

FEASIBILITY ANALYSIS REPORT

FOR

PROPOSED WEST ROSEVILLE SPECIFIC PLAN AND CITY/COUNTY MOU AREA

February 2002

Prepared by: City of Roseville

TABLE OF CONTENTS

SECTION PAGE #

Executive Summary

- I. Background and Purpose of Feasibility Analysis
- II. Key Conclusions for:
 - 1. Solid Waste
 - 2. Traffic
 - 3. Fiscal and Funding Capacity
 - 4. Wastewater
 - 5. Water
 - 6. Electric

Section 1: Introduction

- I. Study Area Boundaries
- II. Land Use & Absorption Projections
- III. Guiding Principles & General Plan Policies

Section 2: Feasibility Analysis

- I. Summary Format
- II. Solid Waste
- III. Traffic
- IV. Fiscal & Funding Capacity
- V. Wastewater
- VI. Water
- VII. Electric

Section 3: Glossary of Terms

Volume II Appendices

- A. Solid Waste Technical Study dated November 15, 2001
- B. Traffic Technical Study dated September 11, 2002
- C. Fiscal and Funding Capacity Technical Studies dated November 9, 2001
- D. Wastewater Technical Study Dated December 4, 2001
- E. Water Technical Study dated January 2002
- F. Electric Technical Study dated December 13, 2001
- G 2020 Development Projections for WRSP & MOU dated November 9,2001

FEASIBILITY ANALYSIS FOR WEST ROSEVILLE SPECIFIC PLAN AND MOU AREA

EXECUTIVE SUMMARY

I Background and Purpose of Feasibility Analysis

In May 2001, the City Council directed staff to begin a process to evaluate a mixed-use development proposal west of the City of Roseville. As proposed, the development includes a 3,100-acre site to the west of Fiddyment Road, near the Pleasant Grove Wastewater Treatment Plant. The area is being considered for future residential, commercial and industrial development and annexation into the City of Roseville. It is known as the West Roseville Specific Plan (WRSP). As the proposed development is not located within the City of Roseville, it is also not currently anticipated as part of the City's existing General Plan.

Because it is not contemplated as part of the City's General Plan, the City is approaching the evaluation of this development proposal differently than we have for the City's other existing eight specific plans. The first step in the evaluation was the City Council's approval in June 2001 of thirteen Guiding Principles (see Section 1.III). These Guiding Principles, together with applicable General Plan policies, are to be applied to any development proposed west of the City to establish minimum standards that a future annexation and associated development would have to meet. The next step in the evaluation is the preparation of a number of technical studies that analyze the opportunities and constraints of development in this area, especially as they relate to traffic, water, wastewater, solid waste, electricity, and fiscal impacts. Collectively, these technical studies are called the Feasibility Analysis Report.

As you read through the Executive Summary you will note that the various studies analyze both the proposed WRSP area and a larger area referred to as the "MOU Area". This area includes approximately 5,200 acres and extends approximately 2 miles immediately west of Roseville (see Figure 1). The MOU (which stands for Memorandum of Understanding) is an agreement, which was established by the City and Placer County to cover an area where urban development would likely be proposed in the future. The purpose of the MOU is to promote interagency communication and foster cooperative land use planning between the City and Placer County. The MOU establishes both procedures for review of any development proposal, as well as standards for mitigating development related impacts. Because the proposed WRSP occupies slightly greater than half of the MOU Area and because there is a potential for future development within the balance of the MOU Area, the Feasibility Analysis examined development constraints and opportunities for both areas.

The information and conclusions drawn from the Feasibility Analysis will be used by the City Council to provide direction for evaluation and environmental review of the proposed West Roseville Specific Plan.

The **Executive Summary** is a condensed version of the information provided in the full report. It is intended for use as a quick overview of the information and

conclusions for each study as well as those items requiring further consideration by the City Council. The items requiring further consideration are identified as "Action" items for each of the studies.

Figure 1 Roseville/Placer County MOU

II Key Conclusions:

1. Solid Waste

Based on discussions with the Placer County Solid Waste Management Authority and information discussed in Section 2.II. of this report, there are no capacity constraints at the landfill that would limit development in the proposed West Roseville Specific Plan or the MOU Area.

• Action: No action is required.

2 Traffic

There are two Guiding Principles that were adopted by the City Council that pertain to traffic (see Section 1.III. *Guiding Principles*). The first Guiding Principle references the participation in regional traffic solutions (e.g. Placer Parkway), and the second Guiding Principle identified that development shall maintain the integrity of existing neighborhoods (i.e. level of service policies).

Placer Parkway

The Project Study Report (PSR) adopted by the Placer County Transportation Planning Agency (PCTPA) shows a conceptual "preferred alignment" through the northern portion of the West Roseville Specific Plan (WRSP) area. This alignment presents an issue because the project as currently proposed by the WRSP Landowners does not show the preferred alignment. The WRSP Landowners have expressed interest in working with the PCTPA to move the alignment to the north of their project or to modify the project so that the project would not conflict with the ultimate right of way.

Level of Service

The WRSP was analyzed under several different transportation assumptions/alternatives (such as with an extension of Watt Avenue, without Watt Avenue, and with the proposed Placer Parkway) to identify traffic impacts within the City and for compliance with the City's Level of Service (LOS) policy. The analysis identified project impacts resulting in potential LOS issues at up a number of intersections. The actual number and location of these impacts vary depending on the land use and roadway assumptions used in each analysis (e.g. with/without Watt Ave. extension, etc.). Feasible improvements have been identified at seven of these intersections that would mitigate or reduce the additional traffic impacts and maintain the level of service standard. Other intersections could be mitigated through Council action under the existing General Plan Policy that allows LOS "D" for infill intersections with the Council's approval. However, there remain intersections under each of the development scenarios (depending on the scenario), which would not conform to the City's LOS policy. Based on the three scenarios the specific intersections not meeting the City's LOS policy would include the following:

- Year 2015 with WRSP without a Watt Avenue extension:- Riverside/Douglas (LOS E), Foothills/Junction (LOS D), and Woodcreek Oaks/Pleasant Grove (LOS D).
- Year 2015 with WRSP and with a Watt Avenue extension: Foothills/Junction (LOS D), and Foothills/Pleasant Grove (LOS D).
- Year 2015 with entire MOU area with Placer Parkway: Sunrise/Cirby (LOS F), and Foothills/Junction (LOS D).

Traffic impacts associated with the development of the WRSP and the entire MOU area would result in intersections that do not meet the current level of service policy.

The City will continue to work with the WRSP Landowners to identify solutions to address intersections that do not meet the level of service policy to the extent

possible. Options to be explored include potential modification of the project (a change in the land use mix, a reduction in the number of units etc.) to eliminate traffic impacts. Until updated information is available regarding the effects of land use adjustments on impacted intersections, the following is recommended:

• Action: Staff recommends the Council reaffirm the Guiding Principles to maintain the integrity of existing neighborhoods by meeting the City's adopted level of service policy; and aid in regional traffic solutions and in right of way preservation by not precluding a potential alignment.

3 Fiscal and Funding Capacity

Fiscal

The fiscal impact study analyzes the effect of a proposed project on the City's ability to fund services such as police, fire and parks. Such services are funded through the City's General Fund. By using the City's fiscal model and inserting assumptions for a defined project, it can be estimated whether a project would have a potential to result in a financial burden to the City. For the purposes of this Feasibility Analysis, land use assumptions were made to determine the number of residential units and the size of potential commercial and industrial uses that could occur within the WRSP and MOU area based on information provided by the WRSP Landowners. With the land use assumptions, the fiscal impact model is able to project costs and revenues associated with the project.

A summary of the specific conclusions for the WRSP and the MOU Area Fiscal Impact Analysis are provided below.

West Plan Study Area

Muni Financial, the City's consultant operating the City's fiscal model, identifies the fiscal model as having a 10%+/- margin of error, as a result, net revenue within 10%+/- of total costs is interpreted as "fiscally neutral". Although under the parameters of the Fiscal Model, the Fiscal Impact Analyses prepared for the Feasibility Analysis identifies the WRSP and Memorandum Of Understanding (MOU) areas as fiscally neutral, it is the City's guiding principal that any new development have a fiscally positive or neutral impact on the City's General Fund. notwithstanding the Fiscal Model's margin of error, any negative balance must be made up in order for the project to be considered fiscally neutral. This initial Fiscal Impact Analysis identified the WRSP as generating a net revenue loss to the City's As a result, this preliminary analysis identified the WRSP as General Fund. presenting some fiscal risks to the City of Roseville. The initial Fiscal Impact Analysis projects that at 2020 the proposed WRSP will generate a net revenue loss to the City's General Fund of \$591,000.00 annually, 4.16% below total costs. The City does not consider a projected \$591,000,00 annual revenue loss to the General Fund as minor and will work with the WRSP Landowners to refine the WRSP so revenues and the cost of service balance. As an example, one approach could be the establishment of a WRSP services district to assume costs typically supported by the City's General Fund such as street maintenance, park maintenance, etc.

On a side note, there is a potential that the City could loose a court appeal, which would result in the loss of the City's Utility Users Tax (UUT). With the loss of the UUT, service levels would be reduced citywide. This would also be true for any annexation area. Loss of the UUT regardless of any future growth would reduce the ability of the City to fund services throughout the City.

MOU Study Area

The initial Fiscal Impact Analysis prepared for the MOU area projects that at 2020 the MOU area will generate a net revenue loss to the City's General Fund of \$885,545.00 annually, 4.65% below total costs. As with the conclusion drawn for the WRSP, the City does not consider an \$885,545.00 annual revenue loss to the

General Fund as minor.

Action: Staff recommends that the Council provide direction reaffirming the
adopted Guiding Principle that any new development project have a fiscally
positive or neutral impact on the City's General Fund and that, notwithstanding
the Fiscal Model's margin of error, any negative balance must be made up in
order for the project to be considered for approval.

Funding Capacity

Funding Capacity is a financial model used to estimate a project's ability to fund construction of infrastructure and facilities (e.g. fire station, electric substation, water and sewer main extensions, major roadway improvements such as Blue Oaks Boulevard and Watt Avenue) needed to serve the project area. It is too early in the process to accurately predict the full infrastructure needs and costs. As more information becomes available regarding the project and infrastructure needs, the City will analyze this issue and will prepare a funding capacity analysis for both the WRSP and MOU area.

Both Westpark Associates and Signature Properties have stated that they are committed to participating in the funding of infrastructure for the WRSP, and that any potential funding shortfalls would be made up by a combination of private financing, fee programs, state funding (if available), and public bond financing to provide the monies necessary to construct the infrastructure for the WRSP.¹

Action: City staff recommends that the Council reaffirm that the project will not
have a negative effect on the existing neighborhoods in Roseville by burdening
existing residents and businesses with the cost of development or inadequate
phasing of infrastructure.

