

**PROJECT 7 WATER AUTHORITY**  
2023  
**ANNUAL WATER QUALITY REPORT**

**ADAM TURNER – Manager**  
**FRED WALDMAN – ORC**  
**Tessa Scharf – Office Manager**

**BOARD OF DIRECTORS**

**JAKE FOREMAN - Chairman**  
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## PROJECT 7 - WATER PURCHASE RECORD - GALLONS

2022	CITY OF MONTROSE	CITY OF DELTA	TRI-COUNTY	MENOKEN	CHIPETA	TOWN OF OLATHE	TOTALS PROJECT 7
JAN	52,866,000	25,444,000	56,266,000	10,432,000	10,739,000	3,998,000	159,745,000
FEB	47,446,000	21,937,000	50,345,000	9,207,000	9,498,000	3,745,000	142,178,000
MAR	55,367,000	27,324,000	54,597,000	10,025,000	11,267,000	4,576,000	163,156,000
APR	84,041,000	41,397,000	64,345,000	13,571,000	13,350,000	5,514,000	222,218,000
MAY	172,711,000	60,938,000	95,550,000	16,693,000	19,379,000	8,431,000	373,702,000
JUN	197,049,000	65,208,000	113,282,000	18,869,000	20,114,000	8,965,000	423,487,000
JUL	215,606,000	71,761,000	119,677,000	18,971,000	21,065,000	11,197,000	458,277,000
AUG	195,242,000	66,904,000	106,932,000	16,381,000	18,537,000	10,861,000	414,857,000
SEP	156,579,000	53,235,000	81,748,000	15,470,000	16,545,000	7,568,000	331,145,000
OCT	89,537,000	37,368,000	61,482,000	11,486,000	13,085,000	4,874,000	217,832,000
NOV	49,373,000	25,491,000	52,830,000	8,924,000	10,003,000	3,622,000	150,243,000
DEC	51,573,000	25,632,000	57,702,000	10,392,000	10,857,000	4,250,000	160,406,000
<b>TOTAL</b>	<b>1,367,390,000</b>	<b>522,639,000</b>	<b>914,756,000</b>	<b>160,421,000</b>	<b>174,439,000</b>	<b>77,601,000</b>	<b>3,217,246,000</b>
<b>ACRE FT.</b>	<b>4,196.52</b>	<b>1,603.98</b>	<b>2,807.39</b>	<b>492.33</b>	<b>535.35</b>	<b>238.16</b>	<b>9,873.73</b>
<b>% OF USE</b>	<b>42.50%</b>	<b>16.24%</b>	<b>28.43%</b>	<b>4.99%</b>	<b>5.42%</b>	<b>2.41%</b>	<b>100.00%</b>
No. of Taps (approx)	8,397	3,638	8,148	1,368	1,620	633	23,804

2023	CITY OF MONTROSE	CITY OF DELTA	TRI-COUNTY	MENOKEN	CHIPETA	TOWN OF OLATHE	TOTALS PROJECT 7
JAN	48,937,000	25,636,000	53,401,000	8,928,000	10,258,000	4,574,000	151,734,000
FEB	44,030,000	23,511,000	50,344,000	8,879,000	8,076,000	3,554,000	138,394,000
MAR	44,586,000	24,205,000	53,452,000	9,140,000	8,448,000	3,750,000	143,581,000
APR	63,015,000	36,635,000	60,444,000	12,658,000	9,433,000	4,888,000	187,073,000
MAY	135,238,000	58,844,000	85,690,000	15,207,000	12,217,000	7,217,000	314,413,000
JUN	164,612,000	61,615,000	92,765,000	17,996,000	15,472,000	8,979,000	361,439,000
JUL	223,713,000	79,997,000	133,837,000	22,472,000	21,221,000	11,543,000	492,783,000
AUG	188,352,000	65,047,000	114,157,000	17,537,000	17,526,000	10,327,000	412,946,000
SEP	163,604,000	58,670,000	96,612,000	16,490,000	15,181,000	8,709,000	359,266,000
OCT	89,276,000	37,736,000	71,787,000	13,080,000	12,189,000	5,419,000	229,487,000
NOV	49,529,000	23,606,000	52,264,000	8,146,000	9,459,000	3,923,000	146,927,000
DEC	46,783,000	22,979,000	51,604,000	11,411,000	9,469,000	3,518,000	145,764,000
<b>TOTAL</b>	<b>1,261,675,000</b>	<b>518,481,000</b>	<b>916,357,000</b>	<b>161,944,000</b>	<b>148,949,000</b>	<b>76,401,000</b>	<b>3,083,807,000</b>
<b>ACRE FT.</b>	<b>3,872.08</b>	<b>1,591.22</b>	<b>2,812.30</b>	<b>497.01</b>	<b>457.12</b>	<b>234.47</b>	<b>9,464.20</b>
<b>% OF USE</b>	<b>40.91%</b>	<b>16.81%</b>	<b>29.72%</b>	<b>5.25%</b>	<b>4.83%</b>	<b>2.48%</b>	<b>100.00%</b>
No. of Taps (approx)	8,526	3,690	7,857	1,367	1,770	633	23,843

