F. ANN RODRIGUEZ, RECORDER
RECORDED BY: MRB
DEPUTY RECORDER
1562 PE1
SMARA
TOWN OF MARANA
ATTN: TOWN CLERK
11555 W CIVIC CENTER DR
MARANA AZ 85653

DOCKET: 13394
PAGE: 579
NO. OF PAGES: 2
SEQUENCE: 20081820144
09/18/2008
ORDIN 13:37
MAIL
AMOUNT PAID $ 8.00

MARANA ORDINANCE NO. 2008.21

RELATING TO UTILITIES; ADOPTING WASTEWATER RATES, RATE COMPONENTS, FEES, AND SERVICE CHARGES, AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS the Town of Marana anticipates that it will soon take over the ownership and operation of the wastewater utility function within the Town limits and service area; and

WHEREAS the Town needs to adopt wastewater rates, rate components, fees and service charges so that necessary funding for the operation of the Town's wastewater utility can begin immediately upon the Town's takeover of the wastewater conveyance system from Pima County; and

WHEREAS the Town Council adopted Resolution No. 2008-105 on August 5, 2008, giving notice of intention to adopt wastewater rates, rate components, fees, and service charges, and setting a September 16, 2008 public hearing on the proposed adoption of the fees; and

WHEREAS the Town has held a public hearing and completed the procedures for the adoption of this ordinance as required by A.R.S. § 9-511.01; and

WHEREAS the Town Council finds that the adoption of this ordinance is in the best interests of the Town and its citizens.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, as follows:

SECTION 1. A monthly wastewater service fee of $6.82 is hereby established for all residential and non-residential wastewater customers.

SECTION 2. A volume charge of $2.25 per 1,000 gallons is hereby established for all residential and non-residential wastewater customers.

SECTION 3. Other service charges and fees are hereby established at the Town's standard rates for similar services and activities, as charged by the Town's Utilities Department in connection with the operation of the Town's water utility, including without limitation the following fees and charges:

a. The standard wastewater service security deposit is $125.

b. The late payment fee is $15.

c. The new service establishment fee is $35.

d. The fee for a check returned due to insufficient funds is $25.

2

SECTION 4. This ordinance shall be effective on October 16, 2008, or on the date the Town takes over the wastewater conveyance system from Pima County, whichever is later.

PASSED AND ADOPTED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, ARIZONA, this 16th day of September, 2008.

Mayor Ed Honea

ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

TOWN OF MARANA CORPORATE SEAL ARIZ. 1977

TOWN OF MARANA
11555 W CIVIC CENTER DR
MARANA, AZ 85653

OFFICIAL RECORDS OF
PINAL COUNTY RECORDER
LAURA DEAN-LYTLE

DATE/TIME: 09/19/08 1109
FEE: $14.00
PAGES: 2
FEE NUMBER: 2008-089267

MARANA ORDINANCE NO. 2008.21

RELATING TO UTILITIES; ADOPTING WASTEWATER RATES, RATE COMPONENTS, FEES, AND SERVICE CHARGES, AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS the Town of Marana anticipates that it will soon take over the ownership and operation of the wastewater utility function within the Town limits and service area; and

WHEREAS the Town needs to adopt wastewater rates, rate components, fees and service charges so that necessary funding for the operation of the Town's wastewater utility can begin immediately upon the Town's takeover of the wastewater conveyance system from Pima County; and

WHEREAS the Town Council adopted Resolution No. 2008-105 on August 5, 2008, giving notice of intention to adopt wastewater rates, rate components, fees, and service charges, and setting a September 16, 2008 public hearing on the proposed adoption of the fees; and

WHEREAS the Town has held a public hearing and completed the procedures for the adoption of this ordinance as required by A.R.S. § 9-511.01; and

WHEREAS the Town Council finds that the adoption of this ordinance is in the best interests of the Town and its citizens.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, as follows:

SECTION 1. A monthly wastewater service fee of $6.82 is hereby established for all residential and non-residential wastewater customers.

SECTION 2. A volume charge of $2.25 per 1,000 gallons is hereby established for all residential and non-residential wastewater customers.

SECTION 3. Other service charges and fees are hereby established at the Town's standard rates for similar services and activities, as charged by the Town's Utilities Department in connection with the operation of the Town's water utility, including without limitation the following fees and charges:

a. The standard wastewater service security deposit is $125.

b. The late payment fee is $15.

c. The new service establishment fee is $35.

d. The fee for a check returned due to insufficient funds is $25.

SECTION 4. This ordinance shall be effective on October 16, 2008, or on the date the Town takes over the wastewater conveyance system from Pima County, whichever is later.

PASSED AND ADOPTED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, ARIZONA, this 16th day of September, 2008.

Mayor Ed Honea

TOWN OF MARANA CORPORATE SEAL ARIZ. 1977

ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

F. ANN RODRIGUEZ, RECORDER
RECORDED BY: RJL
DEPUTY RECORDER
9544 PE-2

SMARA
TOWN OF MARANA
ATTN: TOWN CLERK
11555 W CIVIC CENTER DR
MARANA AZ 85653

DOCKET: 13439
PAGE: 258
NO. OF PAGES: 2
SEQUENCE: 20082270077
11/21/2008
ORDIN 12:37

MAIL
AMOUNT PAID $ 8.00

MARANA ORDINANCE NO. 2008.25

RELATING TO UTILITIES; ADOPTING WASTEWATER SYSTEM DEVELOPMENT IMPACT FEES AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS the Town is authorized by A.R.S. § 9-463.05 to assess and collect development impact fees so that development pays for itself; and

WHEREAS the economic consulting firm Economists.com has prepared a written technical report entitled "Wastewater Impact Fee Study" identifying the anticipated initial and future service area of the Town of Marana wastewater utility as the benefit area of the Town wastewater system development impact fees and determining the fair-share wastewater system development impact fees attributable to the typical wastewater utility customer within the area using a ⅝" x ¾" water meter as an "Equivalent Residential Unit" ("ERU") and calculating ERU equivalency to other water meter sizes; and

WHEREAS the Wastewater Impact Fee Study determines the Town's reasonably anticipated costs for providing sewer service and facilities needed to serve the Town's expanding population and sewer service demands; and

WHEREAS the Wastewater Impact Fee Study contains all documentation supporting the assessment of the wastewater system development impact fees adopted by this ordinance; and

WHEREAS advance notice of intention to assess the wastewater system development impact fees was given by the adoption of Marana Resolution No. 2008-106, and a public hearing was held to discuss the proposed fees on October 7, 2008, all in accordance with A.R.S. § 9-463.05; and

WHEREAS adoption of the wastewater system development impact fees is in the best interests of the Town of Marana.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, ARIZONA, AS FOLLOWS:

SECTION 1. Town of Marana wastewater system development impact fees are hereby adopted as follows:

Water Meter Size (inches)	ERUs	Fee
⅝ x ¾	1.0	$4,312.00
1	2.5	$10,780.00
1½	5.0	$21,560.00
2	8.0	$34,496.00
Larger than 2		$21.29 per gallon

2

SECTION 2. The anticipated initial and future service area of the Town of Marana wastewater utility is hereby established as the benefit area of the wastewater system development impact fees.

SECTION 3. When a one inch water meter has been installed at a single-family residence that could have been served by a ⅝" x ¾" water meter but for fire suppression facilities, the ⅝" x ¾" wastewater system development impact fee shall be charged instead of the one inch fee.

SECTION 4. When calculating the amount of the wastewater system development impact fees to be collected for meter sizes over two inches, Town staff shall determine the meter's ERU equivalency using the methods set forth in the Wastewater Impact Fee Study.

SECTION 5. Town staff shall collect the wastewater system development impact fees for residential dwelling units when construction permits for the dwelling units are issued or at a later time if specified in an applicable development agreement. For all other uses, Town Staff shall collect the wastewater system development impact fees when an application for sewer service is submitted, or at the time specified in an applicable development agreement.

SECTION 6. When assessing the wastewater system development impact fees, Town Staff shall give credit for the required dedication of public sites and improvements provided by the fee payer for improvements funded with the fees, as provided by law.

SECTION 7. All wastewater system development impact fees collected by the Town shall be held and disbursed in accordance with the requirements of A.R.S. § 9-463.05.

SECTION 8. The Town's Manager and staff are hereby directed and authorized to undertake all other and further tasks required or beneficial to carry out the terms, obligations, and objectives of this ordinance and the requirements of A.R.S. § 9-463.05.

SECTION 9. The wastewater system development impact fees adopted by this ordinance shall be effective at midnight on February 1, 2009, and shall be collected beginning on February 2, 2009, or when the Town begins operating the Marana wastewater utility, whichever occurs last.

SECTION 10. The Town of Marana wastewater system development impact fees shall be adjusted on July 1 of each year based on the Engineering News Record 20 City Construction Cost Index (ENR CCI).

PASSED AND ADOPTED by the Mayor and Council of the Town of Marana, Arizona, this 18th day of November, 2008.

Mayor Ed Honea

ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

TOWN OF MARANA CORPORATE SEAL ARIZ. 1977

When recorded mail to:
TOWN OF MARANA
ATTN: TODD HAMM
11555 W CIVIC CENTER DR
MARANA, AZ 85653

OFFICIAL RECORDS OF PINAL COUNTY RECORDER LAURA DEAN-LYTLE

DATE/TIME: 11/21/08 1505
FEE: $12.00
PAGES: 3
FEE NUMBER: 2008-112182

(The above space reserved for recording information)

MARANA ORDINANCE NO. 2008.25

DOCUMENT TITLE

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Form RE-49

MARANA ORDINANCE NO. 2008.25

RELATING TO UTILITIES; ADOPTING WASTEWATER SYSTEM DEVELOPMENT IMPACT FEES AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS the Town is authorized by A.R.S. § 9-463.05 to assess and collect development impact fees so that development pays for itself; and

WHEREAS the economic consulting firm Economists.com has prepared a written technical report entitled "Wastewater Impact Fee Study" identifying the anticipated initial and future service area of the Town of Marana wastewater utility as the benefit area of the Town wastewater system development impact fees and determining the fair-share wastewater system development impact fees attributable to the typical wastewater utility customer within the area using a ⅝" x ¾" water meter as an "Equivalent Residential Unit" ("ERU") and calculating ERU equivalency to other water meter sizes; and

WHEREAS the Wastewater Impact Fee Study determines the Town's reasonably anticipated costs for providing sewer service and facilities needed to serve the Town's expanding population and sewer service demands; and

WHEREAS the Wastewater Impact Fee Study contains all documentation supporting the assessment of the wastewater system development impact fees adopted by this ordinance; and

WHEREAS advance notice of intention to assess the wastewater system development impact fees was given by the adoption of Marana Resolution No. 2008-106, and a public hearing was held to discuss the proposed fees on October 7, 2008, all in accordance with A.R.S. § 9-463.05; and

WHEREAS adoption of the wastewater system development impact fees is in the best interests of the Town of Marana.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, ARIZONA, AS FOLLOWS:

SECTION 1. Town of Marana wastewater system development impact fees are hereby adopted as follows:

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Larger than 2		$21.29 per gallon

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SECTION 4. When calculating the amount of the wastewater system development impact fees to be collected for meter sizes over two inches, Town staff shall determine the meter's ERU equivalency using the methods set forth in the Wastewater Impact Fee Study.

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SECTION 6. When assessing the wastewater system development impact fees, Town Staff shall give credit for the required dedication of public sites and improvements provided by the fee payer for improvements funded with the fees, as provided by law.

