



Control Number: 49189



Item Number: 87

Addendum StartPage: 0

SOAH DOCKET NO. 473-19-6297.WS
PUC DOCKET NO. 49189

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APPLICATION OF THE CITY OF § BEFORE THE STATE OFFICE
AUSTIN DBA AUSTIN WATER FOR § OF
AUTHORITY TO CHANGE WATER §
AND WASTEWATER RATES § ADMINISTRATIVE HEARINGS

**CITY OF AUSTIN D/B/A AUSTIN WATER'S
RESPONSE TO COMMISSION STAFF'S
FIFTH REQUEST FOR INFORMATION**

To: Public Utility Commission of Texas (Commission), by and through its attorney of record,
Eleanor D'Ambrosio, Legal Division, 1701 N. Congress Avenue, Austin, Texas 78701.

The City of Austin (City) doing business as Austin Water (Austin Water or AW) files its Responses to Public Utility Commission Staff's Fifth Request for Information (RFI) to Austin Water received on September 13, 2019. This response is timely filed. Pursuant to 16 Tex. Admin. Code (TAC) § 22.144(c)(2)(F), Austin Water agrees and stipulates that all parties may treat the responses as if the answers were filed under oath.

Respectfully submitted,

**LLOYD GOSSELINK ROCHELLE
& TOWNSEND, P.C.**

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ATTORNEYS FOR CITY OF AUSTIN

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was served by email on October 2, 2019, to the parties of record.



THOMAS L. BROCATO

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**AUSTIN WATER'S RESPONSE TO
COMMISSION STAFF'S FIFTH RFI**

Staff 5-1 Please refer to the workpaper "AW Water COS Model Docket 49189." For each worksheet in this workpaper, provide the units of measurement for each line item in that worksheet.

RESPONSE: Please see AW Staff 5-1, Attachment 1.

Prepared by: Robert Rowan
Sponsored by: David Anders and Joseph Gonzales

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AUSTIN WATER'S RESPONSE TO
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Staff 5-2 Please confirm or deny that Austin Water is proposing to set rates in this proceeding based on actual information from an historical test year. If not confirmed, please explain.

RESPONSE: Confirmed. Austin Water's proposed rates set in this proceeding were based on actual information from historical test year 2018 as well as known and measurable post test year adjustments.

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Staff 5-3 Please comprehensively explain the “11-Month Implementation Adjustment Factor” shown in column V to worksheet “111. Rev Reconciliation” to the workpaper “AW Water COS Model Docket 49189.” Why is this used as a component of the wholesale water revenue requirement? How does it constitute a cost of providing water service to wholesale customers? Explain.

RESPONSE: The City’s fiscal year begins October 1st. The month of October is when new rates are tested in the billing system. This is a 30-day process and must be completed prior to implementation of new rates. Once testing is completed, the approved rates are effective in the billing system on November 1st, which creates the 11-month billing cycle with new approved rates.

In 2018, retail rates were updated during the year. These rates remained the same during FY 2019. The “Month of New Rate Implementation” was set to October in order to capture a full 12-month cycle for 2018. The “11-Month Implementation Adjustment Factor” (in column V) applies a rounding mechanism to minimize the difference between Total Revenues (column J) and Revenue Requirements (column K).

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Staff 5-4 Please refer to worksheet "100. Net Volumetric Rev Req" to AW's water COS model. For each of the following columns, please explain the type of charge AW proposes to set to recover the amounts in that column from wholesale water petitioners:

- RSF rev req
- Fixed rev req
- Rev Recovery from Additional Fixed Fee
- Net Volumetric Revenue Requirement

RESPONSE:

- RSF rev req—Water Revenue Stability Reserve Fund (RSF) is charged to all Retail/Wholesale customers to fund the RSF. The fee charges \$0.05 per 1,000 gallons of water consumption per customer.
- Fixed rev req—The Fixed Revenue Requirement for wholesale customers has two components; Customer Charge and Meter Charge. Those charges are for services such as the meter equivalent charge, meter reading, and bill production from the City billing system.
- Revenue Recovery from Additional Fixed Fee—This amount is the fixed fee amount beyond the Fixed Revenue Requirement (Column H) that meets the goal of 11% in fixed fee charges.
- Net Volumetric Revenue Requirement—This is the net volumetric requirement after the fixed fee goal of 11% is achieved. The additional revenue from Column J reduces the volumetric requirement in Column K.