# 2023 Water Quality Composite

Analyte	Matrix	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.
Total Alkalinity (mg/L)	Raw	92	91	92	86	75	67	68	69	67	67	68	73	76
Total Alkalinity (mg/L)	Finished	80	79	80	74	63	54	57	60	57	55	57	63	65
Total Hardness (mg/L)	Raw	131	124	148	151	124	103	103	105	104	107	112	135	121
Total Hardness (mg/L)	Finished	130	125	148	150	124	102	102	105	103	106	112	135	120
Magnesium Hardness (mg/L)	Finished	37	34	59	66	39	27	24	25	26	28	28	41	36
Calcium Hardness (mg/L)	Finished	93	92	89	84	85	76	78	79	77	78	85	93	84
pH	Raw	8.35	8.31	8.34	8.21	8.03	7.98	8.01	8.04	8.02	8.07	8.14	8.08	8.13
pH	Finished	7.46	7.39	7.36	7.37	7.25	7.23	7.40	7.44	7.37	7.43	7.30	7.39	7.37
Turb (NTU)	Raw	10.3	12.1	12.9	19.6	22.0	17.2	14.2	13.5	12.2	10.9	8.5	10.2	13.6
Turb (NTU)	Clarifier	0.77	0.82	0.66	0.73	1.88	1.00	0.94	0.73	0.77	1.01	0.78	0.97	0.92
Turb (NTU)	Finished	0.053	0.053	0.048	0.050	0.058	0.058	0.054	0.050	0.051	0.052	0.049	0.052	0.052
Chlorine residual -free (mg/L)	Finished (DCB eff)	2.02	2.04	2.02	1.89	1.80	1.84	1.81	1.83	1.85	1.89	2.04	2.05	1.92
Chlorine residual -total (mg/L)	Finished/Storage	2.00	2.06	1.98	1.89	1.80	1.80	1.79	1.77	1.78	1.89	1.93	2.05	1.89
Monochloramine (mg/L)	Finished/Storage	1.69	1.86	1.72	1.44	1.40	1.47	1.45	1.63	1.20	1.36	1.33	1.49	1.50
Free Ammonia (as N) (mg/L)	Finished/Storage	0.02	0.01	0.06	0.06	0.03	0.05	0.04	0.01	0.00	0.01	0.02	0.01	0.03
% of residual as Monochloramine	Finished/Storage	85%	87%	88%	77%	73%	78%	75%	89%	71%	72%	69%	75%	78%
Total Ammonia (mg/L)	Finished/Storage	0.46	0.43	0.48	0.39	0.35	0.46	0.40	0.33	0.27	0.28	0.31	0.33	0.37
Color (color units)	Raw	119	114	140	213	250	170	141	134	129	101	85	108	142
Total Dissolved Solids (mg/L)	Raw	145	142	144	149	118	98	99	99	97	99	105	127	118
Total Dissolved Solids (mg/L)	Finished	149	146	149	153	123	103	105	103	101	103	108	131	123
Iron (mg/L)	Raw	0.15	0.04	0.1	0.15	0.19	0.07	0.29	0.79	0.21	0.23	0.18	0.17	0.21
Iron (mg/L)	Finished/Storage	0.01	0.01	0.06	BDL	0.01	BDL	0.01	0.04	BDL	BDL	BDL	BDL	0.02
Copper (ug/L)	Raw	7	14	9	14	14	15	19	25	19	11	29	17	16
Copper (ug/L)	Finished/Storage	12	37	8	16	18	9	17	48	7	13	16	7	17
Phosphorus (mg/L)	Raw	0.09	0.05	0.06	0.01	0.08	0.05	0.09	0.04	0.06	0.05	0.05	0.08	0.06
Phosphorus (mg/L)	Finished/Storage	0.03	0.05	0.01	0.07	0.02	0.01	0.03	0.03	0.02	0.03	0.09	0.01	0.03
Sulfate (mg/L)	Raw	50	50	53	52	35	26	26	28	24	25	33	51	38
Sulfate (mg/L)	Finished/Storage	61	61	63	70	48	47	43	43	42	44	49	63	53
Fluoride (mg/L)	Finished/Storage	0.24	0.39	0.25	0.29	0.28	0.14	0.11	0.24	0.26	0.33	0.24	0.29	0.26
Langlier Index (10 Sample Avg.)	Distribution System		-1.48			-1.5			-1.48			-1.5		-1.49

# Inorganics

Sample Date: 4/24/2023

Ute Water Laboratory

Analyte	[Conc.]	Method
ANTIMONY	< 1 ug/L	EPA 3113B
ARSENIC	< 1 ug/L	EPA 3113B
BARIUM	44.5 ug/L	EPA 3113B
BERYLLIUM	0 ug/L	EPA 3113B
CADMIUM	0 ug/L	EPA 3113B
CHROMIUM	< 1 ug/L	EPA 3113B
FLUORIDE	< 0.2 mg/L	EPA 300.0
MERCURY	0 ug/L	EPA 200.9
NICKEL	< 1 ug/L	EPA 3113B
NITRATE	< 0.2 mg/L	EPA 300.0
SELENIUM	< 1 ug/L	EPA 3113B
SODIUM	< 10 mg/L	EPA 3113B
THALLIUM	0 ug/L	EPA 200.9

# Volatile Organic Compounds

Sample Date: 2/8/2023

Ute Water Laboratory

Analyte	[Conc.]	Method
VINYL CHLORIDE	0 ug/L	524.3
1,1-DICHLOROETHYLENE	0 ug/L	524.3
DICHLOROMETHANE	0 ug/L	524.3
CIS-1,2-DICHLOROETHYLENE	0 ug/L	524.3
TRANS-1,2-DICHLOROETHYLENE	0 ug/L	524.3
1,1,1-TRICHLOROETHANE	0 ug/L	524.3
CARBON TETRACHLORIDE	0 ug/L	524.3
BENZENE	0 ug/L	524.3
1,2-DICHLOROETHANE	0 ug/L	524.3
TRICHLOROETHYLENE	0 ug/L	524.3
1,2-DICHLOROPROPANE	0 ug/L	524.3
TOLUENE	0 ug/L	524.3
1,1,2-TRICHLOROETHANE	0 ug/L	524.3
TETRACHLOROETHYLENE	0 ug/L	524.3
CHLOROBENZENE	0 ug/L	524.3
ETHYLBENZENE	0 ug/L	524.3
XYLENES - TOTAL	< 0.5 ug/L	524.3
STYRENE	0 ug/L	524.3
P-DICHLOROBENZENE	0 ug/L	524.3
O-DICHLOROBENZENE	0 ug/L	524.3
1,2,4-TRICHLOROBENZENE	0 ug/L	524.3

### Report of Analysis



<b>Client Sample ID:</b> EP02		<b>Date Sampled:</b> 10/09/23
<b>Lab Sample ID:</b> DA59270-1		<b>Date Received:</b> 10/11/23
<b>Matrix:</b> DW - Drinking Water		<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 505 EPA 505		
<b>Project:</b> PWSID CO0143621 Project 7 Water Association		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GEH55779.D	1	10/14/23 02:13	MB	10/13/23 17:37	OP24488	GEH2103
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	35.0 ml	2.0 ml
Run #2		

