

Hardin County Water District No. 1

Serving Radcliff and Hardin County for Over 50 Years

1400 Rogersville Road
Radcliff, KY. 40160

June 9, 2005

Mr. James A. Welch, P.E.
Director of Engineering
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602

Case 2005--00225

RECEIVED

JUN 15 2005

PUBLIC SERVICE
COMMISSION

SUBJECT: Request for Administrative Regulation Deviation

Dear Mr. Welch;

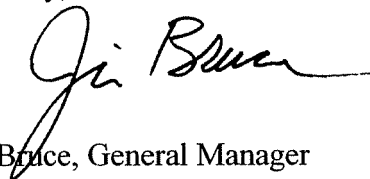
We respectfully request a deviation from PSC regulation 807 KAR 5:041, Section 15, Periodic Test Schedule. As funding was approved by the PSC (case number 2004-00453), we are switching to an Automated Meter Reading System (AMR). We hereby request a suspension of the normal meter testing requirements (for 5/8, 3/4 and 1 inch meters, referred to as "small meters") for a period of 5 years, during which time all small meters in our system will be changed out and replaced with a new tested and calibrated AMR meter.

Newer existing meters that can be retro-fitted to AMR will also be tested and all will be then fitted with an AMR module. We believe the attached report will show good cause that a deviation from Administrative Regulation is in order. Said consideration of deviation from regulation is provided by KAR 807 Chapter 5:066 - Section 18.

Our test cycle is current and up to date with no meters in the field with a test date older than 10 years. Our 2004 quarterly reports reflect that only 180 meters of 1,490 meters tested were more than 2% slow or fast, which equates to only a 12% failure rate. (All 180 meters were registering less than 2%)

By granting this request for deviation, Hardin County Water District No.1 can avoid redundant costs to our customers for testing meters that are about to be replaced. Please feel free to call if you need more information or have any questions.

Sincerely,



Jim Bruce, General Manager

1. Background

On October 19, 2004, at their regularly scheduled meeting, the Hardin County Water District No.1 (District) Board of Commissioners approved a plan to install an Automated Meter Reading (AMR) system. The District staff has devised a plan to implement the system over a five (5) year period, beginning in 2005 and completing in 2010. Bids were accepted and the bid of \$1,625,816 (Exhibit 1) was accepted by our Board (includes all trailer park meters and estimated future growth needs, which final number of meters may be less than the project cost estimated). This does not include labor.

The labor cost will depend on the outcome of this request. If this request is granted we anticipate hiring two (2) part time workers per summer to assist existing staff with installation. If this request is denied, we will have to look at alternatives to include contracting with a third party for complete installation as our single Meter Technician would not be able to keep up with normal testing and install the new AMR meters. After the initial installation, existing staff will maintain all water meters.

The District plans to install 9,348 new water meters and retrofit about 520 existing meters. AMR's have numerous advantages over traditional meter reading, not the least of which is increased accuracy, less reading time and increased employee and public safety.

2. Operational Cost Ramifications

The total estimated project cost is approximately \$1.6 million, not including District labor. \$1,000,000 of the project will be financed as part of a bond sale, as approved by the Public Service Commission (PSC) in January, 2005. Grants and other funding will be sought for the balance of the project. The District has not requested a rate increase to finance this project.

The District has completed a cost/benefit analysis (Exhibit 2) that indicates this project will mean annual savings in the reading of our meters. Most of these financial benefits are through personnel redistribution due to less field time reading meters. As our system grows this will help stem the need for additional staff.

In addition to the savings factors mentioned, an AMR system will also reduce misreads, virtually eliminate estimated readings by allowing us to read inaccessible meters (i.e. under a parked car, behind a fence, under water or near a leased dog).

In Exhibit 2, we show our estimated five (5) year savings. This will depend on whether or not Trailer Park meter will be converted. If they are not included (would switch all Trailer Parks to master meters) then the "Total AMR Savings" realized would be \$205,863, whereas, with the Trailer Parks included the "Total AMR Savings" realized would be \$183,843.

The return on investment or pay back will be as follows; without a grant 'Break Even' would be 14.3 years, whereas, with a \$500,000 grant the 'Break Even' point would be 9.9 years. Both scenarios exclude Trailer Parks in the equation. Including the Trailer Parks has not been calculated. (Please see the Powerpoint® presentation included in Exhibit 3).

3. Existing Meter Accuracy

During the four quarters of 2004, there were only 180 meters of 1,490 tested that were not within the acceptable parameters as set forth by the PSC. All 180 meters, that did not fall within the PSC parameters, registered below the 2% variance or as a slow meter. In other words, none of these meters were “over-charging” the customer.

4. Installation Plan

As stated above, the District is proposing to install all meters and related equipment and be 100% operational over a five year period. The table below outlines the District’s plan for percent of installation on a yearly basis. If this request is approved, the District plans to keep the PSC apprised of the progress and will make every effort to complete the entire project within the five year plan.

1	2	3	4	5	TOTAL		
0	0	0	0	0	0	VXU & Software (& Support)	
1	0	0	0	0	1	New Handheld (3)	
640	2,307	2,307	2,307	2,307	9,868	MXU - Each (9,868)	
640	1,762	1,762	1,762	1,762	7,688	5/8 Meters w/ ECR (7,688)	
0	0	727	727	727	2,180	Sensus ECR's (2,180)	
6.5%	29.9%	53.2%	76.6%	100.0%	100.0%	Percent meters replaced	

The first year reflects changing out all of the rural meters (outside city limits of Radcliff) to maximize our assets and to realize a quick time saving benefit. Strictly geographically speaking, we may change out more meters during the first year, however, our goal is to change out the rural meters and any others will be an added bonus. The first year totals are lower than the subsequent years because we estimate that the rural areas of our system will take longer due to the lack of density of the meters.

If this deviation request is granted, this will free up approximately one and a half (1 ½) employees to facilitate the installation plan. In addition, we plan to hire up to two (2) part-time employees per year to assist the other full time employees. As we operate with a very lean staffing, the granting of this deviation will prevent undue burdens to existing personnel.

If this deviation request is not granted it will cost the District and it’s customers an additional \$16,640 (based on two (2) part time employees at \$8.00 per hour for 1,040 hours) per year. During the life of the project the cost would be \$83,200. We feel that the this is an unnecessary cost for our customers to bear.

5. Equipment

All new meters installed will be AMCO® meters which provided the lowest bid price and meet both PSC and AWWA C-700 accuracy standards, our existing meters to be retro-fitted, are Sensus® SR-II meters. All will be fitted with Itron® Encoder Receiver Transmitters(ERT). The other hardware and software will also be from the Itron® product line.

6. Customer Impact

If this deviation is approved, we think there will be little or no initial impact to the customer. One aspect the District considered before submitting this request was the fact that a customer's meter test may come due sometime during the conversion period; and if they are at the end of the conversion cycle, their tests may be delayed beyond the 10-year requirement.

However, the District believes that the customer is still protected under another PSC regulation, 807 KAR 5:006, Section 18. That regulation allows a customer to request that the utility test the meter if he or she believes it is inaccurate. The District's tariff authorizes a Service Charge of \$11 for this testing service, but, as required under the PSC regulation, the customer does not have to pay the charge if the meter is reading at least two percent (2%) fast. Moreover, as previously mentioned, of all meters tested in 2004 that did not meet the PSC specifications, 100% were registering less than two percent (2%), and none were registering fast or above the maximum measurement standard (which would cause a customer to pay for more than was delivered).