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Staff 5-5 Please refer to the workpaper "AW Water COS Model Docket 49189" at worksheet "29. O&M Budget." Are the amounts in column H actual historical costs (as suggested by the column heading), or budgeted costs (as suggested by the worksheet heading in Microsoft Excel cell C3 and the name of the worksheet)? Please explain.

RESPONSE: Yes, the amounts in Column H are actual historical costs. The cost of service (COS) model was originally designed to use budget costs, data which correlates with the headings. For Austin Water's Application for Authority to Change Water and Wastewater Rates (Application), the model includes historical actual costs. Austin Water did not change all the headings within the model to indicate this change.

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-6 Did any of the petitioners receive reclaimed water from Austin Water during the Test Year? Please explain.

RESPONSE: None of the petitioners received reclaimed water from Austin Water during the test year. The reclaimed water system is a component within Austin Water's water supply portfolio. The reclaimed water system enhances the total amount of potable water available to all customers, both retail and wholesale. The reclaimed water system is a key component of AW's recently completed 100-year Water Forward Integrated Water Resource Plan (Water Forward Plan). The reclaimed water system will be a critical component for providing and meeting future water supply needs for all of Austin Water's customers.

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-7 Did any of AW's 16 wholesale water or 10 wholesale wastewater customers receive reclaimed water from Austin Water during the Test Year?

RESPONSE: None of AW's other wholesale water or wastewater customers received reclaimed water from Austin Water during the test year. The reclaimed water system is a component within Austin Water's water supply portfolio. The reclaimed water system enhances the total amount of potable water available to all customers, both retail and wholesale. The reclaimed water system is a key component of AW's recently completed 100-year Water Forward Plan. The reclaimed water system will be a critical component for providing and meeting future water supply needs for all of Austin Water's customers.

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-8 Have any of AW's wholesale customers ever received any reclaimed water from Austin Water's reclamation system? Please explain.

RESPONSE: None of AW's other wholesale water or wastewater customers have ever received reclaimed water from Austin Water during the test year. The reclaimed water system is a component within Austin Water's water supply portfolio. The reclaimed water system enhances the total amount of potable water available to all customers, both retail and wholesale. The reclaimed water system is a key component of AW's recently completed 100-year Water Forward Plan. The reclaimed water system will be a critical component for providing and meeting future water supply needs for all of Austin Water's customers.

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-9 Please provide all studies, reports or analyses prepared by Austin Water or in its possession that quantify the economic value of the water reclamation system's capacity for facilitating the avoidance of surcharges from LCRA or other water suppliers that occur when water or scarce or volume triggers are exceeded; or, the economic value of the avoidance of service interruptions that AW believes might otherwise occur in the absence of the reclamation system under certain conditions.

RESPONSE: Please see AW Staff 5-9, Attachments 1 through 13, for financial analyses performed from 1997 through 2008, which compiled and analyzed revenues, expenses, avoided Lower Colorado River Authority (LCRA) raw water costs, deferred debt service for treatment expansions, and the debt service associated with the LCRA payment of \$100 million for reservation and raw water contract in 1999.

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-10 Has Austin Water ever had to implement involuntary curtailments of water systems to its water customers on an unplanned basis as a result of water shortages? Please explain.

RESPONSE: No. In the drought of 2008 to 2016, Austin Water voluntarily implemented Stage 2 restrictions in accordance with Austin's Drought Contingency Plan (DCP). In accordance with Austin's DCP, Stage 2 was triggered when the combined storage volume in Lakes Travis and Buchanan dropped below 900,000 acre-feet.