**Primary Drinking Water Pesticide/PCB List**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
309-00-2	Aldrin	ND		0.010	0.0070	ug/l	
5103-71-9	alpha-Chlordane	ND		0.020	0.010	ug/l	
5103-74-2	gamma-Chlordane	ND		0.020	0.010	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.20	0.010	0.0060	ug/l	
12789-03-6	Chlordane	ND	2.0	0.20	0.10	ug/l	
60-57-1	Dieldrin	ND		0.010	0.0060	ug/l	
72-20-8	Endrin	ND	2.0	0.010	0.0080	ug/l	
76-44-8	Heptachlor	ND	0.40	0.020	0.010	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.20	0.020	0.010	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.020	0.010	ug/l	
77-47-4	Hexachlorocyclopentadiene	0.097	50	0.040	0.039	ug/l	
72-43-5	Methoxychlor	ND	40	0.020	0.010	ug/l	
8001-35-2	Toxaphene	ND	3.0	1.0	0.50	ug/l	
12674-11-2	Aroclor 1016	ND	0.50	0.080	0.075	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	0.10	0.080	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	0.10	0.080	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	0.10	0.080	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	0.10	0.050	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	0.10	0.050	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	0.10	0.050	ug/l	
1336-36-3	Total PCBs	ND	0.50	0.10	0.080	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		70-140%
877-09-8	Tetrachloro-m-xylene	93%		70-140%

ND = Not detected      MDL = Method Detection Limit  
MCL = Maximum Contamination Level (40 CFR 141)  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

### Report of Analysis

<b>Client Sample ID:</b> EP01	<b>Date Sampled:</b> 11/15/21
<b>Lab Sample ID:</b> DA39137-1	<b>Date Received:</b> 11/16/21
<b>Matrix:</b> DW - Drinking Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 525.2 EPA 525.2	
<b>Project:</b> PWSID CO0143621 Project 7 Water Association	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G156638.D	1	11/24/21 17:35	DC	11/22/21	OP20859	E1G3060
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

**EPA 525.2 + heptachlor**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
15972-60-8	Alachlor	ND	2.0	0.20	0.20	ug/l	
1912-24-9	Atrazine	ND	3.0	0.098	0.098	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.020	0.020	ug/l	
23184-66-9	Butachlor	ND		0.25	0.25	ug/l	
103-23-1	bis(2-Ethylhexyl)adipate	ND	400	0.59	0.59	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	6.0	0.59	0.59	ug/l	
76-44-8	Heptachlor	ND	0.40	0.039	0.020	ug/l	
51218-45-2	Metolachlor	ND		0.25	0.25	ug/l	
21087-64-9	Metribuzin	ND		0.25	0.25	ug/l	
1918-16-7	Propachlor	ND		0.25	0.25	ug/l	
122-34-9	Simazine	ND	4.0	0.069	0.069	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	Perylene-d12	104%		70-130%
	Pyrene-d10	116%		70-130%
115-86-6	Triphenyl phosphate	107%		70-130%

Collected: 08/08/22

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
DA47907-1	EP01					
	Hexachlorocyclopentadiene	0.063	0.040	0.040	ug/l	EPA 505

ND = Not detected    MDL = Method Detection Limit  
MCL = Maximum Contamination Level (40 CFR 141)  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



**Project 7 Water Disinfection Biproducts and TOC removal**

Sample Date	Raw Alk	Raw TOC	Fin TOC	% TOC removal	Montrose (2)		Tri County (2)		Delta		Menoken		Chipeta		Olathe		System THMs	System HAA's
					THM	HAA	THM	HAA	THM	HAA	THM	HAA	THM	HAA	THM	HAA		
1/17/23	90	2.8	2.1	0.76														
2/8/23	90	2.6	2.0	0.78	28.0	30.7	28.3	17.5	26.8	30.8	27.1	24.6	25.1	28.8	28.3	31.8	27.5	26.5
3/13/23	92	3.1	2.5	0.82														
4/5/23	86	2.5	1.8	0.72														
5/2/23	86	2.6	2.0	0.78	36.8	35.5	28.7	21.4	32.2	33.5	36.0	26.6	38.2	37.0	35.4	38.9	34.1	31.2
6/7/23	70	4.5	3.2	0.73														
7/13/23	64	3.5	2.5	0.73														
8/7/23	68	3.5	2.6	0.75	45.7	25.0	40.5	12.6	32.2	33.5	51.1	20.0	41.2	22.2	39.9	25.7	42.1	22.1
9/11/23	68	3.8	2.6	0.68														
10/12/23	68	3.7	2.6	0.70														
11/6/23	68	4.1	2.8	0.67	51.5	40.2	46.1	18.9	49.8	39.9	55.0	21.7	51.1	38.4	54.1	39.3	50.6	32.2
12/11/23	68	3.9	2.6	0.66														
<b>Avg.</b>	<b>77</b>	<b>3.4</b>	<b>2.5</b>	<b>0.73</b>	<b>40.5</b>	<b>32.8</b>	<b>35.9</b>	<b>17.6</b>	<b>35.3</b>	<b>34.4</b>	<b>42.3</b>	<b>23.2</b>	<b>38.9</b>	<b>31.6</b>	<b>39.4</b>	<b>33.9</b>	<b>38.6</b>	<b>28.0</b>

**Radionuclides Certified Laboratory Report Form**

WQCD – Drinking Water CAS

Submit Online at <http://www.wqcdcompliance.com/login>

**RAD**



<b>Section I (Supplied or Completed by Public Water System)</b>		<b>Section II (Supplied or Completed by Certified Laboratory)</b>	
<b>Public Water System Information</b>		<b>Certified Laboratory Information</b>	
PWS ID: CO0143621	Laboratory ID: CO000008	Laboratory Name: Hazen Research Inc.	Phone #: 970-279-4501
System Name: Project 7 Water Authority	Contact Person: Fred Waldman	Contact Person: Scott Heideman	Comments:
Phone #: 970 249 5935	Do Samples Need to be Composited BY THE LAB?		

