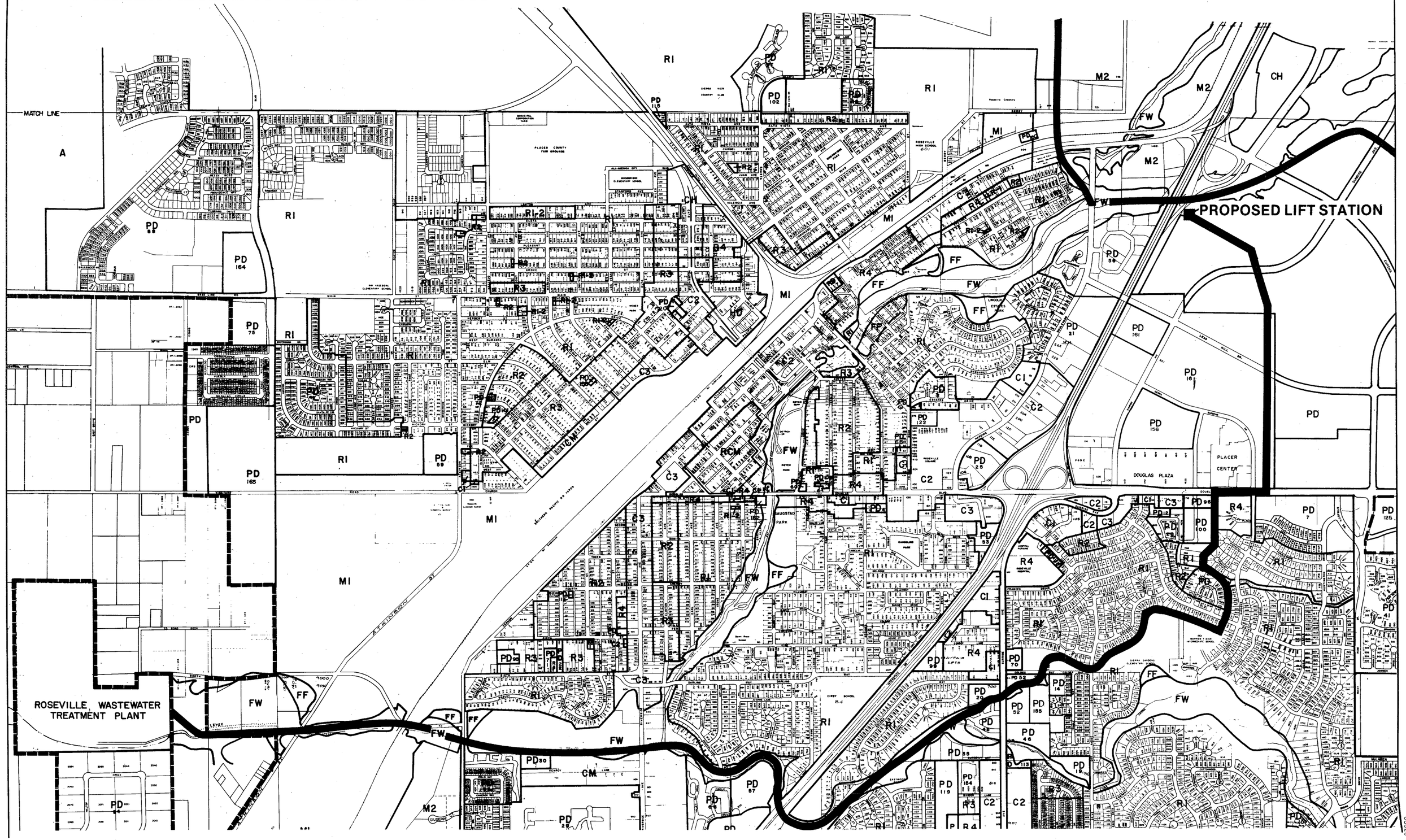
None of the impacts associated with construction of the proposed sewer trunk extension would occur, and no significant growth or development would be possible in the Northeast Roseville Specific Plan area due to lack of wastewater collection and treatment services.

4.4.2 ATLANTIC/VERNON STREET ALTERNATIVE

This alternative would route the sewer trunk extension from a new lift station at the intersection of Harding and Miner's Ravine Creek, via force main, up Atlantic Street to approximately the point where the continuation high school fronts on Atlantic Street. From this point, the extension would consist of a gravity main along Atlantic Street, behind City Hall and southwest along Vernon Street to the subway. A gravity main would parallel Dry Creek and the Subway Road westerly to the treatment plant. This alternative right-of-way is depicted graphically in Figure 4-1 (see page 3).

PROPOSED SEWER TRUNK EXTENSION
CIRBY CREEK ALTERNATIVE RIGHT-OF-WAY

FIGURE 4-2



This alternative would provide wastewater collection service to all of the Northeast and North Central Specific Plan areas, as well as providing capacity for future growth in the SPMUD area. This would be accomplished by installation of a 54-inch sewer pipe for an ultimate capacity of 38 mgd.

This alternative would significantly impact traffic patterns along Atlantic and Vernon Streets for the duration of construction. Construction costs of the sewer trunk extension would be significantly higher due to the necessity of trenching and subsequent resurfacing of these streets, as well as to the added capital cost of a lift station. Construction progress would be slower for all segments of the line constructed along Atlantic and Vernon Streets. Impacts to biotic resources in and along Dry Creek would be greatly reduced by this alternative due to the different routing of the sewer extension. Finally, the wastewater collection system which would result from implementation of this alternative would be significantly more expensive to operate and maintain due to the need for a lift station and force mains. Monthly operations and maintenance costs to operate a sewage lift station are estimated to be approximately $2,000 per month for a load of 1 mgd. Therefore, a lift station with an average load of 6.0 mgd would generate approximately $12,000 per month in operations and maintenance costs.

