CITY OF CASPER

System Investment Charge Study

Final Report

RAFTELIS
FINANCIAL CONSULTANTS, INC.

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1. EXECUTIVE SUMMARY

On February 7, 2017, the City of Casper (City) retained Raftelis Financial Consultants (Raftelis) to update their schedule of System Investment Charges. This report describes study assumptions, calculations, findings, and recommendations.

A system investment charge (SIC) is a one-time charge paid by new or enlarged connections to a utility system that recovers the cost of capacity-related infrastructure required to serve growth. The City receives treated water from the Central Wyoming Regional Water System (CWRWS), which charges its own SIC to recover the costs of water supply and treatment. The City collects a SIC to recover the costs of its water transmission and distribution system. The City also collects two SICs for its wastewater system, an SIC for its sewer collection system and an SIC for its wastewater treatment plant (WWTP) system. This report describes results for all three water and wastewater SICs charged by the City.

1.1 SYSTEM INVESTMENT CHARGE METHODS

Fundamentally, the SIC is calculated by dividing the value of the utility system by the system's capacity, which results in a cost per unit of capacity. There are several industry-accepted methods for calculating SICs. The SIC calculation method selected depends on the specific circumstances of the utility. There are four industry accepted methods used to calculate SICs: the equity buy-in method, the capacity buy-in method, the incremental method, and the hybrid method.

The equity buy-in method is designed to calculate SICs that recover the cost of existing capacity. The cost of future capacity additions is not considered in the equity buy-in method. The equity buy-in calculation is based upon the system capacity used to serve current customers. The equity buy-in method is often appropriate when a utility has a large amount of excess capacity and a relatively slow rate of growth that will not consume that excess capacity for an extended period of time. This best approximates the current conditions of the City system.

The capacity buy-in method is also designed to calculate SICs that recover the cost of existing capacity. The cost of future capacity additions is not considered in the capacity buy-in method. The capacity buy-in calculation is based upon the system's total capacity to serve current and future customers. The capacity buy-in method is often appropriate when a utility has a large amount of excess capacity and the excess capacity is expected to be consumed relatively quickly.

The incremental method reflects the cost of expanding the system's capacity to serve new customers. This method is typically used by utilities who must make investments in additional capacity-related infrastructure because they have inadequate capacity to serve new customers. The City has the capacity to accommodate the demands of new customers and no significant capacity expansions are included in its 10-year Capital Improvement Plan (CIP). Thus, the incremental method is not appropriate for the City at this time.

The hybrid method is a combination of the incremental method and either the capacity buy-in methods. The hybrid method was also not considered for the City, due to its reliance on the incremental method.

1.2 CALCULATED SYSTEM INVESTMENT CHARGES

Raftelis calculated SICs for City using the equity buy-in method and the capacity buy-in method. Table 1-1 summarizes the calculated SICs for new connections to the water distribution system with a 3/4-inch water meter. Charges for larger meters are proportional to the capacity of the meter. Table 1-2 summarizes the calculated SICs for new connections to the City's sewer system with a 3/4-inch water meter. Table 1-3 summarizes the calculated SICs for new connections to the City's WWTP with a 3/4-inch water meter.

Table 1-1: Summary of Calculated Water System Investment Charges

Calculation Method	Existing SIC for 3/4-inch meter	Calculated SIC for 3/4-inch meter
Equity Buy-In	$1,010	$949
Capacity Buy-In	$1,010	$506

Table 1-2: Summary of Calculated Sewer System Investment Charges

Calculation Method	Existing SIC for 3/4-inch meter	Calculated SIC for 3/4-inch meter
Equity Buy-In	$285	$282
Capacity Buy-In	$285	$262

Table 1-3: Summary of Calculated WWTP System Investment Charges

Calculation Method	Existing SIC for 3/4-inch meter	Calculated SIC for 3/4-inch meter
Equity Buy-In	$500	$1,516
Capacity Buy-In	$500	$1,404

1.3 SURVEY OF SIMILAR COMMUNITIES' SICS

Raftelis conducted a survey of SICs in other Wyoming communities and the surrounding region. A new customer connecting to the City of Casper's water distribution system pays an SIC to buy into their distribution infrastructure and an SIC to buy into the supply and treatment infrastructure of the CITY. The average SIC of $2,639 for a 3/4-inch meter excludes the City and City of Casper's SICs and only includes SICs that are inclusive of supply, treatment, and distribution infrastructure.

Figure 1-1: Survey of SICs for 3/4-inch meters

2. INTRODUCTION

2.1 STUDY OVERVIEW

The City purchases treated water from the CWRWS and delivers it to its approximately 22,000 retail customers through its distribution system. The CWRWS has a capacity to provide up to 39 million gallons per day (MGD) of treated water. The City of Casper represents approximately 90% of the demand placed on the system.

The City has not adjusted its SICs for approximately 20 years. As a result, past capital expenditures and the growth in the replacement value of its existing infrastructure are not reflected in its current SICs. To the extent that SICs may not recover an appropriate amount of growth-related capital expenditures, the water rates paid by the City's customers must be higher than would otherwise be the case.

2.2 REPORT ORGANIZATION

Our report to the District contains six sections as follows:

- Section 1 – Executive Summary
- Section 2 – Introduction
- Section 3 – Methodology
- Section 4 – System Investment Charge Calculations
- Section 5 – Conclusions and Recommendations

The report contains an appendix containing further information on the system's fixed assets and equivalent meters.

2.3 ACKNOWLEDGEMENTS

On behalf of the project team, we would like to acknowledge the commitment and contributions provided by the staff of the City of Casper, including Mr. Andrew Beamer, Mr. Bruce Martin, Ms. Connie Arnold, and Ms. Marlene Atkins.

2.4 RELIANCE ON CITY OF CASPER DATA

During this project, the City of Casper provided Raftelis with a variety of technical information including master plans, audited and unaudited financial results, cost data, and customer billing information. Raftelis cannot confirm the accuracy of such data – historic or projected. We have relied on this data in the formulation of our findings and subsequent recommendations, as well as in the preparation of this report.

3. METHODOLOGY

3.1 SYSTEM INVESTMENT CHARGE OVERVIEW

A system investment charge (SIC) is a one-time charge paid by new or enlarged connections to a utility system that recovers the cost of capacity-related infrastructure required to serve growth. Fundamentally, the SIC is calculated by dividing the value of the utility system by the system's capacity, which results in a cost per unit of capacity. There are several industry-accepted methods for calculating SICs. The SIC calculation method selected depends on the specific circumstances of the utility. There are four industry accepted methods used to calculate SICs: the equity buy-in method, the capacity buy-in method, the incremental method, and the hybrid method.

If a utility does not recover, or significantly under-recovers, the cost of serving new development through its SIC, the cost of serving new development is at the expense of existing ratepayers. Proper calculation of SICs is an exercise that attempts to achieve equity between existing customers and new development. Different calculation methodologies will result in different SIC values. These methods are described and accepted by the American Water Works Association (AWWA) in the publication, *Manual M1, Principles of Water Rates, Fees and Charges, Seventh Edition* and the Water Environment Federation publication, *Manual of Practice No. 27, Financing and Charges for Wastewater Systems, Third Edition*. In addition to following these industry standards, Raftelis reviewed Wyoming statutes to assess the legal basis of SICs in Wyoming. Raftelis found that the State has no specific statutes with regards to SICs which would place limits on SIC calculations beyond industry-accepted norms.

There are four industry accepted methods used to calculate SICs: the equity buy-in method, the capacity buy-in method, the incremental method, and the hybrid method. These methods are discussed below.

- **Equity Buy-In**: This method is often appropriate when a utility has a large amount of excess capacity and a relatively slow rate of growth that will not consume that excess capacity for an extended period of time. Under this method, the SIC is based upon the existing capacity that is served by the system. Here, the estimated value of system assets is divided by the current number of 3/4-inch equivalent residential connections on the system to calculate the SIC. This best approximates the current conditions of the City's water and wastewater systems.

- **Capacity Buy-In**: The capacity buy-in method is often appropriate when a utility has a large amount of excess capacity and the excess capacity is expected to be consumed relatively quickly. Here, the estimated value of the system assets is divided by the system's capacity to serve the actual demands imposed by 3/4-inch equivalent residential connections.

- **Incremental**: This method is typically used by utilities who must make investments in additional capacity-related infrastructure because they have inadequate capacity to serve

new customers (i.e., existing customers consume nearly all the existing system capacity). Here, the SIC is calculated by dividing the incremental cost of new capacity-related infrastructure required to serve growth by the projected demands that will be imposed by new customers.

- **Hybrid**: This method is most appropriate when the utility has some capacity to serve new customers but also has plans to expand capacity. It thus considers both the existing and future systems. This method is a combination of the hybrid and the capacity buy-in methods.

The City has sufficient wastewater treatment capacity to serve many more customers without expanding additional capacity. The City's water system does not have significant capacity-related infrastructure expansions planned. As such, the incremental and hybrid methods were not considered by Raftelis for this study.

There are two components of an SIC calculation: a valuation of the system and an assessment of capacity. There are two primary valuation methods:

- **Replacement Cost New (RCN)**: This method inflates the original cost of the assets into today's dollars. Raftelis uses the Construction Cost Index that is published by the Engineering News Record, which is a common pricing tool used within the industry. To calculate an asset's value in today's dollars, one takes the current index value and divides it by the index value for the year in which the asset was purchased. This ratio is then multiplied by the original cost of the asset to produce an estimate of the asset's value in today's dollars.

- **Replacement Cost New Less Depreciation (RCNLD)**: This method is conducted just as the RCN method, but is adjusted for the accumulated depreciation. The accumulated depreciation that is used in RCNLD is not the same as the accumulated depreciation listed in the utility's fixed asset records. The fixed asset records list the original cost of an asset, and depreciation is calculated in terms of the original cost. Here, the accumulated depreciation is calculated in current dollar terms, just as is the value of the asset.

This report presents the system valuation using the RCNLD method. RCN was not used because it would require new development to buy into existing assets at a full replacement cost value without recognizing the fact that these assets have incurred some level of depreciation.

System capacity is measured using the number of equivalent residential units (EQRs) that are either connected to the system or which can be served by the system. The number of EQRs that a water treatment system can serve is defined based on design standards or the actual usage patterns of existing 3/4-inch residential water meters.

4. SYSTEM INVESTMENT CHARGE CALCULATIONS

4.1 WATER DISTRIBUTION SYSTEM

A water utility is commonly composed of a water treatment plant and a distribution network. Such a system's capacity to serve customers in terms of EQRs is calculated by dividing the treatment plant's capacity by the defined usage of one EQR. In the City's case, this calculation is complicated by the fact that it does not own treatment capacity. It is nearly impossible to determine the capacity of a city-wide distribution network to serve customers. Metrics that quantify the capacity of a distribution network such as pumping capacity or storage capacity are inadequate to describe the number of EQRs that the distribution network can serve. However, it is known that the City uses approximately 90% of the water produced by the CWRWS. A proxy for the capacity of the water distribution network to serve customers is thus calculated by multiplying the CWRWS's treatment plant capacity by the percentage of demand the City places on it (i.e., approximately 90%).

4.1.1 Assumptions

Raftelis made the following assumptions in the development of the proposed SIC for water distribution:

- The City does not own or operate a water treatment system. Its assets are solely related to the distribution of purchased treated water.
- The CWRWS's treatment plant capacity is 39.0 MGD. The City consumes 90.89% of the CWRWS's produced water. Thus, the City's "water treatment plant capacity" is 35.45 MGD.
- Raftelis was provided a meter inventory and billing data for the City. The City provides wholesale service to several customers, some of which use CWRWS transmission assets and some which use City transmission assets. Only the wholesale customers using City transmission infrastructure are included in the meter inventory.
- The following meter equivalency schedule was used to develop the SIC assessment schedule. The maximum flows are industry-standard references that can be found in the AWWA publication, *Manual M6, Water Meters: Selection, Installation, Testing and Maintenance, Fifth Edition.*

Table 4-1: Meter Equivalency Schedule

Meter Size (inches)	Max Flow (gpm)	Equivalent Meters
3/4	25	1.0
1	40	1.6
1 1/2	50	2.0
2	160	6.4
3	320	12.8
4	500	20.0
6	1,000	40.0
8	1,600	64.0
10	2,300	92.0
12	5,000	200.0

4.1.2 Calculation

Table 4-2 summarizes the calculation of the system value. The RCNLD valuation of the system's assets is adjusted for developer contributed assets and any outstanding debt principal. This system value is used in both Equity Buy-In and Capacity Buy-In methods.

Table 4-2: System Valuation

Description	Amount
Total System Replacement Cost (RCNLD)	$74,147,091
Less: Developer Contributed Assets	(40,183,559)
Less: Current Outstanding Debt Principal	(7,247,274)
Total System Cost for SIC Calculation	$26,716,258

The City currently serves 28,158 EQRs through its water distribution system.

Table 4-3 summarizes the calculation of the number of EQRs that can be served with the existing treatment capacity of the City. This information is used in the capacity buy-in method.

Table 4-3: Number of EQRs That Can Be Served by the City

Description	Amount
EQR Demand	
Average Consumption of Casper EQR (gpd)	263.6
Coincident System Max Day Demand	2.55
Estimated EQR Peak Day Water Use (gpd)	672.1
System Capacity	
City's Share of Treatment Capacity (MGD)	35.4
Estimated EQR Peak Day Water Use (gpd)	672.1
System EQR Capacity	52,747

Table 4-4 details the calculation of the SIC using the equity buy-in and capacity buy-in methods.