Properties.

¹ Letter to Nela Luken and John Sprague dated January 23, 2002 from John Murray Westpark Associates and Letter to John Sprague dated January 14, 2002 to John Sprague from John Tallman Signature

4 Wastewater

The City of Roseville provides regional wastewater services to areas within and outside of the City boundary as defined by the Roseville Wastewater Treatment Service Area. Wastewater is conveyed to the Dry Creek Wastewater Treatment Plant (DCWWTP) located on Booth Road and Pleasant Grove Wastewater Treatment Plant (PGWWTP) located on Phillip Road through a series of gravity pipes, pump stations and sewer force mains.

As a regional facility, the analysis not only evaluated the proposed WRSP and MOU Area, but also included potential urban growth areas inside and out of the regional service area and their associated impacts. The analysis focuses on the increase in wastewater flows above those identified in the 1996 Roseville Regional Wastewater Treatment Service Area Master Plan (Master Plan). The potential urban growth areas analyzed, include:

- Sunset Ranchos
- Sunset Industrial Area (outside Master Plan area)
- WRSP (note: approximately 997 acres already included in the Master Plan)
- MOU Area
- o Placer County Sewer Maintenance District (SMD) 3

The resulting increase in flow from all of these potential growth areas beyond the flow analyzed in the Master Plan totaled 5.2 million gallons per day (MGD), average dry weather flow. The WRSP alone would add 1.9 MGD and the MOU Area are projected to add 2.4 MGD. Other urban growth areas analyzed totaled 0.9 MGD.

Conclusions:

To optimize gravity flow of the system and potential expansion options at DCWWTP and PGWWTP, the following system modifications would need to be incorporated:

- Minimize pumping by directing the flow as much as possible by gravity to the treatment plants.
- Plan for expansion of the PGWWTP to 25.3 MGD, 1.3 MGD beyond current site limitations and 4.3 MGD beyond the capacity analyzed in the Master Plan EIR.
- Plan for expansion of the DCWWTP to 25.9 MGD, 0.9 MGD beyond the capacity analyzed in the Master Plan EIR and well within the potential expansion capacity of 54 MGD.
- Expansions will require new or amended National Pollution Discharge Elimination System (NPDES) discharge permits and appropriate California Environmental Quality Act (CEQA) actions.
- Additional land, approximately 20 acres, and buffer to accommodate expanding PGWWTP beyond its existing site, will need to be dedicated or acquired.

 Action: City staff recommends that the Council reaffirm the Guiding Principles that any development proposal west of Roseville shall consider the development potential within the entire MOU Transition Area in the design and sizing of infrastructure improvements; and that any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements and services at no cost to existing residents (including increased utility rates). The proposal shall not burden/increase the cost, or diminish the supply and reliability of services.

5 Water

Retail Water Service – The City of Roseville is responsible for the development, treatment and conveyance of drinking water supplies to areas within the City. If annexed, the WRSP and MOU Study Areas will become part of the City's retail service area. Based on preliminary analysis the City has determined that there are constraints to water that would be available to serve the WRSP and MOU area.

Summary of Studies

In order to determine water supply options, recent studies have looked at alternative water supplies. These studies evaluated:

- Whether the City's current water demands can be lowered based on more current water use data.
- San Juan Water District's water demands in Placer County to determine the feasibility of transferring excess Middle Fork Project (MFP) contract water to the City for service to the WRSP and MOU Study Areas.
- Increased reliability of surface water entitlements through a regional diversion and water treatment plant project off the Sacramento River. This assumes that 7,000 acre feet (AF) a year of the City's American River contract water can be transferred to the Sacramento River.
- Aggressive use of recycled water by extending service to front and backyard irrigation areas of residential lots within the WRSP and MOU Study Areas.
- Groundwater supplies used as part of an aquifer storage and recovery (ASR) program to offset surface water reductions in dry years.
- Additional studies were completed to evaluate impacts to the City's existing water distribution system from conveying treated water for the WRSP and MOU Study Areas from the following three source locations:
 - 1) from the east through the City's existing water treatment plant,
 - 2) from the west through a regional treatment plant and pipeline from the Sacramento River, and
 - 3) from groundwater supplies introduced into the system.

Summary of Findings

- Based on revised demand projections and land use information, demand estimates could be reduced by 20 percent. The demand analysis indicates that consumers are currently using less water then was originally projected from studies completed in 1993. This may be attributed to conservation and newer home construction, which includes more efficient low flow devices. (Significant Policy Decision)
- An aggressive wastewater recycling program proposing residential outdoor usage would reduce potable demands by up to 50 percent inside the MOU

areas. (Policy Decision - Level of use)

- Only small amounts of excess surface water supplies are available from San Juan Water District's existing Placer County Water Agency MFP contract.
- A diversion from the Sacramento River of 7,000 AF/year will increase the City's availability of dry-year surface water supplies. This could be accomplished through transferring American River contract supplies to the Sacramento River.
- Injecting surface water into the aquifer during wet periods can be used to offset groundwater extractions that occur in dry periods due to reductions in surface water taken from the American and/or Sacramento River. (Policy Decision – Support Usage of Aquifer Storage and Recover Program)
- The distribution system evaluation found that little to no system improvements are required to deliver increased water supplies from the three water treatment locations to meet increased water demands resulting from the addition of the WRSP and MOU Areas.
- Additional treatment plant capacity will be needed for the Sacramento River supply. The existing City treatment plant, located on Barton Road, would be able to handle projected demands assuming increased recycled water usage and the addition of a treatment plant for the Sacramento River supply.

The tables on the following pages summarize the four supply scenarios.

TABLE 1.5-1

Water Supply - WRSP Area²

| Existing Water Supply Contracts | W | ater Forum Agreement | | |
|---|---------------|----------------------|-------|--------|
| USBR | 30,000 | Wet Year | | 55,700 |
| PCWA | 32,000 | | | |
| <u>SJWD</u> | <u>800</u> | Dry Year | | 39,800 |
| Total: | 62,800 | Ground Water | 7,300 | |
| | | Recycled Water | 3,000 | |
| Projected Water Demands (Existin | ng City) | Conservation | 5,600 | |
| Spink '93 | 58,900 | Dry Year Offsets | | 15,900 |
| <u>TM#1 '02</u> | <u>47,700</u> | Dry Year Total: | | 55,700 |
| Paper Water: | 11,200 | | | |

Projected Water Demands (MOU Areas) based on TM#1

 West Plan
 6,800

 Remaining MOU
 0

 Total:
 6,800

City and West Plan 54,500

Projected Shortages with WRSP Area

<u>Wet Years</u> <u>Dry Years</u> -1,200 4,400

Potential West Plan Water Supply Options

Comparative Values:

| Pote | ntial west Plan water Supply Options | | |
|------|--------------------------------------|------------|------------|
| (1) | Normal Water Recycling | <u>Wet</u> | <u>Dry</u> |
| | City and West Plan Demands | 54,500 | 54,500 |
| | Conservation | 0 | 5,047 |
| | Sacramento River Supply | 7,000 | 3,500 |
| | Groundwater Backup (ASR) | -12,200 | 2,100 |
| | Recycled Water Use - Normal | 3,994 | 3,994 |
| | | 55,706 | 39,859 |
| | Comparative Values: | 55,700 | 39,800 |
| | | | |
| (2) | Aggressive Water Recycling | <u>Wet</u> | <u>Dry</u> |
| | City and West Plan Demands | 54,500 | 54,500 |
| | Conservation | 0 | 4,766 |
| | Sacramento River Supply | 0 | 0 |
| | Groundwater Backup (ASR) | -8,045 | 5,980 |
| | Recycled Water Use - Aggressive | 6,810 | 6,810 |
| | | 55,735 | 36,944 |

15

55,700

39,800

 $^{^{2}% =1.01}$ The water units are expressed in acre feet per year (AF/year).

Table 1.5-2

Water Supply - WRSP and MOU Areas³

| Existing Water Supply Contracts | | Water Forum Agreem | ent | | |
|--|---------------|--------------------|------------------|-------|--------|
| USBR | 30,000 | Wet Year | | | 55,700 |
| PCWA | 32,000 | | | | |
| <u>SJWD</u> | <u>800</u> | Dry Year | | | 39,800 |
| Total: | 62,800 | | Ground Water | 7,300 | |
| | | | Recycled Water | 3,000 | |
| Projected Water Demands (Existir | ng City) | | Conservation | 5,600 | |
| Spink '93 | 58,900 | | Dry Year Offsets | | 15,900 |
| <u>TM#1 '02</u> | <u>47,700</u> | Dry Year Total: | | | 55,700 |
| Paper Water | 11 200 | | | | |

Projected Water Demands (MOU Areas) based on TM#1

 West Plan
 6,800

 Remaining MOU
 4,950

 Total:
 11,750

City and MOU 59,450

Projected Shortages with MOU Areas

 Wet Years
 Dry Years

 3,750
 9,350

Potential MOU Water Supply Options

| (1) | Normal Water Recycling | <u>Wet</u> | <u>Dry</u> |
|-----|---------------------------------|------------|------------|
| | City and MOU Demands | 59,450 | 59,450 |
| | Conservation | 0 | 5,000 |
| | Sacramento River Supply | 7,000 | 3,500 |
| | Groundwater Backup (ASR) | -7,144 | 9,480 |
| | Recycled Water Use - Normal | 4,671 | 4,671 |
| | | 54,923 | 36,799 |
| | Comparative Values: | 55,700 | 39,800 |
| | | | |
| (2) | Aggressive Water Recycling | Wet | <u>Dry</u> |
| | City and MOU Demands | 59,450 | 59,450 |
| | Conservation | 0 | 5,000 |
| | Sacramento River Supply | 7,000 | 3,500 |
| | Groundwater Backup (ASR) | -11,914 | 5,188 |
| | Recycled Water Use - Aggressive | 9,441 | 9,441 |
| | | 54,923 | 36,321 |
| | Comparative Values: | 55,700 | 39,800 |

³ The water units are expressed in acre feet per year (AF/year).

16

II. Consistency with Guiding Principles

There are two guiding principles which apply to water supply in the WRSP and MOU Study Areas which are:

"Any development proposal west of Roseville shall secure and provide a new source and supply of surface water and should include reduced water demand through the use of recycled water and other off-sets."

"Any development proposal west of Roseville shall consider development potential within the entire MOU Transition area in the design and sizing of infrastructure improvements."

Secure and Provide a New Source and Supply of Surface Water -

West Plan Study Area

The WRSP Area has three water supply options available to increase the reliability and/or quantity of existing surface water entitlements: 1) implement an aquifer storage and recovery program, 2) participate in the construction of a Sacramento River diversion and water treatment plant, and 3) adopt development conditions requiring mandatory use of recycled water for all commercial and residential outdoor irrigation. One or more of the options could be required depending on the level of water demand being evaluated. Implementation of the options are assumed to be additive and occur in the order they are given.

