CITY OF BIGGS

Development Impact Fee Study

PREPARED FOR:

City of Biggs

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BIGGS, CALIFORNIA 95917

PREPARED BY:

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Executive Summary

This report presents the analysis to support the need for impact fees to ensure that new development projects contribute their fair share to new facilities in the City of Biggs. The primary objective of the fees is to provide for orderly development of infrastructure necessary to accommodate the anticipated growth of the community. The following table summarizes the Calculated Fees based on the analysis provided in this report.

	Projected Cost	Projected Housing Units	Commercial DUE[1]	Industrial DUE[2]	Total Units	Total Cost Per Unit
Sewer	$5,513,000	536	65	157	758	$7,273
Drainage	$1,725,000	536	65	157	758	$2,276
Water	$2,888,000	536	65	157	758	$3,810
Electric	$1,100,000	536	65	157	558	$1,451
Roads	$1,347,295	536	65	157	758	$1,777
Parks & Recreation						
Residential	*$1,641,016*	*536*			*536*	*$3,060*
Indust/Comm	*$182,335*		*65*	*157*	*222*	*$820*
General Government	$429,641	536	65	157	758	$567
Police						
Residential	*$34,400*	*536*			*536*	*$64*
Indust/Comm	*$8,600*		*65*	*157*	*222*	*$39*
Fire	$171,008	536	65	157	758	$226
Total	$15,040,294	536	65	157	758	

Development Type	Total Projected Improvement Cost	Total Fee Per Development Type
Total Residential	**$14,849,359**	**$20,504**
Total Industrial	**$13,364,879**	**$18,239**
Total Commercial	**$13,364,879**	**$18,239**

Notes: DUE is dwelling unit equivalent. (1) Commercial DUE: 2,500 sq. ft. = 1 DUE. (2) Industrial DUE: 5,000 sq. ft. = 1 DUE.

The City will rely on its authority to levy impact fees under the Mitigation Fee Act, contained in Government Code Sections 66000 et. seq. This report provides the necessary documentation for the adoption of a capital impact fee.

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1.0 Background and Introduction

Introduction

The report is organized into the following sections:

1.0 **Introduction & Background** discussing the legal requirements for establishing and imposing such fees, as well as methods used in this study to calculate the fees.
2.0 **Impact Fee Calculation Methodology** describes the various methods of impact fee calculation.
3.0 **Scope of Facilities and Report Time Frame** lists the different facilities analyzed in this study as well as describes the study area and time associated with the development of these impact fees.
4.0 **Impact Fee Analysis** discusses the impact of development on the following facilities:
- 4.1 Electric Facilities
- 4.2 General Government
- 4.3 Fire Protection Facilities
- 4.4 Park Facilities
- 4.5 Police Department Facilities
- 4.6 Storm Drainage
- 4.7 Wastewater System
- 4.8 Water System
- 4.9 Street Improvements

5.0 **Fee Implementation** explains the procedures and legal requirements for implementing an impact fee program under California law.

Background

The Biggs General Plan Table 1.3 estimates population growth for the City based on four growth scenarios, that of 1.0, 1.5, 2.0 and 2.5 percent annual growth. Based on recent residential development inquiries and proposals in the City, a two percent annual growth rate was determined by the City Planning staff as the most likely future growth rate for the City. **Table 1.1** illustrates a two percent growth scenario for population through 2025 for the City of Biggs. Also illustrated in **Table 1.1** is the projected number of housing units through 2025 for the City (based on a 3.14 persons per household as identified in the 2000 Census).

Table 1.1: City of Biggs Project Population Growth

Year	Population[1]	Change in Population	Estimated Housing Units[2]	Change in Housing Units
1997	1,640			
2000	1,793	153	571	
2005	1,972	179	628	57
2010	2,170	198	691	63
2015	2,386	216	760	69
2020	2,625	239	836	76
2025[3]	2,888	263	920	84
2000-2025 Change		1,095	349[3]	

Source: Biggs 1997-2015 General Plan; 2000 Census
Note: 1) Population is based on a 2% growth rate after the year 2000. 2) Estimated housing units are based on a 2000 Census 3.14 persons per household. 3) This number represents the change in housing units between 2000 and 2025 based on a 2% growth factor. This number does not necessarily correspond to the total buildout housing unit number of 536 units, which may occur beyond 2025.

The City is seeking to avoid fiscal impacts associated with the capital cost of meeting the demands of residential and commercial growth. Streets, wastewater and water treatment, storm drainage, parks and general services, are all affected when a community grows. Property and sales tax are insufficient to meet these capital needs,

Section 66000 of the California Government Code allows a City to adopt development impact fees. As development fees are usually paid at the time a building permit is issued, using fees to directly fund capital improvements is usually only effective when a City is experiencing rapid growth. Fees can also be used to address in-fill development needs, reimburse development for the cost of extending services, and to ensure that the City has completed the planning necessary to support new growth. Development fees have become one of the methods for implementing master water, wastewater, and storm drainage plans.

2.0 Impact Fee Calculation Methodology

Overview

There are several methods that may be used to calculate impact fees and assign costs to new development. This report uses different methods of cost assignment depending on the improvement under consideration. For example, some improvements are based solely on population growth, while others may be based on the number of units or anticipated growth in a specific area of the City. Still other improvement costs are based on the population of the City as a whole, factoring in existing residents in the assignment of cost or responsibility. The choice of a particular assignment method depends on the type of improvement. All methods typically follow two steps: First, the cost of the improvement is estimated; and second, the cost is allocated to the various development types.

Methodologies

The following methodologies are used in this report to assign costs of improvements to new development:

Plan Based. The plan-based method allocates costs for improvements to a specified set of developments. The improvements are identified by a master plan, which includes a service area for the improvement(s). The area can be citywide, a neighborhood, or an intersection. If the service area is identified, vacant land uses identified through proposal or an adopted land use plan, the improvement costs can be assigned to future development within the service area. Facility costs are allocated to various categories of development in proportion to the amount of development and the relative intensity of demand for each category.

In a plan-based method, the total cost of relevant facilities is divided by total demand to calculate a cost per unit of demand. Then, the cost per unit of demand is multiplied by the amount of demand per unit of development (e.g. dwelling units or square feet of building area) in each category to arrive at a cost per unit of development. This method implicitly assumes that the entire service capacity of the specified facilities will be absorbed by the planned development, or that any excess capacity is unavoidably related to serving that development. For example, it may be necessary to widen a street from two lanes to four lanes to serve development, but that development may not use all of the capacity added by widening the street. Assuming the improvements in question are needed only to serve the new development paying the fees, it is legitimate to recover the full cost of the improvements through impact fees.

The plan-based method is often the most workable approach where actual service usage is difficult to measure (as is the case with administrative facilities), or does not directly drive the need for added facilities (as is the case with fire stations). It is also useful for facilities, such as streets, where capacity cannot always be matched closely to demand. This method is relatively

inflexible in the sense that it is based on the relationship between a particular facility plan and a particular land use plan. If plans change significantly, the fees may have to be recalculated.

Capacity Based. This method can be used only where the capacity of a facility or system is known, and the amount of capacity used by a particular type and quantity of development can be measured or estimated. This method calculates a rate, or cost per unit of capacity based on the relationship between total cost and total capacity. It can be applied to any type or amount of development, provided the capacity demand created by that development can be estimated and the facility has adequate capacity available to serve the development. Since the fee calculation does not depend on the type or quantity of development to be served, this method is flexible with respect to changing development plans. Under this method, the cost of unused capacity is not allocated to development; so unused impact fees would not cover capacity if it is not absorbed by development. Capacity-based fees are most commonly used for water and wastewater systems.

To calculate a capacity-based impact fee rate, the cost of the improvement is divided by the capacity to arrive at a cost per unit of service. To determine the fee for a particular development project, the cost per unit of capacity is multiplied by the amount of capacity needed by that project. To produce a schedule of impact fees based on standardized units of development (e.g. dwelling units or square feet of building area), the rate is multiplied by the amount of service needed, on average, by those units of development. For example, if the City knows that the next increment of wastewater treatment plant expansion will cost $750,000, and will serve 750 new dwelling units or equivalents, the capacity-based method would divide the cost ($750,000) by the units (750) to arrive at a per-unit cost of $1000. Note that this method assumes that the City will fund the improvement through other means and be reimbursed over time by the new development.

Standard Based. The standard-based method is related to the capacity-based approach in the sense that it is based on a rate, or cost per unit of service. The difference is that with this method, costs are defined from the outset on a generic unit-cost basis and then applied to development according to a standard that sets the amount of service or capacity to be provided for each unit of development. The standard-based method is useful where facility needs are defined directly by a service standard, and where unit costs can be determined without reference to the total size or capacity of a facility or system. It is common for cities to establish a service standard for parks in terms of acres per thousand residents. In addition, the cost per acre for, say, neighborhood parks can usually be estimated without knowing the size of a particular park or the total acreage of parks in the system. This approach is can also be used to estimate community facilities such as libraries, community centers, and other improvements where it is possible to estimate a generic cost per square foot before the facility is designed. One advantage of the standard-based method is that a fee can be established without committing to a particular size of facility, and facility size can be adjusted based on the amount of development that actually occurs.

Ratio Cost for Street Improvements, Government Services and Fire Protection

In addition to the methodology described above, an existing/new development ratio of 51:49 was used in the calculation of the impact fee for Street Improvements, General Government and Fire Protection. This ratio was included under the assumption that existing and new development would both use these facilities/equipment and the need for the improvements was not exclusively a result of new growth in the City. For example, while the need for facilities and

equipment to equip one additional police officer is only necessary because of the increase in population new development would bring to the City, the need for a replacement fire engine, which is currently needed in the City, will serve both new and existing development. As for General Government, while many of the facilities and equipment needed will be as a result of new development, much of the items will be used by both existing and new development.