LCRA's Board of Directors took action in November 2013, effectively requiring firm customers to implement a no more than one-day per week watering schedule, which would take effect on March 1, 2014. Austin had already been implementing Stage 2, which includes a no more than one-day-per week watering schedule, on a voluntary basis for more than two years during the drought. Therefore, Austin took no further action at that point, as a result of the LCRA Board's action.

In October 2018, Austin voluntarily implemented mandatory restrictions unexpectedly, due to source water quality issues from large volumes of silt and debris in the water from upstream flooding (high turbidity). These restrictions were not due to shortages of availability of water from the river.

Prepared by: Teresa Lutes
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**AUSTIN WATER'S RESPONSE TO
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Staff 5-11 Please provide all studies, reports or analyses prepared by Austin Water or in its possession that evaluate the likelihood that Austin Water will experience involuntary interruptions in its water supply from LCRA.

RESPONSE: The following evaluations, made during or after the 2008 to 2016 drought, included modeling results that showed combined storage in Lakes Buchanan and Travis reaching levels that have the potential to trigger some level of curtailment by LCRA (600,000 acre-feet of combined storage or 30%).

- A. City of Austin Approved Pro-Rata Curtailment Plan Including Econometric Statistical Analysis of Water Conservation Savings. Please see AW Staff 5-11, Attachment 1.
- This analysis was done because the LCRA notified firm water customers, including Austin, that they were close to triggering a Drought Worse than the Drought of Record (DWDR) declaration by the LCRA Board, and they wanted to be prepared to implement pro-rata curtailments if a DWDR was declared. With (1) voluntary cutbacks from Austin, (2) Texas Commission on Environmental Quality (TCEQ) Emergency Orders allowing LCRA to manage the storage in Lakes Travis and Buchanan in a more protective manner than would have been allowed under the approved LCRA Water Management Plan at the time, and (3) other cutbacks in the basin, a DWDR declaration was averted.
 - In July 2012, LCRA staff accepted the City of Austin's pro-rata curtailment plan, which used extensive econometric statistical analysis and other rigorous means to document over 26,000 acre-feet of water savings in a specified reference year.
- B. Austin Water Understanding the Drought, February 2015. Please see AW Staff 5-11, Attachment 2.
- Information on the drought, including information on combined storage levels, projections and estimates of the City's water savings.¹
- C. Hydrologic modeling analyses associated with LCRA Water Management Plan (WMP) revisions and TCEQ Emergency Order process.
- Hydrologic analysis results (combined storage volume of Lakes Travis and Buchanan) of various LCRA WMP and emergency relief scenarios:
 - 1) AW Staff 5-11, Attachment 3
LCRA stochastic model results for a long-range projection. Model results as of January 30, 2012.

¹ Please see AW Staff 5-11, Attachment 2 at 6.

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- 2) AW Staff 5-11, Attachment 4
LCRA stochastic model results for a short-range projection, February 1, 2012.
- 3) AW Staff 5-11, Attachment 5
LCRA presentation to its Water Operations Committee on October 16, 2012. Page 6 shows the LCRA stochastic model results as of October 2012.
- 4) AW Staff 5-11, Attachment 6
November 2, 2012 LCRA-prepared information, which includes results of several stochastic model scenarios.
- 5) AW Staff 5-11, Attachment 7
Comparison tables showing end of 2013 combined storage volumes (of Lakes Travis and Buchanan) under different scenarios.
- 6) AW Staff 5-11, Attachment 8
Graphs showing combined storage volumes (of Lakes Travis and Buchanan) under different extreme drought scenarios.
- 7) AW Staff 5-11, Attachment 9
City comments to TCEQ on Emergency Order issued January 27, 2014.
- 8) AW Staff 5-11, Attachment 10
Set of conditional reliability model (CRM) scenarios that were produced for the February 2014 TCEQ Emergency Order hearing.
- 9) AW Staff 5-11, Attachment 11
Comparisons between the 2010, 2012, and 2014 WMPs for a repeat of hydrology through the end of 2013 (September 2014).
- 10) AW Staff 5-11, Attachment 12
CRM results from February 2015 in preparation for a TCEQ agenda item regarding LCRA emergency relief.