MOU Study Area

The addition of the MOU Study Area will have the same three water supply options as the WRSP Area.

Consider Development Potential within the Entire MOU Transition Area –

Water related technical studies completed in support of this document have fully investigated the combined impact of the WRSP and MOU Study Areas.

Note: See Appendix E, Volume II of the Feasibility Analysis Report regarding the water technical memorandums for a more detailed explanation on demand projections, water supply options and facilities evaluation.

III. Conclusions:

Demand Reductions

By re-evaluating demand projections, a substantial amount of water appears to be available. This "paper water" is based on reducing the projected demands identified in previous studies (1993). The information was compiled by using one year of metered use data from newer utility customers.

Dedication of the "paper water" to new growth areas without bolstering supply reliability could put existing customers at risk during extended drought periods.

Issue 1

The policy decision that faces the City Council is how much, if any, of the "paper water" would be made available to the WRSP and or the MOU areas.

Recycled Water Usage

During the development of the various water supply alternatives, the use of recycled water at varying levels was proposed. Expanded use of recycled water would offset the need for additional potable water supplies. Some alternatives suggest an aggressive use of recycled water, which means extending the use of this water to residential customers for outside landscape use. Residential uses would need to be supplied with a dual set of piping: potable for indoor use, and reclaimed for outdoor use. The use of recycled water for residential use would require obtaining concurrence from the Regional Water Quality Control Board and Department of Health Services.

Issue 2

Does the Council want to expand the use of recycled water to residential customers in the MOU areas?

Aquifer Storage and Recovery

To meet existing City demands during the drier years, the water supply will need to be augmented by groundwater. Expanding the groundwater program to increase the reliability of the water supply for the MOU areas, a more comprehensive conjunctive use program is needed. For Roseville, this means the use of Aquifer Storage and Recovery (ASR). ASR utilizes groundwater wells to both put water into the underlying aquifer and take water out using the same facility. It serves as an underground reservoir or storage facility until needed during dry periods.

For supply options to work for the MOU areas, the General Plan policy of no net impact on the groundwater basin comes into play. Meaning that any water extracted from the groundwater basin needs be stored there. To meet this requirement, a corresponding 'wet year' surface water supply must be available for injection. In some cases this could be the Sacramento River supply or it could be potable water offsets through expanded recycled water use.

Issue 3

Does the Council want to utilize a conjunctive use program to increase water supply reliability for both existing City demands and the MOU areas?

Summary

WRSP: There are two alternatives available to serve the WRSP area. These include:

A water supply solely for the WRSP area and the existing City can be achieved through aggressive recycled water use and the implementation of an ASR program.

Or

A water supply solely for the WRSP area and the existing City can be achieved through normal recycled water use, a Sacramento River supply, and the implementation of an ASR program.

MOU Area: A water supply for the MOU areas and the existing City can be achieved through the use of a new supply (transfer of City contract water from the American River to the Sacramento River) of water from the Sacramento River, normal recycled water efforts and the implementation of an ASR program.

• Action: City staff recommends that the Council reaffirm the Guiding Principles that any development proposal west of Roseville shall consider the development potential within the entire MOU Transition Area in the design and sizing of infrastructure improvements; and that any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements and services at no cost to existing residents (including increased utility rates). In addition, any development proposal west of Roseville shall secure and provide a new source and supply of surface water and should include reduced water demand through the use of recycled water and other offsets. The proposal shall not burden/increase the cost, or diminish the supply and reliability of services.

6 Electric

The Roseville Electric Department has indicated that there are no constraints to obtaining a reliable energy source to serve development in the WRSP and MOU Area.

Development of the WRSP project and the MOU area will increase electric demand in Roseville by approximately 25 percent above the existing peak electric demand. However, with proper planning and funding, Roseville Electric can meet the project needs while maintaining current customer service levels. Approximately \$5 million of initial investment to upgrade the system will be required in 2004 (\$3.5 M for a substation and \$1.5 M for the 60-KV system) to serve the WRSP. The future development of the MOU area will require a second double-ended substation (approximately \$3.5 M in today's dollars).

The historical practice has been to fund construction of substations and 60-Kv lines from electric sales revenues. However, based on the Council's direction to limit the burden of project costs on existing rate payers, the WRSP Landowners would be required to establish a funding mechanism that is not reliant on electric rates from existing City rate payers. Because the City's electric rate already includes a component for construction and maintenance of electric infrastructure, the remaining 75% of costs would be recovered in the electric rates from the WRSP area.

Additionally, the cost of installing the distribution system (mainline and distribution facilities) would be paid by the WRSP Landowners.

Action: Reaffirm the Guiding Principle requiring a neutral impact on the
electric rates of existing customers by requiring the WRSP applicant to
establish a funding mechanism whereby existing Roseville rate payers
are not subsidizing electric infrastructure improvements necessary to
serve the project. The proposal shall not burden/increase the cost, or
diminish the supply and reliability of services.

EXECUTIVE SUMMARY CONCLUSION & CITY COUNCIL ACTION

Staff recommends that Council reaffirm the Guiding Principles which would require the WRSP, or any development west of the City, to provide full funding and maintenance of new improvements and services at no cost to existing residents; ensure that new development not burden/increase costs or diminish supply/reliability of services; that new development provide "public benefit" to the City and residents; and that new development comply with the General Plan service levels and expectations.

As the Feasibility Analysis shows, this will be a particular challenge in the areas of traffic, fiscal, funding capacity and water. Compliance with the Guiding Principles will likely require revisions to the proposed plan. As the processing of the project further proceeds and should staff determine that it is not feasible to comply with a Guiding Principle, staff will return for Council discussion and direction.

FEASIBILITY ANALYSIS FOR WEST ROSEVILLE SPECIFIC PLAN AND MOU AREA

Section 1: Introduction

1.1 Feasibility Analysis Study Area Boundaries

The Feasibility Analysis Report covers both the proposed WRSP and the full City/County Memorandum Of Understanding (MOU) Area (refer to Figure 1). The proposed West Roseville Specific Plan (WRSP) is a 3,142 acre mixed-use project and annexation located west of Fiddyment Road, outside the City limits. The WRSP is within a larger area located in Placer County and covered by a Memorandum of Understanding (MOU) between the City of Roseville and Placer County. The MOU Area is not within the City's sphere of influence. The City's sphere would need to be modified to annex any projects within the MOU. The City and the County developed the MOU in anticipation of future development requests on land adjacent to the City of Roseville. The primary features of the MOU are to define the procedural steps for processing development requests within the MOU area, and agreement to mitigate specific impacts to the mutual satisfaction of both the City and the County.

1.I. Land Use and Absorption Assumptions

In order to conduct the Feasibility Analysis, certain land use assumptions for both the WRSP and the remainder of the MOU area had to be made. For Feasibility Analysis purposes only, the City relied on the WRSP Landowner's proposed densities and land use mix with the understanding that these will likely change as the land use plan is modified and refined. Similarly, the City had to make some land use assumptions for the remainder of the MOU. Since no land use plans are proposed for the remainder of the MOU, the City used similar densities and land use mixes as used in other adjacent specific plans within the City to develop the assumptions. The land use assumptions for the remainder of the MOU do not represent any specific proposals and should be considered for Feasibility Analysis purposes only. All land use assumptions used in the Feasibility Analysis Report are subject to change.

A key factor required in the preparation of the technical studies for the Feasibility Analysis Report was to come up with a reasonable projection of development timing within the WRSP and the MOU Area. Understanding development timing, or rate of land use absorption, will help determine when major infrastructure and other services would be needed to serve new development. In order to determine this, an absorption study was prepared by Muni Financial to analyze anticipated development timing based on historical and projected growth in Roseville. The absorption study for the WRSP and the MOU Area is included as an appendix to this report (Appendix G - 2020 Development Projections for the WRSP and 2020 Development Projections for the MOU).

In summary, the 2020 Development Projections concluded that the WRSP and the MOU Area would affect the City's land use absorption in the following way:

- Increase the City's absorption of dwelling units, though supply would still
 not be great enough to avoid build out by 2020 in the WRSP. Development
 of the entire MOU area would enable the City to accommodate
 approximately 15,555 units and extend the build out of the City's residential
 capacity from 2010 to beyond 2020;
- Increase the City's absorption of commercial development associated with neighborhood commercial serving the new housing, while holding constant the City's commercial land use supply margin in the WRSP and the MOU Area;
- Slightly increase the City's absorption of office development, with most of the growth in the WRSP and the MOU Area coming from a shift in development from other areas of the City;
- Increase the City's absorption of industrial development by offering a competitive site with unique attractive factors; and
- Combining office and industrial supply margins because of some overlap between these land use types, the WRSP and the MOU Area would have a slight effect with the overall supply margin declining.

23

1.III. Guiding Principles & General Plan Policies

Concurrent with direction to initiate processing of the WRSP, the Council approved a set of Guiding Principles to articulate the City's expectations relating to any potential development proposals west of Roseville. The intent of the Guiding Principles is that they are to be applied as performance measures in the preparation and review of any such proposals as directed by the City Council. The Guiding Principles are not intended to be inclusive of all City development requirements, but rather supplement those requirements by identifying or emphasizing concepts particularly important or unique to potential new development areas outside and west of the City.

As a supplement to the City's General Plan Policies, the Guiding Principles help establish a framework from which to evaluate a proposed project. Inconsistencies between the proposed development and the objectives in the Guiding Principles or General Plan will require additional discussion by the City Council and potential Council direction.

The Guiding Principles are grouped according to several broad categories which reflect the City's Mission and Vision statements. Each Guiding Principle has been numbered followed by a brief description of intent.

FISCAL HEALTH

1. Any development proposal west of Roseville shall, on a standalone basis, have an overall neutral or positive fiscal impact on the City's General Fund services.

This Guiding Principle is intended to ensure that a project would not have a negative effect on the City's current and future fiscal status. Any proposed project should individually result in a fiscal benefit to the City or, at a minimum, no negative effect on the General Fund.

- A WELL-PLANNED COMMUNITY
- A STRONG COMMUNITY IDENTITY AND SENSE OF PLACE
 - 2. Any development proposal west of Roseville shall include logical growth/plan boundaries and an east to west growth pattern.
 - 3. Any development proposal west of Roseville shall not conflict with the Pleasant Grove Wastewater Treatment Plant and future Power Generation Facility.
 - 4. Any development proposal west of Roseville shall maintain the integrity of existing neighborhoods and create a sense of place in new neighborhoods.

