

Attachment 5 – Budget

The following is an explanation of how the budget for each of the various tasks was developed:

- ❖ Task 1 – Direct Project Administration and Reporting: this item was assumed to be approximately 3 percent of the total project cost.
- ❖ Task 2 – Easements: there are no easements required and the budget for this task is \$0.
- ❖ Task 3 – Project Evaluation/Design/Engineering: this item was assumed to be approximately 6 percent of the total project costs.
- ❖ Task 4 – Environmental Documentation: this item was calculated on a time and materials basis as 12 hours at \$125/hr. It included responses to comments to the Notice of Exemption if any.
- ❖ Task 5 – Permitting: there is no permitting required and the budget for this line item is \$0.
- ❖ Task 6 – Project Monitoring Plan: this item was calculated on a time and materials basis as 40 hours at \$125/hr.
- ❖ Task 7 –Project Construction/Implementation
 - Task 7a – Contract Services: this item was calculated as approximately 1.5 percent of the total project cost.
 - Task 7b – Construction Administration: this item was calculated as approximately 1.5 percent of the total project cost.
 - Task 7c – Construction/Implementation Activities: this item includes the cost to purchase the 3,374 meters, software and training (\$665,000, see appendix A for a quote from badger) and a cost of installation of \$260,000. (approximately 1 labor hour per meter x 3,374 meters x \$75/hour plus 80 hours of staff training at \$70/hour).

**APPENDIX A
BADGER METER QUOTE**

**ITRON CHOICE CONNECT FIXED NETWORK
 METER READING SOLUTION**

Item #1: Meters, Encoder Registers & Radio

Transmitters

**1. Complete Meters with HRE High Resolution
 Encoder Registers, and Itron in-line connectors
 (full replacement - pre 2009)**

	Qty.	Price EA \$	Extended Price
5/8" x 3/4" M25 Thermoplastic Meter	3,260	\$ 93.50	\$ 304,810.00
3/4" x 9" M35 Bronze Meter, brnz btm	75	\$ 147.50	\$ 11,062.50
1" M70 Bronze Meter, brnz btm	28	\$ 225.50	\$ 6,314.00
1-1/2" M120 Bronze Meter w/ Test Plug	7	\$ 389.00	\$ 2,723.00
2" M170 Bronze Meter w/Test Plug	4	\$ 550.50	\$ 2,202.00
3" T-450 w/Test Plug		\$ 860.75	\$ -
3" T-450 w/Test Plug and int. strainer		\$ 1,126.75	\$ -
4" T-1000 w/ Test Plug		\$ 1,259.25	\$ -
4" T-1000 w/ Test Plug and int. strainer		\$ 1,631.50	\$ -
3" Compound Series w/ Test Plug	2	\$ 1,885.25	\$ 3,770.50
4" Compound Series w/ Test Plug	4	\$ 2,967.25	\$ 11,869.00
Subtotal - Meters & Encoders	3,380	\$	\$ 342,751.00

**2. Retrofit only -HRE High Resolution Encoder
 register w/Itron in-line connectors
 (installed 2009 - current)**

Model 25 5/8"x3/4"	200	\$ 66.50	\$ 13,300.00
Subtotal - Encoders only for retrofit	200	\$	\$ 13,300.00

3. Itron 100W ERT radio

Itron 100W ERT radio with integral connector and antenna connector	3,580	\$ 80.00	\$ 286,400.00
Thru-lid antenna (for increased range)	3,580	\$ 25.00	\$ 89,500.00
Subtotal - Itron 100W Radio & antenna assemblies	3,580	\$	\$ 375,900.00

Subtotal - Item #1 - Meters, Encoders & Radio **\$ 731,951.00**

Item #2 Software

Network Software Up to 10,000 ERT'S (collection engine)	1	\$	5,000.00	\$	5,000.00
MVRS Software *District already owns	1	\$	-	\$	-
Customer Web Portal & Meter Data Mgmt. Software - AquaHawk Alerting System includes Leak Detection Notification, Estimated Bill and Billing Threshold Alerting	1	\$	7,500.00	\$	7,500.00
Subtotal - Item #2 -Software				\$	12,500.00