Furthermore, the District would agree to hold any removed meter for a period of ninety (90) days, before it were scrapped. This would also protect the customer if their latest water bill were disputed (after the District installed a new AMR meter) and they requested a meter test, of their old meter.

We believe that there are many upsides to this project for the customers and the District. Granting of this request would not only save the District and it's customers money, but would help keep the same great quality of customer service the District and it's customers have become accustomed to.

7. Summary of Request

The following deviation or changes are requested of the PSC;

- A. Required testing of all 5/8, 3/4 and 1 inch meters per 807 KAR 5:041 would be suspended beginning August 1, 2005 through August 10, 2010.
- B. The District would proceed with the AMR conversion project, and begin replacing all smaller system meters (1 inch or smaller) with new meters.
- C. Any small meter removed due to the AMR conversion project would be held by the District for 90 days before being scrapped, in the event a customer requested a meter test of their old meter.
- D. All new AMR small meters installed will be tested within the requirements of 807 KAR 5:041 once they are put in service.
- E. The District will provide the PSC an annual report with a summary of the progress of the AMR installations, including the number of new meters installed, old or existing meters still in service, and the percent complete of the AMR project.

Should you have any questions or need more information regarding this request, please contact Mr. Brett Pyles, Operations Manager, at: 270-351-3222, ext 215, or 270-766-9477 or email at bpyles@hcwd.com.

Exhibit 1

AMR Bid Tabulation

Item No.	Item Description	Estim. Quant.	C.I. THORNBURG		NEPTUNE		WATERWORKS	
			Unit Price	Total	Unit Price	Total	Unit Price	Total
1	All installation and training INCLUDING first year technical support for complete AMR System and Hardware including Handheld Computers	1	\$	\$	\$1,000.00	\$1,000.00	\$4,092.00	\$4,092.00
2	Subsequent annual technical support fee for Vehicle Transceiver Unit and software including Handheld Computers	1	\$ 4000.00	\$ 4,000.00	\$9,693.00	\$9,693.00	\$6,610.00	\$6,610.00
3	Complete Vehicle Transceiver Unit and AMR Software (MUST INCLUDE ANY ADDITIONAL COSTS TO WRITE ANY REQUIRED INTERFACE SOFTWARE TO INTEGRATE WITH DISTRICT'S EXISTING INVENSYS INHANCE AND AUTOREAD SOFTWARE)	1	\$	\$	\$40,000.00	\$40,000.00	\$31,765.00	\$31,765.00
4	Meter Transceiver Units per specifications	9,500	\$125.00	\$1,187,500.00	\$91.11	\$865,545.00	\$81.40	\$773,300.00
5A	Encoder Registers for 5/8 x 3/4 Inch Meters	9,000	\$60.00	\$540,000.00	\$	\$	\$	\$
5B	ADDITIONAL Encoder Registers for 5/8 x 3/4 Inch Meters (If Bidders System CANNOT use existing Invensys SR-II Touch-pad meters with Meter Encoder Register's Installed)	520	\$	\$	\$	\$	\$	\$
6A	5/8 x 3/4 Inch Meters	8,200	\$39.00	\$319,800.00	\$66.67	\$546,694.00	\$75.23	\$616,886.00
6B	ADDITIONAL 5/8 x 3/4 Inch Meters (If Bidders Meter Encoder Unit's or Meter Transceiver Unit's CANNOT use existing Invensys SR-II meters)	2,500	\$	\$	\$66.67	\$166,675.00	\$75.23	\$188,075.00
7	Encoder Registers for 1 Inch Meters	130	\$60.00	\$7,800.00	\$	\$	\$	\$
8	1 Inch Meters	130	\$114.00	\$14,820.00	\$135.00	\$17,550.00	\$111.00	\$14,430.00
9	Handheld Reading Computer (w/ Ptt Probe for Each, included)	3	\$6,000.00	\$18,000.00	\$4,642.75	\$13,928.00	\$6,890.00	\$20,670.00
TOTAL ALL ITEMS >>>>				\$2,091,920.00	\$1,661,085.00	\$1,655,828.00		
Exemptions >>>>>>>>								

Financial Cost Benefit Analysis

Exhibit 2

Converting to AMR Reading - 5-Year Plan
Hardin County Water District No. 1

Measurements;

9,715	Number of 5/8 & 3/4 Meters
153	All Meters > 3/4 Inch
1,462	Number Meters in Trailer Parks
31,020	kgals leaked annually in TP's
21	Number of Trailer Parks
9,868	Number of MXU's needed to buy (assuming Sensus AMR)
9,233	No. Monthly Reads (excl Check Reads)
282	No. Monthly Check Reads
300	Avg Daily Transfer / Off Readings
5	Time Minutes Ea. to install AMR Meter (repl old meter)
150	Estim. Annual New Meters / Services
500	Current No. Repl. Meters Bought / Year (Non AMR)
17,125	Estim. Annual miles per FSR Truck
11	Estim. MPG per FSR Truck
245	Number of Delinquent Turn off's monthly
61	Number of TP Delinquent Turn off's monthly

List Current Hours / Week for Each Task by Person(s);

Cust Svc Manager	CSR's (3)	Billing Specialist	Other Dist Employees	Dist Opr Mgr	FSR's (3)	TOTAL ANNUAL	
1.0	0.0	0.0	0.0	1.5	0.0	130.0	Dept Supervision / Scheduling
0.0	0.0	0.0	0.0	0.0	8.7	452.4	Load Guns w/ Routes
0.0	0.0	0.0	12.0	0.0	89.1	5,257.2	Read Meters
0.0	0.0	12.5	20.8	0.0	17.0	2,615.6	Check/Verify Readings
0.0	0.0	0.0	0.0	0.0	3.0	156.0	Maintenance on Trucks (FSR Trucks)
0.0	0.0	0.0	50.0	0.0	0.0	2,600.0	Test & Pull Meters
1.5	8.5	0.0	5.0	0.0	10.0	1,300.0	Del. Turn Off's
0.0	0.0	0.0	0.0	0.0	0.0	0.0	(LIST OTHER TASK)
0.0	0.0	0.0	0.0	0.0	0.0	0.0	(LIST OTHER TASK)
2.5	8.5	12.5	87.8	1.5	127.8	240.6	TOTAL WEEKLY
130.0	442.0	650.0	4,565.6	78.0	6,645.6	12,511.2	TOTAL ANNUAL
0.07	0.23	0.34	2.42	0.04	3.52	6.6	Annual FTE's (Available working hours = 1,888)

List Annual Costs for Each Task by Person(s);

Cust Svc Manager	CSR's (3)	Billing Specialist	Other Dist Employees	Dist Opr Mgr	FSR's (3)	TOTAL ANNUAL	Avg\$/HR	
\$1,200	\$0	\$0	\$0	\$2,329	\$0	\$3,529	\$27.14	Dept Supervision / Scheduling
\$0	\$0	\$0	\$0	\$0	\$7,529	\$7,529	\$16.64	Load Guns w/ Routes
\$0	\$0	\$0	\$12,056	\$0	\$77,109	\$89,165	\$16.96	Read Meters
\$0	\$0	\$12,495	\$20,897	\$0	\$14,712	\$48,104	\$18.39	Check/Verify Readings
\$0	\$0	\$0	\$0	\$0	\$2,596	\$2,596	\$16.64	Maintenance on Trucks (FSR Truc
\$0	\$0	\$0	\$50,232	\$0	\$0	\$50,232	\$19.32	Test & Pull Meters
\$1,800	\$13,196	\$0	\$5,023	\$0	\$8,654	\$28,673	\$22.06	Del. Turn Off's
\$3,000	\$13,196	\$12,495	\$88,207	\$2,329	\$110,601	\$229,829		TOTAL ANNUAL
\$12	\$53	\$50	\$5,707	\$151	\$7,156	\$13,128		WORKER's COMP ANNUAL
\$3,012	\$13,249	\$12,545	\$93,914	\$2,479	\$117,757	\$242,957		TOTAL ANNUAL PERSONNEL COSTS
						\$1,168,000		2004 Staff total Payroll
						20.8%		Percent of Total