The City's General Plan includes policies relating to land use types, mixes, intensity and overall form. The Guiding Principles supplement these policies, and further the City's vision, by stressing the need for an orderly development pattern facilitating the provision of services in an efficient and economical manner. Consideration should include the City-County Memorandum of Understanding (MOU) Transition Area

boundaries. A well-conceived and well-integrated land use plan must consider the Pleasant Grove Wastewater Treatment Plant and future Power Generation Facility to ensure that these important public facilities are adequately protected from sensitive or incompatible land uses. In addition, it is important that new development protect existing neighborhoods and create identity in new neighborhoods.

- COMMUNITY INFRASTRUCTURE THAT IS COMPLETE AND UP-TO-DATE
- A HEALTHY, SAFE AND SECURE COMMUNITY
- THE HIGHEST QUALITY COMMUNITY SERVICES AND ORGANIZATIONS
 - 5. Any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements and services at no cost to existing residents (including increased utility rates). A proposal shall not burden/increase the cost, or diminish the supply and reliability of services.
 - 6. Any development proposal west of Roseville shall aid in regional traffic solutions and in right of way preservation.
 - 7. Any development proposal west of Roseville shall secure and provide a new source and supply of surface water and should include reduced water demand through the use of recycled water and other off-sets.
 - 8. Any development proposal west of Roseville shall consider development potential within the entire MOU Transition Area in the design and sizing of infrastructure improvements.
 - 9. Any development proposal west of Roseville shall aid in resolution of regional storm water retention.
 - 10. Any development proposal west of Roseville shall incorporate mechanisms to ensure new schools are available to serve the residents and shall not impact existing schools.

The General Plan includes numerous policies relating to public facilities and services. These include policies that address the provision, funding and desired service levels for roadways, water, wastewater, electric, solid waste, libraries, police and fire. The Guiding Principles supplement these polices and focus on issues unique to west Roseville, such as the lack of a City surface water allocation to the area, the planned regional detention facility and the City-County MOU Transition Area. In addition, the Guiding Principles emphasize that new development must fully fund needed facilities and services and not impact the cost or reliability of those services provided to current residents and businesses.

OUTSTANDING RECREATIONAL OPPORTUNITIES

11. Any development proposal west of Roseville shall include a significant interconnected public open space component/ conservation plan in coordination with the City of Roseville/ U.S. Fish and Wildlife Service (USFWS) Memorandum Of Understanding.

The General Plan includes policies relating to the type and amount of park to be provided, as well as policies relating the preservation of open space. These include the City's park dedication requirement of 9 acres of parkland per 1,000 residents. The Guiding Principle relates to the City's desire to see a substantial open space component in any new development proposal. The areas west of

Roseville provide an opportunity to include a significant interconnected open space component linked to and available to all City residents. Such efforts will need to be coordinated with the City of Roseville and USFWS, as well as other conservation efforts.

• AN ACTIVE, EDUCATED AND INVOLVED CITIZENRY

12. Any development proposal west of Roseville shall include a public participation component to keep the public informed and solicit feedback throughout the specific plan process.

This Guiding Principle is intended to define the need to keep interested parties and stakeholder groups informed and develop a public participation program, unique to any project west of Roseville, which allows public participation at various stages in the process. A public information workshop is proposed in February to inform the public about the project and the results of the Feasibility Analysis, information will also be forwarded to the City Council in March.

A HIGH QUALITY OF LIFE

13. Any development proposal west of Roseville shall provide a "public benefit" to the City and residents.

This Guiding Principle identifies the City's desire for any development proposal west of Roseville to provide additional benefit to the City and it's residents. Such benefit may include the provision of unique facilities of public benefit within a proposed project and/or contribution towards such facilities or programs elsewhere in the community.

FEASIBILITY ANALYSIS REPORT FOR WEST ROSEVILLE SPECIFIC PLAN AND MOU AREA

Section 2: Feasibility Analysis

2.I. Format

Section 2 contains an expanded discussion of the information and conclusions for the WRSP and MOU area. Each study area is generally organized under the following headings:

Summary of Key Facts, Assumptions, and Findings for:

- a. Proposed WRSP and
- b. the MOU

Consistency with the City's adopted Guiding Principles for:

- a. Proposed WRSP and
- b. the MOU

Conclusions

Action/Direction Items for Council

References

2.II. SOLID WASTE

Summary of Key Facts, Assumptions and Findings

West Plan and MOU Study Area:

- Landfills are market driven facilities. They continue to accept solid waste and require increased capacity during the entire life of a project.
- There are physical limitations to the amount of solid waste that can be buried in a specified volume.
- Western Placer Waste Management Authority (WPWMA) uses "landfill site life projections" to determine landfill capacity. This method is a formula that uses volume limitations and growth rates which are converted to a service life. The formula can be modified to use different growth rates to determine landfill site life.
- "Landfill site life projections" used by the County have not evaluated growth on a project-by-project basis, therefore individual development projects are not a consideration in planning the capacity of the landfill.
- According to W. Dickinson, Placer County Solid Waste Management, current landfill capacity would extend to 2032, assuming 5% growth in Placer County (including cities) per year.
- Landfill expansions add to the overall life (capacity) of the landfill. There
 are two major plans for future landfill expansions:
 - -Increase in permitted landfill height from 60' to 175'; and
 - -Increase in permitted footprint from 320 acres to 780 acres (addition of 460 acres).
- Operational changes can also increase the overall life of the landfill such as:
 - -Residential sorting of green waste; and/or
 - -Expanding the Materials Recovery Facility operations.
- When landfill rates increase, landfill tonnage decreases.
- Daily capacity can be expanded fairly easily by adding equipment and personnel.
- The Materials Recovery Facility is currently experiencing a 10-13% increase per year. Options for handling additional waste are under consideration.
- Based on current assumptions, Placer County Solid Waste Management doesn't foresee a landfill capacity or constraints issue with the proposed WRSP or the entire MOU Area.

Consistency with Guiding Principles & General Plan Policy

West Plan Study Area & MOU Study Area:

A Guiding Principle was not specifically developed for Solid Waste, however, it is covered along with other public services under the following principle:

"Any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements and services at no cost to existing residents (including increased utility rates). A proposal shall not burden/increase the cost, or diminish the supply and reliability of services."

In addition, the General Plan addresses Solid Waste by specifying that the City provide solid waste collection and disposal services to all existing and future developments, that the City continue to participate in a regional approach to solid waste management and that a minimum 10 year reserve capacity be maintained at the landfill.

Based on the information received from the Solid Waste Management Authority and the summary of findings for Solid Waste stated above, there would not be an inconsistency with this Guiding Principle or the General Plan policies since all solid waste service within the WRSP project and the MOU would be required to pay for it's own solid waste service at no cost to existing residents, and the reliability of solid waste service would not be jeopardized with either the WRSP project or buildout of the MOU area since there are options to extend the landfill site life.

Conclusions

The current solid waste facility serving the City has multiple options to extend the projected site life of the landfill, therefore landfill capacity is not considered a constraint to the proposed WRSP or the MOU Area.

Action/Direction Items

No action and/or direction is required for Solid Waste.

References

Appendix A:

Possible Constraints to Western Placer Waste Management Authority Solid Waste Capacity dated November 15, 2001

Prepared by: Will Dickenson, Placer County Solid Waste Management Authority

2.III TRAFFIC

Summary of Key Facts, Assumptions and Findings

- The traffic analysis completed for the Feasibility Analysis consisted of running the City's traffic model under 11 scenarios to determine the traffic impacts resulting from the development of the proposed West Roseville Specific Plan project (WRSP) as well as the MOU. (See **Table 1** in **Appendix B** for a description of the 11 scenarios).
- The alternatives focused on three land use/roadway assumptions and analyzed future traffic volumes, lane requirements, and levels of service (LOS). The alternatives analyzed are as follows:
 - 1. Year 2015 with Plan Area without Watt Extension
 - 2. Year 2015 with Plan Area with Watt Extension
 - 3. Year 2015 with MOU Area with Placer Parkway
- At 2015 and without the WRSP project, all intersections meet the City's Level of Service (LOS) policy.
- With the WRSP, the traffic analysis indicates that a number of intersections would be impacted. The actual number of intersections impacted varies based on the scenario analyzed. Alternative 1 caused impacts to eight intersections; Alternative 2 caused impacts at eight intersections; Alternative 3 caused impacts at seven intersections (refer to Table 1, Intersections Found to Operate at Unacceptable Levels of Service).
- The project impacts were also analyzed under cumulative conditions with and without Placer Parkway. Under cumulative conditions with Placer Parkway, there was no increase in the number of intersections not meeting current General Plan LOS policy. Without Placer Parkway, seven additional intersections would not meet General Plan LOS policy.

West Plan Study Area:

 The traffic analysis prepared by DKS Associates Inc., Transportation Consultants (Appendix B) indicated that up to eight intersections would be impacted with the proposed project at year 2015. The actual number of intersections, which would be impacted vary depending on the alternative being analyzed. These intersections are listed in Table 1.

Table 1 Intersections Found to Operate at Unacceptable Levels of Service

| Intersection | 2015 CIP | 2015 With Plan Area Without Watt Extension | 2015 With Plan Area With Watt Extension | 2015 with MOU Area with Placer Parkway |
|---|-------------|---|--|---|
| Fiddyment / Baseline | С | F | Е | D |
| Foothills / Blue Oaks | В | D | D | |
| Foothills / Pleasant Grove | С | | D | |
| Foothills / Junction | С | D | D | D |
| Foothills / Main | С | | | D |
| Galleria / Roseville Parkway | D | Е | Е | Е |
| Riverside / Douglas | D | Е | | |
| Sunrise / Cirby | Е | | | F |
| Washington / Junction | С | D | D | |
| Woodcreek Oaks / Pleasant | С | D | | |
| Grove | | | | |
| Oakridge / Cirby | В | | D | |
| Roseville Parkway / Pleasant | D | | E | |
| Grove | | | | |
| Fiddyment / Blue Oaks | Α | D | | Е |
| Del Webb / Blue Oaks | Α | | | D |
| Total Intersections Not Meeting Current General Plan | 0 | 8 | 8 | 7 |

Note: Blank cell indicates intersection functions acceptably under this scenario

Roadway Improvements:

- Improvements could be constructed at the following intersections to improve the LOS to acceptable levels. These intersection improvements could be added to the City's Capital Improvement Program and funded through Traffic Mitigation Fees if approved by the City Council.
 - Fiddyment and Baseline
 - Foothills and Blue Oaks
 - Galleria and Roseville Parkway
 - Washington and Junction
 - Fiddyment and Blue Oaks
 - Del Webb and Blue Oaks
 - Roseville Parkway and Pleasant Grove

With this mitigation (roadway improvements), there would still be impacts at up to eight intersections with the proposed project. A total of five of those intersections are located within infill areas and three are within Specific Plan Areas. The actual number and location of intersections not meeting current LOS policy vary depending on the alternative. These intersections are listed in Table 2 below.

