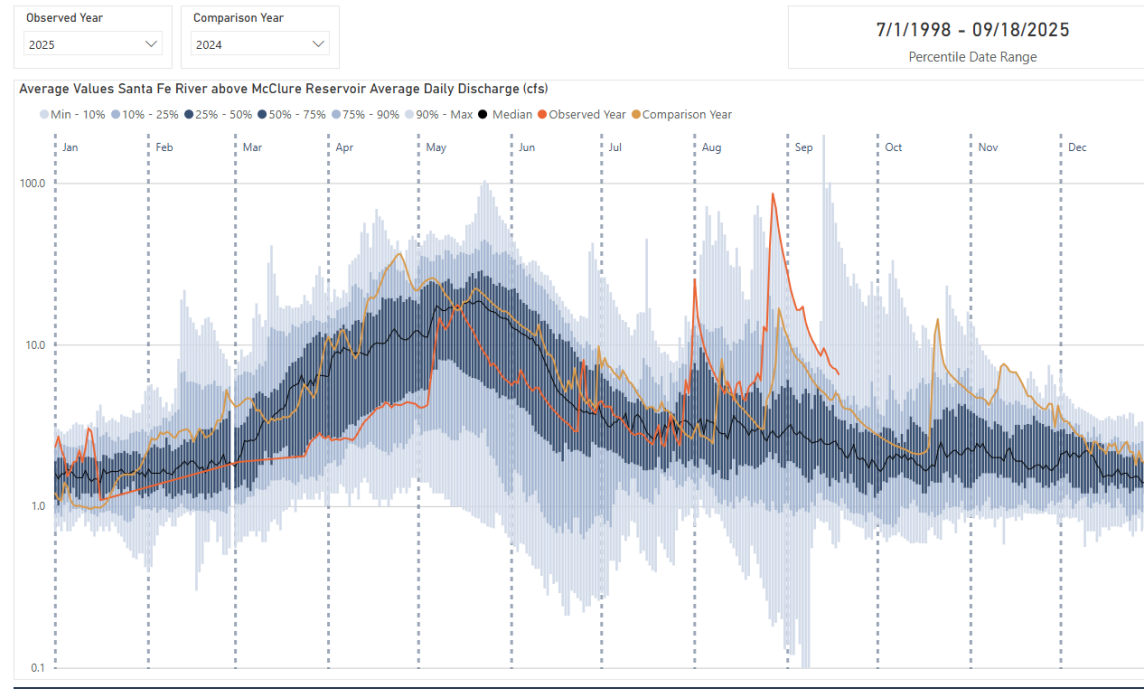


Water Division Data Dashboards

Public Works and Public Utilities Committee
 September 29, 2025

Summary

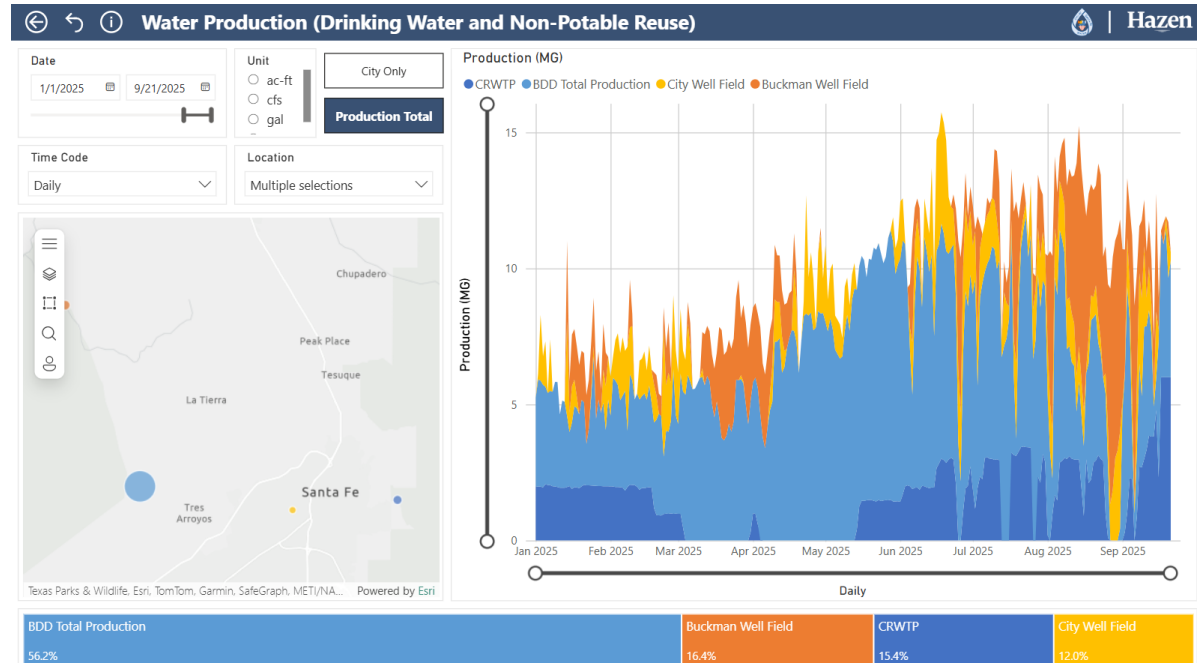
- City of Santa Fe Water developed automated dashboards
- In this presentation, we will:
 - **Explain what a dashboard is and how it works**
 - **Show examples of some benefits they provide**
 - *Reduced staff time / increased efficiency*
 - *Data-driven decision making*
 - *Interdepartmental collaboration*
 - *Water conservation*
 - *Permit compliance and reporting*
 - *Improved understanding of groundwater sustainability*
 - *Regional collaboration*
 - *Public transparency*
- Thanks to:
 - **CRWTP, BDD, Wastewater, ITT, WR Team, Leadership**



What is a Dashboard?