Item #3 Infrastructure

CCU 100 Collector	6	\$	5,850.00	\$	35,100.00
Repeater 100	10	\$	4,125.00	\$	41,250.00
Radio Accessory (initial Wi-Fi communication with CCU & Repeater)	1	\$	112.50	\$	112.50
FC300SR Handheld with Desk Dock incl. power supply			District Owns Currently	\$	-
Subtotal - Item #3 -Infrastructure / equipment				\$	76,462.50

Item #4 Itron Professional Services

Choice Connect Network Software, implementation & training	1	\$	27,500.00	\$	27,500.00
System Design Services	1	\$	4,500.00	\$	4,500.00
Subtotal - Item #4 - Professional Services & Training				\$	32,000.00

Item #5 Annual Hosted Cloud Services

	<u>Monthly</u>	<u>Annual Fee</u>
Itron Network Software Cloud Services	1,500.00	18,000.00
AquaHawk MDM/Web Portal Cloud Services	500.00	6,000.00
Subtotal - Item #5 - Annual Hosting Fees		\$ 24,000.00

Item #6 Annual Maintenance Fees

		<u>Annual Fee</u>
FC300SR handheld w/desk dock	1 \$ 475.00	\$ 475.00
CCU 100 Collector	6 \$ 120.00	\$ 720.00
Repeater 100	10 \$ 72.00	\$ 720.00
MVRS Software	1 \$ 1,125.00	\$ 1,125.00
Itron Network Software, up to 10,000 ERTs	1 \$ 1,000.00	\$ 1,000.00
Subtotal - Item #6 - Annual Maintenance		\$ 4,040.00

Item #7 OPTIONAL Distribution Leak Sensor System

Itron 100W ERT endpoint (upgrade to 3-port) and Leak Sensors (1:3 deployment)

1,200 \$ 95.00 \$ 114,000.00

Subtotal - Item #7 - Optional Leak Sensor System

\$ 114,000.00

OPTIONAL - Item #7b - Leak Sensor hosting services

Mlog Online Service / Annual Hosted Service Fee

\$ 1,640.00

Subtotal - Item 7b - Leak Sensor Hosting Services

\$ 1,640.00

SUMMARY - ITRON

Item #1 - Meters, Encoders & Radio	\$ 731,951.00
Item #2 -Software	\$ 12,500.00
Item #3 -Infrastructure / equipment	\$ 76,462.50
Item #4 - Itron Professional Services	\$ 32,000.00
SubTotal Equipment Costs - Intitial Purchase	<u>\$ 852,913.50</u>
Sales Tax - 7.5% Tuolumne County	\$ 61,568.51
Total Intitial Investment	<u>\$ 914,482.01</u>

Annual Fees Year 1-10

Item #5- Annual Hosting Fees	\$ 24,000.00
Item #6 - Annual Maintenance Fees	\$ 4,040.00
Subtotal - Annual Fees	<u>\$ 28,040.00</u>
Year 1-10 net cost	\$ 280,400.00

Total Costs - year 1-10 * **\$ 1,194,882.01**

Annual Fees - Year 11-20

Item #5- Annual Hosting Fees	\$ 16,200.00
Item #6 - Annual Maintenance Fees	\$ 2,984.80
Subtotal - Annual Fees	<u>\$ 19,184.80</u>
year 11-20 net cost	\$ 191,848.00

**Equipment Replacement during 20 year life cycle (8
year estimated life cycle - replace 2x)**

CCU (6 collectors, replace 2x)	12	\$ 5,850.00	\$ 70,200.00
Repeater (10 repeaters, replace 2x)	20	\$ 4,125.00	\$ 82,500.00
Handheld (replace 2x)	2	\$ 5,025.00	\$ 10,050.00
Sales Tax			<u>\$ 12,206.25</u>
Subtotal - equipment upgrade			\$ 174,956.25