Annual Depr + Operating Cost of Equipment;

Init \$	Depr.	O&M	TOTAL	TASK
\$ 330,542	\$ 11,003	\$ -	\$ 11,003	Current meters installed
\$ 44,459	\$ 5,557	\$ 13,320	\$ 18,877	Trucks (3)
\$ 9,445	\$ 1,181	\$ -	\$ 1,181	Reading Devices/System (Current)
NA	NA	\$ 18,000	\$ 18,000	Liability Insurance
NA	NA	\$ 13,128	\$ 13,128	Worker's Compensation
NA	NA	\$ 7,790	\$ 7,790	CS Supplies
\$ 35,857	\$ 3,586	\$ 6,610	\$ 10,196	VXU & Software (& Support)
\$ 20,670	\$ 2,067	\$ 450	\$ 2,517	New Handheld (3)
\$ 803,255	\$ 53,550	\$ -	\$ 53,550	MXU - Each (9,868)

\$ 578,368	\$ 38,558	\$ -	\$ 38,558	5/8 Meters w/ ECR (7,688)
\$ 130,800	\$ 8,720	\$ -	\$ 8,720	Sensus ECR's (2,180)
\$ 1,953,396	\$ 124,222	\$ 59,298	\$ 183,520	TOTAL
\$1,568,950	\$106,481	\$7,060	\$1,682,491	TOTAL NEW EQUIPMENT
(\$49,637)	(\$8,431)			LESS NEGOT FREE ITEMS
\$1,519,313	\$98,050	\$7,060	\$1,624,424	TOTAL LESS NEGOT

Annual Operating Cost Labor & Benefits;

WAGES	OVHEAD	TOTAL	POSIT
\$34,778	\$13,215	\$47,993	Customer Service Manager
\$45,000	\$17,100	\$62,100	Dist Opr Mgr
\$28,974	\$11,010	\$39,985	Billing Specialist
\$24,814	\$9,429	\$34,244	CSR's (3)
\$25,085	\$9,532	\$34,617	FSR's (3)
\$29,120	\$11,066	\$40,186	Other Dist Employees
\$21,840	\$3,177	\$11,539	Future FSR Employee
\$187,771	\$71,353	\$259,124	TOTAL

AMR Conversion Costs by Year;

List Quantity Purchased by Year;

1	2	3	4	5	TOTAL	
0	0	0	0	0	0	VXU & Software (& Support)
1	0	0	0	0	1	New Handheld (3)
640	2,307	2,307	2,307	2,307	9,868	MXU - Each (9,868)
640	1,762	1,762	1,762	1,762	7,688	5/8 Meters w/ ECR (7,688)
0	0	727	727	727	2,180	Sensus ECR's (2,180)
6.5%	29.9%	53.2%	76.6%	100.0%	100.0%	Percent meters replaced

Calculated Conversion Capital Cost / Year;

1	2	3	4	5	TOTAL	
\$0	\$0	\$0	\$0	\$0	\$0	VXU & Software (& Support)
\$6,890	\$0	\$0	\$0	\$0	\$6,890	New Handheld (3)
\$52,096	\$187,790	\$187,790	\$187,790	\$187,790	\$803,255	MXU - Each (9,868)
\$48,147	\$132,555	\$132,555	\$132,555	\$132,555	\$578,368	5/8 Meters w/ ECR (7,688)
\$0	\$0	\$43,600	\$43,600	\$43,600	\$130,800	Sensus ECR's (2,180)
\$107,133	\$320,345	\$363,945	\$363,945	\$363,945	\$1,519,313	TOTAL \$
7.1%	21.1%	24.0%	24.0%	24.0%		
\$55,777	\$166,781	\$189,481	\$189,481	\$189,481	\$791,000	Assumed cash needs assuming \$500k grant and TP's master meter

Time Savings - Number of Hours / Gallons by Year (w/ AMR);

0	1	2	3	4	5	
130	130	91	46	23	12	Dept Supervision / Scheduling
452	452	317	158	79	36	ins w/ Routes (Hours)
5,257	4,969	2,821	1,602	384	96	Read Walk/Read Meters (Hours)
0	22	100	179	257	336	Drive / Read AMR Meters (Hours)
2,616	2,047	1,410	773	136	12	Check/Verify Readings (Hours)
2,600	2,294	1,988	1,682	1,375	1,069	Test & Pull Meters (Hours)
1,300	1,300	1,326	1,353	1,380	1,407	Delinq Turn-Off's (Hours)
156	156	156	103	103	39	Truck Maintenance (Hours)
12,511	-1,141	-4,303	-6,616	-8,774	-9,504	NET Change / Year
	53	192	253	253	253	Added AMR Device Installation
	-0.58	-2.18	-3.37	-4.51	-4.90	Equiv FTE / Year Change

Changes by TP Conversion:

791	396	396	0	0	0	Read TP Walk/Read Meters (Hours)
\$13,418	\$6,709	\$6,709	\$0	\$0	\$0	Read TP Walk/Read Meters (Dollars)
0	195	390	390	390	390	Reduced TP Delinq On/Off Hours
\$0	(\$4,301)	(\$8,602)	(\$8,602)	(\$8,602)	(\$8,602)	Reduced TP Delinq On/Off Labor \$
\$0	(\$114,497)	(\$114,497)	\$0	\$0	\$0	Reduced AMR Meter Purchase Cost
\$0	(\$15,510)	(\$23,265)	(\$23,265)	(\$23,265)	(\$23,265)	kgals TP Leak Savings

\$0	\$43,273	\$21,636	\$10,818	\$10,818	\$10,818	kgals TP Leak Billings
\$0	(\$7,215)	(\$14,430)	(\$14,430)	(\$14,430)	(\$14,430)	Reduced \$37 TP Recon Rev's
\$0	(\$26,520)	(\$38,576)	(\$45,285)	(\$45,285)	(\$45,285)	TOTAL O&M TP Savings
\$0	(\$114,497)	(\$114,497)	\$0	\$0	\$0	TOTAL Capital TP Savings
\$0	(\$7,633)	(\$15,266)	(\$15,266)	(\$15,266)	(\$15,266)	TOTAL Depreciation Savings
\$0	(\$6,703)	(\$6,476)	(\$6,239)	(\$5,991)	(\$5,731)	TOTAL TP Loan Interest Cost Saved
\$0	\$36,058	\$7,206	(\$3,612)	(\$3,612)	(\$3,612)	TOTAL Revenues Impact
\$0	\$62,578	\$45,783	\$41,674	\$41,674	\$41,674	Net Annual TP Impact to Net Income (Non AMR)
\$0	\$48,242	\$24,040	\$20,168	\$20,417	\$20,677	Net Annual TP Impact to Net Income (With AMR)

Cost Savings - (w/ AMR - Current Dollars);