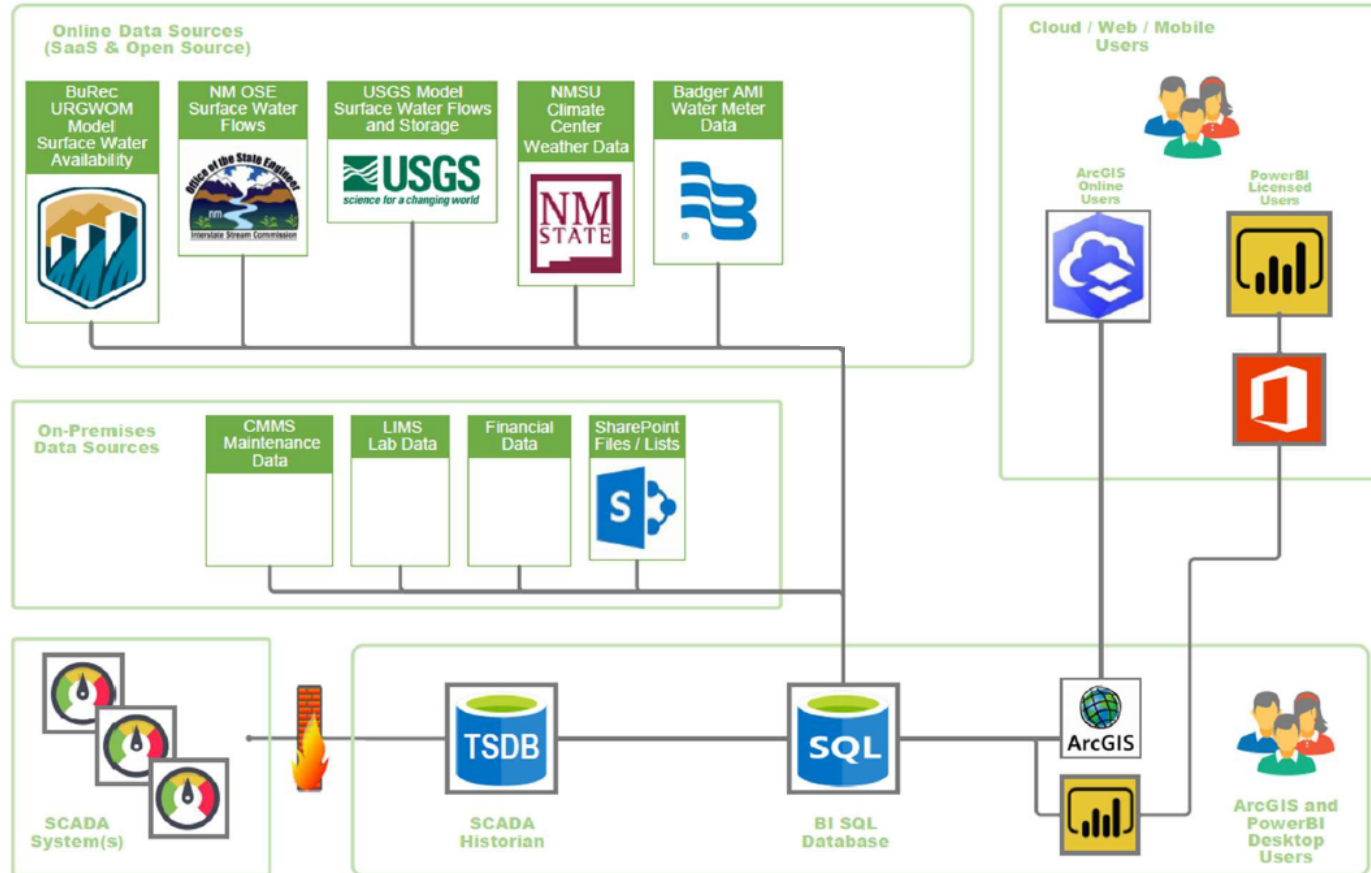
- Definition

- An interactive display page that rolls up large datasets into simple, interactive visualizations
- Allows easy access to data for decision-making
- Accessible via web browser, always up to date



