

Capitol

**Water**  
Corp.

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2003 MAY 27 AM 10:56

IDAHO PUBLIC  
UTILITIES COMMISSION

2626 Eldorado Boise, Idaho 83704  
Telephone 375-0931

TO: IDAHO PUBLIC UTILITIES COMMISSION  
472 W. WASHINGTON STREET  
BOISE, ID 83702

RE: CASE NO. CAP-W-02-1  
ORDER NO. 29035

DATE: MAY 27, 2003

Accompanying this letter, as required in the above Order, are (1) the results of the engineering study; and (2) a schedule showing the adjusting entries to correct the accounting for the surcharge revenues and expenditures.

Analysis and recommendations by the Commission, as soon as possible, will be appreciated. Bank of America is anxious to finalize the loan.

The recommendations of Capitol Water's engineer, Terry Scanlan, are also enclosed.

Sincerely,



H. Robert Price, President  
CAPITOL WATER CORPORATION

Capitol Water Corporation  
 Surcharge adjustment entry  
 2002

Depreciation life 25

Description	Franchises & Consents	Land & Land Rights	Structure Improvements	Wells	Supply Mains	Pumping Equipment	Water Treatment Equipment	Transport and Dist Mains	Services	Meters	Total
Surcharge 1											
1996			1,450.00			22,562.69	342.43				24,355.12
1997	500.00		3,060.37	38,581.30	30,108.72	11,491.46	1,380.75		1,488.17		86,610.77
1998	300.00	42,441.63	37,058.87	81,086.01	60.00	87,774.52		811.16	593.44	403.49	250,529.12
<b>Total</b>	<b>800.00</b>	<b>42,441.63</b>	<b>41,569.24</b>	<b>119,667.31</b>	<b>30,168.72</b>	<b>121,828.67</b>	<b>1,723.18</b>	<b>811.16</b>	<b>2,081.61</b>	<b>403.49</b>	<b>361,495.01</b>
Accumulated Depr											
1996	-	-	377.00	-	-	5,866.30	89.03	-	-	-	6,332.33
1997	-	-	673.28	8,487.89	6,623.92	2,528.12	303.77	-	327.40	-	18,944.37
1998	-	-	6,670.60	14,595.48	10.80	15,799.41	-	146.01	106.82	-72.63	37,401.75
<b>Total</b>	<b>-</b>	<b>-</b>	<b>7,720.88</b>	<b>23,083.37</b>	<b>6,634.72</b>	<b>24,193.83</b>	<b>392.80</b>	<b>146.01</b>	<b>434.22</b>	<b>72.63</b>	<b>62,678.45</b>
Current year depr	-	-	1,662.77	4,786.69	1,206.75	4,873.15	68.93	32.45	83.26	16.14	12,730.14
Current year interest											25,623.00
Current year loan principle											60,839.00

Journal Entry

460.40 Surcharge receipts	111,614.11
460.50 Surcharge II receipts	63,151.80
224.40 Note B of A	113,234.85
215.00 Earned Surplus	151,507.14
108.00 Accum depr plant	62,678.45
302.00 Franchise & consent	800.00
303.00 land and rights	42,441.63
304.00 Structure improve	41,569.24
307.00 Wells	119,667.31
309.00 Supply mains	30,168.72
311.00 Pumping Equipment	121,828.67
320.00 Water treatment equ	1,723.18
331.00 Transportation & dist	811.16
333.00 Services	2,081.61
334.00 Meters	403.49
403.00 Depreciation	12,730.14
427.40 Interest exp B of A	25,623.00
131.40 Cash-surcharge	62,801.63
Other expenses	39,536.57

111,614.11  
 63,151.80  
 113,234.85  
 151,507.14  
 62,678.45

Amounts from trial balance except  
 Earned Surplus which is a plug to  
 the journal entry for this year. In  
 the future, Earned Surplus will  
 adjust back to prior year ending  
 number.

Current Year

Income	174,765.91
Loan Payments	(60,839.00)
Cash Increase	(48,767.34)
Interest	(25,623.00)
other exp	<u>39,536.57</u>

502,186.35    502,186.35

# SCANLAN ENGINEERING

*Groundwater and Environmental Engineering*

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2003 MAY 27 AM 10: 58

IDAHO PUBLIC  
UTILITIES COMMISSION

May 19, 2003

Bob Price  
Capitol Water Corporation  
2626 Eldorado  
Boise, ID 83704

Subject: Water Distribution System Analysis for Capitol Water Corporation

Dear Bob:

Enclosed is one final copy of the Report for Water Distribution System Analysis prepared for Capitol Water Corporation by MWH. The report presents the results of numerical modeling of the CWC water distribution system. The purpose of the analysis was to provide guidance for water system improvements.