D. Austin Water Resource Planning Task Force Recommendations Report. Please see AW Staff 5-11, Attachment 13.

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- See Appendix F,² which includes water availability model (WAM) results (combined storage volume of Lakes Travis and Buchanan) of various drought response supply strategy scenarios.
- WAM simulations were based on a repeat of hydrologic conditions from 2011-2013.
- Drought response strategies were modeled for the purposes of exemplifying simulated net benefits on storage in lakes Buchanan and Travis under repeated drought conditions.

E. Austin's Water Forward Plan. Please see AW Staff 5-11, Attachment 14.

- The Water Forward Plan process included a WAM of the Colorado River Basin to analyze various integrated water resource plan scenarios:
 - Water needs identification under various hydrologic scenarios.
 - Demand management and water supply strategy portfolios evaluation under various hydrologic scenarios.
- The following sections include modeling information:
 - Section 5: Hydrology, Climate Change, and Water Availability Modeling.³
 - Appendices D, E, and F
 - Appendix D: Climate Change and Hydrology Analysis⁴
 - Appendix E: Extended Hydrology Analysis and Water Availability Modeling⁵
 - Appendix F: Water Needs Identification⁶

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² Please see AW Staff 5-11, Attachment 13 at 45-66.

³ Please see AW Staff 5-11, Attachment 14 at 63-70.

⁴ Please see AW Staff 5-11, Attachment 14 at 235-256.

⁵ Please see AW Staff 5-11, Attachment 14 at 257-292.

⁶ Please see AW Staff 5-11, Attachment 14 at 293-304.

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Staff 5-12 Please provide the proposed wholesale tariffs under which Austin Water proposes to assess the proposed charges to petitioners, or provide citations to where they may be found in the application, if anywhere.

RESPONSE: The summaries of the proposed wholesale tariffs were included as part of the Notice of Intent to Change Rates within Austin Water's Application. These can be found on pages 594-597 of Austin's Application. Additionally, Austin Water included its approved FY2018 fee schedule in Schedule V-3 Budgets. The fee schedule provides additional tariff language and provisions. The water fee schedule for the Water Service Rates can be found on pages 2577-2583 of the Application, with wholesale detail on pages 2581-2583. The wastewater fee schedule for the Wastewater Service Rates can be found on pages 2594-2598 of the Application, with wholesale detail on pages 2597-2598.

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-13 Please explain what each of the following cost pools represents and why it is necessary to allocate costs separately to the cost pools: watershed land purchases, LCRA, reserve fund. For each cost pool, indicate if any of the costs included in that cost pool are allocated to petitioners and if yes explain why. How does Austin Water define "cost pool"?

RESPONSE: Austin Water uses "cost pools" to group individual costs. These cost pools are allocated to specific customer classes based upon causation of the costs.

The "watershed land purchases" is the debt service associated with the 1998 Bond Proposition 2, in which the City conducted a special election to provide funding for the purchase of land in the Edwards Aquifer Recharge Zone to protect drinking water quality. This cost pool is allocated only to the retail water customers of Austin Water.

The "LCRA" cost pool refers to the agreement that the City entered into with LCRA for the purchase of water rights. This is a system related cost and it is allocated to all customer classes, including the wholesale customer served by Austin Water. Austin Water considers this to be a water supply cost that should be shared by all customers.

The "Reserve Fund" cost pool was designed to allocate the cost of funding the Austin Water Reserve Fund. However, Austin Water has determined to fund and replenish the Water Reserve Fund by using a surcharge based on each 1,000 gallons of water billed. This surcharge is applied to all customer classes, including the wholesale customers. The Water Reserve Fund provides a financial benefit for all customer classes in the event of significant revenue shortfalls due to weather or other conditions. Therefore, Austin Water allocates this cost to all customer classes.