4.4.3 CIRBY CREEK ALTERNATIVE

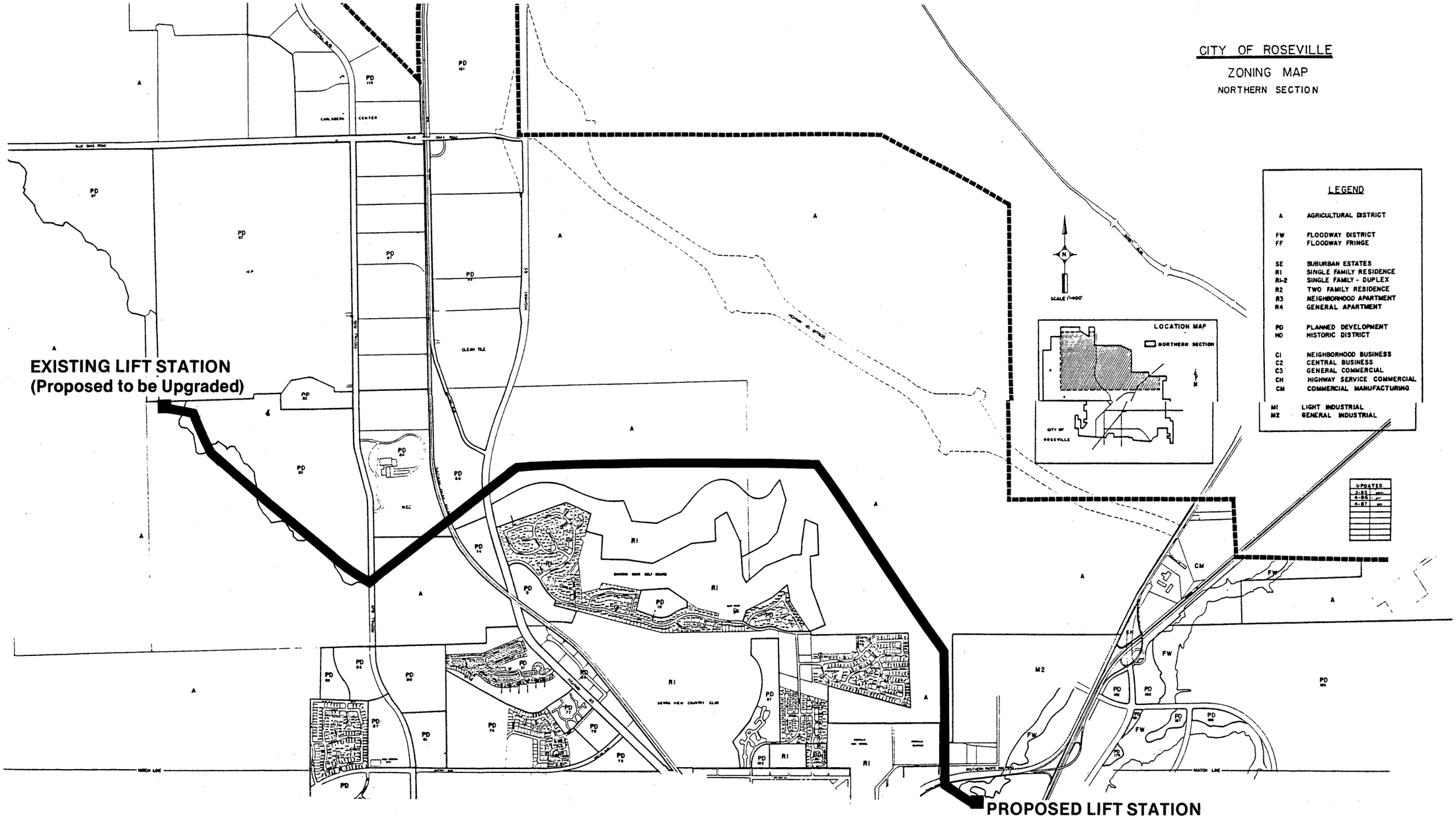
This alternative would involve construction of a new lift station on the east side of the intersection of Miner's Ravine Creek and Interstate 80. From this lift station, a force main would carry the wastewater back to an unnamed tributary of Cirby Creek, with a gravity line down this tributary, along Cirby Creek to its intersection with Dry Creek, and a gravity line parallel to Dry Creek southwesterly to the treatment plant. This alternative is depicted graphically in Figure 4-2 (see page 5).

This alternative would provide wastewater collection service for the Northeast Roseville Specific Plan area and the Cavitt Ranch area only, excluding both the North Central Roseville Specific Plan service area and the SPMUD service area. This would be accomplished by installation of a 33-inch sewer pipe for a capacity of 12 mgd.

This alternative would eliminate impacts to the biotic resources along Dry Creek north and east of its intersection with Cirby Creek. However, impacts from construction

PROPOSED SEWER TRUNK EXTENSION
PLEASANT GROVE CREEK ALTERNATIVE RIGHT-OF-WAY

FIGURE 4-3



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activities would occur to biotic resources along Cirby Creek and its tributary from the lift station near Miner's Ravine Creek and Interstate 80 to the intersection of Cirby and Dry Creeks. These impacts could be mitigated by implementation of similar mitigation measures as listed for the proposed project.

This alternative would have no growth-inducing impacts on the North Central Roseville Specific Plan or the South Placer Municipal Utility District areas. Cumulative impacts to area air quality and traffic levels would therefore be less than for the proposed project.

The existing public utility easement along Dry Creek between its intersections with Miner's Ravine and Cirby Creeks would still have room for construction of one more sewer trunk right-of-way to meet future demand for wastewater collection services in the North Central and/or South Placer service areas.

4.4.4 PLEASANT GROVE CREEK ALTERNATIVE

This alternative involves construction of one new lift station and upgrading of an existing lift station. A new lift station to be constructed at the intersection of Harding Boulevard and Miner's Ravine Creek would pump the wastewater in a force main northwest to an existing lift station on the southern boundary of the Hewlett-Packard property. This existing lift station would be upgraded to handle the additional wastewater flow and would pump the wastewater by force main to the treatment plant, as is done presently with the existing flows. This alternative is depicted graphically in Figure 4-3 (see page 7).

This alternative would provide wastewater collection service to all of the Northeast and North Central Specific Plan areas, as well as providing capacity for future growth in the SPMUD area. This would be accomplished by installation of a 54-inch sewer pipe for an ultimate capacity of 38 mgd.

The habitat of this portion of Pleasant Grove Creek is primarily grassland. Due to the intermittent nature of the creek, riparian habitat types are limited to sedges and forbs in areas where standing water remains. In general, the biotic resources along this right-of-way are less significant than those found along Dry Creek. An existing sewer line approximately parallels Pleasant Grove Creek between Foothill Boulevard and the existing lift station. The creek banks are relatively low and the adjacent terraces are wide, providing easy access for construction of an additional sewer line.

This alternative would eliminate any impacts to the biotic resources along Dry Creek. However, impacts from construction activities would occur to the biotic resources along Pleasant Grove Creek. These impacts would be mitigated by implementation of similar mitigation measures as listed for the proposed project.

Construction costs of the sewer trunk extension would be significantly greater due to the added capital cost of one new and one upgraded lift station. Finally, the wastewater collection system which would result from implementation of this alternative would be significantly more expensive to operate and maintain than the proposed project due to the need for the two lift stations and the force mains.

4.5 IRREVERSIBLE IMPACTS/IRRETRIEVABLE COMMITMENT OF RESOURCES

The project as proposed will not cause any significant irreversible impacts. The only resources which would be irretrievably committed as a result of project implementation would be those construction materials necessary to complete the project.

5 REPORT PREPARATION

EIR AUTHORS

EIP Associates
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San Francisco, CA 94103
(415) 864-2311

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Sacramento, CA 95825
(916) 922-9825

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Project Manager	- Michael Melanson, Environmental Planner
Geology/Soils	- Andrew Leahy, Geologist
Hydrology/Water Quality	- Andrew Leahy, Geologist
Biotic Resources	- Mike Marangio, Biologist
Air Quality/Noise	- Don Ballanti, Environmental Planner
Transportation & Circulation	- Ted Briggs, Environmental Planner
Parks and Recreation	- Ted Briggs, Environmental Planner
Graphics	- Janet Fong, Graphics Supervisor
Word Processing	- Sue Smith
Editing/Production	- Andreas Killen

PERSONS CONTACTED

The following individuals were contacted during the course of EIR preparation.

Jim Barnts, Associate Civil Engineer, The Spink Corporation
Dan Dameron, Planner, City of Roseville Planning Department
Jerry Jackson, Assistant Public Works Director, City of Roseville
Sam Miller, Executive Vice-President, River West Developments
Justin Kennedy, River West Developments
Sandy Crowder, Zookeeper, City of Roseville Parks and Recreation Department
Gerard Walters, Principal, Fehr and Peers Associates
Jean Chaney, Assistant Planner, City of Roseville Planning Department
Ken Bailey, System Analyst, City of Roseville Parks and Recreation Department
Garth Gaylord, Associate Engineer, City of Roseville Engineering Department
Alan Nakatsuka, Assistant Civil Engineer, City of Roseville Engineering Department
Terry Saliger, Roseville Telephone Company

REFERENCES

Dry Creek Sewer Assessment District Alternative Participation Cost Estimate, Morton and Pitalo, Inc., February 1987.