SECTION 7. All wastewater system development impact fees collected by the Town shall be held and disbursed in accordance with the requirements of A.R.S. § 9-463.05.

SECTION 8. The Town's Manager and staff are hereby directed and authorized to undertake all other and further tasks required or beneficial to carry out the terms, obligations, and objectives of this ordinance and the requirements of A.R.S. § 9-463.05.

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SECTION 10. The Town of Marana wastewater system development impact fees shall be adjusted on July 1 of each year based on the Engineering News Record 20 City Construction Cost Index (ENR CCI).

PASSED AND ADOPTED by the Mayor and Council of the Town of Marana, Arizona, this 18th day of November, 2008.

Mayor Ed Honea

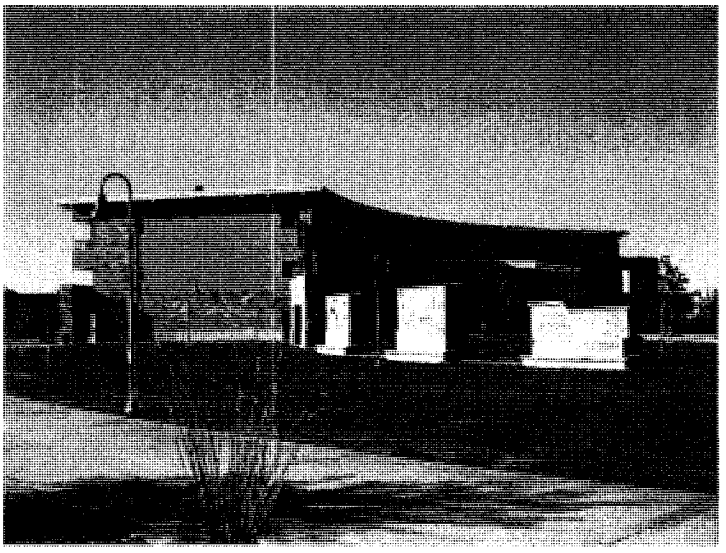
ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

TOWN OF MARANA CORPORATE SEAL ARIZ. 1977



WASTEWATER IMPACT FEE STUDY

TOWN OF MARANA, ARIZONA

economists com

September 2008

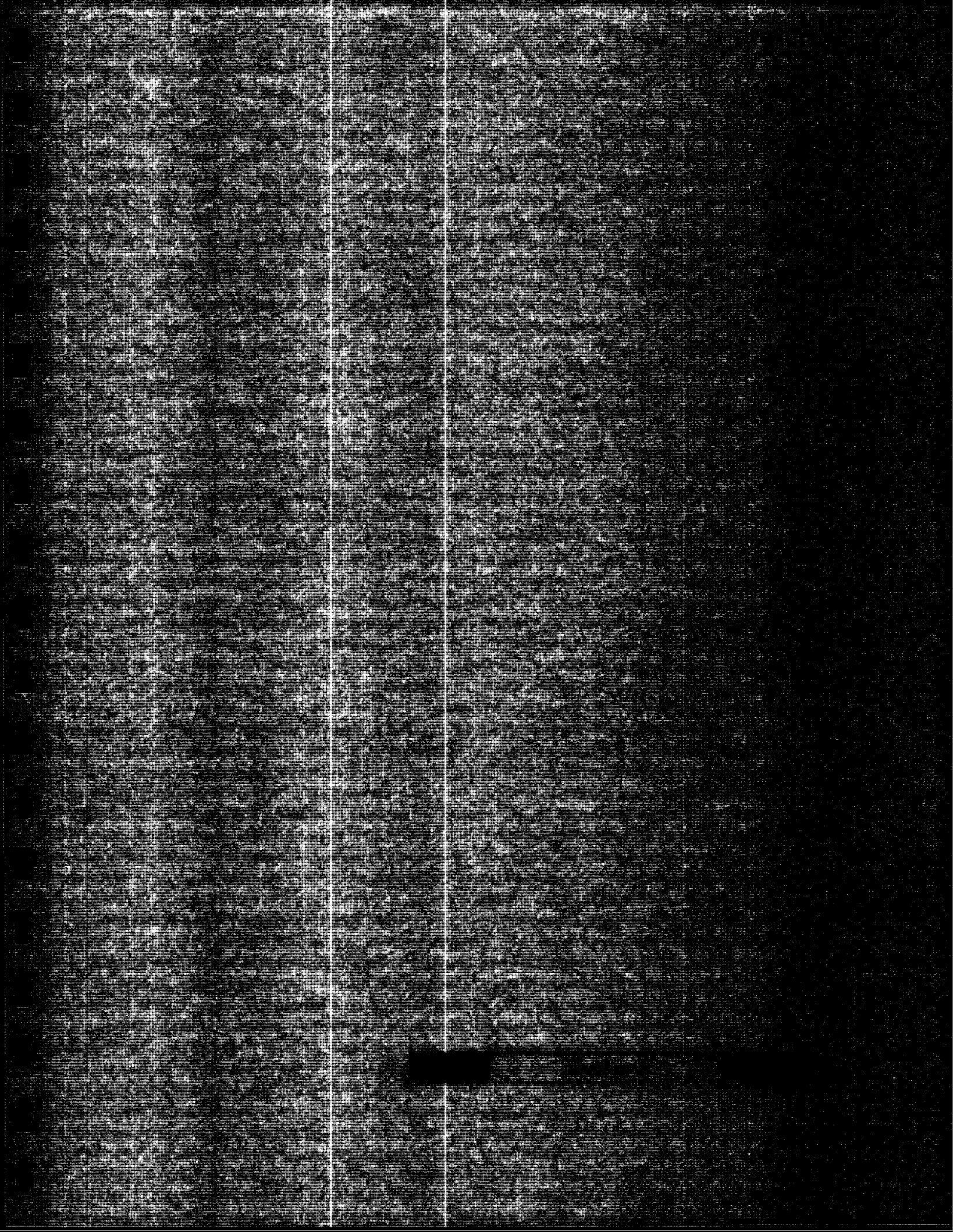
Dallas Office Address:

5500 Democracy Drive, Ste. 130
Plano, Texas 75024
(972) 378-6588
(972) 378-6988 fax
www.economists.com

Project Manager: Dan V. Jackson

TOWN OF MARANA, ARIZONA
WASTEWATER
IMPACT FEE STUDY

TABLE OF CONTENTS



SECTION I

Introduction to Impact Fees

Introduction and Scope

In 2008 the Town of Marana, Arizona ("The Town") engaged **Economists.com** to develop a schedule of maximum wastewater development impact fees. The Town is in the process of assuming control over wastewater accounts formerly possessed by the Pima County Regional Wastewater Reclamation Department ("Pima"). The Town has developed a capital improvement plan for the incorporation of current accounts and the forecast new account growth over the next decade. The results of this analysis, and the recommended maximum impact fees, are presented in this summary report.

In order to be properly calculated and implemented, the impact fee development process must adhere to a basic, generally-accepted methodology. This methodology has been closely followed during the course of this study. The methodology is known as the *Total Cost Attribution* method, and is considered by the project team to be the most appropriate for the Town.

The impact fee model presented in Appendix A of this report presents the impact fee calculation methodology in detail.

Study Methodology

In order to develop impact fees, the following steps are required:

1. The first step is to examine the Town's actual and projected wastewater billing units and customer growth. The existing and projected system capabilities are also identified and incorporated into the impact fee assumptions.

2. The second step is to calculate the impact of the Town's Capital Improvement Plan on the determination of impact fees. The total CIP over the next decade must be identified and

segregated between those expenses devoted to repair and maintain the existing system, and those expenses devoted to growth and system expansion.

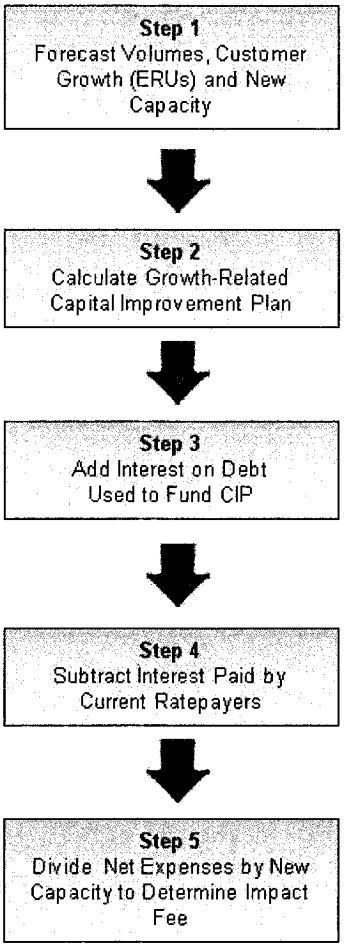
3. The third step is to calculate the amount of debt expected to be issued to fund the capital improvement plan for the wastewater system. The amount of debt interest is added to the CIP to develop the total funding eligible to be recovered through an impact fee.

4. The fourth step is to calculate a credit for the amount of debt service expected to be paid by new connections during the planning period through wastewater monthly rates. This credit is netted against the total funding eligible to be recovered through an impact fee.

5. The final step is to calculate the impact fee per Equivalent Residential Unit (ERU). The impact fee is based on the net cost of the expanded infrastructure as defined in the capital improvement plan, divided by the total new capacity to be provided by the CIP.

This process is illustrated in **Figure I-1**.

Figure I-1



Town staff expended considerable time and effort fulfilling the requests of the project team. All requests were complied with in an efficient, professional manner.

During the course of this study project team members conferred on a regular basis with Town staff. Staff input was solicited and incorporated into the analysis and recommendations. A work session was held for Town staff in September 2008.

Background on Impact Fees

Arthur C. Nelson, author of *System Development Charges for Water, Wastewater and Stormwater Facilities*, succinctly defines impact fees as follows:

> "System Development Charges (impact fees) are one-time charges paid by new development to finance the construction of public facilities needed to serve it."

The basic premise of impact fees is that the development of land for residential, commercial or industrial use will have a measurable capacity impact on the public infrastructure systems and services. Therefore, the resulting financial impact of this new capacity should be funded directly by the development itself. Under this premise, existing ratepayers should not be compelled to fund the cost of new development through higher user rates or taxes.

Since development impact fees are designed to offset the initial capital requirements associated with servicing growth or development, **they cannot be used for personnel, operating, maintenance, repair, alteration or replacement of existing infrastructure**. Impact fee calculations that incorporate these expenses may be declared invalid by state or judicial authorities. Hence, the fundamental objective of impact fees is not simply to serve as another source of revenue. **The purpose is to ensure that adequate public infrastructure is provided to development in order to maintain public health, safety, and welfare.**

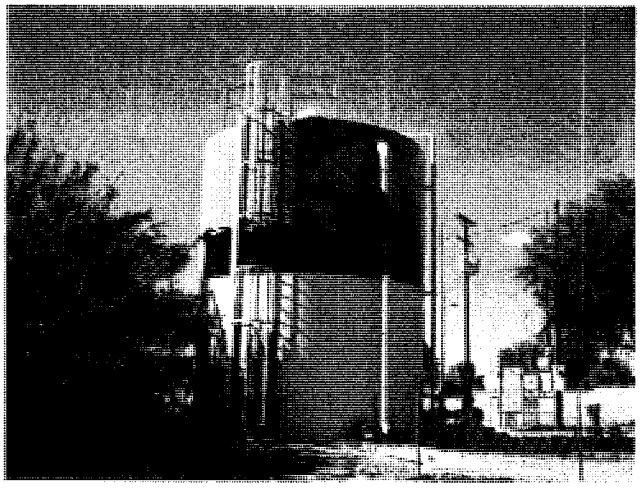
Several standards are available by which an impact fee must be measured in order to survive potential legal challenges or pass a test of "fairness". These standards include, but are not limited to, the following:

Level of Service - New development must not be held to a higher standard for delivery of services than existing development.

