

ORIGINAL



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MEMORANDUM

TO: Docket Control

FROM: Ernest G. Johnson  
*for* Director  
Utilities Division

DATE: November 9, 2007

RE: STAFF REPORT FOR WILHOIT WATER COMPANY – THUNDERBIRD MEADOWS' APPLICATIONS FOR A PERMANENT RATE INCREASE (DOCKET NO. W-02065A-07-0312) AND FINANCINGS (DOCKET NOS. W-02065A-07-0307 AND W-02065A-07-0306).

Attached is the Staff Report for Wilhoit Water Company - Thunderbird Meadows' applications for a permanent rate increase and associated financings. Staff recommends approval of the rate increase application using Staff's recommended rates and charges, and approval of Staff's financing recommendations and related surcharges.

Any party who wishes may file comments to the Staff Report with the Commission's Docket Control by 4:00 p.m. on or before November 19, 2007.

EGJ:JMM:red

Originator: Jeffrey M. Michlik

Arizona Corporation Commission  
DOCKETED

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Service List for: Wilhoit Water Company - Thunderbird Meadows  
Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307

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**STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION**

**WILHOIT WATER COMPANY - THUNDERBIRD MEADOWS**

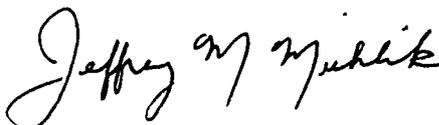
**DOCKET NOS. W-02065A-07-0312, W-02065A-07-0307, and W-02065A-07-0306**

**APPLICATIONS FOR A  
PERMANENT RATE INCREASE AND ASSOCIATED FINANCINGS**

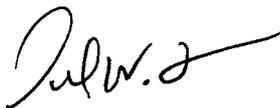
**NOVEMBER 9, 2007**

## STAFF ACKNOWLEDGMENT

The Staff Report for Wilhoit Water Company - Thunderbird Meadows, Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307 was the responsibility of the Staff members listed below. Jeffrey M. Michlik was responsible for the financial review and analysis of the Company's applications, recommended revenue requirements, rate base and rate design. Del Smith was responsible for the engineering and technical analysis. Deb Reagan was responsible for reviewing the Commission's records on customer complaints filed with the Commission.



Jeffrey M. Michlik  
Public Utility Analyst V



Del Smith  
Utilities Chief Engineer



Deb Reagan  
Consumer Analyst II

**EXECUTIVE SUMMARY**  
**WILHOIT WATER COMPANY – THUNDERBIRD MEADOWS'**  
**DOCKET NOS. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307**

Wilhoit Water Company ("Wilhoit") is engaged in the business of providing water services to customers in Yavapai County. The Company is composed of three independent water systems. The Thunderbird Meadows Water System ("Thunderbird" or "Company") is located in Wilhoit, Arizona and serves an area southeast of U.S. Highway 89. The Blue Hills water system is located in Dewey, Arizona and the Yavapai Estates system is located in Chino Valley, Arizona. The three Wilhoit systems along with the Dells Water Company ("Dells") are all managed by the same parent company which is Glenarm Land Company ("Glenarm").

Staff recommendations will only be presented for Thunderbird in this Report. Please see Staff's separately filed Reports for the other two Wilhoit water systems, and Dells. Thunderbird provides services to approximately 128 customers and its current rates were effective December 9, 1992 per Arizona Corporation Commission ("Commision") Decision No. 58102.

Rate Case:

Thunderbird's rate application requested an increase in revenue of \$43,692, or 90.72 percent over test year revenue of \$48,161. Thunderbird's proposed revenues of \$91,853 result in an operating income of \$34,457, and an operating margin of 37.51 percent. Thunderbird proposed an original cost rate base ("OCRB") of \$24,572. Thunderbird is seeking a rate increase at this time to help pay for the maintenance of the system and a well that was dug after its last rate increase. In addition, Thunderbird is seeking a modest return on its investment, has not had a rate increase since 1992, and the costs to operate the water company have increased with inflation in the interim. Thunderbird's proposed rates would increase the typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$52.40, for an increase of \$26.24 or 100.31 percent.

Staff's recommended rates would increase revenue by \$3,639 or 7.56 percent over test year revenues of \$48,161. Staff recommended revenues of \$51,800 result in operating income of \$7,779, and an operating margin of 15.02 percent. Staff recommended an OCRB of \$7,333. Staff's recommended rates would increase the typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$27.44, for an increase of \$1.28 or 4.89 percent.

Financings:

The Company requests authorization to issue a debt instrument in the amount of \$15,000, to Glenarm for funds advanced by it to drill a well in 2006. The well is not used and useful at this stage as it is not interconnected with the water system. It is also a low-producing well. Staff recommends denial of this requested financing.

The Company also requests authorization to finance \$131,059 related to additional storage tanks that will be needed for Thunderbird, which will be financed by the Water

Infrastructure Financing Authority ("WIFA"). Staff recommends authorization of the loan amount and an infrastructure surcharge subject to certain restrictions to finance this debt.

During a Staff inspection it was determined that Thunderbird will need to invest in a new water source. Staff estimates a new well will cost approximately \$100,000. This loan will also be financed through WIFA. Staff recommends authorization of the loan amount and an infrastructure surcharge subject to certain restrictions to finance this debt.

Compliance:

Thunderbird is not in compliance with Decision No. 58102, dated December 9, 1992, in which it was ordered to make arrangements with the appropriate taxing authorities to repay all accrued property taxes. Staff recommends that rates authorized in this case not become effective until the month subsequent to the Company filing in this docket a finalized plan (agreement with the Yavapai County Treasurer's Office) for payment of all of its delinquent property taxes owed on its utility property in Yavapai County.

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**ATTACHMENTS**

Engineering Report .....A

**Fact sheet**

**Type of Ownership:** Arizona "C" Corporation.

**Location:** Thunderbird serves water customers located in Wilhoit, which is in Yavapai County, Arizona.

**Rates:** Permanent rate increase application filed: May 21, 2007. The application became sufficient on September 10, 2007.

**Current Rates:** Decision No. 58102, dated December 9, 1992.

**Prior Test Year:** December 31, 1990.

**Current Test Year Ended:** December 31, 2006.

**Metered Rates:**

	<u>Company Current Rates</u>	<u>Company Proposed Rates</u>	<u>Staff Recommended Rates</u>
Monthly Minimum Charge Based on 5/8 X 3/4 inch meter	\$12.46	\$25.00	\$16.50
Gallons in minimum	0	0	
Tier One from 1 gallon to 6,000 gallons	\$4.40	\$8.80	
Tier Two all gallons over 6,001 gallons	\$3.25	\$11.84	
Tier One from 1 gallon to 3,000 gallons			\$3.45
Tier Two from 3,001 gallons to 10,000 gallons			\$5.18
Tier Three all gallons over 10,001			\$6.20
Typical residential bill (based on median usage of 3,114 gallons)	\$26.16	\$52.40	\$27.44

**Customers:**

The Company serves 128 customers.

***Notifications:***

An amended customer notification was filed with the Arizona Corporation Commission on June 15, 2007.

**Complaints:**

From January 1, 2004, through September 21, 2007 there have been fourteen complaints, ten inquires and twenty opinions opposing the rate increase filed. All complaints and inquiries have been resolved and closed.

### **Summary of Rate Filing**

On May 21, 2007, Wilhoit Water Company – Thunderbird Meadows (“Thunderbird” or “Company”) filed an application for a permanent rate increase and two associated financings with the Arizona Corporation Commission (“Commission”). On September 10, 2007, the application was deemed sufficient by the Utilities Division Staff (“Staff”).

Based on test year results as adjusted by Staff, Thunderbird had an operating income of \$4,901 for an operating margin of 10.18 percent as shown on Schedule JMM-1.

Thunderbird’s proposed rates would produce operating revenues of \$91,853 and result in an operating income of \$34,457, for an operating margin of 37.51 percent. Thunderbird’s requested rates would increase the typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$52.40, for an increase of \$26.24 or 100.31 percent.

Staff’s recommended rates would produce operating revenues of \$51,800 and result in an operating income of \$7,779, for an operating margin of 15.02 percent. Staff’s recommended rates would increase the typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$27.44 for an increase of \$1.28 or 4.89 percent.

Thunderbird utilized a test year ending December 31, 2006.

### **Company Background**

Wilhoit is an Arizona “C” Corporation consisting of three separate water systems, all of which are located in Yavapai County, Arizona. In addition to Thunderbird, Wilhoit also operates the Blue Hills and Yavapai Estates (“Yavapai”) water systems. Wilhoit and Dells Water Company (“Dells”) are subsidiaries of Glenarm Land Company (“Glenarm”).

The Commission has granted Thunderbird three rate increases (See Commission Decision No. 52042, dated April 10, 1981, Commission Decision No. 57237, dated February 14, 1991, and Commission Decision No. 58102, dated December 9, 1992), since its formation in 1968.

The current rates have been in effect since December 9, 1992 per Decision No. 58102.

During the test year ended December 31, 2006, Thunderbird provided water service to 128 metered customers.

The Company has no advances in aid of construction or contributions in aid of construction.

### **Consumer Services**

A review of the Consumer Services Section database for Thunderbird from January 1, 2004, through September 21, 2007, revealed that in 2007 there were eight complaints (three billings and five quality of service), ten inquires and twenty opinions opposing the rate increase. In 2006, there were four complaints (three quality of service and one construction), three inquiries and no opinions. In 2005, there were two complaints (one disconnect and one repair), no inquiries and no opinions. Finally, in 2004, there were no complaints, inquiries or opinions. All complaints and inquiries have been resolved and closed.

### **Compliance**

Staff's review of Decision No. 58102 and related Staff memorandums revealed several areas of non-compliance with previous Commission Orders. A discussion of each non-compliance issue is presented below:

#### **Sale of Assets and Cancellation of a Portion of the Wilhoit Certificate of Convenience and Necessity ("CC&N") Docket No. W-02056A-03-0490**

On July 16, 2003, in Docket No. W-02056A-03-0490, Wilhoit filed an application for approval of the sale of that portion of its assets used to serve the Glenarm Farms water system to the City of Avondale and to cancel that portion of its CC&N. The assets requested to be transferred were encumbered by Maricopa County tax liens at the time totaling approximately \$215,000.

The application indicated that the sale was being entered into under threat of condemnation. A Staff Report filed October 6, 2003, recommended approval of the sale and that the Commission order Wilhoit to file evidence that the State of Arizona would be paid amounts to satisfy the outstanding personal property tax obligation before the close of escrow.

The City of Avondale argued that the delinquent tax would be extinguished upon the sale to the City of Avondale in its capacity as a subdivision of the state. Staff's closing brief, however, indicated that cities are required to pay delinquent property taxes attached to the property they acquire. At the time of the hearing on the matter, the City of Avondale was on record as already providing service to the customers in the Glenarm Farms area.

Following a hearing, a Proposed Order was issued on January 7, 2004 which recommended approval of the sale and cancellation of a portion of the CC&N subject to several conditions, one of which was the filing of evidence that the outstanding tax liens were satisfied before the close of escrow or 30 days from the Decision, whichever occurred first.

According to the Commission's records, Wilhoit requested that consideration of the Proposed Order be pulled from the Open Meeting agenda and it was. Wilhoit never subsequently requested that it be placed back on the agenda. On June 7, 2004, the Commission's

requesting that the Company have the case placed on an Open Meeting agenda before December 31, 2004. There was no docketed response to the letter.

The sale and deletion docket remains open and Wilhoit is still the company of record for this area on the Commission's maps and records. To facilitate the processing of the case, Staff sent a letter to the parties of record on September 13, 2006, requesting the following information:

1. Has the transaction been consummated? If so, on what date?
2. Please provide a copy of the executed sales agreement.
3. What are the parties intentions regarding the Proposed Order and the Commission's review and vote on this matter?
4. What is the status of the property tax delinquencies of Wilhoit Water Company relative to the area transferred to Avondale?

Staff did not receive any responses from any party and the letter to Wilhoit's attorney was returned as non-deliverable.

On June 21, 2007, in the course of the current rate cases, Staff sent Wilhoit a data request which included the four questions listed above. Wilhoit responded to that data request producing the sales agreement with the City of Avondale dated July 3, 2003. Wilhoit also represented that the sale was consummated on September 10, 2004, and that the attorney for the City of Avondale has been unable to resolve the tax issue.

The transfer case is now over four years old. Wilhoit's wells and pipe in the transfer area have been abandoned and are not included in the current rate requests. The City of Avondale is now directly serving the customers in the transfer area. Staff concludes that it would not be in the public interest to pursue or further process the sale of assets and CC&N cancellation for the Glenarm Farms area and recommends that the Commission administratively close Docket No. W-02056A-03-0490 and remove the appropriate area from Wilhoit's service territory as shown on the Commission's CC&N maps.

***Prior Rate Case Docket No. W-02065A-90-005***

In Decision No. 57237, dated February 14, 1991, the Commission expressed concern over probable cross-subsidization among Wilhoit's water systems. Accordingly, Wilhoit was ordered to maintain separate records of revenues, expenses, and rate bases for each of its systems. In the following rate case (Docket No. W-02065A-92-0120), Wilhoit was in compliance with this recordkeeping provision of the Order. However, the Company is no longer in compliance, and it could not support separate expenses and rate bases for each of its systems in the current rate case. Wilhoit is out of compliance with the National Association of Regulatory Utility Commissioners ("NARUC") Uniform System of Accounts ("USOA").

***Prior Rate Case Docket No. W-02065A-92-0120***

Staff's review of a notice of legal action dated September 14, 1993, as filed by the Legal Division of the Commission revealed that there are several compliance items unresolved that arose from Decision No. 58102 dated December 9, 1992. Wilhoit was required to do the following:

- a. Wilhoit Water Company, Inc. shall file copies with the Director of the Utilities Division of "paid-in-full" tax statements for current property tax payments within 90 days of the tax statement due date (Due 2/1/93).
- b. Wilhoit Water Company, Inc. shall make arrangements with the appropriate taxing authorities to repay all accrued property tax and associated interest and to provide written summary to the Director of Utilities Division of the details of such arrangements/agreements (Due 6/9/93).

Wilhoit is not current on its property and sales tax payments. In addition, Wilhoit has delinquent taxes going back to the early 1990's. Copies of the amounts owed separated by water system from the Yavapai County Assessors' web site (dated October 23, 2007) are as follows:

<u>Parcel No.</u>	<u>Company/Water System</u>	<u>Back Taxes Owed</u>
907-60-190	The Dells Water Company	\$6,316.40
929-92-340	Wilhoit Water Company Thunderbird Meadows	\$39,661.22
929-92-290	Wilhoit Water Company Blue Hills	\$6,746.51
929-95-120	Wilhoit Water Company Yavapai Mobile Home Estates	\$26,735.81
929-95-131	Wilhoit Water Company Yavapai Mobile Home Estates	<u>\$154.13</u>
Total back taxes owed, as of October 23, 2007		<u>\$79,614.07</u>

According to a response to a Staff data request, Wilhoit through its Attorney's Martin & Bell, L.L.C., contacted the Yavapai County Treasurer's Office. Martin & Bell submitted a memo to Staff stating that Ross Jacobs, the County Treasurer "indicated a desire to work with the water companies to pay the back taxes in a timely fashion and indicated that he would be

open to abating, an as yet undefined portion of the penalties and interest, if a reasonable repayment plan could be fashioned.”

Wilhoit’s attorneys indicated to Mr. Jacobs “that the Company did not currently have the financial wherewithal to commit to a repayment schedule, but that if the current rate requests pending before the ACC were successful, Wilhoit and Dells would be prepared to enter into a repayment agreement.”

As Wilhoit has not made good on past compliance requirements from the previous cases, and there is a pattern of the Company not paying taxes, Staff concludes that it is appropriate to defer the effective date for any new rates approved regarding any of the Wilhoit systems or Dells until the month subsequent to the date a copy of a final agreement between Wilhoit and the Yavapai County Treasurer’s office regarding payment of delinquent taxes is filed in this docket.

### **Other Compliance Items**

The Company is in good standing with the Corporations Division of the Commission.

### **Engineering Analysis**

The plant facilities were visited on October 12, 2006, by Del Smith, Staff Utilities Engineer, in the accompaniment of Mr. Jim West of West & Company, LLC, authorized representative of the Company. A complete discussion of Staff’s technical findings and recommendations and a complete description of Thunderbird is provided in the attached Engineering Report.

The Arizona Department of Environmental Quality (“ADEQ”) issued a notice of violation (“NOV”) on February 27, 2007. The NOV is an informal compliance assurance tool used by ADEQ to put the responsible party, in this case Thunderbird, on notice that ADEQ believes a violation of an environmental requirement has occurred.

### **Rate Base**

Staff decreased rate base by \$17,239. The change was the result of adjustments made to reflect the disallowance of plant in the amount of \$30,072, reduction of accumulated depreciation by \$9,344 and the inclusion of the formula-method for cash working capital allowance in the amount of \$3,489. See Schedule JMM-2 page 1.

### ***Plant-in-Service***

Staff disallowed plant in service in the amount of \$30,072. Of this amount \$15,072 is related to a Well that was constructed in 2006, but is still not used and useful, and the remaining \$30,000 related to plant additions in 1997 that Thunderbird was unable to substantiate. As a

result, there were no new additions added to plant in service since the 1992 rate case (Decision No. 58102).

### ***Accumulated Depreciation***

Staff decreased Thunderbird's proposed accumulated depreciation amount by \$9,344, which is related to Staff's removal of the above mentioned \$30,072 in plant in service.

### ***Working Capital***

Thunderbird neglected to claim any cash working capital allowance. Staff included a cash working capital allowance of \$3,489, calculated using the formula-method.

### **Operating Income**

#### ***Operating Revenue***

Staff made no adjustments to Thunderbird's test year operating revenues of \$48,161.

#### ***Operating Expenses***

As previously mentioned in the Compliance section of this report, Wilhoit did not maintain records to separately identify expenses for its individual water systems. As a result identifying the expenses directly attributable to the individual Wilhoit systems or Dells could not be achieved. In an attempt to overcome this recordkeeping deficiency, Glenarm allocated certain expenses among its systems using the following percentages: Thunderbird, 45 percent; Yavapai, 35 percent; Blue Hills, 20 percent; and Dells, 0 percent. According to Glenarm, these allocation factors represent relative customer counts for the systems at an unspecified historical date.

Staff developed an alternate allocation factor for allocating expenses that could not be directly attributed to one of the Wilhoit systems or Dells since the customer counts used by Wilhoit are stale and because in some instances customer count is not the preferred allocation basis. Staff's customer based allocation factors by water system are as follows: Thunderbird, 34.69 percent; Yavapai, 29.81 percent; Blue Hills, 17.34 percent; and Dells 18.16 percent.

Staff's adjustments to operating expenses resulted in a decrease \$14,136 from \$57,396 to \$43,260 as shown on Schedule JMM-3 page 1. The adjustments are explained below.

Salaries and Wages – Adjustment A decreased salaries and wages by \$4,208 from \$19,551 to \$15,343, to reflect a pro rata share (34.69 percent) of the \$44,231 salary pool based on the number of customers.

Repairs and Maintenance – Adjustment B decreased repairs and maintenance expenses by \$6,030 from \$7,439 to \$1,409. This adjustment reflects a pro rata share (\$620 or 34.69

percent) of the \$1,788 repair and maintenance expense pool based on the number of customers and \$788 of direct costs. Staff's \$1,788 expense pool reflects a \$6,444 decrease from the Company's \$8,232 expense pool, to remove non-test year and unsupported amounts.

Office Supplies and Expense – Adjustment C decreased office supplies expense by \$557 from \$1,460 to \$903, to reflect Staff's estimation of a reasonable office supply amount. The Company provided Staff with no supporting documentation (i.e. invoices) to support its claimed costs. Staff estimated office supplies expense at \$0.5876 per customer per month based on supply items such as postage, envelopes, printer cartridges, etc. (128 customers x 12 months x 0.5876 = \$903).

Water Testing Expense – Adjustment D decreased water testing expense by \$175 from \$1,724 to \$1,549 (See Engineering Report).

Rents – Adjustment E decreased rent expense by \$1,320 from \$2,970 to \$1,650, to reflect an equal allocation of the \$6,600 pooled rent expense among the three Wilhoit systems and Dells.

General Liability Insurance – Adjustment F decreased Insurance – General Liability by \$341 from \$1,488 to \$1,147. This adjustment reflects a pro rata share (\$1,147 or 34.69 percent) of the \$3,307 general liability insurance expense pool based on the number of customers.

Miscellaneous Expense – Adjustment G decreased miscellaneous expense by \$1,180 from \$1,580 to \$400. \$300 of which was reclassified from water testing expense, and the remaining balance of \$100 was based on the allocation methodology that Staff developed, utilizing an equal allocation to each of the three Wilhoit systems and Dells.

Depreciation Expense – Adjustment H decreased depreciation by \$1,418 from \$1,504 to \$86, as a result of decreasing plant in service.

Taxes other than Income – Adjustment I decreased taxes other than income by \$3,152 from \$3,152 to \$0, as these were sales taxes paid to the Arizona Department of Revenue and should be removed from expenses, since the corresponding collected taxes were removed from revenue.

Property Taxes – Adjustment J increased property taxes by \$2,948 from \$0 to \$2,948, to reflect the actual 2006 property tax assessment by the County.

Income Taxes – Adjustment K increased income taxes by \$1,297 from \$0 to \$1,297, to reflect Staff's recommendation based on taxable income and application of statutory federal and state tax rates.

### ***Revenue Requirement***

Staff utilized an operating margin instead of a rate of return on rate base to determine the revenue requirement. The Company's very small rate base does not produce sufficient revenue from a rate of return to support the Company's needs. Therefore, Staff utilized operating margin to determine revenue requirement.

### ***Operating Margin***

Thunderbird's proposed rates and charges would provide an operating income of \$34,457 for an operating margin of 37.51 percent.

Staff's recommended rates and charges would provide an operating income of \$7,779 for an operating margin of 15.02 percent.

### ***Rate Design***

Thunderbird's proposed rates would increase the typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$52.40 for an increase of \$26.24 or 100.31 percent.

Staff's recommended rates would increase the typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$27.44 for an increase of \$1.28 or 4.89 percent.

Staff concurs with Thunderbird's increase in service line and meter installation charges. For service charges, and monthly service charge for fire sprinklers, Staff recommends charges that are consistent with other water companies' tariffs.

### ***Summary of Financings***

#### ***Introduction***

On May 21, 2007, Thunderbird filed two financing applications along with its rate application with the Commission. The first application requested retroactive debt authorization to borrow \$15,000, at a 10 percent annual interest rate from its parent company, Glenarm to be repaid over a period of 10 years. The second application requested debt authorization to borrow \$131,058.62, at a 10 percent annual interest rate from Glenarm to be repaid over a period of 10 years. However, it was later decided by the Company that they would apply for a Water Infrastructure Finance Authority ("WIFA") loan.

#### ***Public Notice***

The Company included an affidavit of Publication on October 29, 2007 in the Courier, a daily newspaper published by the City of Prescott.

### ***Purpose and Terms of the Proposed Financing***

The purpose of the first long-term debt financing is to reimburse the Company for a loan that it received from its parent company to drill a well. The Company claims this was a necessary expense in order to provide water to its customers, and in turn rely less on water that it purchases from Walden Meadows Community Co-Op ("Walden Meadows").

The purpose of the second long-term debt financing is to install two 25,000 gallon steel storage tanks, a 14,000 gallon galvanized storage tank with ring, and cover the miscellaneous plumbing and electrical for both, in order to remedy the current maintenance issues.

### ***Engineering Analysis of the Proposed Financings***

Staff examined the well, construction plans and estimated costs and found them to be reasonable and appropriate. However, the well is still not used and useful, as it is not interconnected with the rest of the system.

Staff also found the additional storage tanks and the associated costs to be reasonable and appropriate. In addition, during the course of Staff's inspection, it was determined that Thunderbird would need a new water source, and should drill a new well. A complete discussion of the construction projects and costs are discussed in the attached Engineering Report.