Rocklin-Loomis Municipal Utility District 1986 Sewer Master Plan, Harris and Associates, July 1986.

Northest Roseville Specific Plan Draft Environmental Impact Report, Jones and Stokes Associates, October 1986.

Northeast Roseville Specific Plan, April 1987.

APPENDIX A

NOTICE OF PREPARATION (NOP) and INITIAL STUDY

HCC
JR
SLENDER
DRY CREEK OUTFALL

TO: Responsible Agencies 29 June 1987

FROM: City of Roseville
Public Works Department

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report (DEIR)

The City of Roseville will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location (Exhibits 1 and 2), and the probable environmental effects are contained in the attached materials. A copy of the Initial Study is also attached.

Due to the time mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to:

Michael Melanson
Senior Associate
EIP Associates
601 University Ave.
Suite 150
Sacramento, CA 95825

We will need the name for a contact person in your agency.

Project Title: Northeast Roseville Sewer Trunk Extension

Project ~~Applicant: River~~ West Developments

Date: 6/30/87 Signature: [signature]

Title: Public Works Dir.

Telephone: (916) 781-0330

Reference: California Administrative Code, Title 14, Sections 15035.7, 15054.3, 15066.

Description of the Proposed Project

In April of this year the Roseville City Council approved zoning for the Northeat Roseville Specific Plan Area. That project includes approximately 750 acres of urban development. The current capacity of City sewer lines will accommodate less than the full plan area's development. Therefore, additional trunk sewer capacity will need to be provided to the site.

The proposed project includes an extension of a major sewer outfall from the east side of Interstate 80 southwest parallel to Dry Creek to the Roseville wastewater treatment plant. Additional elements include:

- an outfall northeast 6,000 feet from I-80 parallel to Miner's Ravine Creek to a point 1,000 feet east of the proposed East Roseville Parkway overcrossing of Miner's Ravine Creek (hereafter referred to as the Northeast outfall);

- an outfall beginning at Harding Boulevard and Atlantic Street, tunnelled under the Southern Pacific Rail Road right-of-way, proceeding northerly along a right-of-way immediately east of the Roseville cemetery, approximately 3,500 feet (hereafter referred to as the North Central outfall).

The Proposed Project would provide wastewater collection services for the entire Northeast Roseville Specific Plan Area, including the urban Reserve and Agricultural areas north of Miner's Ravine and the areas south of Miner's Ravine currently zoned for development. It will also provide wastewater collection services to portions of the North Central Specific Plan Area east and west of the future extension of Harding Boulevard.

The preferred right-of-way for the sewer trunk lines is the publicly owned property along the creek banks. In the case of the North Central outfall extension, the preferred right-of-way will be a newly acquired utility easement proposed to run approximately along existing property lines.

SMdn42

Exhibit 1
Project Location Map

Proposed Northeast Roseville Sewer Trunk Extension Project

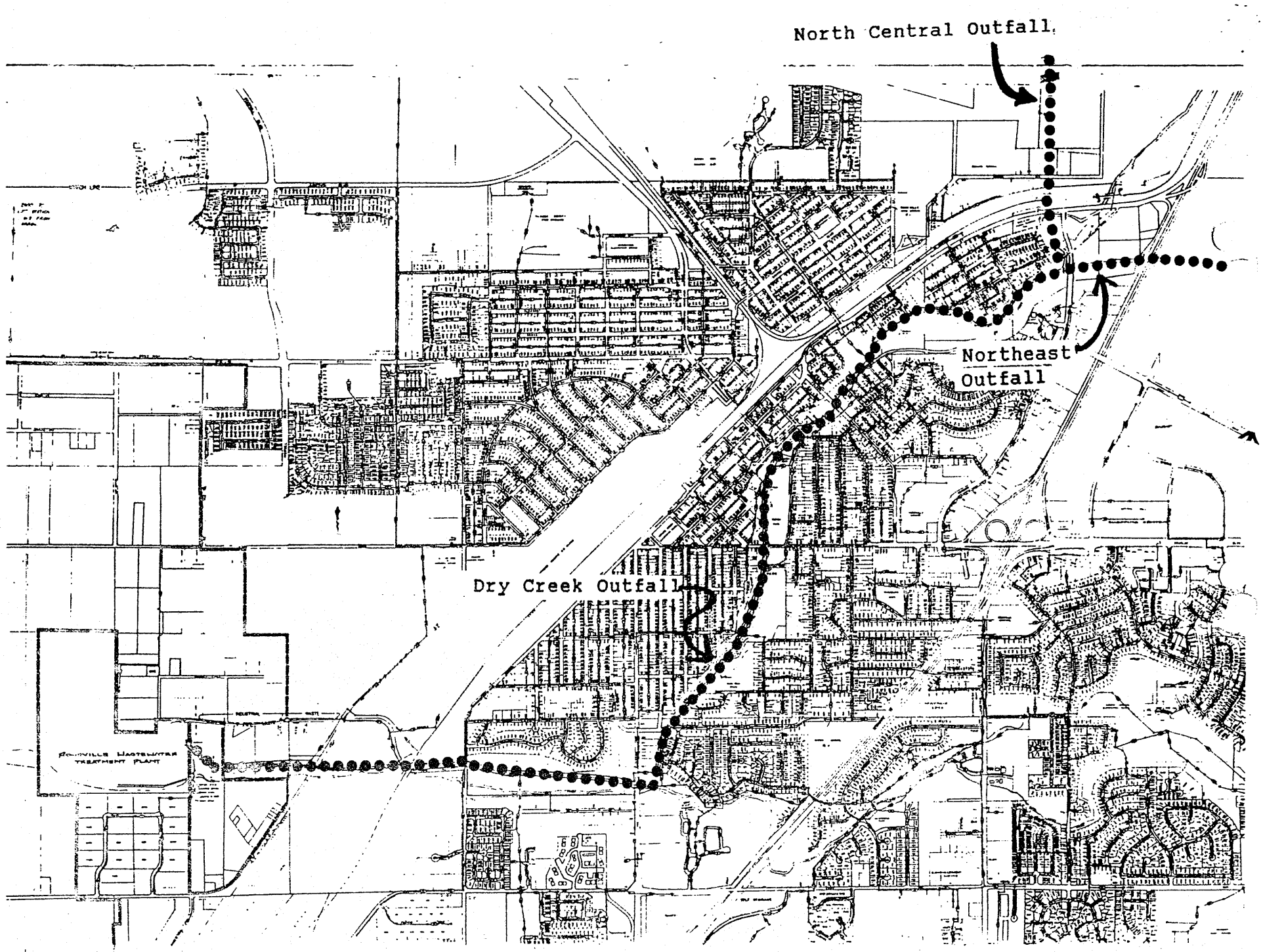
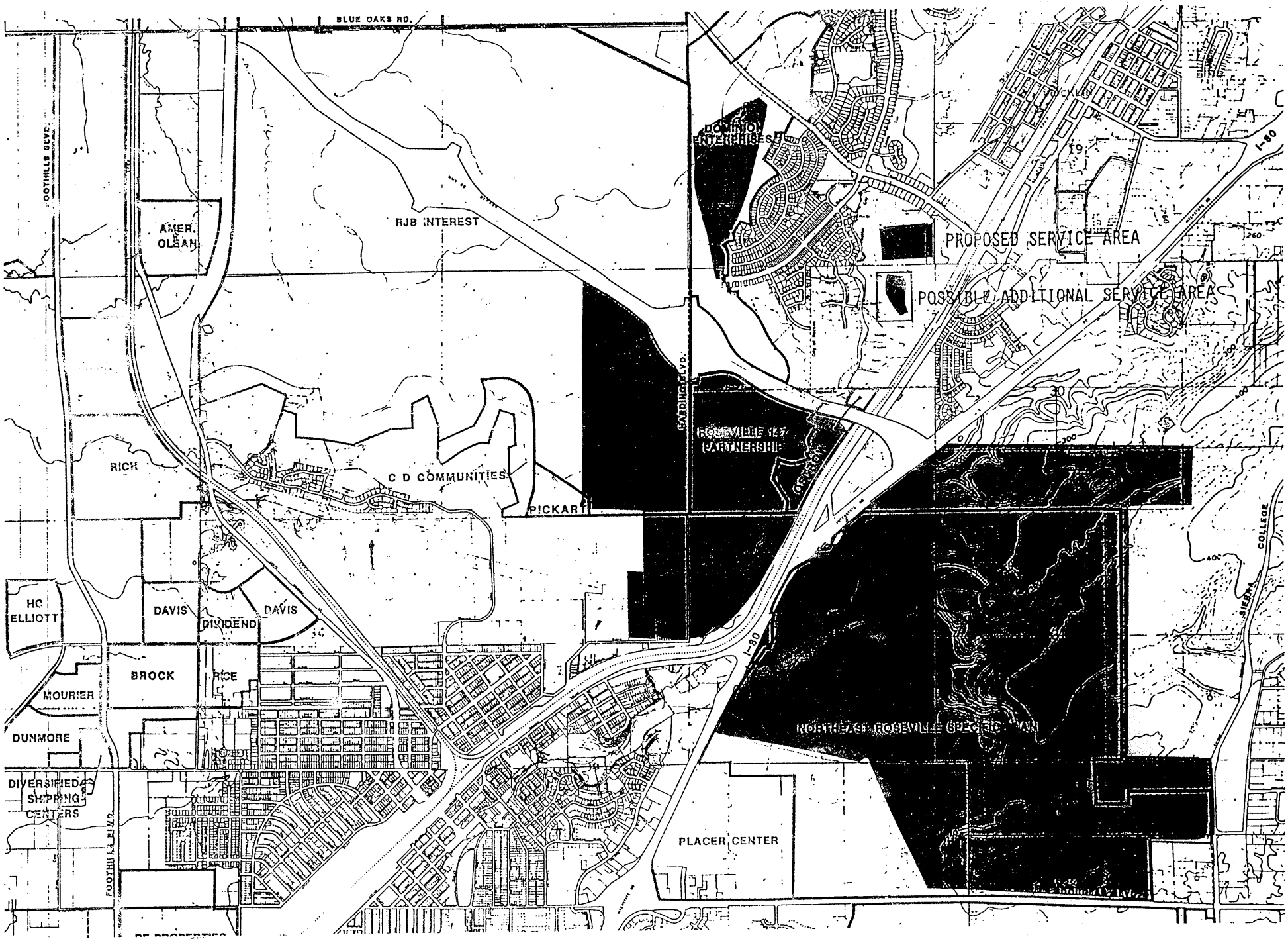