Proportionality – The impact fee charged is matched to the projected outlay for infrastructure or services. The fee charged cannot exceed the projected expenditure level.

Universal Application – Impact fees that are implemented must be applicable to all development projects on a non-discriminatory basis.

Rational Nexus – There must be a direct relationship between the impact fee charged and the actual delivery of services. For example, water impact fees may not be used to fund parks and recreation, or other municipal services.



The **rational nexus** standard is the focus of most legal concerns regarding impact fee ordinances. In his article Financing Growth-Related Capacity, Ed Donahue defines the rational nexus standard by the following test:

- The expansion must be operationally necessary, and must be caused by development;
- The impact fee must be based on the cost of the new facilities, and must not exceed the new development's proportional share of the cost of the new facilities needed to serve the development;
- The impact fees must be segregated into distinct accounts and spent in such a manner as to ensure that those who pay the charges benefit from the expenditures.

Arizona Revised Statute Section 9-463.05

In anticipation of the continued rapid population growth, the Arizona State Legislature approved ARS Section 9-463.05 in 1982, allowing municipalities to assess development impact fees. This statute is presented as **Exhibit I-2**. It forms the legal and financial basis for the impact fee calculations presented in this study. It should be noted that this statute was significantly amended by the Arizona legislature in 2007.

Impact Fee Implementation Issues

In determining the appropriateness of impact fees as a tool for financing future system development, there are several special considerations that the Town must take into account. In no particular order of importance, these considerations are as follows:

1. **Impact fees are not designed to "control" growth.** Impact fees are not a tool for urban planning; they are merely a mechanism for ensuring that developments responsible for growth-related expenses fund those expenses.

2. **Some local governments may choose not to collect the entire cost of system improvements through impact fees.** It may be determined that the fully-loaded impact fee would bear a sufficiently high financial burden that it would discourage further development. This is a particularly valid consideration for a community that is adjacent to other communities that do not have impact fees. However, to the extent that impact fees do not recover the full cost of

ARIZONA REVISED STATUTES

9-463.05. Development fees; imposition by cities and towns; infrastructure improvements plan; annual report; limitation on actions; definition

A. A municipality may assess development fees to offset costs to the municipality associated with providing necessary public services to a development, including the costs of infrastructure, improvements, real property, engineering and architectural services, financing, other capital costs and associated appurtenances, equipment, vehicles, furnishings and other personality.

B. Development fees assessed by a municipality under this section are subject to the following requirements:

1. Development fees shall result in a beneficial use to the development.

2. Monies received from development fees assessed pursuant to this section shall be placed in a separate fund and accounted for separately and may only be used for the purposes authorized by this section. Monies received from a development fee identified in an infrastructure improvements plan adopted or amended pursuant to subsection D of this section shall be used to provide the same category of necessary public service for which the development fee was assessed. Interest earned on monies in the separate fund shall be credited to the fund.

3. The schedule for payment of fees shall be provided by the municipality. The municipality shall provide a credit toward the payment of a development fee for the required dedication of public sites, improvements and other necessary public services included in the infrastructure improvements plan and for which a development fee is assessed, to the extent the public sites, improvements and necessary public services are provided by the developer. The developer of residential dwelling units shall be required to pay development fees when construction permits for the dwelling units are issued, or at a later time if specified in a development agreement pursuant to section 9-500.05. If a development agreement provides for fees to be paid at a time later than the issuance of construction permits, the deferred fees shall be paid no later than fifteen days after the issuance of a certificate of occupancy. The development agreement shall provide for the value of any deferred fees to be supported by appropriate security, including a surety bond, letter of credit or cash bond.

4. The amount of any development fees assessed pursuant to this section must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development. The municipality, in determining the extent of the burden imposed by the development, shall consider, among other things, the contribution made or to be made in the future in cash or by taxes, fees or assessments by the property owner towards the capital costs of the necessary public service covered by the development fee.

5. If development fees are assessed by a municipality, such fees shall be assessed in a nondiscriminatory manner.

6. In determining and assessing a development fee applying to land in a community facilities district established under title 48, chapter 4, article 6, the municipality shall take into account all public infrastructure

provided by the district and capital costs paid by the district for necessary public services and shall not assess a portion of the development fee based on the infrastructure or costs.

C. A municipality shall give at least sixty days' advance notice of intention to assess a new or modified development fee and shall release to the public a written report that identifies the methodology for calculating the amount of the development fee, explains the relationship between the development fee and the infrastructure improvements plan, includes documentation that supports the assessment of a new or modified development fee and identifies any index or indices to be used for automatic adjustment of the development fee pursuant to subsection F of this section and the timing of those adjustments. The municipality shall conduct a public hearing on the proposed new or modified development fee at any time after the expiration of the sixty day notice of intention to assess a new or modified development fee and at least thirty days prior to the scheduled date of adoption of the new or modified fee by the governing body. A development fee assessed pursuant to this section shall not be effective until seventy-five days after its formal adoption by the governing body of the municipality. Nothing in this subsection shall affect any development fee adopted prior to July 24, 1982.

D. Before the assessment of a new or modified development fee, the governing body of the municipality shall adopt or amend an infrastructure improvements plan. The municipality shall conduct a public hearing on the infrastructure improvements plan at least thirty days before the adoption or amendment of the plan. The municipality shall release the plan to the public, make available to the public the documents used to prepare the plan and provide public notice at least sixty days before the public hearing, subject to the following:

1. An infrastructure improvements plan may be adopted concurrently with the report required by subsection C of this section, and the municipality may provide for and schedule the notices and hearings required by this subsection together with the notices and hearings required by subsection C of this section.

2. A municipality may amend an infrastructure improvements plan without a public hearing if the amendment addresses only elements of necessary public services that are included in the existing infrastructure improvements plan. The municipality shall provide public notice of those amendments at least fourteen days in advance of their effective date.

E. For each necessary public service that is the subject of a development fee, the infrastructure improvements plan shall:

1. Estimate future necessary public services that will be required as a result of new development and the basis for the estimate.

2. Forecast the costs of infrastructure, improvements, real property, financing, other capital costs and associated appurtenances, equipment, vehicles, furnishings and other personalty that will be associated with meeting those future needs for necessary public services and estimate the time required to finance and provide the necessary public services.

F. A municipality may automatically adjust a development fee on an annual basis without a public hearing if the adjustment is based on a nationally recognized index applicable to the cost of the necessary public service that is the subject of the development fee and the adjustment mechanism is identified in the report required by subsection C of this section. The municipality shall provide public notice of those adjustments at least thirty days in advance of their effective date.

G. Each municipality that assesses development fees shall submit an annual report accounting for the collection and use of the fees. The annual report shall include the following:

1. The amount assessed by the municipality for each type of development fee.

2. The balance of each fund maintained for each type of development fee assessed as of the beginning and end of the fiscal year.

3. The amount of interest or other earnings on the monies in each fund as of the end of the fiscal year.

4. The amount of development fee monies used to repay:

(a) Bonds issued by the municipality to pay the cost of a capital improvement project that is the subject of a development fee assessment.

(b) Monies advanced by the municipality from funds other than the funds established for development fees in order to pay the cost of a capital improvement project that is the subject of a development fee assessment.

5. The amount of development fee monies spent on each capital improvement project that is the subject of a development fee assessment and the physical location of each capital improvement project.

6. The amount of development fee monies spent for each purpose other than a capital improvement project that is the subject of a development fee assessment.

H. Within ninety days following the end of each fiscal year, each municipality shall submit a copy of the annual report to the city clerk. Copies shall be made available to the public on request. The annual report may contain financial information that has not been audited.

I. A municipality that fails to file the report required by this section shall not collect development fees until the report is filed.

J. Any action to collect a development fee shall be commenced within two years after the obligation to pay the fee accrues.

K. For the purposes of this section, "infrastructure improvements plan" means one or more written plans that individually or collectively identify each public service that is proposed to be the subject of a development fee and otherwise complies with the requirements of this section, and may be the municipality's capital improvements plan.

development, the cost difference must be funded by existing ratepayers. This is a fundamental policy decision that must be addressed by all communities that implement impact fees.

3. **The capital improvement plan is a critical element in the determination of an impact fee.** Impact fees based upon incomplete CIPs will not generate sufficient revenues to ensure that development pays for all system expansion costs.

4. Particularly for rapidly-growing communities, **growth and cost dynamics can change significantly from year to year.** Due to the strong growth dynamics of the Town of Marana, it would be prudent for the Town to review its impact fee calculations and cost structure at least once every three years.

5. **Some impact fee ordinances allow for exemptions from impact fees for particular developments that create extraordinary economic development.** The criteria for this exemption must be developed to ensure fairness for all parties.

6. **Impact fees can be assessed at the time of platting, at the issuance of the building permit, or at the time service is actually requested.** Each would require receipt of the impact fee funds from a different source (developer, builder, ratepayer). The project team considers the building permit stage to be the most reasonable time to ensure the ability to assess the impact of the development.

7. As part of the oversight process, cities should prepare annual reports of impact fee fund revenues and disbursements.

8. **Developers typically oppose impact fees, because of the added costs they would incur.** However, there are several advantages to a developer of an impact fee. First, impact fees require communities to do extensive land use planning before being able to implement the charge. This typically leads to a more ordered community. Second, impact fees can replace the ad hoc apparatus of negotiated development exactions that exists in many communities. Third, impact fees enable a utility to finance the facilities to service the developers, something that the Town may not otherwise be able to achieve. During the evaluation of any impact fee ordinance, it is important to bring these potential benefits to the attention of developers.

9. **Assessing impact fees by meter sizes is easy to explain to customers,** which increases the probability of general community acceptance.

10. Proper education of councils and communities is essential to the ultimate acceptance of impact fees among the community.