1	2	3	4	5	
\$0	(\$1,059)	(\$2,294)	(\$2,911)	(\$3,203)	Dept Supervision / Scheduling
\$0	(\$2,259)	(\$4,894)	(\$6,212)	(\$6,930)	utes (Dollars)
(\$4,885)	(\$41,326)	(\$61,989)	(\$82,652)	(\$87,537)	Read Walk/Read Meters (Dollars)
\$369	\$1,699	\$3,030	\$4,360	\$5,690	Drive / Read AMR Meters (Dollars)
(\$10,464)	(\$22,174)	(\$33,885)	(\$45,595)	(\$47,883)	Check/Verify Readings (Dollars)
(\$5,915)	(\$11,830)	(\$17,744)	(\$23,659)	(\$29,574)	Test & Pull Meters (Dollars)
\$0	\$573	\$1,158	\$1,755	\$2,364	Delinq Turn-Off's (Dollars)
\$0	\$0	(\$883)	(\$883)	(\$1,947)	Truck Maintenance (Dollars)
\$0	\$0	\$0	\$0	(\$12,459)	Truck Operating Cost (Dollars)
\$7,142	\$28,499	\$52,762	\$77,025	\$101,288	Increased Annual Depreciation
(\$714)	(\$3,286)	(\$5,858)	(\$8,431)	(\$11,003)	Decreased Annual Depreciation
\$0	(\$15,510)	(\$23,265)	(\$23,265)	(\$23,265)	Reduced Treatment Costs - TP Leaks
\$0	\$43,273	\$21,636	\$10,818	\$10,818	Increased Revenues - TP Leaks
\$1,167	\$5,376	\$9,584	\$13,792	\$18,000	Reduced Slow Replc. Meter Cost / Year

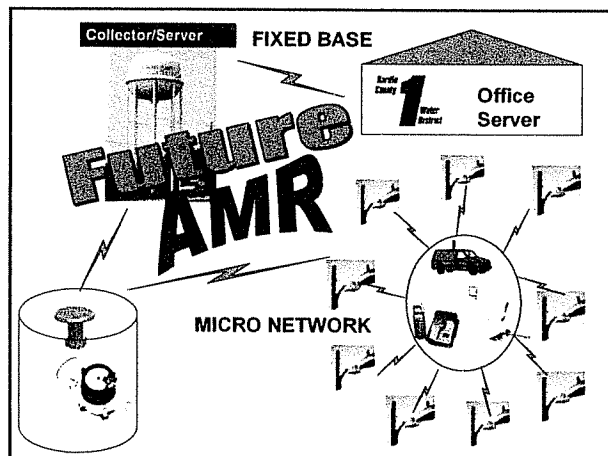
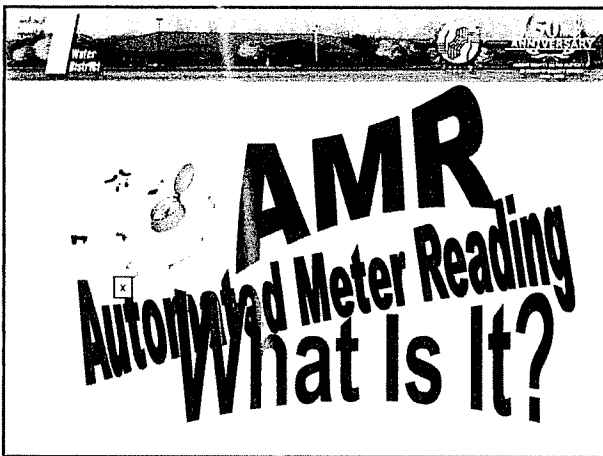
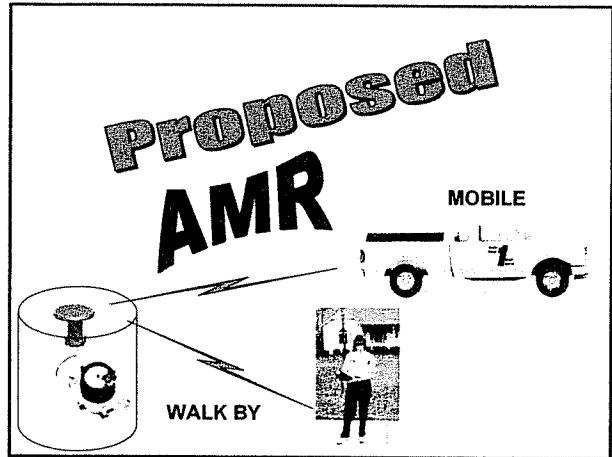
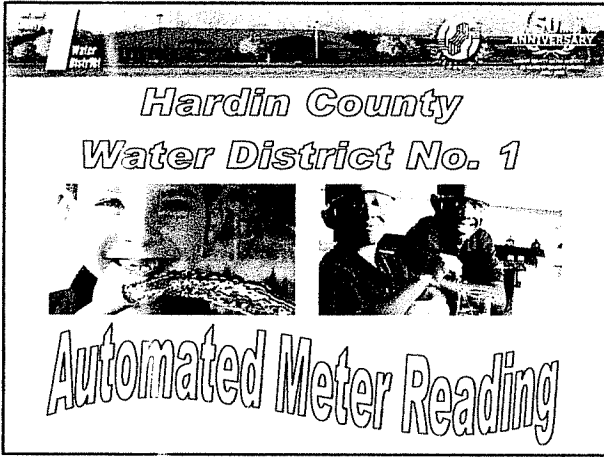
bitrage Interest Calculation;


\$1,519,313	Principal Required				
(\$500,000)	irants Received				
\$1,019,313	Net Borrowed				
4.50%	Loan Int Rate				
3.50%	f Return Investments				
20	an Term Years				
\$907,109	\$586,764	\$222,819	(\$141,126)	(\$505,071)	Proceeds Balance
\$44,544	\$43,036	\$41,458	\$39,807	\$38,081	Debt Interest Cost
\$32,263	\$20,869	\$7,925	(\$5,019)	(\$17,964)	Net Interest Earned
\$77,384	\$77,384	\$77,384	\$77,384	\$77,384	Annual P+i Payment
\$12,281	\$22,166	\$33,533	\$44,827	\$56,045	Net interest Cost

iry by Grouped Task;

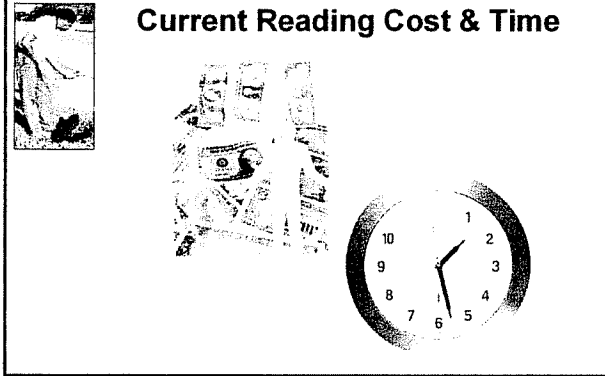

(\$4,516)	(\$42,944)	(\$66,147)	(\$87,415)	(\$91,979)	Meter Reading Tasks
(\$10,464)	(\$22,174)	(\$33,885)	(\$45,595)	(\$47,883)	Check/Verify Readings Tasks
(\$5,915)	(\$11,830)	(\$17,744)	(\$23,659)	(\$29,574)	Meter Testing Tasks
\$0	\$0	(\$883)	(\$883)	(\$14,406)	Misc. Oper & Maint Tasks
(\$20,895)	(\$76,948)	(\$118,659)	(\$157,552)	(\$183,843)	
(\$20,895)	(\$76,948)	(\$118,659)	(\$157,552)	(\$183,843)	Total AMR Savings w/o TP's
(\$31,905)	(\$92,259)	(\$140,679)	(\$179,572)	(\$205,863)	Total AMR Savings w TP's