The ratio was established using a combination of the existing housing units and industrial/commercial DUEs as well as the potential new housing units and industrial/commercial DUEs. The ratio was determined as follows:

Existing Housing Units + Existing Commercial DUEs + Existing Industrial DUEs :
New Housing Units + New Commercial DUEs + New Industrial DUEs

Table 1.2: Existing/New Development Ratio

	Existing			Future		
	Residential	Commercial	Industrial	Residential	Commercial	Industrial
Units/DUEs	622*	59	113	536	157	65
Total	794			758		
Ratio	51			49		

Note: * Number of dwelling units from 2005 Department of Finance Estimates

3.0 Scope of Facilities and Report Time Frame

Study Area and Time Frame.

The study area for this study includes the existing City of Biggs, its sphere of influence and known proposed development outside of the City's sphere as shown in **Figure 3.1**. Note that on **Figure 3.1**, the vacant land is illustrated using the special districts identified in **Table 3.1**. This information was used to determine the total holding-capacity of the City's sphere of influence and known proposed development outside of the City's sphere. The timeframe for this study extends from the present to 2025. From a practical standpoint, the term of the study is closer to 10 years as the needs of the City will change over time, and state law requires periodic review of adopted fees to ensure that they stay relevant. The procedures for fee implementation are discussed in Section 5.0 of this report.

Table 1.4 of the General Plan illustrates the short and long term development capacities within the Special Planning Districts in the City's current sphere of influence and known proposed development outside of the City's sphere. This table identifies the potential development of the existing vacant or under-utilized land in the City and is used as the basis for determining the dwelling unit equivalency (DUE)[1] for the City buildout projections. The buildout DUE projection, along with the total cost of the needed improvements, are the basis of calculating the various development impact fees. **Table 3.1** below identifies the projected DUEs for residential, industrial and commercial future development in the City based on the projections established in Table 1.4 of the General Plan. A total of 536 new residential units, 157 industrial DUE (assuming a 60% lot coverage) and 65 commercial DUE (assuming a 75% lot coverage) are

[1] The impact of non-residential development is more difficult to estimate as the services can range from domestic water and sewer needs for a conventional office, to significant wastewater treatment needs from an industrial use. For purposes of this report, 2,500 square feet of commercial and 5,000 square feet of industrial use is considered to have capital impacts similar to one (1) single family dwelling unit. The actual impact will need to be determined at the time of application and fees adjusted accordingly.

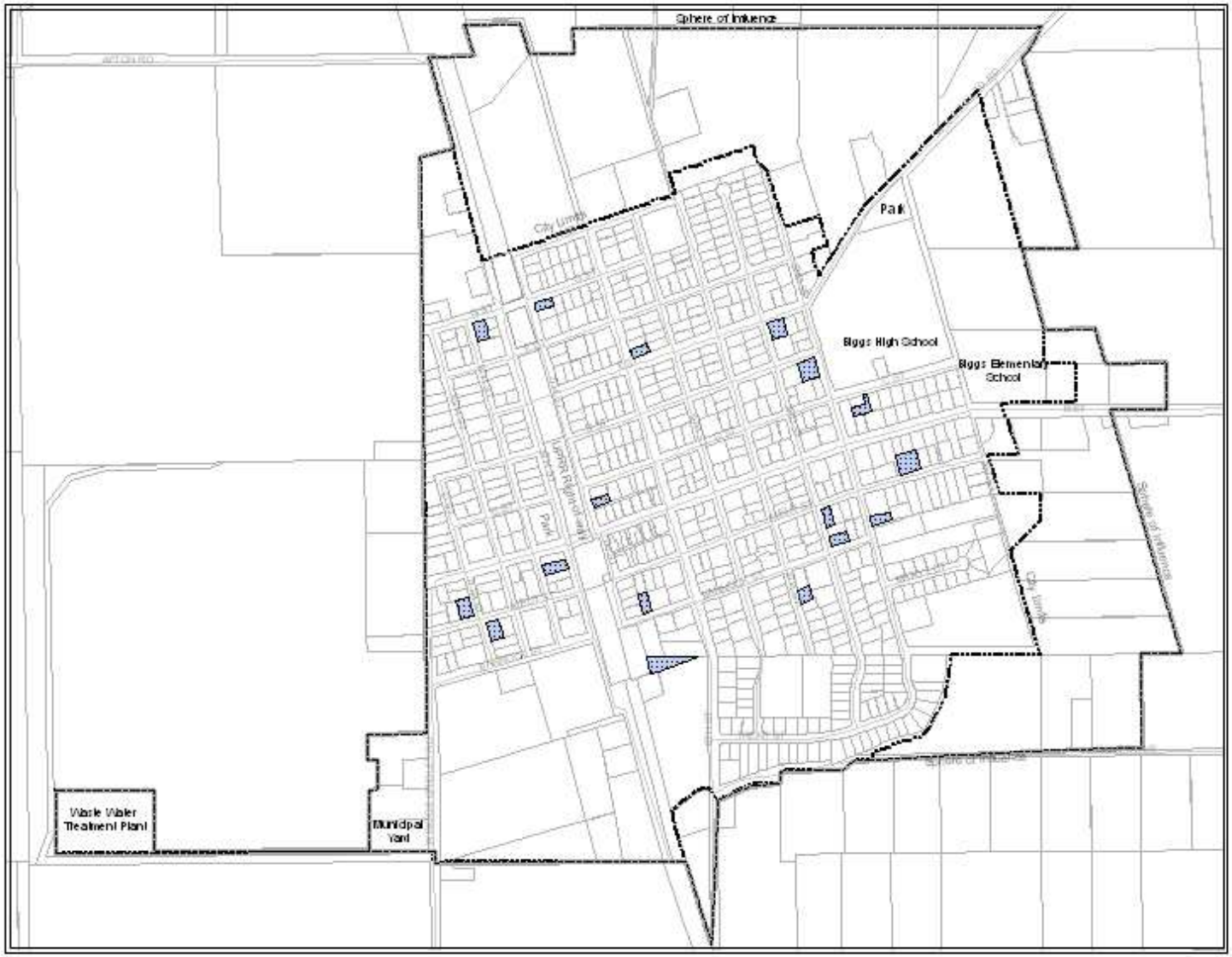
anticipated for the remaining vacant and/or under-utilized land within the City's sphere of influence and known proposed development outside of the City's sphere.

Table 3.1: Projected Residential Units and Commercial and Industrial DUEs

Vacant or Under-Utilized Land	Existing	Capacity	Difference	
			Dwelling Units	Population
Residential	8 single family	148 single family, 120 attached units	260 single family	817
Residential	14 single family	290 single family	276 single family	867
Total Residential	22 single family	438 single family, 120 attached units	536 single family	1,684
Vacant or Under-Utilized Land	**Total New Acreage**	**Total Lot Coverage (at 60% for Industrial 75% for Commercial)**	**DUE Industrial***	**DUE Commercial****
Industrial/Commercial	20 acres industrial, 5 acres commercial	522,720 sq. ft. Ind, 163,350 sq. ft. Comm	105	65
Industrial/Commercial	10 acres industrial	261,360 sq.ft.	52	0
Total Comm/Indstrl	30 acres industrial, 5 acres commercial	784,080 sq. ft. Ind, 163,350 sq. ft. Comm	157	65

Note: * Potential population increase is based on an average household size of 3.14 as established in the 2000 Census. ** Commercial DUE = 1 DUE / 2,500 square feet, Industrial DUE = 1 DUE/5,000 square feet.

Figure 3.1: Impact Fee Study Area



4.0 Impact Fee Analysis

4.1 Electric Facilities

This section of the report addresses electric system in the City of Biggs. The City of Biggs owns and operates an electric substation and distributes electric power to the City. The modular substation was built in 1997. The substation consists of one three-phase transformer to step down the 60 Kv PG&E feed to 12 Kv.

The City also owns, operates and maintains the electrical distribution system within most of the city. The distribution system is redial. Two feeders, each protected by automatic reclosing oil/vacuum circuit breakers, connect the substation to the system.

Current Fee. The City has capacity and distribution fees. The capacity and distribution fees are listed under the City Code as being used or capital improvements and therefore are the only "development impact" fee. The connection fees are stated as being used for operating costs in the City Code and therefore cannot be considered development impact fees. Commercial and industrial capacity and distribution fees were previously determined by the City Engineer and/or Building Inspector and now have a minimum fee illustrated in **Table 4.1-1** actual fees are determined by the City Engineer and/or Building Inspector.

Table 4.1-1: Current Electric Capacity and Distribution Fees

Panel Size	Single Phase		3 Phase	
	Capacity	Distribution	Capacity	Distribution
Voltage: 120/240				
200 or less	$900	$900	$1,557	$1,557
400	$1,800	$1,800	$3,114	$3,114
600	$2,700	$2,700	$4,671	$4,671
800	$3,600	$3,600	$6,228	$6,228
1000	$4,500	$4,500	$7,785	$7,785
Voltage: 120/208				
200 or less	-	-	$780	$780
400	-	-	$1,560	$1,560
600	-	-	$2,340	$2,340
800	-	-	$3,120	$3,120
1000	-	-	$3,900	$3,900
Voltage: 277/480				
200 or less	-	-	$3,114	$3,114
400	-	-	$6,228	$6,228
600	-	-	$9,342	$9,342
800	-	-	$12,456	$12,456
1000	-	-	$15,570	$15,570

Methodology. Using the capacity method, this analysis assumes a calculation approach based on capacity and the ability of the system to handle such capacity through build out of the sphere of influence and known proposed development outside of the City's sphere as well as providing a reserve fund for future expansion. While electric consumption is dependent on the type and use of the development, (i.e. manufacturing versus office versus single family residential) it is assumed that, based on the dwelling unit equivalent of 2,500 square feet for commercial development and 5,000 square feet for industrial development, electric use will generally be equivalent for all types of development for this analysis and determination of the impact fee. For

purposes of calculation of impact fees, should an improvement be required as a consequence of the new development regardless of the location it shall be considered an impact on the system.