Analysis of model output for peak instantaneous flow and peak-instantaneous flow plus fire flow scenarios provides the following important conclusions.

1. Replacement of Well No. 5 in 2002 has solved the low pressure and fire flow problems for the portion of the water system located east of Esquire Drive. The new well is equipped with a pump rated to produce up to 1,200 gpm under normal operating pressures, and up to 1,400 gpm under fire flow conditions. The previous well and pump produced only 250 gpm. As a result, the extreme eastern portion of the water system (served by Wells 1 and 5) can now maintain adequate pressure under peak demand conditions without relying on delivery of significant flows through 4-inch water mains from wells located west of Esquire Drive.
2. A 1,500 gpm fire flow cannot be provided from hydrants connected to 4-inch water mains. As a result, the portions of the CWC service area between Cole Road (on the west) and Esquire Drive (on the east) with 4-inch mains do not have 1,500 gpm of fire protection. Approximately 25,000 feet of 4-inch mains are located within this area. Replacement of a large percentage of these 4-inch mains would be required to provide adequate fire flows within this area.
3. Use of Well No. 6 is needed to maintain pressures during peak instantaneous demands. The well is currently utilized only as a standby well for fire protection purposes because of high iron content in the water. Utilization of Well No. 6 to meet demand peaks could provide significant benefits during summer months. Use of Well No. 6 will also defer the need to replace Well No. 2.

The water system analysis also notes that CWC lacks standby power at all of its wells. Since the water system has no storage tanks, the entire system will depressurize in the event of a sustained power outage, which could allow contaminants to enter the water system. Depressurization is a particular concern for non-chlorinated water systems such as CWC. The analysis recommends adding standby power to one or more wells to prevent depressurization and to provide fire protection during power outages.

The estimated cost to replace only those 4-inch water mains that are equipped with hydrants is \$301,155, based on 8,500 feet at \$35.43 per foot. This cost far exceeds the approximate \$100,000 budget currently available for water distribution system improvements. There does not appear to be a significant advantage to replacement of only a few thousand feet of 4-inch mains.

Given that adequate funding is not currently available to replace enough 4-inch main to immediately improve fire flows throughout the eastern portion of the service area, the following steps are recommended to implement water system improvements.

1. Install back-up power at CWC Well No. 4 in 2003. This well can produce approximately 2000 gpm under normal system pressures. As such, the well is capable of meeting the entire average winter demand plus a 1,500 gpm fire flow. Estimated cost to install back-up power is \$75,000.
2. Initiate aquifer recharge activities in the fall of 2003 at Well No. 6 in an effort to improve water quality for use during summertime demand peaks. High quality water from wells 3, 5, or 7 could be injected into Well No. 6 during fall, winter, and spring months, and then recovered during peak demand periods in the summer months. Estimated costs for the recharge project (piping, water quality analysis, permitting, etc.) are \$20,000.
3. Modify the capitol improvement plan from the report, so that remaining improvements can be implemented over a 10-year period. Specifically, the CIP would provide a long-term plan for upgrade of 4-inch water mains and other distribution system improvements. The plan should identify the total footage of water mains to be upgraded, the location of the mains, estimated costs, and the schedule for implementation. The plan should also include back-up power for at least one additional well (Well 5?) and replacement of Well No. 3 or Well No. 2. Funding for the work will need to be determined based on the proposed plan.

Please contact me to discuss this report and the subsequent recommendations listed above.

Sincerely,



Terry M. Scanlan, P.E., P.G.

Cc: Randy Zollinger - MWH

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Note: Only 1 copy  
of the water system  
analysis was rec'd.  
It will be kept in  
the file room and  
can be checked out.



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## Capitol Water Corporation

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Report for

### ***Water Distribution System Analysis***

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April 2003



**MAPS WERE INCLUDED IN THIS  
FILING ARE IN THE FILE**

**REMAINING PAGES  
ARE IN THE FILE  
UNABLE TO SCAN  
BECAUSE OF POOR QUALITY**