LOS Policy:

 Current General Plan Policy requires that all intersections function at level of service "C" or better during the peak hour except in the Infill area and within one-half mile of a freeway interchange where level of service D is acceptable. This exception, however, requires Council approval. Based on this policy, the Council could accept LOS D at the following intersections:

- Oakridge and Cirby
- Foothills and Main

If the Council chooses to accept LOS D at these two infill intersections and mitigation (intersection improvements) at the six other intersections, up to three intersections would continue to function at unacceptable levels under the 2015 alternative without the extension of Watt Avenue. The other two alternatives would cause two intersections to function at unacceptable levels. Based on the scenario, the specific intersections not meeting the City's LOS policy would include the following:

- Year 2015 with WRSP without a Watt Avenue extension:- Riverside/Douglas (LOS E), Foothills/Junction (LOS D), and Woodcreek Oaks/Pleasant Grove (LOS D).
- Year 2015 with WRSP and with a Watt Avenue extension: Foothills/Junction (LOS D), and Foothills/Pleasant Grove (LOS D).
- Year 2015 with entire MOU area with Placer Parkway: Sunrise/Cirby (LOS F), and Foothills/Junction (LOS D).

The intersections which would continue to function at unacceptable levels are shown in bold in Table 2.

| Table 2 Intersections Not Meeting the City's LOS Policy | | | | | |
|--|--|---|--|--|--|
| | 2015 with Plan Area without Watt Extension | 2015 with Plan Area with Watt Extension | 2015 with MOU Area with Placer Parkway | | |
| INFILL AREA | | | | | |
| Riverside / Douglas | E | | | | |
| Foothills / Main | | | D | | |
| Oakridge / Cirby | | D | | | |
| Sunrise / Cirby | | | F | | |
| SPECIFIC PLAN AREA | | | | | |
| Foothills/Junction | D | D | D | | |
| Foothills / Pleasant Grove | | D | | | |
| Woodcreek Oaks / Pleasant | | | | | |
| Grove | D | | | | |
| TOTAL INTERSECTIONS NOT MEETING LOS POLICY (assuming Council approval of intersection improvements) | 8(3) | 8(3) | 7(3) | | |
| INFILL INTERSECTIONS NOT MEETING CURRENT GENERAL PLAN LOS POLICY (assuming application of infill exception) | 1(1) | 1(0) | 2(1) | | |
| SPECIFIC PLAN INTERSECTIONS NOT MEETING CURRENT LOS POLICY (assuming Council approval of intersection improvements) | 2(2) | 2(2) | 1(1) | | |
| TOTAL REMAINING INTERSECTIONS NOT MEETING GENERAL PLAN LOS POLICY after intersection improvements and application of infill exception Note: Blank cell indicates interse | 3 | 2 | 2 | | |

Consistency with Guiding Principles

In addition to the City's General Plan Policy to maintain the City's adopted level of service (LOS) standard, two Guiding Principles were developed to specifically address traffic impacts. The two Guiding Principles are noted below in bold text.

[&]quot;Any development proposal west of Roseville shall aid in regional traffic solutions and in right of way preservation."

[&]quot;Any development proposal west of Roseville shall maintain the integrity of existing neighborhoods and create a sense of place in new neighborhoods."

Regional Traffic Solutions

At this phase in the analysis, it is not clear how the proposed WRSP project or development in the MOU area would aid in regional traffic solutions. The Feasibility Analysis for traffic does not address specific deal points typically negotiated as part of the Development Agreement. It is clear, however, that based on the Guiding Principle, the project will be expected to contribute towards regional traffic solutions beyond right of way dedication.

Right of Way Dedication

The current land use diagram for the WRSP includes a conceptual roadway network. On-site right of way dedication is a required element for each new specific plan. The right of way dedication referenced in the Guiding Principle refers to the dedication of right of way needed to assist in regional traffic solutions (i.e. Placer Parkway).

It is unclear whether the WRSP project will meet the right of way preservation requirements noted in the Guiding Principle based on the preliminary land use plan. Placer Parkway, shown in the Placer County General Plan, is a regional expressway connecting Highway 65 to Highway 99. A conceptual right-of-way alignment referred to as the "Recommended Alignment for Programming Purposes" has been identified in the Project Study Report (PSR) prepared by Placer County Transportation Agency (PCTPA). The recommended alignment has not yet been reflected on the WRSP land use plan, however, information contained in the PSR has indicated a 1000' right of way reserve requirement. The reason for reserving the large right of way is to allow the actual 250+/- foot right of way to be located somewhere within the 1000-foot reserve area to conserve, minimize, or avoid impacts to wetlands, vernal pools or other environmental constraints.

The recommended alignment will need to be reflected in any revisions/refinements of the proposed land use plan and verified with PCTPA. The location of Placer Parkway right of way is key to any land use planning effort on the project site as the City would not want to preclude the opportunity for Placer Parkway since it is needed to mitigate traffic impacts within the City and the WRSP project. Any proposal to relocate the alignment will require review and approval by PCTPA. Until a relocation is approved, any proposed land use plan should reflect the recommended alignment.

Maintaining Existing Neighborhoods

Any specific plan proposal which causes the City's LOS to function at less than acceptable levels as established by the General Plan is not consistent with the Guiding Principle of maintaining the integrity of existing neighborhoods. Based on the conclusions discussed in this report, the project would not be able to mitigate all potential traffic impacts and would degrade the LOS at three intersections to unacceptable levels at 2015 without the extension of Watt Avenue. At 2015 with the extension of Watt avenue, two intersections would not meet current General Plan LOS Policy. Additionally, at year 2015 with the MOU area and the extension of Placer Parkway, two intersections would not meet current LOS policy. (These conclusions assume implementation of all feasible at grade intersection improvements and application of the City's infill exception policy. Both of these assumptions require formal action by the City Council.) As a result, traffic impacts created by the project are not consistent with this Guiding Principle and will require

City Council direction.

Conclusions

Development of the WRSP project and the MOU area will have an affect on the City's ultimate transportation system. The level of impact varies depending on certain roadway assumptions, such as the extension of Watt Avenue and the ultimate construction of Placer Parkway. However, in all scenarios evaluated, both the WRSP project and development of the MOU area would cause the LOS at up to three intersections in the City to degrade to unacceptable levels as identified in the City's General Plan at year 2015.

Based on the 11 scenarios evaluated in the traffic analysis:

- 8 intersections are unacceptable in the year 2015 with the WRSP project without the extension of Watt (see Table 1);
- 8 intersections are unacceptable in the year 2015 with the WRSP project with the extension of Watt (see Table 1); and
- 7 intersections are unacceptable in the year 2015 with the MOU study area with Placer Parkway (see Table 1).

Current General Plan Policy requires that all intersections function at level of service "C" or better during the peak hour except in the infill area and within one-half mile of a freeway interchange where level of service D is acceptable. This exception, however, requires City Council approval. If the Council approved these intersections to operate at LOS D consistent with the existing General Plan policy, the total number of intersections not meeting the City's LOS policy would be reduced (the actual number varies based on the particular roadway assumption). Based on this policy, the Council could accept LOS D at the following intersections:

- Oakridge and Cirby (needs Council action for 2015 w/Plan and w/Watt)
- Foothills and Main (needs Council action for 2015 w/MOU and w/Placer Pkwy)

The following intersections could be mitigated with at grade improvements. These improvements would be added to the City's Capital Improvement Program and funded through Traffic Mitigation Fees if approved by Council. It should be noted that the intersections listed below do not exceed the City's LOS policy under each scenario. The scenario under which the intersection exceeds the LOS policy is shown in parenthesis. Depending on the final roadway assumptions, the total number of intersections that can be mitigated with roadway improvements varies.

- Fiddyment and Baseline (exceeds LOS under all 3 roadway assumptions)
- Foothills and Blue Oaks (exceeds LOS for 2 of the 3 roadway assumptions)
- Galleria and Roseville Parkway (exceeds LOS for all 3 roadway assumptions)
- Washington and Junction (exceeds LOS for 2 of the 3 roadway assumptions)
- Fiddyment and Blue Oaks (exceeds LOS for 2 of the 3 roadway assumptions)
- Del Webb and Blue Oaks (exceeds LOS for 1 of 3 roadway assumptions)
- Roseville Parkway and Pleasant Grove (exceeds LOS under 1 of 3 roadway assumptions)

With the implementation of mitigation (intersection improvements) and the infill exception policy, the following intersections would function at less than LOS D or operate at LOS D and are within a specific plan area and would not conform with

current General Plan Policy:

- Riverside / Douglas (exceeds LOS for 1 of 3 roadway assumptions)
- Cirby / Sunrise (exceeds LOS for 1 of 3 roadway assumptions)
- Woodcreek Oaks / Pleasant Grove (exceeds LOS under 1 of 3 roadway assumptions)
- Foothills / Pleasant Grove (exceeds LOS under 1 of 3 roadway assumptions)
- Foothills /Junction (exceeds LOS for 3 of 3 roadway assumptions)

Depending on the roadway assumptions, the number and location of intersections that would not conform to the General Plan policy would vary based on the alternative. The alternatives under which these intersections would not conform to the City's General Plan Policy are listed in Table 2.

Action/Direction Items

Based on 11 scenarios run for the Feasibility Analysis, up to eight intersections would operate at unacceptable levels without additional mitigation. However, depending on the roadway assumptions, and direction from the Council, it is possible that no more than a maximum of 3 intersections would operate below the City's current LOS policy at the same time

The WRSP Landowners are evaluating options to the plan that may further reduce the number of intersections that would not meet the LOS policy. In light of these efforts, staff recommends that the Council reaffirm the Guiding Principles that the project result in no impact to existing neighborhoods by maintaining the City's level of service policy and aid in regional traffic solutions and right of way preservation that would not preclude an alignment for Placer Parkway.