EXHIBIT 2


BLUE OAKS RD.
FOOTHILLS BLVD.
AMER. OLEAN
RJB INTEREST
DOMINION ENTERPRISES
PROPOSED SERVICE AREA
POSSIBLE ADDITIONAL SERVICE AREA
I-80
RANDOM BLVD.
ROSEVILLE 127 PARTNERSHIP
OSBORN
RICH
C D COMMUNITIES
PICKARD
COLLEGE
SIERRA
HC ELLIOTT
DAVIS
DIVIDEND
DAVIS
I-80
BROCK
RICE
MOURIER
DUNMORE
DIVERSIFIED SHOPPING CENTERS
FOOTHILLS BLVD.
NORTHEAST ROSEVILLE SPECIFIC PLAN
PLACER CENTER

Alternatives to the Project

The No-Project Alternative is based on the assumption that there will be no extension of additional sewer trunk service to the Northeast Roseville Specific Plan Area or the North Central Specific Plan Area by the proposed project route.

The Limited Service Area Alternative assumes that a major sewer trunk extension will be provided along the same rights-of-way as described for the Proposed Project. This alternative is designed to provide wastewater collection capacity sufficient to serve only that portion of the Northeast Roseville Specific Plan Area currently zoned for development and that portion of the North Central Specific Plan Area indicated on Exhibit 2.

The Expanded Service Area Alternative would provide a major sewer trunk extension along the same route as the proposed project. In order to provide for future anticipated demand for wastewater collection services in the South Placer Municipal Utility District (SPMUD), this alternative would provide for installation of substantially oversized pipes in those sections of the existing public corridor along the creek banks which are particularly narrow. Due to the current sewer pipe congestion in these areas, there is only room for installation for one more sewer line along the existing corridor. If oversize pipes are not provided in these sections as part of this project, it is probable that easements would have to be purchased from private property owners along these sections at some time in the future in order to provide expanded wastewater collection services to areas served by the SPMUD.

Anticipated Environmental Impacts

Based on the Initial Study (attached) as well as a preliminary review of available existing data by the applicant's consultant, it is anticipated that the proposed project could have impacts in the following topical issue areas:

- o Geology/Soils
- o Hydrology/Water Quality
- o Biotic Resources
- o Transportation
- o Land Use
- o Parks and Recreation
- o Cultural Resources
- o Air Quality/Noise
- o Growth Inducement

It should be noted that impacts associated with many of the issue areas above will be temporary, limited to the effects of the construction activities involved in installing the sewer pipelines.

The EIR will focus on the issues outlined above, plus any other issues which are raised by those agencies and individuals responding to this NOP.

I. Background

1. Name of Proponent River West Developments
2. Address and Phone Number of Proponent 7700 College Town Drive Suite 201 Sacramento CA 95826-2397
3. Date of Checklist Submitted 3 June 1987
4. Agency Requiring Checklist City of Roseville
5. Name of Proposal, if applicable Northeast Roseville Sewer Trunk Extension

II. Environmental Impacts

(Explanations of all "yes" and "maybe" answers are required on attached sheets.)