### ***Financial Analysis***

Staff determined that the first financing, which was not authorized by the Commission, in the amount of \$15,000, should be treated as additional-paid-in-capital by the owners of Thunderbird. Additionally, the owners did not consult with Staff, ADEQ or a hydrologist, and as a result the well was drilled in a poor water producing area. Staff therefore, will classify the \$15,000 as additional-paid-in-capital, and since the well is not used and useful, Staff excluded it from plant and rate base considerations.

Staff determined the additional storage tanks (i.e. the 14,000 gallon and 25,000 gallon tanks) to be reasonable and appropriate and has completed a financial analysis to ensure that the Company will have the wherewithal to finance the new storage tanks.

Staff recommends an infrastructure surcharge to pay for the two additional storage tanks, which will be referred to as Infrastructure Surcharge No. 1. Infrastructure Surcharge No. 1 will be conditioned on the following two requirements:

1. Thunderbird provide a copy of an executed loan with WIFA.
2. Thunderbird provide a copy of an Approval of Construction for the tanks from ADEQ.

As mentioned earlier Staff has determined that Thunderbird will need another source or of water to meet the peak needs of its current customers. Staff believes a reasonable estimate to drill such a well is \$100,000. The specific location of any new well and many other factors which are unknown at this time could have a significant impact on the actual cost.

Staff recommends that a second Infrastructure Surcharge to pay for the drilling of a new well, which will be referred to as Infrastructure Surcharge No. 2. Infrastructure Surcharge No. 2. will be conditioned on the following three requirements:

1. Thunderbird provide a copy of an executed loan with WIFA.
2. Thunderbird provide a copy of an Approval of Construction for the well from ADEQ.
3. Thunderbird provide a copy of an executed agreement with Walden Meadows that gives Thunderbird the right to use Walden Meadows' water lines to "wheel" the water to Thunderbird.

These two infrastructure surcharges will be similar in nature to arsenic cost recovery surcharges already approved by the Commission in other cases. In addition, Staff recommends that the collection of the surcharges remain in effect until further order of the Commission, and that all of the Wilhoit systems and Dells be ordered to file rate cases within five years of the effective date of this Decision.

Staff recommends that the additional storage tanks related to Surcharge No. 1, be placed in service within 1 year of the effective date of this Decision, and that the new well related to Surcharge No. 2 be placed in service within 2 years of the effective date of this Decision. If these deadlines are not met, the associated financing authorization, and surcharge are void.

Staff further recommends that the Company track all surcharge revenues collected from customers separately in an interest bearing bank account, and that the amounts collected be expended only for debt service for system improvements.

Staff recommends that the Company, as a compliance item in this Docket, file annual reports with the Commission reflecting the surcharge amounts collected and expended by the Company and any remaining balance.

Since Staff cannot predict which surcharge will come first, Staff has presented the effects of Infrastructure Surcharge No. 1 and Infrastructure Surcharge No. 2 separately, and also the combined effect of both, throughout the financing analysis.

Staff's analysis is based on the Company's financial statements dated December 31, 2006. The financial analysis shown on Schedule JMM-6 presents selected financial information from the financial statements, the pro forma effect of the proposed \$131,059 loan amount, and the pro forma effect of the proposed \$100,000 loan amount, and the pro forma effect of the

combined debt of \$231,059 (i.e., \$131,059 + \$100,000). Schedule JMM-6 also shows the debt service coverage ("DSC") and times interest earned ratio ("TIER").

Staff utilized a traditional 20-year loan and an interest rate of 8.00 percent, for the analysis of the effects of the infrastructure surcharges.

Schedule JMM-6, Column A presents Staff's recommended amounts based on the rate case analysis only, without any of the loans. Column B presents the adjustments that must be made to create pro forma results of the first financing surcharge in the amount of \$131,059. Column C represents the sum of Column A and the adjustments in Column B. Column D presents the adjustments that must be made to create pro forma results of the second financing surcharge in the amount of \$100,000. Column E represents the sum of Column A and the adjustments in Column D. Column F presents the adjustments that must be made create pro forma results of combining Surcharge No. 1 and 2 in the amount of \$231,059. Finally, Column G represents the sum of Column A and Column F.

Schedule JMM-7 presents Staff's calculation of the additional infrastructure surcharges that Thunderbird should be allowed to charge and collect from their customers once all of Staff's conditions mentioned previously, have been met.

Staff divided the total increase in revenue by the equivalent number of annual bills (1,536) to derive the Surcharge amount (see lines 8, 24, and 39 of Schedule JMM-7).

Staff then utilized the NARUC multiplier which is based on flow size to determine the surcharge amounts for all meter sizes. For example, line 12 shows how the infrastructure surcharge was determined for a 3/4" meter customer by taking the NARUC multiplier of 1.5 times the infrastructure surcharge amount in line 8 (\$8.56) which equals \$12.85.

Finally Schedules JMM-8, JMM-9, and JMM-10, which are similar to Schedule JMM-5 show the effects of the surcharges on the current typical 5/8 inch residential customer's bill. Bear in mind that the infrastructure surcharge amount(s) is added to Staff's already recommended monthly minimum increase for 5/8 inch residential customers of \$16.50 as shown in Schedule JMM-5.

Staff's recommended Infrastructure Surcharge No. 1 would increase the current typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$36.00 for a combined increase of \$9.84 or 37.61 percent.

Staff's recommended Infrastructure Surcharge No. 2 would increase the current typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$33.97 for a combined increase of \$7.81 or 29.85 percent.

The sum of Staff's recommended Infrastructure Surcharges No. 1 and No. 2 would increase the current typical residential bill with a median usage of 3,114 gallons from \$26.16 to \$42.53 for a combined increase of \$16.37 or 62.58 percent.

### ***Interest and Debt Service Coverage***

Staff also examined the effects of the proposed financing on the Company's DSC and TIER.

DSC represents the number of times internally generated cash (i.e. earnings before interest, income tax, depreciation and amortization expenses) cover required principle and interest payments on debt. A DSC greater than 1.0 means operating cash flow is sufficient to cover debt obligations.

TIER represents the number of times earnings before income tax expense covers interest expense on debt. A TIER greater than 1.0 means that operating income is greater than interest expense. A TIER less than 1.0 is not sustainable in the long term but does not necessarily mean that debt obligations cannot be met in the short term.

The Company's DSC and TIER resulting from its 2006 adjusted financial statements are not meaningful as the Company had unauthorized debt. Including Staff's recommended revenue requirement and fully drawing both loans in the amount of \$231,059 results in a pro forma DSC and TIER of 1.43 and 1.80, respectively. The pro forma DSC and TIER show that Thunderbird would have adequate cash flow to meet all obligations including the proposed debt.

### **Staff Recommendations**

Staff recommends the following:

Approval of its rates and charges as shown in Schedule JMM-4. In addition to collection of its regular rates and charges, the Company may collect from its customers a proportionate share of any privilege, sales, or use tax as provided for in A.A.C. R14-2-409.D.

The Company file with Docket Control, as a compliance item in this Docket, a schedule of its approved rates and charges within 30 days after the Decision in this matter is issued.

That the Commission administratively close Docket No. W-02056A-03-0490 and remove the appropriate area from Wilhoit's service territory as shown on the Commission's CC&N maps.

That the Company, be ordered to maintain separate revenues, expenses, and rate bases for each of the Wilhoit water systems and Dells, and additionally provide separate balance sheets for each water system, and as a compliance item in this Docket, file separate annual reports with the Commission.

That any new rates approved in this Docket not go into effect until after an agreement between the Company and the Yavapai County Treasurer's office to settle all back property taxes is executed, and filed in Docket Control.

That by December 31, 2008, Wilhoit file, as a compliance item with the Commission's Docket Control, the ADEQ Approval of Construction for the plant related to the Company's development of a new water source. In addition, Staff believes that Thunderbird should be evaluated from a global perspective to determine system adequacy and efficiency. Staff further recommends that the Company take immediate action to seek assistance from ADEQ through its system evaluation program. Upon completion of the ADEQ system evaluation, Staff further recommends that Thunderbird immediately apply for a Technical Assistance Grant from the Water Infrastructure and Finance Authority ("WIFA") to fund projects that will improve system performance.

That within 60 days of the effective date of the order in this matter, Thunderbird address ADEQ NOV deficiencies number 1 and number 2 and file, as a compliance item in this Docket, documentation demonstrating that the improvements have been completed.

That within 60 days of the effective date of the order in this matter, Thunderbird make all necessary corrections to ADWR registration records to reflect ownership of all wells by Thunderbird and file, as a compliance item in this Docket, documentation demonstrating that such corrections have been made.

That the Company monitor Thunderbird and submit the gallons pumped and sold to determine the non-account water for one full year. The results of this monitoring and reporting shall be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss is greater than 10 percent Thunderbird shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If Thunderbird believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall Thunderbird allow water loss to be greater than 15 percent. The water loss reduction report or the detailed analysis, whichever is submitted, shall be filed, as a compliance item in this Docket, within 13 months of the effective date of the order issued in this proceeding.

That Thunderbird be required to report its customer count by system in future Annual Reports.

That Thunderbird utilize the depreciation rates delineated in the Engineering Report on a going-forward basis.

That by December 31, 2008, Thunderbird complete the needed improvements identified during Staff's site inspection and file, as a compliance item in this Docket, documentation demonstrating that the improvements have been completed.

That Thunderbird reclassify the loan amount of \$15,000 as paid-in-capital in the equity section of its balance sheet.

That Infrastructure Surcharge No. 1 to fund the two additional storage tanks, as outlined in Schedule JMM-9 be conditioned on the following two requirements:

1. Thunderbird provide a copy of an executed loan with WIFA.
2. Thunderbird provide a copy of an approval of construction from ADEQ.

That Infrastructure Surcharge No. 2 to fund the new well, as outlined in Schedule JMM-9 be conditioned on the following three requirements:

1. Thunderbird provide a copy of an executed loan with WIFA.
2. Thunderbird provide a copy of an approval of construction from ADEQ.
3. Thunderbird provide a copy of an executed agreement with Walden Meadows that gives Thunderbird the right to use Walden Meadows' water lines to wheel the water to the Thunderbird system.

That the additional storage tanks related to Surcharge No. 1, be placed in service within 1 year of the effective date of this Decision, and that the new well related to Surcharge No. 2 be placed in service within 2 years of the effective date of this Decision. If these deadlines are not met, the associated financing authorization and surcharge are void.

That the Company track all surcharge revenues collected from customers separately in an interest bearing bank account, and that the amounts collected be expended only for debt service on system improvements.

That the Company, as a compliance item in this Docket, file annual reports with the Commission reflecting the surcharge amounts collected and expended by the Company and include any remaining balance.

That the collection of the surcharges remain in effect until further order of the Commission, and that all of the Wilhoit water systems and Dells be ordered to file rate cases within five years of the effective date of this Decision.

**WHILHOIT WATER COMPANY, INC. - THUNDERBIRD MEADOWS**Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307  
Test Year Ended December 31, 2006

Schedule JMM-1

**SUMMARY OF FILING**

	-- Present Rates --		-- Proposed Rates --	
	Company as Filed	Staff as Adjusted	Company as Filed	Staff as Adjusted
Revenues:				
Metered Water Revenue	\$48,161	\$48,161	\$91,853	\$51,800
Unmetered Water Revenue	0	0	0	0
Other Water Revenues	0	0	0	0
<b>Total Operating Revenue</b>	<b>\$48,161</b>	<b>\$48,161</b>	<b>\$91,853</b>	<b>\$51,800</b>
Operating Expenses:				
Operation and Maintenance	\$52,740	\$38,929	\$52,740	\$38,929
Depreciation	1,504	86	1,504	86
Property & Other Taxes	3,152	2,948	3,152	2,948
Income Tax	0	1,297	0	2,058
<b>Total Operating Expense</b>	<b>\$57,396</b>	<b>\$43,260</b>	<b>\$57,396</b>	<b>\$44,021</b>
<b>Operating Income/(Loss)</b>	<b>(\$9,235)</b>	<b>\$4,901</b>	<b>\$34,457</b>	<b>\$7,779</b>
Rate Base O.C.L.D.	\$24,572	\$7,333	\$24,572	\$7,333
Rate of Return - O.C.L.D.	N/M	N/M	N/M	N/M
Operating Margin	-19.18%	10.18%	37.51%	15.02%

NOTES: 1. Operating Margin represents the proportion of funds available to pay interest and other below the line or non-ratemaking expenses.

N/M: Not Meaningful

**WHILHOIT WATER COMPANY, INC. - THUNDERBIRD MEADOWS**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307

Test Year Ended December 31, 2006

Schedule JMM-2

Page 1 of 3

**RATE BASE**

	----- Original Cost -----			Staff
	Company	Adjustment		
Plant in Service	\$167,817	(\$30,072)	A	\$137,745
Less:				
Accum. Depreciation	143,245	(9,344)	B	133,901
<b>Net Plant</b>	<b>\$24,572</b>	<b>(\$20,728)</b>		<b>\$3,844</b>
Less:				
Plant Advances	\$0	\$0		\$0
Customer Deposits	0	0		0
<b>Total Advances</b>	<b>\$0</b>	<b>\$0</b>		<b>\$0</b>
Contributions Gross	\$0	\$0		\$0
Less:				
Amortization of CIAC	0	0		0
<b>Net CIAC</b>	<b>\$0</b>	<b>\$0</b>		<b>\$0</b>
<b>Total Deductions</b>	<b>\$0</b>	<b>\$0</b>		<b>\$0</b>
Plus:				
1/24 Purchased Water and Power	\$0	\$689	C	\$689
1/8 Operation & Maint.	0	2,800	C	2,800
Inventory	0	0		0
Prepayments	0	0		0
<b>Total Additions</b>	<b>\$0</b>	<b>\$3,489</b>		<b>\$3,489</b>
<b>Rate Base</b>	<b>\$24,572</b>	<b>(\$17,239)</b>		<b>\$7,333</b>

A See Schedule JMM-2, page 2.

B See Schedule JMM-2, page 3.

C Staff's inclusion of formula-method working capital based on recommended operating expenses.

**WHILHOIT WATER COMPANY, INC. - THUNDERBIRD MEADOWS**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307  
 Test Year Ended December 31, 2006

Schedule JMM-2  
 Page 2 of 3

**PLANT ADJUSTMENT**

	Company Exhibit	Adjustment	Staff Adjusted
301 Organization	\$0	0	\$0
302 Franchises	0	0	0
303 Land & Land Rights	1,250	0	1,250
304 Structures & Improvements	626	0	626
307 Wells & Springs	33,548	(25,072) A	8,476
311 Pumping Equipment	26,583	(5,000) A	21,583
320 Water Treatment Equipment	0	0	0
330 Distribution Reservoirs & Star	10,084	0	10,084
331 Transmission & Distribution M	81,670	0	81,670
333 Services	7,744	0	7,744
334 Meters & Meter Installations	6,148	0	6,148
335 Hydrants	0	0	0
336 Backflow Prevention Devices	0	0	0
339 Other Plant and Misc. Equiprr	0	0	0
340 Office Furniture & Equipment	164	0	164
341 Transportation Equipment	0	0	0
343 Tools Shop & Garage Equiprr	0	0	0
344 Laboratory Equipment	0	0	0
345 Power Operated Equipment	0	0	0
346 Communication Equipment	0	0	0
347 Miscellaneous Equipment	0	0	0
348 Other Tangible Plant	0	0	0
105 C.W.I.P.	0	0	0
<b>TOTALS</b>	<b>\$167,817</b>	<b>(\$30,072)</b>	<b>\$137,745</b>

*Explanation of Adjustment:*

- A The adjustments can be attributed to the Company's inability to substantiate plant values in 1997, and a well that was constructed in 2006, but is still not used and useful.

**ACCUMULATED DEPRECIATION ADJUSTMENT**

	<u>Amount</u>
Accumulated Depreciation - Per Company	\$143,245
Accumulated Depreciation - Per Staff	<u>133,901</u>
<b>Total Adjustment</b>	<b><u><u>(\$9,344)</u></u> B</b>

*Explanation of Adjustment:*

A -	Accumulated depreciation per Decision No. 58102	\$54,190
	Plus: Staff's recalculation of depreciation expense from years 1993 through year 2006.	<u>79,711</u>
		<u>\$133,901</u>

**STATEMENT OF OPERATING INCOME**

	Company Exhibit	Staff Adjustments	Staff Adjusted
<b>Revenues:</b>			
461 Metered Water Revenue	\$48,161	\$0	\$48,161
460 Unmetered Water Revenue	0	0	0
474 Other Water Revenues	0	0	0
<b>Total Operating Revenue</b>	<b>\$48,161</b>	<b>\$0</b>	<b>\$48,161</b>
<b>Operating Expenses:</b>			
601 Salaries and Wages	\$19,551	(\$4,208) A	\$15,343
610 Purchased Water	10,429	0	10,429
615 Purchased Power	6,099	0	6,099
618 Chemicals	0	0	0
620 Repairs and Maintenance	7,439	(6,030) B	1,409
621 Office Supplies & Expense	1,460	(557) C	903
630 Outside Services	0	0	0
635 Water Testing	1,724	(175) D	1,549
641 Rents	2,970	(1,320) E	1,650
650 Transportation Expenses	0	0	0
657 Insurance - General Liability	1,488	(341) F	1,147
659 Insurance - Health and Life	0	0	0
666 Regulatory Commission Expense	0	0	0
675 Miscellaneous Expense	1,580	(1,180) G	400
403 Depreciation Expense	1,504	(1,418) H	86
408 Taxes Other Than Income	3,152	(3,152) I	0
408.11 Property Taxes	0	2,948 J	2,948
409 Income Tax	0	1,297 K	1,297
<b>Total Operating Expenses</b>	<b>\$57,396</b>	<b>(\$14,136)</b>	<b>\$43,260</b>

<b>OPERATING INCOME/(LOSS)</b>	<b>(\$9,235)</b>	<b>\$14,136</b>	<b>\$4,901</b>
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<b>Other Income/(Expense):</b>			
419 Interest and Dividend Income	\$0	\$0	\$0
421 Non-Utility Income	0	0	0
427 Interest Expense	0	0	0
4XX Reserve/Replacement Fund Deposit	0	0	0
426 Miscellaneous Non-Utility Expense	0	0	0
<b>Total Other Income/(Expense)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>NET INCOME/(LOSS)</b>	<b>(\$9,235)</b>	<b>\$14,136</b>	<b>\$4,901</b>
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**STAFF ADJUSTMENTS**

A -	SALARIES AND WAGES - Per Company	\$19,551	
	Per Staff	15,343	( <u>\$4,208</u> )
	To adjust salary based on Staff's new allocation methodology.		
B -	REPAIRS AND MAINTENANCE - Per Company	\$7,439	
	Per Staff	1,409	( <u>\$6,030</u> )
	Disallowance of invoices not in the test year or unsubstantiated, and reallocation of repairs and maintenance expense based on Staff's allocation methodology.		
C -	OFFICE SUPPLIES & EXPENSE - Per Company	\$1,460	
	Per Staff	903	( <u>\$557</u> )
	To adjust expense to what Staff determined to be a reasonable amount.		
D -	WATER TESTING - Per Company	\$1,724	
	Per Staff	1,549	( <u>\$175</u> )
	To increase water testing costs to reflect Staff's recommended level.		
E -	RENTS - Per Company	\$2,970	
	Per Staff	1,650	( <u>\$1,320</u> )
	To adjust rent expense based on Staff's allocation methodology.		
F -	INSURANCE - GENERAL LIABILITY - Per Company	\$1,488	
	Per Staff	1,147	( <u>\$341</u> )
	To adjust insurance expense based on Staff's allocation methodology.		
G -	MISCELLANEOUS EXPENSE - Per Company	\$1,580	
	Per Staff	1,605	( <u>\$25</u> )
	Disallowance of invoices not in the test year and reallocation of miscellaneous expenses based on Staff's new allocation methodology. Plus the reclassification of \$300 from water testing expense.		

**STAFF ADJUSTMENTS (Cont.)**

H -	DEPRECIATION - Per Company	\$1,504	
	Per Staff	86	<u>(\$1,418)</u>

*Explanation of Adjustment:*

**Pro Forma Annual Depreciation Expense:**

Plant in Service	\$137,745
Less: Non Depreciable Plant	1,250
Fully Depreciated Plant	<u>133,901</u>
Depreciable Plant	\$2,594
Times: Staff Proposed Depreciation Rate Going Forward	<u>3.33%</u>
Credit to Accumulated Depreciation	\$86
Less: Amort. of CIAC* @ 0.00%	<u>0</u>
<b>Pro Forma Annual Depreciation Expense</b>	<b><u>\$86</u></b>

I -	TAXES OTHER THAN INCOME - Per Company	\$3,152	
	Per Staff	0	<u>(\$3,152)</u>

To remove sales tax expense.

J -	PROPERTY TAXES - Per Company	\$0	
	Per Staff	2,948	<u>\$2,948</u>

To record the full 2006 property tax assessment of \$2,948.

K -	INCOME TAX - Per Comapnay	\$0	
	Per Staff	1,297	<u>\$1,297</u>

Increased Income Tax by \$496 to reflect calculation of income tax expense based on Staff's adjusted test year taxable income.

**RATE DESIGN**

Monthly Usage Charge	Present	-Proposed Rates-	
	Rates	Company	Staff
<u>5/8" x 3/4" Meter</u>	\$12.46	\$25.00	\$16.50
3/4" Meter	21.00	-	24.75
1" Meter	35.00	-	41.25
1½" Meter	70.00	-	82.50
2" Meter	112.00	-	132.00
3" Meter	210.00	-	264.00
4" Meter	350.00	-	412.50
5" Meter	500.00	-	619.00
6" Meter	700.00	-	825.00
Gallons Included in Minimum	0.00	0.00	0.00
Commodity Chage per 1,000 gallons			
<u>All Meter Sizes</u>			
0 - 6,000 gallons	\$4.40	\$8.80	N/A
Over 6,000 gallons	5.50	11.84	N/A
<u>5/8" x 3/4" and 3/4" Meter (Residential)</u>			
1 - 3,000 gallons	N/A	N/A	\$3.45
3,001 to 10,000 gallons	N/A	N/A	5.18
Over 10,000 gallons	N/A	N/A	6.20
<u>5/8" x 3/4" and 3/4" Meter (Commercial)</u>			
1 - 10,000 gallons	N/A	N/A	5.18
Over 10,000 gallons	N/A	N/A	6.20
<u>1" Meter (Commercial)</u>			
1 - 25,000 gallons	N/A	N/A	5.18
Over 25,000 gallons	N/A	N/A	6.20
<u>1 1/2" Meter (Commercial)</u>			
1 - 63,000 gallons	N/A	N/A	5.18
Over 63,000 gallons	N/A	N/A	6.20
<u>2" Meter (Commercial)</u>			
1 - 109,000 gallons	N/A	N/A	5.18
Over 109,000 gallons	N/A	N/A	6.20
<u>3" Meter (Commercial)</u>			
1 - 237,000 gallons	N/A	N/A	5.18
Over 237,000 gallons	N/A	N/A	6.20
<u>4" Meter (Commercial)</u>			
1 - 381,000 gallons	N/A	N/A	5.18
Over 381,000 gallons	N/A	N/A	6.20
<u>5" Meter (Commercial)</u>			
1 - 581,000 gallons	N/A	N/A	5.18
Over 581,000 gallons	N/A	N/A	6.20

**RATE DESIGN - (Cont.)**

6" Meter (Commercial)

1 - 780,000 gallons	N/A	N/A	\$5.18
Over 780,000 gallons	N/A	N/A	6.20

Service Line and Meter Installation Charges

5/8" x 3/4" Meter	\$278.00	\$520.00	\$520.00
3/4" Meter	309.00	600.00	600.00
1" Meter	360.00	690.00	690.00
1½" Meter	552.00	935.00	935.00
2" Meter	779.00	1,595.00	1,595.00
3" Meter	1,010.00	2,275.00	2,275.00
4" Meter	1,703.00	3,520.00	3,520.00
5" Meter	2,638.00	0.00	4,800.00
6" Meter	3,769.00	6,275.00	6,275.00

Service Charges

Establishment	\$30.00	\$100.00	\$30.00
Reconnection (Delinquent)	30.00	100.00	30.00
Meter Test (If Correct)	35.00	150.00	35.00
Deposit	*	*	*
Deposit Interest	*	*	*
Re-Establishment (Within 12 Months)	**	**	**
NSF Check	\$15.00	\$35.00	\$30.00
Deferred Payment (per annum)	6.00%	6.00%	6.00%
Meter Re-Read (If Correct)	15.00	35.00	15.00
Late fee	0.00	10.00	***

Monthly Service Charge for Fire Sprinkler

4" or Smaller	\$5.00	\$0.00	****
6"	7.00	-	****
8"	7.00	-	****
10"	7.00	-	****
Larger than 10"	7.00	-	****

- \* Per Commission Rules (R14-2-403.B)
- \*\* Months off system times the minimum (R14-2-403.D)
- \*\*\* 1.5% of unpaid monthly balance.
- \*\*\*\* 1.00% of Monthly Minimum for a Comparable Sized Meter Connection, but no less than \$5.00 per month. The Service Charge for Fire Sprinklers is only applicable for service lines separate and distinct from the primary water service line.