How It Works

Data are updated each night, so web access is always current through yesterday



Dashboard Benefits

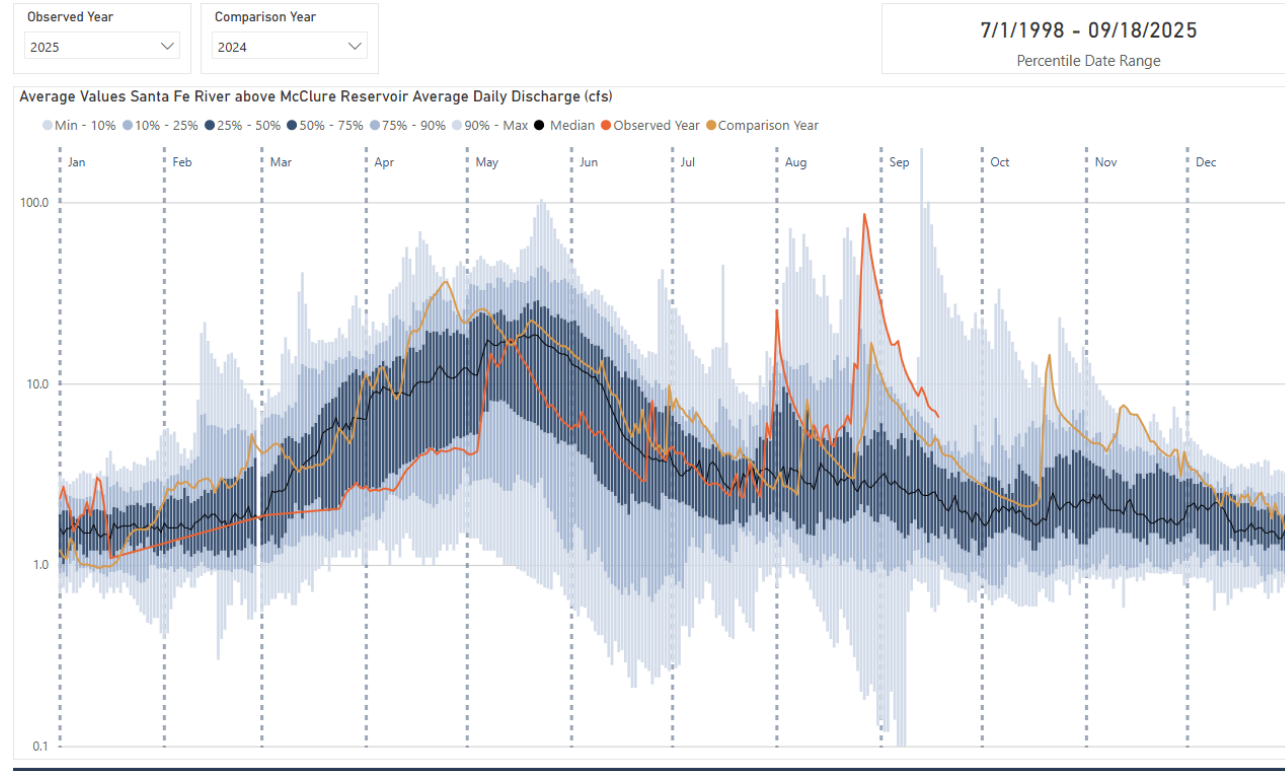
The following slides show examples of these

- Reduced staff time / increased efficiency
- Data-driven decision making
 - Near-Term and Long-Term
- Interdepartmental collaboration
- Water conservation
- Permit compliance and reporting
- Improved understanding of groundwater sustainability
- Regional collaboration
- Public transparency



Increased Efficiency

- Old way
 - Spend time pulling data from multiple sources
 - Immediately out of date – subsequent data pulls required
- New way
 - Spend time understanding and making informed decisions