Table 4-4: Water SIC Calculation

Description	Equity Buy-In	Capacity Buy-In
Total System Cost	$26,716,258	$26,716,258
Number of EQRs	28,158	52,747
SIC per EQR	$949	$506

Table 4-5 presents the SIC assessment schedule produced using the meter equivalency schedule in Table 4-1.

Table 4-5: Water SIC Assessment Schedules

Meter Size (inches)	Existing SIC	Equity Buy-In	Capacity Buy-In
¾	$1,010	$949	$506
1	1,690	1,518	810
1 ½	3,360	1,898	1,012
2	5,385	6,074	3,238
3	10,775	12,147	6,477
4	21,210	18,980	10,120
6	47,135	37,960	20,240
8	80,800	60,736	32,384

4.2 SEWER SYSTEM

The City's wastewater system is operated somewhat like the water system, in that there is a separation between the sewer collection component and the wastewater treatment component. This section will develop SICs for the sewer collection system. The sewer collection system has the same issues in determining its capacity to serve as does the water distribution system. Here again, the treatment plant's capacity is used to estimate the sewer system's capacity to serve. While the City owns the WWTP, it also serves wholesale customers. The City provides 84.4% of the flows into the plant.

4.2.1 Assumptions

Raftelis made the following assumptions in the development of the proposed SIC for sewer collection:

- The City owns and operates a wastewater treatment system. Its assets are solely related to the treatment of wastewater and will be considered as part of the WWTP SIC.
- The City's WWTP capacity is 10.0 MGD. The City produces 84.4% of the WWTP's influent. Thus, the City's "WWTP capacity" is 8.44 MGD.
- Raftelis was provided a meter inventory and billing data for the City. The City provides wholesale service to several customers, some of which use CWRWS transmission assets and some which use City transmission assets. Only the wholesale customers using City transmission infrastructure are included in the meter inventory.

- The same meter equivalency schedule used in 4.1.1 is used to calculate the sewer SIC. The City serves 26,360 EQRs using their inventory and the meter equivalency schedule.

4.2.2 Calculation

Table 4-6 summarizes the calculation of the system value. The RCNLD valuation of the system's assets is adjusted for developer contributed assets and any outstanding debt principal. This system value is used in both Equity Buy-In and Capacity Buy-In methods.

Table 4-6: Sewer System Valuation

Description	Amount
Total System Replacement Cost (RCNLD)	$22,352,585
Less: Developer Contributed Assets	(14,906,718)
Less: Current Outstanding Debt Principal	0
Total System Cost for SIC Calculation	$7,445,867

Table 4-7 summarizes the calculation of the number of EQRs that can be served with the existing treatment capacity of the City. This information is used in the capacity buy-in method.

Table 4-7: Number of EQRs That Can Be Served by the City

Description	Amount
EQR Demand	
Average Consumption of Casper EQR (gpd)	134.8
Coincident System Max Day Demand	2.2
Estimated EQR Peak Day Water Use (gpd)	296.6
System Capacity	
City's Share of Treatment Capacity (MGD)	8.44
Estimated EQR Peak Day Water Use (gpd)	296.6
System EQR Capacity	28,460

Table 4-8 details the calculation of the SIC using the equity buy-in and capacity buy-in methods.

Table 4-8: Sewer SIC Calculation

Description	Equity Buy-In	Capacity Buy-In
Total System Cost	$7,445,867	$7,445,867
Number of EQRs	26,360	28,460
SIC per EQR	$282	$262

Table 4-9 presents the SIC assessment schedule produced using the meter equivalency schedule in Table 4-1.

Table 4-9: Sewer SIC Assessment Schedules

Meter Size (inches)	Existing SIC	Equity Buy-In	Capacity Buy-In
¾	$285	$282	$262
1	475	451	419
1 ½	945	564	524
2	1,520	1,805	1,677
3	3,040	3,610	3,354
4	5,985	5,640	5,240
6	13,300	11,280	10,480
8	12,800	18,048	16,768

4.3 WWTP SYSTEM

The City's WWTP operates similarly to the CWRWS's water treatment plant in that Casper consumes the bulk of the plant's treatment services while a minority of treatment services are consumed by entities outside of the City. The City's meter inventory is known, but the outside entities' meter inventories are unknown. To estimate the total number of EQRs on the WWTP system, the number of the City's EQRs is divided by the percentage of wastewater flows provided by the City.

4.3.1 Assumptions

Raftelis made the following assumptions in the development of the proposed SIC for wastewater treatment:

- The City owns and operates a wastewater treatment system. No collection system assets are included in this calculation, and there are no developer-contributed assets.
- The City's WWTP capacity is 10.0 MGD. The City produces 84.4% of the WWTP's influent.
- The same meter equivalency schedule used in 4.1.1 is used to calculate the WWTP SIC. The City serves 26,360 EQRs using their inventory and the meter equivalency schedule.

4.3.2 Calculation

Table 4-10 summarizes the calculation of the system value. The RCNLD valuation of the system's assets is adjusted for developer contributed assets and any outstanding debt principal. This system value is used in both Equity Buy-In and Capacity Buy-In methods.

Table 4-10: WWTP System Valuation

Description	Amount
Total System Replacement Cost (RCNLD)	$58,305,585
Less: Developer Contributed Assets	0
Less: Current Outstanding Debt Principal	(10,967,594)
Total System Cost for SIC Calculation	$47,337,594

Table 4-11 summarizes the calculation of the number of EQRs that can be served with the existing treatment capacity of the City. This information is used in the capacity buy-in method.

Table 4-11: Number of EQRs That Can Be Served by the City

Description	Amount
EQR Demand	
Average Consumption of Casper EQR (gpd)	134.8
Coincident System Max Day Demand	2.2
Estimated EQR Peak Day Water Use (gpd)	296.6
System Capacity	
City's Share of Treatment Capacity (MGD)	10.00
Estimated EQR Peak Day Water Use (gpd)	296.6
System EQR Capacity	33,720

Table 4-12 details the calculation of the SIC using the equity buy-in and capacity buy-in methods.

Table 4-12: WWTP SIC Calculation

Description	Equity Buy-In	Capacity Buy-In
Total System Cost	$47,337,594	$47,337,594
Number of EQRs	31,222	33,720
SIC per EQR	$1,516	$1,404

presents the SIC assessment schedule produced using the meter equivalency schedule in Table 4-1.

Table 4-13: WWTP SIC Assessment Schedules

Meter Size (inches)	Existing SIC	Equity Buy-In	Capacity Buy-In
¾	$500	$1,516	$1,404
1	835	2,426	2,246
1 ½	1,670	3,032	2,808
2	2,665	9,702	8,986
3	5,335	19,405	17,971
4	10,500	30,320	28,080
6	23,335	60,460	56,160
8	40,000	97,024	89,856

5. CONCLUSIONS AND RECOMMENDATIONS

Raftelis has presented two methods of SIC calculation for each of the three SICs. The equity buy-in and capacity buy-in methods are both defensible methods to calculate and justify the City's SICs. The equity and capacity buy-in methods are commonly used by utilities with sufficient excess capacity to serve new growth. The equity buy-in method is most appropriate when there is a large amount of excess capacity and a relatively slow rate of growth that will not consume that excess capacity for an extended period of time. The capacity buy-in method is most appropriate when there is a large amount of excess capacity and the excess capacity is expected to be consumed relatively quickly.

The existing customers of the City have paid for the construction of a significant quantity of excess treatment capacity that will serve growth well into the future. From the perspective of Raftelis, the SICs developed under the equity buy-in method best reflect the amount that new connections should pay to purchase their proportionate share of capacity at the cost incurred by existing customers. As noted previously, the capacity buy-in method is also an industry accepted approach for calculating SICs. However, given the excess capacity on the City's water and wastewater systems, the capacity buy-in method results in SICs that may not fully recover the unit cost of capacity funded by existing customers.

Raftelis is aware that the amount of the SICs has not been adjusted for a considerable period and that the City may experience a certain amount of "rate shock" at the calculated WWTP SICs. The state of Wyoming provides utilities with wide latitude as to the setting of SICs. The calculated SICs represent the "maximum supportable" amount that the City may defensibly charge. The City may elect to charge less than the amounts calculated or may transition to one of these calculated SIC amounts over a period of time.

APPENDIX A:

2017 Rate and Fee Study
RWS Assets as of December 31, 2016
Asset Summary

Function	Description	Asset Count	Original Cost	Replacement Cost New	RCNLD
1	Land	6	$580,874	$580,874	$580,874
2	Water Rights	0	$0	$0	$0
3	Treated Water Storage	17	$4,727,628	$8,765,632	$2,886,346
4	Misc/Administration	60	$112,535	$179,817	$12,347
5	Treatment	366	$43,694,964	$108,590,036	$29,969,770
6	Distribution	63	$24,223,030	$50,932,998	$32,591,882
7	Vehicles and Equipment	18	$191,430	$253,222	$57,952
8	Source of Supply / Raw Water	69	$5,388,798	$10,101,797	$3,380,854
9	W - TBD	0	$0	$0	$0
	Total	599	78,919,259	179,404,376	69,480,024

2017 Rate and Fee Study
CWRWS Assets

FUNCTION	FUNCTION DESCRIPTION	CLASS ID	CATEGORY	ASSET DESCRIPTION	YEAR ACQUIRED	ACQUISITION COST	LIFE TO DATE DEPRECIATION	DEPRECIABLE LIFE IN YRS	Replacement Cost New (RCN)	RCN Less Depreciation
5	Treatment	LIGHT	TREATMENT	V-7409 SETTLED WATER VFD#2	2015	$12,469.57	$3,117.45	5	$13,085	$9,813
1	Land	LAND	TREATMENT	FORT CASPAR WELLFIELD PROPERTY	1957	102,261.95	0.00	0	102,262	102,262
1	Land	LAND	TREATMENT	DEMPSEY ACRES WELLFIELD/WTP PR	1972	453,832.76	0.00	0	453,833	453,833
1	Land	LAND	TRANSMISSION	AIRPORT BOOSTER STATION	1978	821.48	0.00	0	821	821
1	Land	LAND	TRANSMISSION	PIONEER BOOSTER STATION PROPER	1998	688.00	0.00	0	688	688
1	Land	LAND	TRANSMISSION / STORAGE	MOUNTAIN VIEW TANK & BOOSTER S	1998	4,290.00	0.00	0	4,290	4,290
1	Land	LAND	TREATMENT	LOT 5 BLOCK 20 STEWART ADDITIO	2008	18,979.83	0.00	50	18,980	18,980
6	Distribution	BUILD	TRANSMISSION	WARDWELL BOOSTER STATION STRUC	1969	13,769.00	13,120.92	50	114,253	5,378
6	Distribution	BUILD	TRANSMISSION	WARDWELL BOOSTER STN PUMP #1	1975	4,517.00	4,517.00	25	21,503	0
6	Distribution	BUILD	TRANSMISSION	WARDWELL BOOSTER STN PUMP #2	1975	4,517.00	4,517.00	25	21,503	0
6	Distribution	BUILD	TRANSMISSION	WARDWELL BOOSTER STN SPARE PU	1975	3,705.00	3,705.00	25	17,637	0
6	Distribution	BUILD	TRANSMISSION	WARDWELL BOOSTER STN CHLORINE	1975	4,574.00	4,574.00	30	21,774	0
6	Distribution	BUILD	TRANSMISSION	WARDWELL BOOSTER STN ELEC/MEC	1975	35,694.00	35,694.00	30	169,918	0
6	Distribution	BUILD	TRANSMISSION	AIRPORT BOOSTER STN STRUCTURE	1978	33,833.00	26,160.68	50	128,336	29,103
6	Distribution	BUILD	TRANSMISSION	AIRPORT BOOSTER STN PUMP #1	1978	5,784.00	5,784.00	25	21,940	0
6	Distribution	BUILD	TRANSMISSION	AIRPORT BOOSTER STN PUMP #2	1978	5,784.00	5,784.00	25	21,940	0
6	Distribution	BUILD	TRANSMISSION	AIRPORT BOOSTER STN ELEC/MEC	1978	46,041.00	41,062.58	45	174,644	18,884
6	Distribution	BUILD	TRANSMISSION	PIONEER BOOSTER STN STRUCTURE	1996	92,105.06	74,759.49	25	172,574	32,500
6	Distribution	BUILD	TRANSMISSION	MOUNTAIN VIEW BOOSTER STN BLD	1998	888,052.00	332,982.49	50	1,579,592	987,311
6	Distribution	BUILD	TRANSMISSION	PIONEER BOOSTER STN BID PACKA	1998	42,712.00	16,021.26	50	75,973	47,475
6	Distribution	BUILD	TRANSMISSION	BID PACKAGE #2	1998	7,618.82	2,780.77	50	13,552	8,606
6	Distribution	BUILD	TRANSMISSION	AIRPORT BOOSTER STN SCDA UPG	1999	49,200.00	49,200.00	10	85,505	0
6	Distribution	BUILD	TRANSMISSION	MTN VIEW BOOSTER SCADA UPGRA	1999	49,200.00	49,200.00	10	85,505	0
6	Distribution	BUILD	TRANSMISSION	PIONEER W&S BOOSTER SCADA UPGR	1999	49,200.00	49,200.00	10	85,505	0
6	Distribution	BUILD	TRANSMISSION	SALT CREEK BOOSTER STN SCADA	1999	49,200.00	49,200.00	10	85,505	0
6	Distribution	BUILD	TRANSMISSION	SANDY LAKE ESTATES BOOSTER STN	2000	211,553.72	71,921.15	50	358,087	236,350
5	Treatment	BUILD	TREATMENT	RAW WATER INTAKE & PUMP STN S	1972	214,589.00	191,655.38	50	1,289,003	137,759
5	Treatment	BUILD	TREATMENT	RAW WATER TRAVELING SCREEN #1	1972	14,306.00	14,306.00	20	85,934	0
5	Treatment	BUILD	TREATMENT	RAW WATER TRAVELING SCREEN #2	1972	22,823.00	22,823.00	20	137,094	0
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #3	1972	3,576.00	3,576.00	25	21,480	0
5	Treatment	BUILD	TREATMENT	RAW WATER INTAKE & PUMP STN E	1972	338,817.00	338,817.00	42	2,035,221	0
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #6	1997	9,605.00	8,700.92	25	17,360	1,634
5	Treatment	BUILD	TREATMENT	RAW WATER INTAKE & PUMP STN S	1999	19,000.00	6,617.72	50	33,020	21,519
5	Treatment	BUILD	TREATMENT	RAW WATER INTAKE & PUMP STN M	1999	254,600.00	147,772.12	30	442,472	185,657
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #1	1999	76,400.00	53,203.02	25	132,776	40,314
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #5	1999	27,300.00	19,011.08	25	47,445	14,405
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #4	1999	76,400.00	53,203.02	25	132,776	40,314
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #2 UPGRADES	1999	10,300.00	7,172.56	25	17,900	5,435
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #3 UPGRADES	1999	2,000.00	1,392.74	25	3,476	1,055
5	Treatment	BUILD	TREATMENT	RAW WATER PUMP #6 UPGRADES	1999	2,000.00	1,392.74	25	3,476	1,055
5	Treatment	BUILD	TREATMENT	WATER TREATMENT PLANT TANK MEC	1972	400,851.87	400,851.87	35	2,407,855	0
3	Treated Water Storage	BUILD	STORAGE	AIRPORT LINE TANK MECH & ELEC	1975	212,545.00	212,545.00	35	1,011,799	0
3	Treated Water Storage	BUILD	STORAGE	BAR NUNN TANK MECH & ELECTRICA	1979	572,650.16	572,650.16	35	2,007,994	0
3	Treated Water Storage	BUILD	STORAGE	PIONEER TANK	1996	75,359.13	43,574.75	35	141,198	59,553
3	Treated Water Storage	BUILD	STORAGE	MOUNTAIN VIEW TANK	1998	514,283.00	275,458.82	35	914,764	424,800
3	Treated Water Storage	BUILD	STORAGE	AIRPORT LINE TANK ADJUSTMENT	1998	122,638.00	65,394.94	35	218,138	101,819
3	Treated Water Storage	BUILD	STORAGE	AIRPORT TANK	1999	208,226.95	107,564.41	35	361,880	174,942
3	Treated Water Storage	BUILD	STORAGE	AIRPORT LINE TANK SCADA UPGRAD	1999	44,600.00	44,600.00	10	77,511	0
3	Treated Water Storage	BUILD	STORAGE	BAR NUNN TANK SCADA UPGRADES	1999	44,600.00	44,600.00	10	77,511	0