**Wilhoit Water Company, Inc. - Thunderbird Meadows**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-0307  
 Test Year Ended December 31, 2006

Schedule JMM-5

**TYPICAL BILL ANALYSIS**  
 General Service 5/8 X 3/4 - Inch Meter

Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%

<u>Staff Recommend</u>					
Average Usage	4,033	\$30.21	\$32.20	\$1.99	6.59%
Median Usage	3,114	\$26.16	\$27.44	\$1.28	4.89%

Present & Proposed Rates (Without Taxes)  
 General Service 5/8 X 3/4 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$16.50	32.42%
1,000	16.86	33.80	100.47%	19.95	18.33%
2,000	21.26	42.60	100.38%	23.40	10.07%
3,000	25.66	51.40	100.31%	26.85	4.64%
4,000	30.06	60.20	100.27%	32.03	6.55%
5,000	34.46	69.00	100.23%	37.21	7.98%
6,000	38.86	77.80	100.21%	42.39	9.08%
7,000	44.36	89.64	102.07%	47.57	7.24%
8,000	49.86	101.48	103.53%	52.75	5.80%
9,000	55.36	113.32	104.70%	57.93	4.64%
10,000	60.86	125.16	105.65%	63.11	3.70%
15,000	88.36	184.36	108.65%	94.11	6.51%
20,000	115.86	243.56	110.22%	125.11	7.98%
25,000	143.36	302.76	111.19%	156.11	8.89%
50,000	280.86	598.76	113.19%	311.11	10.77%
75,000	418.36	894.76	113.87%	466.11	11.41%
100,000	555.86	1,190.76	114.22%	621.11	11.74%
125,000	693.36	1,486.76	114.43%	776.11	11.93%
150,000	830.86	1,782.76	114.57%	931.11	12.07%
175,000	968.36	2,078.76	114.67%	1,086.11	12.16%
200,000	1,105.86	2,374.76	114.74%	1,241.11	12.23%

**FINANCIAL ANALYSIS**

Selected Financial Data

Infrastructure Surcharge No. 1, Infrastructure Surcharge No. 2, and Infrastructure Surcharge No. 1 & No. 2

Line No.	(A) Staff Recommended Permanent Rates Without Loan	(B) Infrastructure Surcharge No.1 \$131,059 Loan at 8.00 Percent Interest Adjustments	(C) Staff Recommended Rates with Surcharge 1, Loan Prin & Interest, and Income taxes	(D) Infrastructure Surcharge No. 2 \$100,000 Loan at 8.00 Percent Interest Adjustments	(E) Staff Recommended Rates with Surcharge 2, Loan Prin & Interest, and Income taxes	(F) Infrastructure Surcharge Nos. 1 & 2 \$231,059 Loan at 8.00 Percent Interest Adjustments	(G) Staff Recommended Rates with Surcharges No. 1 and 2, Loan Prin & Interest, and Income taxes
1	<b>INCOME STATEMENT</b>						
	<b>Operating Revenue</b>						
2	\$ 51,800	\$ -	\$ 51,800	\$ -	\$ -	\$ -	\$ 51,800
3	-	13,155	13,155	-	-	13,155	13,155
4	-	-	-	10,037	-	10,037	10,037
5	-	-	-	-	-	-	-
6	\$ 51,800	\$ 13,155	\$ 64,955	\$ 10,037	\$ 61,837	\$ 23,192	\$ 74,992
	<b>Operating Expenses</b>						
7	\$ 15,343	\$ -	\$ 15,343	\$ -	\$ -	\$ -	\$ 15,343
8	10,429	-	10,429	-	-	-	10,429
9	6,099	-	6,099	-	-	-	6,099
10	1,409	-	1,409	-	-	-	1,409
11	903	-	903	-	-	-	903
12	1,549	-	1,549	-	-	-	1,549
13	1,650	-	1,650	-	-	-	1,650
14	1,147	-	1,147	-	-	-	1,147
15	400	-	400	-	-	-	400
16	86	-	86	-	-	-	86
17	2,948	-	2,948	-	-	-	2,948
18	2,058	-	2,058	-	-	-	2,058
19	\$ 44,021	\$ -	\$ 44,021	\$ -	\$ -	\$ -	\$ 44,021
20	\$ 7,779	\$ 13,155	\$ 20,934	\$ 10,037	\$ 17,816	\$ 23,192	\$ 30,971
21	-	-	-	-	-	-	-
22	-	10,385	10,385	7,924	7,924	18,308	18,308
23	-	-	-	-	-	-	-
24	\$ -	\$ 10,385	\$ 10,385	\$ 7,924	\$ 7,924	\$ 18,308	\$ 18,308
25	\$ 7,779	\$ 2,770	\$ 10,549	\$ 2,113	\$ 9,892	\$ 4,884	\$ 12,663
26	\$ -	\$ 2,770	\$ 2,770	\$ 2,114	\$ 2,114	\$ 4,884	\$ 4,884
	<b>TIER</b>						
30	N/A		2.21		2.51		1.80
	<b>DSC</b>						
31	N/A		1.75		1.99		1.43

[L 18 + L 20] + L 22

[L 16 + L 17 + L 20] + [L 22 + L 26]

Line  
 No.

**SURCHARGE AMOUNTS**

1 Equivalent Annual Bills (1,536) = Number of Customers 128 times 12 months

4 Infrastructure Surcharge No. 1 - Additional Tanks (Loan Amount \$131,059)

5 Total Increase in Revenue \$ 13,155

6 Equivalent Annual Bills 1,536

8 Surcharge Amount \$ 8.56

10 Pro forma Effects on monthly bill

11	5/8"x 3/4" Meter	1	x	\$ 8.56	=	\$ 8.56
12	3/4" Meter	1.5	x	\$ 8.56	=	\$ 12.85
13	1" Meter	2.5	x	\$ 8.56	=	\$ 21.41
14	1½" Meter	5	x	\$ 8.56	=	\$ 42.82
15	2" Meter	8	x	\$ 8.56	=	\$ 68.52
16	3" Meter	15	x	\$ 8.56	=	\$ 128.47
17	4" Meter	25	x	\$ 8.56	=	\$ 214.11
18	6" Meter	50	x	\$ 8.56	=	\$ 428.22

20 Infrastructure Surcharge No. 2 - New Well (Loan Amount \$100,000)

21 Total Increase in Revenue \$ 10,037

22 Equivalent Annual Bills 1,536

24 Surcharge \$ 6.53

26	5/8"x 3/4" Meter	1	x	\$ 6.53	=	\$ 6.53
27	3/4" Meter	1.5	x	\$ 6.53	=	\$ 9.80
28	1" Meter	2.5	x	\$ 6.53	=	\$ 16.34
29	1½" Meter	5	x	\$ 6.53	=	\$ 32.67
30	2" Meter	8	x	\$ 6.53	=	\$ 52.28
31	3" Meter	15	x	\$ 6.53	=	\$ 98.02
32	4" Meter	25	x	\$ 6.53	=	\$ 163.36
33	6" Meter	50	x	\$ 6.53	=	\$ 326.73

35 Infrastructure Surcharge No. 1 and No. 2 - Additional Tanks (Loan Amount \$131,059) + New Well (Loan Amount \$100,000)

36 Total Increase in Revenue \$ 23,192

37 Equivalent Annual Bills 1,536

39 Surcharge \$ 15.10

41	5/8"x 3/4" Meter	1	x	\$ 15.10	=	\$ 15.10
42	3/4" Meter	1.5	x	\$ 15.10	=	\$ 22.65
43	1" Meter	2.5	x	\$ 15.10	=	\$ 37.75
44	1½" Meter	5	x	\$ 15.10	=	\$ 75.49
45	2" Meter	8	x	\$ 15.10	=	\$ 120.79
46	3" Meter	15	x	\$ 15.10	=	\$ 226.48
47	4" Meter	25	x	\$ 15.10	=	\$ 377.47
48	6" Meter	50	x	\$ 15.10	=	\$ 754.95

**Wilhoit Water Company, Inc. - Thunderbird Meadows**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-0307

Schedule JMM-8

Test Year Ended December 31, 2006

**TYPICAL BILL ANALYSIS - WITH SURCHARGE NO. 1**

**General Service 5/8 X 3/4 - Inch Meter**

Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%

<u>Staff Recommend</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$40.76	\$10.55	34.92%
Median Usage	3,114	\$26.16	\$36.00	\$9.84	37.61%

**Present & Proposed Rates (Without Taxes)**  
**General Service 5/8 X 3/4 - Inch Meter**

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$25.06	101.12%
1,000	16.86	33.80	100.47%	28.51	69.10%
2,000	21.26	42.60	100.38%	31.96	50.33%
3,000	25.66	51.40	100.31%	35.41	38.00%
4,000	30.06	60.20	100.27%	40.59	35.03%
5,000	34.46	69.00	100.23%	45.77	32.82%
6,000	38.86	77.80	100.21%	50.95	31.11%
7,000	44.36	89.64	102.07%	56.13	26.53%
8,000	49.86	101.48	103.53%	61.31	22.96%
9,000	55.36	113.32	104.70%	66.49	20.10%
10,000	60.86	125.16	105.65%	71.67	17.76%
15,000	88.36	184.36	108.65%	102.67	16.20%
20,000	115.86	243.56	110.22%	133.67	15.37%
25,000	143.36	302.76	111.19%	164.67	14.86%
50,000	280.86	598.76	113.19%	319.67	13.82%
75,000	418.36	894.76	113.87%	474.67	13.46%
100,000	555.86	1,190.76	114.22%	629.67	13.28%
125,000	693.36	1,486.76	114.43%	784.67	13.17%
150,000	830.86	1,782.76	114.57%	939.67	13.10%
175,000	968.36	2,078.76	114.67%	1,094.67	13.04%
200,000	1,105.86	2,374.76	114.74%	1,249.67	13.00%

**Wilhoit Water Company, Inc. - Thunderbird Meadows**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-0307  
 Test Year Ended December 31, 2006

Schedule JMM-9

**TYPICAL BILL ANALYSIS - WITH SURCHARGE NO. 2**

**General Service 5/8 X 3/4 - Inch Meter**

Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%

Staff Recommend

Average Usage	4,033	\$30.21	\$38.73	\$8.52	28.20%
Median Usage	3,114	\$26.16	\$33.97	\$7.81	29.85%

**Present & Proposed Rates (Without Taxes)**  
**General Service 5/8 X 3/4 - Inch Meter**

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$23.03	84.83%
1,000	16.86	33.80	100.47%	26.48	57.06%
2,000	21.26	42.60	100.38%	29.93	40.78%
3,000	25.66	51.40	100.31%	33.38	30.09%
4,000	30.06	60.20	100.27%	38.56	28.28%
5,000	34.46	69.00	100.23%	43.74	26.93%
6,000	38.86	77.80	100.21%	48.92	25.89%
7,000	44.36	89.64	102.07%	54.10	21.96%
8,000	49.86	101.48	103.53%	59.28	18.89%
9,000	55.36	113.32	104.70%	64.46	16.44%
10,000	60.86	125.16	105.65%	69.64	14.43%
15,000	88.36	184.36	108.65%	100.64	13.90%
20,000	115.86	243.56	110.22%	131.64	13.62%
25,000	143.36	302.76	111.19%	162.64	13.45%
50,000	280.86	598.76	113.19%	317.64	13.10%
75,000	418.36	894.76	113.87%	472.64	12.97%
100,000	555.86	1,190.76	114.22%	627.64	12.91%
125,000	693.36	1,486.76	114.43%	782.64	12.88%
150,000	830.86	1,782.76	114.57%	937.64	12.85%
175,000	968.36	2,078.76	114.67%	1,092.64	12.83%
200,000	1,105.86	2,374.76	114.74%	1,247.64	12.82%

**Wilhoit Water Company, Inc. - Thunderbird Meadows**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-0307  
 Test Year Ended December 31, 2006

Schedule JMM-10

**TYPICAL BILL ANALYSIS - WITH SURCHARGES NO. 1 & 2**  
 General Service 5/8 X 3/4 - Inch Meter

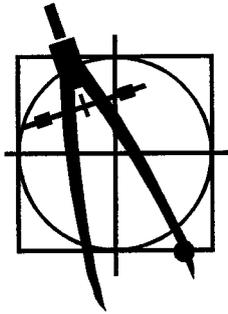
Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%

<u>Staff Recommend</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$47.29	\$17.08	56.54%
Median Usage	3,114	\$26.16	\$42.53	\$16.37	62.58%

**Present & Proposed Rates (Without Taxes)**  
 General Service 5/8 X 3/4 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$31.59	153.53%
1,000	16.86	33.80	100.47%	35.04	107.83%
2,000	21.26	42.60	100.38%	38.49	81.04%
3,000	25.66	51.40	100.31%	41.94	63.45%
4,000	30.06	60.20	100.27%	47.12	56.75%
5,000	34.46	69.00	100.23%	52.30	51.77%
6,000	38.86	77.80	100.21%	57.48	47.92%
7,000	44.36	89.64	102.07%	62.66	41.25%
8,000	49.86	101.48	103.53%	67.84	36.06%
9,000	55.36	113.32	104.70%	73.02	31.90%
10,000	60.86	125.16	105.65%	78.20	28.49%
15,000	88.36	184.36	108.65%	109.20	23.59%
20,000	115.86	243.56	110.22%	140.20	21.01%
25,000	143.36	302.76	111.19%	171.20	19.42%
50,000	280.86	598.76	113.19%	326.20	16.14%
75,000	418.36	894.76	113.87%	481.20	15.02%
100,000	555.86	1,190.76	114.22%	636.20	14.45%
125,000	693.36	1,486.76	114.43%	791.20	14.11%
150,000	830.86	1,782.76	114.57%	946.20	13.88%
175,000	968.36	2,078.76	114.67%	1,101.20	13.72%
200,000	1,105.86	2,374.76	114.74%	1,256.20	13.59%



**Engineering Report  
For  
Wilhoit Water Company, Inc.  
(Thunderbird Meadows System)**

**Docket Nos.**  
**W-02065A-07-0306**  
(Financing #1 - Well)  
**W-02065A-07-0307**  
(Financing #2 - Tanks)  
**W-02065A-07-0312**  
(Rates)

**CONCLUSIONS**

1. The Wilhoit Water Company, Inc. ("Wilhoit" or "the Company") Thunderbird Meadows water system has inadequate well production (See Section B for further discussion).
2. The arsenic level reported by Wilhoit for the Thunderbird Meadows water system complies with the new arsenic MCL.
3. The Arizona Department of Environmental Quality ("ADEQ") has determined that the Wilhoit Thunderbird Meadows water system (ADEQ Public Water System Identification No. 13-056) has no major deficiencies and is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.
4. The Wilhoit Thunderbird Meadows water system is not within any Arizona Department of Water Resources ("ADWR") Active Management Area ("AMA"), and consequently is not subject to ADWR AMA reporting and conservation rules.
5. Wilhoit has an approved curtailment tariff for its Thunderbird Meadows system on file with the Arizona Corporation Commission.
6. Staff concludes that the proposed Well Project was appropriate and that the submitted costs for drilling the well appear to be reasonable. However, this does not imply any particular future treatment for rate base (See Section K for further discussion).
7. Staff concludes that the proposed Tank Project is appropriate and the estimated costs appear to be reasonable. However, this does not imply any particular future treatment for rate base. No "used and useful" determination of the proposed plant was made,

and no conclusions should be inferred for rate making or rate base purposes (See Section K for further discussion).

## RECOMMENDATIONS

1. Staff recommends that by December 31, 2008, Wilhoit file, as a compliance item with the Commission's Docket Control, the ADEQ Approval of Construction for the plant related to the Company's development of a new water source. In addition, Staff believes that the Thunderbird Meadows Water system should be evaluated from a global perspective to determine system adequacy and efficiency. Staff further recommends that the Company take immediate action to seek assistance from ADEQ through its system evaluation program. Upon completion of the ADEQ system evaluation, Staff further recommends that the Company immediately apply for a Technical Assistance Grant from the Water Infrastructure and Finance Authority ("WIFA") to assist in designing projects that will improve system performance.
2. Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit address deficiencies #1 and #2 in the operation and maintenance inspection report issued by ADEQ on October 3, 2006, and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed (See Section D for further discussion).
3. Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit make all necessary corrections to ADWR registration records to reflect ownership of all wells by Wilhoit and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that such corrections have been made.
4. Water testing expenses should be adjusted to the annual expense amount of \$1,550.00 (See Section F for further discussion).
5. Staff recommends that the Company monitor the Thunderbird Meadows system and submit the gallons pumped and sold to determine the non-account water for one full year. The results of this monitoring and reporting shall be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss is greater than 10% the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10% or less. If the Company believes it is not cost effective to reduce the water loss to less than 10%, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15%. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding (See Section G for further discussion).

6. Staff recommends that the Company be required to report its customer count separately for each of its systems in future Annual Reports (See Section H for further discussion).
7. Staff recommends that the Company use specific depreciation rates by National Association of Regulatory Utility Commissioners category. These rates are presented in Exhibit 4 and it is recommended that the Company use these rates on a going-forward basis (See Section I for further discussion).
8. Staff recommends that the Service Line and Meter Installation Charges listed in Section K that are recommended by Staff be adopted.
9. Staff recommends that by December 31, 2008, Wilhoit complete the needed improvements identified during Staff's site inspection and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed (See Section K for further discussion).

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**EXHIBITS**

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## **A. INTRODUCTION AND LOCATION OF COMPANY**

On May 21, 2007, Wilhoit Water Company, Inc. ("Wilhoit" or "the Company") filed a rate application with the Arizona Corporation Commission ("ACC") to increase the rates it is allowed to charge customers in its Thunderbird Meadows service area.<sup>1</sup> On the same date Wilhoit also filed two separate financing applications with the ACC wherein it is seeking approval of funding to cover the cost of upgrades to its Thunderbird Meadows water system.<sup>2</sup> The purpose of this report is to provide a description of the Company's Thunderbird Meadows water system, provide information on its compliance status with other regulatory agencies, and provide any other information which impacts its ability to provide service to existing and future customers. The Company's Thunderbird Meadows service area which comprises roughly 360 acres (.6 square miles) is located approximately 16 miles southwest of Prescott on Highway 89 in Yavapai County. The area adjacent to the Thunderbird Meadows service area, immediately northwest of Highway 89, is served by Walden Meadows Community Co-op ("Walden"). Exhibit 1 describes the service area of the Company and Exhibit 2 shows the location of the Company in relation to other Commission regulated companies in Yavapai County.

## **B. DESCRIPTION OF THE WATER SYSTEM**

The Thunderbird Meadows Water system was visited on July 2, 2007, by Commission Staff member Del Smith in the accompaniment of Mr. Jim West of West & Company, LLC, Authorized Representative of the Company.

Although the Company has added new wells to the Thunderbird Meadows Water system since its last rate application in the early 1990s, very little improvement in overall system water production has resulted; the Company is still purchasing a significant amount of the water it delivers to its customers. At the time of Staff's previous inspection and evaluation<sup>3</sup> of the Thunderbird Meadows water system it consisted of five wells, but only two wells were in service with a total production of 12 gallons per minute ("GPM"). Currently, the Thunderbird Meadows Water system has nine wells, but only three wells are in service with a total production of 15 GPM. Included in the nine wells is a new well that was drilled in 2006. This well which is not in service yet is awaiting Arizona Department of Environmental Quality ("ADEQ") approval. It is expected to be a low producer at only two GPM (see Financing in Section K for further discussion). Total system storage capacity remains unchanged at 67,000 gallons. The system currently serves approximately 125 metered customers. The current well production capacity is only capable of providing adequate service to approximately 73 customers based on water use data provided by the Company for

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<sup>1</sup> Applicant also holds Certificates of Convenience and Necessity to provide water service to the following separate unconnected systems: Yavapai Estates and Blue Hills.

<sup>2</sup> Staff filed to consolidate the rate and financing applications into a single proceeding on September 19, 2007.

<sup>3</sup> The Thunderbird Meadows water system was last inspected by Staff in May 1992. The inspection was conducted in connection with the Company's last rate order, Decision No. 58102, dated December 9, 1992.

2006. Because of the system's low water production, approximately half of the water sold to customers is being purchased from Walden through a 3-inch master meter and permanent interconnection facility that extends across Highway 89 to a 133,000 gallon storage tank owned by Walden. Water is gravity fed from the Walden tank when the water level in the Wilhoit tanks drop below a specified level.

The existing purchased water agreement with Walden limits the available water from Walden to 400,000 gallons per month, although Walden has frequently delivered more than 400,000 to meet Wilhoit customer needs. However, during a peak demand period this last summer Walden did limit the delivery of water to Wilhoit which resulted in an extended period of curtailment and numerous customer complaints. Since all of the wells within its service area have been low water producers, Staff believes that Wilhoit should look beyond its service area and consider other areas for drilling a new well. Walden recently drilled a well northwest of Highway 89 near Donegal Drive which is capable of producing 165 GPM. Based on the limited information that is available, Staff's believes a reasonable estimate to drill such a well is \$100,000. The specific location of any new well and many other factors which are unknown at this time could have a significant impact on the actual cost. Staff believes that the most cost effective solution can be realized if Wilhoit and Walden work cooperatively and that such a solution could benefit both companies.

Staff recommends that by December 31, 2008, Wilhoit file, as a compliance item with the Commission's Docket Control, the ADEQ Approval of Construction for the plant related to the Company's development of a new water source. In addition, Staff believes that the Thunderbird Meadows Water system should be evaluated from a global perspective to determine system adequacy and efficiency. Staff further recommends that the Company take immediate action to seek assistance from ADEQ through its system evaluation program. Upon completion of the ADEQ system evaluation, Staff further recommends that the Company immediately apply for a Technical Assistance Grant from the Water Infrastructure and Finance Authority ("WIFA") to assist in designing projects that will improve system performance.

The Thunderbird Meadows system consists of two well sites and one primary storage tank site. Generally, each well site includes a well and well meter. One of the well sites, referred to as the "second tank and well site" includes a storage tank and booster pump. Exhibit 3 is a schematic diagram showing how the well sites and various system components interconnect.

The water system has adequate storage capacity (see ADEQ Compliance-Section D.2 and Financing-Section K.4.b for further discussion regarding the storage tanks).

Well Site Data (see Note 1)

Well Site	Second Tank & Well Site	Second Tank & Well Site	New Well Site (aka Lower Well Site)	New Well Site (aka Lower Well Site)
ADWR ID No.	55-622742	55-622744	55-568193	55-804908 (Note 2)
Casing Size (inches)	8	6	8	5
Casing Depth (feet)	810	176	805	760
Pump Type	submersible	submersible	submersible	submersible
Pump Size (horsepower)	3	1/2	3	2
Pump Yield (gpm)	5	5	5	2 (Note 3)
Meter Size (inches)	1	3/4	1 1/2	na
Chlorinator	na	na	na	na
Storage Tanks (gallons)	12,000 (Note 4)	12,000 (Note 4)	na	na
Booster Pumps (horsepower)	1 – 1 (Note 5)	1 – 1 (Note 5)	na	na
Pressure Tanks (gallons)	na	na	na	na
Surge Tanks (gallons)	na	na	na	na
Structures	na	na	Small approx. 3' X 5' Well and Generator Enclosures	na

Notes:

1. In addition to the wells listed in the following table the company identified five wells in its 2006 annual report which apparently have been abandoned and are no longer in service. Four of the inactive wells are located in the general vicinity of the Second Tank and Well Site and the fifth inactive well is located near Highway 89 between Steven Trail and Magby Drive. Staff concludes these wells are no longer “used and useful” to the utilities provision of service.
2. Well (ADWR ID #55-804908) was not in Service at time of Staff’s inspection, drilled in 2006 this well is still under construction and waiting for ADEQ approvals.
3. Company’s expected GPM per test yield.
4. A single 12,000 gallon storage tank is located at the Second Tank & Well Site.
5. A single one horsepower booster pump is located at the Second Tank & Well Site.