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Staff 5-14 Is Austin Water proposing to charge petitioners to fund bill credits to AW's retail customers to address over-billings from leaks and other bill adjustments? If yes, please explain AW's rationale for assessing these charges to petitioners; and, provide citations to where the amounts proposed to be assigned to petitioners can be found in AW's cost study.

RESPONSE: Austin Water is not proposing to allocate the Accounts Receivable Leak Adjustment to the petitioners, nor any other wholesale customer. It will remain a retail only allocation.

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-15 Please refer to AW witness Gonzalez' testimony at table 4. Please explain what "flow" represents as shown in this table. Is it a measure of throughput per unit of time? If so, what are the units of time used to derive the "flow" information in this table?

RESPONSE: The term "flow" represents the amount of projected wastewater volume each wholesale customer is forecasted to be billed during the test year. Austin Water refers to billed water volume as "consumption" and billed wastewater volume as "flows."

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**AUSTIN WATER'S RESPONSE TO
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Staff 5-16 Do Austin Water's capacity costs on the water and wastewater systems vary more in proportion to flow rates on the system over short time horizons (e.g., gallons per second) or long time horizons (e.g., gallons per day, month, or year)? If more on short time horizons, has Austin Water included this information in its filing? If yes, where? Has Austin Water considered allocating costs based on short-time horizon flow rates? If not, why not?

RESPONSE: Austin Water has not completed any analysis on whether capacity costs on the water and wastewater systems vary more in proportion to flow rates on the system over short time horizons, versus long time horizons. Therefore, Austin Water has not included this information in its filing. Austin Water has not considered allocating costs based on short time horizon flow rates.

Austin Water takes many factors into consideration to determine the size of water and wastewater mains in its system, which impact Austin Water's capacity costs. These factors include: (1) peak day and peak hour demand; (2) ensuring the capability of maintaining at least a 35 Pounds Per Square Inch (PSI) pressure over a peak hour, and 20 PSI for a peak day plus fire flow; and (3) confirming that velocity meets 5 feet per second for normal demand, and 10 feet per second for emergency demand. Austin Water typically looks at worst case conditions for these design criteria, but have not analyzed variance between short and long time horizons. Additional information on how Austin Water sizes its water mains can be found in AW's response to Staff's RFI No. 4-19 and in Section 2.9.2 of the City's Utilities Criteria Manual.⁷

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⁷ See Utilities Criteria Manual, City of Austin, Texas § 2.9.2 (2019). https://library.municode.com/TX/Austin/codes/utilities_criteria_manual?nodeId=S2WAREWAWACR_2.9.0DEREWAWAWASY_2.9.2WASY.

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Staff 5-17 Please refer to AW witness Gonzalez' testimony at 48. Please provide a citation to where in Docket No. 42857 the Commission ordered AW to increase the Inflow & Infiltration flows for wholesale wastewater petitioners. Please also explain why AW believes the Commission is bound in this proceeding by what AW claims the Commission ordered in Docket No. 42857. Please explain the rationale for this flow adjustment; and, explain how it is consistent with cost causation.

RESPONSE: The Commission's Order to increase the Inflow & Infiltration (I&I) flows for the wholesale wastewater petitioners was not in Docket No. 42857, but in Docket No. 45240⁸ Order Nos. 5 and 7 in Docket No. 45240 provide the Administrative Law Judge's (ALJ) ruling regarding the addition of a 10.5% I&I allocation to increase petitioner flows.⁹

The reason for the flow adjustment was that Commission Staff's recommendation on rates for wastewater petitioners in Docket No. 42857 was based on an incorrect flow amount that did not include I&I allocation. Therefore, the flows without I&I multiplied by the set rate would not recover the full cost of the total allocated revenue requirements for the petitioners. The additional 10.5% flow adjustment for I&I would ensure that the total allocated cost for each petitioner would be recovered by the City.