Exhibit 3



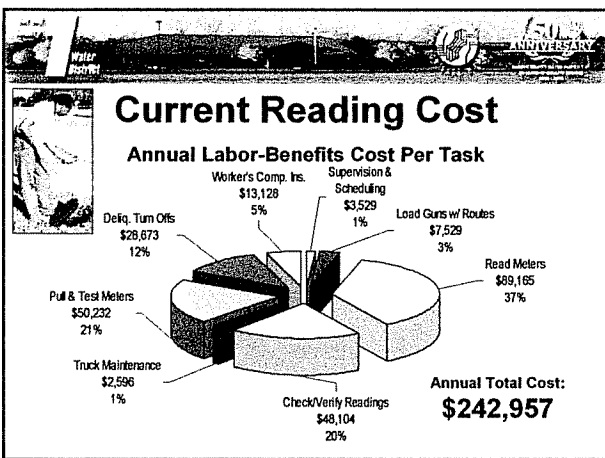



Current Reading Cost & Time

Current Reading Cost

Other Costs	Amount
Vehicles (O&M + Depreciation)	\$18,877
Reading Devices/System	\$1,181
Liability Insurance	\$18,000
Existing Meter Depreciation	\$11,003
TOTAL:	\$49,061

Current Reading Cost

Total Number of Customers: **9,300**

Annual Personnel Cost: **\$242,957**

Annual Operating Cost: **\$49,061**

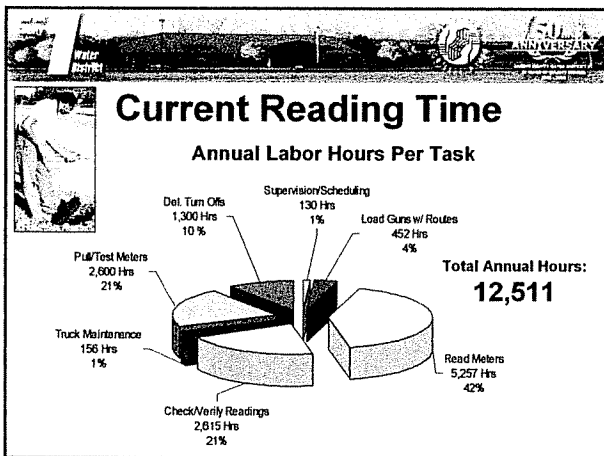
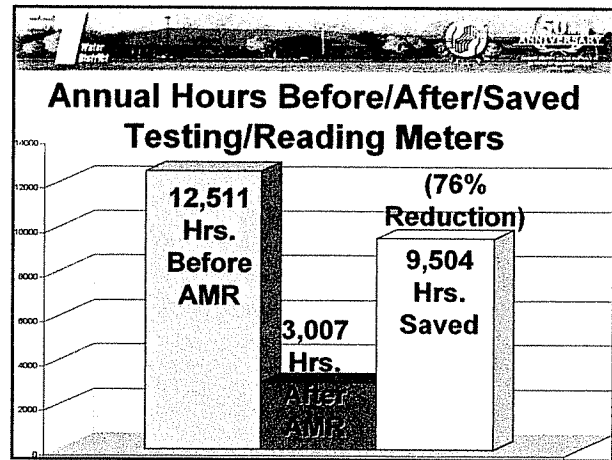
Current Total Cost: **\$292,018**

Annual Cost per Customer: **\$31**

Current Reading Cost

Total Staff Payroll: \$1,168,000
Meter Reading Cost: \$242,957

Percent of Payroll to Read Meters: 21%



Employees Re-Assigned

Employees Required

Before AMR: 6.6 Involved

After AMR: 1.4 Involved

Time Savings by Using AMR

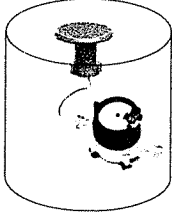
Employees Re-Assigned to Catch Up On:

- ✓ Fixing Leaks
- ✓ Water Tap Installations
- ✓ Fire Hydrant Maintenance & Painting
- ✓ Meter Testing & Repair
- ✓ Customer Service
- ✓ Leak Surveys
- ✓ Meter Relocations
- ✓ Construction Projects
- ✓ Valve Maintenance

System Components

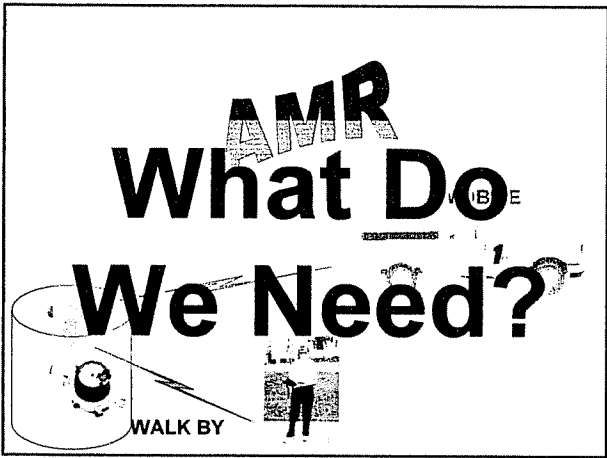
ERT Meter Module

- Radio-based meter modules
- Collects and stores consumption information
- Receives wake up signals
- Transmits data to Handheld or Mobile Computer via Antenna




AMR

What Do We Need?



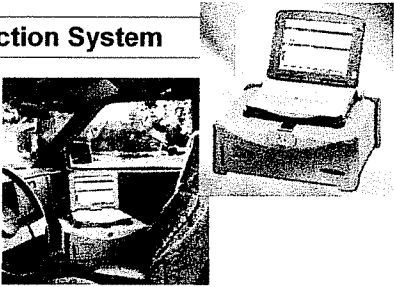
System Components

Handheld Meter Reader
Collects and stores data



System Components

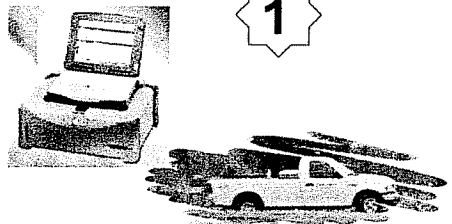
Mobile Collection System



How Many Do We Need?

VXU (Vehicle Transceiver Units) with Software


1



How Many Do We Need?

Handheld Meter Reader

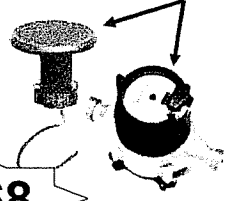
3




How Many Do We Need?

Meter Transceiver Units - ERT's

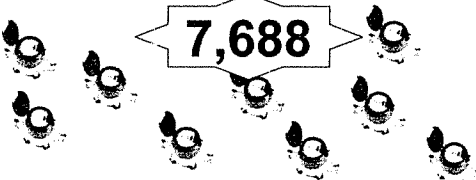
9,868






How Many Do We Need?

7,688




5/8" x 3/4" Water Meters




How Many Do We Need?

132



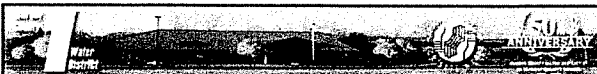
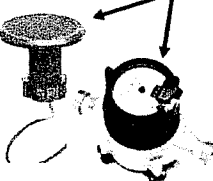
1 Inch Meters With Encoder Registers



How Many Do We Need?


2,180

ERT's for Sensus Meters




What Do We Need?