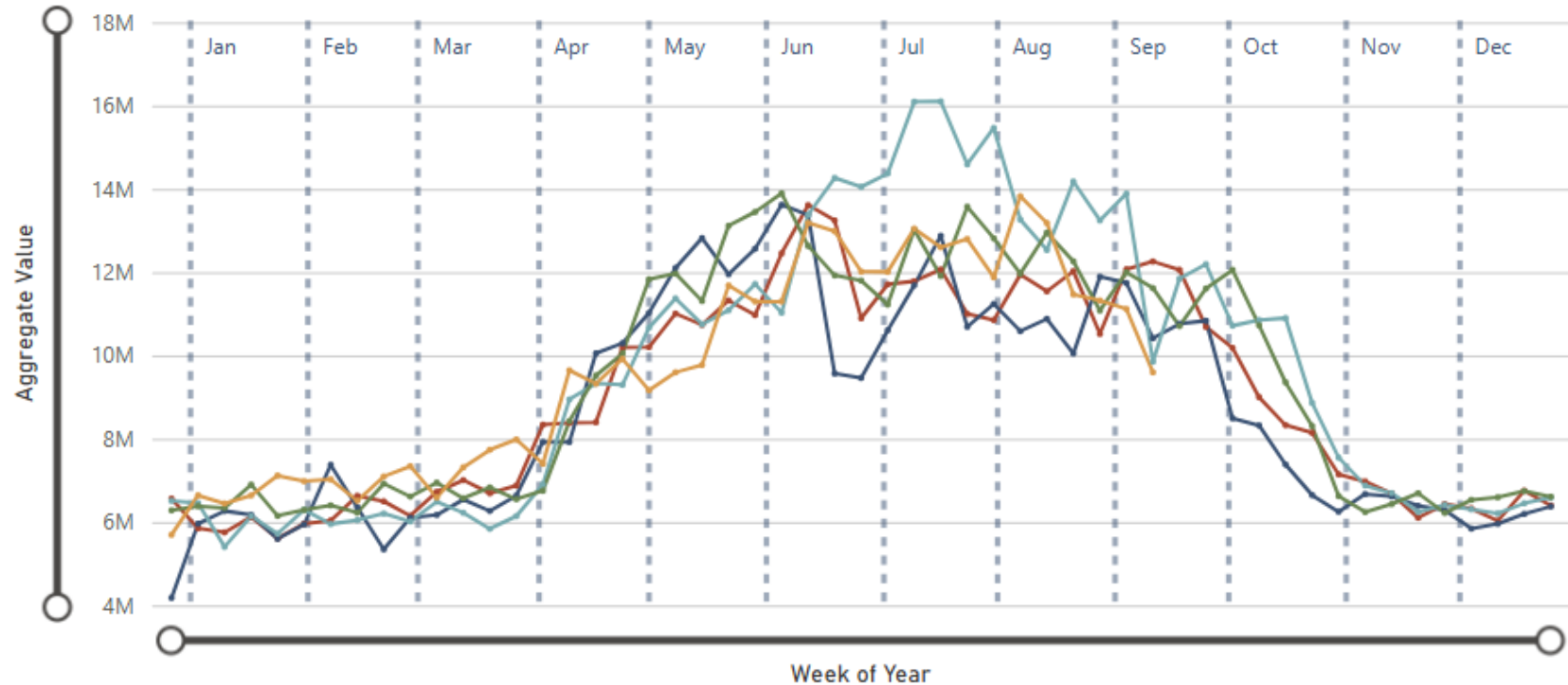
Data-Driven Decision Making

Dashboard has been a key addition to weekly operations meetings, and is informing long-range planning