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3	Treated Water Storage	BUILD	STORAGE	PIONEER TANK SCADA UPGRADES	1999	44,600.00	44,600.00	10	77,511	0
3	Treated Water Storage	BUILD	STORAGE	MOUNTAIN VIEW TANK SCADA UPGRA	1999	44,600.00	44,600.00	10	77,511	0
3	Treated Water Storage	BUILD	STORAGE	SUNRISE III TANK REPEATER STN	1999	44,700.00	44,700.00	10	77,685	0
3	Treated Water Storage	BUILD	STORAGE	SANDY LAKE ESTATES TANK	2000	333,999.00	162,198.97	35	565,345	290,798
3	Treated Water Storage	BUILD	STORAGE	PIONEER TANK COATING & MISC UP	2001	77,770.00	77,770.00	15	129,106	0
3	Treated Water Storage	BUILD	STORAGE	BAR NUNN TANK COATING & MISC U	2001	211,538.00	211,538.00	15	351,174	0
3	Treated Water Storage	BUILD	STORAGE	AIRPORT LINE TANK COATING & MI	2001	289,173.00	289,173.00	15	480,055	0
5	Treatment	BUILD	TREATMENT	CAISSON #1 CAISSON ONLY	1958	50,000.00	38,288.55	67	693,676	162,479
5	Treatment	BUILD	TREATMENT	CAISSON #2 CAISSON ONLY	1958	50,000.00	38,288.55	67	693,676	162,479
5	Treatment	BUILD	TREATMENT	CAISSON #3 CAISSON ONLY	1958	50,000.00	38,288.55	67	693,676	162,479
5	Treatment	BUILD	TREATMENT	GALLERY #1 STRUCTURE	1980	17,866.00	13,100.40	50	58,118	15,503
5	Treatment	BUILD	TREATMENT	GALLERY PIPE	1980	450,227.00	220,102.06	75	1,464,594	748,599
5	Treatment	BUILD	TREATMENT	GALLERY #1 MECHANICAL/ELECTRIC	1980	30,542.73	22,033.70	50	99,356	27,680
5	Treatment	BUILD	TREATMENT	GALLERY PIPE SITEWORK GENERAL	1980	183,980.07	132,724.65	50	598,489	166,734
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #4 STRUCTURE	1983	6,013.00	4,048.16	50	15,572	5,088
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #5 STRUCTURE	1983	6,013.00	3,828.10	50	15,572	5,658
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #6 STRUCTURE	1983	6,013.00	4,048.16	50	15,572	5,088
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #4 WELL ONLY	1983	7,700.00	5,466.70	50	19,941	5,784
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #5 WELL ONLY	1983	7,700.00	5,466.70	50	19,941	5,784
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #6 WELL ONLY	1983	7,700.00	5,466.70	50	19,941	5,784
8	Source of Supply / Raw Water	BUILD	TREATMENT	MONITORING WELLS	1999	2,440.00	1,723.48	25	4,241	1,245
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #5 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #5 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #6 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #6 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #7 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #7 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #8 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #8 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #9 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #9 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #10 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #10 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #11 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #11 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #12 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #12 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #14 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #14 PUMP	1999	25,000.00	25,000.00	16	43,448	0
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #15 WELL, STRUCTURE, MECH	1999	141,100.00	98,258.58	25	245,219	74,455
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #15 PUMP	1999	25,000.00	25,000.00	16	43,448	0
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #19 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #19 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #20 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #20 PUMP	1999	25,000.00	25,000.00	16	43,448	0
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #21 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #21 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #22 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #22 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230

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8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL RECHARGE PUMP	1999	21,000.00	12,188.64	30	36,496	15,313
5	Treatment	BUILD	TREATMENT	CAISSON #1 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
5	Treatment	BUILD	TREATMENT	CAISSON #1 STRUCTURE, MECH, EL	1999	160,300.00	111,628.80	25	278,587	84,586
5	Treatment	BUILD	TREATMENT	CAISSON #2 STRUCTURE, MECH, EL	1999	160,300.00	111,628.80	25	278,587	84,586
5	Treatment	BUILD	TREATMENT	CAISSON #2 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
5	Treatment	BUILD	TREATMENT	CAISSON #3 STRUCTURE, MECH, EL	1999	160,300.00	111,628.80	25	278,587	84,586
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #2R PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #3R PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #2R WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #3R WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
5	Treatment	BUILD	TREATMENT	GALLERY #1 MECH, ELECTR, I&C U	1999	82,300.00	71,586.88	20	143,030	18,618
5	Treatment	BUILD	TREATMENT	GALLERY #1 PUMP	1999	66,500.00	38,597.21	30	115,571	48,493
5	Treatment	BUILD	TREATMENT	GALLERY #4 MECH, ELECTR, I&C U	1999	29,300.00	25,486.08	20	50,921	6,628
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #4 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #5 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
5	Treatment	BUILD	TREATMENT	GALLERY #5 MECH, ELECTR, I&C U	1999	29,300.00	25,486.08	20	50,921	6,628
5	Treatment	BUILD	TREATMENT	GALLERY #6 MECH, ELECTR, I&C U	1999	29,300.00	25,486.08	20	50,921	6,628
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #6 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #7 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #8 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #9 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #10R PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #11 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #12R PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #13 PUMP	1999	25,000.00	14,510.15	30	43,448	18,230
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #7 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #8 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #9 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #10R WELL, STRUCTURE, MEC	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #11 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #12R WELL, STRUCTURE, MEC	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELL #13 WELL, STRUCTURE, MECH	1999	196,000.00	136,489.52	25	340,630	103,424
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELLFIELD ROADWAYS	1999	155,200.00	54,056.04	50	269,724	175,779
8	Source of Supply / Raw Water	BUILD	TREATMENT	WELLFIELD ROADWAYS	1999	155,200.00	54,056.04	50	269,724	175,779
8	Source of Supply / Raw Water	BUILD	TREATMENT	30 WELL TURBIDIMETERS	2002	51,926.58	51,926.58	15	83,632	0
8	Source of Supply / Raw Water	BUILD	TREATMENT	CONDUIT/WIRING FOR INSTL WELL	2002	6,852.24	6,781.19	15	11,036	114
5	Treatment	BUILD	TREATMENT	GALLERY MECH, ELECTRICAL, PANE	2003	4,570.00	2,573.50	25	7,189	3,141
8	Source of Supply / Raw Water	BUILD	TREATMENT	SPARE WELL RADIO	2004	816.00	816.00	7	1,208	0
5	Treatment	BUILD	TREATMENT	ACTIFLO STRUCTURE FORMER FLOC1	1972	126,087.00	112,611.72	50	757,385	80,944
5	Treatment	BUILD	TREATMENT	ACTIFLO STRUCTURE FORMER SED1-	1972	191,613.00	171,134.94	50	1,150,990	123,009
5	Treatment	BUILD	TREATMENT	FILTERS CLEARWELL 1&2 MECH/ELE	1972	412,200.00	368,147.23	50	2,476,022	264,618
5	Treatment	BUILD	TREATMENT	FILTERS CLEARWELL 1&2 STRUCTUR	1972	47,283.00	42,229.58	50	284,022	30,355
5	Treatment	BUILD	TREATMENT	MAIN WTP STRUCTURE FORMER CHEM	1972	185,261.00	165,461.68	50	1,112,834	118,931
5	Treatment	BUILD	TREATMENT	MAIN WTP STRUCTURE FORMER OFFI	1972	110,728.00	98,893.74	50	665,126	71,087
5	Treatment	BUILD	TREATMENT	FLOC 2/SED 3-4 STRUCTURE ALLOW	1972	298,118.00	298,118.00	42	1,790,749	0
5	Treatment	BUILD	TREATMENT	FLOC 2 SED 3-4 EQUIP MECH/EL	1972	138,100.00	138,100.00	42	829,545	0
5	Treatment	BUILD	TREATMENT	ACTIFLO FORMER FLOC SED 1-2 ME	1972	72,500.00	64,751.68	50	435,496	46,543
5	Treatment	BUILD	TREATMENT	FLOC 2/SED 3-4 STRUCTURE	1972	19,582.00	17,489.33	50	117,626	12,570
5	Treatment	BUILD	TREATMENT	FILTERS/CLEARWELL 1&2 STRUCTUR	1972	13,343.00	11,917.00	50	80,149	8,566