Impact Fee Comparison

The project team conducted a comprehensive survey of Arizona cities to determine the extent to which impact fees are currently in place in the state. The survey focused on residential impact fees for water, wastewater and sanitation services. The results of this survey for relevant cities are presented in **Table I-3**.The following is noteworthy about this impact fee comparison:

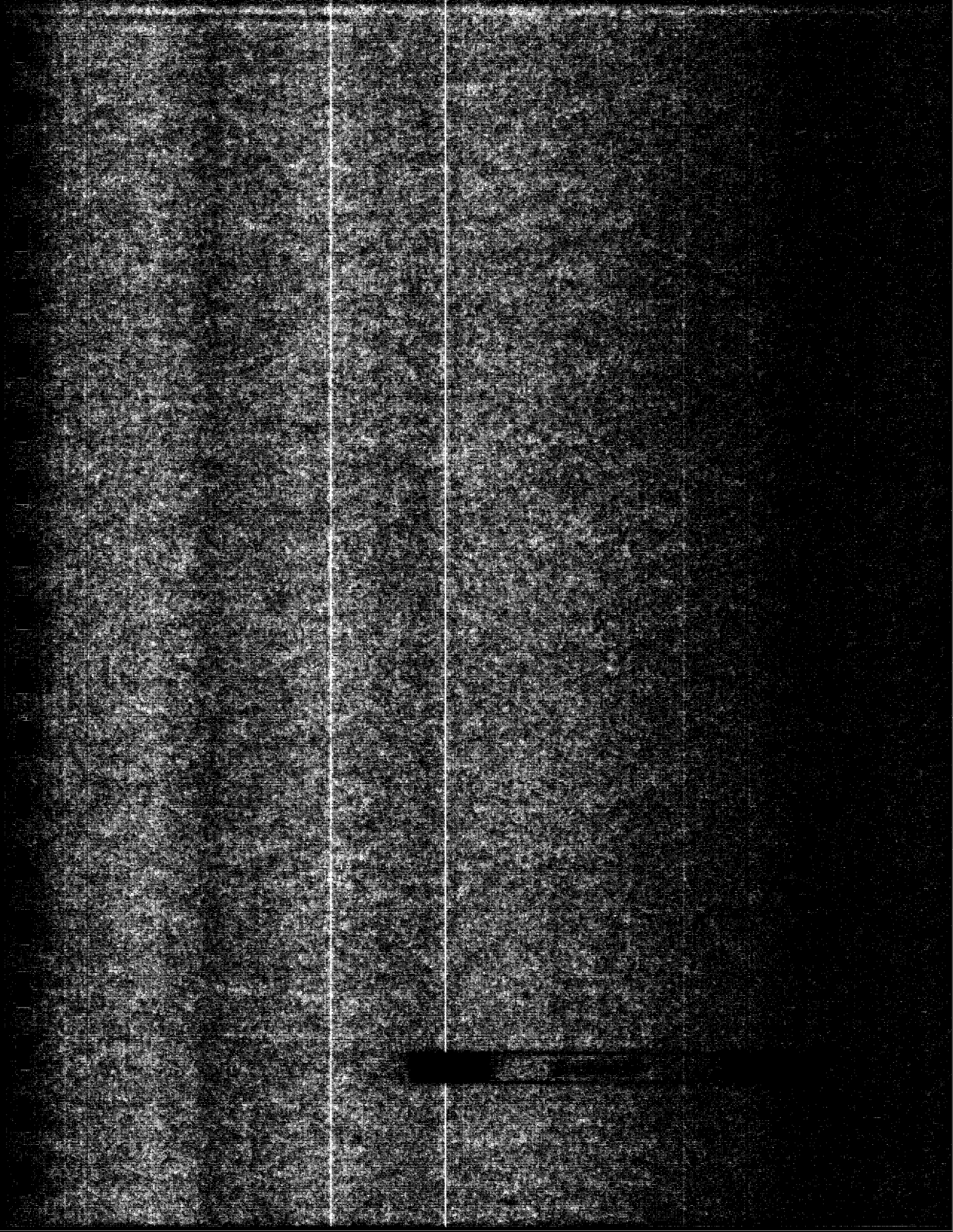
- Several Arizona border communities do not presently have impact fees. Cities without impact fees include Patagonia, Bisbee, Douglas, Nogales, Sierra Vista, Lake Havasu City, and Tombstone. This is not surprising, given that most of these communities (with the exception of Lake Havasu City) are not experiencing a high rate of population growth or development.
- The table reveals that there is a significant variation in the level of impact fees across those communities with impact fees currently in place. There are many potential reasons for this. However, the most significant reason may be that cities are not required to set an impact fee that recovers the entire cost of future expansion. As noted earlier in this section, cities may set lower impact fees to attract development or to reflect the preferences of the community.
- It is common for cities to set water and wastewater impact fees by meter size.

TABLE I-3
TOWN OF MARANA

2007 AZ Residential Water and Wastewater Impact Fees
Based on Single Family Home (3 BR, 2000 sq. ft. lot, value of $300,000)

County	Jurisdiction	Water	WW	Total
Pima	Tucson	$ 1,528	na	$ 1,528
Pinal	Florence	777	993	1,770
Pima	Oro Valley	2,074	-	2,074
Yuma	San Luis	1,259	1,015	2,274
Pinal	Casa Grande	-	2,389	2,389
Pinal	Eloy	1,433	1,161	2,594
Maricopa	Tempe	1,266	1,558	2,824
Pinal	Apache Junction	921	2,000	2,921
Maricopa	Mesa	1,011	2,024	3,035
Navajo	Show Low	759	2,525	3,284
Maricopa	Buckeye	2,302	1,462	3,764
Gila	Payson	3,785	-	3,785
Pinal	Queen Creek	-	4,781	4,781
Pima	Pima County	-	5,113	5,113
Maricopa	Surprise	3,335	2,245	5,580
Yavapai	Chino Valley	831	4,830	5,661
Maricopa	Peoria	3,905	2,024	5,929
Maricopa	Phoenix	4,694	2,446	7,140
Maricopa	Scottsdale	4,234	3,023	7,257
Maricopa	Chandler	5,542	2,490	8,032
Maricopa	Glendale	6,660	2,330	8,990
Maricopa	Goodyear	4,337	4,662	8,999
Yavapai	Prescott	9,373	-	9,373
Maricopa	Gilbert	5,033	4,422	9,455
Maricopa	Avondale	5,251	5,493	10,744
Yuma	Yuma	5,203	6,577	11,780

Source: 2007 National Impact Fee Survey, Duncan Associates



SECTION II

Wastewater System Impact Fees

Introduction

Section I of this study presented a five step summary of the calculation of an impact fee. These five steps are as follows:

1. Determine the Town's actual and forecast connections and ERUs.
2. Calculate the percentage of the Town's Capital Improvement Plan devoted to system growth, as opposed to repair and maintenance of the existing system.
3. Determine the amount of growth-related CIP that is expected to be financed through the issuance of long-term debt, and determine total interest expense over the forecast period.
4. Calculate the credit to be paid by new connections during the planning period for debt issued to fund the CIP.
5. Calculate the maximum impact fee per ERU.

Each of these steps, as well as the resulting maximum wastewater system impact fees, is presented in this section. The Town's Wastewater Impact Fee Calculation Model is presented in Appendix A of this study.

A not uncommon practice for utilities implementing impact fees is to develop a unique set of charges for each defined service area. A service area can be defined as a geographic area in which a specific set of facilities provides service. For example, larger cities and communities with distinct geographical areas (hills, valleys, etc.) may have several service areas. After consultation with the Town staff, the project team determined that the entire Town service territory can be defined as a single service area. The reasons for this are that the Town's size remains fairly limited (compared to major metropolitan areas such as Phoenix), its geography is uniform and its customer base is overwhelmingly residential. Since there is one service area, there is one set of impact fees for residential and commercial customers.

The project team also examined in detail level of service standards for the wastewater system, both current and after the implementation of the proposed capital improvement plan. Town staff and engineers have assured the project team that there will be no discernible increase or decrease in level of service standards after CIP implementation. Standards will remain uniform for all residential and commercial customers.

Step 1 – Actual and Forecast Connections and ERUs

The first step in the impact fee development process is to examine the Town's actual and projected volumes, customer growth and equivalent residential units (ERUs).

Table II-1 presents total wastewater connections by corresponding water meter size forecast to be acquired by the Town of Marana. The table reveals that the Town is expected to acquire a total of 10,685 wastewater connections. Of these connections, 10,011 or 93.7% are expected to be associated with 5/8 x 3/4" water meters. This indicates that the Town's customer base continues to be overwhelmingly residential in nature.

In order to determine ERUs, the total connections by meter size must be multiplied by equivalent meter capacity conversion factors as derived from the American Water Works Association Manual M-1. The use of conversion factors results in a total of 14,006 ERUs.

The average daily wastewater flow per Equivalent Residential Unit of the acquired accounts is assumed to be 202.5 gallons. This total will form the basis for demand and cost calculations presented in the next section. It should be noted that this is a conservative estimate of usage per account because it does not factor in potential higher flow levels during high water usage months.

TABLE II-1
TOWN OF MARANA
TOTAL EXISTING AND FORECAST SYSTEM CAPACITY

	WASTEWATER System		
	WW Accounts Acquired 2009	Conversion Factor	Equivalent Residential Units (ERUs)
5/8"x3/4"	10,011	1.0	10,011
1"	377	2.5	943
1 1/2"	40	5.0	200
2"	149	8.0	1,192
3"	104	15.0	1,560
4"	4	25.0	100
6"	-	50.0	-
8"	-	80.0	-
Total	**10,685**		**14,006**
WW Treatment Per Day Per ERU (gallons)			**202.50**

Table II-2 presents the project team's forecast new wastewater accounts by respective water meter size through 2017. These totals were originally based on the project team's 2007 water and wastewater rate study and long-term financial plan. However, forecast growth estimates were reduced in light of the recent slowdown in housing construction in 2008. As shown, the Town's wastewater customer base is forecast to grow in size from **10,685** accounts at the time of acquisition to **15,185** accounts in FY 2018.

TABLE II-2
TOWN OF MARANA
FORECAST WASTEWATER ACCOUNTS

	WATER Meter Size								
	5/8"x3/4"	1"	1 1/2"	2"	3"	4"	6"	8"	Total
Wastewater Accounts									
Total	10,011	377	40	149	104	4	-	-	**10,685**
2009	10,105	381	40	150	105	4	-	-	10,785
2010	10,292	388	41	153	107	4	-	-	10,985
2011	10,573	399	42	157	110	4	-	-	11,285
2012	10,948	413	43	163	114	4	-	-	11,685
2013	11,416	431	45	170	119	4	-	-	12,185
2014	11,978	452	47	178	125	4	-	-	12,785
2015	12,540	473	49	186	131	4	-	-	13,385
2016	13,102	494	51	194	137	4	-	-	13,985
2017	13,664	515	53	202	143	4	-	-	14,585
2018	14,226	536	55	210	149	4	-	-	**15,185**
2009	94	4	-	1	1	-	-	-	100
2010	187	7	1	3	2	-	-	-	200
2011	281	11	1	4	3	-	-	-	300
2012	375	14	1	6	4	-	-	-	400
2013	468	18	2	7	5	-	-	-	500
2014	562	21	2	8	6	-	-	-	600
2015	562	21	2	8	6	-	-	-	600
2016	562	21	2	8	6	-	-	-	600
2017	562	21	2	8	6	-	-	-	600
2018	562	21	2	8	6	-	-	-	600
Meter Equivalents/ERUs									
Total	10,011	943	200	1,192	1,560	100	-	-	**14,006**
2009	10,105	953	200	1,200	1,575	100	-	-	14,133
2010	10,292	970	205	1,224	1,605	100	-	-	14,396
2011	10,573	998	210	1,256	1,650	100	-	-	14,787
2012	10,948	1,033	215	1,304	1,710	100	-	-	15,310
2013	11,416	1,078	225	1,360	1,785	100	-	-	15,964
2014	11,978	1,130	235	1,424	1,875	100	-	-	16,742
2015	12,540	1,183	245	1,488	1,965	100	-	-	17,521
2016	13,102	1,235	255	1,552	2,055	100	-	-	18,299
2017	13,664	1,288	265	1,616	2,145	100	-	-	19,078
2018	14,226	1,340	275	1,680	2,235	100	-	-	**19,856**

Table II-3 calculates forecast overall wastewater system treatment capacity. For the purposes of an impact fee, the system capacity is defined in terms of the total wastewater treatment capacity. While different portions of the system (i.e. lift stations, collection lines, etc.) have different individual levels of daily capacity, impact fees are calculated for the system as a whole. Therefore, the overall capacity of a wastewater system is defined as its ability to treat influent on a daily basis. This data was developed in conjunction with Town staff.

Table II-3 reveals that the current capacity of the City's wastewater treatment plant is 3,800,000 gallons per day, which is equivalent to 18,765 ERUs. This consists of two plants, the Rillito Narrows plant with a capacity of 3,500,000 gallons per day, and the Marana plant with a capacity of 300,000 gallons per day. Neither plant is anticipated to be expanded during the ten year forecast period.