Storage Tank Site

Site	Storage Tanks (gallons)	Components	Structures
Upper Tank Site	1 - 22,000 1 - 33,000	(Note 1)	na

Notes:

1. The interconnection facility with Walden terminates at the Upper Tank Site. This facility consists of a 3 inch PVC line (approximately 1,000 feet in length) and automatic controls and valves (the flow of water from Walden is controlled automatically, it is stopped when water reaches a pre-determined level in Wilhoit's 33,000 gallon storage tank). A 3 inch meter is located between the two storage tanks. This meter measures the flow of water through gravity feed from a Walden 133,000 gallon storage tank located on the other side of Highway 89.

Water Main Data

Diameter(inches)	Material	Length (feet)
4	PVC	10,500
6	PVC	10,500

Notes:

1. Quantities reflect annual report data for 2006.
2. Twenty-two thousand feet of 4 inch and 6 inch AC pipe was reported at the time of the last rate case.

Customer Meter Data

Size	Quantity
5/8 x 3/4-inch	123

Notes:

1. Quantities reflect annual report data for 2006.
2. Seventy 5/8 x 3/4-inch meters were reported at the time of the last rate case.

Fire Hydrant Data

Size	Quantity <sup>1</sup>
Standard	na

Notes:

1. Quantities reflect annual report data for 2006.
2. There were no fire hydrants reported at the time of the last rate case.

## C. ARSENIC

The U.S. Environmental Protection Agency (EPA) has reduced the arsenic maximum contaminant level (MCL) in drinking water from 50 micrograms per liter ( $\mu\text{g}/\text{l}$ ) to 10  $\mu\text{g}/\text{l}$ . The arsenic level reported by Wilhoit for the Thunderbird Meadows system complies with the new arsenic MCL.

## D. ADEQ COMPLIANCE

### 1. ADEQ Compliance Status

ADEQ has determined that the Wilhoit Thunderbird Meadows water system (ADEQ Public Water System Identification No. 13-056) has no major deficiencies and is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.<sup>4</sup>

### 2. ADEQ Notice of Violation ("NOV")

On September 29, 2006, the Wilhoit Thunderbird Meadows water system was inspected by ADEQ. As a result of that inspection ADEQ issued an NOV to Wilhoit on February 21, 2007. The NOV is an informal compliance assurance tool used by ADEQ to put the responsible party, in this case Wilhoit, on notice that ADEQ believes a violation of an environmental requirement has occurred. The NOV was issued to Wilhoit for "failure to ensure that a material or product that comes in contact with water or with water treatment chemicals conforms with American National Standards Institute / NSF International Standard 61-1997(b)". The interior of the two storage tanks located at the upper tank site was recoated with shotcrete. The ADEQ operation and maintenance inspection report, issued as a result of ADEQ's September 29, 2006 inspection, recommended that Wilhoit address seven deficiencies identified during the inspection. Deficiencies numbered 3 through 7 in the operation and maintenance inspection report will be addressed when the Company replaces the storage tanks which it plans to do (see Section K for further discussion about the Company's application for financing to fund a storage tank replacement project). Deficiencies #1 and #2 listed below had not been addressed at the time of Staff's inspection.

- #1 Well #55-622742 has a sink hole near the well site. The sink hole should be filled in to protect the well.
- #2 The electrical wiring penetrating the well seal for well #55-622742 should be caulked to prevent entry of contaminants into the well.

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<sup>4</sup> ADEQ Drinking Water Compliance Status Report dated 4-30-07 (submitted with the rate application).

Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit address deficiencies #1 and #2 (above) and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed.

#### **E. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

The Wilhoit Thunderbird Meadows water system is not within any ADWR Active Management Area ("AMA"), and consequently is not subject to ADWR AMA reporting and conservation rules.

ADWR well records were checked to verify Company ownership of the wells. ADWR records indicated that the three active wells were owned by David Conlin or Glen Arm Land. Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit make all necessary corrections to ADWR registration records to reflect ownership of all wells by Wilhoit and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that such corrections have been made.

#### **F. WATER TESTING EXPENSE**

The Thunderbird Meadows Water system is subject to mandatory participation in the Monitoring Assistance Program ("MAP"). Participation in the MAP program is mandatory for water systems, which serve less than 10,000 persons (approximately 3,300 service connections). The Company reported its water testing expense at \$1,724.24<sup>5</sup> during the test year. Staff has reviewed the Company's testing expense and has recalculated the testing costs to remove non-water testing fees, and to add the omitted monitoring requirements for lead & copper.

Water testing costs were calculated, based on the following assumptions:

- MAP will do baseline testing on all parameters except copper, lead, nitrates, and coliform bacteria.
- ADEQ testing is performed in 3 year compliance cycles. Therefore, monitoring costs are estimated for a 3 year compliance period and then presented as a *pro forma* expense on an annualized basis.

Water testing expenses should be adjusted to the annual expense amount shown in the table below.

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<sup>5</sup> Amended water testing expense per Company filing docketed August 20, 2007.

Water Testing Cost

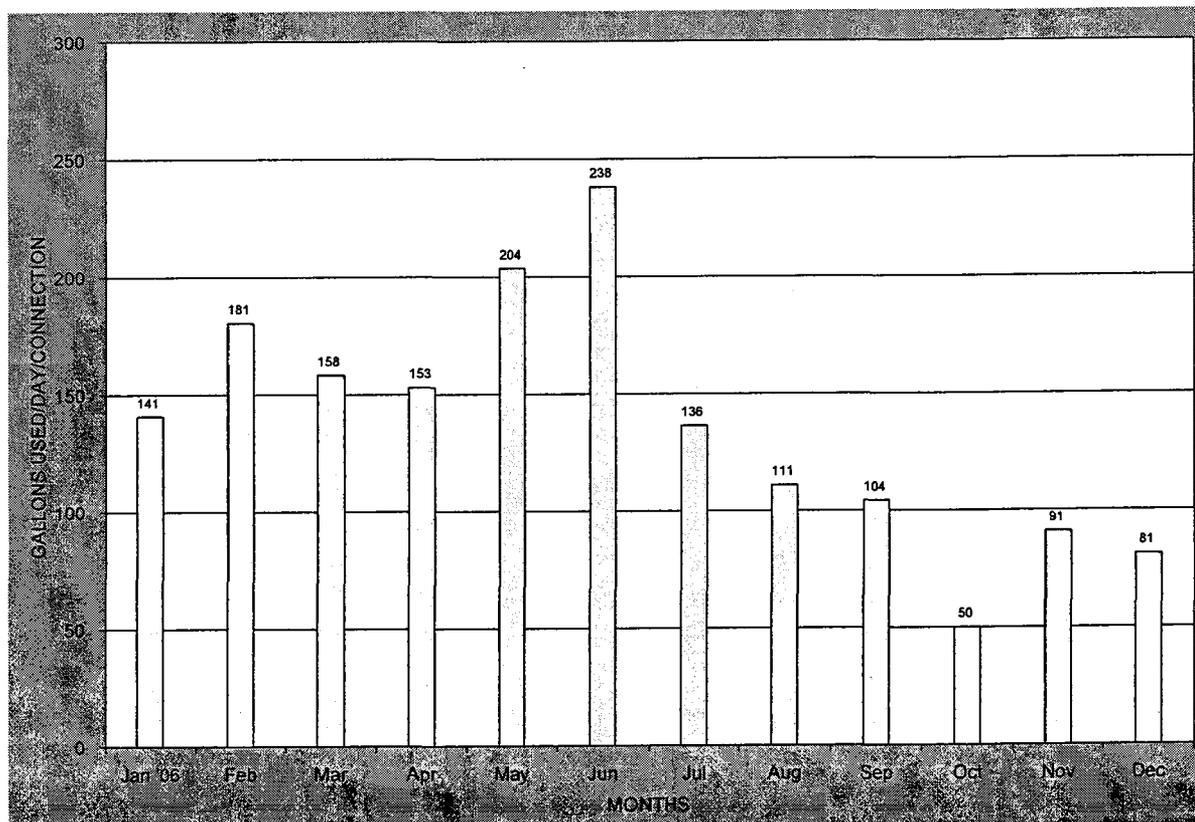
Monitoring – 1 system, One POE (Tests per 3 years, unless noted)	Cost per test	No. of tests per 3 years	Total 3 year cost	Annual cost
Bacteriological – monthly	\$65	36	\$2,340	\$780
Inorganics	MAP	MAP	MAP	MAP
Radiochemical – (1/ 4 yrs)	MAP	MAP	MAP	MAP
IOC's, SOC's, VOC's	MAP	MAP	MAP	MAP
Nitrites	MAP	MAP	MAP	MAP
Nitrates – annual	\$55	3	\$165	\$55
Asbestos – per 9 years	MAP	MAP	MAP	MAP
Lead & Copper – per 3 years	\$45	5	\$225	\$75
Shipping – per year	\$50	3	\$150	\$50
MAP fees*				\$590.00
Total				<b>\$1550.00</b>

\*ADEQ MAP billing for Calendar Year 2006.

**G. WATER USE**

Water Sold

Based on the information provided by the Company for the Thunderbird Meadows system, water use for the test year ending December 31, 2006, is presented below. Customer consumption included a high monthly water use of 238 gallons per day (“GPD”) per connection in June, and the low water use was 50 GPD per connection in October. The average annual use was 137 GPD per connection.



Non-account Water

It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. Non-account water should be 10% or less. The Company reported 6,147,920 gallons of water sold and did not report the number of gallons pumped during the test year. The Company has informed Staff that its was not known until recently that meters were in place on the Thunderbird Meadows system's wells, therefore, no readings were done in 2006. Since the gallons pumped are unknown at this time, the percent of non-account water for the Thunderbird Meadows system can not be determined.

Staff recommends that the Company monitor the Thunderbird Meadows system and submit the gallons pumped and sold to determine the non-account water for one full year. The results of this monitoring and reporting shall be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss in greater than 10% the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10% or less. If the Company believes it is not cost effective to reduce the water loss to less than 10%, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater

than 15%. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding.

## **H. GROWTH**

In the Company's Annual Reports, it did not separate the customer count for each of its three independent water systems, but instead, reported its entire customer base as one. Therefore, Staff cannot report or project growth for the Thunderbird Meadows system using the Annual Report growth data. Staff recommends that the Company be required to report its customer count by system in future Annual Reports. Staff would note, however, that the Company reported 75 customers during 1991, for the Company's prior rate case, and the Company reported 123 customers during 2006 test year for this rate case. Based on this information, Staff calculated a growth rate of approximately three customers per year and estimates that the system could have over 138 customers by 2011.

## **I. DEPRECIATION RATES**

The Company has been using a depreciation rate of 5.00% in every National Association of Regulatory Utility Commissioners ("NARUC") plant category. In recent orders, the Commission has been shifting away from the use of composite rates in favor of individual depreciation rates by NARUC category. (For example, a uniform 5% composite rate would not really be appropriate for either vehicles or transmission mains and instead, different specific retirement rates should be used.)

Staff has developed typical and customary depreciation rates within a range of anticipated equipment life by NARUC category. These rates are presented in Exhibit 4 and it is recommended that the Company use these rates on a going-forward basis.

## **J. CURTAILMENT PLAN TARIFF**

Wilhoit has an approved curtailment tariff for its Thunderbird Meadows system on file with the ACC.

## **K. OTHER ISSUES**

### **1. Service Line and Meter Installation Charges**

The Company has requested changes in its service line and meter installation charges. These charges are refundable advances and the Company's requested charges are within the range of charges typically recommended by Staff. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, separate service line and meter charges have been

developed by Staff. Staff's recommended charges listed in the table below should be adopted.

Service Line and Meter Installation Charges

Meter Size	Company's Current Charges	Company's Proposed Charges	Staff's Recommendations		
			Service Line Charges	Meter Charges	Total Charges
5/8 x 3/4-inch	\$278	\$520	\$385	\$135	\$520
3/4-inch	\$309	\$600	\$385	\$215	\$600
1-inch	\$360	\$690	\$435	\$255	\$690
1-1/2-inch	\$552	\$935	\$470	\$465	\$935
2-inch	\$779	\$1,595	\$630	\$965	\$1,595
3-inch	\$1,010	\$2,275	\$805	\$1,470	\$2,275
4-inch	\$1,703	\$3,520	\$1,170	\$2,350	\$3,520
6-inch	\$3,769	\$6,275	\$1,730	\$4,545	\$6,275

2. Miscellaneous Expenses Included Under Water Testing

The Company reported non-water testing expenses in the water testing category. For purposes of clarification, Staff removed these expenses from its recommended water testing expense. The expenses removed were for yard clean up, to attend an ADEQ meeting and for preparation of an ADEQ report. Staff believes these expenses which totaled \$300 are reasonable and appropriate but should not be identified and included as a water testing expense.

3. Plant Deficiencies Identified During Staff's Site Inspection

Staff identified several items that needed attention during its site visit on July 2, 2007, the items identified were:

- Correct substandard (loose and/or exposed) wiring at the upper and the lower tank sites to meet applicable safety standards.
- Replace any substandard/unsafe power panels and deteriorated supporting structures.
- Install new fencing and/or repair existing fencing around wells and storage tanks at the upper and the lower tank sites to meet minimum security requirements.
- Install clear readable signage at all sites as required by ADEQ.
- Clean up tank and well sites remove old parts and other debris from area.

Staff recommends that by December 31, 2008, Wilhoit complete the needed improvements listed above and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed.

4. Financing Applications

Wilhoit submitted two separate financing applications: Docket No. W-02065A-07-0306 referred to herein as Well Project; and, Docket No. W-02065A-07-0307 referred to herein as Tank Project.

Construction Projects and Costs

1. Well Project - drilling of a new well (ADWR# 55-804908)

The Company reported that this well was drilled in 2006 to provide additional source capacity to the system. The Company is proposing a retroactive debt financing from its parent company, Glenarm Land Company, Inc., in the amount of \$15,000 annualized over a term of ten years, with such sum to bear interest at 10 percent per annum until paid. A copy of the receipt from Universal Drilling, Inc. for \$15,072.96 to drill the well was included with the application. The receipt included the following cost breakdown:

Description	Amount
7-inch steel surface casing	\$800.00
Drilled and cased hole with PVC casing with well screen	\$13,680.00
Sales Tax	\$592.96
Total	\$15,072.96

This well is expected to be a low producer at only two GPM. At the time of Staff's inspection the well was still under construction awaiting ADEQ approval. Even though the well will only provide a small amount of relief at two GPM, the Company plans to place the well into service as soon as possible. Staff concludes that the proposed Well Project was appropriate and that the submitted costs for drilling the well appear to be reasonable. However, this does not imply any particular future treatment for rate base. At the present time the well is not used and useful.

2. Tank Project

The Company is requesting authorization to incur \$131,058.62 in debt for installation of two new 25,000 gallon steel storage tanks, a 14,000 gallon galvanized storage tank with ring, and cover the miscellaneous plumbing and electrical, in order to address the ADEQ NOV and to

remedy the current maintenance issues. As part of this financing application the Company submitted an invoice from Prescott Pump Service, Inc. which included the following cost breakdown:

Description	Amount
Two - 25,000 Gallon Steel Storage Tanks	\$51,000.00
14,000 Gallon Galvanized Tank w/Ring	\$7,868.00
Miscellaneous Plumbing & Electrical	\$15,000.00
Total Material	\$73,868.00
Sales Tax	\$4,690.62
Tank Delivery	\$3,500.00
Site Prep & Excavation	\$40,000.00
Water Delivery	\$2,000.00
Installation Labor	\$7,000.00
Total Installed	\$131,058.62

Staff concludes that the proposed Tank Project is appropriate and the estimated costs appear to be reasonable. However, this does not imply any particular future treatment for rate base. No "used and useful" determination of the proposed plant was made, and no conclusions should be inferred for rate making or rate base purposes.

EXHIBIT 1

**COUNTY:** *Yavapai*

**RANGE** 3 West

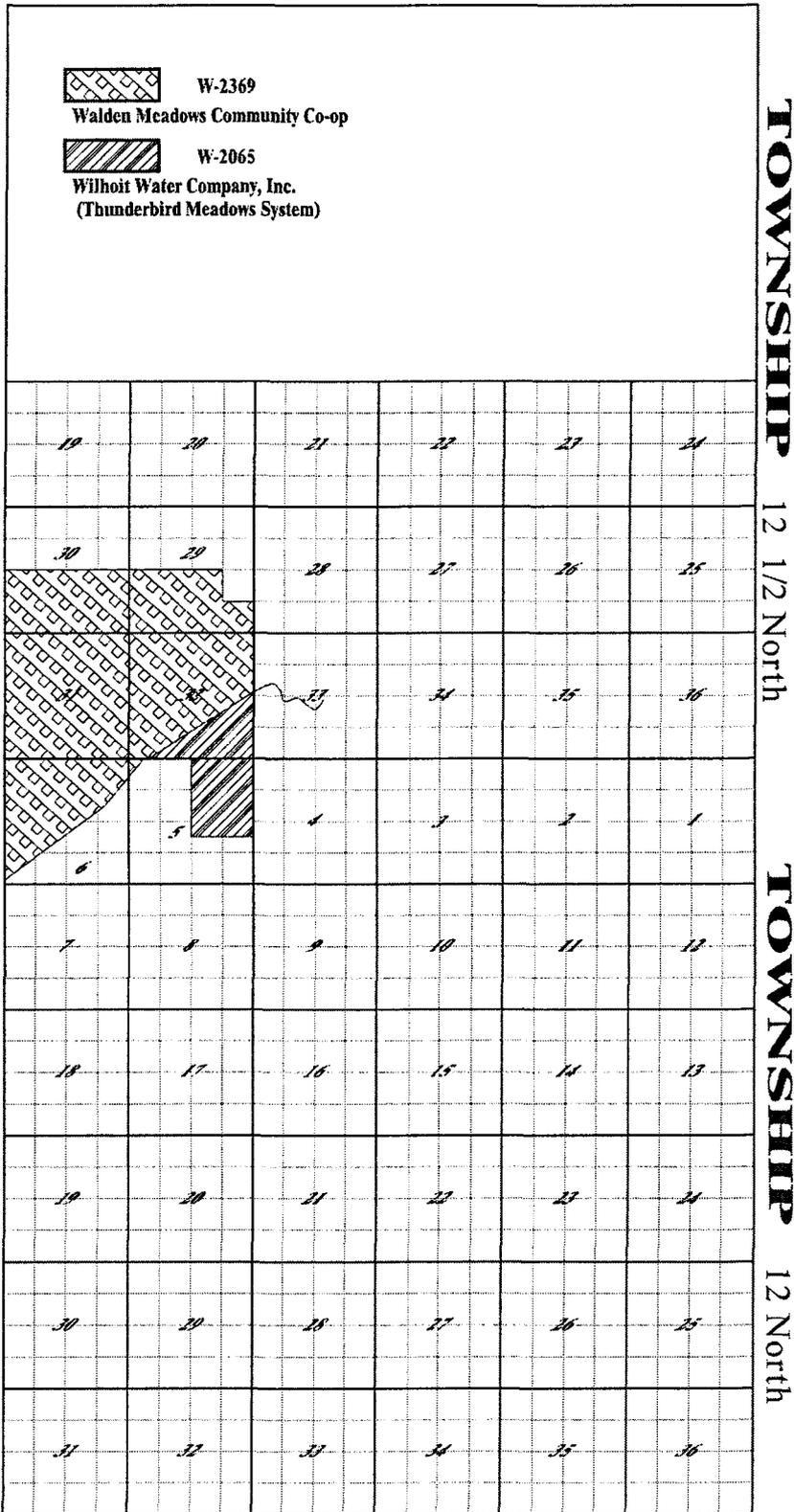
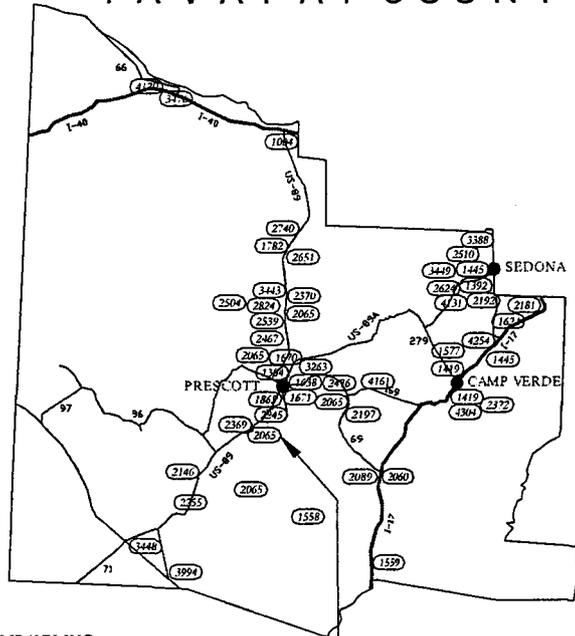