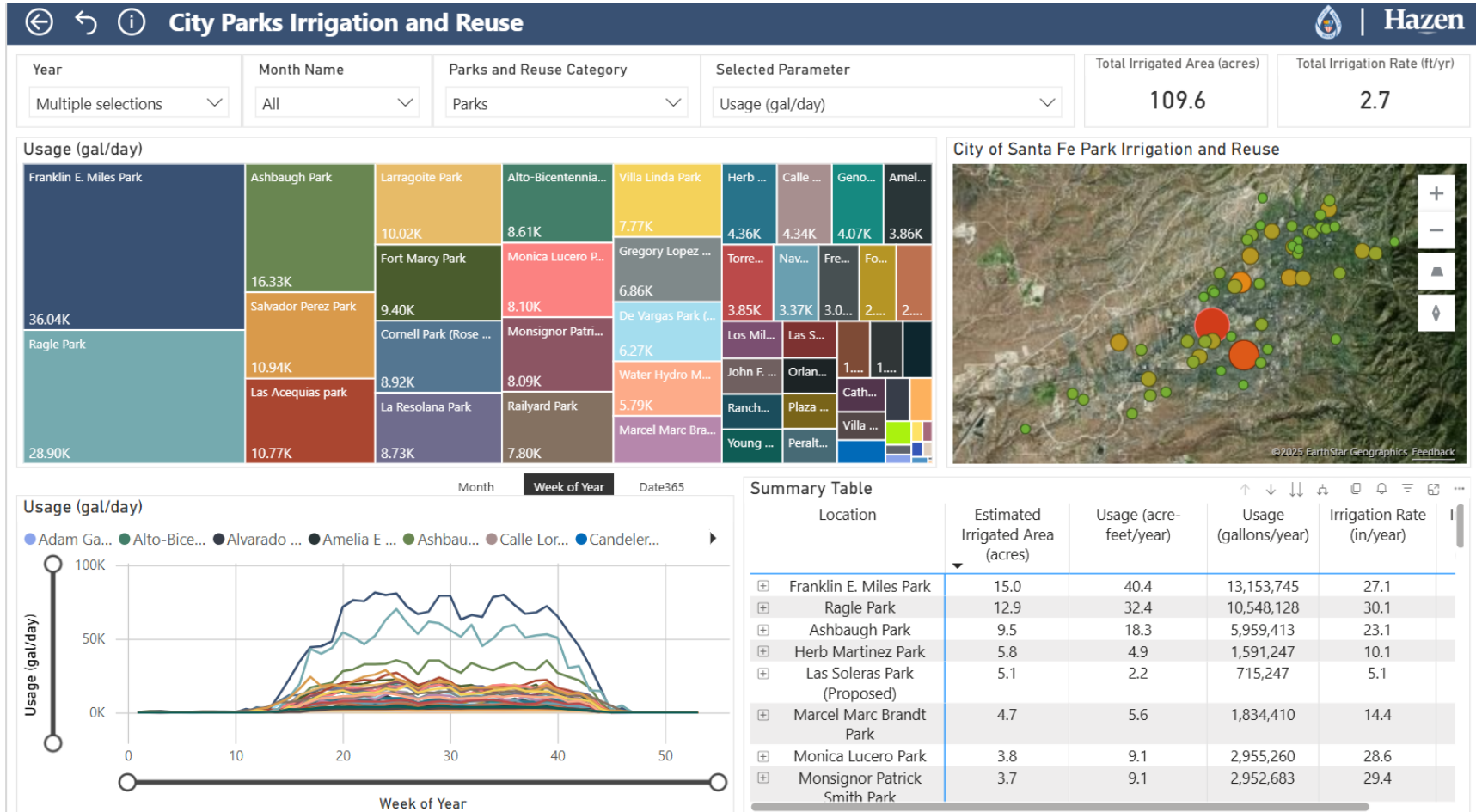
Week of Year Average Values

Select up to ten years of data.