References

Appendix B:

Initial Traffic Analysis Memo dated September 11, 2001

Prepared by: John Long, DKS Associates

2.IV FISCAL and FUNDING CAPACITY

Summary of Key Facts, Assumptions and Findings

FISCAL

West Plan Study Area:

- The Fiscal Impact Analysis (FIA) is considered preliminary and its use is restricted to the City's initial assessment of the WRSP and MOU Study areas. Additional FIAs will be required as land use and development assumptions are refined through the specific plan review process.
- The Fiscal Impact Analysis for the WRSP is based on the following assumptions:
 - 1) Property Tax Distribution;
 - a) The property tax available for distribution was calculated net of the City's Education Revenue Augmentation Fund (ERAF) deduction, using the Stoneridge annexation model.
 - b) The available property tax, net of ERAF, was distributed to the City and Placer County in the amount estimated as needed so each agency achieved the same net revenue as a percent of total costs (Tables 1, 4 & 5).
 - 2) Estimated Value for Residential Units and Revenue from Industrial/Commercial Activities;
 - a) The average values for residential units are estimated to range from \$149,500 for high density units to \$312,400 for low density units (Table 2).
 - b) Projected revenues from industrial/commercial activities were calculated net of NEC revenue and employment in order to obtain average revenues more reflective of typical industrial/commercial establishments.
 - 3) Land Use Absorption:
 - a) Demand for commercial development will only come from the WRSP residential units. The FIA projects 70% absorption of WRSP commercial acreage by 2020.
 - b) Absorption of WRSP office space does not represent new demand or additional capture of demand for Roseville, but rather is a shift of office demand originally projected to occur within the existing City boundaries. The FIA projects 98% absorption of business/professional acreage by 2020. However, the amount of commercial development shifted from the existing City is excluded from the fiscal model since it does not represent a new fiscal impact on the City.
 - c) Absorption of industrial space represents capture of additional demand and adds to industrial absorption projected within the City's existing boundaries. Muni Financial anticipates the unique factors associated with the WRSP industrial sites e.g. proximity to the

Pleasant Grove Waste Water Treatment Plant and the Enron Power Plant as well as access to reclaimed water and steam could lead to the attraction of industrial users not originally projected for Roseville. The FIA projects 95% absorption of industrial space by 2020.

MOU Study Area:

 The Fiscal Impact Analysis for the MOU area is based on the same assumptions used in preparing the FIA for the WRSP. The assumptions were applied to entire the MOU area which for the purposes of the Feasibility Analysis is estimated to include 11,000 residential units and 3.7 million square feet of commercial, office, and industrial uses.

FUNDING CAPACITY

West Plan Study Area and MOU Study Area:

- The City is in the process of developing a Funding Capacity Model to evaluate the ability of the project area to finance the costs of project infrastructure and facilities as compared to land value.
- Given that the details of infrastructure/facility planning are developed in later stages of the planning process, this Funding Capacity Model cannot be used to accurately predict the cost to burden ratio at this stage in the project. However, preliminary information can be assumed for modeling purposes.
- It is likely that there will be considerable up front cost associated with the development of land west of the City since existing infrastructure and facilities were not planned for extension west of Fiddyment Road. If it is determined that the up front costs associated with the construction of full infrastructure in the first phase exceed the financing capability of the project, the City will look to the project proponents to help develop an acceptable strategy to make up the difference in cost.
- The WRSP Landowners (Signature Properties and Westpark Associates)
 have acknowledged possible financing constraints and have identified their
 intent to provide the equity financing needed to ensure completion of all
 Specific Plan improvements for their project by funding any financing gaps
 through direct equity.

Consistency with Guiding Principles

Fiscal

The Guiding Principle that addresses fiscal impacts is intended to ensure the City's ability to fund all desired services at a very high level and assure budget control and predictability by maintaining ample fiscal reserves.

"Any development proposal west of Roseville shall, on a stand-alone

basis, have an overall neutral or positive fiscal impact on the City's General Fund services."

This Guiding Principle is intended to meet the City's vision statement by insuring that a project would not have a negative effect on the City's current and future fiscal status. Any proposed project should individually result in a fiscal benefit to the City or, at a minimum, no negative effect on the General Fund. While under the parameters of the Fiscal Model, the Fiscal impacts of both the proposed WRSP and the MOU are identified as "revenue neutral," the City's will expect future development within the WRSP and MOU area to be designed with a fiscal projection of balancing the cost of services with revenues.

Funding Capacity

A Guiding Principle was not specifically developed to address Funding Capacity therefore no inconsistencies with the Guiding Principles exist. However, based on previous specific plan projects, the Funding Capacity of the project has a direct relationship to the feasibility of the project and the level of financial risk to the City.

Conclusions

FISCAL

From a fiscal perspective the Fiscal Impact Analyses identify the WRSP and MOU areas as presenting some fiscal risks for Roseville. The nature of these risks involves the large number of residential units and the need for significant commercial, office and industrial development to support City services to the area. Specific factors to consider include:

- 1) The assumptions used in preparing the Fiscal Analysis will be carefully reviewed and monitored for change as the WRSP is refined.
- 2) In order to be fiscally neutral the WRSP and MOU area's residential units must be balanced with development of commercial and office space during the 2005-2020 period.
- 3) The ability of the "unique factors" associated with the WRSP's industrial sites to attract industrial demand that would otherwise not be captured by Roseville, resulting in a net increase of industrial activity and associated revenues in the City.

On a side note, there is a potential that the City could loose a court appeal, which would result in the loss of the City's Utility Users Tax (UUT). With the loss of the UUT, service levels would be reduced citywide. This would also be true for any annexation area. Loss of the UUT regardless of any future growth would reduce the ability of the City to fund services throughout the City.

FUNDING CAPACITY

Several factors influence the funding capacity of the WRSP. The single biggest factor is the need to construct substantial public facilities in the first phase of the project since existing City facilities are not designed to serve the areas west of Fiddyment Road. The need to construct extensive public facilities/infrastructure early in the project front end loads the cost of the project which has an uneven effect on the cost (i.e. bond proceed) to burden ratio. Potential facilities that might be needed prior to issuance of the first building permit or in the early stages of the

first phase may include:

- Parks
- Fire Station
- Elementary School
- Middle School
- Upgrades/oversizing the water delivery system
- Electric Substation

Action/Direction Items

Fiscal

- Reaffirm the Guiding Principle requiring any new development proposal
 west of Roseville to have a positive or neutral fiscal impact on the City, and
 notwithstanding the fiscal model's margin of error, any negative balance
 must be made up in order for the project to be considered for approval;
 and
- Direct staff to work with project developers to ensure fiscal neutrality and close the revenue gap to the City's General Fund to limit the City's fiscal risk.

Funding Capacity

 Provide direction to work with project proponents to develop an acceptable funding strategy to make up the difference in cost if it is determined that the funding capability of the project does not support the costs associated with development in the initial phases as the improvements are required and inform the Council of this conclusion prior to action on the project.

References

FISCAL - Appendix C

WRSP Fiscal Impact Analysis – Revised Nov. 9, 2001
Prepared by: Robert Spencer/Peter Detlefs, Muni Financial

Entire MOU Area Fiscal Impact Analysis – Revised Nov. 9, 2001

Prepared by: Robert Spencer/Peter Detlefs, Muni Financial

2.V. WASTEWATER

Summary of Key Facts, Assumptions and Findings

The City of Roseville provides regional wastewater services to areas within and outside of the City boundary as defined by the Roseville Wastewater Treatment Service Area. Wastewater is conveyed to the Dry Creek Wastewater Treatment Plant (DCWWTP) located on Booth Road and Pleasant Grove Wastewater Treatment Plant (PGWWTP) located on Phillip Road through a series of gravity pipes, pump stations and sewer force mains.

As a regional facility, the analysis not only evaluated the proposed WRSP and MOU Area, but also included potential urban growth areas inside and out of the regional service area and their associated impacts. The analysis focuses on the increase in wastewater flows above those identified in the 1996 Roseville Regional Wastewater Treatment Service Area Master Plan (Master Plan). The potential urban growth areas analyzed (shown in Figure 2), include:

- Sunset Ranchos
- Sunset Industrial Area (outside Master Plan area)
- WRSP (note: approximately 997 acres already included in the Master Plan)
- o MOU Area
- Placer County Sewer Maintenance District (SMD) 3

The resulting increase in flow from all of these potential growth areas beyond the flow analyzed in the Master Plan totaled 5.2 million gallons per day (MGD), average dry weather flow. The WRSP alone would add 1.9 MGD and the MOU Area are projected to add 2.4 MGD. Other urban growth areas analyzed totaled 0.9 MGD. The summary of Treatment Plant Capacities: (all figures are in MGD and are average dry weather flows) is shown below:

| Criteria | Dry Creek WWTP | Pleasant Grove WWTP |
|--|-------------------|------------------------|
| Current Capacity of Physical Facilities | 18 | 12 ^a |
| Current NPDES Permitted Capacity | 18 | 12 |
| Capacity Covered by Existing EIR / Master Plan | 25 | 21 |
| Plant Site Limitations | 54 ^b | 24 |

- a. Currently under construction
- b. 1996 Master Plan estimated that this capacity could be achieved within the existing Dry Creek WWTP site.

The construction of the new PGWWTP allows the regional system to direct wastewater flow to each of the treatment plants primarily by gravity, thus eliminating the large lift stations that currently direct flow to the DCWWTP.

Considering the locations of the urban growth areas analyzed, it is necessary to direct more flow to the PGWWTP than the existing site can accommodate (25.3 MGD vs 24 MGD). Optimizing gravity flow would require significant improvements and a major change in the existing treatment plant facilities plan.

This results in an additional 4.3 MGD of flow directed to the PGWWTP resulting in an ultimate plant capacity requirement of 25.3 MGD, 1.3 MGD beyond the current plant site constraints. An additional flow of 0.9 MGD would need to be directed to the DCWWTP, resulting in an ultimate capacity of 25.9 MGD, well within the plant site constraints of 54 MGD.

Several issues need to be addressed with these findings:

- The ability to accept additional wastewater flows can be facilitated by completing the appropriate CEQA and design analysis.
- From a technical stand point, there doesn't seem to be any fatal flaws in increasing wastewater discharges to either treatment plant. However, additional land will be necessary to increase the PGWWTP beyond 24 MGD, and obtaining NPDES permits with reasonable discharge requirements may prove challenging for both treatment plants.
- Conveyance facilities required for either treatment plant will require minor neighborhood pumping.
- Connection points for transmission facilities have already been designed into the inlet junction structure at the Pleasant Grove WWTP and facilities already exist at the Dry Creek WWTP.

Consistency with Guiding Principles

There are two guiding principles which apply to wastewater conveyance and treatment to the West Plan and MOU Study Areas which are:

"Any development proposal west of Roseville shall not conflict with the Pleasant Grove Wastewater Treatment Plant and future Power Generation Facility."

"Any development proposal west of Roseville shall consider development potential within the entire MOU Transition area in

the design and sizing of infrastructure improvements."

The Pleasant Grove Wastewater Treatment Plant is currently under construction on a 110 acre site. A 21 acre site is reserved for the future Power Generation Facility. Both sites are immediately adjacent to the West Plan and are within the MOU Study Area. The City will look to ensure that land use planning in the West Plan and MOU Study Areas include compatible land uses surrounding the treatment plant and future power generation site to reduce odor and noise impacts to future homes constructed within these adjacent areas. The treatment plant includes a restricted use easement and land purchase on the West, South and North sides to ensure adequate land use buffer area. The preliminary land use plan for the proposed WRSP includes a similar 1000' buffer area along the east side of the treatment plant.