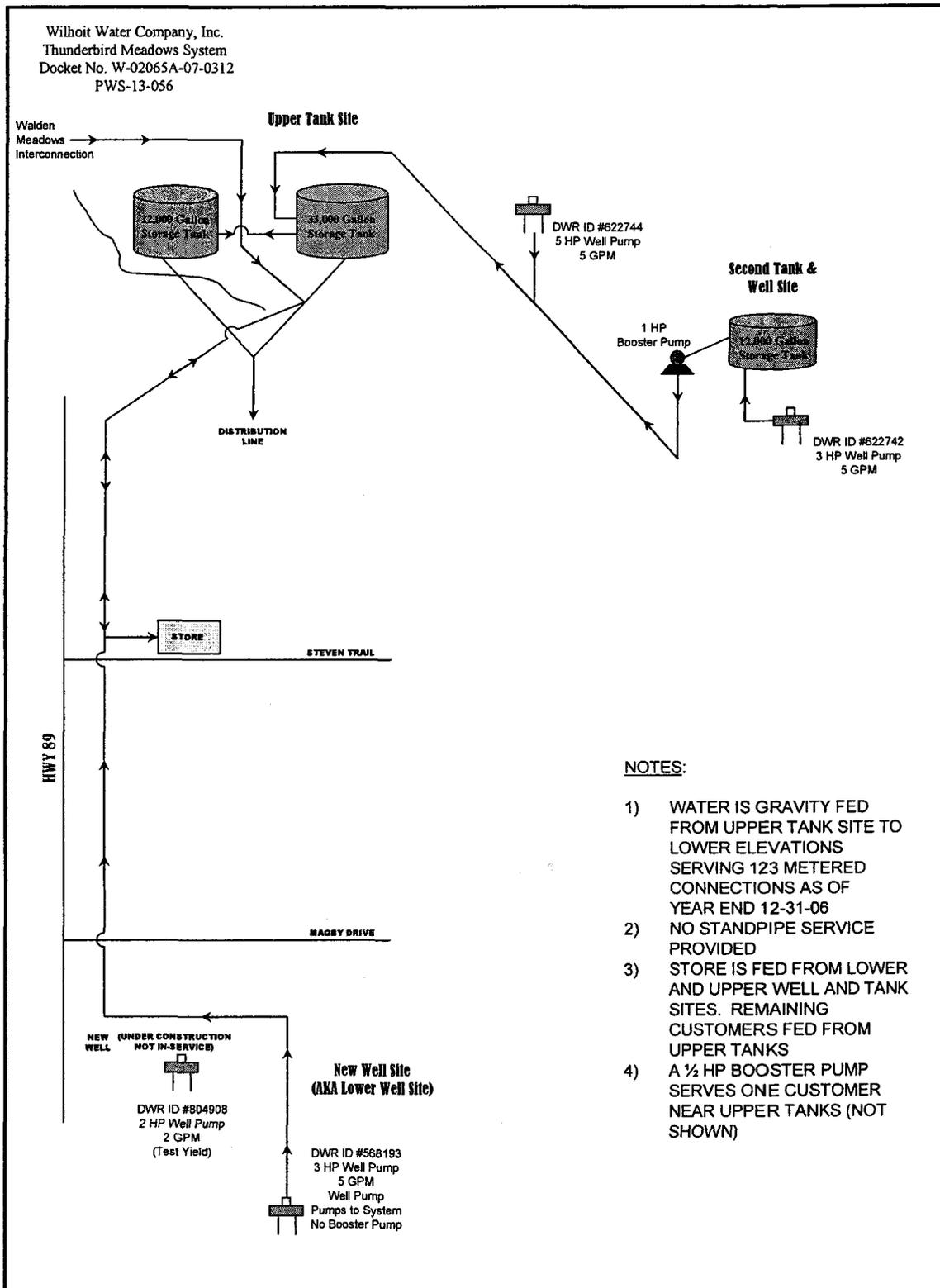
EXHIBIT 2

YAVAPAI COUNTY



- |      |  |      |  |
|------|--|------|--|
| 1782 | ABRA WATER COMPANY, INC.                     | 1638 | HOLIDAY HILLS WATER COMPANY                    |
| 2740 | ANTELOPE LAKES WATER COMPANY                 | 2197 | HUMBOLDT WATER SYSTEM, INC.                    |
| 3443 | APPALOOSA WATER COMPANY                      | 2824 | ICR WATER USERS ASSOCIATION                    |
| 1445 | ARIZONA WATER COMPANY                        | 2624 | MICHAELS RANCH WATER USERS' ASSOCIATION        |
| 1004 | ASHFORK DEVELOPMENT ASSOCIATION, INC.        | 2651 | JUNIPER WELLS WATER COMPANY                    |
| 3476 | BN LEASING CORPORATION                       | 1557 | LAKE VERDE WATER COMPANY                       |
| 1624 | BIG PARK WATER COMPANY                       | 2192 | LITTLE PARK WATER COMPANY, INC.                |
| 2510 | BOYNTON CANYON ENCHANTMENT HOMEOWNERS ASSOC. | 2245 | LOMA ESTATES WATER COMPANY, LLC                |
| 2089 | BRADSHAW MOUNTAIN VIEW WATER COMPANY         | 2504 | MEADOW WATER COMPANY                           |
| 2476 | BRADSHAW WATER COMPANY, INC.                 | 4254 | MONTEZUMA RIMROCK WATER COMPANY, LLC           |
| 1419 | CAMP VERDE WATER SYSTEM                      | 4304 | OAK CREEK PUBLIC SERVICE, LLC                  |
| 3994 | CDC WICKENBURG WATER, LLC                    | 1392 | OAK CREEK WATER COMPANY NO. 1                  |
| 2370 | CHINO MEADOWS II WATER COMPANY, INC.         | 2146 | PEEPLERS VALLEY WATER COMPANY                  |
| 1559 | COLDWATER CANYON WATER COMPANY               | 2181 | PINE VALLEY WATER COMPANY                      |
| 2060 | CORDES LAKES WATER COMPANY                   | 3448 | RAINBOW PARKS, INC.                            |
| 4131 | CROSS CREEK RANCH WATER COMPANY              | 3449 | SEDONA VENTURE (MHC OPERATING LTD PARTNERSHIP) |
| 1558 | CROWN KING WATER COMPANY, INC.               | 3388 | SEVEN CANYONS WATER COMPANY                    |
| 1384 | DELL'S WATER COMPANY, INC.                   | 1671 | SHERMAN PINES WATER COMPANY                    |
| 3263 | DIAMOND VALLEY WATER USERS ASSOCIATION       | 2372 | VERDE LAKES WATER CORPORATION                  |
| 4120 | GRAND CANYON CAVERNS AND INN, LLC            | 2369 | WALDEN MEADOWS COMMUNITY COOPERATIVE           |
| 1670 | GRANITE DELLS WATER COMPANY                  | 4161 | WHITE HORSE RANCH OWNERS ASSOCIATION, INC.     |
| 2467 | GRANITE MOUNTAIN WATER COMPANY, INC.         | 2065 | WILHOIT WATER COMPANY, INC.                    |
| 2539 | GRANITE OAKS WATER USERS ASSOCIATION         | 2255 | YARNELL WATER IMPROVEMENT ASSOCIATION          |
| 1865 | GROOM CREEK WATER USERS ASSOCIATION          |      |  |

**EXHIBIT 3**



**EXHIBIT 4**  
**TYPICAL DEPRECIATION RATES FOR WATER COMPANIES**

NARUC Account No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	5	20.0
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

**FINANCIAL ANALYSIS**

**Selected Financial Data  
Arsenic Surcharge**

Line No.		[A]	[B]	[C]
		Staff Recommended Permanent Rates Without Loan	Arsenic Treatment System \$40,000 Loan at 8.00 Percent Interest Adjustments	Staff Recommended Rates with Arsenic Surcharge, Loan Prin & Interest, and Income taxes
1	<b>INCOME STATEMENT</b>			
	<b>Operating Revenue</b>			
2	Metered Water Revenue	\$ 22,750	\$ -	\$ 22,750
3	Arsenic Surcharge	\$ -	\$ 4,239	\$ 4,239
4	Unmetered Water Revenue	\$ 3,492	\$ -	\$ 3,492
5	Other Water Revenues	\$ -	\$ -	\$ -
6	<b>Total Operating Rev:</b>	<b>\$ 26,242</b>	<b>\$ 4,239</b>	<b>\$ 30,480</b>
	<b>Operating Expenses</b>			
7	Salaries and Wages	\$ 7,672	\$ -	\$ 7,672
8	Purchased Water	\$ -	\$ -	\$ -
9	Purchased Power	\$ 3,039	\$ -	\$ 3,039
10	Repairs and Maintenance	\$ 4,775	\$ -	\$ 4,775
11	Office Supplies and Expense	\$ 451	\$ -	\$ 451
12	Outside Services	\$ 408	\$ -	\$ 408
13	Water Testing	\$ 1,445	\$ -	\$ 1,445
14	Rents	\$ 1,650	\$ -	\$ 1,650
15	Insurance - General Liability	\$ 574	\$ -	\$ 574
16	Miscellaneous Expense	\$ 100	\$ -	\$ 100
17	Depreciation Expense	\$ 55	\$ -	\$ 55
18	Taxes Other Than Income	\$ -	\$ -	\$ -
19	Property Taxes	\$ 1,055	\$ -	\$ 1,055
20	Income Tax	\$ 1,050	\$ 224	\$ 1,274
21	<b>Total Operating Expense</b>	<b>\$ 22,273</b>	<b>\$ 224</b>	<b>\$ 22,497</b>
22	<b>Operating Income</b>	<b>\$ 3,968</b>	<b>\$ 4,015</b>	<b>\$ 7,983</b>
23	Interest Income	\$ -	\$ -	\$ -
24	Interest Expense	\$ -	\$ 3,169	\$ 3,169
25	Interest-Customer Deposits	\$ -	\$ -	\$ -
26	<b>Total Other Interest Expense</b>	<b>\$ -</b>	<b>\$ 3,169</b>	<b>\$ 3,169</b>
27	<b>Net Income</b>	<b>\$ 3,968</b>	<b>\$ 845</b>	<b>\$ 4,814</b>
28	Principal Repayment	\$ -	\$ 845	\$ 845
	<b>TIER</b>			
30	[L 18 + L 20] + L 22	N/A		2.92
	<b>DSC</b>			
31	[L 16 + L 17 + L 20] + [L 22 + L 26]	N/A		2.32

CALCULATION OF ADDITIONAL REVENUE NEEDED FOR ARSENIC SURCHARGE FOR PRINCIPAL, INTEREST, AND INCOME TAXES TO PRESERVE CASH FLOW		
Line No.		
1		
2	Annual Principal Payment on Loan	\$ 845
3	Multiplied by: Gross Revenue Conversion Factor	<u>1.265</u>
4	<b>Additional Revenue Needed for Principal Payment [L2 x L3]</b>	<b>\$ 1,069</b>
5		
6	Additional Revenue Needed for Principal Payment (from L 4)	\$ 1,069
7	Less: Annual Principal Payment on Loan	<u>\$ 845</u>
8	<b>Additional Revenue Needed for Income Taxes [L7 - L6]</b>	<b>\$ 224</b>
9		
10	Annual Principal Payment on Loan (from L2)	\$ 845
11	Annual Interest Payment on Loan	<u>\$ 3,169</u>
12	Annual Principal and Interest Payments (L10 + L11)	<u>\$ 4,015</u>
13	Plus: Additional Revenue Needed for Income Taxes (from L6)	<u>\$ 224</u>
14	<b>Total Additional Revenue Needed for Principal, Interest, &amp; Income Taxes [L12 + L13]</b>	<b>\$ 4,239</b>

Line No.		SURCHARGE AMOUNTS				
1	Equivalent Annual Bills (768) = Number of Customers 64 times 12 months					
2						
3						
4	Arsenic Surcharge - as determined by Arsenic Removal Surcharge Mechanism (Loan Amount \$40,000)					
5	Total Increase in Revenue		\$	4,239		
6	Equivalent Annual Bills			768		
7						
8	Surcharge Amount \$			5.52		
9						
10	Pro forma Effects on monthly bill					
11	5/8"x 3/4" Meter	1	x	\$ 5.52	= \$ 5.52	
12	3/4" Meter	1.5	x	\$ 5.52	= \$ 8.28	
13	1" Meter	2.5	x	\$ 5.52	= \$ 13.80	
14	1½" Meter	5	x	\$ 5.52	= \$ 27.60	
15	2" Meter	8	x	\$ 5.52	= \$ 44.15	
16	3" Meter	15	x	\$ 5.52	= \$ 82.79	
17	4" Meter	25	x	\$ 5.52	= \$ 137.98	
18	6" Meter	50	x	\$ 5.52	= \$ 275.95	

Total Direct Expenses

**TYPICAL BILL ANALYSIS**

General Service 5/8 X 3/4 - Inch Meter  
With Arsenic Removal Surcharge

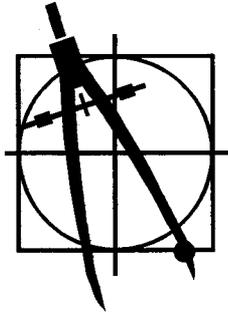
Average Number of Customers: 64

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	4,639	\$21.68	\$40.85	\$19.17	88.4%
Median Usage	3,404	\$18.04	\$32.64	\$14.60	80.9%

Staff Recommend	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	4,639	\$21.68	\$33.89	\$12.21	56.3%
Median Usage	3,404	\$18.04	\$28.34	\$10.30	57.1%

Present & Proposed Rates (Without Taxes)  
General Service 5/8 X 3/4 - Inch Meter

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Proposed Rates	% Increase
0	\$8.00	\$10.00	25.0%	\$17.52	119.0%
1,000	10.95	16.65	52.1%	20.52	87.4%
2,000	13.90	23.30	67.6%	23.52	69.2%
3,000	16.85	29.95	77.7%	26.52	57.4%
4,000	19.80	36.60	84.8%	31.02	56.7%
5,000	22.75	43.25	90.1%	35.52	56.1%
6,000	25.70	49.90	94.2%	40.02	55.7%
7,000	29.48	59.20	100.8%	44.52	51.0%
8,000	33.26	68.50	106.0%	49.02	47.4%
9,000	37.04	77.80	110.0%	53.52	44.5%
10,000	40.82	87.10	113.4%	58.02	42.1%
15,000	59.72	133.60	123.7%	85.02	42.4%
20,000	78.62	180.10	129.1%	112.02	42.5%
25,000	97.52	226.60	132.4%	139.02	42.6%
50,000	192.02	459.10	139.1%	274.02	42.7%
75,000	286.52	691.60	141.4%	409.02	42.8%
100,000	381.02	924.10	142.5%	544.02	42.8%
125,000	475.52	1,156.60	143.2%	679.02	42.8%
150,000	570.02	1,389.10	143.7%	814.02	42.8%
175,000	664.52	1,621.60	144.0%	949.02	42.8%
200,000	759.02	1,854.10	144.3%	1,084.02	42.8%



**Engineering Report for Wilhoit Water Company,  
Inc. – Blue Hills #3 System**

**Docket No. W-02065A-07-0313 (Rates)**

**By: Marlin Scott, Jr.**  
**Utilities Engineer**

**October 16, 2007**

**CONCLUSIONS**

- A. Wilhoit Water Company, Inc. – Blue Hills #3 System’s (“Company”) current well and storage capacities could adequately serve its current customer base and reasonable growth.
- B. The Arizona Department of Environmental Quality (“ADEQ”) reported no deficiencies and has determined that the Company’s system, PWS #13-055 is currently delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.
- C. The Company has an approved backflow prevention tariff that became effective on February 22, 2004.

**RECOMMENDATIONS**

- 1. Staff recommends that the Company monitor the system and submit the gallons pumped and sold to determine the actual water loss for one full year. The results of this monitoring and reporting should be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss for the period is greater than 10%, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10% or less. If the Company believes it is not cost effective to reduce water loss to less than 10%, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15%. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding.
- 2. Staff recommends that the Company be required to report its customer count by system in future submittal of Commission Annual Reports.

3. Staff recommends an annual water testing expense of \$1,445 be used for purposes of this application and further recommends that the remaining \$408 of the reported \$1,853 be classified as part of the water operator's fee
4. Staff recommends that Company submit the ADEQ Certificate of Approval of Construction for the arsenic treatment system by December 31, 2008.
5. The Company is located in the Prescott Active Management Area. Staff recommends that the Company file with Docket Control, as a compliance item in this docket by December 31, 2008, a letter from Arizona Department of Water Resources indicating that the Company's water use and monitoring requirements have been resolved.
6. Staff recommends that the Company use Staff's depreciation rates delineated in Table B.
7. Staff recommends approval of Staff's Service Line and Meter Installation Charges as delineated in Table C.
8. Staff recommends that the Company file a curtailment tariff in the form found on the Commission's website at [www.azcc.gov/divisions/utilities/forms/Curtailment-Std.pdf](http://www.azcc.gov/divisions/utilities/forms/Curtailment-Std.pdf). This tariff shall be docketed as a compliance item in this case within 45 days of the effective date of an order in this proceeding for review and certification by Staff.

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## A. LOCATION OF COMPANY

Wilhoit Water Company, Inc. – Blue Hills #3 System (“Company”) serves a community in Dewey. Figure 1 shows the location of the Company within Yavapai County and Figure 2 shows the certificated area covering 1/32 square-mile or 20 acres.

## B. DESCRIPTION OF THE WATER SYSTEM

The water system was field inspected on September 17, 2007, by Marlin Scott, Jr., Staff Utilities Engineer, in the accompaniment of Jim West, Consultant for the Company. The current system consists of two wells, one storage tank, booster system and a distribution system serving approximately 55 customers and a coin-operated standpipe service. All the pumping facilities are located at one site.

In the mid 1990’s, a gasoline spill occurred across the road from the wells/pumping site. Due to this spill, ADEQ ordered the responsible party, Blue Hills Market, to clean-up the spill and further ordered treatment equipment be installed for the water company. This treatment equipment, activated charcoal filters, was placed into operation in 2002 and is currently being operated and maintained by Zelen Environmental on behalf of the Blue Hills Market.

A system schematic is shown as Figure 3 and a detailed plant facility listing is as follows:

Table 1. Pumping Site

Plant Items	Well #1 (55-622750)	Well #2 (55-622751)
Casing Size	6-inch	6-inch
Casing Depth **	178 ft.	35 ft.
Submersible Pump	3-Hp	1/2-Hp
Pumping Rate	30 GPM	10 GPM
Meter Size	1-1/2-inch	
Storage Tank	12,500 gallon	
Booster Pumps	3-Hp, 2 each	
Captive Air Tanks	120 gallons, 4 each	
Chlorination	Liquid	
Chain Link Fencing	50 ft. by 70 ft. around entire site	

\*\* Note: According to the ADWR Imaged Records Database.

Table 2. Water Mains #

Diameter	Material	Length
3-inch	-	-
4-inch	ACP	3,845 ft.
6-inch	ACP	3,150 ft.
	Total:	6,995 ft.

# Note: According to Staff's prior Engineering Report in 1992.

Table 3. Customer Meters

Size	Quantity
5/8 x 3/4-inch	55
3/4-inch	-
1- inch	-
1-1/2-inch	-
2-inch	-
Total:	55