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⁸ See *The City of Austin's Proof of Refunds in Compliance with Docket No. 42857*, Docket No. 45240, (Aug. 5, 2016).

⁹ See Docket No. 45240, Order No. 5 Addressing Refund Calculations at 3, and Docket No. 45240, Order No. 7 Approving Refunds at 2.

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Staff 5-18 How does water usage on the system become “unaccounted for”? Please explain the circumstances that give rise to total metered usage on the system being less than total system usage. Do any unexplained or unaccounted for losses occur in the transmission system, or are the losses and unaccounted for usage limited to the distribution system or other functions? Please explain.

RESPONSE: Water usage is considered “unaccounted for” when the amount of authorized consumption, which can include billed/metered consumption and unbilled/authorized consumption, is less than the system input pumpage. The difference is considered water loss. Water loss occurs in both the transmission system and the distribution system, although there is not an accurate way to determine or distinguish the amount of water loss between the two. Because of this, Austin Water treats water loss as a system cost that is allocated to all customers, including wholesale.

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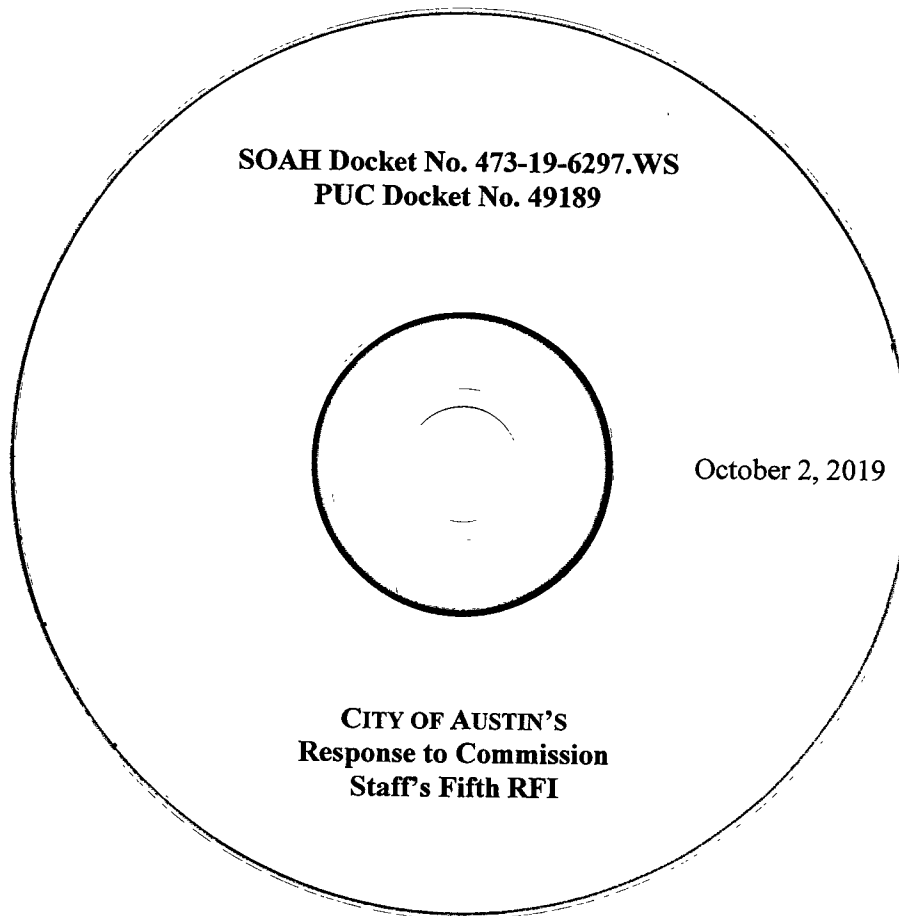
**AUSTIN WATER'S RESPONSE TO
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Staff 5-19 Please explain the methodology Austin Water follows to determine equivalent fire connections for each class of service and provide all the supporting workpapers.