Demand Variable. The City of Biggs will base the demand on residential dwelling units or dwelling unit equivalents of non-residential projects. For purposes of this report, 2,500 square feet of commercial and 5,000 square feet of industrial use is considered a dwelling unit equivalent.

Level of Service. Goal 4.5 of the Biggs Public Facilities Element calls for electric service facilities that are adequate to meet the needs of current and future residents. Currently, the City's electric utility system provides service that adequately serve existing residents and business in the City. Future growth will have need of the same standard of service.

Facility Needs. The existing electric system is considered adequate to serve approximately 200 new DUEs. Beyond that, the City will need an additional substation to serve future growth in the City. A new substation is estimated to cost approximately $1.1 million.

Calculated Fee. Based on the cost estimates described above, the cost of a new substation to serve new development is $1,451 per dwelling unit equivalent. The cost for a new substation is considered an estimate and may be revised, as the actual construction and implementation period of the new substation is determined.

Table 4.1-2: Electric Facilities Cost per DUE/Residential Unit

Projected Cost	Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
$ 1,100,000	536	65	157	758	$1,451

Source: City of Biggs

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

4.2 General Government

The anticipated growth as a result of new development would increase the need for expanded government facilities such as an expanded planning office and the need for additional equipment to serve future development.

Current Fee. The City does not have a mitigation fee for impacts to general government facilities.

Methodology. This section calculates impact fees using a variation of the plan-based method discussed in Section 1. The specific improvements may or may not be identified by a master plan. The improvements identified for the General Government category were determined by the Public Works Department through an analysis of improvements needed to serve anticipated future growth. Additionally, because the improvements (i.e. facilities and equipment) will serve both existing and future residents of the City, an existing/future ratio (approximately 51:49) was use to determine the fees to future development. However, some improvements, such as the Planning office expansion, were considered the sole responsibility of new development, as this expansion would not be necessary were it not for anticipated future development. See **Appendix A** for an improvement list, a cost estimate and identification of proportional responsibility of improvements.

Demand Variable. The City of Biggs will base the demand on residential dwelling units or dwelling unit equivalents of non-residential projects. For purposes of this report, 2,500 square feet of commercial and 5,000 square feet of industrial use is considered a dwelling unit equivalent.

Level of Service. The City considers adequate office, meeting and storage space important to the efficient operation of the City at all levels. For purposes of this analysis, it is assumed that improvements to City Hall, City offices (i.e. planning) and equipment for new staff to serve future growth, as well as equipment for Public Works and additional storage and shop space for the wastewater treatment plant will be needed to meet the growth projected in **Table 4.2.1** as established by the Biggs Public Works Department. See **Appendix A** for a complete list of improvement/equipment for General Government.

Facility Needs. Based on the level of service and the methodology describe above, the City will need a additional facilities and equipment to provide adequate office and services under projected buildout conditions. **Table 4.2-1** illustrates the estimated total cost of the improvement and the ratio cost for future development.

Table 4.2-1: General Govenment Improvement Costs

Improvement	Total Cost	Ratio Cost for New Development[1]
City Hall	$70,000	$34,202
Planning	$259,600	$239,655
Administration	$27,600	$16,349
Waste Water/Drinking Water	$35,950	$18,997
Public Works	$251,300	$120,438
Total	**$644,450**	**$429,641**

Source: City of Biggs Public Works
Note: 1) The existing/future ratio is calculated to be 51:49

Calculated Fee. Based on the cost estimates in **Table 4.2-1**, the cost of improvements require to serve new development is $599 per dwelling unit equivalent. While not all of the General Government improvement are construction related, because construction costs can vary,

particularly for expansion and remodel projects, the cost figures in **Table 4.1-1** are considered estimates and may be revised as the City develops better construction cost data.

Table 4.2-2: General Government Cost per DUE/Residential Unit

Projected Cost	Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
$429,641	536	65	157	758	$567

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

4.3 Fire Protection Facilities

This section addresses impact fees for Fire Department facilities and equipment needed to serve future development in Biggs. The City contracts with the California Department of Forestry and Fire Protection (CDF) for fire protection services. Fire engines and other equipment currently operate from one station.

Current Fee. Currently, the City does not have an impact fee for fire facilities.

Methodology. This section calculates impact fees for Fire Department facilities and equipment using a version of the standard-based method discussed in Section 1. The fire impact fees calculated in this report are calculated on an existing and future need basis for equipment and facilities, which were provided by the Fire Department. The only piece of equipment anticipated to serve the City in the future is a replacement fire engine. Because this engine will serve existing and future residents of Biggs, an existing/future ratio (approximately 51:49) was used to determine the impact fee for new development.

Demand Variable. In this section, demand for Fire Department services is measured in terms of developed acreage and the need for replacement of obsolete equipment. Because the first-response coverage provided from a fire station is limited by the distance that can be traveled within response time standards, the number of fire stations needed to serve the City is determined primarily by the size of the area to be served and any obstructions which may impede response time. Because of the relatively small size of the City, the need for an additional fire station to serve new development is unwarranted. However, the replacement of old equipment, in this case a new fire engine, is paramount for continuing adequate fire safety in the City.

Level of Service. In order to continue to provide adequate fire protection there is a need for a new fire engine to replace obsolete equipment will be necessary in the near future.

Facility/Equipment Needs.
The only facility or equipment need for fire protection is a replacement fire truck. **Table 4.3.1** lists the estimated cost for a replacement fire truck as well at the new development ratio cost.

Table 4.3.1: Fire Department Facilities – Future Need

Description	Cost	Ratio Cost for New Development[1]
Replacement Fire Truck	$350,000	$171,008

Source: City of Biggs
Note: 1) The existing/future ratio is calculated to be 51:49

Calculated Fee. Based on the cost estimates in **Table 4.3-1**, the fee to new development for their fair-share of the cost for a replacement fire truck is $226 per dwelling unit equivalent.

Table 4.3-2: Fire Department Cost per DUE/Residential Unit

Projected Cost	Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
$171,008	536	65	157	758	$226

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

4.4 Park Facilities

This section addresses the calculation of impact fees for parkland and improvements needed to serve the estimated population growth. Information on parks used in this section is based on the Community Enhancement Element of the Biggs General Plan.

Current Fee. Currently, the City does not have development impacts fees for the development of park and recreation facilities.

Methodology. This section calculates impact fees using the standard-based method discussed in Section 1. Standard-based are based on a ratio of facility to user, in this case 6.25 acres per 1,000 persons, and do not depend on assumptions about the ultimate limits of development in the City. Additionally, a commercial/industrial park use ratio was determined and included as a part of the park fee analysis. This ratio is included under the assumption that the industrial and commercial employees and customers use parkland facilities as well as City residents. The residential:commercial/industrial ratio is 90:10, as determined by the City Planning Department.

Demand Variable. The City of Biggs, like all other communities, bases the new park demand on population increases. Because the fees are population-driven, they apply only to new residential development.

Level of Service. The Community Enhancement Element sets a goal in the City of Biggs of 10 acres of parks and open space per 1,000 population. However, according to the General Plan, the existing parkland ratio is 6.25 acres park per 1,000 population. As new development cannot be expected to fully fund the difference between the 10 acre and 6.25 acre ratio, but can be expected to maintain the existing ratio, the 6.25 acre/1,000 population shall be used in the determination the amount of new parkland required of new development in the City.

Facility Needs. Facility needs for future parks are identified in terms of ratios of park acreage to population rather than as a list of specific projects. Based on a projected increase of 1,684 persons or 536 dwelling units as established in **Table 3.1**, a total of 10.5 acres of parkland will be required to serve the increased population. **Table 4.4-1** illustrates the estimated cost for a 10.5 acre neighborhood park. It is important to note that the per-capita costs for smaller parks can increase and that larger parks are more efficient to both construct and maintain.

Table 4.4.1: Standard Park Estimated Cost

Item			Cost
Cost of Acquisition (per acre)			$48,000
Park Facility Improvements (per acre)			$125,240
Total Per Acre Cost			$173,250
Population	**Required # of Acres**	**Cost per Acre**	**Total Cost**
1,684	10.5	$173,240	$1,823,351

Calculated Fee. A residential:commercial/industrial ratio of 90:10 was used to calculate the ratio cost for the different land use type. Based on the cost estimate in **Table 4.4-1**, per residential unit cost is $3,060 and $820 per commercial and industrial DUE. Because the size and shape of parks factor into the improvement costs, the figures in **Table 4.4-2** are considered estimates and may be revised as the City develops better park development data. Additionally, these fees are based on the assumption that a proposed project would not provide parkland and facilities. If a project would provide parkland and facilities based on the existing General Plan parkland ratio

of 6.25 acres per 1,000 persons and any other park requirements by the City, then this fee would be waived or fee credit issued.

Table 4.4-2: Parks and Recreation Ratio Cost per DUE/Residential Unit

Development type	Ratio Cost	Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
Residential	$1,641,016	536			536	$3,060
Indust/Comm	$182,335		65	157	222	$820

4.5 Police Department Facilities

This section addresses impact fees for Police Department facilities and or equipment needed to serve future development in Biggs. The City is served by the Biggs-Gridley Police Department. The Biggs-Gridley Police Department is staffed by a police Chief, one Police Lieutenant, two Sergeants and eight sworn officers. Support services include Animal Control, a Reserve Force, Gang Task force, Volunteer Senior Corps and a Volunteer Radio Team.

Current Fee. Currently, the City does not have an impact fee for police facilities.