Table 4. Structures

Structures
Standpipe – coin operated system

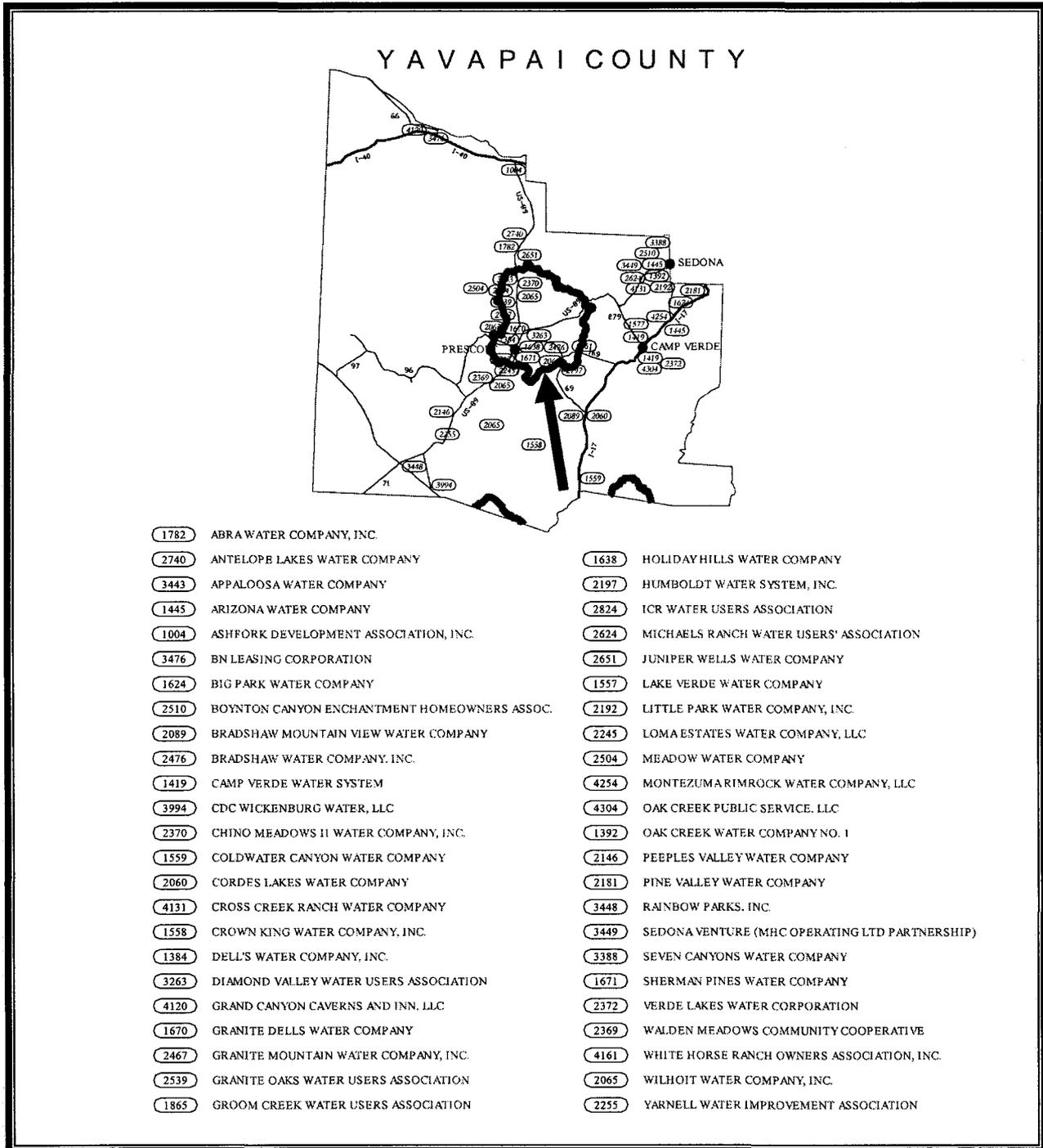


Figure 1. Yavapai County Map

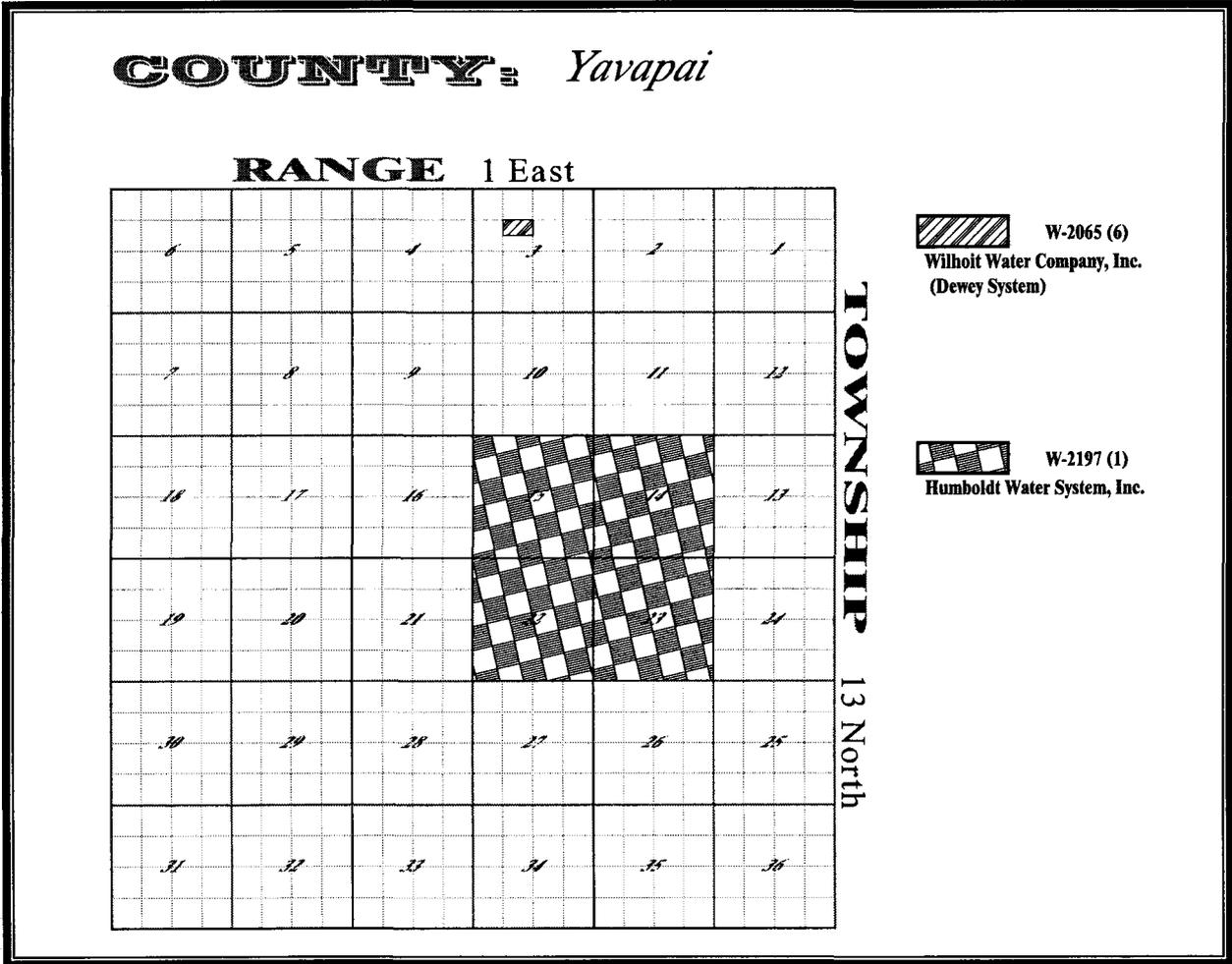


Figure 2. Certificated Area

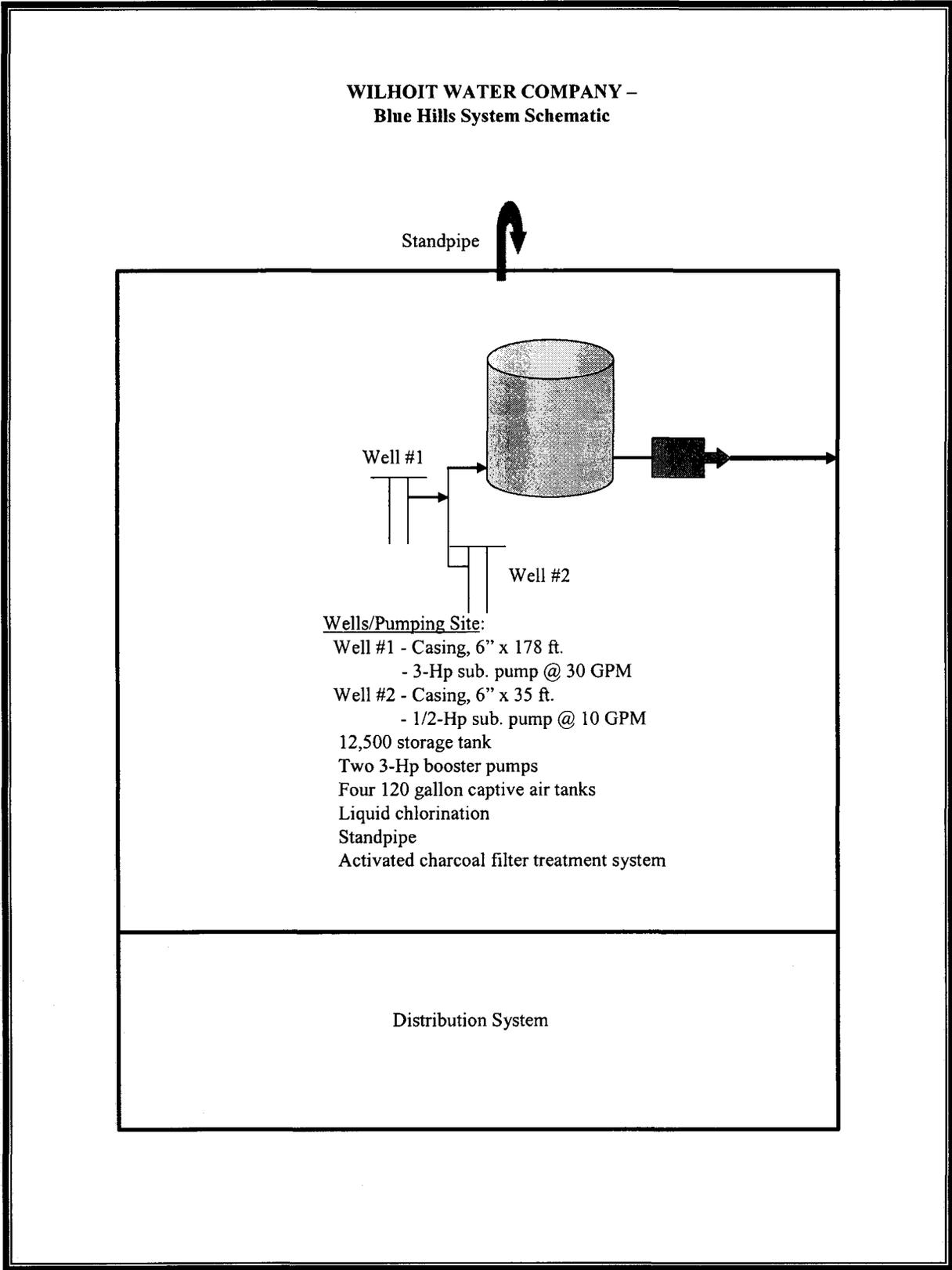


Figure 3. System Schematic

### C. WATER USE

#### Water Sold

Figure 4 represents the water consumption data provided by the Company in its water use data sheet. Customer consumption experienced a high monthly water use of 223 gallons per day (“GPD”) per connection in May and a low monthly water use of 90 GPD per connection in March for an average monthly use of 153 GPD per connection.

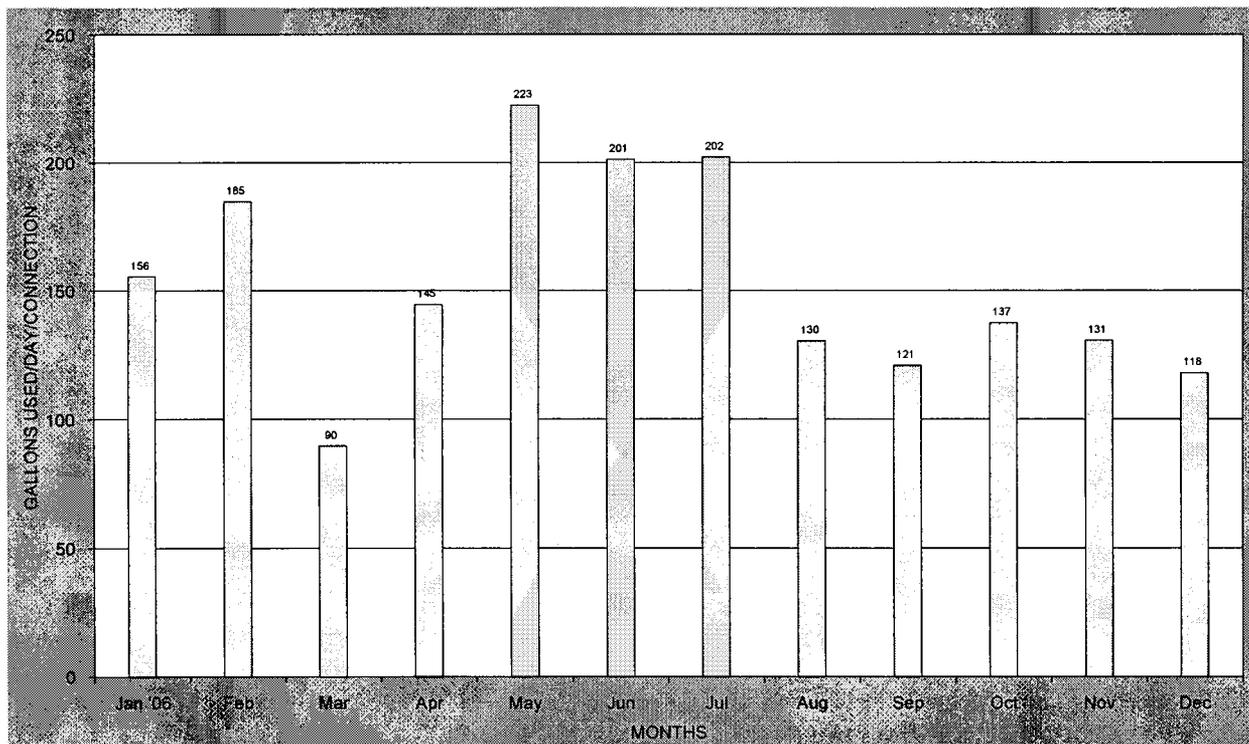


Figure 4. Water Use

#### Non-Account Water

Non-account water should be 10% or less. The Company reported 3,572,301 gallons of water sold and did not report the number of gallons pumped during the test year. Although the wells share a 1-1/2-inch meter, the Company is not recording its gallons pumped. In prior years as shown in their Annual Reports, the Company has been reporting the same amount of gallons sold as gallons pumped. Based on the unknown “actual” gallons pumped, the water loss percent cannot be determined at this time.

Staff recommends that the Company monitor the system and submit the gallons pumped and sold to determine the actual water loss for one full year. The results of this monitoring and reporting should be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss for the period is greater than 10%,

the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10% or less. If the Company believes it is not cost effective to reduce water loss to less than 10%, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15%. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding.

### **System Analysis**

The system's current two source well capacity totaling 40 GPM and 12,500 gallons of storage tank capacity could adequately serve approximately 100 service connections. The system currently has 55 service connections and one standpipe service. Therefore, this system can adequately serve its current customer base and reasonable growth.

### **D. GROWTH**

In the Company's Annual Reports, it did not separate the customer count for each of its three independent water systems, but instead, reported its entire customer base as one. Therefore, Staff cannot determine possible growth for this system. Staff recommends that the Company be required to report its customer count by system in future submittal of Commission Annual Reports.

### **E. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ") COMPLIANCE**

#### **Compliance**

According to an ADEQ Compliance Status Report, dated April 30, 2007, that was submitted with the rate application; ADEQ reported no deficiencies and has determined that the Company's system, PWS #13-055 is currently delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

#### **Water Testing and Operator's Fee Expenses**

The Company is subject to mandatory participation in the Monitoring Assistance Program ("MAP"). Starting January 1, 2002, water companies paid a fixed \$250 per year fee, plus an additional fee of \$2.57 per service connection, regardless of meter size for participation in MAP. Participation in the MAP program is mandatory for water systems, which serve less than 10,000 persons (approximately 3,300 service connections).

The Company reported its water testing expense at \$1,853 during the test year by combining water testing costs and water operator's fees. Staff has reviewed these expenses and has

recalculated the annual expense by adding the omitted monitoring requirements for lead & copper and Disinfection/Disinfection By-Product (“D/DBP”). Annual D/DBP monitoring applies to any public water system that adds a halogenated disinfectant during the treatment process. The Company chlorinates its wells and therefore, is required to monitor for D/DBP. Staff has also made additional adjustments that are shown in Table A below for Staff’s adjusted annual water testing expense of \$1,445.

Table A. Water Testing Cost

Monitoring (Tests per 3 years, unless noted.)	Cost per test	No. of tests	Annual Cost
Total coliform – monthly	\$65	12	\$780
Inorganics – Priority Pollutants	MAP	MAP	MAP
Radiochemical – per 4 years	MAP	MAP	MAP
Phase II and V:			
Nitrate – annual	\$55	1	\$55
Nitrite – once per period	MAP	MAP	MAP
Asbestos – per 9 years	MAP	MAP	MAP
MAP – IOCs, SOCs, & VOCs ##	MAP	MAP	** \$381
Lead & Copper – per 3 years	\$45	5	\$75
- Sampling & shipping samples	\$75	1	\$25
D/DBP:			
TTHM/HH5 – per 3 years	\$335	1	\$112
- Sampling & shipping samples	\$50	1	\$17
Total			<b>\$1,445</b>

## Note: ADEQ - MAP invoice for the 2006 Calendar Year is \$381.07.

Staff recommends an annual water testing expense of \$1,445 be used for purposes of this application and further recommends that the remaining \$408 of the reported \$1,853 be classified as part of the water operator’s fee.

**Arsenic**

According to the ADEQ Monitoring Assistance Program analysis report for 2007, the Company’s composite arsenic level from its two well was reported at 18 parts per billion (“ppb”). Based on this arsenic level, the Company indicated it is currently seeking a bid from Aledge Technologies for engineering, construction, and installation of an arsenic treatment system.

Staff recommends that Company submit the ADEQ Certificate of Approval of Construction for the arsenic treatment system by December 31, 2008.

#### **F. ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”) COMPLIANCE**

The Company is located in the Prescott Active Management Area (“AMA”). Since the Company uses less than 250 acre-feet of water per year, it is considered a small provider by ADWR and is not subject to the gallons per capita per day limit and conservation rules. The Company is only required to monitor and report water use.

In response to Staff’s request for a compliance status, ADWR provided a copy of its Advisory letter to Wilhoit Water Company dated October 11, 2007. According to the letter, the Company is not in compliance with ADWR requirements for calendar year 2006, based on ADWR’s audit of the Company’s 2006 Annual Withdrawal and User Report. In addition, it states that the Company shall provide conformation of repair or installation of new meters for all its wells to ADWR by December 11, 2007. The Company’s 2007 Annual Withdrawal and User Report will also have to include the partial meter readings for the fourth quarter of 2007.

Staff recommends that the Company file with Docket Control, as a compliance item in this docket by December 31, 2008, a letter from ADWR indicating that the Company’s water use and monitoring requirements have been resolved.

#### **G. DEPRECIATION RATES**

The Company has been using a depreciation rate of 5.00% in every National Association of Regulatory Utility Commissioners (“NARUC”) plant category. In recent orders, the Commission has been shifting away from the use of composite rates in favor of individual depreciation rates by NARUC category. (For example, a uniform 5% composite rate would not really be appropriate for either vehicles or transmission mains and instead, different specific retirement rates should be used.)

Staff has developed typical and customary depreciation rates within a range of anticipated equipment life. These rates are presented in Table B and it is recommended that the Company use depreciation rates by individual NARUC category on a going-forward basis.

**Table B. Depreciation Rates**

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.

2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

## H. OTHER ISSUES

### 1. Service Line and Meter Installation Charges

The Company has requested changes in its service line and meter installation charges. These charges are refundable advances and the Company has requested “total” charges that are similar to Staff’s customary range of charges. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, Staff recommends approval of the “total” charges as shown in Table C below, with separate installation charges for the service line and meter installations. Staff also would recommend the deletion of the 5-inch meter installation charge due to the fact that 5-inch meters do not exist.

Table C. Service Line and Meter Installation Charges

Meter Size	Company Current Charges	Recommended Service Line Charges	Recommended Meter Charges	Recommend Total Charges
5/8 x 3/4-inch	\$265	\$385	\$135	\$520
3/4-inch	\$295	\$385	\$215	\$600
1-inch	\$345	\$435	\$255	\$690
1-1/2-inch	\$520	\$470	\$465	\$935
2-inch	\$725	\$630	\$965	\$1,595
3-inch	\$925	\$805	\$1,470	\$2,275
4-inch	\$1,550	\$1,170	\$2,350	\$3,520
5-inch	\$2,638	N/A	N/A	N/A
6-inch	\$3,725	\$1,730	\$4,545	\$6,275

### 2. Curtailment Tariff

The Company does not have an approved curtailment tariff. Staff recommends that the Company file a curtailment tariff in the form found on the Commission’s website at [www.azcc.gov/divisions/utilities/forms/Curtailment-Std.pdf](http://www.azcc.gov/divisions/utilities/forms/Curtailment-Std.pdf). This tariff shall be docketed as a compliance item in this case within 45 days of the effective date of an order in this proceeding for review and certification by Staff.

**3. Backflow Prevention Tariff**

The Company has an approved backflow prevention tariff that became effective on February 22, 2004.

**RATE DESIGN**

Monthly Usage Charge	Present	-Proposed Rates-	
	Rates	Company	Staff
<u>5/8" x 3/4" Meter</u>	\$12.46	\$25.00	\$16.50
3/4" Meter	21.00	-	24.75
1" Meter	35.00	-	41.25
1½" Meter	70.00	-	82.50
2" Meter	112.00	-	132.00
3" Meter	210.00	-	264.00
4" Meter	350.00	-	412.50
5" Meter	500.00	-	619.00
6" Meter	700.00	-	825.00
Gallons Included in Minimum	0.00	0.00	0.00
Commodity Chage per 1,000 gallons			
<u>All Meter Sizes</u>			
0 - 6,000 gallons	\$4.40	\$8.80	N/A
Over 6,000 gallons	5.50	11.84	N/A
<u>5/8" x 3/4" and 3/4" Meter (Residential)</u>			
1 - 3,000 gallons	N/A	N/A	\$3.45
3,001 to 10,000 gallons	N/A	N/A	5.18
Over 10,000 gallons	N/A	N/A	6.20
<u>5/8" x 3/4" and 3/4" Meter (Commercial)</u>			
1 - 10,000 gallons	N/A	N/A	5.18
Over 10,000 gallons	N/A	N/A	6.20
<u>1" Meter (Commercial)</u>			
1 - 25,000 gallons	N/A	N/A	5.18
Over 25,000 gallons	N/A	N/A	6.20
<u>1 1/2" Meter (Commercial)</u>			
1 - 63,000 gallons	N/A	N/A	5.18
Over 63,000 gallons	N/A	N/A	6.20
<u>2" Meter (Commercial)</u>			
1 - 109,000 gallons	N/A	N/A	5.18
Over 109,000 gallons	N/A	N/A	6.20
<u>3" Meter (Commercial)</u>			
1 - 237,000 gallons	N/A	N/A	5.18
Over 237,000 gallons	N/A	N/A	6.20
<u>4" Meter (Commercial)</u>			
1 - 381,000 gallons	N/A	N/A	5.18
Over 381,000 gallons	N/A	N/A	6.20
<u>5" Meter (Commercial)</u>			
1 - 581,000 gallons	N/A	N/A	5.18
Over 581,000 gallons	N/A	N/A	6.20

**WHILHOIT WATER COMPANY, INC. - THUNDERBIRD MEADOWS**

Docket No. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307  
 Test Year Ended December 31, 2006

Schedule JMM-4  
 Page 2 of 2

**RATE DESIGN - (Cont.)**

6" Meter (Commercial)

1 - 780,000 gallons	N/A	N/A	\$5.18
Over 780,000 gallons	N/A	N/A	6.20

Service Line and Meter Installation Charges

5/8" x 3/4" Meter	\$278.00	\$520.00	\$520.00
3/4" Meter	309.00	600.00	600.00
1" Meter	360.00	690.00	690.00
1½" Meter	552.00	935.00	935.00
2" Meter	779.00	1,595.00	1,595.00
3" Meter	1,010.00	2,275.00	2,275.00
4" Meter	1,703.00	3,520.00	3,520.00
5" Meter	2,638.00	0.00	4,800.00
6" Meter	3,769.00	6,275.00	6,275.00

Service Charges

Establishment	\$30.00	\$100.00	\$30.00
Reconnection (Delinquent)	30.00	100.00	30.00
Meter Test (If Correct)	35.00	150.00	35.00
Deposit	*	*	*
Deposit Interest	*	*	*
Re-Establishment (Within 12 Months)	**	**	**
NSF Check	\$15.00	\$35.00	\$30.00
Deferred Payment (per annum)	6.00%	6.00%	6.00%
Meter Re-Read (If Correct)	15.00	35.00	15.00
Late fee	0.00	10.00	***

Monthly Service Charge for Fire Sprinkler

4" or Smaller	\$5.00	\$0.00	****
6"	7.00	-	****
8"	7.00	-	****
10"	7.00	-	****
Larger than 10"	7.00	-	****

\* Per Commission Rules (R14-2-403.B)

\*\* Months off system times the minimum (R14-2-403.D)

\*\*\* 1.5% of unpaid monthly balance.

\*\*\*\* 1.00% of Monthly Minimum for a Comparable Sized Meter Connection, but no less than \$5.00 per month. The Service Charge for Fire Sprinklers is only applicable for service lines separate and distinct from the primary water service line.

**TYPICAL BILL ANALYSIS**  
 General Service 5/8 X 3/4 - Inch Meter

Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%
<u>Staff Recommend</u>					
Average Usage	4,033	\$30.21	\$32.20	\$1.99	6.59%
Median Usage	3,114	\$26.16	\$27.44	\$1.28	4.89%

Present & Proposed Rates (Without Taxes)  
 General Service 5/8 X 3/4 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$16.50	32.42%
1,000	16.86	33.80	100.47%	19.95	18.33%
2,000	21.26	42.60	100.38%	23.40	10.07%
3,000	25.66	51.40	100.31%	26.85	4.64%
4,000	30.06	60.20	100.27%	32.03	6.55%
5,000	34.46	69.00	100.23%	37.21	7.98%
6,000	38.86	77.80	100.21%	42.39	9.08%
7,000	44.36	89.64	102.07%	47.57	7.24%
8,000	49.86	101.48	103.53%	52.75	5.80%
9,000	55.36	113.32	104.70%	57.93	4.64%
10,000	60.86	125.16	105.65%	63.11	3.70%
15,000	88.36	184.36	108.65%	94.11	6.51%
20,000	115.86	243.56	110.22%	125.11	7.98%
25,000	143.36	302.76	111.19%	156.11	8.89%
50,000	280.86	598.76	113.19%	311.11	10.77%
75,000	418.36	894.76	113.87%	466.11	11.41%
100,000	555.86	1,190.76	114.22%	621.11	11.74%
125,000	693.36	1,486.76	114.43%	776.11	11.93%
150,000	830.86	1,782.76	114.57%	931.11	12.07%
175,000	968.36	2,078.76	114.67%	1,086.11	12.16%
200,000	1,105.86	2,374.76	114.74%	1,241.11	12.23%

WHILHOIT WATER COMPANY, INC. - THUNDERBIRD MEADOWS  
 Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-07-0307  
 Test Year Ended December 31, 2006

**FINANCIAL ANALYSIS**

**Selected Financial Data**

**Infrastructure Surcharge No. 1, Infrastructure Surcharge No. 2, and Infrastructure Surcharge No. 1 & No. 2**

Line No.	[A] Staff Recommended Permanent Rates Without Loan	[B] Infrastructure Surcharge No. 1 \$131,059 Loan at 8.00 Percent Interest Adjustments	[C] Staff Recommended Rates with Surcharge 1, Loan Prin & Interest, and Income taxes	[D] Infrastructure Surcharge No. 2 \$100,000 Loan at 8.00 Percent Interest Adjustments	[E] Staff Recommended Rates with Surcharge 2, Loan Prin & Interest, and Income taxes	[F] Infrastructure Surcharge Nos. 1 & 2 \$231,059 Loan at 8.00 Percent Interest Adjustments	[G] Staff Recommended Rates with Surcharges No. 1 and 2, Loan Prin & Interest, and Income taxes
1	\$ 51,800	\$ 13,155	\$ 64,955	\$ 10,037	\$ 61,837	\$ 23,192	\$ 51,800
2	\$ 15,343	\$ -	\$ 15,343	\$ -	\$ 15,343	\$ -	\$ 15,343
3	\$ 10,429	\$ -	\$ 10,429	\$ -	\$ 10,429	\$ -	\$ 10,429
4	\$ 6,099	\$ -	\$ 6,099	\$ -	\$ 6,099	\$ -	\$ 6,099
5	\$ 1,409	\$ -	\$ 1,409	\$ -	\$ 1,409	\$ -	\$ 1,409
6	\$ 903	\$ -	\$ 903	\$ -	\$ 903	\$ -	\$ 903
7	\$ 1,549	\$ -	\$ 1,549	\$ -	\$ 1,549	\$ -	\$ 1,549
8	\$ 1,650	\$ -	\$ 1,650	\$ -	\$ 1,650	\$ -	\$ 1,650
9	\$ 1,147	\$ -	\$ 1,147	\$ -	\$ 1,147	\$ -	\$ 1,147
10	\$ 400	\$ -	\$ 400	\$ -	\$ 400	\$ -	\$ 400
11	\$ 86	\$ -	\$ 86	\$ -	\$ 86	\$ -	\$ 86
12	\$ 2,948	\$ -	\$ 2,948	\$ -	\$ 2,948	\$ -	\$ 2,948
13	\$ 2,058	\$ -	\$ 2,058	\$ -	\$ 2,058	\$ -	\$ 2,058
14	\$ 44,021	\$ -	\$ 44,021	\$ -	\$ 44,021	\$ -	\$ 44,021
15	\$ 7,779	\$ 13,155	\$ 20,934	\$ 10,037	\$ 17,816	\$ 23,192	\$ 30,971
16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	\$ -	\$ 10,385	\$ 10,385	\$ 7,924	\$ 7,924	\$ 18,308	\$ 18,308
18	\$ -	\$ 10,385	\$ 10,385	\$ 7,924	\$ 7,924	\$ 18,308	\$ 18,308
19	\$ -	\$ 2,770	\$ 2,770	\$ 2,113	\$ 2,113	\$ 4,884	\$ 12,663
20	\$ -	\$ 2,770	\$ 2,770	\$ 2,114	\$ 2,114	\$ 4,884	\$ 4,884
21	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	\$ 7,779	\$ 2,770	\$ 10,549	\$ 2,113	\$ 9,892	\$ 4,884	\$ 12,663
26	\$ -	\$ 2,770	\$ 2,770	\$ 2,114	\$ 2,114	\$ 4,884	\$ 4,884
27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	N/A	\$ 2.21	\$ 2.21	\$ -	\$ 2.51	\$ -	\$ 1.80
31	N/A	\$ 1.75	\$ 1.75	\$ -	\$ 1.99	\$ -	\$ 1.43