RESPONSE: Austin Water recovers its fire-related costs in a fixed monthly charge component that is based on meter size. Meter equivalencies are determined based upon “capacity-based” meter equivalent ratios.

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Sponsored by: David Anders and Joseph Gonzales

ATTACHMENTS PROVIDED ON CD



- AW Staff 5-1, Attachment 1 - Index of Tables - Designation of Number Units.pdf
- AW Staff 5-9, Attachment 1 - Reuse Rates 072997 Opt 16.xls
- AW Staff 5-9, Attachment 2 - Reclaimed Water Analysis Option 07_FINAL_100402.xls
- AW Staff 5-9, Attachment 3 - 052004 Reclaimed Water Analysis Option 01.xls
- AW Staff 5-9, Attachment 4 - Reclaimed Water Analysis Option 01 5% increase.xls
- AW Staff 5-9, Attachment 5 - Reclaimed Water Analysis Option 02 No Subsidy 7 expensive towers.xls
- AW Staff 5-9, Attachment 6 - Reclaimed Water Analysis Option 02 No Subsidy.xls
- AW Staff 5-9, Attachment 7 - Reclaimed Water Analysis Option 03 No Subsidy w Extra \$3 16 m tower.xls
- AW Staff 5-9, Attachment 8 - Reclaimed Water Analysis Option 01 No Subsidy.xls
- AW Staff 5-9, Attachment 9 - Reclaimed Water Analysis Option 02a No Subsidy w One Enhanced Tower.xls
- AW Staff 5-9, Attachment 10 - Reclaimed Water Analysis Option 02b No Subsidy w One Lattice Tower.xls
- AW Staff 5-9, Attachment 11 - Reclaimed Water Analysis Option 03a No Subsidy w7 Enhanced Towers w-weighted avg bill impact.xls
- AW Staff 5-9, Attachment 12 - Reclaimed Water Analysis Option 03a No Subsidy w7 Enhanced Towers.xls
- AW Staff 5-9, Attachment 13 - Reclaimed Water Analysis Option 03b No Subsidy w7 Lattice Towers w-weighted avg bill impact.xls
- AW Staff 5-9, Attachment 14 - Reclaimed Water Analysis Option 03b No Subsidy w7 Lattice Towers.xls
- AW Staff 5-11, Attachment 1 - COA Pro Rata Analysis_LCRA.pdf
- AW Staff 5-11, Attachment 2 - Understanding the Drought_AW_Feb 2015.pdf
- AW Staff 5-11, Attachment 3 - 20120130_combined content long range.pdf
- AW Staff 5-11, Attachment 4 - 20120201_DroughtUpdate_StorageProjection.pdf
- AW Staff 5-11, Attachment 5 - ER_Drought_Relief_October_WtrOps_Discussion.pdf
- AW Staff 5-11, Attachment 6 - Drought Response 05 - WMP Stochastic Modeling Probabilities.pdf
- AW Staff 5-11, Attachment 7 - Storage comparison tables Nov 5 2012 and Nov 28 2012.pdf
- AW Staff 5-11, Attachment 8 - Combined Storage Scenarios Bar Graphs TCEQ Emergency Orders Nov 2013.pdf
- AW Staff 5-11, Attachment 9 - City Comments to TCEQ on Emergency Order 2-11-14.PDF
- AW Staff 5-11, Attachment 10 - DRAFT - CRM 2014EO - PeriodOfRecord and Drought - v03.pdf
- AW Staff 5-11, Attachment 11 - Combined Storage Projection Graph Sept 2014.pdf
- AW Staff 5-11, Attachment 12 - Results Summary - DRAFT Graphs without Cutoff - 20150204.pdf
- AW Staff 5-11, Attachment 13 - Austin Water Resource Planning Task Force Recommendations Report.pdf
- AW Staff 5-11, Attachment 14 - Water_Foward_Plan_Report_-_A_Water_Plan_for_the_Next_100_Years.pdf