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## Water scare not mechanical failure

**Ginger D. Richardson**

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Bad decision making and not mechanical failure was directly to blame for a January water scare that forced 1.5 million people to boil their water for two days, an independent auditor has found.

Bruce Engerholm, the California operations manager for Metcalf & Eddy, an outside consultant firm hired by the city to analyze and review operations at the Val Vista Water Treatment Plant in Mesa, told city officials Thursday that nothing was physically wrong with the facility.

Instead, they said, the water debacle was caused by severe understaffing and poor equipment maintenance.

Engerholm also said workers who were on duty at the plant did not have the institutional knowledge necessary for dealing with the situation.

"Could it have been avoided? Yes. Could it happen again? Yes," Engerholm said.

Engerholm and his firm listed a litany of things that happened in the days before the plant began pumping out cloudy water. All can be traced to human error.

Among them:

- Workers didn't properly clean filters at the plant when they had the chance, eventually causing them to become overloaded and flood the facility.
- The plant, which was shut down after it flooded, was brought back online "too hard, too fast," creating a situation in which the turbid water wasn't effectively being treated with chemicals.
- Employees didn't keep a proper log of the chemicals being added to the water, at one point dropping the amount of alum, which is used in coagulation, to almost half of what previously had been added.
- Workers couldn't monitor whether the treatments they were using were working because they were performing light maintenance on equipment.
- The automated equipment at the plant was poorly maintained and therefore was not being used because the employees didn't trust that it would be reliable.

City Councilman Claude Mattox, who serves as the chairman of the subcommittee, said the audit provides the city with a valuable opportunity to make improvements.

"It's troubling," Mattox said. "The bad thing was that it happened." But, he said, "now we know what the problems are."

Danny Murphy, the city's acting water services director, said the city has been making changes in the division's operations since the incident, including holding training sessions to better prepare workers for an emergency.

He and others said they would act immediately to implement the new recommendations outlined by the consulting firm.

Phoenix officials said they also would like the firm to do a similar audit of the city's other water-treatment plants, plus a new plant still under construction.

"I think it is our responsibility to make sure that now that this has happened once, that it never happens again," City Councilman Dave Siebert said.

Reach the reporter at [ginger.richardson@arizonarepublic.com](mailto:ginger.richardson@arizonarepublic.com) or (602) 444-2474.

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