Methodology. This section calculates impact fees for Police Department facilities/equipment using a variation of the standard-based method discussed in Section 1. The standard-based method allocates costs defined from the outset on a generic unit-cost basis and then applied to development according to a standard that sets the amount of service or capacity to be provided for each unit of development. The improvements are identified by projected population identified by a land use plan. Typically, in a standard-based calculation, costs for facilities and equipment needed to serve future development are allocated only to future development. In this situation the fee calculation method used here ensures that future development is bearing the burden of police facilities needed to serve the planned growth of the community. Additionally, it has be determined by the Biggs Police Department that the number of requests for police assistance is much greater for residential uses than for commercial and industrial uses requiring a greater amount of police service time allocation for that use. In order establish a fair-share cost for the police Impact Fee, a response ratio of 80 percent residential to 20 percent commercial/industrial was include in the fee calculation

Demand Variable. In this section, demand for police services is measured by the number of officers per 1,000 population. The projected future population for the City is estimated to increase by 1,684 under the current General Plan buildout scenario including the sphere of influence and known proposed development outside of the City's sphere. The increase in population would require the employment of one new officer in the City.

Level of Service. While the City of Biggs has not formally adopted a level-of-service standard for police protection, the City acquiesce with the general police protection standard of one sworn officer per 1,000 population.

Facility/Equipment Needs. **Table 4.5-1** calculates the cost of future equipment necessary to equipment one new officer for the City of Biggs. This equipment includes one new vehicle, patrol equipment, and facility equipment for one new officer. This approach, discussed in the Methodology Section, ensures that equipment costs are allocated to future development on an equivalent basis.

Table 4.5-1: Cost for Future Equipment Needs

Description	Cost
Police Vehicle	$37,000
Equipment for 1 Officer	$ 4,000
Facility Equipment for 1 Officer	$ 2,000
Total	**$43,000**

Source: City of Biggs Police Department

The cost for equipment in **Table 4.5-1** represents the City's current cost in equipment and police vehicles. This study assumes that, in order to maintain an equivalent level of service as the City

grows, the Police Department will need to maintain the existing level of service. It is important to note that impact fees used for police vehicles and officer equipment may be used only to cover the one-time cost expansion. The fees may not be used for replacement of existing vehicles.

Calculated Fee. In **Table 4.5-2**, the total cost of equipment per year from **Table 4.5-1** is converted into impact fees per unit of development. The fee to new development for the cost to equip one new police officer is $64 for residential development and $39 for commercial and industrial development.

Table 4.5-2: Police Department Cost per DUE/Residential Unit

Development type	Ratio Cost	Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
Residential	$34,400	536			536	$64
Indust/Comm	$8,600		65	157	222	$39

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

4.6 Storm Drainage

This section addresses storm drainage in the City of Biggs. The City does not have any separate assessment drainage districts within its boundaries which it oversees, operates and maintains. Storm water runoff is collected in back bone facilities operated and maintained by Reclamation District No. 833, which ultimately is responsible for transporting of storm water to the Butte Sink. Reclamation District No. 833 was formed in 1911 for purposes of draining farmland.

Storm water from most of the existing city is discharged to RD 833's Hamilton Slough, which transports the storm water to RD 833 canal, also titled Cherokee Canal, approximately 1 mile west of the City. The City is divided up into two main drain areas separated by B Street. Areas to the north of B Street drain to Lateral K, and then flow west of the treatment plant before joining Hamilton Slough. Areas south of B Street drain directly into Hamilton Slough. The inner city has minimal underground and above ground assets which transport storm water flows.

Current Fee. The City does not currently charge a development impact or drainage fee for discharge into its system, nor to Reclamation District No. 833 laterals.

New development is required to incorporate storm drainage detention facilities to limit the peak storm water discharge flow rate after full development during a 100-year design storm event so the flow rate does not exceed the peak storm water discharge flow rate from the undeveloped project site based upon a 100-year design storm event. The impact fee is for improvements necessary to City infrastructure in order to accommodate the potential new development stormwater flows.

Methodology. Using the capacity method, this analysis assumes a calculation approach based on capacity and the ability of the system to handle such capacity through build out of the sphere of influence and known proposed development outside of the City's sphere as well as providing a reserve fund for future expansion. For purposes of calculation of impact fees, should an improvement be required as a consequence of the new development regardless of the location, it shall be considered an impact on the system.

Level of Service. The City cannot make choices regarding service levels with respect to storm drainage facilities in the same way it does for some other facilities such as streets or parks. A storm drainage system must have the physical capacity to convey the volume of stormwater produced by development in its service area. If the system (or any part of it) becomes incapable of satisfying those requirements, additional development will be precluded until the problem is corrected.

Facility Needs. **Table 4.6-1** summarizes the costs associated with the aforementioned projects and their proposed shared percentages. Detailed estimates have been performed within the storm drainage master plan, and by mention herein are incorporated therewith.

There are currently 9 regional improvements planned for the City's facilities.

Table 4.6-1: Storm Drainage System Improvements and Related Cost

Description	Quantity (per Linear Foot)	Unit Cost (per Linear Foot)	Total Cost
East Biggs Interceptor	1 Job	Lump Sum	$745,000
First Street Trunk Line	1 Job	Lump Sum	$365,000
Second Street Improvement Project	1 Job	Lump Sum	$315,000
City Regional Detention Basin	1 Job	Lump Sum	$300,000
		Total	**$1,725,000**

Source: City of Biggs Engineering Department

1.) East Biggs Interceptor – This project will be necessary along with any development occurring in planning area #2, east of the city limits. This project is described in more detail in the Storm Drainage Master Plan 1998, but basically intercepts flow coming from the east, and routes it south to Hamilton Slough. The approximate cost for this project is $745,000 (2005 dollars).

2.) First Street Trunk Line – The first street trunk line proposes installing large trunk mainline north-south in first street, south of B street and directing flow into Hamilton Slough. Approximately 30 percent of this project would be directly attributable to planning area #2. The approximate cost for this project is $1,212,000. This cost includes significant improvements to First Street.

3.) Second Street Improvement Project – The Second Street improvement project proposes installing/replacing storm drainage north of C Street to the north edge of town. Approximately 20 percent of this project would be attributable to planning areas 1 and 2. Much of the construction of this project involves roadway construction, curbs, gutters, and sidewalks. The approximate cost for this project is $1,561,000.

4.) Seventh Street Trunk line and Channel Extension – Improvements with this project are concentrated within the existing city along 7th Street, between E-Street and Hamilton Slough and are not impacted by development projected to occur in the sphere of influence and known proposed development outside of the City's sphere.

5.) West City and H Street Improvements - Improvements with this project are concentrated within the existing city on the west side of town and are not impacted by development projected to occur. Although it is worth mentioning, that in 2005 the city was awarded a Community Block Development Grant – Public Facilities, and this project is expected to be completed in 2006.

6.) South Second Street Infrastructure Improvements - Improvements with this project are concentrated within the existing city on Second Street south side of B Street and are not impacted by development projected to occur.

7.) Aleut Street Infrastructure - Improvements with this project are concentrated within the existing city along Aleut Street East of Seventh, to Third Street and are not impacted by development projected to occur.

8.) C-Street Infrastructure Improvements - Improvements with this project are concentrated within the existing city along C-Street East of Seventh, to Third Street and are not impacted by development projected to occur.

9.) City Regional Detention Basin – This project proposes to provide a downstream regional detention basin near the location of the Wastewater Treatment Plant. This detention basin is expected to be approximately 10-12 acres, and will mitigate the runoff concerns cased by the development of planning areas 1, 2 &3. It's the City's desire to concentrate a regional facility, perhaps as a dual use facility such as a park, verses having numerous small detention basins to operate and maintain. All the costs associated with the land purchase, and construction of this basin would be attributable to new development. The estimated cost for land purchase and construction of this basin are $300,000

Calculated Fee. According to the City of Biggs General Plan the total development potential is outlined below:

Table 4.6-2: Storm Drainage Cost per DUE/Residential Unit

Projected Cost	Project Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
$ 1,725,000	536	65	157	758	$2,276

The cost outlined above for in **Table 4.6-2** is converted into impact fees per DUE at full build out. This equates to an impact fee of $2,276 per DUE.

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

4.7 Wastewater System

This section addresses wastewater collection and treatment facilities in the City of Biggs.

Wastewater is not subject to the same analysis as are the previous services. Sewer fees and water are treated different than other fees under AB1600 and are subject to Government Code Section 66013. Section 66013 is as follows:

> (a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.

One of the most significant concerns with development in any city is the capacity of the treatment and disposal facility, as it is a condition for any future development in the City. The existing City's facilities include collection mainlines, three pumping stations, and a secondary level wastewater treatment plant. Secondary wastewater effluent is produced through a treatment plant consisting of facultative lagoons, a rock filter, and disinfection chamber. Currently the treatment plant summertime flows are averaging about 0.20 million gallons per day (MGD).

The treatment plant was upgraded both in technology and capacity in 1999. The plant operates under a permit of waste discharge issued by the State of California Regional Water Quality Control Board – Redding Branch. During the same year as a part of the treatment plant upgrade, an aggressive mainline and sewer service replacement project was also funded whereby approximately 7500 lineal feet of sewer main line and attached services were replaced pursuant to recommendations of an infiltration and inflow study. Prior to this upgrade, the City frequently experienced effluent surcharges for long time periods which placed a mixture of raw sewage and storm water on city streets exposed to the public. The aforementioned upgrades have largely eliminated this surcharging problem. The total cost of the aforementioned improvements was approximately 2.7 million dollars of which some of those funds were in the form of a 40-year loan.

In summary the treatment plant is permitted to the discharge specifications noted below under Order No. 5-00-255:

Monthly Average Flow	0.38 MGD
Peak Wet Weather Flow (design capacity)	1.05 MGD
Design Flow	0.37 MGD
Influent Pump Station capacity – Dry Pit	
No. of Pumps	2
Capacity of both pumps together	1000 gallons per minute (gpm)

Current Fee. Connection fees for sewer systems – are related to the hydraulic capacity of the sewer system and ability to treat and dispose of effluent for new development. The connection charge represents the contributive share of the cost to expand existing facilities, or construct

new sewer trunk mains and expand the treatment facilities. In other words, the amount of capacity that is needed to provide effluent disposal to customers is directly related to the extra demand placed on the system. Customers placing a greater burden on the existing sewer system bear a greater share of this cost. Thus, the sewer connection charge represents a contributive share of the cost in constructing all or a portion of capital improvements necessary to serve new customers.