Operating Revenue  
 Metered Water Revenue  
 Infrastructure Surcharge 1  
 Infrastructure Surcharge 2  
 Other Water Revenues  
 Total Operating Rev:

Operating Expenses  
 Salaries and Wages  
 Purchased Water  
 Purchased Power  
 Repairs and Maintenance  
 Office Supplies and Expense  
 Water Testing  
 Rents  
 Insurance - General Liability  
 Miscellaneous Expense  
 Depreciation Expense  
 Taxes Other Than Income  
 Income Tax  
 Total Operating Expense

Operating Income  
 Interest Income  
 Interest Expense  
 Interest-Customer Deposits  
 Total Other Interest Expense  
 Net Income  
 Principal Repayment  
 TIER  
 [L 18 + L 20] + L 22  
 DSC  
 [L 16 + L 17 + L 20] + [L 22 + L 26]

Line No.	SURCHARGE AMOUNTS					
1	Equivalent Annual Bills (1,536) = Number of Customers 128 times 12 months					
2						
3						
4	Infrastructure Surcharge No. 1 - Additional Tanks (Loan Amount \$131,059)					
5	Total Increase in Revenue \$13,155					
6	Equivalent Annual Bills 1,536					
7						
8	Surcharge Amount	\$	8.56			
9						
10	Pro forma Effects on monthly bill					
11	5/8"x 3/4" Meter	1	x	\$ 8.56	=	\$ 8.56
12	3/4" Meter	1.5	x	\$ 8.56	=	\$ 12.85
13	1" Meter	2.5	x	\$ 8.56	=	\$ 21.41
14	1 1/2" Meter	5	x	\$ 8.56	=	\$ 42.82
15	2" Meter	8	x	\$ 8.56	=	\$ 68.52
16	3" Meter	15	x	\$ 8.56	=	\$ 128.47
17	4" Meter	25	x	\$ 8.56	=	\$ 214.11
18	6" Meter	50	x	\$ 8.56	=	\$ 428.22
19						
20	Infrastructure Surcharge No. 2 - New Well (Loan Amount \$100,000)					
21	Total Increase in Revenue \$10,037					
22	Equivalent Annual Bills 1,536					
23						
24	Surcharge	\$	6.53			
25						
26	5/8"x 3/4" Meter	1	x	\$ 6.53	=	\$ 6.53
27	3/4" Meter	1.5	x	\$ 6.53	=	\$ 9.80
28	1" Meter	2.5	x	\$ 6.53	=	\$ 16.34
29	1 1/2" Meter	5	x	\$ 6.53	=	\$ 32.67
30	2" Meter	8	x	\$ 6.53	=	\$ 52.28
31	3" Meter	15	x	\$ 6.53	=	\$ 98.02
32	4" Meter	25	x	\$ 6.53	=	\$ 163.36
33	6" Meter	50	x	\$ 6.53	=	\$ 326.73
34						
35	Infrastructure Surcharge No. 1 and No. 2 - Additional Tanks (Loan Amount \$131,059) + New Well (Loan Amount \$100,000)					
36	Total Increase in Revenue \$23,192					
37	Equivalent Annual Bills 1,536					
38						
39	Surcharge	\$	15.10			
40						
41	5/8"x 3/4" Meter	1	x	\$ 15.10	=	\$ 15.10
42	3/4" Meter	1.5	x	\$ 15.10	=	\$ 22.65
43	1" Meter	2.5	x	\$ 15.10	=	\$ 37.75
44	1 1/2" Meter	5	x	\$ 15.10	=	\$ 75.49
45	2" Meter	8	x	\$ 15.10	=	\$ 120.79
46	3" Meter	15	x	\$ 15.10	=	\$ 226.48
47	4" Meter	25	x	\$ 15.10	=	\$ 377.47
48	6" Meter	50	x	\$ 15.10	=	\$ 754.95

**TYPICAL BILL ANALYSIS - WITH SURCHARGE NO. 1**

General Service 5/8 X 3/4 - Inch Meter

Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%
<u>Staff Recommend</u>					
Average Usage	4,033	\$30.21	\$40.76	\$10.55	34.92%
Median Usage	3,114	\$26.16	\$36.00	\$9.84	37.61%

Present & Proposed Rates (Without Taxes)  
 General Service 5/8 X 3/4 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$25.06	101.12%
1,000	16.86	33.80	100.47%	28.51	69.10%
2,000	21.26	42.60	100.38%	31.96	50.33%
3,000	25.66	51.40	100.31%	35.41	38.00%
4,000	30.06	60.20	100.27%	40.59	35.03%
5,000	34.46	69.00	100.23%	45.77	32.82%
6,000	38.86	77.80	100.21%	50.95	31.11%
7,000	44.36	89.64	102.07%	56.13	26.53%
8,000	49.86	101.48	103.53%	61.31	22.96%
9,000	55.36	113.32	104.70%	66.49	20.10%
10,000	60.86	125.16	105.65%	71.67	17.76%
15,000	88.36	184.36	108.65%	102.67	16.20%
20,000	115.86	243.56	110.22%	133.67	15.37%
25,000	143.36	302.76	111.19%	164.67	14.86%
50,000	280.86	598.76	113.19%	319.67	13.82%
75,000	418.36	894.76	113.87%	474.67	13.46%
100,000	555.86	1,190.76	114.22%	629.67	13.28%
125,000	693.36	1,486.76	114.43%	784.67	13.17%
150,000	830.86	1,782.76	114.57%	939.67	13.10%
175,000	968.36	2,078.76	114.67%	1,094.67	13.04%
200,000	1,105.86	2,374.76	114.74%	1,249.67	13.00%

**Wilhoit Water Company, Inc. - Thunderbird Meadows**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-0307

Schedule JMM-9

Test Year Ended December 31, 2006

**TYPICAL BILL ANALYSIS - WITH SURCHARGE NO. 2**

**General Service 5/8 X 3/4 - Inch Meter**

Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%

<u>Staff Recommend</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$38.73	\$8.52	28.20%
Median Usage	3,114	\$26.16	\$33.97	\$7.81	29.85%

**Present & Proposed Rates (Without Taxes)**

**General Service 5/8 X 3/4 - Inch Meter**

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$23.03	84.83%
1,000	16.86	33.80	100.47%	26.48	57.06%
2,000	21.26	42.60	100.38%	29.93	40.78%
3,000	25.66	51.40	100.31%	33.38	30.09%
4,000	30.06	60.20	100.27%	38.56	28.28%
5,000	34.46	69.00	100.23%	43.74	26.93%
6,000	38.86	77.80	100.21%	48.92	25.89%
7,000	44.36	89.64	102.07%	54.10	21.96%
8,000	49.86	101.48	103.53%	59.28	18.89%
9,000	55.36	113.32	104.70%	64.46	16.44%
10,000	60.86	125.16	105.65%	69.64	14.43%
15,000	88.36	184.36	108.65%	100.64	13.90%
20,000	115.86	243.56	110.22%	131.64	13.62%
25,000	143.36	302.76	111.19%	162.64	13.45%
50,000	280.86	598.76	113.19%	317.64	13.10%
75,000	418.36	894.76	113.87%	472.64	12.97%
100,000	555.86	1,190.76	114.22%	627.64	12.91%
125,000	693.36	1,486.76	114.43%	782.64	12.88%
150,000	830.86	1,782.76	114.57%	937.64	12.85%
175,000	968.36	2,078.76	114.67%	1,092.64	12.83%
200,000	1,105.86	2,374.76	114.74%	1,247.64	12.82%

**Wilhoit Water Company, Inc. - Thunderbird Meadows**

Docket Nos. W-02065A-07-0312, W-02065A-07-0306, and W-02065A-0307  
 Test Year Ended December 31, 2006

Schedule JMM-10

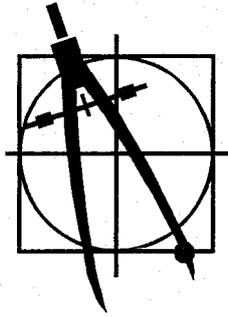
**TYPICAL BILL ANALYSIS - WITH SURCHARGES NO. 1 & 2**  
 General Service 5/8 X 3/4 - Inch Meter

Average Number of Customers: 128

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	4,033	\$30.21	\$60.49	\$30.28	100.23%
Median Usage	3,114	\$26.16	\$52.40	\$26.24	100.31%
<u>Staff Recommend</u>					
Average Usage	4,033	\$30.21	\$47.29	\$17.08	56.54%
Median Usage	3,114	\$26.16	\$42.53	\$16.37	62.58%

Present & Proposed Rates (Without Taxes)  
 General Service 5/8 X 3/4 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$12.46	\$25.00	100.64%	\$31.59	153.53%
1,000	16.86	33.80	100.47%	35.04	107.83%
2,000	21.26	42.60	100.38%	38.49	81.04%
3,000	25.66	51.40	100.31%	41.94	63.45%
4,000	30.06	60.20	100.27%	47.12	56.75%
5,000	34.46	69.00	100.23%	52.30	51.77%
6,000	38.86	77.80	100.21%	57.48	47.92%
7,000	44.36	89.64	102.07%	62.66	41.25%
8,000	49.86	101.48	103.53%	67.84	36.06%
9,000	55.36	113.32	104.70%	73.02	31.90%
10,000	60.86	125.16	105.65%	78.20	28.49%
15,000	88.36	184.36	108.65%	109.20	23.59%
20,000	115.86	243.56	110.22%	140.20	21.01%
25,000	143.36	302.76	111.19%	171.20	19.42%
50,000	280.86	598.76	113.19%	326.20	16.14%
75,000	418.36	894.76	113.87%	481.20	15.02%
100,000	555.86	1,190.76	114.22%	636.20	14.45%
125,000	693.36	1,486.76	114.43%	791.20	14.11%
150,000	830.86	1,782.76	114.57%	946.20	13.88%
175,000	968.36	2,078.76	114.67%	1,101.20	13.72%
200,000	1,105.86	2,374.76	114.74%	1,256.20	13.59%



**Engineering Report  
For  
Wilhoit Water Company, Inc.  
(Thunderbird Meadows System)**

**Docket Nos.**  
**W-02065A-07-0306**  
(Financing #1 - Well)  
**W-02065A-07-0307**  
(Financing #2 - Tanks)  
**W-02065A-07-0312**  
(Rates)

**CONCLUSIONS**

1. The Wilhoit Water Company, Inc. ("Wilhoit" or "the Company") Thunderbird Meadows water system has inadequate well production (See Section B for further discussion).
2. The arsenic level reported by Wilhoit for the Thunderbird Meadows water system complies with the new arsenic MCL.
3. The Arizona Department of Environmental Quality ("ADEQ") has determined that the Wilhoit Thunderbird Meadows water system (ADEQ Public Water System Identification No. 13-056) has no major deficiencies and is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.
4. The Wilhoit Thunderbird Meadows water system is not within any Arizona Department of Water Resources ("ADWR") Active Management Area ("AMA"), and consequently is not subject to ADWR AMA reporting and conservation rules.
5. Wilhoit has an approved curtailment tariff for its Thunderbird Meadows system on file with the Arizona Corporation Commission.
6. Staff concludes that the proposed Well Project was appropriate and that the submitted costs for drilling the well appear to be reasonable. However, this does not imply any particular future treatment for rate base (See Section K for further discussion).
7. Staff concludes that the proposed Tank Project is appropriate and the estimated costs appear to be reasonable. However, this does not imply any particular future treatment for rate base. No "used and useful" determination of the proposed plant was made,

and no conclusions should be inferred for rate making or rate base purposes (See Section K for further discussion).

## RECOMMENDATIONS

1. Staff recommends that by December 31, 2008, Wilhoit file, as a compliance item with the Commission's Docket Control, the ADEQ Approval of Construction for the plant related to the Company's development of a new water source. In addition, Staff believes that the Thunderbird Meadows Water system should be evaluated from a global perspective to determine system adequacy and efficiency. Staff further recommends that the Company take immediate action to seek assistance from ADEQ through its system evaluation program. Upon completion of the ADEQ system evaluation, Staff further recommends that the Company immediately apply for a Technical Assistance Grant from the Water Infrastructure and Finance Authority ("WIFA") to assist in designing projects that will improve system performance.
2. Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit address deficiencies #1 and #2 in the operation and maintenance inspection report issued by ADEQ on October 3, 2006, and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed (See Section D for further discussion).
3. Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit make all necessary corrections to ADWR registration records to reflect ownership of all wells by Wilhoit and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that such corrections have been made.
4. Water testing expenses should be adjusted to the annual expense amount of \$1,550.00 (See Section F for further discussion).
5. Staff recommends that the Company monitor the Thunderbird Meadows system and submit the gallons pumped and sold to determine the non-account water for one full year. The results of this monitoring and reporting shall be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss is greater than 10% the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10% or less. If the Company believes it is not cost effective to reduce the water loss to less than 10%, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15%. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding (See Section G for further discussion).

6. Staff recommends that the Company be required to report its customer count separately for each of its systems in future Annual Reports (See Section H for further discussion).
7. Staff recommends that the Company use specific depreciation rates by National Association of Regulatory Utility Commissioners category. These rates are presented in Exhibit 4 and it is recommended that the Company use these rates on a going-forward basis (See Section I for further discussion).
8. Staff recommends that the Service Line and Meter Installation Charges listed in Section K that are recommended by Staff be adopted.
9. Staff recommends that by December 31, 2008, Wilhoit complete the needed improvements identified during Staff's site inspection and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed (See Section K for further discussion).

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## EXHIBITS

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## **A. INTRODUCTION AND LOCATION OF COMPANY**

On May 21, 2007, Wilhoit Water Company, Inc. ("Wilhoit" or "the Company") filed a rate application with the Arizona Corporation Commission ("ACC") to increase the rates it is allowed to charge customers in its Thunderbird Meadows service area.<sup>1</sup> On the same date Wilhoit also filed two separate financing applications with the ACC wherein it is seeking approval of funding to cover the cost of upgrades to its Thunderbird Meadows water system.<sup>2</sup> The purpose of this report is to provide a description of the Company's Thunderbird Meadows water system, provide information on its compliance status with other regulatory agencies, and provide any other information which impacts its ability to provide service to existing and future customers. The Company's Thunderbird Meadows service area which comprises roughly 360 acres (.6 square miles) is located approximately 16 miles southwest of Prescott on Highway 89 in Yavapai County. The area adjacent to the Thunderbird Meadows service area, immediately northwest of Highway 89, is served by Walden Meadows Community Co-op ("Walden"). Exhibit 1 describes the service area of the Company and Exhibit 2 shows the location of the Company in relation to other Commission regulated companies in Yavapai County.

## **B. DESCRIPTION OF THE WATER SYSTEM**

The Thunderbird Meadows Water system was visited on July 2, 2007, by Commission Staff member Del Smith in the accompaniment of Mr. Jim West of West & Company, LLC, Authorized Representative of the Company.

Although the Company has added new wells to the Thunderbird Meadows Water system since its last rate application in the early 1990s, very little improvement in overall system water production has resulted; the Company is still purchasing a significant amount of the water it delivers to its customers. At the time of Staff's previous inspection and evaluation<sup>3</sup> of the Thunderbird Meadows water system it consisted of five wells, but only two wells were in service with a total production of 12 gallons per minute ("GPM"). Currently, the Thunderbird Meadows Water system has nine wells, but only three wells are in service with a total production of 15 GPM. Included in the nine wells is a new well that was drilled in 2006. This well which is not in service yet is awaiting Arizona Department of Environmental Quality ("ADEQ") approval. It is expected to be a low producer at only two GPM (see Financing in Section K for further discussion). Total system storage capacity remains unchanged at 67,000 gallons. The system currently serves approximately 125 metered customers. The current well production capacity is only capable of providing adequate service to approximately 73 customers based on water use data provided by the Company for

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<sup>1</sup> Applicant also holds Certificates of Convenience and Necessity to provide water service to the following separate unconnected systems: Yavapai Estates and Blue Hills.

<sup>2</sup> Staff filed to consolidate the rate and financing applications into a single proceeding on September 19, 2007.

<sup>3</sup> The Thunderbird Meadows water system was last inspected by Staff in May 1992. The inspection was conducted in connection with the Company's last rate order, Decision No. 58102, dated December 9, 1992.

2006. Because of the system's low water production, approximately half of the water sold to customers is being purchased from Walden through a 3-inch master meter and permanent interconnection facility that extends across Highway 89 to a 133,000 gallon storage tank owned by Walden. Water is gravity fed from the Walden tank when the water level in the Wilhoit tanks drop below a specified level.

The existing purchased water agreement with Walden limits the available water from Walden to 400,000 gallons per month, although Walden has frequently delivered more than 400,000 to meet Wilhoit customer needs. However, during a peak demand period this last summer Walden did limit the delivery of water to Wilhoit which resulted in an extended period of curtailment and numerous customer complaints. Since all of the wells within its service area have been low water producers, Staff believes that Wilhoit should look beyond its service area and consider other areas for drilling a new well. Walden recently drilled a well northwest of Highway 89 near Donegal Drive which is capable of producing 165 GPM. Based on the limited information that is available, Staff's believes a reasonable estimate to drill such a well is \$100,000. The specific location of any new well and many other factors which are unknown at this time could have a significant impact on the actual cost. Staff believes that the most cost effective solution can be realized if Wilhoit and Walden work cooperatively and that such a solution could benefit both companies.

Staff recommends that by December 31, 2008, Wilhoit file, as a compliance item with the Commission's Docket Control, the ADEQ Approval of Construction for the plant related to the Company's development of a new water source. In addition, Staff believes that the Thunderbird Meadows Water system should be evaluated from a global perspective to determine system adequacy and efficiency. Staff further recommends that the Company take immediate action to seek assistance from ADEQ through its system evaluation program. Upon completion of the ADEQ system evaluation, Staff further recommends that the Company immediately apply for a Technical Assistance Grant from the Water Infrastructure and Finance Authority ("WIFA") to assist in designing projects that will improve system performance.

The Thunderbird Meadows system consists of two well sites and one primary storage tank site. Generally, each well site includes a well and well meter. One of the well sites, referred to as the "second tank and well site" includes a storage tank and booster pump. Exhibit 3 is a schematic diagram showing how the well sites and various system components interconnect.

The water system has adequate storage capacity (see ADEQ Compliance-Section D.2 and Financing-Section K.4.b for further discussion regarding the storage tanks).

Well Site Data (see Note 1)

Well Site	Second Tank & Well Site	Second Tank & Well Site	New Well Site (aka Lower Well Site)	New Well Site (aka Lower Well Site)
ADWR ID No.	55-622742	55-622744	55-568193	55-804908 (Note 2)
Casing Size (inches)	8	6	8	5
Casing Depth (feet)	810	176	805	760
Pump Type	submersible	submersible	submersible	submersible
Pump Size (horsepower)	3	1/2	3	2
Pump Yield (gpm)	5	5	5	2 (Note 3)
Meter Size (inches)	1	3/4	1 1/2	na
Chlorinator	na	na	na	na
Storage Tanks (gallons)	12,000 (Note 4)	12,000 (Note 4)	na	na
Booster Pumps (horsepower)	1 – 1 (Note 5)	1 – 1 (Note 5)	na	na
Pressure Tanks (gallons)	na	na	na	na
Surge Tanks (gallons)	na	na	na	na
Structures	na	na	Small approx. 3' X 5' Well and Generator Enclosures	na

Notes:

1. In addition to the wells listed in the following table the company identified five wells in its 2006 annual report which apparently have been abandoned and are no longer in service. Four of the inactive wells are located in the general vicinity of the Second Tank and Well Site and the fifth inactive well is located near Highway 89 between Steven Trail and Magby Drive. Staff concludes these wells are no longer "used and useful" to the utilities provision of service.
2. Well (ADWR ID #55-804908) was not in Service at time of Staff's inspection, drilled in 2006 this well is still under construction and waiting for ADEQ approvals.
3. Company's expected GPM per test yield.
4. A single 12,000 gallon storage tank is located at the Second Tank & Well Site.
5. A single one horsepower booster pump is located at the Second Tank & Well Site.

Storage Tank Site

Site	Storage Tanks (gallons)	Components	Structures
Upper Tank Site	1 - 22,000 1 - 33,000	(Note 1)	na

Notes:

1. The interconnection facility with Walden terminates at the Upper Tank Site. This facility consists of a 3 inch PVC line (approximately 1,000 feet in length) and automatic controls and valves (the flow of water from Walden is controlled automatically, it is stopped when water reaches a pre-determined level in Wilhoit's 33,000 gallon storage tank). A 3 inch meter is located between the two storage tanks. This meter measures the flow of water through gravity feed from a Walden 133,000 gallon storage tank located on the other side of Highway 89.

Water Main Data

Diameter(inches)	Material	Length (feet)
4	PVC	10,500
6	PVC	10,500

Notes:

1. Quantities reflect annual report data for 2006.
2. Twenty-two thousand feet of 4 inch and 6 inch AC pipe was reported at the time of the last rate case.

Customer Meter Data

Size	Quantity
5/8 x 3/4-inch	123

Notes:

1. Quantities reflect annual report data for 2006.
2. Seventy 5/8 x 3/4-inch meters were reported at the time of the last rate case.

Fire Hydrant Data

Size	Quantity <sup>1</sup>
Standard	na

Notes:

1. Quantities reflect annual report data for 2006.
2. There were no fire hydrants reported at the time of the last rate case.

### C. ARSENIC

The U.S. Environmental Protection Agency (EPA) has reduced the arsenic maximum contaminant level (MCL) in drinking water from 50 micrograms per liter ( $\mu\text{g/l}$ ) to 10  $\mu\text{g/l}$ . The arsenic level reported by Wilhoit for the Thunderbird Meadows system complies with the new arsenic MCL.

### D. ADEQ COMPLIANCE

#### 1. ADEQ Compliance Status

ADEQ has determined that the Wilhoit Thunderbird Meadows water system (ADEQ Public Water System Identification No. 13-056) has no major deficiencies and is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.<sup>4</sup>

#### 2. ADEQ Notice of Violation ("NOV")

On September 29, 2006, the Wilhoit Thunderbird Meadows water system was inspected by ADEQ. As a result of that inspection ADEQ issued an NOV to Wilhoit on February 21, 2007. The NOV is an informal compliance assurance tool used by ADEQ to put the responsible party, in this case Wilhoit, on notice that ADEQ believes a violation of an environmental requirement has occurred. The NOV was issued to Wilhoit for "failure to ensure that a material or product that comes in contact with water or with water treatment chemicals conforms with American National Standards Institute / NSF International Standard 61-1997(b)". The interior of the two storage tanks located at the upper tank site was recoated with shotcrete. The ADEQ operation and maintenance inspection report, issued as a result of ADEQ's September 29, 2006 inspection, recommended that Wilhoit address seven deficiencies identified during the inspection. Deficiencies numbered 3 through 7 in the operation and maintenance inspection report will be addressed when the Company replaces the storage tanks which it plans to do (see Section K for further discussion about the Company's application for financing to fund a storage tank replacement project). Deficiencies #1 and #2 listed below had not been addressed at the time of Staff's inspection.

- #1 Well #55-622742 has a sink hole near the well site. The sink hole should be filled in to protect the well.
- #2 The electrical wiring penetrating the well seal for well #55-622742 should be caulked to prevent entry of contaminants into the well.

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<sup>4</sup> ADEQ Drinking Water Compliance Status Report dated 4-30-07 (submitted with the rate application).

Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit address deficiencies #1 and #2 (above) and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed.

#### **E. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

The Wilhoit Thunderbird Meadows water system is not within any ADWR Active Management Area ("AMA"), and consequently is not subject to ADWR AMA reporting and conservation rules.

ADWR well records were checked to verify Company ownership of the wells. ADWR records indicated that the three active wells were owned by David Conlin or Glen Arm Land. Staff recommends that within 60 days of the effective date of the order in this matter Wilhoit make all necessary corrections to ADWR registration records to reflect ownership of all wells by Wilhoit and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that such corrections have been made.

#### **F. WATER TESTING EXPENSE**

The Thunderbird Meadows Water system is subject to mandatory participation in the Monitoring Assistance Program ("MAP"). Participation in the MAP program is mandatory for water systems, which serve less than 10,000 persons (approximately 3,300 service connections). The Company reported its water testing expense at \$1,724.24<sup>5</sup> during the test year. Staff has reviewed the Company's testing expense and has recalculated the testing costs to remove non-water testing fees, and to add the omitted monitoring requirements for lead & copper.