Training & Support

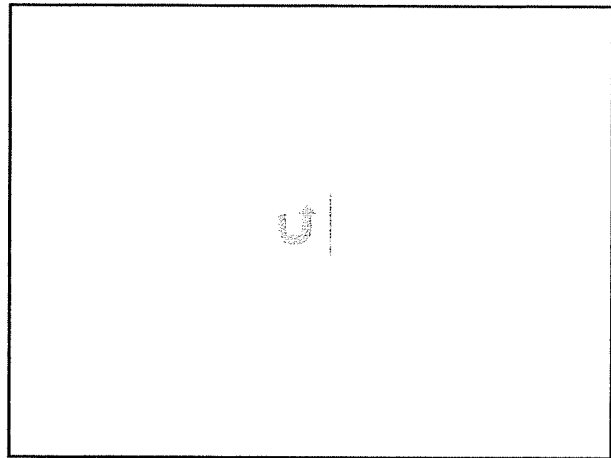


- ✓Using Vehicle Transceiver Unit
- ✓Using AMR Software
- ✓Integrating Data from AMR System to Billing Software (*InHance*)
- ✓First Year Technical Support for AMR System and Hardware
- ✓Subsequent Annual Tech Support for VXU, Handhelds and Software



AMR Current Status

- ✓ Advertised TWICE for AMR Bids
- ✓ Received 3 Bids



AMR Bid Comparisons

Bid Item	Thornburg (Sensus)	Neptune (Neptune)	Waterworks (Itron)
Install & Train	-----	\$1,000.00	\$4,092.00
Annual Support	\$4,000.00	\$9,693.00	\$6,610.00
1 Vehicle Unit	-----	\$40,000.00	\$31,765.00
9500 Meter Units	\$1,187,500.00	\$865,545.00	\$773,300.00
9000 Encoders	\$540,000.00	-----	-----
8200 Meters	\$319,800.00	\$546,694.00	\$616,886.00
2500 Add. Meters	-----	\$166,675.00	\$188,075.00
130 1" Encoders	\$7,800.00	-----	-----
130 1" Meters	\$14,820.00	\$17,550.00	\$14,430.00
3 Handheld Units	\$18,000.00	\$13,928.00	\$20,670.00
TOTAL BID:	\$2,091,920.00	\$1,661,085.00	\$1,655,828.00

Bid Comparisons

Benefits of Itron

- Over 30 million AMR modules installed worldwide
- Industry leader since 1986 in AMR technology
- Compatible with different brands of water meters

Bid Comparisons

Why we prefer Itron (Waterworks)

- Lowest bid (\$1,655,828) (Thornburg was 26% higher at \$2,091,920)
- Proven leader in AMR installations worldwide
- VXU Software known to interface with InHance
- Met bid specifications
- Training & support available
- Will not limit HCWD #1 to specific meter vendor

Risks AMR Will Help Curtail

Health Risks

Accident Risks


Driving Time Reduced by 99%

Dog Bites

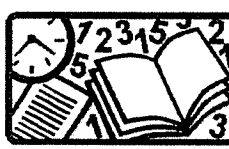


Bid Comparisons

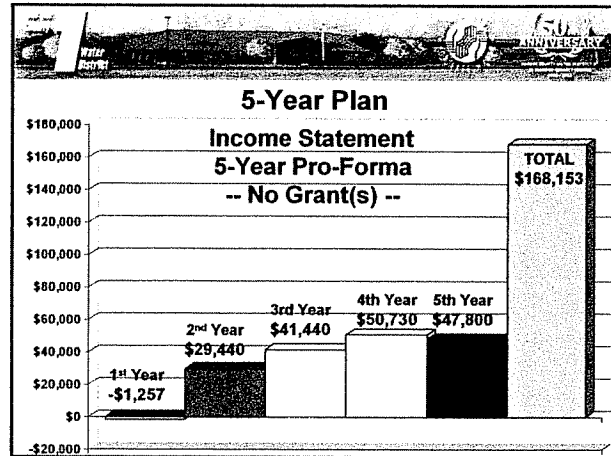
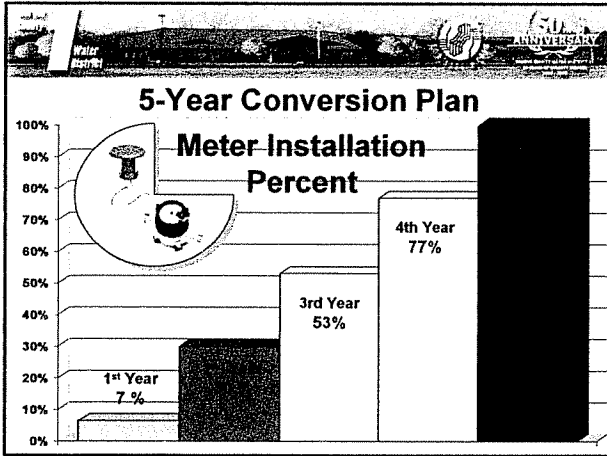
What HCWD #2 Board Decided