Capacity fees for sewer systems – Capacity fees serve to further and protect the health and safety of the citizens of the city by providing for the construction/expansion of sewage and wastewater facilities including replacement and enlargement of existing trunk mains, treatment plants and disposal alternatives.

Currently the City's sewer impact fees are designated within Resolution 96-9 summarized here as follows:

$ 1700.00 - Connection Fee per Single Family Dwelling Unit (SFD)
$ 950.00 - Collector Fee per SFD
$ 550.00 - Connection Fee for second unit on property
$ 550.00 - Collector Fee for second unit on property.
$ 40.00 per fixture unit as calculated by the Uniform Plumbing Code for Commercial and Industrial development.

Methodology. Using the capacity method, this analysis assumes a calculation approach based on capacity and the ability of the system to handle such capacity through build out of the sphere of influence and known proposed development outside of the City's sphere as well as providing a reserve fund for future expansion. It's much more important to plan for the future when considering wastewater treatment and disposal as the complexities, regulations and funds necessary to perform a treatment plant expansion are considerably more involved than with the water system. For purposes of calculation of impact fees herein, should an improvement be required as a consequence of the new development regardless of the location, it shall be considered an impact on the system.

Demand Variable. The impact by development is a direct relationship between the amount of development and net increases of wastewater discharged to the system as it relates to new systems. Older systems are also burdened with infiltration and inflows. For ease of computation and manipulation, the demand variable used herein shall be defined as the average wastewater discharge in gallons per day. This figure is easily estimated empirically, as well as can be aggregated to MGD. The water master plan notes that existing city residents use much higher volumes of water than the state average. There is an entire section in the master plan devoted to water conservation. One recommendation made by this report is to encourage the City to adopt a policy and possibly an ordinance requiring new development and remodels to off-set water demand by providing for retrofitting when possible with water saving devices. Each gallon of water that is conserved is a gallon of effluent which does not have to be treated at the treatment plant. Regardless of this policy, new development will connect to and discharge to the system. Impact fees herein are calculated based on the anticipated volumes of wastewater being generated and discharged to the system by new development.

Level of Service. Currently, the City provides adequate level of service to its residents given upgrades performed in 1999/2000.

The City has taken aggressive steps over the past several years to study, plan, and fund the aforementioned wastewater improvement projects. This funding was provided to upgrade an inadequate system. Without such a large capital investment being made into the system, it's questionable how additional development would have been supported without substantial burden to update existing facilities just to have the ability to connect. That notwithstanding, every five years the City's system is reviewed by the California Regional Water Quality Control Board for regulatory compliance, as well as regulatory compliance updates. Currently the City is in its 4th year under the existing discharge permit. Regulations can, and do have an equal effect on the system, as does future development. The anticipation and funding for upgrades based on industry wide actions being taken by the Regional Board has to be considered regardless of new development. Thus concerning this study it's anticipated that an upgrade to the treatment plant will be necessary regardless of new development. Thus, when considering new development, the legislated upgrade will have to be separated from impacts requiring even further upgrades.

Facility Needs. **Table 4.7-1** lists the sewer system improvements addressed herein, along with their associated costs in today's dollars.

Table 4.7-1: Waste Water System Improvements and Related Cost

Description	Quantity (per Linear Foot)	Unit Cost (per Linear Foot)	Total Cost
Replace Existing 6" diameter piping with 10" dia piping 9th Street	600	$100	$60,000
10" dia trunk main line	3400	$87	$300,000
Sewage Lift Station	2 ea	$110,000	$220,000
Bore and jack crossing	1 each	$50,000	$50,000
8" Dia PVC SDR 35 main	2100	$80	$168,000
Sewage Lift Station	1 ea	$110,000	$110,000
Hamilton Slough Crossing	1 ea	$30,000	$30,000
Junction structure at the intersection of 9th, and Bannock	1 ea	$30,000	$30,000
Repayment of the Loan Funds (20%)	40-yrs	$8 000	$320,000
Treatment Plant Expansion Phase I (50%)	1	$1,175,000	$1,175,000
Treatment Plant Expansion Phase II	1	$2,750,000	$2,750,000
		Subtotal	$4,275,000
		Total	**$5,513,000**

Source: City of Biggs Engineering Department

Currently the City's design is permitted for 0.38 MGD, and the City is discharging about 0.20 MGD or at about 52 percent capacity. Three of the four special planning areas are along edges of the City furthest away from the treatment plant. The sewer collection facilities at these locations are the shallowest and will be unable to provide further gravity transport of sewage from these areas and will require pumping stations along with some internal (inner city) upsizing of mains. These improvements are outlined below:

- Area north of the City limits – This area encompasses about 111 acres between the existing city limits and the northerly sphere of influence line. Land uses are a combination of residential, light industrial, and heavy industrial. This area will need to connect at the manhole located at the intersection of 9th and E streets and at the intersection of E and 2nd Street. A new 12" diameter main line was installed in 9th Street with the aforementioned 1999/2000 project and is the first point in the system which has

capacity to handle significant excess sewage flows. The existing line in E Street is a 10" diameter with some remaining capacity to transport effluent from the eastern side of the planning area. Due to the depth of these main lines it will be necessary to construct a sewage lift stations as well as bore underneath the union pacific rail road tracks.

- Remove and Replace Existing 6" diameter piping with 10" dia piping 9th Street = 600 LF
- Install 10" diameter trunk main line. Pipe Length = 3416 L.F. Approximate Cost $300,000.
- Install sewage lift stations (2). Approximate Cost $110,000 ea.
- Railroad crossing. Approximate cost $50,000.

- Area east of the City limits – This area encompasses about 58 acres between the eastern city limits and the easterly sphere of influence line. Land uses in this area are exclusively zoned to be residential. Effluent transport from this area shall be via the existing 8" dia. sewer main line in Bannock Street, which crosses the RxR Tracks and brings the eastern side of the City together with the western side at the intersection of 9th and Bannock. There are two different ways to connect traveling both north and south on 2nd Street and then east on Aluet or along the City right of way adjacent to the South Field Manor Subdivision. Each of these directions will require about 2100 lineal feet of 8" dia. sewer main. In addition to the sewer main, due to the depth of existing connections, there will have to be a lift station provided.

  - Pipe Length 8" dia. PVC – 2100 LF. Approximate Cost $ 168,000
  - Sewer Lift Station. Approximate Cost $110,000
  - Hamilton Slough Crossing. Approximate Cost $30,000

- Area south of the City Limits – This area encompasses about 39 acres between the southern city limits and the southern sphere of influence line. Zoning within this area is a combination of heavy industrial, light industrial, and agricultural. It's likely that the agricultural zoning will ultimately be modified to a light industrial or some level of residential zoning. Much of the infrastructure has already been installed either by the city or private business in the area thus no substantial improvements are needed for this area to develop.

- Junction structure at the intersection of 9th, and Bannock. At this location where both the eastern and western sides of the City are joined, there are two gravity mains which are adequate to transport the effluent to the City's lift station. However, the existing manhole arrangement is inadequate and will cause backup in the system. These manholes will need to be replaced with a junction structure which allows the effluent to flow more freely. It's estimated this structure will combine the manholes and attached lines via a concrete box. The estimated cost for this work is $30,000.

- Repayment of the Loan Funds – The City currently has an outstanding loan for upgrades to the existing system. These loan payments total about $40,000 per year. Only a portion of this funding could be attributable to capital improvement of the City to allow future development. For purposes of this study, it's estimated that 20 percent of the total loan repayment is dedicated to capital improvement or about $8000 per year.

- Expanding the Treatment Plant – Pursuant to recommendations and ongoing advisement from the California Regional Water Quality Control Board, the City will be embarking upon an improvement project to modify its plant in two phases. Phase 1 consists of expanding the land area, and becoming an intermittent discharge facility, and phase 2 (expected to occur about 5-years later) would be mechanical upgrade of the existing plant facilities. These upgrades will occur regardless of new development, however the amount and size that will be necessary along with the complexities with increased effluent disposal will be directly attributable. The sphere areas encompass about 200 ac., while the existing city limits includes about 300 acres. Thus the sphere increases the City's current size by 47%. Thus the sphere will use up all the remaining treatment plant capacity and provisions will have to be made to provide for at least 50% more capacity with the sphere increases. Thus for purposes of this report, about 50% of the costs associated with the upgrades will be attributable to the existing city and the other 50% attributable to new development.

  Phase 1
  - Land Purchase $ 1,000,000
  - Plant upgrades to intermittent discharge $1,350,000

  Phase 2
  - Modification of treatment plant for new discharge standards $3,500,000
  - Conversion of treatment area to treatment wetlands $2,000,000

Calculated Fee. According to the City of Biggs General Plan the total development potential within the sphere of influence and known proposed development outside of the City's sphere is outlined below:

Table 4.7-2: Waste Water System Cost per DUE/Residential Unit

Projected Cost	Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
$5,513,000	536	65	157	758	$7,273

The cost outlined above for in **Table 4.7-2** is converted into impact fees per DUE at full build out. This equates to an impact fee of $7,273 per DUE.

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

4.8 Water System

Water connection fees are to be evaluated pursuant to Government Code Section 66013 as described previously under Section 4.7 Wastewater System.

Current Facilities and Work "in progress"

Currently the City maintains two wells capable of providing a total of about 1700 gallons per minute into the system. System pressures range between 20 and 35 psi. There exists a third well, but it's currently being reconstructed. Once this well is completed it's expected that the City's water supply total will be approximately 2600 gallons per minute. Much of the City's existing water delivery/distribution system is past it's useful life and needs to be replaced. Replacement of this system is necessary for both the existing residents as well as providing adequate transmission and innerconnection with new development. According to the City of Biggs Water Master Plan, the total capital replacement cost to update the City's existing system is approximately 3.3 million dollars (Year 1999 dollars) . Much of this system would have to be upgraded just to provide service to new development beyond the existing city limits.