Water testing costs were calculated, based on the following assumptions:

- MAP will do baseline testing on all parameters except copper, lead, nitrates, and coliform bacteria.
- ADEQ testing is performed in 3 year compliance cycles. Therefore, monitoring costs are estimated for a 3 year compliance period and then presented as a *pro forma* expense on an annualized basis.

Water testing expenses should be adjusted to the annual expense amount shown in the table below.

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<sup>5</sup> Amended water testing expense per Company filing docketed August 20, 2007.

Water Testing Cost

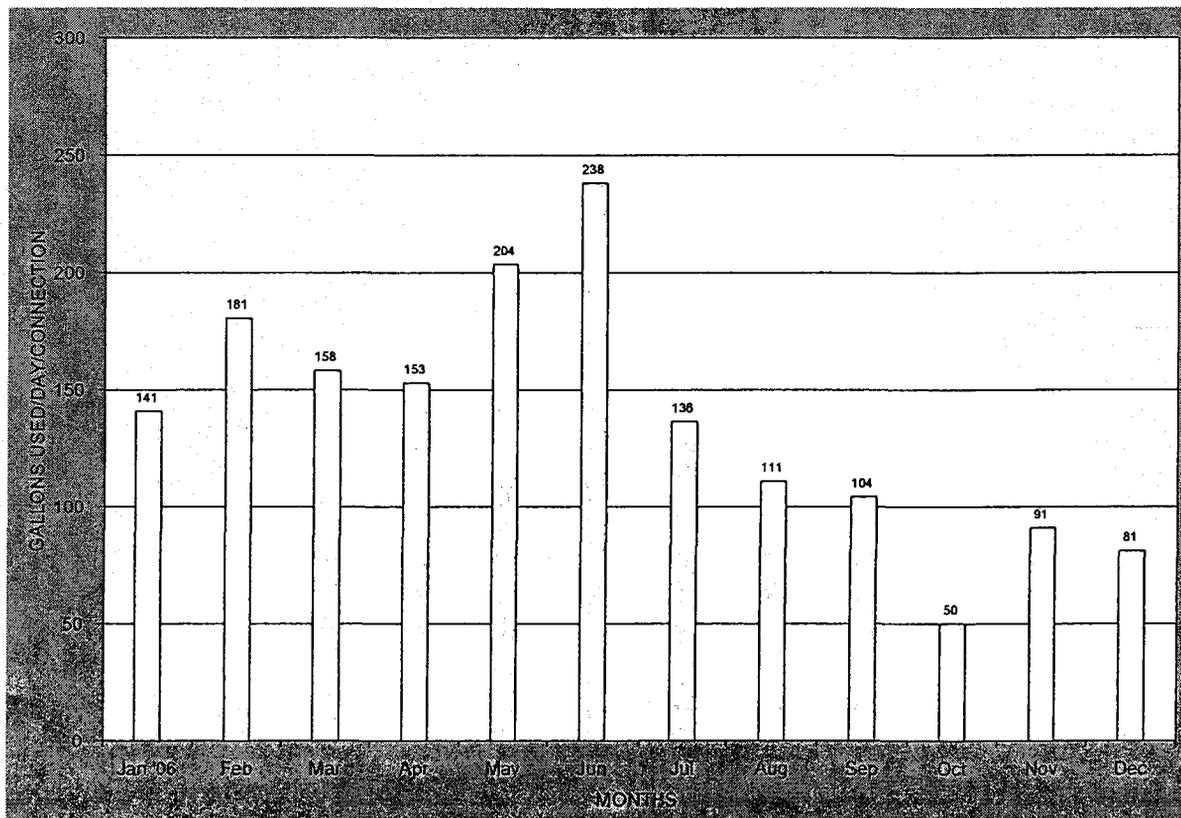
Monitoring – 1 system, One POE (Tests per 3 years, unless noted)	Cost per test	No. of tests per 3 years	Total 3 year cost	Annual cost
Bacteriological – monthly	\$65	36	\$2,340	\$780
Inorganics	MAP	MAP	MAP	MAP
Radiochemical – (1/ 4 yrs)	MAP	MAP	MAP	MAP
IOC's, SOC's, VOC's	MAP	MAP	MAP	MAP
Nitrites	MAP	MAP	MAP	MAP
Nitrates – annual	\$55	3	\$165	\$55
Asbestos – per 9 years	MAP	MAP	MAP	MAP
Lead & Copper – per 3 years	\$45	5	\$225	\$75
Shipping – per year	\$50	3	\$150	\$50
MAP fees*				\$590.00
Total				<b>\$1550.00</b>

\*ADEQ MAP billing for Calendar Year 2006.

**G. WATER USE**

Water Sold

Based on the information provided by the Company for the Thunderbird Meadows system, water use for the test year ending December 31, 2006, is presented below. Customer consumption included a high monthly water use of 238 gallons per day (“GPD”) per connection in June, and the low water use was 50 GPD per connection in October. The average annual use was 137 GPD per connection.



Non-account Water

It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. Non-account water should be 10% or less. The Company reported 6,147,920 gallons of water sold and did not report the number of gallons pumped during the test year. The Company has informed Staff that its was not known until recently that meters were in place on the Thunderbird Meadows system's wells, therefore, no readings were done in 2006. Since the gallons pumped are unknown at this time, the percent of non-account water for the Thunderbird Meadows system can not be determined.

Staff recommends that the Company monitor the Thunderbird Meadows system and submit the gallons pumped and sold to determine the non-account water for one full year. The results of this monitoring and reporting shall be docketed as a compliance item in this case within 13 months of the effective date of the order issued in this proceeding. If the reported water loss in greater than 10% the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10% or less. If the Company believes it is not cost effective to reduce the water loss to less than 10%, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater

than 15%. The water loss reduction report or the detailed analysis, whichever is submitted, shall be docketed as a compliance item within 13 months of the effective date of the order issued in this proceeding.

## **H. GROWTH**

In the Company's Annual Reports, it did not separate the customer count for each of its three independent water systems, but instead, reported its entire customer base as one. Therefore, Staff cannot report or project growth for the Thunderbird Meadows system using the Annual Report growth data. Staff recommends that the Company be required to report its customer count by system in future Annual Reports. Staff would note, however, that the Company reported 75 customers during 1991, for the Company's prior rate case, and the Company reported 123 customers during 2006 test year for this rate case. Based on this information, Staff calculated a growth rate of approximately three customers per year and estimates that the system could have over 138 customers by 2011.

## **I. DEPRECIATION RATES**

The Company has been using a depreciation rate of 5.00% in every National Association of Regulatory Utility Commissioners ("NARUC") plant category. In recent orders, the Commission has been shifting away from the use of composite rates in favor of individual depreciation rates by NARUC category. (For example, a uniform 5% composite rate would not really be appropriate for either vehicles or transmission mains and instead, different specific retirement rates should be used.)

Staff has developed typical and customary depreciation rates within a range of anticipated equipment life by NARUC category. These rates are presented in Exhibit 4 and it is recommended that the Company use these rates on a going-forward basis.

## **J. CURTAILMENT PLAN TARIFF**

Wilhoit has an approved curtailment tariff for its Thunderbird Meadows system on file with the ACC.

## **K. OTHER ISSUES**

### **1. Service Line and Meter Installation Charges**

The Company has requested changes in its service line and meter installation charges. These charges are refundable advances and the Company's requested charges are within the range of charges typically recommended by Staff. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Therefore, separate service line and meter charges have been

developed by Staff. Staff's recommended charges listed in the table below should be adopted.

Service Line and Meter Installation Charges

Meter Size	Company's Current Charges	Company's Proposed Charges	Staff's Recommendations		
			Service Line Charges	Meter Charges	Total Charges
5/8 x 3/4-inch	\$278	\$520	\$385	\$135	\$520
3/4-inch	\$309	\$600	\$385	\$215	\$600
1-inch	\$360	\$690	\$435	\$255	\$690
1-1/2-inch	\$552	\$935	\$470	\$465	\$935
2-inch	\$779	\$1,595	\$630	\$965	\$1,595
3-inch	\$1,010	\$2,275	\$805	\$1,470	\$2,275
4-inch	\$1,703	\$3,520	\$1,170	\$2,350	\$3,520
6-inch	\$3,769	\$6,275	\$1,730	\$4,545	\$6,275

2. Miscellaneous Expenses Included Under Water Testing

The Company reported non-water testing expenses in the water testing category. For purposes of clarification, Staff removed these expenses from its recommended water testing expense. The expenses removed were for yard clean up, to attend an ADEQ meeting and for preparation of an ADEQ report. Staff believes these expenses which totaled \$300 are reasonable and appropriate but should not be identified and included as a water testing expense.

3. Plant Deficiencies Identified During Staff's Site Inspection

Staff identified several items that needed attention during its site visit on July 2, 2007, the items identified were:

- Correct substandard (loose and/or exposed) wiring at the upper and the lower tank sites to meet applicable safety standards.
- Replace any substandard/unsafe power panels and deteriorated supporting structures.
- Install new fencing and/or repair existing fencing around wells and storage tanks at the upper and the lower tank sites to meet minimum security requirements.
- Install clear readable signage at all sites as required by ADEQ.
- Clean up tank and well sites remove old parts and other debris from area.

Staff recommends that by December 31, 2008, Wilhoit complete the needed improvements listed above and file, as a compliance item with the Commission's Docket Control, documentation demonstrating that the improvements have been completed.

4. Financing Applications

Wilhoit submitted two separate financing applications: Docket No. W-02065A-07-0306 referred to herein as Well Project; and, Docket No. W-02065A-07-0307 referred to herein as Tank Project.

Construction Projects and Costs

1. Well Project - drilling of a new well (ADWR# 55-804908)

The Company reported that this well was drilled in 2006 to provide additional source capacity to the system. The Company is proposing a retroactive debt financing from its parent company, Glenarm Land Company, Inc., in the amount of \$15,000 annualized over a term of ten years, with such sum to bear interest at 10 percent per annum until paid. A copy of the receipt from Universal Drilling, Inc. for \$15,072.96 to drill the well was included with the application. The receipt included the following cost breakdown:

Description	Amount
7-inch steel surface casing	\$800.00
Drilled and cased hole with PVC casing with well screen	\$13,680.00
Sales Tax	\$592.96
Total	\$15,072.96

This well is expected to be a low producer at only two GPM. At the time of Staff's inspection the well was still under construction awaiting ADEQ approval. Even though the well will only provide a small amount of relief at two GPM, the Company plans to place the well into service as soon as possible. Staff concludes that the proposed Well Project was appropriate and that the submitted costs for drilling the well appear to be reasonable. However, this does not imply any particular future treatment for rate base. At the present time the well is not used and useful.

2. Tank Project

The Company is requesting authorization to incur \$131,058.62 in debt for installation of two new 25,000 gallon steel storage tanks, a 14,000 gallon galvanized storage tank with ring, and cover the miscellaneous plumbing and electrical, in order to address the ADEQ NOV and to

remedy the current maintenance issues. As part of this financing application the Company submitted an invoice from Prescott Pump Service, Inc. which included the following cost breakdown:

Description	Amount
Two - 25,000 Gallon Steel Storage Tanks	\$51,000.00
14,000 Gallon Galvanized Tank w/Ring	\$7,868.00
Miscellaneous Plumbing & Electrical	\$15,000.00
Total Material	\$73,868.00
Sales Tax	\$4,690.62
Tank Delivery	\$3,500.00
Site Prep & Excavation	\$40,000.00
Water Delivery	\$2,000.00
Installation Labor	\$7,000.00
Total Installed	\$131,058.62

Staff concludes that the proposed Tank Project is appropriate and the estimated costs appear to be reasonable. However, this does not imply any particular future treatment for rate base. No "used and useful" determination of the proposed plant was made, and no conclusions should be inferred for rate making or rate base purposes.

EXHIBIT 1

**COUNTY:** *Yavapai*

**RANGE** 3 West

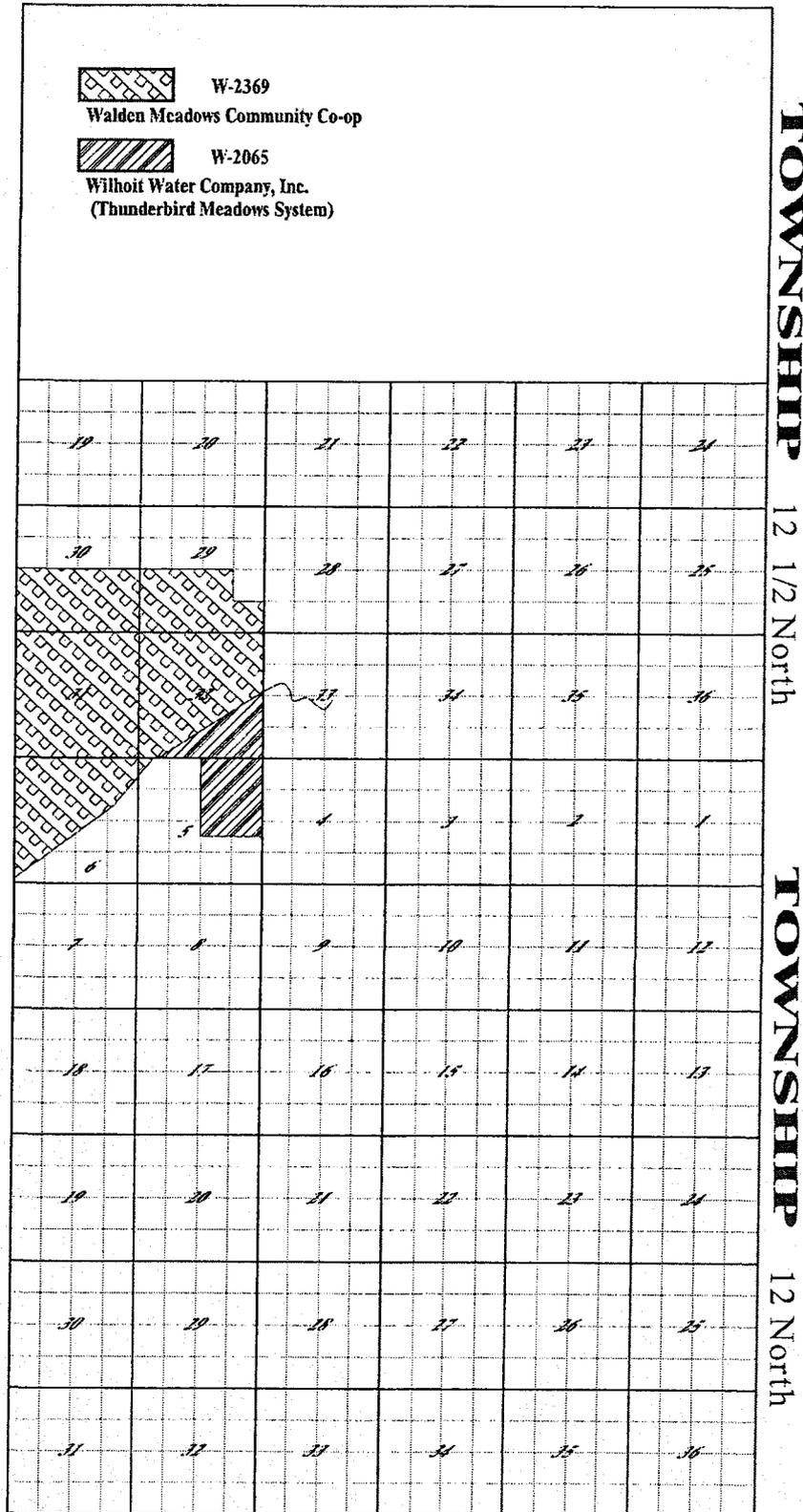
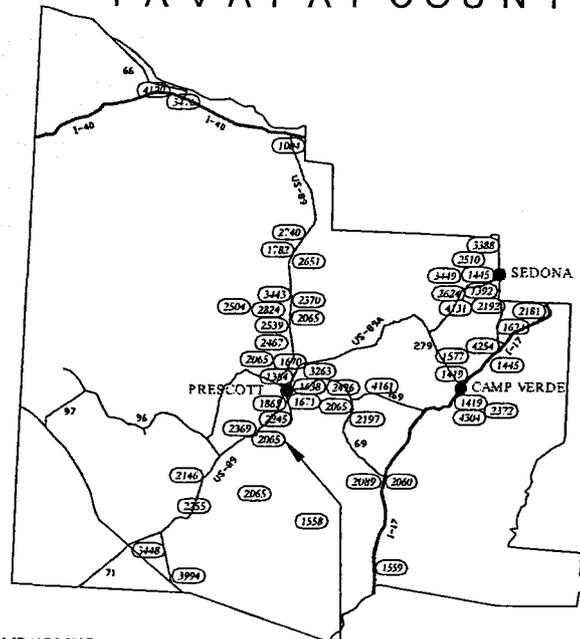


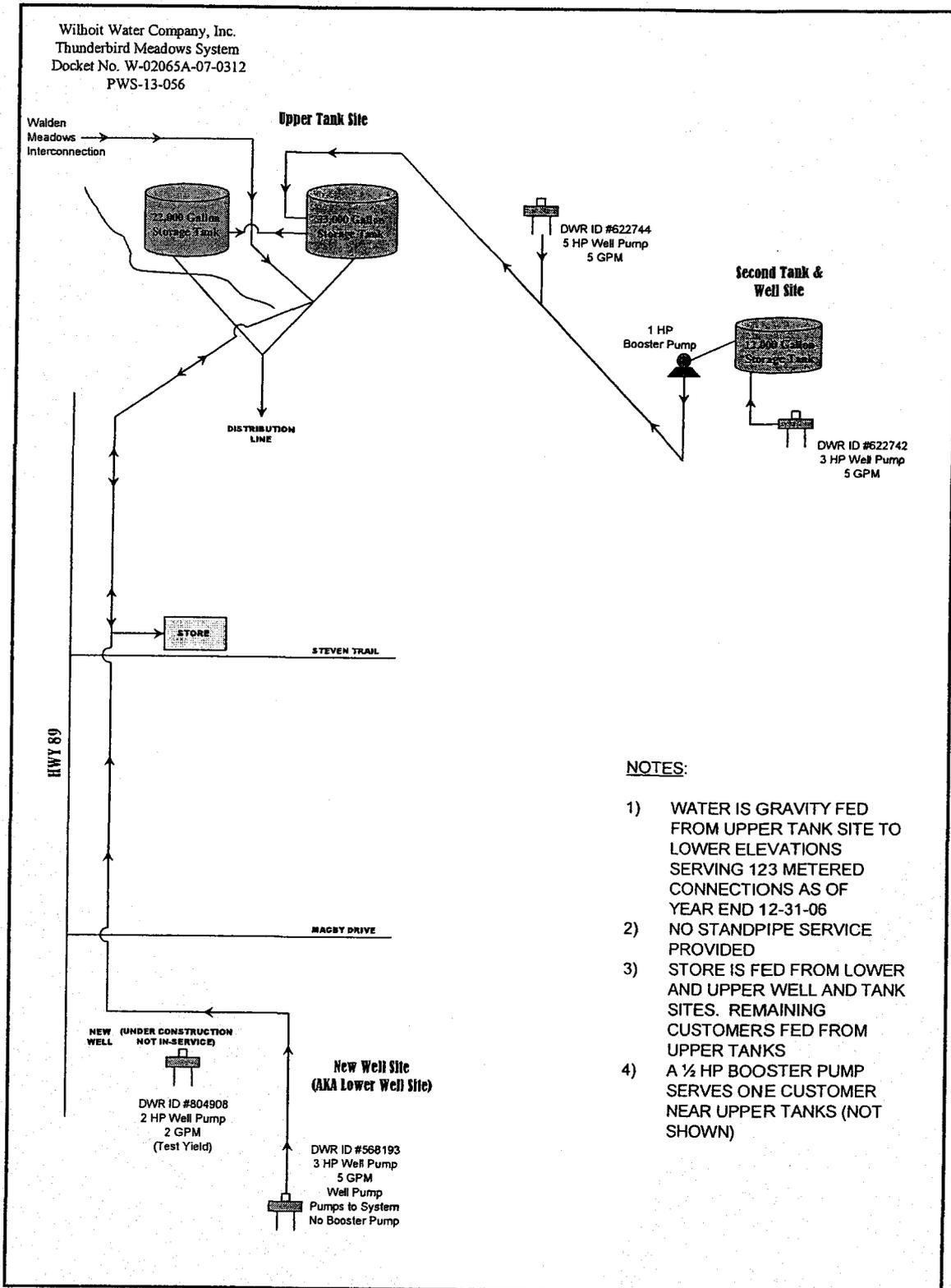
EXHIBIT 2

YAVAPAI COUNTY



- |        |  |        |  |
|--------|--|--------|--|
| (1782) | ABRA WATER COMPANY, INC.                     | (1638) | HOLIDAY HILLS WATER COMPANY                    |
| (2740) | ANTELOPE LAKES WATER COMPANY                 | (2197) | HUMBOLDT WATER SYSTEM, INC.                    |
| (3443) | APPALOOSA WATER COMPANY                      | (2824) | ICR WATER USERS ASSOCIATION                    |
| (1445) | ARIZONA WATER COMPANY                        | (2624) | MICHAELS RANCH WATER USERS' ASSOCIATION        |
| (1004) | ASHFORK DEVELOPMENT ASSOCIATION, INC.        | (2651) | JUNIPER WELLS WATER COMPANY                    |
| (3476) | BN LEASING CORPORATION                       | (1557) | LAKE VERDE WATER COMPANY                       |
| (1624) | BIG PARK WATER COMPANY                       | (2192) | LITTLE PARK WATER COMPANY, INC.                |
| (2510) | BOYNTON CANYON ENCHANTMENT HOMEOWNERS ASSOC. | (2245) | LOMA ESTATES WATER COMPANY, LLC                |
| (2089) | BRADSHAW MOUNTAIN VIEW WATER COMPANY         | (2504) | MEADOW WATER COMPANY                           |
| (2476) | BRADSHAW WATER COMPANY, INC.                 | (4254) | MONTEZUMA RIMROCK WATER COMPANY, LLC           |
| (1419) | CAMP VERDE WATER SYSTEM                      | (4304) | OAK CREEK PUBLIC SERVICE, LLC                  |
| (3994) | CDC WICKENBURG WATER, LLC                    | (1392) | OAK CREEK WATER COMPANY NO. 1                  |
| (2370) | CHINO MEADOWS II WATER COMPANY, INC.         | (2146) | PEEPLES VALLEY WATER COMPANY                   |
| (1559) | COLDWATER CANYON WATER COMPANY               | (2181) | PINE VALLEY WATER COMPANY                      |
| (2060) | CORDES LAKES WATER COMPANY                   | (3448) | RAINBOW PARKS, INC.                            |
| (4131) | CROSS CREEK RANCH WATER COMPANY              | (3449) | SEDONA VENTURE (MHC OPERATING LTD PARTNERSHIP) |
| (1558) | CROWN KING WATER COMPANY, INC.               | (3388) | SEVEN CANYONS WATER COMPANY                    |
| (1384) | DELL'S WATER COMPANY, INC.                   | (1671) | SHERMAN PINES WATER COMPANY                    |
| (3263) | DIAMOND VALLEY WATER USERS ASSOCIATION       | (2372) | VERDE LAKES WATER CORPORATION                  |
| (4120) | GRAND CANYON CAVERNS AND INN, LLC            | (2369) | WALDEN MEADOWS COMMUNITY COOPERATIVE           |
| (1670) | GRANITE DELLS WATER COMPANY                  | (4161) | WHITE HORSE RANCH OWNERS ASSOCIATION, INC.     |
| (2467) | GRANITE MOUNTAIN WATER COMPANY, INC.         | (2065) | WILHOIT WATER COMPANY, INC.                    |
| (2539) | GRANITE OAKS WATER USERS ASSOCIATION         | (2255) | YARNELL WATER IMPROVEMENT ASSOCIATION          |
| (1865) | GROOM CREEK WATER USERS ASSOCIATION          |        |  |

**EXHIBIT 3**



**EXHIBIT 4**  
**TYPICAL DEPRECIATION RATES FOR WATER COMPANIES**

NARUC Account No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	5	20.0
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.