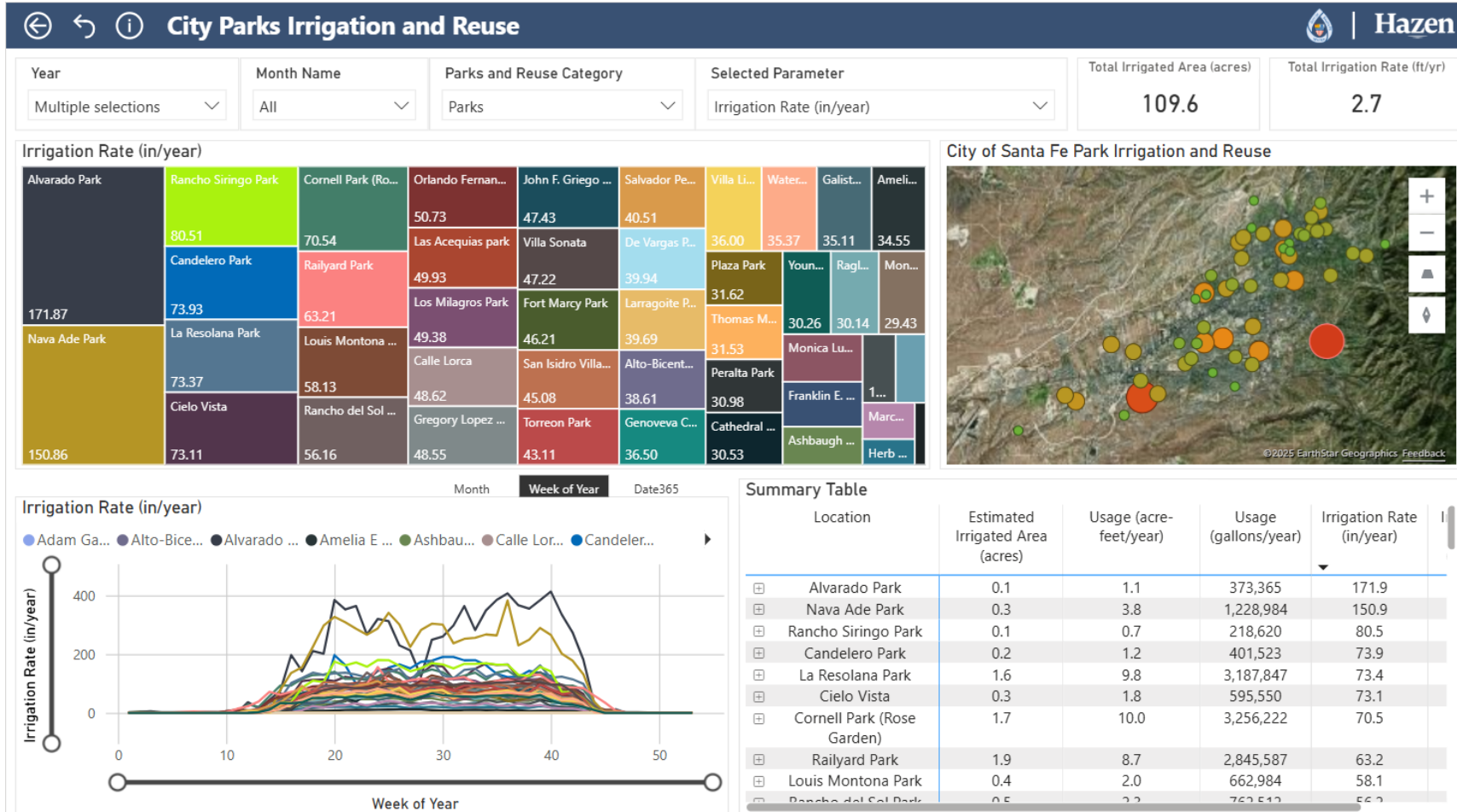
● 2021 ● 2022 ● 2023 ● 2024 ● 2025



Interdepartmental Collaboration

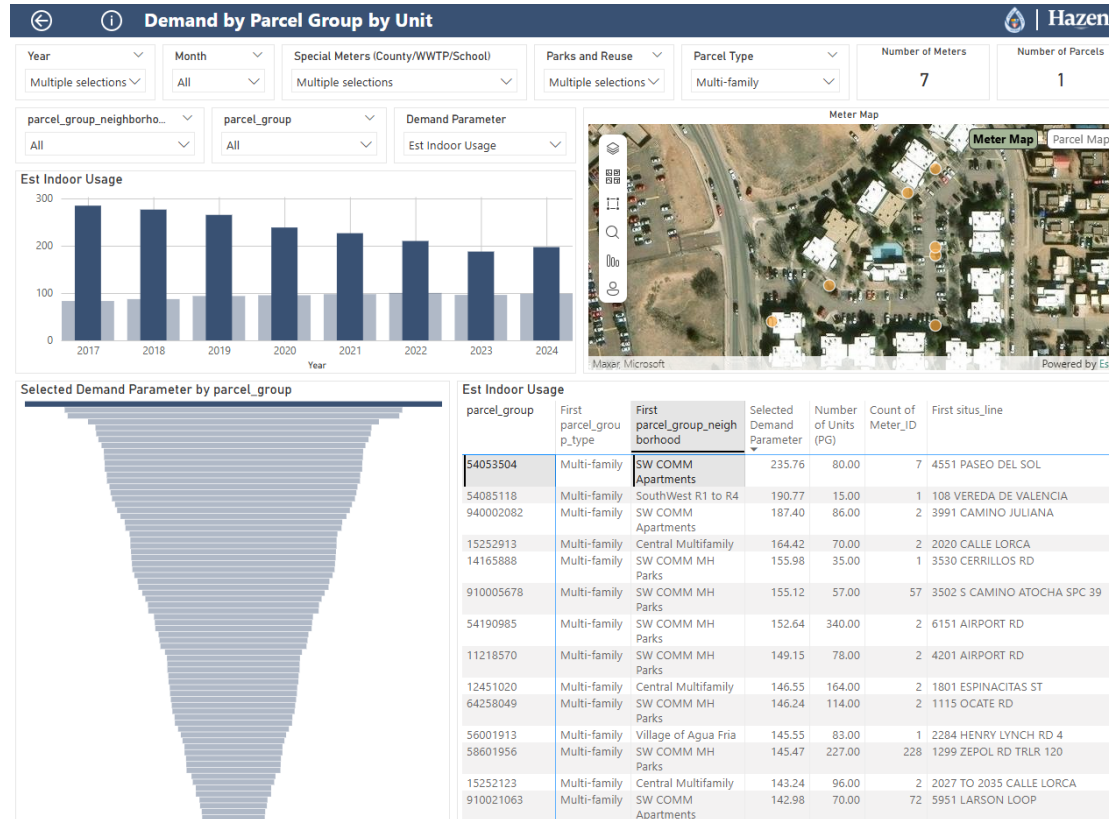


Interdepartmental Collaboration



Water Conservation

Used dashboard to find apartments with high water use, selected for retrofit program



Permit Compliance and Reporting

BDD accounting reports are fully automated, using data from multiple sources



Buckman Direct Diversion Monthly Native and SJC Diversions (ac-ft)

	Total Diverted	Total Native Diverted	County Native Rio Grande Diversions				TCLC Native Rio Grande Diversion			San Juan-Chama Diversions				
			Total County Native Diverted	County Native SP-4842	County Native SP-4842-A	County Native RG-20516 et al.-C into SP-4842	County Native RG-20516 et al.-A & -B into SP-4842-A	Total TCLC Native Diverted	TCLC Native SP-4842-A	TCLC Native RG-20516 et al.-A & -B into SP-4842-A	Total SJC Diverted	City SJC SP-2847-E Diverted	County SJC SP-2847-E Diverted	TCLC SJC SP-2847-N-A Diverted
2025 Jan	326.141	123.689	123.689	123.689	0.000	0.000	0.000	0.000	0.000	0.000	202.453	202.453	0.000	0.000