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5	Treatment	BUILD	TREATMENT	NORTH CHEMICAL STRUCTURE ALLOW	1972	271,573.00	271,573.00	42	1,631,297	0
5	Treatment	BUILD	TREATMENT	NORTH CHEMICAL MECH/ELECTR ALL	1972	174,500.00	174,500.00	42	1,048,195	0
5	Treatment	BUILD	TREATMENT	MAIN WTP STRUCTURE ALLOWANCE	1972	370,511.00	370,511.00	42	2,225,602	0
5	Treatment	BUILD	TREATMENT	MAIN WTP MECH/ELECTR ALLOWANCE	1972	801,500.00	801,500.00	42	4,814,487	0
5	Treatment	BUILD	TREATMENT	HIGH SERVICE PUMP#5 ALLOWANCE	1972	20,009.00	20,009.00	42	120,191	0
5	Treatment	BUILD	TREATMENT	FILTERS/CLEARWELL 1&2 STRUCTUR	1972	412,174.00	412,174.00	42	2,475,865	0
5	Treatment	BUILD	TREATMENT	FILTERS/CLEARWELL 3-6 STRUCTUR	1972	989,672.00	989,672.00	42	5,944,807	0
5	Treatment	BUILD	TREATMENT	FILTERS/CLEARWELL 3-6 MECH/ELE	1972	109,603.00	109,603.00	42	658,368	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM STRUCTURE FORMER FL	1978	164,442.00	127,152.32	50	623,766	141,448
5	Treatment	BUILD	TREATMENT	NORTH CHEM STRUCTURE FORMER SE	1978	328,885.00	254,305.63	50	1,247,536	282,897
5	Treatment	BUILD	TREATMENT	FILTERS/CLEARWELL 3-6 MECH/ELE	1978	1,151,097.00	890,069.50	50	4,366,373	990,137
5	Treatment	BUILD	TREATMENT	FILTERS/CLEARWELL 3-6 STRUCTUR	1978	109,628.00	84,767.95	50	415,844	94,300
5	Treatment	BUILD	TREATMENT	HIGH SERVICE PUMP#5 (CS) (P-10	1978	18,191.00	14,065.98	50	69,003	15,647
5	Treatment	BUILD	TREATMENT	DEWATERING PUMP STATION STRUCT	1978	40,600.00	18,350.52	50	154,005	84,397
5	Treatment	BUILD	TREATMENT	DEWATERING PUMP MECH/ELECTR	1999	15,100.00	13,134.40	20	26,242	3,416
5	Treatment	BUILD	TREATMENT	DEWATERING PUMP (P-2471)	1999	46,300.00	40,273.07	20	80,465	10,474
5	Treatment	BUILD	TREATMENT	ACTIFLO STRUCTURE - UPGRADES	1999	844,700.00	294,208.52	50	1,468,013	956,705
5	Treatment	BUILD	TREATMENT	ACTIFLO MECHANICAL/ELECTRICAL	1999	614,100.00	534,162.07	20	1,067,251	138,925
5	Treatment	BUILD	TREATMENT	ACTIFLO PROCESS EQUIPMENT (KRU	1999	1,584,500.00	1,378,244.21	20	2,753,719	358,454
5	Treatment	BUILD	TREATMENT	ACTIFLO DISTRIBUTION TANK MIXE	1999	27,700.00	24,094.31	20	48,140	6,266
5	Treatment	BUILD	TREATMENT	ACTIFLO MICROSAND FEED #1 (M-0	1999	2,250.00	1,957.04	20	3,910	509
5	Treatment	BUILD	TREATMENT	ACTIFLO MICROSAND FEED #2 (M-0	1999	2,250.00	1,957.04	20	3,910	509
5	Treatment	BUILD	TREATMENT	ACTIFLO FORK LIFT TRUCK	1999	33,000.00	33,000.00	15	57,351	0
5	Treatment	BUILD	TREATMENT	NORTH CHEMICAL STRUCTURE UPGRA	1999	872,100.00	303,752.04	50	1,515,632	987,738
5	Treatment	BUILD	TREATMENT	NORTH CHEMICAL MECHANICAL/ELEC	1999	715,412.00	622,286.17	20	1,243,322	161,844
5	Treatment	BUILD	TREATMENT	NORTH CHEM CORROSION INHIBITOR	1999	8,100.00	8,100.00	10	14,077	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM CORROISON INHIBITOR	1999	8,100.00	8,100.00	10	14,077	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM CORROSION INHIBITOR	1999	8,100.00	8,100.00	10	14,077	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM CORROSION INHIBITOR	1999	16,900.00	9,808.86	30	29,371	12,324
5	Treatment	BUILD	TREATMENT	NORTH CHEM CORROSION INHIBITO	1999	16,900.00	9,808.86	30	29,371	12,324
5	Treatment	BUILD	TREATMENT	NORTH CHEM CORROSION INHIBITOR	1999	13,850.00	12,047.16	20	24,070	3,133
5	Treatment	BUILD	TREATMENT	NORTH CHEM CORROSION INHIBITOR	1999	13,850.00	12,047.16	20	24,070	3,133
5	Treatment	BUILD	TREATMENT	NORTH CHEM H202 TANK (T-2010)	1999	40,600.00	23,564.60	30	70,559	29,606
5	Treatment	BUILD	TREATMENT	NORTH CHEM PUMP #1(P2071-01)	1999	7,900.00	7,900.00	10	13,729	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM PUMP #1(P2071-02)	1999	7,900.00	7,900.00	10	13,729	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM PUMP #1(P2071-03)	1999	7,900.00	7,900.00	10	13,729	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM PUMP #1(P2071-04)	1999	7,900.00	7,900.00	10	13,729	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM NAOCL TANK#1 (T-211	1999	33,700.00	19,559.75	30	58,568	24,574
5	Treatment	BUILD	TREATMENT	NORTH CHEM NAOCL TANK#2 (T-211	1999	33,700.00	19,559.75	30	58,568	24,574
5	Treatment	BUILD	TREATMENT	NORTH CHEM NH4 TANK (T-2210)	1999	18,000.00	10,447.38	30	31,282	13,126
5	Treatment	BUILD	TREATMENT	NORTH CHEM NH4 PUMP #1 SPARE R	1999	4,900.00	4,900.00	10	8,516	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM NH4 PUMP #2 SPARE P	1999	4,900.00	4,900.00	10	8,516	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM NH4 SPARE PUM	1999	4,900.00	4,900.00	10	8,516	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM POLYMERN FEEDER (M-	1999	26,100.00	26,100.00	10	45,359	0
5	Treatment	BUILD	TREATMENT	FILTERS 1-6 PROCESS MECH UPGRA	1999	870,800.00	757,447.20	20	1,513,373	196,997
5	Treatment	BUILD	TREATMENT	FILTER UNDERDRAINS	1999	271,080.00	235,793.32	20	471,113	61,325
5	Treatment	BUILD	TREATMENT	FILTER MEDIA	1999	249,300.00	249,300.00	10	433,261	0
5	Treatment	BUILD	TREATMENT	FILTER SWEEP ARMS	1999	95,000.00	82,633.76	20	165,102	21,491
5	Treatment	BUILD	TREATMENT	FILTER WASH TROUGHS	1999	85,700.00	49,741.03	30	148,939	62,493

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5	Treatment	BUILD	TREATMENT	MAIN WTP STRUCTURE EXPANSION U	1999	709,200.00	247,014.10	50	1,232,526	803,238
5	Treatment	BUILD	TREATMENT	MAIN WTP EXPANSION MECH/ELECTR	1999	2,057,525.59	1,789,695.69	20	3,575,795	465,464
5	Treatment	BUILD	TREATMENT	SURFACE WATER HIGH SVC PUMP #1	1999	175,500.00	101,861.74	30	305,003	127,977
5	Treatment	BUILD	TREATMENT	SURFACE WATER HIGH SVC PUMP #2	1999	175,500.00	101,861.74	30	305,003	127,977
5	Treatment	BUILD	TREATMENT	SURFACE WATER HIGH SVC PUMP #3	1999	50,300.00	29,194.57	30	87,417	36,679
5	Treatment	BUILD	TREATMENT	SURFACE WATER HIGH SVC PUMP 4	1999	50,300.00	29,194.57	30	87,417	36,679
5	Treatment	BUILD	TREATMENT	SURFACE WATER HIGH SVC PUMP #5	1999	50,300.00	29,194.57	30	87,417	36,679
5	Treatment	BUILD	TREATMENT	WELL WARTER HIGH SVC PUMP #1	1999	71,800.00	41,673.37	30	124,782	52,357
5	Treatment	BUILD	TREATMENT	WELL WATER HIGH SVC PUMP #2	1999	71,800.00	41,673.37	30	124,782	52,357
5	Treatment	BUILD	TREATMENT	WELL WATER HIGH SVC PUMP #3	1999	176,100.00	102,210.14	30	306,046	128,414
5	Treatment	BUILD	TREATMENT	WELL WATER HIGH SVC PUMP #4	1999	71,800.00	41,823.32	30	124,782	52,097
5	Treatment	BUILD	TREATMENT	SOUTH CHEMICAL STRUCTURE	1999	394,900.00	137,543.42	50	686,301	447,263
5	Treatment	BUILD	TREATMENT	SOUTH CHEMICAL BLDG MECH/ELEC	1999	473,400.00	411,777.12	20	822,727	107,095
5	Treatment	BUILD	TREATMENT	SOUTH CHEM ANIONIC POLY FDR #1	1999	26,200.00	26,200.00	10	45,533	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM ANIONIC POLY FDR #2	1999	26,200.00	26,200.00	10	45,533	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM ANIONIC POLY FDR #3	1999	26,200.00	26,200.00	10	45,533	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM CAT POLY FEEDER (M1	1999	25,600.00	25,600.00	10	44,491	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM FECL3 PUMP #1 (P-16	1999	8,100.00	8,100.00	10	14,077	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM FECL3 PUMP #2 (P-16	1999	8,100.00	8,100.00	10	14,077	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM FECL3 SPARE PUMP	1999	8,100.00	8,100.00	10	14,077	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM FECL3 TANK #1 (T-16	1999	38,050.00	22,084.68	30	66,127	27,746
5	Treatment	BUILD	TREATMENT	SOUTH CHEM FECL3 TANK#2 (T-161	1999	38,050.00	22,084.68	30	66,127	27,746
5	Treatment	BUILD	TREATMENT	SOUTH CHEM H2SO4 SPARE PUMP	1999	6,500.00	6,500.00	10	11,296	0
5	Treatment	BUILD	TREATMENT	SOUTH CHEM H2SO4 TANK#1 (T-171	1999	97,650.00	56,677.01	30	169,707	71,207
5	Treatment	BUILD	TREATMENT	SOUTH CHEM H2SO4 TANK#2 (T-171	1999	97,650.00	56,677.01	30	169,707	71,207
5	Treatment	BUILD	TREATMENT	SOUTH CHEM IN-LINE MIXER (P-10	1999	48,600.00	42,273.76	20	84,462	10,994
5	Treatment	BUILD	TREATMENT	OZONE STRUCTURE	1999	3,675,000.00	1,280,000.36	50	6,386,821	4,162,295
5	Treatment	BUILD	TREATMENT	OZONE BLDG MECHANICAL/ELECTRIC	1999	2,765,000.00	2,405,077.60	20	4,805,323	625,513
5	Treatment	BUILD	TREATMENT	COOLING WATER AIR SEPARATOR TA	1999	1,900.00	1,652.67	20	3,302	430
5	Treatment	BUILD	TREATMENT	COOLING WATER EXP TANK (T-154	1999	2,000.00	1,739.68	20	3,476	452
5	Treatment	BUILD	TREATMENT	COOLING WATR HEAT EXCHANGR #1	1999	8,700.00	7,567.45	20	15,120	1,968
5	Treatment	BUILD	TREATMENT	COOLING WATR HEAT EXHANGR #2	1999	8,700.00	7,567.45	20	15,120	1,968
5	Treatment	BUILD	TREATMENT	COOLING WATER PUMP #1 (P-1572-	1999	4,500.00	3,914.24	20	7,821	1,018
5	Treatment	BUILD	TREATMENT	COOLING WATER PUMP #2 (P-1572-	1999	4,500.00	3,914.24	20	7,821	1,018
5	Treatment	BUILD	TREATMENT	COOLING WATER PUMP #3 (P-1572-	1999	4,500.00	3,914.24	20	7,821	1,018
5	Treatment	BUILD	TREATMENT	DO STRIPPING BLOWER #1 (P-1271	1999	82,600.00	57,520.58	25	143,551	43,586
5	Treatment	BUILD	TREATMENT	DO STRIPPING BLOWER #2 (P-1271	1999	82,600.00	57,520.58	25	143,551	43,586
5	Treatment	BUILD	TREATMENT	DO STRIPPING BLOWER #3 (P-1271	1999	82,600.00	57,520.58	25	143,551	43,586
5	Treatment	BUILD	TREATMENT	DO COARSE BUBBLE DIFFUSERS	1999	14,300.00	8,299.80	30	24,852	10,428
5	Treatment	BUILD	TREATMENT	HEAT REJ PUMP #1 (P-1571-01)	1999	6,300.00	5,479.96	20	10,949	1,425
5	Treatment	BUILD	TREATMENT	HEAT REJ PUMP #2 (P-1571-02)	1999	6,300.00	5,479.96	20	10,949	1,425
5	Treatment	BUILD	TREATMENT	HEAT REJ PUMP #3 (P-1571-03)	1999	6,300.00	5,479.96	20	10,949	1,425
5	Treatment	BUILD	TREATMENT	LOX TANK #1 (T-1305-01)	1999	165,300.00	128,003.52	20	287,277	64,818
5	Treatment	BUILD	TREATMENT	LOX TANK 32 (T-1305-02)	1999	165,300.00	128,003.52	20	287,277	64,818
5	Treatment	BUILD	TREATMENT	NONIONIC POLYMER FEEDER #1 (M-	1999	19,100.00	19,100.00	10	33,194	0
5	Treatment	BUILD	TREATMENT	NONIONIC POLYMER FEEDER #2 (M-	1999	19,100.00	19,100.00	10	33,194	0
5	Treatment	BUILD	TREATMENT	OXYGEN VAPORIZER #1 (T-0321-01	1999	35,400.00	35,400.00	15	61,522	0
5	Treatment	BUILD	TREATMENT	OXYGEN VAPORIZER #2 (T-0321-02	1999	35,400.00	35,400.00	15	61,522	0
5	Treatment	BUILD	TREATMENT	OZONE GENERATOR & PSU #1 (M-14	1999	498,650.00	431,898.21	20	866,609	116,009