	Yes	Maybe	No
1. **Earth.** Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?	___	___	X
b. Disruptions, displacements, compaction or overcovering of the soil?	X	___	___
c. Change in topography or ground surface relief features?	___	___	X
d. The destruction, covering or modification of any unique geologic or physical features?	___	___	X
e. Any increase in wind or water erosion of soils, either on or off the site?	___	X	___
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	___	X	___

	Yes	Maybe	No
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	___	___	X
2. Air. Will the proposal result in:			
a. Substantial air emissions or deterioration of ambient air quality?	___	___	X
b. The creation of objectionable odors?	___	___	X
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	___	___	X
3. Water. Will the proposal result in:			
a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	___	___	X
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	___	___	X
c. Alterations to the course or flow of flood waters?	___	___	X
d. Change in the amount of surface water in any water body?	___	___	X
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	___	X	___
f. Alteration of the direction or rate of flow of ground waters?	___	___	X
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	___	___	X
h. Substantial reduction in the amount of water otherwise available for public water supplies?	___	___	X
i. Exposure of people or property to water related hazards such as flooding or tidal waves?	___	___	X

	Yes	Maybe	No
4. **Plant Life.** Will the proposal result in:			
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	___	X	___
b. Reduction of the numbers of any unique, rare or endangered species of plants?	___	X	___
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	___	___	X
d. Reduction in acreage of any agricultural crop?	___	___	X
5. **Animal Life.** Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	___	X	___
b. Reduction of the numbers of any unique, rare or endangered species of animals?	___	X	___
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	___	___	X
d. Deterioration to existing fish or wildlife habitat?	___	X	___
6. **Noise.** Will the proposal result in:			
a. Increases in existing noise levels?	___	X	___
b. Exposure of people to severe noise levels?	___	___	X
7. **Light and Glare.** Will the proposal produce new light or glare?	___	___	X
8. **Land Use.** Will the proposal result in a substantial alteration of the present or planned land use of an area?	___	___	X
9. **Natural Resources.** Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	___	___	X

	Yes	Maybe	No
b. Substantial depletion of any nonrenewable natural resource?	___	___	X
10. Risk of Upset. Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	___	___	X
b. Possible interference with an emergency response plan or an emergency evacuation plan?	___	X	___
11. Population. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	___	X	___
12. Housing. Will the proposal affect existing housing, or create a demand for additional housing?	___	___	X
13. Transportation/Circulation. Will the proposal result in:			
a. Generation of substantial additional vehicular movement?	___	___	X
b. Effects on existing parking facilities, or demand for new parking?	___	___	X
c. Substantial impact upon existing transportation systems?	___	___	X
d. Alterations to present patterns of circulation or movement of people and/or goods?	___	X	___
e. Alterations to waterborne, rail or air traffic?	___	___	X
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	___	X	___
14. Public Services. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	___	X	___
b. Police protection?	___	X	___
c. Schools?	___	___	X

	Yes	Maybe	No
d. Parks or other recreational facilities?	___	X	___
e. Maintenance of public facilities, including roads?	___	X	___
f. Other governmental services?	___	___	X
15. Energy. Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	___	___	X
b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	___	___	X
16. Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
a. Power or natural gas?	___	___	X
b. Communications systems?	___	___	X
c. Water?	___	___	X
d. Sewer or septic tanks?	X	___	___
e. Storm water drainage?	___	___	X
f. Solid waste and disposal?	___	___	___
17. Human Health. Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	___	___	X
b. Exposure of people to potential health hazards?	___	___	X
18. Aesthetics. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	___	___	X
19. Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	___	X	___
20. Cultural Resources.			
a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?	___	X	___

	Yes	Maybe	No
b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	___	___	X
c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	___	___	X
d. Will the proposal restrict existing religious or sacred uses within the potential impact area?	___	___	X
21. Mandatory Findings of Significance.			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X	___	___
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	___	___	X
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	___	X	___
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	___	___	X

III. Discussion of Environmental Evaluation

IV. Determination
(To be completed by the Lead Agency)

On the basis of this ...al evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED. ☐

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☒

6/15/87
Date

Michael A. McCann
Signature

For EIP Associates

(Note: This is only a suggested form. Public agencies are free to devise their own format for initial studies.)

Northeast Roseville Sewer Trunk Extension

Explanations of "Yes" and "Maybe" answers on the Initial Study Environmental Checklist

1b,e,f. Temporary construction impacts associated with trenching and backfill operations during sewer pipe installation.

3e. Potential for increased soil erosion and siltation of Dry Creek during trenching and backfilling operations

4a,b, 5d. Potential impacts to vegetative communities due to construction activities along sewer trunk extension right-of-way, especially riparian habitat (and associated wildlife) along Dry Creek.

5a,b. Potential impacts to wildlife along sewer trunk extension right-of-way, especially in and along Dry Creek.

6a. Anticipated temporary noise level increases from construction equipment used in installation of sewer pipes.

10b. Potential for impacts limited to presence of construction equipment in public rights-of-way.

11. Potential for inducing growth in the Northeast Roseville Specific Plan Area; however, City adoption of the Northeast Roseville Specific Plan entails planned growth for much of the area to be served by this project.

13d,f. Potential for construction equipment to impact traffic flow at some points along sewer trunk extension right-of-way.

14a. Potential for increased fire hazard due to operation of construction equipment near vegetation.

14b. Potential need for additional police patrols to protect construction equipment, as well as construction staging and laydown areas, from vandalism or theft.

14d, 19. Potential impacts to parks and other recreational facilities along the sewer trunk extension right-of-way due to operation of construction equipment during pipe installation.

14e, 16d. Proposed project involves construction and maintenance of approximately 16,000 lineal feet of new sewer trunk lines.

20a. Potential impacts to previously undiscovered cultural resources along sewer trunk extension right-of-way during clearing, grading, and trenching operations.

21a. Potential adverse impacts to environmental quality and fish and wildlife habitats.

21c. Potential for cumulative construction impacts in areas where other construction projects are simultaneously in progress.

Northeast Roseville Sewer Trunk Extension Draft EIR

Notice of Preparation Distribution List

City of Roseville

City Manager	316 Vernon St., Roseville, CA 95678
City Attorney	316 Vernon St., Roseville, CA 95678
City Clerk (Central Files)	316 Vernon St., Roseville, CA 95678
Director of Public Works	316 Vernon St., Roseville, CA 95678
Engineering Division	316 Vernon St., Roseville, CA 95678
Refuse Division	316 Vernon St., Roseville, CA 95678
Water/Sewer Division	316 Vernon St., Roseville, CA 95678
Electric Department	316 Vernon St., Roseville, CA 95678
Director of Parks and Recreation	401 Vernon St., Suite B Roseville, CA 95678
Energy Office	107 Lincoln St. Roseville, CA 95678
Fire Department	401 Oak St., Roseville, CA 95678
Housing Office	107 Lincoln St. Roseville, CA 95678
Police Department	401 Oak St., Roseville, CA 95678
Library (Public Information)	225 Taylor St., Roseville, CA 95678

Other Agencies and Interested Individuals

Pacific Gas & Electric Company	1050 High St., Roseville, CA 95678
Roseville Telephone Co.	211 Lincoln St. Roseville, CA 95678
Postmaster, U.S. Post Office, Roseville	324 Vernon St., Roseville, 95678
City of Rocklin, Planning Department	3980 Rocklin Rd., Rocklin, CA 95677
City of Rocklin, Public Works Department	3980 Rocklin Rd., Rocklin, CA 95677
Town of Loomis, Planning Department	P.O. Box 1327, Loomis, CA 95650