TABLE II-3
TOWN OF MARANA
CURRENT AND FORECAST CAPACITY

	WASTEWATER System	
	Total WWTP Capacity (gallons/day)	Total WWTP Capacity (ERUs)
Gallons Per Day Per ERU		202.5
2009	3,800,000	18,765
2010	3,800,000	18,765
2011	3,800,000	18,765
2012	3,800,000	18,765
2013	3,800,000	18,765
2014	3,800,000	18,765
2015	3,800,000	18,765
2016	3,800,000	18,765
2017	3,800,000	18,765
2018	3,800,000	18,765
Ending Capacity	3,800,000	18,765
Beginning Capacity	3,800,000	18,765

Step 2 -- Capital Improvement Plan

The second step involved in calculating a wastewater impact fee is to determine the cost of future system expansions and improvements. The Town and its engineer have developed a comprehensive wastewater system capital improvement plan. The CIP is summarized in **Table II-4** and presented in detail in **Chart II-5**.

The capital improvement plan identifies the portion of each asset that is devoted to repair and replacement of the existing system, and the percentage specifically related to future growth. For example, the most significant wastewater expenditure is the construction of the wastewater treatment plants to service existing and forecast capacity. Further, the project team has utilized the conservative assumption that no portion of the CIP will be funded through grants.

The tables reveal that the Town intends to spend $65,600,000 during the next decade to repair and expand the wastewater system and to ensure that the system remains operating at state and federal standards. Of this total, approximately **$26,944,313** or 41.1% of these expenses are growth-related.

It should be noted that the Town's capital improvement plan represents a Deductive calculation of impact fees, as opposed to the alternative Inductive calculation. In a Deductive calculation, the actual cost of each asset identified in the CIP is calculated and included in the impact fee charge. Larger cities such as Phoenix are more likely to use an inductive calculation, whereby a standardized asset cost is used for all facilities. The Town's capital improvement plan is of sufficient detail to allow a specific calculation of each asset.

TABLE II-4
TOWN OF MARANA
CAPITAL IMPROVEMENT PLAN

	Asset	Total Cost	Percent Growth Related	Total Growth-Related CIP	Total Replacement CIP
	Wastewater System				
WW1	Wastewater Treatment Plants	$ 58,500,000	44.5%	$ 26,044,313	$ 32,455,688
WW2	Collections	7,100,000	12.7%	900,000	6,200,000
	Total Wastewater Capital Improvements	**65,600,000**		**26,944,313**	**38,655,688**
				41.1%	**58.9%**

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE MODEL

Forecast 2009-2018			Treatment/ Dist/Admin/ Customer	Depreciable Lifespan (Years)	Percent Grant Funded	Percent Growth	Percent Replacement	Total CIP	Total Growth	Total Replacement
Input Area -- Capital Improvement Plan -- Wastewater										
		Utility:	TOWN OF MARANA							
		Test Year	2009							
		Forecast Period	2009-2018							
WW1		**Wastewater Treatment Plants**								
WW1	1	Rillito Narrows WWTP -- 3.0 mgd	Treat	50	0.0%	38.2%	61.8%	$ 52,500,000	$ 20,044,313	$ 32,455,688
WW1	2	Marana WWTP	Treat	50	0.0%	100.0%	0.0%	6,000,000	6,000,000	-
WW1	3	JU WWTP Acquisition	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	4	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	5	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	6	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	7	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	8	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	9	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	10	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
		Subtotal						**58,500,000**	**26,044,313**	**32,455,688**
WW2		**Collections**								
WW2	1	Lift Stations and Collection Lines	Coll	20	0.0%	30.0%	70.0%	2,500,000	750,000	1,750,000
WW2	2	Vactor/FE Loader/Trucks	Coll	10	0.0%	0.0%	100.0%	500,000	-	500,000
WW2	3	Camera Truck	Coll	10	0.0%	0.0%	100.0%	500,000	-	500,000
WW2	4	Airport Septic System	Coll	50	0.0%	100.0%	0.0%	150,000	150,000	-
WW2	5	Line Rehabilitation/Replacement	Coll	50	0.0%	0.0%	100.0%	2,250,000	-	2,250,000
WW2	6	Replacement Pump Purchase	Coll	20	0.0%	0.0%	100.0%	1,200,000	-	1,200,000
WW2	7	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
WW2	8	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
WW2	9	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
WW2	10	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
		Subtotal						**7,100,000**	**900,000**	**6,200,000**
		TOTAL WASTEWATER CIP						**65,600,000**	**26,944,313**	**38,655,688**
		Allocation to:								
		Treatment					89.2%	58,500,000	26,044,313	32,455,688
		Collection					10.8%	7,100,000	900,000	6,200,000
		Administration					0.0%	-	-	-
		Customer					0.0%	-	-	-
		Total					100.0%	**65,600,000**	**26,944,313**	**38,655,688**
									41.1%	**58.9%**

Forecast
2009-2018

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE MODEL

Input Area -- Capital Improvement Plan -- Wastewater

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		Utility:	**TOWN OF MARANA**									
		Test Year	**2009**									
		Forecast Period	**2009-2018**									
WW1		**Wastewater Treatment Plants**										
WW1	1	Rillito Narrows WWTP -- 3.0 mgd	$ -	$ 15,750,000	$ 36,750,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
WW1	2	Marana WWTP	-	6,000,000	-		-				-	
WW1	3	JU WWTP Acquisition	-	-	-							
WW1	4	Project	-	-	-							
WW1	5	Project			-					-	-	-
WW1	6	Project	-	-	-							
WW1	7	Project	-	-	-	-						
WW1	8	Project	-	-								
WW1	9	Project	-	-								
WW1	10	Project	-	-								
		Subtotal	**-**	**21,750,000**	**36,750,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
WW2		**Collections**										
WW2	1	Lift Stations and Collection Lines	-	-	2,500,000	-	-	-	-	-	-	-
WW2	2	Vactor/FE Loader/Trucks	-	-	500,000	-	-	-	-	-	-	-
WW2	3	Camera Truck	-	-	-	500,000	-	-	-	-	-	-
WW2	4	Airport Septic System	150,000	-	-	-	-	-	-	-	-	-
WW2	5	Line Rehabilitation/Replacement	-	750,000	750,000	750,000	-	-	-	-	-	-
WW2	6	Replacement Pump Purchase	-	600,000	600,000	-	-	-	-	-	-	-
WW2	7	Project	-	-	-	-	-	-	-	-	-	-
WW2	8	Project	-	-	-	-	-	-	-	-	-	-
WW2	9	Project	-	-	-	-	-	-	-	-	-	-
WW2	10	Project	-	-	-	-	-	-	-	-	-	-
		Subtotal	**150,000**	**1,350,000**	**4,350,000**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**
		TOTAL WASTEWATER CIP	**150,000**	**23,100,000**	**41,100,000**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**
		Allocation to:										
		Treatment	-	21,750,000	36,750,000	-	-	-	-	-	-	-
		Collection	150,000	1,350,000	4,350,000	1,250,000	-	-	-	-	-	-
		Administration	-	-	-	-	-	-	-	-	-	-
		Customer	-	-	-	-	-	-	-	-	-	-
		Total	**150,000**	**23,100,000**	**41,100,000**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**

Step 3 -- Debt Service Interest Adjustment

The third step in the development of a wastewater impact fee involves the inclusion of the net present value of interest expense on wastewater-related long-term debt. As stated above, the Town's capital improvement program is forecast to cost **$65,600,000** over the next ten years, of which 41.1% is for growth-related construction. For the purposes of this study, no portion of the capital improvement plan is assumed to be funded through grants, and substantially all the capital improvement plan is assumed to be funded through the issuance of long-term debt.

The City's funding assumptions are presented in **Table II-6** on the following page. Total debt issues for wastewater-related capital improvements, including closing costs, are forecast to be $62,220,000. Approximately $25,556,023 of this debt is growth-related.

As the table further reveals, debt is assumed to be issued for 25 year terms at 4.5% annual interest rates. For the ten year planning period FY 2008 – 2017, total wastewater growth-related interest is calculated to be $9,517,250. This equates to a net present value of **$7,153,886.**

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

TABLE II-6

Calculation Year
2009

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total Period
Input Area -- CIP Debt Funding Assumptions											
Wastewater System											
Forecast Debt Issues											
Principal (1)	25,500,000	24,500,000	11,000,000	-	-	-	-	-	-	-	
Closing Costs (1)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Total	**$ 26,010,000**	**$ 24,990,000**	**$ 11,220,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 62,220,000**
Growth-Related Debt Service											
Percent Wastewater (2)	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%
Total Wastewater	$ 10,683,256	$ 10,264,304	$ 4,608,463	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,556,023
Funding Assumptions											
Year of Issuance	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Interest Rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Term (Years)	25	25	25	25	25	25	25	25	25	25	
Total Interest (3)											
Total Interest -- Actual	10,369,011	9,110,412	3,691,760	-	-	-	-	-	-	-	23,171,183
Total Interest -- NPV	7,937,368	6,795,325	2,684,524	-	-	-	-	-	-	-	17,417,217
Growth-Related Interest											
Total Interest -- Actual	4,258,931	3,741,979	1,516,340	-	-	-	-	-	-	-	**9,517,250**
Total Interest -- NPV	3,260,167	2,791,088	1,102,632	-	-	-	-	-	-	-	**7,153,886**

(1) -- SOURCE: Client and Project Team Estimates
(2) -- SOURCE: CIP Input
(3) -- SOURCE: Debt Interest Input

Step 4 – Debt Service Credit

The fourth step in the impact fee calculation process is to calculate a credit for the amount of debt service expected to be paid by new connections during the planning period through monthly usage charges. This credit is netted against the total capital improvement plan. The idea is that new connections that come on line will be expected to pay monthly wastewater rates that include a component for debt service. In order to prevent double charging these new connections, the amount of the impact fee should be reduced by an amount equivalent to the debt service paid for new system construction by these new accounts.

The calculation is summarized in **Table II-7**. Total planning period wastewater-related debt service is calculated to be $38,761,930, of which $15,920,938 is growth-related. The total current ERUs to be acquired by the Town are 14,006, which equates to 1,680,660 monthly bills over the ten year period. Dividing total growth-related debt service by monthly bills per ERU equates to $23.06 per bill devoted to debt service.

Using growth forecasts outlined in Table II-3 results in cumulative new ERUs of 5,851. Details behind this calculation can be found in the Wastewater System Impact Fee Model contained in Appendix A. Multiplying this total by $23.06 results in a total cumulative credit of $1,619,197 over the planning period funded by new connections.

TABLE II-7
TOWN OF MARANA
TOTAL DEBT CREDIT

		Total
WASTEWATER Debt Credit		
Planning Period Debt Service		
Total Principal and Interest	$	38,761,930
Growth Related		
Percent		41.1%
Total		15,920,938
Credit Per Current ERU Per Month		
Current ERUs		14,006
Planning Period (Years)		10
Monthly Bills from Curruent ERUS during Planning Period		1,680,660
Planning Period Credit per Current ERU Per Month	**$**	**23.06**
Cumulative Credit		
Cumulative New ERUs		5,851
Credit per Current ERU Per Month	$	23.06
Cumulative Credit		**1,619,197**

Step 5 -- Wastewater System Impact Fee

The final step in the determination of wastewater impact fees involves the calculation of the per ERU charge attributable to new development. The calculation is summarized on **Table II-8** on the following page.