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5	Treatment	BUILD	TREATMENT	OZONE GENERATOR & PSU #2 (M-14	1999	498,650.00	431,898.21	20	866,609	116,009
5	Treatment	BUILD	TREATMENT	OZONE GENERATOR & PSU #3 (M-14	1999	498,650.00	431,898.21	20	866,609	116,009
5	Treatment	BUILD	TREATMENT	OZONE GENERATOR & PSU #4 (M-14	1999	498,650.00	431,898.21	20	866,609	116,009
5	Treatment	BUILD	TREATMENT	OZONE DESTRUCTOR & BLOWER #1 (	1999	67,000.00	58,278.56	20	116,440	15,157
5	Treatment	BUILD	TREATMENT	OZONE DESTRUCTOR & BLOWER #2 (	1999	67,000.00	58,278.56	20	116,440	15,157
5	Treatment	BUILD	TREATMENT	OZONE DESTRUCTOR & BLOWER #3	1999	67,000.00	58,278.56	20	116,440	15,157
5	Treatment	BUILD	TREATMENT	SETTLED WATER INJECTOR PUMP #1	1999	26,650.00	23,181.02	20	46,315	6,029
5	Treatment	BUILD	TREATMENT	SETTLED WATER INJECTOR PUMP #2	1999	26,650.00	23,181.02	20	46,315	6,029
5	Treatment	BUILD	TREATMENT	SETTLED WATER INJECTOR PUMP #3	1999	26,650.00	23,181.02	20	46,315	6,029
5	Treatment	BUILD	TREATMENT	SETTLED WATER INJECTOR #1	1999	19,400.00	16,874.72	20	33,715	4,389
5	Treatment	BUILD	TREATMENT	SETTLED WATER INJECTOR #2	1999	19,400.00	16,874.72	20	33,715	4,389
5	Treatment	BUILD	TREATMENT	SETTLED WATER INJECTOR #3	1999	19,400.00	16,874.72	20	33,715	4,389
5	Treatment	BUILD	TREATMENT	SETTLED WATER INJECTOR #4	1999	19,400.00	16,874.72	20	33,715	4,389
5	Treatment	BUILD	TREATMENT	SETTLED WATER PUMP #1 (VS)	1999	65,900.00	38,248.92	30	114,528	48,055
5	Treatment	BUILD	TREATMENT	SETTLED WATER PUMP #2 (VS)	1999	65,900.00	38,248.92	30	114,528	48,055
5	Treatment	BUILD	TREATMENT	SETTLED WATER PUMP #3 (VS)	1999	45,100.00	26,176.51	30	78,380	32,887
5	Treatment	BUILD	TREATMENT	SETTLED WATER PUMP #4 (VS)	1999	45,100.00	26,176.51	30	78,380	32,887
5	Treatment	BUILD	TREATMENT	SETTLED WATER PUMP #5 (VS)	1999	45,100.00	26,176.51	30	78,380	32,887
5	Treatment	BUILD	TREATMENT	WELL WATER INJECTOR PUMP #1	1999	26,650.00	23,181.02	20	46,315	6,029
5	Treatment	BUILD	TREATMENT	WELL WATER INJECTOR PUMP #2	1999	26,650.00	23,181.02	20	46,315	6,029
5	Treatment	BUILD	TREATMENT	WELL WATER INJECTOR PUMP #3	1999	26,650.00	23,181.02	20	46,315	6,029
5	Treatment	BUILD	TREATMENT	WELL WATER INJECTOR #1 (M-0971	1999	15,500.00	13,482.29	20	26,938	3,507
5	Treatment	BUILD	TREATMENT	WELL WATER INJECTOR #2 (M-0971	1999	15,500.00	13,482.29	20	26,938	3,507
5	Treatment	BUILD	TREATMENT	WELL WATER INJECTOR #3 (M-0971	1999	15,500.00	13,482.29	20	26,938	3,507
5	Treatment	BUILD	TREATMENT	WELL WATER INJECTOR #4 (M-0971	1999	15,500.00	13,482.29	20	26,938	3,507
5	Treatment	BUILD	TREATMENT	WELL WATER RECIRCULATION PUMP	1999	26,100.00	15,148.72	30	45,359	19,032
5	Treatment	BUILD	TREATMENT	WELL WATER DEGAS TANK STRUCTUR	1999	159,700.00	55,623.44	50	277,544	180,876
5	Treatment	BUILD	TREATMENT	WELL WATER DEGAS TANK PIPING	1999	497,300.00	173,209.22	50	864,263	563,241
5	Treatment	BUILD	TREATMENT	WELL WATER DEGAS COARSE BUBBLE	1999	5,300.00	3,076.23	30	9,211	3,865
5	Treatment	BUILD	TREATMENT	BACKWASH & SLUDGE LAGOONS STRU	1999	1,164,200.00	405,490.06	50	2,023,275	1,318,570
5	Treatment	BUILD	TREATMENT	BACKWASH & SLUDGE LAGOONS - ME	1999	113,600.00	98,812.64	20	197,427	25,699
5	Treatment	BUILD	TREATMENT	DECANT PUMP #1 (P-1171-01)	1999	27,400.00	23,833.32	20	47,619	6,199
5	Treatment	BUILD	TREATMENT	DECANT PUMP #3 (P-1171-03)	1999	27,400.00	23,833.32	20	47,619	6,199
5	Treatment	BUILD	TREATMENT	SITE UPGRADES-GRADING,STORMWAT	1999	163,500.00	56,947.00	50	284,148	185,180
5	Treatment	BUILD	TREATMENT	SITE ROADWAYS	1999	395,100.00	343,669.44	20	686,648	89,382
5	Treatment	BUILD	TREATMENT	YARD ELECTRICAL SYSTEMS	1999	550,200.00	319,341.28	30	956,198	401,212
5	Treatment	BUILD	TREATMENT	OZONE DESTRUCTOR & BLOWER #4	1999	67,000.00	58,278.56	20	116,440	15,157
5	Treatment	BUILD	TREATMENT	MAIN WTP BLDG EXPANSION & ADDL	2001	43,161.30	19,932.87	35	71,652	38,561
5	Treatment	BUILD	TREATMENT	OZONE BLDG (ADDL MECH/ELECT SY	2001	43,161.30	19,932.87	35	71,652	38,561
5	Treatment	BUILD	TREATMENT	POLYMER SYSTEMS	2001	72,470.00	72,470.00	10	120,307	0
5	Treatment	BUILD	TREATMENT	ACTIFLO ADDL UPGRADES BID PACK	2001	26,414.00	20,345.00	20	43,850	10,075
5	Treatment	BUILD	TREATMENT	SITE SECURITY UPGRADE FENCE SE	2002	6,376.09	4,725.51	20	10,269	2,658
5	Treatment	BUILD	TREATMENT	YARD ELECTRICAL SYSTEM UPGRADE	2002	883.00	426.61	30	1,422	735
5	Treatment	BUILD	TREATMENT	TRAVELING SCREENS	2002	106,210.00	60,871.77	25	171,060	73,021
5	Treatment	BUILD	TREATMENT	TRAVELING SCREENS MECH & ELEC	2002	11,465.80	6,571.31	25	18,467	7,883
5	Treatment	BUILD	TREATMENT	WELL WATER HIGH SVC PUMP #5 GW	2003	23,337.74	10,952.92	30	36,711	19,482
5	Treatment	BUILD	TREATMENT	MAIN WTP STRUCTURE UPGRADE ACT	2003	53,315.00	49,331.50	15	83,867	6,266
5	Treatment	BUILD	TREATMENT	NORTH CHEM NH4 PUMP #1	2003	1,417.32	1,417.32	10	2,230	0
5	Treatment	BUILD	TREATMENT	NORTH CHEM NH4 PUMP #2	2003	1,417.31	1,417.31	10	2,230	0

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5	Treatment	BUILD	TREATMENT	NH4 MAG METERS	2003	10,255.30	10,255.30	10	16,132	0
5	Treatment	BUILD	TREATMENT	GWHS #5 20" BUTTERFLY VALVE	2003	2,311.13	1,039.74	30	3,636	2,000
5	Treatment	BUILD	TREATMENT	SETTLED WATER PUMP #1 UPGRADES	2003	2,425.00	1,605.44	20	3,815	1,289
5	Treatment	BUILD	TREATMENT	RAW WATER IN-LINE MIXER UPGRAD	2004	1,745.71	1,745.71	5	2,584	0
5	Treatment	BUILD	TREATMENT	SPARE PLC	2004	1,199.00	1,199.00	10	1,774	0
6	Distribution	BUILD	TRANSMISSION	SCADA UPGRADE - BOOSTERS & TAN	2007	180,000.00	180,000.00	7	237,936	0
6	Distribution	BUILD	TRANSMISSION	MSDS RADIOS - AIRPORT BOOSTER	2010	5,322.88	4,963.39	7	6,370	430
6	Distribution	BUILD	TRANSMISSION	WARDWELL BOOSTER	2011	755,672.00	88,142.89	50	877,313	774,981
5	Treatment	BUILD	TREATMENT	RAW WATER UNIT HEATER	2005	817.50	817.50	10	1,156	0
5	Treatment	IMPROV	TREATMENT	RAW WATER METER FOR DSCHG PERM	2005	832.00	832.00	10	1,177	0
5	Treatment	IMPROV	TREATMENT	RAW WTR PUMP #2 REPLACEMENT	2009	41,913.59	13,127.50	25	51,499	35,370
5	Treatment	IMPROV	TREATMENT	RAW WTR ELECTRICAL UPGRADE	2012	23,161.35	4,398.23	25	26,202	21,226
6	Distribution	IMPROV	TRANSMISSION	SCADA REPEATER SYSTEM UPGRADES	2005	26,408.48	26,408.48	5	37,346	0
5	Treatment	IMPROV	STORAGE	PIONEER TANK NITRIFICATION MXR	2010	31,754.62	10,445.95	20	38,002	25,501
3	Treated Water Storage	IMPROV	STORAGE	AIRPORT TANK EXTERIOR PAINTING	2010	180,696.48	38,634.91	30	216,244	170,009
5	Treatment	IMPROV	TREATMENT	S LOX TANK & TELEMETRY UPGRADE	2010	9,414.22	5,948.55	10	11,266	4,147
5	Treatment	IMPROV	TREATMENT	N LOX TANK & TELEMETRY UPGRADE	2011	7,293.93	4,184.59	10	8,468	3,610
3	Treated Water Storage	IMPROV	STORAGE	WARDWELL ZONE 3-B TANK	2011	1,705,649.00	272,000.33	35	1,980,208	1,664,423
5	Treatment	IMPROV	STORAGE	SANDY LAKE NITRIFICATION MIXER	2011	31,531.35	8,664.98	20	36,607	26,547
5	Treatment	IMPROV	STORAGE	AIRPORT TANK NITRIFICATION MXR	2012	45,531.55	10,426.22	20	51,509	39,714
5	Treatment	IMPROV	TREATMENT	GALLERY UNIT HEATER	2005	956.96	956.96	10	1,353	0
8	Source of Supply / Raw Water	IMPROV	TRANSMISSION	WELL REHAB - MORADS 3, 4 & 5	2005	55,348.02	55,348.02	10	78,272	0
8	Source of Supply / Raw Water	IMPROV	TREATMENT	WEL 14 BOWL ASSEMBLY	2006	10,977.33	10,977.33	10	14,913	0
8	Source of Supply / Raw Water	IMPROV	TREATMENT	WELL 20, 21 & 22 REHABILITATIO	2007	55,697.86	52,169.50	10	73,625	4,664
8	Source of Supply / Raw Water	IMPROV	TREATMENT	WELL PUMPS WELLS 14, 20 MORAD	2007	10,193.88	10,193.88	7	13,475	0
5	Treatment	IMPROV	TREATMENT	WELLFIELD FLUSHING SYSTEM	2010	18,111.62	17,505.64	7	21,675	725
8	Source of Supply / Raw Water	IMPROV	TREATMENT	WELL RECHARGE PUMP REPAIR	2010	8,513.00	8,228.17	7	10,188	341
5	Treatment	IMPROV	TREATMENT	MORAD 6 & 8 REHABILITATION	2013	53,722.93	21,439.78	10	59,254	35,607
5	Treatment	IMPROV	TREATMENT	SITE SECURITY - SECURITY CAMER	2005	14,717.26	14,717.26	5	20,813	0
5	Treatment	IMPROV	TREATMENT	30" FILTER VALVES	2005	30,306.58	13,835.20	25	42,859	23,294
5	Treatment	IMPROV	TREATMENT	20" FILTER VALVES & ACTUATORS	2005	16,082.30	7,288.07	25	22,743	12,437
5	Treatment	IMPROV	TREATMENT	DECANT PUMP #2 OVERHAUL	2005	8,890.55	8,890.55	5	12,573	0
5	Treatment	IMPROV	TREATMENT	6" SCREENWASH VALVE ACTUATORS	2006	7,579.95	3,258.31	25	10,298	5,871
5	Treatment	IMPROV	TREATMENT	24" BACKWASH VALVE ACTUATORS	2006	9,817.95	4,220.21	25	13,338	7,605
5	Treatment	IMPROV	TREATMENT	FILTER #3 INFLUENT VALVE	2007	7,227.64	7,227.64	10	9,554	0
5	Treatment	IMPROV	TREATMENT	HVAC CONTROL SYSTEM	2007	27,300.00	27,300.00	7	36,087	0
5	Treatment	IMPROV	TREATMENT	SHC TANK #1 & VENT LINE REPAIR	2011	7,211.00	2,881.44	15	8,372	5,026
5	Treatment	IMPROV	TREATMENT	DECANT PUMP #2 REPLACEMENT	2007	17,238.52	17,238.52	7	22,787	0
5	Treatment	IMPROV	TREATMENT	SPARE DEWATERING PUMP	2007	10,628.05	10,628.05	5	14,049	0
5	Treatment	IMPROV	TREATMENT	SRIPPING COMPRESSOR UPGRADES	2007	5,761.35	5,761.35	5	7,616	0
5	Treatment	IMPROV	TREATMENT	BOILER UPGRADES	2007	11,900.00	11,146.12	10	15,730	997
5	Treatment	IMPROV	TREATMENT	ELEVATOR VALVE REPLACEMENT	2007	18,688.00	8,638.35	20	24,703	13,284
5	Treatment	IMPROV	TREATMENT	HVAC COIL REPLACEMENT	2008	9,060.24	9,060.24	5	11,481	0
5	Treatment	IMPROV	TREATMENT	VFD PUMP & MOTOR UPGRADES	2008	15,474.01	15,474.01	5	19,608	0
5	Treatment	IMPROV	TREATMENT	SO. CHEM HEATER	2008	11,599.00	9,632.95	10	14,698	2,491
5	Treatment	IMPROV	TREATMENT	SW HIGH SERVICE #5 PUMP & MOTO	2009	7,428.21	7,428.21	7	9,127	0
5	Treatment	IMPROV	TREATMENT	FILTER TURBIDIMETERS	2009	22,030.65	22,030.65	7	27,069	0
5	Treatment	IMPROV	TREATMENT	ACTIFLO SCREENS	2009	5,000.00	5,000.00	7	6,144	0
5	Treatment	IMPROV	TREATMENT	FILTER #4 VALVE ACTUATOR	2009	22,096.77	6,847.23	25	27,150	18,737