- Upgrade to AMR system
- In process of installing AMR system



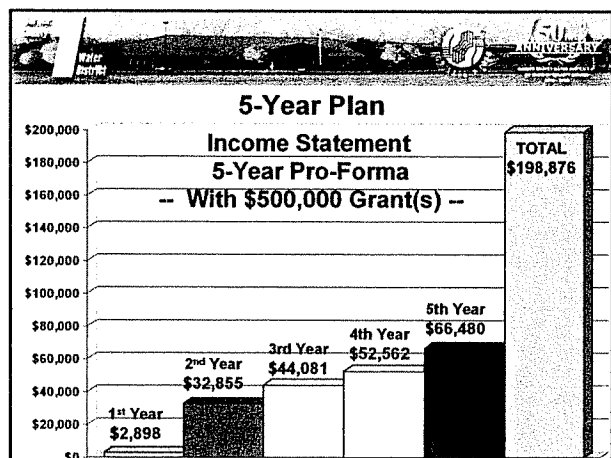
Cost Benefit Analysis

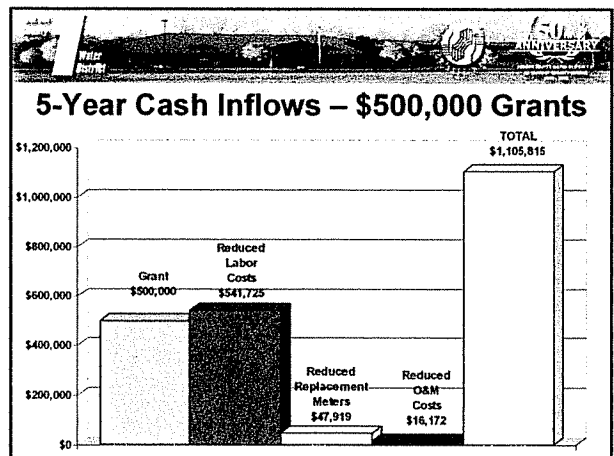
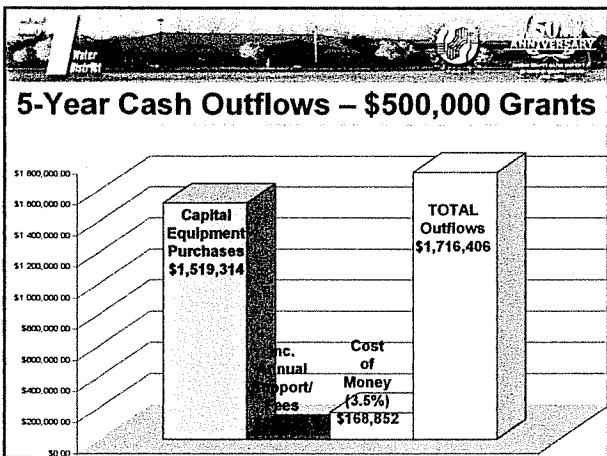
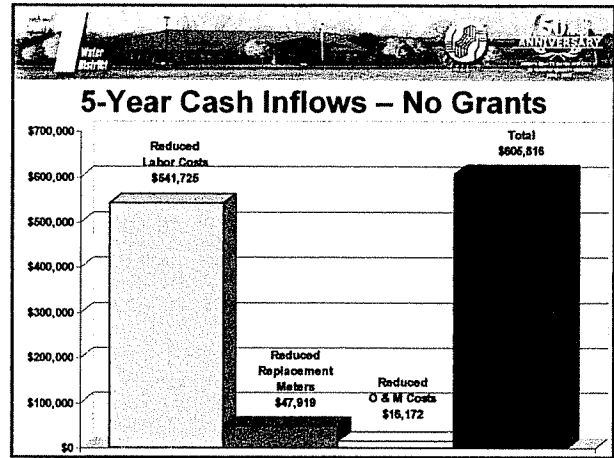
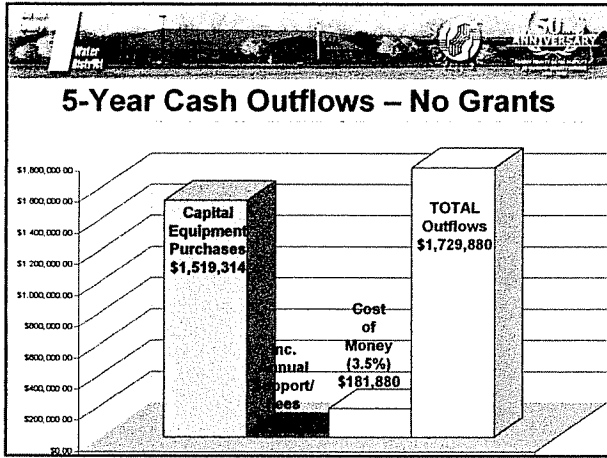





5-Year Plan – Costs Each Year
AMR Equipment and Meters

First	Second	Third	Fourth	Fifth	Item
---	---	---	---	---	VXU
\$6,890	---	---	---	---	Handheld
\$52,096	\$187,790	\$187,790	\$187,790	\$187,790	MXU
\$48,147	\$132,555	\$132,555	\$132,555	\$132,555	5/8 Meter
---	---	\$43,600	\$43,600	\$43,600	ECR
\$107,133	\$320,345	\$363,945	\$363,945	\$363,945	TOTAL
Total 5-Year Cost: \$1,519,313					








Return on Investment - No Grants
Years to Break Even: 14.3

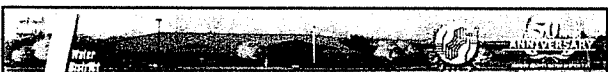
Number of Years: 15

Capital Outlay: \$2,149,675
Net Inflows: \$2,250,054
Return on Investment: .3%



Recommendation

- What do we want to buy
- What do we want to change
- What Board needs to approve
- What HCWD1 needs to do
- When do we want to do it



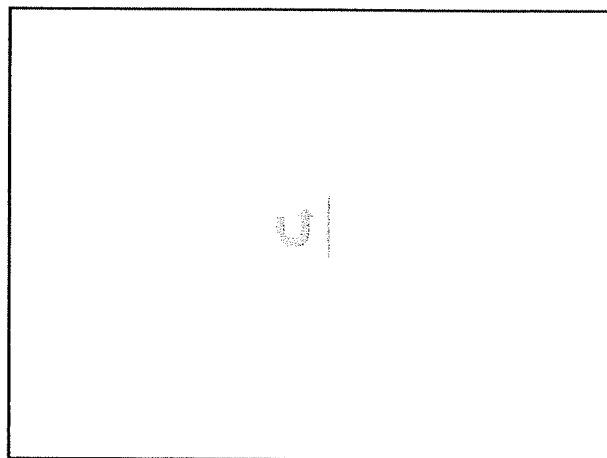
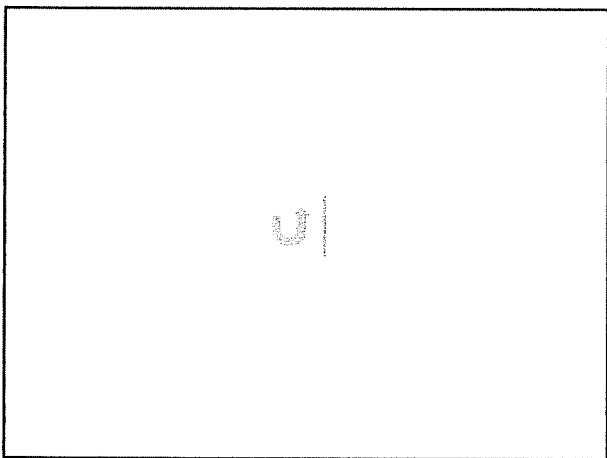
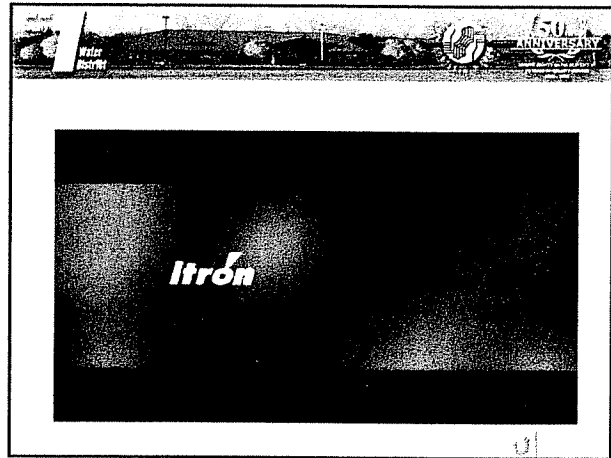
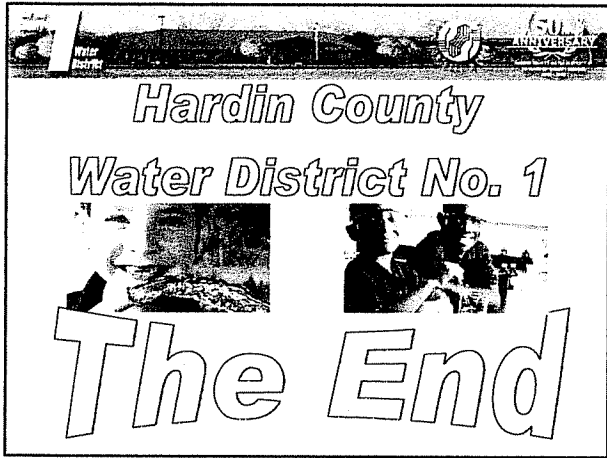
Return on Investment - Half Million \$ Grant
Years to Break Even: 9.9