<b>Section III (Supplied or Completed by Public Water System)</b>	
Facility ID (On Schedule): 001	Sample Pt ID (On Schedule): 001
Collector: FW	

<b>Section IV Radionuclides (Supplied or Completed by Certified Laboratory)</b>						
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name (Code)	CAS No.	Analytical Method	Result
8/1/17	8/23/17	H12817-001	Gross Alpha Including Uranium (4002)	12587-46-1	SM7110B	0.8
	8/4/17		Combined Uranium (4006)	7440-61-1	EPA 200.8	0.00092
	8/28/17		Radium -226 (4020)	13982-63-3	SM-7500-Ra B	0.0
	9/5/17		Radium -228 (4030)	15262-20-1	0.5	0.5
			Gross Beta (4100)	12587-47-2	50 pCi/L.*	
			Total Dissolved Solids (1930)		EPA 160.3	188

\*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern.

<b>Section V Calculated Values</b>		
	Calculated Value	MCL
Gross Alpha Excluding Uranium (4000)		15 pCi/L
Combined Radium {-226 & -228} (4010)		5 pCi/L

ug/L: Micrograms per Liter  
pCi/L: Pico-curies per Liter  
MCL: Maximum Contaminant Level

NT: Not Tested  
Lab MRL: Laboratory Minimum Reporting Level  
BDL: Below Laboratory MRL. A less than sign (<) may also be used

## 2023 Lead/Copper sampling results

Date	Address	Lead (ug/L)	Copper (ug/L)
7/18/2023	707 Nuvue St	BDL	94.0
7/18/2023	1470 E. 7th Street	1.3	42.5
7/25/2023	1438 906 Rd	2.9	368.3
7/25/2023	2111 Cty Rd 22	0.4	354.4
7/25/2023	3247 1600 Rd	3.4	50.6
7/25/2023	67283 Las Vegas	0.3	383.8
7/25/2023	70400 E Hwy 50	1.2	55.6
7/25/2023	10760 5880 Rd	1.3	52.7
7/25/2023	14037 G Rd	0.5	648.5
7/20/2023	121 N. Wilson Ave	0.9	201.3
7/13/2023	62143 Hwy 90	1.2	199.4
7/18/2023	1304 Kent	1.2	269.6
7/19/2023	1316 Kent	0.5	188.4
7/19/2023	145 West S 1st	0.5	96.4
7/14/2023	1675 E Niagara	1.6	73.0
7/14/2023	2750 Cimarron Street	BDL	617.9
7/18/2023	701 Willow Wood lane	9.5	82.2
7/18/2023	1908 Court Way	0.6	1833.3
7/14/2023	2820 Star Ridge	0.6	219.2
7/13/2023	1228 Sherwood	1.2	172.1
8/1/2023	735 S. Park Ave.	1.2	272.4
7/13/2023	61081 Falcon Rd	0.2	15.9
7/13/2023	10762 6300 rd.	0.7	123.8
8/1/2023	1234 Kent	0.3	64.0
7/13/2023	1397 Birch	2.4	587.4
7/18/2023	1962 Columbine Ct.	1.0	102.7
7/18/2023	1405 Pioneer Rd	0.8	148.8
7/13/2023	16874 6300 Rd	0.8	260.6
7/14/2023	1553 Pennsylvania St	0.3	26.2
7/25/2023	3753 2175 Rd	BDL	6.6