In 2004 the City was successful in procuring nearly 5.2 million dollars for a citywide water improvement project. This funding came via two sources; a Community Development Block Grant and a United States Department of Agriculture Rural Utilities Service Grant/Loan. These sources of funding were essentially to fulfill all the necessary required capital improvements recommended in the Water Master Plan. In summary the work covered by these funds involved replacement of approximately 40,000 lineal feet of water line, and replacement of two municipal wells. Currently, one city well, referenced above is under construction and scheduled to be completed before the end of the year. The installation of the other well along with water main line is scheduled to be completed in 2006. Once these improvements are in place the existing system will have a capacity to supply about 2600 gallons per minute at static pressures nearer to 50-55 psi. Currently the City requires a maximum demand of about 914 gpm. Examining the historical data in the master plan the Cites maximum day demand estimates average to about 1.3 million gallons per day which usually occurs in June. This assumes that each residence requires a peak demand of about 2.5 gpm, coupled with the various commercial, industrial, and school users.

Current Fee. Currently fees for the City concerning water are divided into two distinct categories, connection fees and capacity fees. These fees are defined as follows:

Connection fees for water systems – are related to the hydraulic capacity of the water system. The connection charge represents the contributive share of the cost to expand existing facilities, or construct new water facilities. In other words, the amount of water that is needed to supply customers is directly related to the extra demand placed on the system. Customers placing a greater burden on the existing water system bear a greater share of this cost. Thus the water connection charge represents a contributive share of the costs to provide funds for use in constructing all or a portion of capital improvements necessary to serve new customers.

Capacity fees for water systems – Capacity fees serve to further protect the health and safety of the citizens of the city by providing for facilities to ensure a continuing supply of potable water, including new water mains and wells.

Currently the City's water impact fees are designated within Resolution 96-9 summarized here as follows:

$ 1700.00 - Connection Fee per Single Family Dwelling Unit (SFD)
$ 950.00 - Collector Fee per SFD
$ 550.00 - Conn. Fee for second unit on property
$ 550.00 - Collector Fee for second unit on property.
$ 40.00 - per fixture unit as calculated by the Uniform Plumbing Code for Commercial and Industrial development.

Methodology. The City's water system is complex. As development occurs there should be a defined way of assessing the impacts, and how those impacts can be mitigated. This is important for both the City and those whom are planning on investing time, energy and resources. With the Water Master Plan, the City conducted a detailed water model of the system. This water model was more recently updated to include the large capital improvement project described herein. As new development is proposed, continued updates to the water model shall be made as part of the environmental process to assess the impacts future development may have on the system. This information was combined with engineering judgment along with recommendations from the Public Works Department staff to make recommendations for needed improvements resulting from future development.

Demand Variable. As the City considers additional development outside the sphere of influence, it must assess the capability of the existing system to service additional development. There exists a breakpoint, whereby the existing system, i.e. the piping and supply, will no longer be able to serve additional development. In order to assess this situation, a defined unit of measure needs to be accepted and used as the practice for making calculations to show whether capacity either exists or not. The demand variable used throughout the Water Master Plan was to examine the "average maximum day demand" plus the additional fire flow requirements. Therefore this study also adopts and uses this estimate in keeping consistent with the already accepted practice.

Level of Service. Currently, according to the City Engineer, the City provides a less than adequate level of service to its residents. This is grounded in the following three assertions which are supported in the Water Master Plan; current city pressures vary too much, and drop too far below an industry expected standard during normal peak summertime usage. Water service is somewhat unreliable, and it's not uncommon for the city to "run out of water" one or two times each year. Inadequate fire fighting capacity exists in much of the town.

The City does not have the luxury of making choices regarding service levels to purvey water to its residents. Although at this "moment in time" the LOS is less than adequate, the City has taken aggressive steps over the past several years to study, plan, and fund the aforementioned water improvement project, and by the year end of 2006, it's anticipated that the existing system will meet acceptable industry standards for both level of service and public protection. This funding was provided to upgrade an inadequate system. Without such a large capital investment being made into the system, it's questionable how additional development would have been supported without substantial burden to update existing facilities just to have the ability to connect.

Facility Needs. **Table 4.8-1** lists the water system improvements addressed herein, along with their associated costs in today's dollars.

Table 4.8-1: Water System Improvements and Related Cost

Description	Quantity (per Linear Foot)	Unit Cost (per Linear Foot)	Total Cost
10" Dia. PVC main	3000	$100	$300,000
Bore and jack crossing	1 each	$50,000	$50,000
8" Dia PVC main	4200	$90	$378,000
New Well	1 each	$400 000	$400,000
Loan Repayment (10%)	40 years	$22,000	$1,760,000
Subtotal			$2,160,000
		Total	**$2,888,000**

Source: City of Biggs Engineering Department

Given the ongoing and upcoming construction to take place between now and the end of 2006, some of the largest capital improvements to allow the connection of future development will be completed through the aggressive pursuit by the City to obtain grant and loan funds. These improvements are to the wells, and inner city infrastructure. However, there are three basic areas that will require additional improvements to the water system. These improvements are outlined below:

- Area north of the City limits – This area encompasses about 111 acres between the existing city limits and the northerly sphere of influence line. Land uses are a combination of residential, light industrial, and heavy industrial. It's already planned and funded to replace the main well and replace it with one located at the north end of 9th Street. However, this well will require piping crossing the tracks looped into the sphere area and the reconnection along 4th street. Since this area includes some industrial zoning, this pipe will be a minimum of 10" diameter.
    - Pipe Length = 3000 L.F. Approximate Cost $300,000.
    - Railroad Crossing Approximate Cost $50,000

- Area east of the City limits – This area encompasses about 58 acres between the eastern city limits and the easterly sphere of influence line. Land uses in this area are exclusively zoned to be residential. While an existing well exists in this area, some piping upgrades will be necessary to allow for future development. Improvements will require about 4200 LF of 8" diameter water main and appurtances be installed and looped extending south from B Street to the southern sphere line, then west to Trent street. The existing 6" diameter main line in Trent Street will need to be upgraded to an 8" connecting to the Trent Street Well.
    - Pipe Length – 4200 LF. Approximate Cost $ 378,000

- Area south of the City Limits. This area encompasses the area between the southern city limits and the southern sphere of influence line. Zoning within this are is a combination of heavy industrial, light industrial, and agricultural. It's likely that the agricultural zoning will ultimately be modified to a light industrial or some level of residential zoning. Much of the infrastructure has already been installed either by the City or private business in the area thus no substantial improvements are needed for this area to develop.
- City Wide there are two major items which shall be considered with this fee impact study. First, at some point and time there will be an increased demand on the system requiring an additional well. Second, the repayment of the Loan Funds to which are in

process of funding much of the infrastructure improvements which are not mentioned herein.

- Drilling a new well and placing it in operation is expected to cost about $400,000.
- Repayment of loan funds over a 40 year time period is expected to cost about $220,000 per year a portion of this is the responsibility of the existing residents, however a portion of this is dedicated to the capital improvement of the City to allow future development. For purposes of this study it's estimated that approximately 20 percent of the total loan repayment is dedicated to the capital improvement or about $44,000 per year.

Calculated Fee. According to the City of Biggs General Plan the total development potential is outlined below:

Table 4.8-2: Water System Cost per DUE/Residential Unit

Projected Cost	Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
$2,888,000	536	65	157	758	$3,810

The cost outlined above for in **Table 4.8-2** is converted into impact fees per DUE at full build out. This equates to an impact fee of $3,810 per DUE.

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

4.9 Street Improvements

This section addresses street improvements required to serve future development in Biggs. Without the benefit of a traffic study, the improvements herein are based on best available data and engineering judgment as to the necessary improvements to the streets system affected by future development. Street improvement costs were based on the City's Pavement Management Plan- 2005, which covers street improvements over the next 10 years.

Current Fee. Currently, the City does not have an impact fee for roadway facilities.

Methodology. The method used to calculate impact fees in this section is the "plan-based" method described in Section 1. That method results in a proportional allocation of costs, so that the share of street improvement costs charged to a particular development project equals the share of new traffic generated by that project. . Additionally, because the improvements (i.e. facilities and equipment) will serve both existing and future residents of the City, an existing/future ratio (approximately 51:49) was use to determine the fees to future development.

Facility Needs. The City will seek to improve/modify four main roadways as a result of new development. Streets occurring within the proposed areas to be developed will be at the time of development at the sole expense of the project owners, thus are not included in these impact fee calculations.

Improvements to B- Street. - Resulting from new development, it will be necessary to improve B-Street structurally in order to withstand the loading expected. Improvement limits are expected to be between Highway 99 and 8th Street. Some widening will be necessary, however it's not anticipated that addition of curbs, gutters and sidewalks will be required on that portion of B-Street between the sphere and Highway 99. These costs are based on a complete rehabilitation and reconstruction of B-Street to an arterial/collector status. According to industry calculations, a collector having a 60' right of way width, with 46' of paving can accommodate approximately 9000 trips per day of traffic servicing. Improvements are as outlined as follows:

- Asphalt Rehabilitation – 12,300 square yards
- Curb and Gutter – 11,400 LF
- Sidewalk – 5' – 29,000 sf.
- Under Grounding Electrical – 3,000 lf.

Improvements to E-Street and Rio Bonito Road – Resulting from development it will be necessary to rehabilitate much of Rio Bonito Road, as well as structurally enhance E-Street from Hwy 99 to 8th Street. It's also contemplated that a stoplight may be necessary along Hwy 99 at the intersection of Rio Bonito Road. For purposes of this study, a minor amount of curb and gutter is proposed, similarly with B-Street above. This roadway would also be considered a collector containing 46 feet of asphalt paving.

- Asphalt Rehabilitation – 11,300 square yards
- 2" Overlay of E-Street – 3,500 square yards
- Curb and Gutter – 5,000 LF
- Sidewalk – 5' – 25,000 sf.
- Under Grounding Electrical – 2,500 lf.