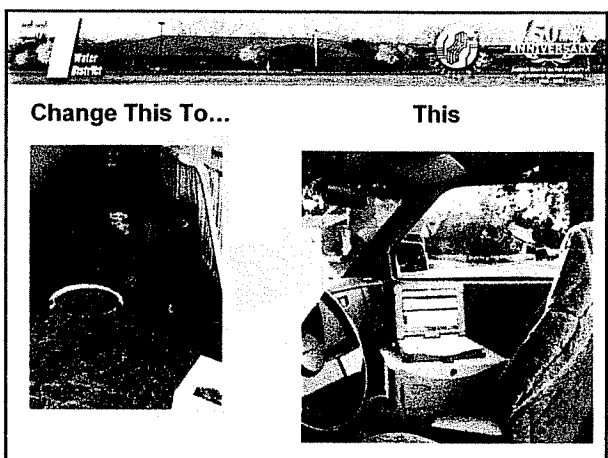
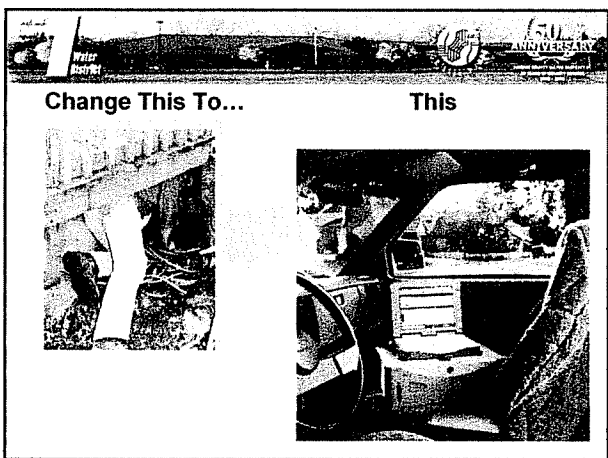
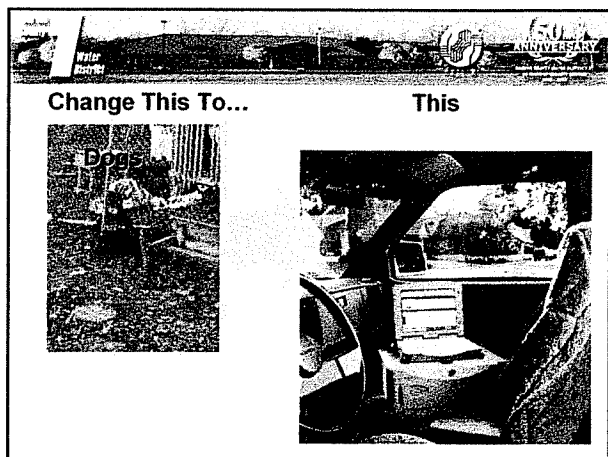
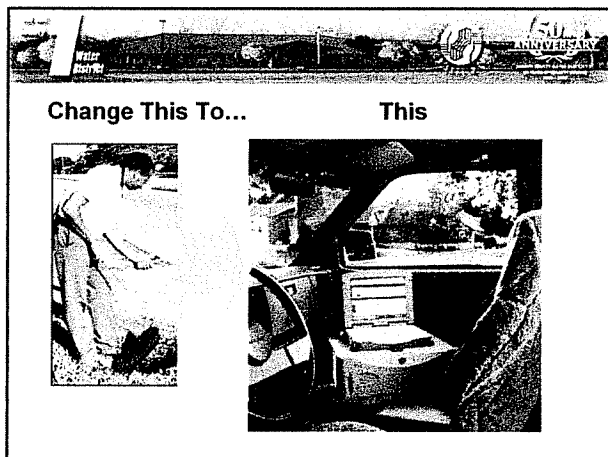
Number of Years: 15

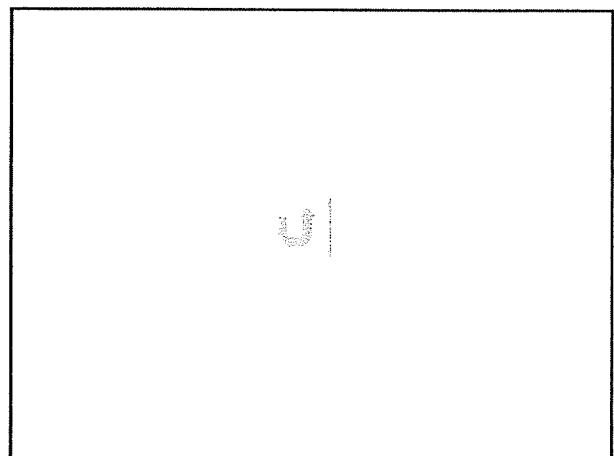
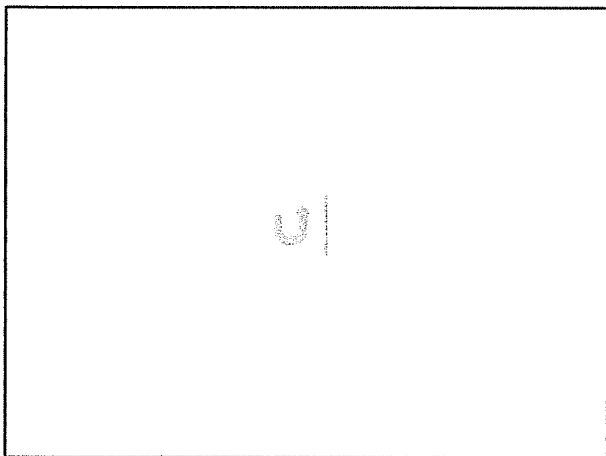
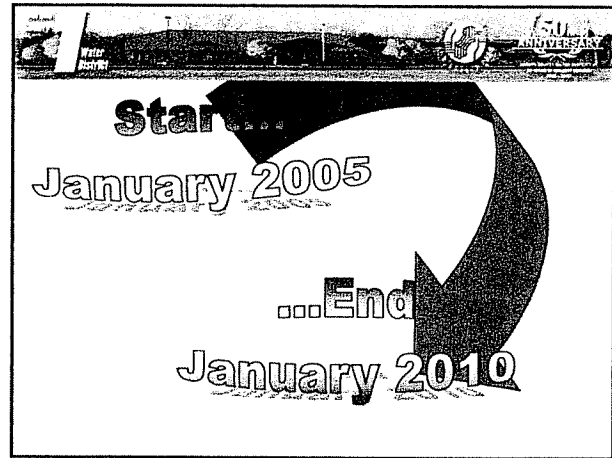
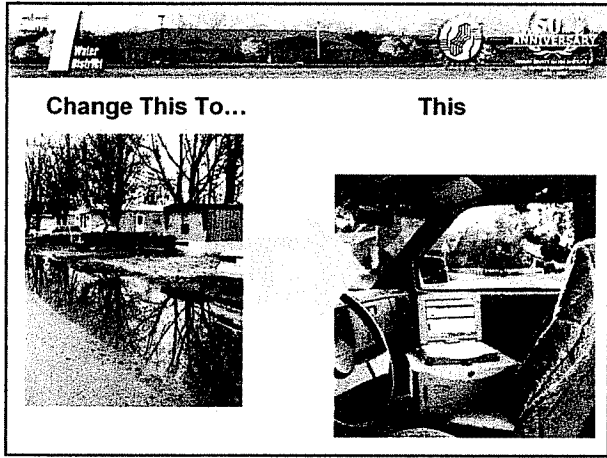
Capital Outlay: \$2,110,591
Net Inflows: \$2,750,054
Return on Investment: 1.8%



Thank You!









Checklist

- ✓ Accept Bid (Board action)
- ✓ Negotiate & Sign Contract with Vendor(s)
- ✓ File w/ PSC regarding Trailer Parks (w/ Board)
- ✓ File w/ PSC for extension of Meter Tests
- ✓ Convert Trailer Parks (per Board Plan)
- ✓ Install AMR System
- ✓ Re-assign Employees (later as available)
- ✓ Auction / Sell Old Equipment