Total Costs - year 11-20 **\$ 366,804.25**

Total Costs - 20 year life cycle* **\$ 1,561,686.26**

***Add for Optional Distribution Side Leak Detection**

Endpoint Warranty

year 1-10 100%
Year 11-15 50%
Year 16 - 20 25%

**ORION CELLULAR FIXED NETWORK METER
READING SOLUTION**

Item #1: Meters, Encoder Registers & Radio

Transmitters

**1. Complete Meters with HRE High Resolution
Encoder Registers, and Nicor connectors (full
replacement - pre 2009)**

	Qty.	Price EA \$	Extended Price
5/8" x 3/4" M25 Thermoplastic	3,260	\$ 86.75	\$ 282,805.00
3/4" x 9" M35 Bronze Meter, brnz btm	75	\$ 141.00	\$ 10,575.00
1" M70 Bronze Meter, brnz btm	28	\$ 21.00	\$ 588.00
1-1/2" M120 Bronze Meter w/ Test Plug	7	\$ 382.50	\$ 2,677.50
2" M170 Bronze Meter w/Test Plug	4	\$ 544.00	\$ 2,176.00
3" T-450 w/Test Plug		\$ 854.75	\$ -
3" T-450 w/Test Plug and int. strainer		\$ 1,125.25	\$ -
4" T-1000 w/ Test Plug		\$ 1,252.75	\$ -
4" T-1000 w/ Test Plug and int. strainer		\$ 1,625.00	\$ -
3" Compound Series w/ Test Plug	2	\$ 1,872.25	\$ 3,744.50
4" Compound Series w/ Test Plug	4	\$ 2,954.25	\$ 11,817.00
Subtotal - Meters & Encoders	3,380	\$	\$ 314,383.00

**2. Retrofit only -HRE High Resolution Encoder
register w/Nicor connectors
(installed 2009 - current)**

Model 25 5/8"x3/4"	200	\$ 60.00	\$ 12,000.00
Subtotal - Encoders only for retrofit	200	\$	\$ 12,000.00

3. ORION Cellular endpoint

ORION Cellular radio with Nicor Connector	3,580	\$ 79.50	\$ 284,610.00
Thru-lid antenna (for increased range)		\$ -	\$ -
Subtotal - ORION Cellular Endpoint	3,580	\$	\$ 284,610.00

Subtotal - Item #1 - Meters, Encoders & Radio **\$ 610,993.00**

Item #2 Software

BEACON AMA Software Engagement Fee	1	\$	5,000.00	\$	5,000.00
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Customer Web Portal - included with BEACON AMA Software	1	included		\$	-
Subtotal - Item #2 -Software				\$	5,000.00

Item #3 Infrastructure

not required

Subtotal - Item #3 -Infrastructure / equipment				\$	-
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Item #4 Training

WebEx Training - 8 hours	1	\$	2,400.00	\$	2,400.00
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Subtotal - Item #4 - Professional Services & Training				\$	2,400.00
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Item #5 Annual Hosted Cloud Services

BEACON Hosting Services, 89 cents/meter/month		<u>Monthly</u>		<u>Annual Fee</u>	
		3,186.20		38,234.40	

Subtotal - Item #5 - Annual Hosting Fees				\$	38,234.40
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Item #6 Annual Maintenance Fees

	<u>Annual Fee</u>
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Subtotal - Item #6 - Annual Maintenance				\$	-
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Item #7 OPTIONAL Distribution Leak Sensor System

Not Available

Subtotal - Item #7 - Optional Leak Sensor System

\$ -

OPTIONAL - Item #7b - Leak Sensor hosting services

not available

Subtotal - Item 7b - Leak Sensor Hosting Services

\$ -

\$ -

SUMMARY - ORION Cellular / BEACON

Item #1 - Meters, Encoders & Radio	\$	610,993.00
Item #2 -Software	\$	5,000.00
Item #3 -Infrastructure / equipment		not required
Item #4 - Training	\$	2,400.00
SubTotal Equipment Costs - Intial Purchase	\$	618,393.00
Sales Tax - 7.5% Tuolumne County	\$	46,199.48
Total Initial Investment	\$	664,592.48

Annual Fees year 1-10

Item #5- Annual Hosting Fees	\$	38,234.40
Item #6 - Annual Maintenance Fees	\$	-
Subtotal - Annual Fees	\$	38,234.40
Year 1-10 net cost	\$	382,344.00

Total Costs - year 1-10	\$	1,046,936.48
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Annual Fees - Year 11-20

Item #5 - Annual hosting fees	\$	38,234.40
Subtotal - Annual Fees	\$	38,234.40
year 11-20 net cost	\$	382,344.00

New Endpoint - Year 11

ORION Cellular endpoint	3,580	\$	80.00	\$	286,400.00
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Sales Tax	\$	21,480.00
Subtotal - equipment upgrade	\$	307,880.00

Total Costs - Year 11 - 20	\$	690,224.00
	\$	1,737,160.48

Endpoint Warranty

Year 1 - 10 100%
Year 11 - 20 100%