Improvements to 4th Street – Resulting from development in the planning area #1 north of the City limits, it will be necessary to widen, and reconstruct 4th Street from the north city limits to B-Street. With this development, 4th Street would be considered a collector similar to the other streets above.

- Asphalt Rehabilitation – 3,300 square yards
- Curb and Gutter – 3,800 LF
- Sidewalk (5') – 19,000 sf.
- Under Grounding Electrical – 1,900 lf.

Improvements to 8th Street – Resulting from development in the planning area #1 north of the City limits, it will be necessary to widen, and reconstruct 8th Street from the north city limits to B-Street. With this development, 8th Street would be considered a collector similar to the other streets above.

- Asphalt Rehabilitation – 3,300 square yards
- Curb and Gutter – 3,800 LF
- Sidewalk (5') – 19,000 sf.
- Under Grounding Electrical – 1,900 lf.

Table 4.9-1: Street System Improvements and Related Cost

Description	Quantity (per Linear Foot)	Unit Cost (per Linear Foot)	Total Cost	Ratio Cost for New Development[1]
Improvements to B- Street				~~$332,243~~
Asphalt Rehabilitation	12,300	$55.34	$680,000	~~$66,449~~
Curb and Gutter	11,400	$12.00	$136,000	~~$56,677~~
Sidewalk – 5'	29,000	$4.00	$116,000	~~$51,302~~
Under Grounding Electrical	3,000	$35.00	$105,000	
Improvements to E-Street and Rio Bonito Road				~~$305,371~~
Asphalt Rehabilitation	11,300	$55.34	$625,000	~~$51,302~~
2" Asphalt Overlay	3,500	$30.00	$105,000	~~$29,316~~
Curb and Gutter	5,000	$12.00	$60,000	~~$48,859~~
Sidewalk – 5'	25,000	$4.00	$100,000	~~$42,752~~
Under Grounding Electrical	2,500	$35.00	$87,500	
Improvements to 4th Street				~~$89,413~~
Asphalt Rehabilitation	3,300	$55.34	$183,000	~~$22,475~~
Curb and Gutter	3,800	$12.00	$46,000	~~$37,133~~
Sidewalk – 5'	19,000	$4.00	$76,000	~~$32,491~~
Under Grounding Electrical	1,900	$35.00	$66,500	
Improvements to 8th Street				~~$89,413~~
Asphalt Rehabilitation	3,300	$55.34	$183,000	

Curb and Gutter	3,800	$12.00	$46,000	~~$22,475~~
Sidewalk – 5'	19,000	$4.00	$76,000	~~$37,133~~
Under Grounding Electrical	1,900	$35.00	$66,500	~~$32,491~~
		Total	**$2,757,500**	**$1,347,295**

Calculated Fee. In **Table 4.9-2**, the total cost of equipment per year from **Table 4.9-1** is converted into impact fees per unit of development. The fee to new development for the cost to improve the above identified streets are $1,777 per DUE.

Table 4.9-2: Street Improvements Cost per DUE/Residential Unit

Projected Cost	Project Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
$ 1,347,295	536	65	157	758	$1,777

NOTE: All costs used in this report are given in current dollars. To keep pace with changing price levels, the fees calculated above will be adjusted annually for inflation.

Section 5: Fee Implementation

LEGAL FRAMEWORK

Development exactions such as impact fees are subject to the Fifth Amendment prohibition on taking of private property for public use without just compensation. Both state and federal courts have recognized the imposition of impact fees on development as appropriate, provided the fees meet standards intended to protect against regulatory takings. To comply with the Fifth Amendment, development regulations must be shown to substantially advance a legitimate governmental interest. In the case of impact fees, that interest is in the protection of public health, safety, and welfare by ensuring that new development is not detrimental to the quality of public services.

In the court case Nollan v. California Costal Commission, the U. S. Supreme Court determined that a government agency imposing exactions on development must demonstrate an "essential nexus" between the exaction and the interest being protected. In a later case, Dolan v. City of Tigard, the Court made clear that a government agency also must show that an exaction is "roughly proportional" to the burden created by development. The City Council of the City of Biggs has determined that there are insufficient funds currently, and a shortage of funds projected, to meet the capital impact needs of future development. This determination led to the to prepare this analysis. The balance of this analysis is intended to describe the rough proportionality of fee and impact as required by the Tigard decision.

California Constitution. The California Constitution grants power to local governments to regulate land use and development. The ability to approve development also allows for the ability to approve with development with conditions. In this instance, the City has determined that a fee designed to address most of the community impact associated with new development, would be appropriate and would assist new development in paying its fair share of future impacts.

The Mitigation Fee Act. California's impact fee statute originated in Assembly Bill 1600 during the 1987 session of the Legislature, and took effect in January, 1989. AB 1600 added several sections to the Government Code, beginning with Section 66000. Since that time the impact fee statute has been amended from time to time, and in 1997 was officially titled the "Mitigation Fee Act." Unless otherwise noted, code sections referenced in this report are from the Government Code.

The Mitigation Fee Act does not limit the types of capital improvements for which impact fees may be charged. The Act defines public facilities very broadly to include "public improvements, public services and community amenities." Although the issue is not specifically addressed in the Mitigation Fee Act, other provisions of the Government Code (see Section 65913.8) prohibits the use of impact fees for maintenance or operating costs. When viewed objectively, this makes good fiscal sense as impact fees are linked directly to the construction industry which is known to fluctuate and could result in unpredictable annual revenues—with a resulting difficulty in meeting ongoing consistent and perpetual costs associated with operations and maintenance. The fees in this report are based only on capital costs.

The Mitigation Fee Act contains requirements for establishing, increasing and imposing impact fees, which are summarized below. The Act also contains provisions that govern the collection and expenditure of fees, and require annual reports and periodic re-evaluation of impact fee programs. Those administrative requirements are discussed in the Implementation Section of this report. Certain fees or charges related to development are exempt from the requirements of

the Mitigation Fee Act. Among them are fees in lieu of parkland dedication as authorized by the Quimby Act (Section 66477), fees collected pursuant to a reimbursement agreement or developer agreement, and fees for processing development applications. It is important to note that this fee program cannot predict all of the costs associated with new development and that each project must be evaluated individually to determine if the projected impacts are in line with those of this analysis. It is possible that project specific improvements may be required to comply with the California Environmental Quality Act or other development exaction on the part of the City.

Required Findings. Section 66001 requires that an agency establishing, increasing or imposing impact fees, must make findings to:

1. Identify the purpose of the fee;
2. Identify the use of the fee; and,
3. Determine that there is a reasonable relationship between:
    a. The use of the fee and the development type on which it is imposed;
    b. The need for the facility and the type of development on which the fee is imposed; and
    c. The amount of the fee and the facility cost attributable to the development project. (Applies only upon imposition of fees.)

Each of those requirements is discussed in more detail below.

Identifying the Purpose of the Fees. The broad purpose of impact fees is to protect the public health, safety and general welfare by ensuring the future provision of adequate public facilities. The specific purpose of the fees calculated in this study is to ensure funding for the construction of capital improvements identified in this report. The improvements are needed to mitigate the impacts of projected development within the City's General Plan area. The fees are needed to prevent the incremental deterioration in public services that would result from new development since the City lacks the funds necessary to construct all of the capital improvements.

Identifying the Use of the Fees. According to Section 66001, if a fee is used to finance public facilities, those facilities must be identified. While a capital improvement plan may be used for that purpose, it is not mandatory if the facilities are identified in the General Plan, a Specific Plan, or in other public documents. If a capital improvement plan is used to identify the use of the fees, it must be updated annually by resolution of the governing body at a noticed public hearing. Impact fees calculated in this study are based on specific capital facilities identified elsewhere in this report, which is intended to serve as the public document identifying the use of the fees. The City may adopt a capital improvement program to implement the improvements identified in this analysis at a later date.

Reasonable Relationship Requirement. As discussed above, Section 66001 requires that, for fees subject to its provisions, a "reasonable relationship" must be demonstrated between:

1. The use of the fee and the type of development on which it is imposed;
2. The need for a public facility and the type of development on which a fee is imposed; and,
3. The amount of the fee and the facility cost attributable to the development on which the fee is imposed.

All new development in a community creates additional demands on some, or all, public facilities provided by local government. If the facilities are not increased to satisfy additional

demand, the quality or availability of public services for the entire community will deteriorate. Impact fees may be used to recover the cost of development-related facilities, but only to the extent that the need for facilities is a consequence of development that is subject to the fees. The Nollan decision by the United States Supreme Court reinforced the principle that development exactions may be used only to mitigate conditions created by the developments upon which they are imposed.

Once the fees are created, the community must demonstrate that the payment of fees benefits the development (developer) paying the fee. The Mitigation Fee Act requires that the community create separate accounts for the impact fees collected, and encumber the funds within five (5) years of collection. The Act also requires that the fees be spent only on the facilities for which the fees were charged. Neither the U.S. Constitution nor California law require that facilities funded by the development be specifically for the development paying the fee. Procedures for identifying which improvement is the subject of the fee is mandated by the Mitigation Fees Act, as are procedures to ensure that the fees are expended expeditiously or refunded.

Proportionality of the exaction (fee) is established through the procedures used to identify development-related facility costs, and in the methods used to calculate impact fees for various types of facilities and categories of development contained in this report. For example, the need for parkland is based on population growth as it is the new residents that will use the parks. In calculating impact fees, costs for development-related facilities are allocated in proportion to the service needs created by different types and quantities of development.

