

To: Director, Panama Water Authority  
From:  
Re: Service Expansion Campaign Problems  
Date: March 21, 1990

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## Summary

Current financial trends at the Water Authority are discouraging. Liquidity is dangerously low, and the combination of rising expenses and stagnant revenues is creating problems with solvency and profitability.. Most important, water sales have actually decreased during the past year, despite increasing expenditures on the service expansion program. While these problems may be temporary – representing a normal lag time between expenditures and their resulting impact – measures should be taken to: 1) improve the authority's liquidity, and, 2) increase sales.

## Problem Analysis

1. Liquidity. This is probably the most urgent financial problem. According to the data, the Authority may be unable to meet its obligations during the coming year, and will have trouble collecting what it is owed:

- Liabilities exceed assets. The *current assets to current liabilities ratio* is now .85. This is alarming for two reasons: 1) Most experts agree that a healthy utility should have a CA/CL ratio of 1 or more; and, 2) The Authority's CA/CL has fallen from 1.37 in 1972.

When inventories are excluded, the *ratio of "quick" assets* – those which can be easily converted into cash – to liabilities is .72, which is considered accept for a utility. This indicates the Authority is relatively well-equipped to handle short-term obligations, despite the CA/CL ratio. Nonetheless, the trends indicate that there is still reason to worry: the "quick" ration has declined rapidly from 1.26 in 1972.

- Collection is slow. Customers are paying their water bills an average of 86 days after receiving them, an improvement from 125 days two years ago. This is a bit slow, compared to other utilities. Worse, the Authority now must wait 398 days, on average, to receive our valorization tax subsidy, through property taxes – more than twice as long as in 1972.

- Performance is declining. The *turnover ratio* has fallen to .10 from .16 in 1972. This means that one “unit” of assets now produces only .10 units of operating revenue. Utilities should produce a turnover ratio of .25.
2. Solvency. The results of the debt analysis are mixed. Total debt is relatively low, and the Authority is not under-capitalized. However, interest payments are taking over an increasing proportion of income:
- Debt is *not* dangerously high. The *long-term debt to capitalization ratio* is .50. This means that about half of capital received by the Authority is coming from loans; the figure is not unreasonable for a utility. Also, the *total debts to assets ratio*, measuring all debt as a proportion of all assets, is safe at .55.
  - Interest payments are becoming difficult to meet. The ratio of revenues (before interest) to interest has rapidly fallen to 1.06 from 5.19 in 1972. Three problems become apparent here: 1) All but a fraction of revenues are now being used to pay interest, leaving very little money to reinvest; 2) This is a result of rapidly declining revenues; 3) The trend indicates the situation is rapidly deteriorating.
3. Profitability. Since there is no absolute measure of a utility’s profitability, ratios are used to compare a utility’s comparative efficiency over time. By all available measures, profits are declining at the Water Authority:
- As a proportion of revenues, net profits have fallen to a mere .007 from .28 in 1972. Compared to patrimony (i.e., contributions), net profits have fallen to .002 from .092. Compared to asset, net profits have fallen to .0007 from .044.
4. Efficiency. Two efficiency problems are readily apparent: first, the Authority’s ability to use resources to produce and distribute water is deteriorating; and second, expenses have been taking an increasing chunk of revenues:
- Water production and sales have declined as a proportion of assets. The ratio of water production to asset has fallen to .27 from .36 in 1972, while the ratio of water sales to assets has fallen to .19 from .28. The *absolute* level of water production has been increasing, but the absolute level of assets used has been increasing more quickly.

- Water is being lost in the process. An average of 72 percent of water produced is actually sold. This means that more than a quarter is lost through leakage or theft, or is not adequately billed to customers. Good performance in a water utility is 85 to 90 percent; clearly the Authority could be doing better.
- Expenses are increasing faster than revenues. The *operating ratio*, measuring expenses as a percentage of revenues, has risen to 87 percent, way above an appropriate level for utilities. Little significant change has occurred in the composition of operating expenses.

## **Recommendations**

1. Raise liquidity: Improve collection. Collection of valorization taxes is a problem. The Water Authority receives a subsidy from property taxes; it appears that the government recently shifted from a six-month to a one-year property tax collection schedule. To combat the resulting liquidity problem, the Authority could request that the government return to the six-month schedule; an alternative would be to simply include the valorization tax with the water bill instead of cross-subsidizing from property taxes. Also, the collection of water bills, now between 60 and 90 days, could be quickened to between 30 and 60 days.

The Authority should attempt to learn more about the current assets-liabilities imbalance. From the balance sheet, it appears that most of the deterioration this year is attributable to a new entry of 1.2 million balboas for payments to autonomous agencies; it is unclear what this signifies.

2. Increase sales: Improve distribution and billing. The inability of water sales to keep up with expenses is at the root of most of the problems described above. A major aspect of this problem is that the Authority has not been reimbursed for huge amounts of water it produces. Even in Panama City, only 79 percent of water produced is finally sold, while in the interior provinces the ratio has fallen to 54 percent. The Authority should examine its distribution system for leakages and possible security breaches, especially in the interior provinces. Also, the Authority should look at its billing procedures to find out which customers are not paying, or not being informed about, their bills. It may be that many people, particularly in the outer provinces, are simply unable to pay.

Finally, the Authority should attempt to discover why the recent expansion program has not done more to increase water production.

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