While it is still early to finalize the design and sizing of infrastructure improvements, wastewater treatment and conveyance analysis has included the entire MOU Transition Area along with several other urban growth areas for purposes of evaluating total wastewater treatment and conveyance requirements.

Conclusions

- Minimize pumping by directing the flow as much as possible by gravity to the treatment plants.
- Plan for expansion of the PGWWTP to 25.3 MGD, 1.3mgd beyond the currently site limitations and 4.3 MGD beyond the capacity analyzed in the Master Plan EIR.
- Plan for expansion of the DCWWTP to 25.9 MGD, 0.9 MGD beyond the capacity analyzed in the Master Plan EIR and well within the site limitations of 54 MGD.
- Landowners need to dedicate additional land (approximately 20 acres) and buffer to accommodate expanding PGWWTP beyond its existing site limitations.

Action/Direction Items

Reaffirm the Guiding Principal that any development west of Roseville shall include a plan for ensure full funding and maintenance of improvements and services at no cost to existing residents. This will require the landowners to dedicate the necessary land, prepare the CEQA documents, and pay for the RWQCB permitting to obtain a new NPDES discharge permit.

References

Technical Memorandum 3, Wastewater Evaluation of Urban Growth Areas, Montgomery, Watson, Harza, December 3, 2001

5 Water

Retail Water Service – The City of Roseville is responsible for the development, treatment and conveyance of drinking water supplies to areas within the City. If annexed, the WRSP and MOU Study Areas will become part of the City's retail service area. Based on preliminary analysis the City has determined that there are constraints to water that would be available to serve the WRSP and MOU area.

Summary of Studies

In order to determine water supply options, recent studies have looked at alternative water supplies. These studies evaluated:

- Whether the City's current water demands can be lowered based on more current water use data.
- San Juan Water District's water demands in Placer County to determine the feasibility of transferring excess Middle Fork Project (MFP) contract water to the City for service to the WRSP and MOU Study Areas.
- Increased reliability of surface water entitlements through a regional diversion and water treatment plant project off the Sacramento River. This assumes that 7,000 acre feet (AF) a year of the City's American River contract water can be transferred to the Sacramento River.
- Aggressive use of recycled water by extending service to front and backyard irrigation areas of residential lots within the WRSP and MOU Study Areas.
- Groundwater supplies used as part of an aquifer storage and recovery (ASR) program to offset surface water reductions in dry years.
- Additional studies were completed to evaluate impacts to the City's existing water distribution system from conveying treated water for the WRSP and MOU Study Areas from the following three source locations:
 - 1) from the east through the City's existing water treatment plant,
 - 2) from the west through a regional treatment plant and pipeline from the Sacramento River, and
 - 3) from groundwater supplies introduced into the system.

Summary of Findings

- Based on revised demand projections and land use information, demand estimates could be reduced by 20 percent. The demand analysis indicates that consumers are currently using less water then was originally projected from studies completed in 1993. This may be attributed to conservation and newer home construction, which includes more efficient low flow devices. (Significant Policy Decision)
- An aggressive wastewater recycling program proposing residential outdoor usage would reduce potable demands by up to 50 percent inside the MOU areas. (Policy Decision - Level of use)

- Only small amounts of excess surface water supplies are available from San Juan Water District's existing Placer County Water Agency MFP contract.
- A diversion from the Sacramento River of 7,000 AF/year will increase the City's availability of dry-year surface water supplies. This could be accomplished through transferring American River contract supplies to the Sacramento River.
- Injecting surface water into the aquifer during wet periods can be used to offset groundwater extractions that occur in dry periods due to reductions in surface water taken from the American and/or Sacramento River. (Policy Decision – Support Usage of Aquifer Storage and Recover Program)
- The distribution system evaluation found that little to no system improvements are required to deliver increased water supplies from the three water treatment locations to meet increased water demands resulting from the addition of the WRSP and MOU Areas.
- Additional treatment plant capacity will be needed for the Sacramento River supply. The existing City treatment plant, located on Barton Road, would be able to handle projected demands assuming increased recycled water usage and the addition of a treatment plant for the Sacramento River supply.

The tables on the following pages summarize the four supply scenarios.

TABLE 1.5-1

Water Supply - WRSP Area⁴

| Existing Water Supply Contrac | ts Wat | er Forum Agreement | | |
|---|---------------|--------------------|-------|--------|
| USBR | 30,000 | Wet Year | | 55,700 |
| PCWA | 32,000 | | | |
| SJWD | <u>800</u> | Dry Year | | 39,800 |
| Total: | 62,800 | Ground Water | 7,300 | |
| | | Recycled Water | 3,000 | |
| Projected Water Demands (Existing City) | | Conservation | 5,600 | |
| Spink '93 | 58,900 | Dry Year Offsets | | 15,900 |
| <u>TM#1 '02</u> | <u>47,700</u> | Dry Year Total: | | 55,700 |
| Paper Water: | 11,200 | | | |

Projected Water Demands (MOU Areas) based on TM#1

 West Plan
 6,800

 Remaining MOU
 0

 Total:
 6,800

City and West Plan 54,500

Projected Shortages with WRSP Area

<u>Wet Years</u> <u>Dry Years</u> -1,200 4,400

Potential West Plan Water Supply Options

| (1) | Normal Water Recycling | <u>Wet</u> | <u>Dry</u> |
|-----|-----------------------------|------------|------------|
| | City and West Plan Demands | 54,500 | 54,500 |
| | Conservation | 0 | 5,047 |
| | Sacramento River Supply | 7,000 | 3,500 |
| | Groundwater Backup (ASR) | -12,200 | 2,100 |
| | Recycled Water Use - Normal | 3,994 | 3,994 |
| | | 55,706 | 39,859 |
| | Comparative Values: | 55,700 | 39,800 |
| | | | |
| | | | |

| (2) | Aggressive Water Recycling | <u>Wet</u> | <u>Dry</u> |
|-----|---------------------------------|------------|------------|
| | City and West Plan Demands | 54,500 | 54,500 |
| | Conservation | 0 | 4,766 |
| | Sacramento River Supply | 0 | 0 |
| | Groundwater Backup (ASR) | -8,045 | 5,980 |
| | Recycled Water Use - Aggressive | 6,810 | 6,810 |
| | | 55,735 | 36,944 |
| | Comparative Values: | 55,700 | 39,800 |

46

 $^{^{\}rm 4}$ The water units are expressed in acre feet per year (AF/year).

Table 1.5-2

Water Supply - WRSP and MOU Areas⁵

| Existing Water Supply Contracts | | Water Forum Agreem | ent | | |
|--|---------------|--------------------|------------------|-------|--------|
| USBR | 30,000 | Wet Year | | | 55,700 |
| PCWA | 32,000 | | | | |
| <u>SJWD</u> | <u>800</u> | Dry Year | | | 39,800 |
| Total: | 62,800 | | Ground Water | 7,300 | |
| | | | Recycled Water | 3,000 | |
| Projected Water Demands (Existir | ng City) | | Conservation | 5,600 | |
| Spink '93 | 58,900 | | Dry Year Offsets | | 15,900 |
| <u>TM#1 '02</u> | <u>47,700</u> | Dry Year Total: | | | 55,700 |
| Paper Water | 11 200 | | | | |

Projected Water Demands (MOU Areas) based on TM#1

 West Plan
 6,800

 Remaining MOU
 4,950

 Total:
 11,750

City and MOU 59,450

Projected Shortages with MOU Areas

 Wet Years
 Dry Years

 3,750
 9,350

Potential MOU Water Supply Options

| (1) | Normal Water Recycling | <u>Wet</u> | <u>Dry</u> |
|-----|---------------------------------|------------|------------|
| | City and MOU Demands | 59,450 | 59,450 |
| | Conservation | 0 | 5,000 |
| | Sacramento River Supply | 7,000 | 3,500 |
| | Groundwater Backup (ASR) | -7,144 | 9,480 |
| | Recycled Water Use - Normal | 4,671 | 4,671 |
| | | 54,923 | 36,799 |
| | Comparative Values: | 55,700 | 39,800 |
| | | | |
| (2) | Aggressive Water Recycling | Wet | Dry |
| | City and MOU Demands | 59,450 | 59,450 |
| | Conservation | 0 | 5,000 |
| | Sacramento River Supply | 7,000 | 3,500 |
| | Groundwater Backup (ASR) | -11,914 | 5,188 |
| | Recycled Water Use - Aggressive | 9,441 | 9,441 |
| | | 54,923 | 36,321 |
| | Comparative Values: | 55,700 | 39,800 |

⁵ The water units are expressed in acre feet per year (AF/year).

47

II. Consistency with Guiding Principles

There are two guiding principles which apply to water supply in the WRSP and MOU Study Areas which are:

"Any development proposal west of Roseville shall secure and provide a new source and supply of surface water and should include reduced water demand through the use of recycled water and other off-sets."

"Any development proposal west of Roseville shall consider development potential within the entire MOU Transition area in the design and sizing of infrastructure improvements."

Secure and Provide a New Source and Supply of Surface Water –

West Plan Study Area

The WRSP Area has three water supply options available to increase the reliability and/or quantity of existing surface water entitlements: 1) implement an aquifer storage and recovery program, 2) participate in the construction of a Sacramento River diversion and water treatment plant, and 3) adopt development conditions requiring mandatory use of recycled water for all commercial and residential outdoor irrigation. One or more of the options could be required depending on the level of water demand being evaluated. Implementation of the options are assumed to be additive and occur in the order they are given.

MOU Study Area

The addition of the MOU Study Area will have the same three water supply options as the WRSP Area.

Consider Development Potential within the Entire MOU Transition Area -

Water related technical studies completed in support of this document have fully investigated the combined impact of the WRSP and MOU Study Areas.

Note: See Appendix E, Volume II of the Feasibility Analysis Report regarding the water technical memorandums for a more detailed explanation on demand projections, water supply options and facilities evaluation.

Conclusions

Demand Reductions

By re-evaluating demand projections, a substantial amount of water appears to be available. This "paper water" is based on reducing the projected demands identified in previous studies (1993). The information was compiled by using one year of metered use data from newer utility customers.

Dedication of the "paper water" to new growth areas without bolstering supply reliability could put existing customers at risk during extended drought periods.

Issue 1

The policy decision that faces the City Council is how much, if any, of the "paper water" would be made available to the WRSP and or the MOU areas.

Recycled Water Usage

During the development of the various water supply alternatives, the use of recycled water at varying levels was proposed. Expanded use of recycled water would offset the need for additional potable water supplies. Some alternatives suggest an aggressive use of recycled water, which means extending the use of this water to residential customers for outside landscape use. Residential uses would need to be supplied with a dual set of piping: potable for indoor use, and reclaimed for outdoor use. The use of recycled water for residential use would require obtaining concurrence from the Regional Water Quality Control Board and Department of Health Services.