Avg.	1.4	253.7
Max.	9.5	1833.3
90th Percentile	2.5	-

PROCESS CONTROL 2023 TOTALS

Raw Water	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	AVG
Raw Influent/mgd	4.868	4.882	4.690	6.070	10.25	12.421	15.887	13.972	11.562	7.487	4.840	5.002	8.494
Raw pH	8.35	8.31	8.36	8.2	8.1	8.0	8.1	8.05	8.0	8.1	8.2	8.2	8.2
Raw Turb	10.31	12.07	12.93	19.62	22	17.2	14.18	13.5	12.2	11	9	9.2	14
Raw Alk	92	94	92	86	75	67	68	68	67	67	95	96	81
Raw Hard	131	128	148	151	124	103	103	105	104	107	164	151	127
<b>Clarifier #2-Lg</b>													
Clar Turb					1.2	1	0.94	0.73	0.77	1	0.6		0.9
Floc-Speed "New"					3.25	3.67	3.18	3.41	4.4	4.94	4.99		3.98
Blow-Off						11	20	22	23	18	6		17
Slurry					25	24	20	22	23	29	27		24
<b>Clarifier #1-Sm</b>													
Clar Turb	0.77	0.083	0.65	0.7	1.9							0.7	0.8
Floc-Speed "New"	5.04	4.99	5.40	6.11	5.29							5.05	5.31
Blow-Off	7	8	10	16	11							8	10
Slurry	26	28	29	23	15							24	24
<b>Finished Water</b>													
Finish pH	7.5	7.39	7.4	7.4	7.3	7.2	7.4	7.5	7.4	7.4	7.4	7.4	7.4
Finish Turb	0.05	0.05	0.048	0.05	0.058	0.058	0.05	0.05	0.051	0.05	0.06	0.06	0.05
Finish Alk	80	82	80	75	63	54	57	60	57	107	85	86	74
Finish Hard	130	129	147	150	124	102	102	105	103	106	160	151	126
Cl2r	2.11	2.14	2.11	2.04	1.96	1.96	1.9	1.85	1.90	1.91	2.11	2.13	2.01
Temp	3.1	2.8	3.97	6.8	10	13	13.8	14.4	13.9	12.9	6	3.5	9
<b>Chemical Dosage</b>													
Alum Conc	30	31	30	32	36	36	31	28	29	31	29	29	31
Floc Aid 8170	0.025	0.027	0.030	0.027	0.051	0.058	0.076	0.065	0.051	0.032	0.02	0.021	0.040
<b>Chemical Usage</b>													
Ammonia Sulfate lbs/day	88	92	85	103	157	184	233	186	150	105	94	93	131
Ammonia Sulfate lbs/mo	2,731	2,582	2,646	3,087	4,854	5,530	7,215	5,771	4,658	3,261	2,815	2,882	4,003
Ammonia Sulfate lbs/yr													48,032
Cl2 lbs/day	148	145	139	178	303	363	489	432	372	255	154	146	260
Cl2 lbs/mo	4,600	4,070	4,300	5,330	9,380	10,890	15,165	13,390	11,155	7,890	4,620	4,530	7,943
Cl2 lbs/yr													95,320
Alum Gal/day	258	260	242	323	624	750	817	674	558	393	233	243	448
Alum Gal/mo	7,983	7,284	7,504	9,683	19,337	22,512	25,319	20,894	16,741	12,186	6,995	7,536	13,665
Alum Gal/yr													163,974
Back Wash	3.043	2.611	1.724	3.023	4.855	6.108	16.554	7.242	4.770	3.201	1.774	1.932	4.736
<b>Chemical Cost</b>													
Alum Day	\$ 258.00	\$ 275.75	\$ 256.59	\$ 342.13	\$ 661.20	\$ 1,148.11	\$ 1,250.00	\$1,031.20	\$ 853.79	\$ 601.40	\$ 247.16	\$ 257.68	\$ 598.58
Alum Month	\$ 7,983	\$ 7,721	\$ 7,954	\$ 10,264	\$ 20,497	\$ 34,443	\$ 38,738	\$ 31,968	\$ 25,614	\$ 18,644	\$ 7,415	\$ 7,988	\$ 18,269
Alum Year													219,229
Ammonia Sulfate Day	\$ 36.38	\$ 38.08	\$ 35.25	\$ 42.50	\$ 64.67	\$ 119.82	\$ 151.28	\$ 121.00	\$ 97.67	\$ 68.38	\$ 38.75	\$ 38.40	\$ 71.02
Ammonia Sulfate Month	\$ 1,128	\$ 1,066	\$ 1,093	\$ 1,275	\$ 2,005	\$ 3,595	\$ 4,690	\$ 3,751	\$ 2,930	\$ 2,120	\$ 1,163	\$ 1,190	\$ 2,167
Ammonia Sulfate Year													26,006
Floc Aid Day	\$ 5.20	\$ 5.69	\$ 6.07	\$ 6.92	\$ 22.96	\$ 48.68	\$ 72.51	\$ 55.02	\$ 37.21	\$ 15.42	\$ 4.22	\$ 4.48	\$ 23.70
Floc Aid Month	\$ 161	\$ 159	\$ 188	\$ 208	\$ 712	\$ 1,461	\$ 2,248	\$ 1,706	\$ 1,116	\$ 478	\$ 127	\$ 139	\$ 725
Floc Aid Year													8,703
Cl2 Day	\$ 97.94	\$ 95.94	\$ 91.55	\$ 117.26	\$ 199.70	\$ 381.15	\$ 513.65	\$ 453.53	\$ 390.43	\$ 267.20	\$ 101.63	\$ 96.45	\$ 233.87
Cl2 Month	\$ 3,036	\$ 2,886	\$ 2,838	\$ 3,518	\$ 6,191	\$ 11,435	\$ 15,923	\$ 14,060	\$ 11,713	\$ 8,285	\$ 3,049	\$ 2,990	\$ 7,144
Cl2 Year													85,724
Coag Cost/MG	\$ 57.16	\$ 57.60	\$ 56.21	\$ 57.34	\$ 66.68	\$ 96.02	\$ 83.34	\$ 77.65	\$ 77.44	\$ 82.05	\$ 52.06	\$ 52.40	\$ 68.00
Coag Cost/mo	\$ 8,623	\$ 7,880	\$ 8,142	\$ 10,472	\$ 21,209	\$ 35,904	\$ 40,986	\$ 33,674	\$ 26,730	\$ 19,122	\$ 7,548	\$ 8,127	\$ 19,035
Coag Cost/yr													228,417
Chem Cost per MGD	\$ 84.72	\$ 85.07	\$ 83.28	\$ 83.62	\$ 92.53	\$ 136.27	\$ 125.12	\$ 118.81	\$ 119.93	\$ 127.20	\$ 81.06	\$ 79.38	\$ 101.42
Cost per 1,000 Gal	\$ 0.085	\$ 0.085	\$ 0.083	\$ 0.083	\$ 0.093	\$ 0.136	0.125	\$ 0.119	\$ 0.119	\$ 0.127	\$ 0.081	\$ 0.079	\$ 0.099
Total Chem Cost/Day	\$ 412.48	\$ 415.46	\$ 389.46	\$ 508.81	\$ 948.53	\$ 1,698.00	\$ 1,987.00	\$1,661.00	\$1,379.00	\$ 952.48	\$ 391.77	\$ 397.00	\$ 928.42
Total Chem Cost/Mo	\$ 12,787	\$ 11,633	\$ 12,073	\$ 15,264	\$ 29,404	\$ 50,933	\$ 61,599	\$ 51,484	\$ 41,373	\$ 29,527	\$ 11,753	\$ 12,307	\$ 28,345
Total Chem Cost/yr												Total YTD	\$ 340,137