Placer County, Planning Department	11414 B Ave., Auburn, CA 95603
Placer County, Public Works Department	11414 B Ave., Auburn, CA 95603
Placer County, Assessor's Office	145 Fulweiler Ave. Auburn, CA 95603
Placer County, Office of Economic Development	11424 B Ave., Auburn, CA 95603
Placer County, Environmental Health Department	11484 B Ave., Auburn, CA 95603
Placer County, Air Pollution Control District	11582 B Ave., Auburn, CA 95603
Placer County, Agricultural Commissioner	11477 E Ave., Auburn, CA 95603
Sacramento Council of Governments (SACOG)	106 K St., Sacramento, CA 95814
State Office of Planning and Research/ Clearinghouse	1400 10th St. Sacramento, CA 95814
California Air Resources Board	1102 Q St., Sacramento, CA 95814
CALTRANS	1120 N St., Sacramento, CA 95814
California Conservation Department, Division of Mines and Geology	1416 9th St., Sacramento, CA 95814
California Department of Fish and Game	1416 9th St., Sacramento, CA 95814
California Water Quality Control Board	3201 S St., Sacramento, CA 95814
California Department of Housing and Urban Development	777 12th St., Sacramento, CA 95814

U.S. Army, Corps of Engineers	650 Capitol Mall Sacramento, CA 95814
River West Developments, Sam Miller	7700 College Town Dr., Suite 201 Sacramento, CA 95826-2397
U.S. Fish and Wildlife Service	2800 Cottage Way Sacramento, CA 95825
Placer Indian Assn.	891 Indian Rancheria Rd. Auburn, CA 95603
Press Tribune	188 Cirby Way, Roseville, CA 95678
Sacramento Bee, Neighbors Publication	10 Fullerton Ct. Sacramento, CA 95825
Sacramento Audubon Society	555 Audubon Pl. Sacramento, CA 95814
Roseville Chamber of Commerce	700 Vernon St., Roseville, CA 95678
Sierra Club, Legislative Representative	1228 N St., Sacramento, CA 95814
Coker Ewing Real Estate	2150-B Douglas Blvd. Roseville, CA 95678
KCS Development Co.	7919 Folsom Blvd., Suite 150 Sacramento, CA 95826
David Wade Associates	735 Sunrise Ave. Roseville, CA 95661
William Zisk	205 Thomas, Roseville, CA 95678

APPENDIX B

RESPONSES TO NOP

PLACER COUNTY

HEALTH DEPARTMENT
AIR POLLUTION CONTROL DISTRICT

Air Pollution Control Officer
(916) 823-4443

MAILING ADDRESS: 11484 B AVENUE, AUBURN CA 95603
OFFICE ADDRESS: 11582 B AVENUE, AUBURN CA 95603

SERVING CITIES OF • AUBURN • COLFAX • LINCOLN • ROCKLIN • ROSEVILLE

RECEIVED
JUL 30 1987
EIP - SAC'TO

July 28, 1987

Mr. Michael Melanson
Senior Associate
EIP Associates
601 University Avenue, Suite 150
Sacramento, CA 95825

Dear Mr. Melanson:

As per your request, this letter is in response to the proposed Northeast Roseville Sewer Trunk Extension. We have the following comments regarding information to be included in the Draft EIR for this project:

1. The EIR should discuss the existing and projected air quality in the project vicinity due to growth generated by the sewer trunk extension. Currently, the project is located in a "nonattainment" area for ozone.

2. The EIR should discuss short term construction dust impacts as well as planned mitigations.

3. Any open burning of vegetation removed due to construction must be in compliance with Rule 318 of the Placer County Air Pollution Control District Rules and Regulations.

Thank you for the opportunity to comment on this project. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,

Noel A. Bonderson

Noel A. Bonderson
Air Pollution Control Officer

NAB:sm
Enc: Rule 318

2. Require a specific explanation of the cultural practices which require that burning be done immediately.

3. Require the person responsible to specify why the burning was not done prior to October 1.

4. Require the exception to be valid only on permissive burn days.

H. Rice, barley, oat and wheat straw shall be ignited only by stripfiring into-the-wind or by backfiring except under a special permit of the District issued when and where an extreme fire hazard is declared by a public fire protection district or where crops are determined not to lend themselves to these techniques.

RULE 316 RANGE IMPROVEMENT BURNING.

A. **RULES 301** through **314** inclusive, and the following sections of this Rule shall apply to range improvement burning.

B. Brush shall be treated at least six (6) months prior to the burn if economically and technically feasible.

C. Material should be windrowed or piled if technically feasible.

D. If the burn is to be accomplished for improvement of land for wildlife and game habitat the permit applicant shall obtain a written statement from the State Department of Fish and Game, certifying that the burn is desirable and proper.

RULE 317 FOREST MANAGEMENT BURNING.

A. **RULES 301** through **314**, and the following sections of this Rule, with the exception of **RULE 312**, shall apply to forest management burning.

B. Waste material should be windrowed or piled where feasible.

C. Drying time shall be specified by the designated agency.

RULE 318 LAND DEVELOPMENT OPEN BURNING. Pursuant to Section 41802 this Rule authorizes the use of open outdoor fires for the disposal of material grown on property being developed for commercial or residential purposes under the following conditions:

A. **RULE 301** through **RULE 314** except **RULE 307** and the following sections of this Rule shall apply.

B. Woodwaste should be windrowed if economically and technically feasible.

C. The Air Pollution Control Officer or staff shall review all permits prior to the burning.

D. The Air Pollution Control Board of the District finds it more desirable to burn than dispose of by other available means.

E. A minimum drying time of six (6) weeks shall be required for trees, stumps, and large branches greater than six (6) inches in diameter.

F. Woodwaste greater than 12 inches in diameter, with the exception of stumps, shall not be included in the burn.

G. Stumps greater than 12 inches in diameter at the cut shall not be included in the burn unless split at least in half and free of dirt.

RULE 319 RIGHT-OF-WAY CLEARING AND LEVEE, DITCH AND RESERVOIR MAINTENANCE BURNING. **RULE 301** through **RULE 314** except **RULE 307** shall apply to the use of fires for right-of-way clearing by a public entity or for levee, ditch or reservoir maintenance.

RULE 320 OPEN BURNING CONDUCTED BY PUBLIC OFFICERS. Except as otherwise provided in **RULE 321**, nothing in this Regulation shall be construed as limiting the authority granted under other provisions of law to any public fire, agricultural or health officer to set or permit a fire when such a fire is, in the opinion of said officer, necessary for any of the following purposes:

A. The prevention of a fire hazard which cannot be abated by any other means.

B. The instruction of public employees and/or volunteer firemen in the methods of fighting fires.

C. To set or cause to be set backfires necessary to save life or valuable property pursuant to Section 4426 of the Public Resources Code.

D. The instruction of employees in methods of fighting fires on property used for industrial purposes.

E. Disease or pest prevention, where there is an immediate need for and no reasonable alternative exists.

RULE 321 HAZARD REDUCTION BURNING.

A. **RULE 301** through **RULE 314** except **RULE 307** shall apply to hazard reduction burning.

ROSEVILLE TELEPHONE COMPANY
P.O. BOX 969 • ROSEVILLE, CALIFORNIA 95661
TELEPHONE 786-6141 • AREA CODE 916

ROBERT L. DOYLE
PRESIDENT, MANAGER

THOMAS E. DOYLE
SECRETARY

July 22, 1987

E.I.P. Associates
Michael Melanson, Senior Associate
601 University Ave., Suite 150
Sacramento, CA. 95825

Gentlemen:

Re: Northeast Roseville Specific Plan (E.I.R. request)

Telephone/Communication Facilities

Telephone service will be provided to this geographical area by the Roseville Telephone Company in accordance with our tariffs. Public utility easements will be required to serve development in this specific plan. Additional right-of-way may be required for installation of telephone equipment. The above requirements will be identified as development occurs.