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5	Treatment	IMPROV	TREATMENT	UPGRADES TO SHC SYSTEM	2010	10,618.29	10,618.29	7	12,707	0
5	Treatment	IMPROV	TREATMENT	FILTER #3 & #4 VALVES & ACTUAT	2010	9,695.92	9,480.45	7	11,603	258
5	Treatment	IMPROV	TREATMENT	WTP SCADA UPGRADE	2010	316,337.00	301,875.90	7	378,569	17,306
5	Treatment	IMPROV	TREATMENT	FILTER #2 VALVE ACTUATORS	2011	27,906.70	6,880.49	25	32,399	24,411
5	Treatment	IMPROV	TREATMENT	HVAC COLL	2007	8,850.55	8,850.55	5	11,699	0
5	Treatment	IMPROV	TREATMENT	HIGH SERVICE PUMP #3 IMPELLER	2011	11,467.68	11,467.68	5	13,314	0
5	Treatment	IMPROV	TREATMENT	RAW WATER VALVE	2011	8,870.62	2,474.74	20	10,299	7,425
5	Treatment	IMPROV	TREATMENT	ENERGY CONSERVATION IMPROVEMEN	2011	82,920.00	8,981.00	50	96,268	85,841
5	Treatment	IMPROV	TREATMENT	SETTLED WATER PUMP VARIABLE FR	2011	6,725.00	1,792.04	20	7,808	5,727
5	Treatment	IMPROV	TREATMENT	FILTER #1 VALVE	2011	17,561.95	4,679.86	20	20,389	14,956
5	Treatment	IMPROV	TREATMENT	SHC PERISTALTIC PUMPS (2)	2012	15,415.32	14,935.73	5	17,439	543
5	Treatment	IMPROV	TREATMENT	ELECTRICAL UPGRADE FILTERS 1&2	2012	24,493.72	4,814.41	25	27,709	22,263
5	Treatment	IMPROV	TREATMENT	SAND PUMP REPAIRS	2012	11,255.41	10,550.07	5	12,733	798
5	Treatment	IMPROV	TREATMENT	OZONE MONITOR REPAIRS	2012	9,096.52	8,381.75	5	10,291	809
5	Treatment	IMPROV	TREATMENT	WTP HEATING PLANT REPLACEMENT	2012	95,197.08	43,535.26	10	107,695	58,444
5	Treatment	IMPROV	TREATMENT	SAND PUMP REBUILD	2012	5,083.28	4,521.08	5	5,751	636
5	Treatment	IMPROV	TREATMENT	DECANT PUMP #2 MOTOR REBUILD	2012	6,592.28	5,650.63	5	7,458	1,065
5	Treatment	IMPROV	TREATMENT	OZONE HEAT EXCHANGER	2012	7,483.32	2,117.59	15	8,466	6,070
5	Treatment	IMPROV	TREATMENT	SECURITY GATE CONTROLLER	2013	13,893.58	5,197.90	10	15,324	9,591
5	Treatment	BUILD	TREATMENT	ROOF REPAIRS & REPLACEMENT	2014	19,568.20	2,620.20	20	21,013	18,199
5	Treatment	IMPROV	TREATMENT	WCP INFILTRATION GALLERY TO MA	1957	20,500.00	14,844.69	75	298,156	82,252
5	Treatment	IMPROV	TREATMENT	WCP WELL #15 TO COLLECTOR	1957	17,900.00	12,965.41	75	260,341	71,770
5	Treatment	IMPROV	TREATMENT	WCP CAISSON WELLS TO MORAD INT	1959	43,100.00	30,368.96	75	569,439	168,203
6	Distribution	IMPROV	TRANSMISSION	TP AIRPORT WTP TO AIRPORT BOOS	1963	98,394.81	62,373.77	75	1,149,942	420,978
5	Treatment	IMPROV	TREATMENT	WCP MORAD #2 TO MORAD #3 12"	1965	11,900.00	7,722.71	75	129,049	45,301
5	Treatment	IMPROV	TREATMENT	WCP MORAD #3 TO CAISON INTERCE	1965	62,800.00	40,756.77	75	681,034	239,048
6	Distribution	IMPROV	TRANSMISSION	TP AIRPORT WTP TO AIRPORT BOOS	1965	277,900.00	170,978.64	75	3,013,684	1,159,508
6	Distribution	IMPROV	TRANSMISSION	YP AIRPORT SUPPLY LINE	1972	125,871.00	74,959.64	75	756,088	305,817
8	Source of Supply / Raw Water	IMPROV	TREATMENT	YP-RAW WATER LINE	1972	182,000.00	108,386.92	75	1,093,246	442,182
6	Distribution	IMPROV	TRANSMISSION	YP-BROOKS SUPPLY	1972	146,500.00	87,244.88	75	880,003	355,936
5	Treatment	IMPROV	TREATMENT	YP-TRANSFER PUMP DISCHARGE PIP	1972	78,000.00	46,451.84	75	468,534	189,505
5	Treatment	IMPROV	TREATMENT	YP-TRANSFER PUMP DISCHARGE PIP	1972	48,500.00	28,883.08	75	291,332	117,836
5	Treatment	IMPROV	TREATMENT	YP-HIGH SVC PUMP DISCHARGE PI	1972	127,400.00	75,871.13	75	765,272	309,526
5	Treatment	IMPROV	TREATMENT	YP-WELLFIELD TREATED WATER	1972	52,900.00	31,503.38	75	317,762	128,526
5	Treatment	IMPROV	TREATMENT	YP-WELLFIELD TREATED WATER	1972	25,300.00	15,066.77	75	151,973	61,469
6	Distribution	IMPROV	TRANSMISSION	TP-WARDWELL TO BAR NUNN	1972	109,900.00	60,709.42	75	660,152	295,480
6	Distribution	IMPROV	TRANSMISSION	TP-WARDWELL TO BAR NUNN	1972	195,800.00	108,165.55	75	1,176,140	526,407
6	Distribution	IMPROV	TRANSMISSION	TP-AIRPORT BOOSTER TO AIRPORT	1980	1,472,500.00	711,486.21	75	4,790,060	2,475,587
6	Distribution	IMPROV	TRANSMISSION	TP-AIRPORT BOOSTER TO AIRPORT	1980	51,400.00	24,835.50	75	167,205	86,415
6	Distribution	IMPROV	TRANSMISSION	TP-WARDWELL TO BAR NUNN	1981	859,600.00	408,009.47	75	2,560,562	1,345,190
6	Distribution	IMPROV	TRANSMISSION	TP-WARDWELL TO BAR NUNN	1981	628,200.00	298,174.95	75	1,871,272	983,073
6	Distribution	IMPROV	TRANSMISSION	TP-CASPER WTP TO BROOKS WTP	1982	193,200.00	90,057.12	75	531,868	283,946
6	Distribution	IMPROV	TRANSMISSION	TP-CASPER WTP TO BROOKS WTP	1982	822,600.00	383,445.42	75	2,264,569	1,208,967
6	Distribution	IMPROV	TRANSMISSION	TP-PIONEER 14"	1982	66,100.00	30,811.93	75	181,969	97,146
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #5 TO MORAD #4	1985	37,200.00	17,731.66	75	93,377	48,868
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #4 TO MORAD/CAISSON	1985	215,900.00	102,911.31	75	541,937	283,616
5	Treatment	IMPROV	TREATMENT	WCP-MORAD/CAISSON INTERCEPT TO	1985	184,900.00	88,131.43	75	464,123	242,902
6	Distribution	IMPROV	TRANSMISSION	TP-AIRPORT WTP TO AIRPORT BOOS	1992	29,200.00	11,153.45	75	61,680	38,120

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6	Distribution	IMPROV	TRANSMISSION	TP-PIONEER 14",12",10",8"-AC	1996	419,600.00	146,257.64	75	786,190	512,152
5	Treatment	IMPROV	TREATMENT	TP-BID PACKAGE NO. 1	1997	1,362,059.18	351,090.49	75	2,461,806	1,827,240
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-4 BROOKS MILLS BID P	1998	514,239.92	128,553.09	75	914,687	686,027
6	Distribution	IMPROV	TRANSMISSION	TP-PIONEER 14",12",10",8" AC	1998	686,900.00	246,503.56	75	1,221,800	783,340
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-4 BROOKS MILLS BID P	1999	9,256.00	2,180.16	75	16,086	12,297
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-17 METER SCADA UPGRA	1999	44,600.00	10,356.47	75	77,511	59,512
6	Distribution	IMPROV	TRANSMISSION	TP-POISON SPIDER METER SCADA U	1999	44,600.00	10,356.47	75	77,511	59,512
6	Distribution	IMPROV	TRANSMISSION	TP-SALT CREEK METER SCADA UPGR	1999	44,600.00	10,356.47	75	77,511	59,512
6	Distribution	IMPROV	TRANSMISSION	TP-WARDWELL NORTH METER SCADA	1999	44,600.00	10,356.47	75	77,511	59,512
6	Distribution	IMPROV	TRANSMISSION	WCP-CAISSON #1 10" PIPE BP5	1999	7,573.00	1,758.36	75	13,161	10,105
6	Distribution	IMPROV	TRANSMISSION	WCP-30" TRANSMISSION PIPELINE	1999	283,730.00	65,884.94	75	493,097	378,595
6	Distribution	IMPROV	TRANSMISSION	WCP-ABOVE GROUND PIPING FOR RA	1999	17,731.00	4,117.14	75	30,815	23,660
5	Treatment	IMPROV	TREATMENT	WCP-INFILTRATION GALLER PIPE (	1999	11,820.00	2,744.66	75	20,542	15,772
5	Treatment	IMPROV	TREATMENT	WCP-CAISSON #3 10" PIPE BP5	1999	6,858.00	1,592.50	75	11,919	9,151
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #11 I" PIPE BP5	1999	5,223.00	1,212.86	75	9,077	6,969
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #12 8" PIPE BP5	1999	4,701.00	1,091.77	75	8,170	6,273
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #13 8" PIPE BP5	1999	51,084.00	11,862.20	75	88,779	68,164
5	Treatment	IMPROV	TREATMENT	WCP-CAISSON #2 10" PIPE BP5	1999	7,639.00	1,773.98	75	13,276	10,193
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #10 8" PIPE BP5	1999	22,356.00	5,191.18	75	38,853	29,831
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #2R 8" PIPE BP5	1999	17,028.00	3,953.92	75	29,593	22,722
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #3R 8" PIPE BP5	1999	2,298.00	533.62	75	3,994	3,066
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #7 8" PIPE BP5	1999	43,771.00	10,164.02	75	76,070	58,406
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #8 8" PIPE BP5	1999	8,880.00	2,061.94	75	15,433	11,849
5	Treatment	IMPROV	TREATMENT	WCP-MORAD #9 8" PIPE BP5	1999	14,521.00	3,371.82	75	25,236	19,376
5	Treatment	IMPROV	TREATMENT	WCP-10" PIPE FOR RANNEY COLLEC	1999	18,322.00	4,254.53	75	31,842	24,448
6	Distribution	IMPROV	TRANSMISSION	WCP-16" TRANSMISSION PIPELINE	1999	226,713.00	52,644.77	75	394,007	302,515
6	Distribution	IMPROV	TRANSMISSION	WCP-24" TRANSMISSION PIPELINE	1999	334,743.00	77,730.61	75	581,753	446,665
5	Treatment	IMPROV	TREATMENT	WCP-CASPAR #19 8" PIPE BP5	1999	40,324.00	9,363.53	75	70,080	53,807
5	Treatment	IMPROV	TREATMENT	WCP-CASPAR #21 8" PIPE BP5	1999	32,384.00	7,519.83	75	56,280	43,212
5	Treatment	IMPROV	TREATMENT	WCP-CASPAR #22 8" PIPE BP5	1999	14,103.00	3,274.93	75	24,510	18,818
5	Treatment	IMPROV	TREATMENT	WCP-CASPAR #20 12" PIPE BP5	1999	28,228.00	6,554.73	75	49,058	37,666
5	Treatment	IMPROV	TREATMENT	WCP-CASPAR #5 8" PIPE BP5	1999	59,128.00	13,729.97	75	102,759	78,898
5	Treatment	IMPROV	TREATMENT	YP-84" SETTLED WATER OZONE CON	1999	548,200.00	127,297.11	75	952,723	731,492
5	Treatment	IMPROV	TREATMENT	YP-84" WELL WATER OZONE CONTAC	1999	406,600.00	94,416.17	75	706,634	542,548
5	Treatment	IMPROV	TREATMENT	YP-84" SETTLED WATER BP5	1999	12,400.00	2,879.39	75	21,550	16,546
5	Treatment	IMPROV	TREATMENT	YP-48" FILTERED INFLUENT BP5	1999	20,500.00	4,760.43	75	35,627	27,354
5	Treatment	IMPROV	TREATMENT	YP-48" OVERFLOW BP5	1999	43,900.00	10,193.99	75	76,294	58,578
5	Treatment	IMPROV	TREATMENT	YP-48" WELL WATER BP5	1999	35,800.00	8,313.01	75	62,217	47,770
5	Treatment	IMPROV	TREATMENT	YP-42" FILTERED INFLUENT BP5	1999	67,000.00	15,557.97	75	116,440	89,402
5	Treatment	IMPROV	TREATMENT	YP-42" OVERFLOW BP5	1999	24,700.00	5,735.71	75	42,926	32,958
5	Treatment	IMPROV	TREATMENT	YP-42" OZONATED WELL WATER BP5	1999	27,800.00	6,455.35	75	48,314	37,095
5	Treatment	IMPROV	TREATMENT	YP-36" FINISHED WATER BP5	1999	15,100.00	3,506.26	75	26,242	20,149
5	Treatment	IMPROV	TREATMENT	YP-36" RAW WATER BP5	1999	40,600.00	9,427.77	75	70,559	54,175
5	Treatment	IMPROV	TREATMENT	YP-36" WELL WATER BP5	1999	199,000.00	46,209.77	75	345,844	265,536
5	Treatment	IMPROV	TREATMENT	YP-30" BACKWASH WASTE BP5	1999	194,200.00	45,095.01	75	337,502	259,131
5	Treatment	IMPROV	TREATMENT	YP-30" WELL WATER BP5	1999	113,500.00	26,355.69	75	197,253	151,449
5	Treatment	IMPROV	TREATMENT	YP-24" FILTERED TO WASTE BP5	1999	114,600.00	26,611.14	75	199,165	152,917
5	Treatment	IMPROV	TREATMENT	YP-24" WELL WATER BP5	1999	129,800.00	30,140.97	75	225,581	173,198
5	Treatment	IMPROV	TREATMENT	YP-18" FINISHED WATER & PVC VA	1999	103,700.00	24,080.29	75	180,221	138,372