PROCESS CONTROL YEAR END AVERAGES AND TOTALS 2017-2023

	2017	2018	2019	2020	2021	2022	2023	7 YEAR AVERAGE
<b>Raw Water</b>								
Raw Influent/mgd	8,252	8,804	7,815	9,211	8,709	8,572	8,586	8,564
Raw pH	7.9	8.1	8.1	8.1	8.1	8.2	8.2	8.1
Raw Turb	14	14	17	12	12	13	14	14
Raw Alk	69	77	83	81	92	90	82	82
Raw Hard	112	124	123	123	131	136	128	125
<b>Clarifier #2-Lg</b>								
Clar Turb	0.8	0.6	0.9	0.6	0.5	0.5	0.8	0.7
Floc-Speed New	3.45	3.38	3.79	3.59	4.06	4.40	3.82	3.78
Blow-Off Min/Day	14	14	14	13	12	11	16	13
Slurry	28	28	28	26	32	29	24	28
<b>Clarifier #1-Sm</b>								
Clar Turb	0.9	0.8	0.9	0.7	0.6	0.6	0.8	0.8
Floc-Speed	39	41	43	41				41
Floc-Speed New	5.02	5.27	5.45	5.31	5.08	4.97	5.31	5.20
Blow-Off Min/Day	9	9	9	8	6	8	10	8
Slurry	26	26	28	26	28	25	24	26
<b>Finished Water</b>								
Finish pH	7.0	7.3	6.5	7.1	7.3	7.3	7.4	7.1
Finish Turb	0.06	0.05	0.11	0.05	0.05	0.05	0.05	0.06
Finish Alk	60	67	69	69	79	78	71	70
Finish Hard	115	124	123	123	154	134	128	129
Cl2r	2.04	2.04	2.04	2.07	2.02	2.00	2.02	2.03
Temp	11	11	9	9	10	10	8	10
<b>Chemical Dosage</b>								
Alum Conc	33	31	34	31	30	30	31	31
Floc Aid	0.048	0.037	0.038	0.083	0.044	0.043	0.040	0.048
<b>Chemical Usage</b>								
Ammonia Sulfate lbs/day	151.0	160.0	137.0	156.0	153.0	138.0	131.0	146.6
Ammonia Sulfate lbs/mo	4,568	4,871	4,177	4,756	4,655	4,185	4,015	4,461
Ammonia Sulfate lbs/yr	54,821	58,450	50,128	57,070	55,860	50,216	48,174	53,531
Cl2 lbs/day	236	241	239	262	242	250	257	247
Cl2 lbs/mo	7,182	7,363	7,291	8,003	7,382	7,622	7,843	7,527
Cl2 lbs/yr	86,183	88,360	87,490	96,030	88,585	91,460	94,110	90,317
Alum Gal/day	431	438	434	450	416	420	443	433
Alum Gal/mo	13,129	13,347	13,219	13,752	12,700	12,748	13,497	13,199
Alum Gal/yr	157,546	160,162	158,632	165,027	152,399	152,971	161,969	158,387
Back Wash Mg/Month	5.135	6.209	5.39	7.354	5.455	5.44	4.667	5.664
<b>Chemical Cost</b>								
Alum Day	\$ 366.54	\$ 376.05	\$ 417.73	\$ 445.83	\$ 412.70	\$ 440.19	\$ 577.48	\$ 433.79
Alum Month	\$ 11,171	\$ 11,471	\$ 12,744	\$ 13,629	\$ 12,430	\$ 13,425	\$ 17,615	\$ 13,212
Alum Year	\$ 134,056	\$ 137,655	\$ 152,923	\$ 163,550	\$ 149,163	\$ 161,097	\$ 211,337	\$ 158,540
Ammonia Sulfate Day	\$ 41.24	\$ 45.03	\$ 41.05	\$ 46.69	\$ 40.57	\$ 54.20	\$ 69.10	\$ 48.27
Ammonia Sulfate Month	\$ 1,257	\$ 1,372	\$ 1,250	\$ 1,427	\$ 1,397	\$ 1,652	\$ 2,108	\$ 1,495
Ammonia Sulfate Year	\$ 15,078	\$ 16,469	\$ 15,000	\$ 17,121	\$ 16,758	\$ 19,823	\$ 25,291	\$ 17,934
Floc Aid Day	\$ 11.35	\$ 14.03	\$ 12.95	\$ 15.81	\$ 17.44	\$ 18.89	\$ 23.19	\$ 16.24
Floc Aid Month	\$ 362	\$ 428	\$ 370	\$ 485	\$ 533	\$ 577	\$ 710	\$ 495
Floc Aid Year	\$ 4,338	\$ 5,141	\$ 4,441	\$ 5,815	\$ 6,390	\$ 6,923	\$ 8,515	\$ 5,938
Cl2 Day	\$ 108.28	\$ 112.85	\$ 114.73	\$ 125.70	\$ 116.21	\$ 160.78	\$ 223.45	\$ 137.43
Cl2 Month	\$ 3,300	\$ 3,441	\$ 3,498	\$ 3,841	\$ 3,543	\$ 4,907	\$ 6,821	\$ 4,193
Cl2 Year	\$ 39,604	\$ 41,294	\$ 41,977	\$ 46,088	\$ 42,521	\$ 58,886	\$ 81,848	\$ 50,317
Coag Cost/MG	\$ 45.58	\$ 44.15	\$ 54.44	\$ 57.79	\$ 49.94	\$ 53.48	\$ 65.57	\$ 52.99
Coag Cost/Month	\$ 11,520	\$ 11,900	\$ 13,046	\$ 14,119	\$ 13,112	\$ 13,994	\$ 18,365	\$ 13,722
Coag Cost/Year	\$ 138,237	\$ 142,796	\$ 156,553	\$ 169,428	\$ 157,338	\$ 167,926	\$ 220,377	\$ 164,665
Chem Cost per MGD	\$ 63.99	\$ 62.42	\$ 74.90	\$ 79.99	\$ 68.84	\$ 78.47	\$ 97.53	\$ 75.16
Cost per 1,000 Gal	\$ 0.111	\$ 0.062	\$ 0.075	\$ 0.080	\$ 0.069	\$ 0.078	\$ 0.095	\$ 0.081
Total Chem Cost/Day	\$ 527.40	\$ 545.78	\$ 586.49	\$ 634.08	\$ 592.39	\$ 674.94	\$ 894.46	\$ 636.51
Total Chem Cost/Mo	\$ 16,075	\$ 16,647	\$ 17,887	\$ 19,373	\$ 18,052	\$ 20,590	\$ 27,292	\$ 19,417
<b>Total Chem Cost/yr</b>	\$ 192,894	\$ 199,765	\$ 214,644	\$ 232,472	\$ 216,618	\$ 247,074	\$ 327,506	\$ 232,996

PROJECT 7 WATER AUTHORITY  
ANNUAL REPORT 2023  
WATER ACCOUNTABILITY ANALYSIS

	RAW WATER MASTER	MONTROSE		PROJECT 7		P-7 and MONTROSE		P-7 MAGS & MONT. MASTER		P-7 & MONTROSE		BILLED by P-7 & MONT. MASTER
		Millions of Gallons	Millions of Gallons	MASTER	Millions of Gallons	MASTER	Millions of Gallons	MASTER (BILLED)	By RAW MASTER	By RAW MASTER	By RAW MASTER	
JAN	150.911	48.933	107.130	156.063	151.734	103.41%	100.55%	97.23%				
FEB	136.706	44.025	98.648	142.673	138.394	104.36%	101.23%	97.00%				
MAR	145.399	44.574	103.302	147.876	143.581	101.70%	98.75%	97.10%				
APR	182.088	63.007	130.279	193.286	187.073	106.15%	102.74%	96.79%				
MAY	317.892	126.036	200.028	326.064	314.413	102.57%	98.91%	96.43%				
JUN	372.146	145.990	227.008	372.998	361.439	100.23%	97.12%	96.90%				
JUL	503.667	203.446	305.097	508.543	492.783	100.97%	97.84%	96.90%				
AUG	431.823	168.788	257.213	426.001	412.946	98.65%	95.63%	96.94%				
SEP	346.241	143.966	225.962	369.928	359.266	106.84%	103.76%	97.12%				
OCT	232.064	69.864	165.963	235.827	229.487	101.62%	98.89%	97.31%				
NOV	142.960	40.163	110.47	150.633	146.927	105.37%	102.77%	97.54%				
DEC	144.833	46.783	102.611	149.394	145.764	103.15%	100.64%	97.57%				
TOTAL	3,106.730	1,145.575	2,033.711	3,179.286	3,083.807	102.34%	99.26%	97.07%				