Impacts

No unusual problems are anticipated in providing telephone service to this area.

Sincerely,

Terry L. Saliger

Terry L. Saliger
Senior Engineer

TLS/dag

RECEIVED
JUL 24 1987
EIP - SAC'TO

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services
2800 Cottage Way, Rm. E-1803
Sacramento, California 95825

July 24, 1987

Mr. Michael Melanson
Senior Associate
EIP Associates
601 University Avenue, Suite 150
Sacramento, California 95825

Subject: Notice of Preparation of a Draft Environmental Impact Report
Northeast Roseville Sewer Trunk Extension, City of Roseville,
Dry Creek, Placer County, California

Dear Mr. Melanson:

We have reviewed the Notification, dated June 29, 1987, regarding a proposal to construct the Northeast Roseville sewer trunk extension along Dry Creek in the City of Roseville, Placer County, California. These comments have been prepared to assist you in addressing our concerns in the Draft Environmental Impact Report.

The applicant, River West Developments, proposes to extend a major sewer outfall from the east side of Interstate 80 southwest parallel to Dry Creek to the Roseville Wastewater Treatment Plant. Additional elements of the proposed project include: (1) constructing an outfall 6,000 feet northeast of Interstate 80 parallel to Miners Ravine Creek to a point 1,000 feet east of the proposed East Roseville Parkway overcrossing of Miners Ravine Creek (Northeast outfall); (2) constructing an outfall beginning at Harding Boulevard and Atlantic Street, tunnelled under the Southern Pacific Railroad right-of-way, proceeding northerly along a right-of-way immediately east of the Roseville Cemetery approximately 3,500 feet (North Central outfall); and (3) placing gabions at various locations along Dry Creek to protect the sewer trunk from streambank erosion. The preferred right-of-way for the main sewer trunk line and Northeast outfall are the publicly owned property along the creek banks and a utility easement for the North Central outfall extension.

Two sewer lines currently run along Dry Creek, and there is room for the installation of one more sewer line along the existing corridor. We understand that the current capacity of Roseville's sewer lines would not accommodate the complete development of a recently approved zoning change to urban development for 750 acres in the Northeast Roseville Specific Plan Area.

The project area is in the Dry Creek watershed, City of Roseville, Placer County. Riparian habitat containing Fremont cottonwood, box elder, valley oak, Oregon ash, California sycamore, and several species of willows border the creekbed. This habitat supports a great variety of wildlife species. Numerous bird species feed and nest in the extensive canopy, including northern orioles, Nuttall's woodpeckers, plain titmice, black-headed grosbeaks, and several species of warblers. Red-tailed and red-shouldered hawks nest in the larger branches and use the trees as foraging perches. Tree swallows, downy woodpeckers, and white-breasted nuthatches nest in the dead branches and snags, while California quail, song sparrows, and rufous-sided towhees feed and nest in the thick underbrush. Trees overhanging the creek provide perches for belted kingfishers, rough-winged swallows, and great blue herons which feed along the stream course.

This habitat also supports many species of reptiles and mammals including gopher snakes, alligator lizards, western fence lizards, California ground squirrels, raccoons, opossums, and striped skunks. Amphibians, such as western toads and Pacific treefrogs, breed in the creek and live in the bordering uplands. Many other wildlife species from the surrounding grasslands and oak woodlands use this riparian habitat as travel corridors while moving to the creek to drink or moving between habitat types. This corridor function is extremely important in urban areas, such as Roseville, where wildlife lack other suitable movement corridors.

The aquatic habitat in Dry Creek provides spawning and rearing habitat for anadromous fish including fall-run chinook salmon and steelhead trout. The chinook salmon may be a remnant run or strays from the Sacramento River. Salmon migrate into Dry Creek from the Sacramento River and East Natomas Drainage Canal during October and November and spawn in its tributary streams. California Department of Fish and Game records indicate that salmon spawned in Secret Ravine, Miners Ravine, and Antelope Creek. The current size of the spawning run or the number of downstream migrants is unknown, and the size of the run depends on water quality and flows in Dry Creek during migration.

Downstream migration of young salmon occurs in April and May. These young fish must out-migrate before flows in Dry Creek are too low and water temperature becomes lethal. Riparian vegetation shades the creek keeping water temperatures cool, and overhanging banks and pools provide cover for the downstream migration as well as insect drop important as a food source to fish.

Many species of resident fish occur in Dry Creek. These species include bullheads, largemouth bass, green sunfish, and carp. In addition, western pond turtles, bullfrogs, and crayfish are common residents. No threatened and endangered species are known to occur in the area.

Riparian forest habitat in the Central Valley has been reduced by over 98 percent because of channelization, filling, and conversion to agricultural and urban land uses. Anadromous fish habitat in California has been significantly reduced by water divisions, impoundments, channelization projects, and reductions in water quality. The scarce remaining riparian and stream habitat is extremely valuable to the dependent wildlife and fish. Our mitigation goal for these habitats is no net loss of in-kind habitat value.

The Council of Environmental Quality regulations for implementing the National Environmental Quality Act define mitigation to include: (1) avoiding the impact; (2) minimizing the impact; (3) rectifying the impact; (4) reducing or eliminating the impact over time; and (5) compensating for impacts. The Service supports and adopts this definition of mitigation and considers the specific elements to represent the desirable sequence of steps in the mitigation planning process. Accordingly, we maintain that the best way to mitigate for adverse biological impacts is to avoid them entirely.

Construction of the proposed sewer trunk extension and necessary bank protection would eliminate riparian vegetation and streambank habitat with a reduction in associated wildlife populations. Reductions in water quality would occur and, perhaps, the streambed would be altered. Any alterations to the streambed and siltation would cause losses in aquatic habitat for anadromous and resident fish. Water quality would be severely impacted if raw sewage flowed into Dry Creek from a broken sewer line. Flooding is a continual problem in Dry Creek, and raw sewage flows into the creek when the existing sewers back up. Bank erosion occurs along Dry Creek and could cause breaks in the sewer line. These threats to water quality are persistent, even with the proposed bank protection.

The loss of riparian vegetation from sewer line construction may be temporary, but the right-of-way likely would be maintained causing continued impacts to riparian vegetation. The Expanded Service Area Alternative which would provide a major sewer trunk extension along the same route indicates anticipated growth in the area and the need of a larger capacity sewer line in the future.

Construction staging areas and equipment access points would cause further losses in riparian vegetation. Soil compaction would occur making revegetation difficult. Construction would cause siltation and increases in water turbidity, and severe turbidity would kill fish and aquatic invertebrates.

We offer the following recommendations to mitigate impacts to fish and wildlife resources. Impacts to Dry Creek can be avoided or significantly reduced if an alternate route is chosen. An alternative alignment could be to run the main trunk along Vernon Street and Atlantic Street and join North Central outfall, Northeast outfall, and the main trunk near the Roseville Cemetery. Impacts to Miners Ravine could be reduced if the Northeast outfall crossed the ravine at a right angle. This alternative alignment could support the major trunk extension eliminating the need to install another sewer line at some future date.