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5	Treatment	IMPROV	TREATMENT	YP-18" DECANT RECYCLE BP5	1999	269,600.00	62,603.79	75	468,541	359,741
5	Treatment	IMPROV	TREATMENT	YP-18" FILTERED TO WASTE BP5	1999	23,400.00	5,433.56	75	40,667	31,224
5	Treatment	IMPROV	TREATMENT	YP-16" DECANT RECYCLE BP5	1999	10,900.00	2,530.91	75	18,943	14,545
5	Treatment	IMPROV	TREATMENT	YP-16" FINISHED WATER BP5	1999	133,100.00	30,907.19	75	231,316	177,602
5	Treatment	IMPROV	TREATMENT	YP-16" WELL WATER BP5	1999	35,900.00	8,336.27	75	62,391	47,903
5	Treatment	IMPROV	TREATMENT	YP-14" OZONATED WELL WATER BYP	1999	36,000.00	8,359.52	75	62,565	48,037
5	Treatment	IMPROV	TREATMENT	MISC PIPING LESS THAN 12" DIAM	1999	463,800.00	107,698.74	75	806,043	618,872
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-10 BP6	1999	226,267.58	52,541.48	75	393,233	301,920
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-6 BP6	1999	222,934.78	51,767.51	75	387,441	297,473
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-7 BP6	1999	924,710.14	214,726.45	75	1,607,064	1,233,888
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-8 BP6	1999	290,131.45	67,371.31	75	504,223	387,137
6	Distribution	IMPROV	TRANSMISSION	TP-VISTA WEST HIGHWAY BORE	2000	60,000.00	13,665.89	75	101,559	78,428
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-16 SANDY LAKES BP7	2000	681,336.00	154,427.60	75	1,153,266	891,874
6	Distribution	IMPROV	TRANSMISSION	400' LINE REPLACEMENT WTP TO A	2001	117,615.14	24,436.26	75	195,253	154,686
6	Distribution	IMPROV	TRANSMISSION	TP-LINE L-1 CROSSTOWN PIPELINE	2001	8,752,316.43	1,798,979.01	75	14,529,701	11,543,220
6	Distribution	IMPROV	TRANSMISSION	TP - WARDWELL BOOSTER	2011	575,612.00	44,763.80	75	668,268	616,299
8	Source of Supply / Raw Water	IMPROV	TREATMENT	RAW WATER LINE IMPROVEMENTS	2012	22,494.51	1,374.37	75	25,448	23,893
5	Treatment	IMPROV	TREATMENT	OZONE GEN MAINT	2014	5,375.00	2,224.08	5	5,772	3,384
5	Treatment	IMPROV	TREATMENT	OZONE GEN MAINT	2014	5,375.00	2,224.08	5	5,772	3,384
5	Treatment	IMPROV	TREATMENT	OZONE GEN MAINT	2014	5,375.00	2,224.08	5	5,772	3,384
5	Treatment	IMPROV	TREATMENT	OZONE GEN MAINT	2014	5,375.00	2,224.08	5	5,772	3,384
5	Treatment	IMPROV	TREATMENT	WTP RAW WATER AREA PROJECT	2016	250,000.00	8,333.36	20	254,643	246,155
5	Treatment	IMPROV	TREATMENT	4160 V SWITCHGEAR UPGRADES	2016	744,316.79	24,810.56	20	758,140	732,869
5	Treatment	IMPROV	TREATMENT	PARKING LOT IMPROVEMENTS	2016	25,599.00	853.28	20	26,074	25,205
5	Treatment	LIGHT	TREATMENT	GRDWTR CHLORAMINE ANALYZER	2016	19,021.00	161.20	20	19,374	19,210
5	Treatment	LIGHT	TREATMENT	SURFACE WT CHLORAMINE ANALYZER	2016	19,021.00	161.20	20	19,374	19,210
5	Treatment	LIGHT	TREATMENT	NORTH CHEM HVAC SYSTEM	2016	89,214.00	752.86	20	90,871	90,104
5	Treatment	IMPROV	TREATMENT	WELL TURBIDIMETER DISPLAY & HD	2014	2,500.00	334.74	20	2,685	2,325
5	Treatment	IMPROV	TREATMENT	WELL TURBIDIMETER DISPLAY & HD	2014	2,500.00	334.74	20	2,685	2,325
5	Treatment	IMPROV	TREATMENT	WELL TURBIDIMETER DISPLAY & HD	2014	2,500.00	334.74	20	2,685	2,325
5	Treatment	IMPROV	TREATMENT	WELL TURBIDIMETER DISPLAY & HD	2014	2,500.00	334.74	20	2,685	2,325
5	Treatment	IMPROV	TREATMENT	SHC TANK #1 REPAIRS	2014	6,000.00	803.32	20	6,443	5,580
5	Treatment	IMPROV	TREATMENT	FY14 WTP SECURITY IMPROVEMENTS	2014	131,836.77	17,530.24	20	141,571	122,746
5	Treatment	IMPROV	TREATMENT	FY14 WTP SCADA UPGRADES	2014	30,567.29	16,094.66	5	32,824	15,541
6	Distribution	IMPROV	TRANSMISSION	FY15 INFRASTRUCTURE - ZONE IIB	2015	2,017,347.88	168,112.40	20	2,116,858	1,940,453
5	Treatment	IMPROV	TREATMENT	V-7187 RAW WATER PUMP	2014	65,422.33	8,760.14	20	70,253	60,846
5	Treatment	IMPROV	TREATMENT	CAISSON 3 PUMP	2014	29,395.08	2,964.24	20	31,565	28,382
5	Treatment	IMPROV	TREATMENT	V-7334 WTP BACK GATE	2015	14,165.60	1,185.40	20	14,864	13,620
6	Distribution	IMPROV	TRANSMISSION	WARDWELL BOOSER PUMP #3 VFD	2016	13,803.90	116.98	20	14,060	13,941
4	Misc/Administration	COMP	EQUIPMENT	LAPTOP TOSHIBA TECRA 81	2003	530.00	530.00	5	834	0
4	Misc/Administration	COMP	EQUIPMENT	4 OPERATIONS COMPUTERS	2013	6,893.28	5,122.61	5	7,603	1,953
4	Misc/Administration	IMPROV	EQUIPMENT	T-1 DATA CABLING & CONDUIT	2004	8,031.26	6,548.69	15	11,886	2,194
4	Misc/Administration	LIGHT	EQUIPMENT	FURNITURE	1996	8,532.85	8,532.85	8	15,988	0
4	Misc/Administration	LIGHT	EQUIPMENT	FURNITURE	1996	701.00	701.00	8	1,313	0
4	Misc/Administration	LIGHT	EQUIPMENT	LAMPS	1996	564.00	564.00	8	1,057	0
4	Misc/Administration	LIGHT	EQUIPMENT	GLASS FOR DESKTOPS	1996	218.00	218.00	8	408	0
4	Misc/Administration	LIGHT	EQUIPMENT	FURNITURE	1996	390.00	390.00	8	731	0
4	Misc/Administration	LIGHT	EQUIPMENT	MICROPHONES	1997	460.00	460.00	10	831	0
4	Misc/Administration	LIGHT	EQUIPMENT	CHAIRS - 2 CONFERENCE ROOM	1997	550.00	550.00	5	994	0

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4	Misc/Administration	LIGHT	EQUIPMENT	CHAIRS-STACKING-CONFERENCE RM	1997	1,246.00	1,246.00	7	2,252	0
4	Misc/Administration	LIGHT	EQUIPMENT	BOOK SHELF	1997	594.00	594.00	7	1,074	0
4	Misc/Administration	LIGHT	EQUIPMENT	FILE - LATERAL	1997	471.00	471.00	7	851	0
4	Misc/Administration	LIGHT	EQUIPMENT	MAP STAND & CLAMPS	1998	829.00	829.00	7	1,475	0
4	Misc/Administration	LIGHT	EQUIPMENT	DISPLAY UNIT	1999	317.75	317.75	7	552	0
4	Misc/Administration	LIGHT	EQUIPMENT	COMPUTER PROJECTOR-EPSON	1999	5,363.00	5,363.00	7	9,320	0
4	Misc/Administration	LIGHT	EQUIPMENT	TALL BOOKCASE UNIT 1 OF 5	1999	553.95	553.95	7	963	0
4	Misc/Administration	LIGHT	EQUIPMENT	TALL BOOKCASE UNIT 2 OF 5	1999	553.95	553.95	7	963	0
4	Misc/Administration	LIGHT	EQUIPMENT	TALL BOOKCASE UNIT 3 OF 5	1999	553.95	553.95	7	963	0
4	Misc/Administration	LIGHT	EQUIPMENT	TALL BOOKCASE UNIT 4 OF 5	1999	553.95	553.95	7	963	0
4	Misc/Administration	LIGHT	EQUIPMENT	TALL BOOKCASE UNIT 5 OF 5	1999	553.95	553.95	7	963	0
4	Misc/Administration	LIGHT	EQUIPMENT	COMPUTER WORKSTATION	1999	7,504.36	7,504.36	7	13,042	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE DESK UNIT	1999	2,869.05	2,869.05	7	4,986	0
4	Misc/Administration	LIGHT	EQUIPMENT	U-SHAPE WORKSTATION 1 OF 3	1999	2,008.62	2,008.62	7	3,491	0
4	Misc/Administration	LIGHT	EQUIPMENT	U-SHAPE WORKSTATION 2 OF 3	1999	2,008.62	2,008.62	7	3,491	0
4	Misc/Administration	LIGHT	EQUIPMENT	U-SHAPE WORKSTATION 3 OF 3	1999	2,008.62	2,008.62	7	3,491	0
4	Misc/Administration	LIGHT	EQUIPMENT	L-SHAPE DESK UNIT	1999	1,140.24	1,140.24	7	1,982	0
4	Misc/Administration	LIGHT	EQUIPMENT	4-DRAWER LATERIAL FILE 1 OF 3	1999	430.53	430.53	7	748	0
4	Misc/Administration	LIGHT	EQUIPMENT	4-DRAWER LATERIAL FILE 2 OF 3	1999	430.53	430.53	7	748	0
4	Misc/Administration	LIGHT	EQUIPMENT	4-DRAWER LATERIAL FILE 3 OF 3	1999	430.53	430.53	7	748	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CHAIR	1999	395.02	395.02	7	687	0
4	Misc/Administration	LIGHT	EQUIPMENT	HIGH BK MANAGEMNT CHAIR 1 OF 3	1999	312.17	312.17	7	543	0
4	Misc/Administration	LIGHT	EQUIPMENT	HIGH BK MANAGEMNT CHAIR 2 OF 3	1999	312.17	312.17	7	543	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 1 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 2 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 3 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 4 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 5 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 6 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 7 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 8 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 9 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	EXECUTIVE CONF CHAIR 10 OF 10	1999	308.75	308.75	7	537	0
4	Misc/Administration	LIGHT	EQUIPMENT	TASK STOOL 1 OF 3	1999	604.46	604.46	7	1,050	0
4	Misc/Administration	LIGHT	EQUIPMENT	TASK STOOL 2 OF 3	1999	604.46	604.46	7	1,050	0
4	Misc/Administration	LIGHT	EQUIPMENT	TASK STOOL 3 OF 3	1999	604.46	604.46	7	1,050	0
4	Misc/Administration	LIGHT	EQUIPMENT	ADJUSTABLE HEIGHT TABLE	1999	628.87	628.87	7	1,093	0
4	Misc/Administration	LIGHT	EQUIPMENT	COOKING RANGE	1999	604.80	604.80	7	1,051	0
4	Misc/Administration	LIGHT	EQUIPMENT	REFRIGERATOR	1999	932.40	932.40	7	1,620	0
5	Treatment	LIGHT	EQUIPMENT	LAB SCALE	1999	1,140.00	1,140.00	7	1,981	0
5	Treatment	LIGHT	EQUIPMENT	CALIBRATION WEIGHTS	1999	476.00	476.00	7	827	0
5	Treatment	LIGHT	EQUIPMENT	STAINLESS FILTER HOLDER	1999	583.70	583.70	7	1,014	0
5	Treatment	LIGHT	EQUIPMENT	MANIFOLD	1999	673.00	673.00	7	1,170	0
5	Treatment	LIGHT	EQUIPMENT	INCUBATOR	1999	1,695.00	1,695.00	7	2,946	0
5	Treatment	LIGHT	EQUIPMENT	WATER BATH	1999	1,855.00	1,855.00	7	3,224	0
5	Treatment	LIGHT	EQUIPMENT	DR/890 COLORIMETER	1999	749.00	749.00	7	1,302	0
5	Treatment	LIGHT	EQUIPMENT	PH METER	1999	650.00	650.00	7	1,130	0
5	Treatment	LIGHT	EQUIPMENT	VACUUM PUMP	1999	345.00	345.00	7	600	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	V3085, 2001 FORD SUPER DUTY	2001	32,161.00	32,161.00	5	53,390	0