Part I of Table II-8 calculates the current and forecast wastewater system capacity in ERUs. The capacity for the wastewater system is estimated to be 18,765 Equivalent Residential Units.

In Part II of Table II-8, total growth-related CIP is added to forecast interest expense. From this sub-total the credit for CIP paid by new development through wastewater rates is subtracted. The net value of the Town's growth-related CIP is calculated to be $34,842,365.

The net CIP is then divided by the forecast capacity required for new accounts, or 8,080 ERUs. This results in a maximum impact fee per ERU of **$4,312**.

Part III of Table II-8 calculates the maximum impact fee by equivalent water meter size, based on the AWWA meter equivalency standards for positive displacement meters. A ¾" meter is equivalent to a single Equivalent Residential Unit. The fee of $4,312 is multiplied by the associated meter equivalent standard to determine the impact fee for larger sized meters.

The project team recommends that all meters greater than 2" be calculated individually based on flow rates, at a cost of **$21.29** per gallon.

Setting water and wastewater impact fees by meter size has become a more common practice across the nation in recent years. Proponents note the following advantages of this fee schedule:

- It is easy to understand and administer.
- There is no confusion among developers and municipal officials; the fee is simply based on the size of the meter utilized for the property in question. There is no dispute over land uses, land types, classifications or complex pro rata formulas.
- The method for calculation and update is straightforward.
- It encourages developers to install a meter no larger than the size that is needed for the development. This reduces the Town's costs by not requiring the construction of more capacity to service larger active meters.

Table II-9 summarizes the recommended maximum impact fee schedule by equivalent water meter size. It should be noted that these recommendations represent the maximum wastewater impact fee that can be implemented. Under Arizona Revised Statute 9-463.05, **the Town has the legal authority to implement any amount from zero up to, but not exceeding, these totals for each meter size**.

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Table II-8

Summary Schedule -- Calculation of Combined Wastewater Impact Fee

Wastewater -- System Impact Fee

Description		Total
I. Current and Forecast Capacity (ERUs)		
Capacity Required for Acquired Accounts		10,685
Capacity Required for New Growth/Connections		8,080
Total Capacity		18,765
II. Impact Fee per ERU		
Local Current CIP Value of Growth-Related Improvements	$	26,944,313
Interest Expense Allocated to Planning Period		9,517,250
Sub-Total	$	36,461,563
Less CIP Credit		1,619,197
New Value of CIP to be Paid from Impact Fees	$	34,842,365
Total Forecast Expansions		8,080
Net Wastewater Facility Impact Fee Per ERU	**$**	**4,312**

III. Wastewater Impact Fee by Water Meter Size

Water Meter Size	AWWA Meter Ratio	MAXIMUM Wastewater Impact Fee
5/8" -- 3/4"	1.0	$ 4,312
1"	2.5	10,780
1 1/2"	5.0	21,560
2"	8.0	34,496
3"	15.0	64,679
4"	25.0	107,799
6"	50.0	215,597
8"	80.0	344,955

TABLE II-9
TOWN OF MARANA
WASTEWATER IMPACT FEE BY METER SIZE

Water Meter Size	AWWA Meter Ratio	MAXIMUM Wastewater Impact Fee
5/8" -- 3/4"	1.00	$ 4,312
1"	2.50	10,780
1 1/2"	5.00	21,560
2"	8.00	34,496
Cost per Gallon		$ 21.29

NOTE: Meters over 2" should have fees individually calculated based on flow rate

Forecast Wastewater Impact Fee Revenues

Table II-10 presents the total forecast water impact fee revenues for the period FY 2009-2018. For the purposes of this calculation it is assumed that the maximum impact fee is adopted effective at the beginning of FY 2009. Should the Town implement an impact fee of less than the maximum, total annual revenue will be lower.

TABLE II-10
TOWN OF MARANA
FORECAST IMPACT FEE REVENUE

	5/8" x 3/4" Meter	1" Meter	1 1/2" Meter	2" Meter	Total
Wastewater Impact Fees - Forecast Annual Revenues					
Maximum Impact Fee	$ 4,312	$ 10,780	$ 21,560	$ 34,496	
Forecast New Accounts					
2009	94	4	-	1	99
2010	187	7	1	3	198
2011	281	11	1	4	297
2012	375	14	1	6	396
2013	468	18	2	7	495
2014	562	21	2	8	593
2015	562	21	2	8	593
2016	562	21	2	8	593
2017	562	21	2	8	593
2018	562	21	2	8	593
Forecast Revenues					
2009	$ 405,328	$ 43,120	$ -	$ 34,496	$ 482,944
2010	806,344	75,460	21,560	103,488	1,006,852
2011	1,211,672	118,580	21,560	137,984	1,489,796
2012	1,617,000	150,920	21,560	206,976	1,996,456
2013	2,018,016	194,040	43,120	241,472	2,496,648
2014	2,423,344	226,380	43,120	275,968	2,968,812
2015	2,423,344	226,380	43,120	275,968	2,968,812
2016	2,423,344	226,380	43,120	275,968	2,968,812
2017	2,423,344	226,380	43,120	275,968	2,968,812
2018	2,423,344	226,380	43,120	275,968	2,968,812
Total Period	**18,175,080**	**1,714,020**	**323,400**	**2,104,256**	**22,316,756**

Notes and Caveats

The project team notes that this impact fee calculation is based on a series of assumptions about future behavior and economic/financial conditions. These assumptions are based on an evaluation of current overall conditions. Should any of the assumptions and representations in this study require revision or modification, the impact fees may have to be adjusted accordingly.

These representations include but are not limited to:

- Increases or decreases in future account and billing unit growth
- Adjustments in the capital improvement plan requirements
- Adjustments in total capacity requirements
- Changes in interest rates or debt issue lifespans
- Changes in overall economic conditions
- Catastrophic changes, including such occurrences as weather events, terrorist attacks, etc.

Impact Fee Annual Adjustment

The Arizona Revised Statutes 9-463-05 contain the following provision:

> F. A municipality may automatically adjust a development fee on an annual basis without a public hearing if the adjustment is based on a nationally recognized index applicable to the cost of the necessary public service that is the subject of the development fee and the adjustment mechanism is identified in the report required by subsection C of this section. The municipality shall provide public notice of those adjustments at least thirty days in advance of their effective date.

Should the Town so desire, it may implement annual adjustments of the development fees based on a recognized index. A common index used by many municipalities is the Engineering News Record Construction Cost Index (ENR-CCI). To utilize this index the Town would declare its intention to recalculate the fee each year at a defined time based on the ENR-CCI for the past twelve months.

If the CCI remains at 5.0% in future years, which is its approximate average over the past several years, the fees would be as indicated in **Table II-11.**

Table II-11

TOWN OF MARANA
WASTEWATER IMPACT FEE BY METER SIZE

Water Meter Size	AWWA Meter Ratio	MAXIMUM Wastewater Impact Fee 2009	2010	2011	2012	2013
ENR Construction Cost Index			5.0%	5.0%	5.0%	5.0%
5/8" -- 3/4"	1.00	$ 4,312	$ 4,528	$ 4,754	$ 4,992	$ 5,241
1"	2.50	10,780	11,319	11,885	12,479	13,103
1 1/2"	5.00	21,560	22,638	23,770	24,958	26,206
2"	8.00	34,496	36,221	38,032	39,933	41,930

NOTE: Meters over 2" should have fees individually calculated based on flow rate

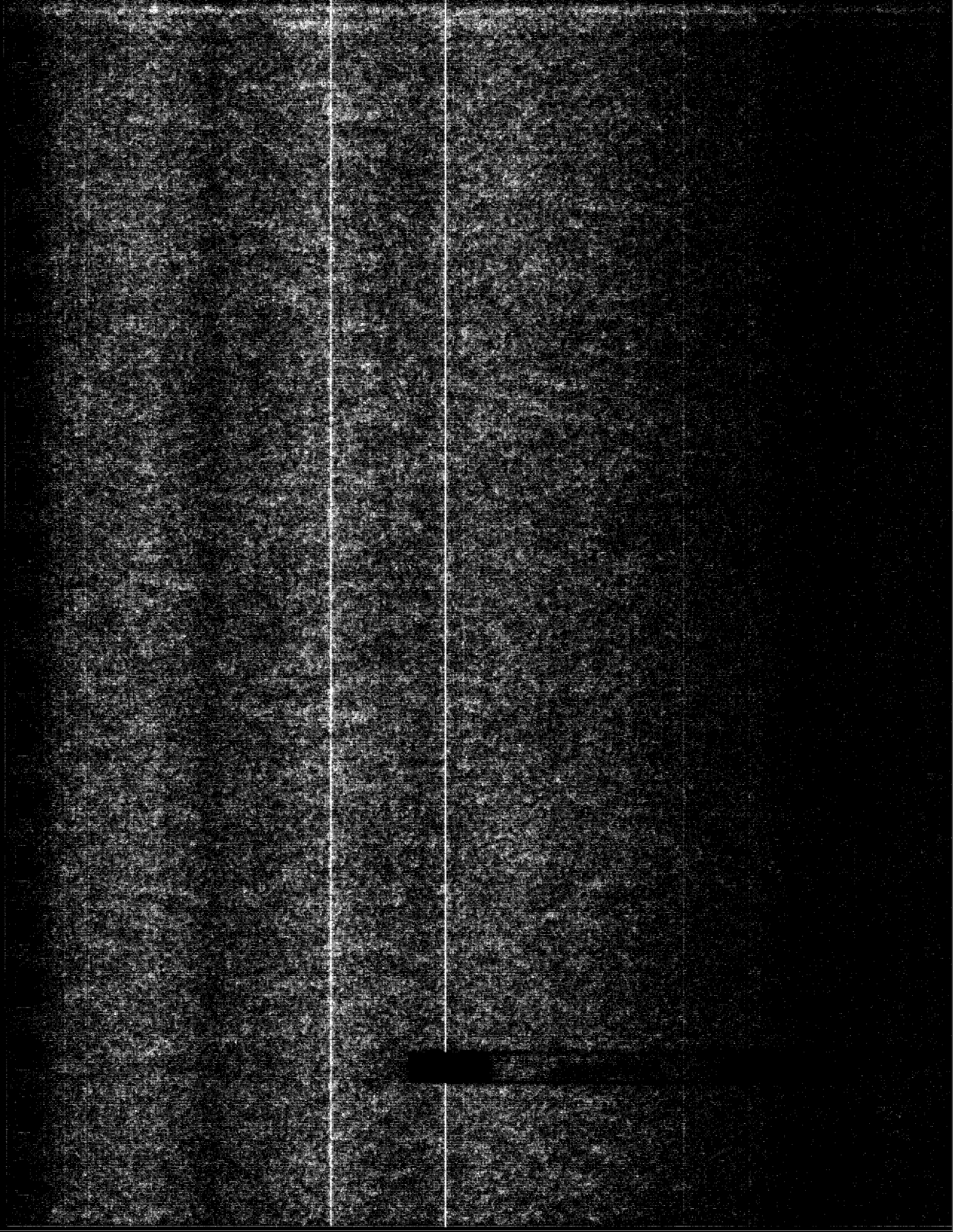


TABLE II-9
TOWN OF MARANA
WASTEWATER IMPACT FEE BY METER SIZE

Water Meter Size	AWWA Meter Ratio	MAXIMUM Wastewater Impact Fee
5/8" -- 3/4"	1.00	$ 4,312
1"	2.50	10,780
1 1/2"	5.00	21,560
2"	8.00	34,496
Cost per Gallon		$ 21.29