Impacts to riparian vegetation along Dry Creek could be minimized if vegetation removal is kept to the absolute minimum and a revegetation plan using native riparian vegetation is implemented. The establishment/re-establishment of riparian vegetation along the stream channel would also reduce erosion and slow storm water velocities, thereby reducing the risk of ruptures to the line. Impacts to aquatic habitat could be reduced if the proposed line is constructed along the existing sewer lines farthest from the creek. Construction should be done during the summer when stream flows are lowest and anadromous fish are not migrating up Dry Creek. Bank protection was not discussed in the Notice of Preparation. It could result

in loss of riparian habitat. We recommend that gabions or similar methods be used which reduce losses of existing vegetation and allow revegetation opportunities.

In summary, the Draft Environmental Impact Report should adequately address the issues raised in this letter, The biological resources of Dry Creek, and the anticipated impacts caused by the various alternatives. Mitigation also should be discussed, including alternative sewer alignments. The report should also address the significant growth-inducing impacts affecting fish and wildlife resources in the areas serviced by the sewer trunk lines.

Thank you for this opportunity to provide input to your impact analysis. We look forward to reviewing the Draft Environmental Impact Report . Please contact Barry Garrison (916-978-4613) if you have any questions.

Sincerely yours,

James J. McKevitt
Field Supervisor

cc: Reg. Dir., (AFWE), FWS, Portland, OR
Dir., CDFG, Sacramento, CA
Reg. Mgr., CDFG, Reg. II, Rancho Cordova, CA
SESO, Sacramento, CA
EPA, San Francisco, CA
NMFS, Santa Rosa, CA
Applicant

DEPARTMENT OF TRANSPORTATION
DISTRICT 3
P.O. BOX 911, MARYSVILLE 95901
Telephone (916) 741-4498

August 3, 1987

03-Pla-80
P. M. 2.8
Northeast
Roseville
Sewer Extension
SCH 87070608

Mr. Michael Melanson
City of Roseville
Planning Department
316 Vernon Street
Roseville, CA 95678

Dear Mr. Melanson:

Thank you for the opportunity to review a notice of preparation of a draft EIR for the expansion of sewer facilities in Northeast Roseville.

The proposed outfall extension crosses Interstate 80 near Dry Creek. An encroachment permit will be required from Caltrans for all work within the State right of way. The draft EIR should identify traffic disruptions. Specific mitigation measures will be determined during the encroachment permit application process.

If you have any questions, please contact Mrs. Jeannie Baker, telephone (916) 741-4498.

Sincerely,

Brian J. Smith

Brian J. Smith
Chief, Environmental Branch

cc: Keith Lee, State Clearinghouse

STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102

(415)557-9884
T. S. Joe

August 3, 1987

File No.: 183-31/EIR

Michael Melanson
City of Roseville
316 Vernon Street
Roseville, CA 95678

Dear Mr. Melanson:

This is in response to the City of Roseville's N.O.P. of a draft Environmental Impact Report for the Northeast Roseville Sewer Trunk Extension, SCH #87070608.

The staff has reviewed this matter and find that, while no authority is required from the Commission, Commission General Orders 26-D and 118 must be adhered to when working near the railroad tracks. We would also suggest you contact the railroad for any requirement which they may have prior to doing any work within their right-of-way.

Very truly yours,

Robert W. Stich

ROBERT W. STICH, Supervisor
Rail/Transit Projects Section
Rail/Transit Planning & Policy Branch
Transportation Division

cc: Keith Lee
Office of Planning & Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

Gordon Snow
The Resources Agency

State of California

Memorandum

To : 1. A-38
Gordon F. Snow
Assistant Secretary for Resources
The Resources Agency
✓2. Michael Melanson
City of Roseville
316 Vernon Street
Roseville, CA 95678

From : **THE RECLAMATION BOARD**
Department of Water Resources

The Resources Agency

Date : JUL 27 1987

File No.:

Subject: City of Roseville's NOP for the Northeast Roseville Sewer Trunk Extension (SCH 87070608)

Staff for The Reclamation Board has reviewed the City of Roseville's Notice of Preparation for the Northeast Sewer Trunk Extension and has the following comments.

The proposed project is located within the Dry Creek Designated Floodway and is under the jurisdiction of The Reclamation Board. Before the start of any work, the project proponent will be required to file an application for a permit from the Board.

For more information, the project proponent should contact Mr. Edward C. Greiner, Encroachment Control Section, 1416 Ninth Street, Room 455-7, Sacramento, California, 95814 or telephone (916) 324-3889.

Thank you for the opportunity to comment.

RAYMOND E. BARSCH
General Manager

Attachment

RECEIVED
AUG 10 1987
EIP - SAC'TO

RECEIVED
JUL 03 1987
CITY CLERK
DEPARTMENT
Roseville, Calif.

DEPARTMENT OF FISH AND GAME
REGION 2
1701 NIMBUS ROAD, SUITE A
RANCHO CORDOVA, CALIFORNIA 95670
(916) 355-7020

JUL 31 1987

Mr. Michael Melanson
Senior Associate
EIP Associates
601 University Avenue, Suite 150
Sacramento, CA 95825

Dear Mr. Melanson:

The Department of Fish and Game has reviewed the Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the Northeast Roseville Sewer Trunk Extension. The project would require construction of about 16,000 lineal feet of new sewer line principally located along the creek banks of Dry Creek. The project is located in the City of Roseville, Placer County.

Due to the potential for significant adverse impacts to both the stream fishery and wildlife resources associated with the riparian vegetation of Dry Creek, or any other creek potentially impacted by this project, the Department recommends that the DEIR address and mitigate the following issues:

1. Provide large scale contour maps clearly depicting the sewer line location. These maps must include delineation of the 100 year flood line where the project impacts the area's creeks.

2. Provide map overlays clearly identifying riparian vegetation.

3. An accurate quantification, including length, width, and area of project impacts within the 100 year flood zone.

4. Erosion and sedimentation control measures both during and after construction.

5. Reclamation measures designed to mitigate impacts to riparian vegetation. We recommend that only native plants be used for revegetation.

6. The time of year construction activities will take place within the creek areas.

7. An analysis of the fishery resource and potential project impacts.

8. Provide map overlays clearly identifying, if applicable, locations of anadromous spawning areas within the project area.

9. An analysis of a project alternative to construct outside of the 100 year flood plain.

Thank you for the opportunity to review this project. If we can be of further assistance, please contact Jerry Mensch, Environmental Services Supervisor, telephone (916) 355-7030.

Sincerely,

James D. Messersmith
Regional Manager

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT CORPS OF ENGINEERS
650 CAPITOL MALL
SACRAMENTO, CALIFORNIA 95814-4794

REPLY TO
ATTENTION OF

August 4, 1987

Sacramento Basin Branch

Mr. Michael Melanson
Senior Associate
EIP Associates
601 University Avenue
Suite 150
Sacramento, California 95825

Dear Mr. Melanson:

We have reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report on the Northeast Roseville Sewer Trunk Extension located adjacent to Dry Creek and proposed by River West Developments. We have the comment:

The alignment of the proposed sewer trunk extension is similar to the alignment of a potential Corps of Engineers flood control project. To avoid relocating the proposed sewer trunk after it has been constructed, we suggest that the developer maintain close coordination with the Corps as the project progresses. For additional information you may contact Mark Schoening at (916) 551-1866.

The proposed work may require a Department of the Army Permit under Section 404 of the Clean Water Act. Contact Mr. Art Champ at (916) 551-2275 for further information.

Thank you for the opportunity to provide review comments on your document.

Sincerely,

for Walter Yep
Chief, Planning Division