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FUNCTION	FUNCTION DESCRIPTION	CLASS ID	CATEGORY	ASSET DESCRIPTION	YEAR ACQUIRED	ACQUISITION COST	LIFE TO DATE DEPRECIATION	DEPRECIABLE LIFE IN YRS	Replacement Cost New (RCN)	RCN Less Depreciation
4	Misc/Administration	LIGHT	EQUIPMENT	CONFERENCE TABLE OPS	2001	825.00	825.00	7	1,370	0
4	Misc/Administration	LIGHT	EQUIPMENT	OPS CONFERENCE CHAIR 1 OF 6	2001	127.50	127.50	7	212	0
4	Misc/Administration	LIGHT	EQUIPMENT	OPS CONFERENCE CHAIR 2 OF 6	2001	127.50	127.50	7	212	0
4	Misc/Administration	LIGHT	EQUIPMENT	OPS CONFERENCE CHAIR 3 OF 6	2001	127.50	127.50	7	212	0
4	Misc/Administration	LIGHT	EQUIPMENT	OPS CONFERENCE CHAIR 4 OF 6	2001	127.50	127.50	7	212	0
4	Misc/Administration	LIGHT	EQUIPMENT	OPS CONFERENCE CHAIR 5 OF 6	2001	127.50	127.50	7	212	0
4	Misc/Administration	LIGHT	EQUIPMENT	OPS CONFERENCE CHAIR 6 OF 6	2001	127.50	127.50	7	212	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	MAGNETIC LINE LOCATOR	2001	800.00	800.00	10	1,328	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	PORTABLE VALVE OPERATOR	2001	4,961.04	4,961.04	10	8,236	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	UTILITY BOX FOR TRUCK	2001	6,227.96	6,227.96	10	10,339	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	CUMMINS-ONAN PRO 500E ELEC STA	2001	1,500.00	1,500.00	10	2,490	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	SNOW PLOW MODEL L25108DP	2001	4,365.00	4,365.00	10	7,246	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	LIFTMOORE CRANE MODEL 3200REE-	2001	9,439.00	9,439.00	10	15,670	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	1996 FORD RANGER 4X4	2002	6,078.00	6,078.00	5	9,789	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	LINE LOCATOR	2002	2,463.76	2,463.76	10	3,968	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	TRUCK TOOL BOX	2003	227.70	227.70	10	358	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	INFRARED THERMOMETER	2004	89.10	89.10	5	132	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	DIGITAL THERMOMETER	2004	152.10	152.10	5	225	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	GEO-VISION DOWN HOLE CAMERA	2004	2,858.00	2,858.00	10	4,230	0
5	Treatment	LIGHT	EQUIPMENT	TURIDIMETER	1994	2,695.00	2,695.00	15	5,247	0
5	Treatment	LIGHT	EQUIPMENT	JAR TESTER	1994	1,300.00	1,300.00	15	2,531	0
5	Treatment	LIGHT	EQUIPMENT	MISC LAB EQUIPMENT	1994	4,000.00	4,000.00	15	7,788	0
7	Vehicles and Equipment	LIGHT	EQUIPMENT	2004 FORD RANGER 4WD	2004	18,752.00	18,752.00	5	27,752	0
4	Misc/Administration	LIGHT	EQUIPMENT	TOOL TIME PM SOFTWARE	2005	2,500.00	2,500.00	3	3,535	0
4	Misc/Administration	LIGHT	EQUIPMENT	RADIOS - BASE & MOBILES	2006	18,020.00	18,020.00	5	24,481	0
4	Misc/Administration	LIGHT	EQUIPMENT	OFFICE & LAB & AUTOS ALLOWANCE	1994	15,461.00	15,461.00	7	30,104	0
5	Treatment	LIGHT	TREATMENT	SO CHEM SAND PUMP	2014	6,631.10	1,768.32	5	7,121	5,222
7	Vehicles and Equipment	LIGHT	EQUIPMENT	2016 FORD EXPLORER	2015	31,434.17	9,185.81	5	32,985	23,346
5	Treatment	LIGHT	TREATMENT	DESTRUCT #3 OZONE MONITOR	2015	6,666.13	1,755.51	5	6,995	5,153
5	Treatment	LIGHT	TREATMENT	DESTRUCT #1 OZONE MONITOR	2015	6,666.13	1,629.59	6	6,995	5,285
5	Treatment	LIGHT	TREATMENT	POLYMER UNIT #2	2015	9,870.51	2,171.54	5	10,357	8,079
5	Treatment	LIGHT	TREATMENT	POLYMER UNIT #1	2016	9,870.51	1,974.12	5	10,054	8,043
5	Treatment	LIGHT	TREATMENT	DESTRUCT #4 OZONE MONITOR	2015	6,666.13	1,755.51	5	6,995	5,153
5	Treatment	LIGHT	TREATMENT	DESTRUCT #2 OZONE MONITOR	2015	6,666.13	1,629.59	6	6,995	5,285
5	Treatment	LIGHT	TREATMENT	POLYMER UNIT #3	2015	9,870.51	2,171.54	5	10,357	8,079
5	Treatment	LIGHT	TREATMENT	V-7495 CASPER19 WELL PUMP	2016	10,863.49	1,629.54	5	11,065	9,405
5	Treatment	LIGHT	TREATMENT	SAND PUMP	2014	10,117.65	5,454.39	5	10,865	5,008
5	Treatment	LIGHT	TREATMENT	SAND PUMP	2014	10,117.65	5,454.39	5	10,865	5,008
4	Misc/Administration	LIGHT	TREATMENT	V-7268 HVAC IMPROVEMENTS	2014	9,586.00	1,949.76	10	10,294	8,200
5	Treatment	LIGHT	TREATMENT	SETTLED WATER VFD	2015	11,955.80	4,782.26	5	12,546	7,527
5	Treatment	LIGHT	TREATMENT	OZONE MONITOR	2015	6,896.57	2,758.56	5	7,237	4,342
5	Treatment	LIGHT	TREATMENT	OZONE MONITOR	2015	6,896.57	2,758.56	5	7,237	4,342
5	Treatment	LIGHT	TREATMENT	OZONE MONITOR	2015	6,896.57	2,758.56	5	7,237	4,342
5	Treatment	LIGHT	TREATMENT	OZONE MONITOR	2015	6,896.57	2,758.56	5	7,237	4,342
5	Treatment	LIGHT	TREATMENT	V-7336 SCREEN WASH PUMP	2015	6,446.00	2,185.06	5	6,764	4,471
5	Treatment	LIGHT	TREATMENT	V-7336 CAISSON RECHARGE PUMP	2015	48,346.62	16,388.66	5	50,731	33,534
5	Treatment	LIGHT	TREATMENT	V-7408 CAISSON #1 PUMP	2015	15,626.93	3,906.75	5	16,398	12,298
5	Treatment	LIGHT	TREATMENT	V-7411 CAISSON #2 PUMP	2015	15,626.93	3,906.75	5	16,398	12,298
5	Treatment	LIGHT	TREATMENT	V-7470 WELL RECHARGE PUMP	2016	46,280.40	7,713.40	5	47,140	39,283

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FUNCTION	FUNCTION DESCRIPTION	CLASS ID	CATEGORY	ASSET DESCRIPTION	YEAR ACQUIRED	ACQUISITION COST	LIFE TO DATE DEPRECIATION	DEPRECIABLE LIFE IN YRS	Replacement Cost New (RCN)	RCN Less Depreciation
5	Treatment	LIGHT	TREATMENT	V-7496 CASPER6 WELL PUMP	2016	12,396.92	1,859.56	5	12,627	10,733
5	Treatment	LIGHT	TREATMENT	V-7497 MORAD9 WELL PUMP	2016	10,863.49	1,629.54	5	11,065	9,405
6	Distribution	TECH	TRANSMISSION	FIELD COMMUNICATOR	2015	6,693.48	2,722.80	5	7,024	4,167
7	Vehicles and Equipment	LIGHT	EQUIPMENT	2014 FORD TRUCK	2014	23,307.00	12,564.66	5	25,028	11,535
7	Vehicles and Equipment	LIGHT	EQUIPMENT	V-7165 2014 FORD TRUCK	2014	23,307.00	12,564.66	5	25,028	11,535
7	Vehicles and Equipment	LIGHT	EQUIPMENT	V-7165 2014 FORD TRUCK	2014	23,307.00	12,564.66	5	25,028	11,535
5	Treatment	LIGHT	TREATMENT	REPLACE POWERFLEX 700 VFD @	2016	8,863.76	316.56	5	9,028	8,706
5	Treatment	LIGHT	TREATMENT	SETTLED WATER PUMP	2015	68,102.55	20,430.82	5	71,462	50,023
6	Distribution	LIGHT	TRANSMISSION	V-7463 MT. VIEW BST PUMP	2016	13,746.67	2,552.96	5	14,002	11,402
5	Treatment	LIGHT	EQUIPMENT	V-7517 AUTOCLAVE	2016	5,949.60	793.28	5	6,060	5,252
5	Treatment	LIGHT	TREATMENT	V-7573 16" FILTER MAG METER	2016	9,243.90	318.76	5	9,416	9,091
5	Treatment	LIGHT	EQUIPMENT	V-7535 FLUKE 754 CALIBRATOR	2016	8,303.00	296.54	5	8,457	8,155
	Totals						$41,192,525		$179,404,376	$69,480,024

(1) Based Upon ENR Index December 2016: 10,530

2017 Rate and Fee Study

Casper Equivalent Meters / RWS Estimated Equivalent Meters

Meter Size	5/8-inch	3/4-inch	1-inch	1 1/2-inch	2-inch	3-inch	4-inch	6-inch	8-inch	10-inch	12-inch	Total
Meter Capacity (gpm)	15	25	40	50	160	320	500	1,000	1,600	2,300	5,000	
Meter Capacity Ratio	0.6	1.0	1.6	2.0	6.4	12.8	20.0	40.0	64.0	92.0	200.0	
RWAI	12	17,072	2,048	100	105	5	5			1	1	19,349
RWAO		436	41	5	2							484
CWAI	2	788	344	160	289	39	18	3	1			1,644
CWAO		70	29	4	13	2	1					119
IRRWA		44	59	27	96	10	15	2	1			254
FLWA		8	1		1							10
Air Base Acres							1					1
Ardon			1					1				2
Natrona Co Intl Airport			1									
Pleasant View			1					6				
Vista West			1									
Equivalent 3/4" Meters	8	18,418	4,037	592	3,238	717	800	240	128	92	200	28,178

Casper share of RWS flows:	90.5%
RWS Eq. Meters:	31,136

2017 Rate and Fee Study
RWS – NPV of Borrowing Cost

RWS Debt Issues	Original Principal	% Growth	NPV of Interest	Interest
City of Casper Loan	$15,905,000	0%	$0	$0
DWSRF #115	2,600,000	100%	516,003	608,195
Unused	0	0%	0	0
Unused	0	0%	0	0
Total	$18,505,000		$516,003	$608,195

Bond Amortization Schedule
City of Casper Loan

Borrowing Rate	2.50%	Discount Rate	2.50%
Years	12	NPV of Interest Payments	$957,731
Principal Amount	$15,905,000	Avg. Annual Payment	$1,550,533
Year of Issue	2011		

Fiscal Year	EOY Principal Balance	Principal	Interest	Total
2017	$8,985,534	$1,293,306	$242,219	$1,535,525
2018	7,659,522	1,326,012	209,513	1,535,525
2019	6,299,978	1,359,545	175,980	1,535,525
2020	4,906,052	1,393,925	141,599	1,535,525
2021	3,476,877	1,429,176	106,349	1,535,525
2022	2,011,559	1,465,317	70,208	1,535,525
2023	509,187	1,502,373	33,152	1,535,525
2024	0	509,187	2,655	511,841
2025				
2026				
2027				
2028				
2029				
2030				
2031				
2032				
2033				
Total		$10,278,840	$981,675	$11,260,515

Bond Amortization Schedule
DWSRF #115

Borrowing Rate	2.50%	Discount Rate	2.50%
Years	20	NPV of Interest Payments	$516,003
Principal Amount	$2,600,000	Avg. Annual Payment	$166,783
Year of Issue	2015		

Fiscal Year	EOY Principal Balance	Principal	Interest	Total
2017	$2,286,955	$106,935	$59,847	$166,783
2018	2,177,346	109,609	57,174	166,783
2019	2,064,998	112,349	54,434	166,783
2020	1,949,840	115,158	51,625	166,783
2021	1,831,803	118,037	48,746	166,783
2022	1,710,816	120,987	45,795	166,783
2023	1,586,804	124,012	42,770	166,783
2024	1,459,691	127,112	39,670	166,783
2025	1,329,401	130,290	36,492	166,783
2026	1,195,854	133,548	33,235	166,783
2027	1,058,967	136,886	29,896	166,783
2028	918,659	140,308	26,474	166,783
2029	774,843	143,816	22,966	166,783
2030	627,432	147,411	19,371	166,783
2031	476,335	151,097	15,686	166,783
2032	321,461	154,874	11,908	166,783
2033	162,715	158,746	8,037	166,783
2034	0	162,715	4,068	166,783
2035				
Total		$2,393,890	$608,195	$3,002,086