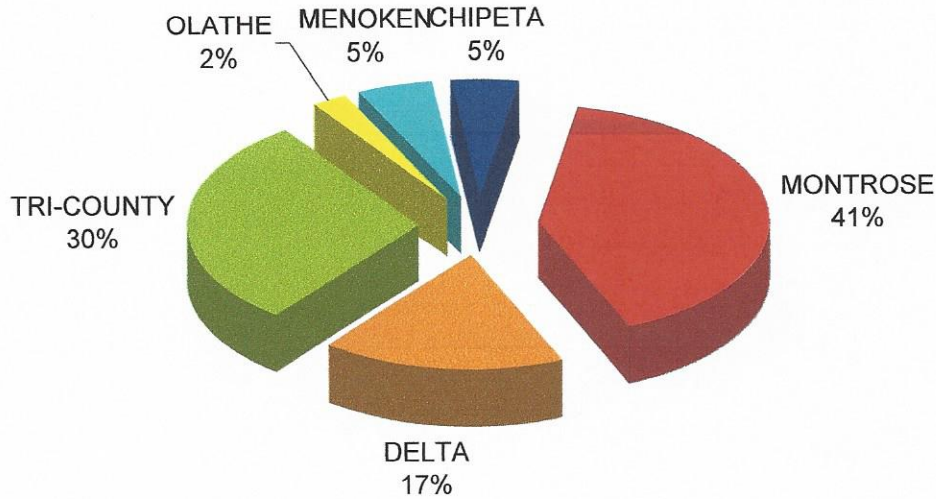
COMMENTS: Reminder - Montrose Master does not include N. 7th & Cascade as that is included in P-7 Total.

**PROJECT 7 WATER AUTHORITY  
WATER DELIVERED TO FAIRVIEW  
2022 & 2023**

<b>2022</b>	<b>ACRE FEET</b>	<b>EQUIVALENT GALLONS</b>	<b>RAW WATER METERED INTO PLANT</b>	<b>EQUIVALENT ACRE FEET</b>
JAN	414.00 =	134,902,314	154,010,000 =	472.64
FEB	308.51 =	100,528,292	141,540,000 =	434.37
MAR	608.79 =	198,374,830	161,760,000 =	496.42
APR	490.50 =	159,829,916	224,470,000 =	688.87
MAY	1,111.40 =	362,150,801	382,130,000 =	1172.71
JUN	1,123.68 =	366,152,252	438,150,000 =	1344.63
JUL	1,212.93 =	395,234,453	436,894,000 =	1340.78
AUG	1,115.54 =	363,499,825	392,438,000 =	1204.35
SEP	931.28 =	303,458,519	324,243,000 =	995.07
OCT	583.34 =	190,081,922	210,540,000 =	646.12
NOV	475.44 =	154,922,599	144,889,000 =	444.65
DEC	426.17 =	138,867,921	155,074,000 =	475.90
<b>TOTAL</b>	<b><u>8,801.58</u></b>	<b><u>2,868,003,645</u></b>	<b><u>3,166,138,000</u></b>	<b><u>9,716.52</u></b>

<b>2023</b>	<b>ACRE FEET</b>	<b>EQUIVALENT GALLONS</b>	<b>RAW WATER METERED INTO PLANT</b>	<b>EQUIVALENT ACRE FEET</b>
JAN	458.38 =	149,364,885	150,911,000 =	463.13
FEB	370.78 =	120,819,685	136,706,000 =	419.54
MAR	524.01 =	170,748,205	145,399,000 =	446.21
APR	449.91 =	146,603,623	182,088,000 =	558.81
MAY	920.81 =	300,046,859	317,892,000 =	975.57
JUN	992.97 =	323,560,267	372,146,000 =	1142.07
JUL	1,348.60 =	439,442,659	503,667,000 =	1545.70
AUG	1,178.42 =	383,989,335	431,823,000 =	1325.22
SEP	879.31 =	286,524,043	346,241,000 =	1062.57
OCT	707.15 =	230,425,535	232,064,000 =	712.18
NOV	433.22 =	141,165,170	142,960,000 =	438.73
DEC	404.71 =	131,875,158	144,833,000 =	444.48
<b>TOTAL</b>	<b><u>8,668.27</u></b>	<b><u>2,824,565,425</u></b>	<b><u>3,106,730,000</u></b>	<b><u>9,534.20</u></b>