NOTE: Meters over 2" should have fees individually calculated based on flow rate

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE MODEL

Forecast
2009-2018

Input Area -- Capital Improvement Plan -- Wastewater

[redacted]

Utility: **TOWN OF MARANA**
Test Year **2009**
Forecast Period **2009-2018**

			Treatment/ Dist/Admin/ Customer	Depreciable Lifespan (Years)	Percent Grant Funded	Percent Growth	Percent Replacement	Total CIP	Total Growth	Total Replacement
WW1		**Wastewater Treatment Plants**								
WW1	1	Rillito Narrows WWTP -- 3.0 mgd	Treat	50	0.0%	38.2%	61.8%	$ 52,500,000	$ 20,044,313	$ 32,455,688
WW1	2	Marana WWTP	Treat	50	0.0%	100.0%	0.0%	6,000,000	6,000,000	-
WW1	3	JU WWTP Acquisition	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	4	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	5	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	6	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	7	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	8	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	9	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
WW1	10	Project	Treat	50	0.0%	100.0%	0.0%	-	-	-
		Subtotal						**58,500,000**	**26,044,313**	**32,455,688**
WW2		**Collections**								
WW2	1	Lift Stations and Collection Lines	Coll	20	0.0%	30.0%	70.0%	2,500,000	750,000	1,750,000
WW2	2	Vactor/FE Loader/Trucks	Coll	10	0.0%	0.0%	100.0%	500,000	-	500,000
WW2	3	Camera Truck	Coll	10	0.0%	0.0%	100.0%	500,000	-	500,000
WW2	4	Airport Septic System	Coll	50	0.0%	100.0%	0.0%	150,000	150,000	-
WW2	5	Line Rehabilitation/Replacement	Coll	50	0.0%	0.0%	100.0%	2,250,000	-	2,250,000
WW2	6	Replacement Pump Purchase	Coll	20	0.0%	0.0%	100.0%	1,200,000	-	1,200,000
WW2	7	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
WW2	8	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
WW2	9	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
WW2	10	Project	Coll	50	0.0%	0.0%	100.0%	-	-	-
		Subtotal						**7,100,000**	**900,000**	**6,200,000**
TOTAL WASTEWATER CIP								**65,600,000**	**26,944,313**	**38,655,688**
Allocation to:										
		Treatment					89.2%	58,500,000	26,044,313	32,455,688
		Collection					10.8%	7,100,000	900,000	6,200,000
		Administration					0.0%	-	-	-
		Customer					0.0%	-	-	-
		Total					100.0%	**65,600,000**	**26,944,313**	**38,655,688**
									41.1%	**58.9%**

[redacted]

Forecast
2009-2018

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE MODEL

Input Area -- Capital Improvement Plan -- Wastewater

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		Utility:	**TOWN OF MARANA**									
		Test Year	**2009**									
		Forecast Period	**2009-2018**									
WW1		**Wastewater Treatment Plants**										
WW1	1	Rillito Narrows WWTP -- 3.0 mgd	$ -	$ 15,750,000	$ 36,750,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
WW1	2	Marana WWTP	-	6,000,000	-		-				-	
WW1	3	JU WWTP Acquisition	-	-	-							
WW1	4	Project	-	-	-							
WW1	5	Project			-					-	-	-
WW1	6	Project	-	-	-							
WW1	7	Project	-	-	-	-						
WW1	8	Project	-	-								
WW1	9	Project	-	-								
WW1	10	Project	-	-								
		Subtotal	**-**	**21,750,000**	**36,750,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
WW2		**Collections**										
WW2	1	Lift Stations and Collection Lines	-	-	2,500,000	-	-	-	-	-	-	-
WW2	2	Vactor/FE Loader/Trucks	-	-	500,000	-	-	-	-	-	-	-
WW2	3	Camera Truck	-	-	-	500,000	-	-	-	-	-	-
WW2	4	Airport Septic System	150,000	-	-	-	-	-	-	-	-	-
WW2	5	Line Rehabilitation/Replacement	-	750,000	750,000	750,000	-	-	-	-	-	-
WW2	6	Replacement Pump Purchase	-	600,000	600,000	-	-	-	-	-	-	-
WW2	7	Project	-	-	-	-	-	-	-	-	-	-
WW2	8	Project	-	-	-	-	-	-	-	-	-	-
WW2	9	Project	-	-	-	-	-	-	-	-	-	-
WW2	10	Project	-	-	-	-	-	-	-	-	-	-
		Subtotal	**150,000**	**1,350,000**	**4,350,000**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**
		TOTAL WASTEWATER CIP	**150,000**	**23,100,000**	**41,100,000**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**
		Allocation to:										
		Treatment	-	21,750,000	36,750,000	-	-	-	-	-	-	-
		Collection	150,000	1,350,000	4,350,000	1,250,000	-	-	-	-	-	-
		Administration	-	-	-	-	-	-	-	-	-	-
		Customer	-	-	-	-	-	-	-	-	-	-
		Total	**150,000**	**23,100,000**	**41,100,000**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- Forecast Wastewater Facility Capacity

Wastewater System

Year	Rillito WWTP Capacity (gallons/day)	Marana WWTP Capacity (gallons/day)	Total WWTP Capacity (gallons/day)	Total WWTP Capacity (ERUs)	Forecast Annual Meter Equivalents (ERUs)
Average Treated Gallons Per Day Per ERU				202.5	
Total Accounts Acquired by Town				10,685	
Total Capacity Required for Town Accounts				2,163,713	
2009	3,500,000	300,000	3,800,000	**18,765**	14,133
2010	3,500,000	300,000	3,800,000	**18,765**	14,396
2011	3,500,000	300,000	3,800,000	**18,765**	14,787
2012	3,500,000	300,000	3,800,000	**18,765**	15,310
2013	3,500,000	300,000	3,800,000	**18,765**	15,964
2014	3,500,000	300,000	3,800,000	**18,765**	16,742
2015	3,500,000	300,000	3,800,000	**18,765**	17,521
2016	3,500,000	300,000	3,800,000	**18,765**	18,299
2017	3,500,000	300,000	3,800,000	**18,765**	19,078
2018	3,500,000	300,000	3,800,000	**18,765**	19,856
Ending Capacity	3,500,000	300,000	3,800,000	18,765	19,856
Total Capacity Required for Town Accounts	2,163,713	-	2,163,713	10,685	14,133
Total Capacity Required for Growth	1,336,288	300,000	1,636,288	**8,080**	**5,724**

Calculation Year 2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- 10 Year Wastewater System Forecast Demand

Wastewater System

Water Meter Size	5/8"x3/4"	1"	1-1/2"	2"	3"	4"	6"	8"	Total	Cumulative Total
Total Accounts Acquired by Town										
Total	10,011	377	40	149	104	4	-	-	10,685	
Percent	93.70%	3.53%	0.37%	1.39%	0.97%	0.04%	0.00%	0.00%	100.0%	
Forecast Annual Growth Rate										
2009	0.94%	0.94%	0.94%	0.94%	0.94%	0.94%	0.94%	0.94%	0.94%	
2010	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	
2011	2.73%	2.73%	2.73%	2.73%	2.73%	2.73%	2.73%	2.73%	2.73%	
2012	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	3.54%	
2013	4.28%	4.28%	4.28%	4.28%	4.28%	4.28%	4.28%	4.28%	4.28%	
2014	4.92%	4.92%	4.92%	4.92%	4.92%	4.92%	4.92%	4.92%	4.92%	
2015	4.69%	4.69%	4.69%	4.69%	4.69%	4.69%	4.69%	4.69%	4.69%	
2016	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	
2017	4.29%	4.29%	4.29%	4.29%	4.29%	4.29%	4.29%	4.29%	4.29%	
2018	4.11%	4.11%	4.11%	4.11%	4.11%	4.11%	4.11%	4.11%	4.11%	
Forecast Annual Total										
2009	10,105	381	40	150	105	4	-	-	10,785	
2010	10,292	388	41	153	107	4	-	-	10,985	
2011	10,573	399	42	157	110	4	-	-	11,285	
2012	10,948	413	43	163	114	4	-	-	11,685	
2013	11,416	431	45	170	119	4	-	-	12,185	
2014	11,978	452	47	178	125	4	-	-	12,785	
2015	12,540	473	49	186	131	4	-	-	13,385	
2016	13,102	494	51	194	137	4	-	-	13,985	
2017	13,664	515	53	202	143	4	-	-	14,585	
2018	14,226	536	55	210	149	4	-	-	15,185	
Forecast Annual New Wastewater Accounts										
2009	94	4	-	1	1	-	-	-	100	100
2010	187	7	1	3	2	-	-	-	200	300
2011	281	11	1	4	3	-	-	-	300	600
2012	375	14	1	6	4	-	-	-	400	1,000
2013	468	18	2	7	5	-	-	-	500	1,500
2014	562	21	2	8	6	-	-	-	600	2,100
2015	562	21	2	8	6	-	-	-	600	2,700
2016	562	21	2	8	6	-	-	-	600	3,300
2017	562	21	2	8	6	-	-	-	600	3,900
2018	562	21	2	8	6	-	-	-	600	4,500
									4,500	

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- 10 Year Wastewater System Forecast Demand

	Water Meter Size 5/8"x3/4"	1"	1 1/2"	2"	3"	4"	6"	8"	Total	Cumulative Total
Meter Equivalents/Equivalent Residential Units (ERUs)										
Conversion Factor	1.0	2.5	5.0	8.0	15.0	25.0	50.0	80.0		
Most Recent Month	10,011	943	200	1,192	1,560	100	-	-	14,006	
Forecast Meter Equiv/ERUs										
2009	10,105	953	200	1,200	1,575	100	-	-	14,133	
2010	10,292	970	205	1,224	1,605	100	-	-	14,396	
2011	10,573	998	210	1,256	1,650	100	-	-	14,787	
2012	10,948	1,033	215	1,304	1,710	100	-	-	15,310	
2013	11,416	1,078	225	1,360	1,785	100	-	-	15,964	
2014	11,978	1,130	235	1,424	1,875	100	-	-	16,742	
2015	12,540	1,183	245	1,488	1,965	100	-	-	17,521	
2016	13,102	1,235	255	1,552	2,055	100	-	-	18,299	
2017	13,664	1,288	265	1,616	2,145	100	-	-	19,078	
2018	14,226	1,340	275	1,680	2,235	100	-	-	19,856	
Forecast Annual New Meter Equiv/ERUs										
2009	94	10	-	8	15	-	-	-	127	127
2010	187	18	5	24	30	-	-	-	264	391
2011	281	28	5	32	45	-	-	-	391	781
2012	375	35	5	48	60	-	-	-	523	1,304
2013	468	45	10	56	75	-	-	-	654	1,958
2014	562	53	10	64	90	-	-	-	779	2,737
2015	562	53	10	64	90	-	-	-	779	3,515
2016	562	53	10	64	90	-	-	-	779	4,294
2017	562	53	10	64	90	-	-	-	779	5,072
2018	562	53	10	64	90	-	-	-	779	5,851
Total	**4,215**	**398**	**75**	**488**	**675**	**-**	**-**	**-**	**5,851**	