Appendix A

Fee Breakdown						
	Projected Cost	Project Housing Units	Commercial DUE	Industrial DUE	Total Units	Total Cost Per Unit
Sewer	$ 5,513,000	536	65	157	758	$7,273
Drainage	$ 1,725,000	536	65	157	758	$2,276
Water	$ 2,888,000	536	65	157	758	$3,810
Electric[1]	$ 1,100,000	536	65	157	758	$1,451
Roads	$ 1,347,295	536	65	157	758	$1,777
Parks & Rec	$ 1,823,351	536	-	-	536	$3,400
Residential	$ 1,641,016	536				$3,060
Ind/Comm	$ 182,335		65	157	222	$820
General Govt	$ 429,641	536	65	157	758	$567
Police	$ 43,000	536	65	157	758	$57
Residential	*$ 34,400*	*536*			*536*	*$64*
Ind/Comm	*$ 8,600*		*65*	*157*	*222*	*$39*
Fire	$ 171,008	536	65	157	758	$226
Total	**$ 15,040,294**	**536**	**65**	**157**	**758**	

Note: 1) This assumes there are 200 DUE capacity left in existing substation

PROJECTED UNITS

Residential

Area of City	Existing	Short Term			Long Term			Total Population Increase	Dwelling Units
		Capacity	Difference	Potential Population Increase	Capacity	Difference	Potential Population Increase		
North Area Residential	8 single family	78 single family, 120 attached units	70 single family, 120 attached units	597	148 single family, 120 attached units	70 single family	220	817	260
South Area Residential	14 single family	125 single family	111 single family	349	290 single family	276 single family	349	867	276
Total Residential	22 single family	203 single family, 120 attached	181 single family, 120 attached units	946	438 single family, 120 attached units	203 single family	569	1,684	536

Industrial/Commercial

Area of City	Existing	Short Term			Long Term			Total Sq. Ft. Capacity		
		Capacity	Difference	Total New Acreage	Capacity	Difference	Total New Acreage	(at 60% Industrial, 75% Commercial)	DUE Industrial	DUE Commercial
West Area Industrial	35 employees	113 employees	78 employees	5 acres industrial, 3 acres commercial	190 employees	112 employees	20 acres industrial, 5 acres commercial	522,720 Ind, 163,350 Comm	105	65
North Area Industrial	11 employees	66 employees	55 employees	5 acres industrial	121 employees	66 employees	10 acres industrial	261,360	52	0
Total Comm/Indstrl	46 employees	179 employees	133 employees	10 acres industrial, 3 acres commercial	311 employees	178 employees	30 acres industrial, 5 acres commercial	784,080 Ind, 163,350 Comm	157	65

Note: Potential population is based on an average household size of 3.14 as established in the 2000 Census.

Note: Table 1.4 of Biggs General Plan

DUE: Dwelling unit equivalent = 2,500 sq. ft./12 DUE for Commercial and 5,000 sq. ft./ DUE for Industrial

EXISTING /NEW DEVELOPMENT RATIO DETERMINATION					
Existing			Future		
Residential (2005 DOF)	Commercial	Industrial	Residential	Commercial	Industrial
622	59	113	536	157	65
Total		794			758
Percent		51.1%			48.9%

Table S1: Waste Water System Improvements and Related Cost

Description	Quantity per (Linear Foot)	Unit Cost per (Linear Foot)	Total Cost
Special Planning Area 1			
Replace Existing 6 diameter piping with 10 dia piping 9th Street	600	$100	
10 dia trunk main line	3400	87	
Sewage Lift Station	2 ea	110,000	
Bore and jack crossing	1 each	$50,000	
		Subtotal	
Special Planning Area 2			
8 Dia PVC SDR 35 main	2100	80	
Sewage Lift Station	1 ea	110,000	
Hamilton Slough Crossing	1 ea	30,000	
		Subtotal	
City Wide			
Junction structure at the intersection of 9th, and Bannock	1 ea	30,000	
Repayment of the Loan Funds 20% ( )	40-yrs	$8 000	
Treatment Plant Expansion Phase I 50%	1	1,175,000	
Treatment Plant Expansion Phase II ( )	1	2,750,000	
		Subtotal	
		Total	**$5,513,000**

Table D 1: Storm Drainage System Improvements and Related Costs

Description	Quantity per Linear Foot ( )	Unit Cost per Linear Foot ( )	Total Cost
Special Planning Area 1			
East Biggs Interceptor	1 Job	Lump Sum	
First Street Trunk Line	1 Job	Lump Sum	
Second Street Improvement Project	1 Job	Lump Sum	
City Regional Detention Basin	1 Job	Lump Sum	
Total			

Table W 1: Water System Improvements and Related Cost

Description	Quantity per Linear Foot ( )	Unit Cost per Linear Foot ( )	Total Cost
Special Planning Area 1			
10" Dia. PVC main	3000	$100	$300,000
Bore and jack crossing	1 each	$50,000	
		Subtotal	
Special Planning Area 2			
8 Dia PVC main	4200	$90	
		Subtotal	
City Wide			
New Well	1 each	$400 000	
Loan Repayment ( )	40 years	$44,000	$1,760,000
		Subtotal	
		Total	

Table E-1 Electric Improvements			
Description	**Cost**	**Units[1]**	**Cost Per DUE**
New Substation	$ 1,100,000	758	$1,457.00
7.			

Table R-1: Roadway Improvements

Description	Quantity (per Linear Foot)	Unit Cost (per Linear Foot)	Total Cost	New Development Share
Improvements to B- Street				
Asphalt Rehabilitation	12,300	$55.34	$680,000	$332,243
Curb and Gutter	11,400	$12.00	$136,000	$66,449
Sidewalk	29,000	$4.00	$116,000	$56,677
Under Grounding Electrical	3,000	$35.00	$105,000	$51,302
Improvements to E-Street and Rio Bonito Road				
Asphalt Rehabilitation	11,300	$55.34	$625,000	$305,371
2” Asphalt Overlay	3,500	$30.00	$105,000	$51,302
Curb and Gutter	5,000	$12.00	$60,000	$29,316
Sidewalk	25,000	$4.00	$100,000	$48,859
Under Grounding Electrical	2,500	$35.00	$87,500	$42,752
Improvements to 4th Street				
Asphalt Rehabilitation	3,300	$55.34	$183,000	$89,413
Curb and Gutter	3,800	$12.00	$46,000	$22,475
Sidewalk	19,000	$4.00	$76,000	$37,133
Under Grounding Electrical	1,900	$35.00	$66,500	$32,491
Improvements to 8th Street				
Asphalt Rehabilitation	3,300	$55.34	$183,000	$89,413
Curb and Gutter	3,800	$12.00	$46,000	$22,475
Sidewalk	19,000	$4.00	$76,000	$37,133
Under Grounding Electrical	1,900	$35.00	$66,500	$32,491
		Total	**$2,757,500**	**$1,347,295**

Table PR-1: Park Standards

Park ratio is 6.25 acres per 1,000 persons (Comm Enhancement Element pg 3-19)

Table PR-2: Standard Park Estimated Cost	
Item	**Cost**
Cost of Acquisition	$48,000
Park Facility Improvements	$ 125,240.00
Per Acre Cost	$173,240

Population	Required # of Acres	Cost per acre	Total cost	Residential Ratio	Comm/Ind Ratio
1,684	10.525	$173,240	$1,823,351	$1,641,016	$182,335

Table G-1: General Government

City Hall		Total Cost	New Development Share
	Hallway to Connect 3016 6th & 465 C	$20,000	$9,772
	Modify 3016 6th to expand Council Chambers	$50,000	$24,430
	Subtotal	$70,000	$34,202
City Offices	**Planning**	1 Full time staff	
	Office space for Planning	$215,000	$215,000
	2 workstation/desk areas @ $2,000 ea	$4,000	$4,000
	2 Computer workstations @ 800 ea	$1,600	$1,600
	GIS software	$9,000	$4,397
	GIS Capable Computer	$2,000	$977
	Intranet system upgrade	$2,000	$977
	Office printer/copier	$1,000	$489
	Code Enforcement Dept vehicle	$25,000	$12,215

	Subtotal	$259,600	$239,655
	Administration	2 Full Time Staff	
	2 workstation/desk areas @ $2,000 ea	$4,000	$4,000
	2 Computer workstations @ 800 ea	$1,600	$1,600
	Intranet system upgrade	$2,000	$977
	Accounting System Enhancements	$20,000	$9,772
	Subtotal	$27,600	$16,349
	Waste Water/Drinking Water	I Grade one operator, full time staff	
	Workstation/desk area	$2,000	$2,000
	Computer workstation	$800	$800
	Office printer/copier	$1,000	$489
	Fax	$150	$73
	Full size truck with bedliner	$25,000	$12,215
	Subtotal	$28,950	$15,577
	Public Works		
	Intranet System upgrade	$2,000	$977
	Workstation/desk area	$2,000	$2,000
	Computer workstation	$800	$800
	Street Sweeper	$53,000	$25,895
	2 Full size Fleet Truck With Bed Liners @$25,000	$50,000	$24,430
	Industrial Wood Chipper	$8,500	$4,153
	Skip Loaded/Float Tractor	$20,000	$9,772
	Sewer Jet Truck	$42,000	$20,521
	36" to 40" Double Drum Roller With Trailer	$19,000	$9,283
	Pavement Oil Tank/Sprayer On Trailer	$9,000	$4,397
	Small Water Truck	$30,000	$14,658
	Small Motor Grader And/Or Gannon Box For Skip Loader	$15,000	$7,329
	Subtotal	$251,300	$120,438
	Waste Water/Drinking Water		
	Additional storage @ WWTP	$2,000	$977
	Additional shop space @WWTP	$5,000	$2,443

	Subtotal	$7,000	$3,420
	Total	**$644,450**	**$429,641**

Table P-1: Police Needed Equipment/Facilities		
Description		**Cost**
1	Police Vehicle	$37,000.00
2	Equipment for 1 Officer	$4,000.00
3	Facility Equipment for 1 Officer	$2,000.00
	Total	$43,000.00
Ratio Cost		
	Residential	$34,400
	Ind/Comm	$8,600

Table F-1: Fire Needed Equipment/Facilities		
Description	**Cost**	**Ratio Cost to New Development**
Replacement Fire Truck	$350,000	$171,008
Total	**$350,000**	**$171,008**