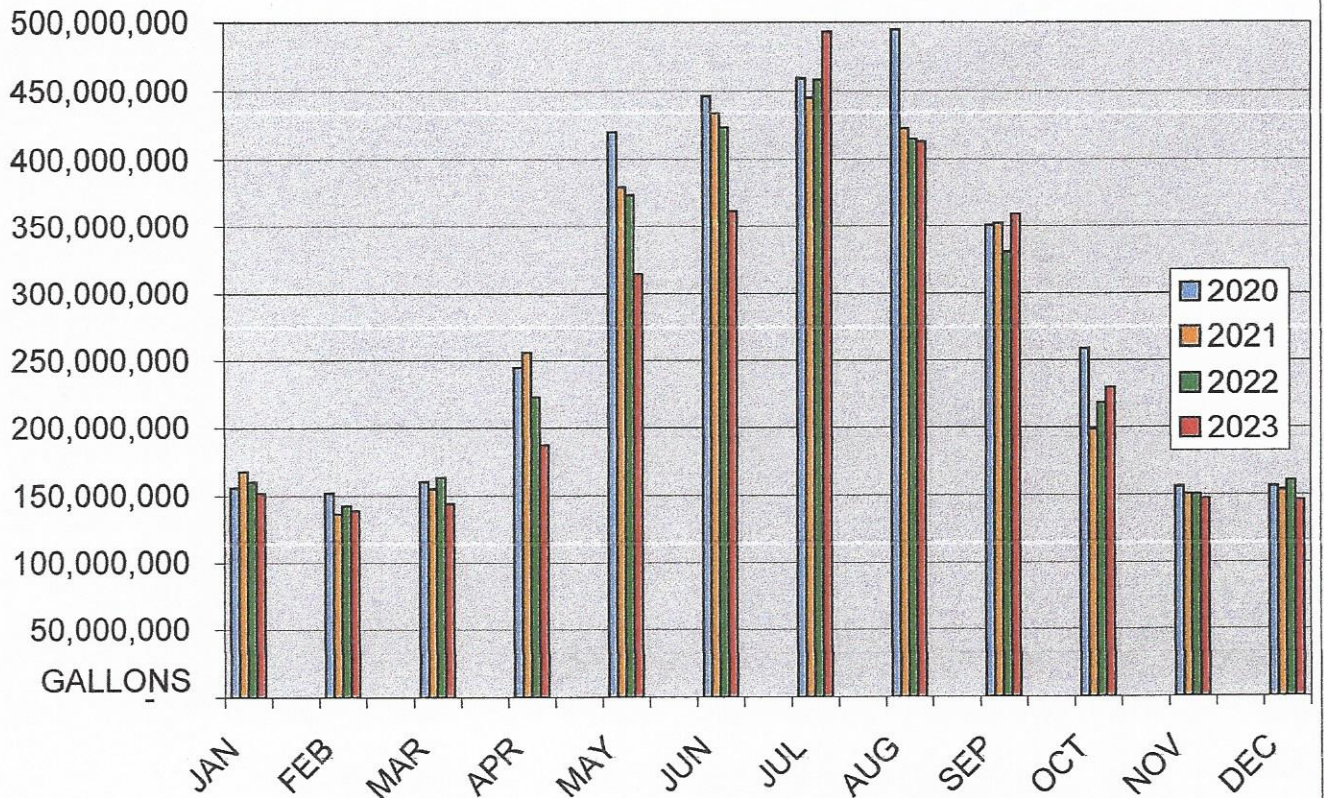
# PROJECT 7 WATER AUTHORITY WATER USE 2023



	CITY OF MONTROSE	CITY OF DELTA	TRI-COUNTY	TOWN OF OLATHE	MENOKEN	CHIPETA	TOTALS PROJECT 7
<b>2023</b>							
JAN	48,937,000	25,636,000	53,401,000	4,574,000	8,928,000	10,258,000	151,734,000
FEB	44,030,000	23,511,000	50,344,000	3,554,000	8,879,000	8,076,000	138,394,000
MAR	44,586,000	24,205,000	53,452,000	3,750,000	9,140,000	8,448,000	143,581,000
APR	63,015,000	36,635,000	60,444,000	4,888,000	12,658,000	9,433,000	187,073,000
MAY	135,238,000	58,844,000	85,690,000	7,217,000	15,207,000	12,217,000	314,413,000
JUN	164,612,000	61,615,000	92,765,000	8,979,000	17,996,000	15,472,000	361,439,000
JUL	223,713,000	79,997,000	133,837,000	11,543,000	22,472,000	21,221,000	492,783,000
AUG	188,352,000	65,047,000	114,157,000	10,327,000	17,537,000	17,526,000	412,946,000
SEP	163,604,000	58,670,000	96,612,000	8,709,000	16,490,000	15,181,000	359,266,000
OCT	89,276,000	37,736,000	71,787,000	5,419,000	13,080,000	12,189,000	229,487,000
NOV	49,529,000	23,606,000	52,264,000	3,923,000	8,146,000	9,459,000	146,927,000
DEC	46,783,000	22,979,000	51,604,000	3,518,000	11,411,000	9,469,000	145,764,000
<b>TOTAL</b>	<b>1,261,675,000</b>	<b>518,481,000</b>	<b>916,357,000</b>	<b>76,401,000</b>	<b>161,944,000</b>	<b>148,949,000</b>	<b>3,083,807,000</b>
<b>% Of Total</b>	<b>40.91%</b>	<b>16.81%</b>	<b>29.72%</b>	<b>2.48%</b>	<b>5.25%</b>	<b>4.83%</b>	<b>100%</b>



# PROJECT 7 WATER AUTHORITY PRODUCTION HISTORY



	2020	TOTAL	2021	TOTAL	2022	TOTAL	2023	TOTAL	%P
JAN	155,842,000		167,936,500		159,745,000		151,734,000		9
FEB	151,849,000	307,691,000	136,029,500	303,966,000	142,178,000	301,923,000	138,394,000	290,128,000	9
MAR	160,224,000	467,915,000	155,004,500	458,970,500	163,156,000	465,079,000	143,581,000	433,709,000	9
APR	244,798,000	712,713,000	255,669,000	714,639,500	222,218,000	687,297,000	187,073,000	620,782,000	9
MAY	420,087,600	1,132,800,600	379,284,000	1,093,923,500	373,702,000	1,060,999,000	314,413,000	935,195,000	8
JUN	445,924,450	1,578,725,050	433,501,000	1,527,424,500	423,487,000	1,484,486,000	361,439,000	1,296,634,000	8
JUL	459,464,650	2,038,189,700	444,738,000	1,972,162,500	458,277,000	1,942,763,000	492,783,000	1,789,417,000	9
AUG	494,614,000	2,532,803,700	422,773,000	2,394,935,500	414,857,000	2,357,620,000	412,946,000	2,202,363,000	9
SEP	350,542,200	2,883,345,900	351,956,000	2,746,891,500	331,145,000	2,688,765,000	359,266,000	2,561,629,000	9
OCT	258,345,300	3,141,691,200	198,317,000	2,945,208,500	217,832,000	2,906,597,000	229,487,000	2,791,116,000	9
NOV	155,918,800	3,297,610,000	150,373,000	3,095,581,500	150,243,000	3,056,840,000	146,927,000	2,938,043,000	9
DEC	156,125,500	3,453,735,500	153,478,000	3,249,059,500	160,406,000	3,217,246,000	145,764,000	3,083,807,000	9
		3,453,735,500		3,249,059,500		3,217,246,000		3,083,807,000	9