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

TABLE II-6

Calculation Year
2009

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total Period
Input Area -- CIP Debt Funding Assumptions											
Wastewater System											
Forecast Debt Issues											
Principal (1)	25,500,000	24,500,000	11,000,000	-	-	-	-	-	-	-	
Closing Costs (1)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Total	**$ 26,010,000**	**$ 24,990,000**	**$ 11,220,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 62,220,000**
Growth-Related Debt Service											
Percent Wastewater (2)	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%
Total Wastewater	$ 10,683,256	$ 10,264,304	$ 4,608,463	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,556,023
Funding Assumptions											
Year of Issuance	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Interest Rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Term (Years)	25	25	25	25	25	25	25	25	25	25	
Total Interest (3)											
Total Interest -- Actual	10,369,011	9,110,412	3,691,760	-	-	-	-	-	-	-	23,171,183
Total Interest -- NPV	7,937,368	6,795,325	2,684,524	-	-	-	-	-	-	-	17,417,217
Growth-Related Interest											
Total Interest -- Actual	4,258,931	3,741,979	1,516,340	-	-	-	-	-	-	-	**9,517,250**
Total Interest -- NPV	3,260,167	2,791,088	1,102,632	-	-	-	-	-	-	-	**7,153,886**

(1) -- SOURCE: Client and Project Team Estimates
(2) -- SOURCE: CIP Input
(3) -- SOURCE: Debt Interest Input

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- Forecast Debt Service

Series	2009
Total Wastewater Principal	$ 26,010,000
Term of Debt	25
Interest Rate	4.50%

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
2009	$ -	$ -	$ -	$ -	$ -		
2010	26,010,000	583,639	1,170,450	1,754,089	25,426,361		
2011	25,426,361	609,903	1,144,186	1,754,089	24,816,458		
2012	24,816,458	637,349	1,116,741	1,754,089	24,179,109		
2013	24,179,109	666,029	1,088,060	1,754,089	23,513,080		
2014	23,513,080	696,001	1,058,089	1,754,089	22,817,080		
2015	22,817,080	727,321	1,026,769	1,754,089	22,089,759		
2016	22,089,759	760,050	994,039	1,754,089	21,329,709		
2017	21,329,709	794,252	959,837	1,754,089	20,535,457		
2018	20,535,457	829,994	924,096	1,754,089	19,705,464		
2019	19,705,464	867,343	886,746	1,754,089	18,838,120		
TOTAL			10,369,011	17,540,891			
NPV		5,344,558	7,937,368	13,281,926		8,080	982.29

Series	2010
Total Wastewater Principal	$ 24,990,000
Term of Debt	25
Interest Rate	4.50%

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	24,990,000	560,751	1,124,550	1,685,301	24,429,249		
2012	24,429,249	585,985	1,099,316	1,685,301	23,843,264		
2013	23,843,264	612,354	1,072,947	1,685,301	23,230,909		
2014	23,230,909	639,910	1,045,391	1,685,301	22,590,999		
2015	22,590,999	668,706	1,016,595	1,685,301	21,922,292		
2016	21,922,292	698,798	986,503	1,685,301	21,223,494		
2017	21,223,494	730,244	955,057	1,685,301	20,493,250		
2018	20,493,250	763,105	922,196	1,685,301	19,730,145		
2019	19,730,145	797,445	887,857	1,685,301	18,932,700		
TOTAL			9,110,412	15,167,712			
NPV		4,422,460	6,795,325	11,217,785		8,080	840.96

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- Forecast Debt Service

Series	2011
Total Wastewater Principal	$ 11,220,000
Term of Debt	25
Interest Rate	4.50%

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	11,220,000	251,766	504,900	756,666	10,968,234		
2013	10,968,234	263,095	493,571	756,666	10,705,139		
2014	10,705,139	274,935	481,731	756,666	10,430,204		
2015	10,430,204	287,307	469,359	756,666	10,142,897		
2016	10,142,897	300,236	456,430	756,666	9,842,662		
2017	9,842,662	313,746	442,920	756,666	9,528,916		
2018	9,528,916	327,865	428,801	756,666	9,201,051		
2019	9,201,051	342,619	414,047	756,666	8,858,432		
TOTAL			3,691,760	6,053,327			
NPV		1,688,969	2,684,524	4,373,493		8,080	332.23

Series	2012
Total Wastewater Principal	$ -
Term of Debt	25
Interest Rate	4.50%

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	-	-	-	-	-		
2013	-	-	-	-	-		
2014	-	-	-	-	-		
2015	-	-	-	-	-		
2016	-	-	-	-	-		
2017	-	-	-	-	-		
2018	-	-	-	-	-		
2019	-	-	-	-	-		
TOTAL			-	-			
NPV		-	-	-		8,080	-

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- Forecast Debt Service

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
Series						2013	
Total Wastewater Principal						$ -	
Term of Debt						25	
Interest Rate						4.50%	
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	-	-	-	-	-		
2013	-	-	-	-	-		
2014	-	-	-	-	-		
2015	-	-	-	-	-		
2016	-	-	-	-	-		
2017	-	-	-	-	-		
2018	-	-	-	-	-		
2019	-	-	-	-	-		
TOTAL			-	-			
NPV		-	-	-		8,080	-

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
Series						2014	
Total Wastewater Principal						$ -	
Term of Debt						25	
Interest Rate						4.50%	
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	-	-	-	-	-		
2013	-	-	-	-	-		
2014	-	-	-	-	-		
2015	-	-	-	-	-		
2016	-	-	-	-	-		
2017	-	-	-	-	-		
2018	-	-	-	-	-		
2019	-	-	-	-	-		
TOTAL			-	-			
NPV		-	-	-		8,080	-

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- Forecast Debt Service

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
Series						2015	
Total Wastewater Principal						$ -	
Term of Debt						25	
Interest Rate						4.50%	
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	-	-	-	-	-		
2013	-	-	-	-	-		
2014	-	-	-	-	-		
2015	-	-	-	-	-		
2016	-	-	-	-	-		
2017	-	-	-	-	-		
2018	-	-	-	-	-		
2019	-	-	-	-	-		
TOTAL			-	-			
NPV		-	-	-		8,080	-

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
Series						2016	
Total Wastewater Principal						$ -	
Term of Debt						25	
Interest Rate						4.50%	
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	-	-	-	-	-		
2013	-	-	-	-	-		
2014	-	-	-	-	-		
2015	-	-	-	-	-		
2016	-	-	-	-	-		
2017	-	-	-	-	-		
2018	-	-	-	-	-		
2019	-	-	-	-	-		
TOTAL			-	-			
NPV		-	-	-		8,080	-

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- Forecast Debt Service

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
Series						2017	
Total Wastewater Principal					$	-	
Term of Debt						25	
Interest Rate						4.50%	
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	-	-	-	-	-		
2013	-	-	-	-	-		
2014	-	-	-	-	-		
2015	-	-	-	-	-		
2016	-	-	-	-	-		
2017	-	-	-	-	-		
2018	-	-	-	-	-		
2019	-	-	-	-	-		
TOTAL			-	-			
NPV		-	-	-		8,080	-

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
Series						2018	
Total Wastewater Principal					$	-	
Term of Debt						25	
Interest Rate						4.50%	
2009	$ -	$ -	$ -	$ -	$ -		
2010	-	-	-	-	-		
2011	-	-	-	-	-		
2012	-	-	-	-	-		
2013	-	-	-	-	-		
2014	-	-	-	-	-		
2015	-	-	-	-	-		
2016	-	-	-	-	-		
2017	-	-	-	-	-		
2018	-	-	-	-	-		
2019	-	-	-	-	-		
TOTAL			-	-			
NPV		-	-	-		8,080	-

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Input Area -- Forecast Debt Service

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
	Series						TOTAL
	Interest Rate						4.5%
2009	$ -	$ -	$ -	$ -	$ -		
2010	26,010,000	583,639	1,170,450	1,754,089	25,426,361		
2011	50,416,361	1,170,654	2,268,736	3,439,390	49,245,707		
2012	60,465,707	1,475,100	2,720,957	4,196,056	58,990,607		
2013	58,990,607	1,541,479	2,654,577	4,196,056	57,449,128		
2014	57,449,128	1,610,846	2,585,211	4,196,056	55,838,283		
2015	55,838,283	1,683,334	2,512,723	4,196,056	54,154,949		
2016	54,154,949	1,759,084	2,436,973	4,196,056	52,395,865		
2017	52,395,865	1,838,242	2,357,814	4,196,056	50,557,623		
2018	50,557,623	1,920,963	2,275,093	4,196,056	48,636,660		
2019	48,636,660	2,007,407	2,188,650	4,196,056	46,629,253		
TOTAL		15,590,747	23,171,183	38,761,930			
NPV		11,455,988	17,417,217	28,873,205			$ 2,155.48

Wastewater System

Year	Beginning Principal	Principal Payment	Interest Payment	Total Payment	Ending Principal	Total New Capacity ERUs	Interest Expense Per ERU
	Series						WASTEWATER SYSTEM
	Percent Growth-Related						41.07%
	Interest Rate						4.50%
2009	$ -	$ -	$ -	$ -	$ -		
2010	10,683,256	239,722	480,747	720,468	10,443,534		
2011	20,707,838	480,830	931,853	1,412,683	20,227,008		
2012	24,835,471	605,877	1,117,596	1,723,473	24,229,594		
2013	24,229,594	633,142	1,090,332	1,723,473	23,596,452		
2014	23,596,452	661,633	1,061,840	1,723,473	22,934,819		
2015	22,934,819	691,407	1,032,067	1,723,473	22,243,413		
2016	22,243,413	722,520	1,000,954	1,723,473	21,520,893		
2017	21,520,893	755,033	968,440	1,723,473	20,765,860		
2018	20,765,860	789,010	934,464	1,723,473	19,976,850		
2019	19,976,850	824,515	898,958	1,723,473	19,152,335		
TOTAL		6,403,688	9,517,250	15,920,938			
NPV		4,705,392	7,153,886	11,859,278		8,080	$ 885.33

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Calculation Year
2009

Input Area -- Debt Credit

Wastewater System

Planning Period Debt Service		
Total Principal and Interest	$	38,761,930
Growth Related		
Percent		41.07%
Total		15,920,938
Credit Per Current ERU Per Month		
Current ERUs		14,006
Planning Period (Years)		10
Monthly Bills from Current ERUS during Planning Period		1,680,660
Planning Period Credit per Current ERU Per Month	**$**	**23.06**
Cumulative Credit		
Cumulative New ERUs		5,851
Credit per Current ERU Per Month	$	23.06
Cumulative Credit		**1,619,197**

Table II-8

Calculation Year
2009

TOWN OF MARANA
WASTEWATER SYSTEM IMPACT FEE CALCULATION MODEL

Summary Schedule -- Calculation of Combined Wastewater Impact Fee

Wastewater -- System Impact Fee

Description		Total
I. Current and Forecast Capacity (ERUs)		
Capacity Required for Acquired Accounts		10,685
Capacity Required for New Growth/Connections		8,080
Total Capacity		18,765
II. Impact Fee per ERU		
Local Current CIP Value of Growth-Related Improvements	$	26,944,313
Interest Expense Allocated to Planning Period		9,517,250
Sub-Total	$	36,461,563
Less CIP Credit		1,619,197
New Value of CIP to be Paid from Impact Fees	$	34,842,365
Total Forecast Expansions		8,080
Net Wastewater Facility Impact Fee Per ERU	**$**	**4,312**

III. Wastewater Impact Fee by Water Meter Size

Water Meter Size	AWWA Meter Ratio	MAXIMUM Wastewater Impact Fee
5/8" -- 3/4"	1.0	$ 4,312
1"	2.5	10,780
1 1/2"	5.0	21,560
2"	8.0	34,496
3"	15.0	64,679
4"	25.0	107,799
6"	50.0	215,597
8"	80.0	344,955