Issue 2

Does the Council want to expand the use of recycled water to residential customers in the MOU areas?

Aquifer Storage and Recovery

To meet existing City demands during the drier years, the water supply will need to be augmented by groundwater. Expanding the groundwater program to increase the reliability of the water supply for the MOU areas, a more comprehensive conjunctive use program is needed. For Roseville, this means the use of Aquifer Storage and Recovery (ASR). ASR utilizes groundwater wells to both put water into the underlying aquifer and take water out using the same facility. It serves as an underground reservoir or storage facility until needed during dry periods.

For supply options to work for the MOU areas, the General Plan policy of no net impact on the groundwater basin comes into play. Meaning that any water extracted from the groundwater basin needs be stored there. To meet this requirement, a corresponding 'wet year' surface water supply must be available for injection. In some cases this could be the Sacramento River supply or it could be potable water offsets through expanded recycled water use.

Issue 3

Does the Council want to utilize a conjunctive use program to increase water supply reliability for both existing City demands and the MOU areas?

Summary

WRSP: There are two alternatives available to serve the WRSP area. These include:

A water supply solely for the WRSP area and the existing City can be achieved through aggressive recycled water use and the implementation of an ASR program.

Or

A water supply solely for the WRSP area and the existing City can be achieved through normal recycled water use, a Sacramento River supply, and the implementation of an ASR program.

MOU Area: A water supply for the MOU areas and the existing City can be achieved through the use of a new supply (transfer of City contract water from the American River to the Sacramento River) of water from the Sacramento River, normal recycled water efforts and the implementation of an ASR program.

Action/Direction Items

• Action: City staff recommends that the Council reaffirm the Guiding Principles that any development proposal west of Roseville shall consider the development potential within the entire MOU Transition Area in the design and sizing of infrastructure improvements; and that any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements and services at no cost to existing residents (including increased utility rates). In addition, any development proposal west of Roseville shall secure and provide a new source and supply of surface water and should include reduced water demand through the use of recycled water and other offsets. The proposal shall not burden/increase the cost, or diminish the supply and reliability of services.

References

Technical Memorandum 3, Evaluation of Water System Capacity, and Technical Memo 5-Water Supply Availability, Montgomery, Watson, Harza, January 25, 2002.

2.VII ELECTRIC

Summary of Key Facts, Assumptions and Findings

West Plan Study Area:

- Currently, Pacific Gas and Electric (PG&E) is franchised to serve the area surrounding Roseville, including the WRSP and MOU area.
- Provided the areas are annexed to the City, Roseville Electric will be the
 electric service provider. As a result, PG&E may be required to abandon
 or place underground electric lines within the annexed areas. Expenses
 associated with PG&E activities and/or any monetary claims that PG&E
 may demand from the applicant or future developers were not
 contemplated or forecast in this study.
- Electric demand studies were prepared to analyze the total electric requirements for the WRSP and MOU area from 2005 through proposed project build out in 2020. These studies were then used to determine the amount of power supply and electric facilities required to serve the plan area and to establish timeframes for the installation of major transmission and distribution systems.
- Growth and demand estimates were based on absorption schedules detailed in the 2020 Citywide Development Projections for the West Roseville Specific Plan and West Roseville MOU areas prepared by Muni Financial.
- There are a total of 11 schools (eight elementary, two middle, and one high school) proposed for the MOU area with six of these located in the West Roseville Specific Plan. These are not included in the absorption schedules of the 2020 Citywide Development Projections reports. Since schools are significant users of electric power they've been included in this feasibility analysis report.
- Presently, there is approximately 6 MVA of spare capacity available from existing electric facilities at the Eastern boundary of the proposed WRSP project area. This capacity is sufficient to provide power to the equivalent of 1,100 new residential units, following which, a new substation will be required within the plan area.
- Under current projections (See Appendix F Electric Demand Studies for WRSP and MOU) the WRSP project:
 - 1. Will exceed the 6 MVA of available capacity by 2006;
 - 2. Will need a substation online in 2006 on a site within the Plan area to meet the additional electric load; and
 - 3. The substation will need to be a double-ended 60/12kV facility sized to serve the ultimate Plan build out load of 63 MVA.

A proposed substation site near the northern boundary of the existing Pleasant Grove Wastewater Treatment plant will be identified in the near future. The WRSP would be required to provide up to one acre within the Plan area for the substation site as required by Roseville Electric.

- Additional 60-kV overhead transmission lines will be required within easements provided by the WRSP to provide a connection for the proposed substation to the existing 60-kV substation located at Fiddyment Road.
- In order to serve the 2006 forecast load, the 60-kV lines should be installed and substation design started no later than 2004. The 60-kV lines will be energized initially at 12-kV to provide a backup to the initial phases of development that will be online prior to the construction of the substation.

MOU Study Area:

The MOU area will require an additional substation and site to meet the
total projected MOU area load of 114 MVA at build out. This will also
require extending the 60-kV overhead lines from the WRSP project area
to the second substation and then completing the overhead loop back to
the current Roseville system at a point to be determined.

Consistency with Guiding Principles

There are two guiding principles which apply to the extension of electric service to the WRSP:

"Any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements or services at no cost to existing residents (including increased utility rates). A proposal shall not burden/increase the cost, or diminish the supply and reliability of services."

"Any development proposal west of Roseville shall consider development potential within the entire MOU Transition area in the design and sizing of infrastructure improvements."

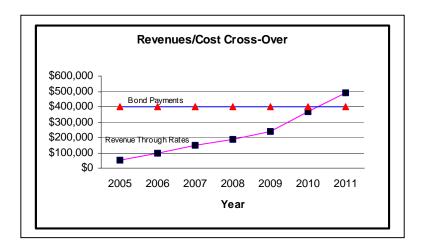
Ensure Full Funding

Electric rates differ as a function of the type of customer and load being served (residential, commercial, industrial, etc.). It's considered discriminatory to charge different rates to the same class of customer based on when the customer signs up for service. Also, the volatility of market energy prices makes it nearly impossible to predict with any degree of accuracy whether new customers, within the WRSP or otherwise, will financially benefit or harm existing residents and businesses. Therefore, as it relates to the electricity supply, it's neither feasible nor legal to develop a plan to ensure that the impact of new development on existing residents will be neutral.

As it relates to the distribution system, the standard utility practice is to recover the cost of building the backbone system (substations and 60-KV network)

through rates. However, to adhere to the Guiding Principle, staff conducted a financial analysis to determine the cost of the backbone system and the extent to which that cost would be recovered through rates. The study concluded that the cost of the backbone system could be approximately \$5 million in Net Present Value (NPV) worth. Provided that the rate charged to customers in the new developments will equal current rates and that the cost of the substation is amortized at 20 years, it is expected that the revenue/cost cross over would occur around 2011 and that the payback from customers within the project would occur around 2016.

Until the cross-over in 2011 and provided that the \$5 million of initial expenses to build the substation and the 60 KV line are bonded over 20 years, as the graph shows, it is expected that the bond payment will exceed revenues collected through rates.



In addition, Roseville Electric charges developers for the 12-kv electric distribution system. These costs include the mainline circuits and parcel specific service extensions. These costs will be determined when the electric distribution system is designed.

Consider Total MOU Development

The MOU area was reviewed using the same standards applied to the WRSP project regarding load demand and infrastructure needs. Considering the MOU area resulted in some additional 60kV lines extended to the southern portion of the WRSP to provide for a future substation and completed 60kV loop through the MOU area and the extension of some underground 12kV circuits to the WRSP boundaries, these circuit extensions benefit the WRSP because they will provide future backup and reliability to the project area during times of emergency or system outages.

Conclusions

System Capability

Development of the WRSP project and the MOU area will have an impact on the City's current electric system. But with proper planning and funding the Electric Department can meet the project's needs while maintaining current customer

service levels.

Fiscal Impacts

Approximately \$5 million of initial investment to upgrade the system will be required in 2004 (\$3.5 million for a substation and \$1.5 M for the 60-KV system) to serve the WRSP. The future development of the MOU area will require a second double-ended substation (approximately \$3.5 million in today's dollars).

The historical practice has been to fund construction of substations and 60-Kv lines from electric sales revenues. However, based on the Council's direction to limit the burden of project costs on existing rate payers, the WRSP Landowners would be required to establish a funding mechanism that is not reliant on electric rates from existing City rate payers. Because the City's electric rate already includes a component for construction and maintenance of electric infrastructure, the remaining 75% of costs would be recovered in the electric rates from the WRSP area.

Additionally, the cost of installing the distribution system (mainline and distribution facilities) would be paid by the WRSP Landowners.

Action/Direction Items

Action: Reaffirm the Guiding Principle requiring a neutral impact on the
electric rates of existing customers by requiring the WRSP applicant to
establish a funding mechanism whereby existing Roseville rate payers are
not subsidizing electric infrastructure improvements necessary to serve
the project. The proposal shall not burden/increase the cost, or diminish the
supply and reliability of services.

References

Appendix F:

Electric Demand Studies-MOU and WSRP

Prepared by: G.A. Krause & Associates

III Glossary of Terms and Acronyms

AF: Acre Feet

Aquifer:

Aquifer Storage Recovery (ASR):

Consistency: Consistency of a project is the degree to which it complies with the Guiding Principles and General Plan policies and overall intent of the Plan; the project must represent a balanced compliance with all of the policies.

DCWWTP: Dry Creek Wastewater Treatment Plant.

General Plan: The General Plan is a document prepared under the provisions of State law, which describes, documents, and provides a guide for the City of Roseville's decisions concerning its future.

Level of Service (LOS): A scale that measures the operating capacity likely to be encountered on a roadway or at the intersection of roadways, based on a volume-to-capacity ratio. Letters are assigned ranging from A to F with A representing the lowest volume-to-capacity ratio. A level of service of "A" represents free flow capacity at an intersection, while "F" represents a congested intersection where it would be difficult to get through a stop light cycle without waiting.

MFP: Middle Fork Project water entitlement.

Mitigate: To alleviate or avoid to the extent feasible. Mitigation is typically proposed to lessen an impact by avoiding, repairing, or reducing an impact by providing some means to compensate for an action.

MGD: Million gallons per day

MOU: Memorandum of Understanding. In this Feasibility Analysis it refers to the agreement between the City and the County regarding potential development west of the City's boundaries.

PGWWTP: Pleasant Grove Waste Water Treatment Plant.

Specific Plan: A specific plan is a tool for detailed design and implementation of a defined portion of an area. A specific plan includes text and a diagram or diagrams, which outline the distribution, location, and extent of the uses of land, including open space. It also outlines the distribution, location and extent and intensity of major components of public and private transportation, sewage, water, drainage, energy and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan. It also typically includes detailed standards, regulations, conditions, and programs necessary to implement the plan.

WRSP: West Roseville Specific Plan.