



Follow Up Review of Water System Operations: Rate Structure, Distribution & Production Audits

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Purpose of the Follow-Up Review

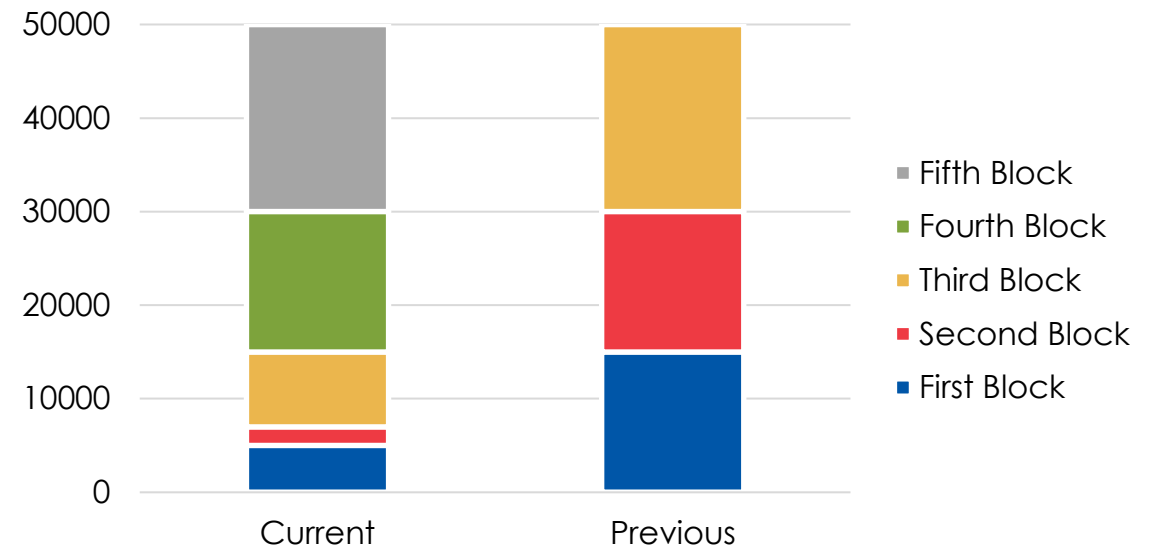
- Provides a progress update on audit recommendations.
- Audit project evaluated the effectiveness of controls over:
 - Water demand mgmt. strategies;
 - Distribution infrastructure construction & maintenance; and
 - Water production quality & capacity.
- Review found some documentation improvement & and planned risk transfer; some timeliness issues still exist.



Water Rate Structures Have Been Adjusted; Could Further Impact Demand

- Residential rate structure adjusted to include two additional blocks.
 - Price increases between new blocks seem to be too small to influence demand.
- Separate commercial irrigation meters are now required.
- Wholesale water contracts being negotiated.

Residential Water Rate Structure Comparison



	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Max. Gal.	5,000	7,000	15,000	30,000	50,000	NA
Charge	\$3.63	\$3.90	\$4.05	\$7.25	\$9.68	\$12.04
% Increase:	NA	7.4%	3.8%	79.0%	33.5%	24.4%

Water Demand Reduction Education Occurring; New Incentives Being Considered

- City shares water demand reduction messages periodically.
- New demand reduction incentives being considered as part of One Water Master Plan.
- Utility bills not adjusted to include block structure information.
 - Would require a bill redesign, which was not funded.



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Small Water Line Projects Will no Longer be Performed In-House

- Documentation of project quality control & reg. compliance has improved – including requiring ROW permits.
 - No standardized process for documenting final walkthrough.
- Processes to ensure accuracy of recorded material and labor costs have not been developed.
- Project closure & capitalization timeliness has remained the same.
 - Finance currently working to update capitalization thresholds; will work on streamlining communication soon.
- All future small water line replacement projects will be managed by Capital Projects and constructed by contractors – transferring these risks.

Small Water Line Replacement Projects

Project	Construction Complete	ROW Restored	Closed	Months Since Construction
Amherst	06/30/21	Yes	09/29/22	15
Bell	04/08/21	Yes	No	19
Peach & College Park	10/25/22	No*	No	12
University	12/06/22	NA**	No	11
Robinwood	09/09/23	No	No	2



*ROW restoration for this project was delayed due to non-City utility construction work being performed just after Water's project was complete.

**This project was completed in a utility easement, so no right-of-way needed to be restored.

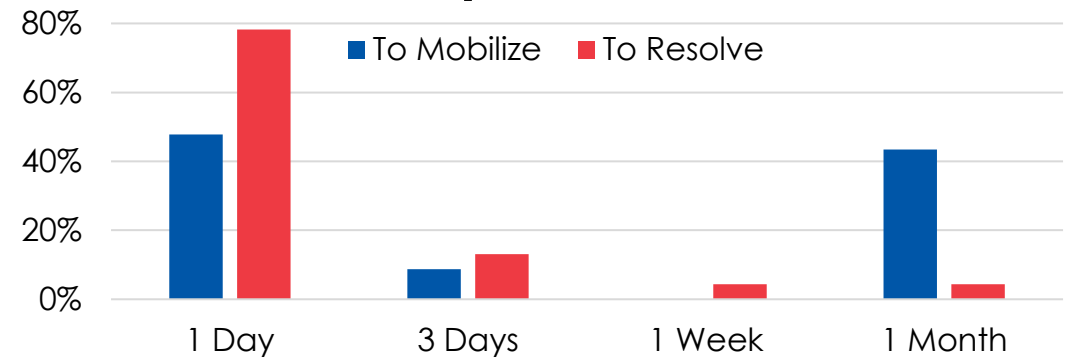
Distribution & Production Repair Documentation Improved;

- Leak repair mobilization doesn't meet timeliness goals.
- Water line maintenance work order documentation improved; still missing some critical elements.
- Plant repair & and maintenance work order documentation improved & generally completed timely.

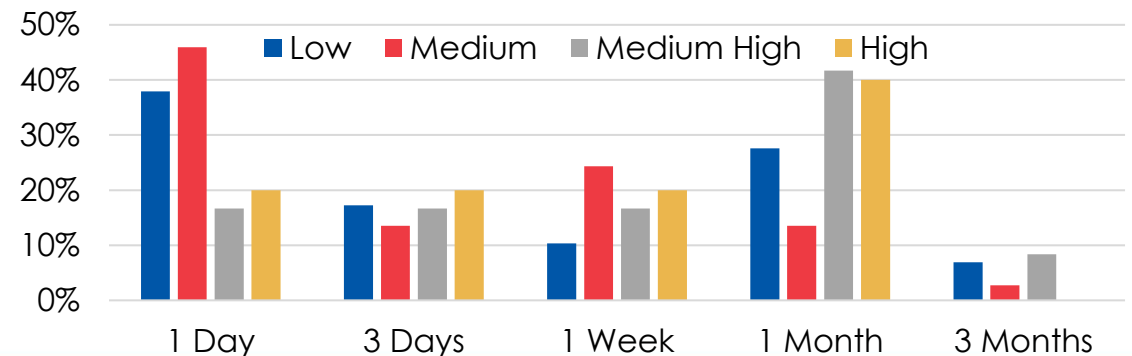


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Line Leak Repair WO Timeliness



Plant Preventative Maintenance WO Timeliness



Water Treatment Chemicals Now Being Reconciled

- Process to reconcile water treatment chemicals implemented.
 - Acceptable delivery variances still should be established.
- Chemical delivery documentation adequately retained.



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Chemical Delivery Differences Analysis (FY23)

Chemical	Deliveries	Avg. % Diff.	Est. Cost Impact
PolyDADMAC (LL)	7	-9.8%	-\$9,000
Chlorine	6	-2.5%	-\$5,900
PolyDADMAC (RR)	7	-9.1%	-\$5,600
Liquid Oxygen (LL)	25	-4.5%	-\$2,400
Anhydrous Ammonia	16	-6.0%	-\$1,200
Sodium Hypochlorite	38	0.0%	\$100
Fluoride (RR)	1	6.0%	\$600
Liquid Oxygen (RR)	20	3.0%	\$900
Ferric Sulfate (RR)	43	0.7%	\$2,200
Liquid Ammonium (LL)	45	4.8%	\$4,500
Sodium Hydroxide (RR)	25	1.9%	\$14,200
Ferric Sulfate (LL)	62	4.7%	\$22,900
Sodium Hydroxide (LL)	33	4.%	\$43,000
All:	328	1.3%	\$64,400

Water System Operations Follow-Up Summary:

Some Improvement Made

Audit Area	Recommendations	Implemented	In Progress	Not Implemented
Water Rate Structures	4	50%	50%	0%
Water Demand Reduction Education	3	67%	0%	33%
Distribution Capital Projects	7	86%*	14%	0%
Distribution & Production Maintenance	5	60%	40%	0%
Water Treatment Chemicals	2	100%	0%	0%
Water System Administration	4	75%	25%	0%
All:	25	72%	20%	4%

Recommendation Not Implemented:

3. Include information about how residential water bills are calculated with customer utility bills.



* Includes five recommendations with an "Alternate Solution" result. Detailed recommendations and implementation actions can be seen in the full follow-up report.

Questions?

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