Feb	313.427	28.205	28.205	28.205	0.000	0.000	0.000	0.000	0.000	0.000	285.223	285.223	0.000	0.000
Mar	563.860	257.038	257.038	257.038	0.000	0.000	0.000	0.000	0.000	0.000	306.823	306.823	0.000	0.000
Apr	677.035	471.649	471.649	471.649	0.000	0.000	0.000	0.000	0.000	0.000	205.388	205.388	0.000	0.000
May	918.542	292.560	292.560	292.560	0.000	0.000	0.000	0.000	0.000	0.000	625.983	625.983	0.000	0.000
Jun	754.206	62.214	62.214	62.214	0.000	0.000	0.000	0.000	0.000	0.000	691.993	691.993	0.000	0.000
Jul	748.447	35.193	35.193	35.193	0.000	0.000	0.000	0.000	0.000	0.000	713.256	713.256	0.000	0.000
Aug	446.168	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	446.169	446.169	0.000	0.000
Total	4,747.825	1,270.548	1,270.548	1,270.548	0.000	0.000	0.000	0.000	0.000	0.000	3,477.288	3,477.288	0.000	0.000
Max Allowable		2,373.868	2,157.734	1,292.030	0.000	372.384	493.320	216.134	69.804	146.330	6,774.500	6,407.000	367.500	0.000
Remaining		1,103.321	887.187	21.483		372.384	493.320	216.134	69.804	146.330	3,297.212	2,929.712	367.500	

Projected Diversions (ac-ft)

	Total Diverted	Total Native Diverted	Total County Native Diverted	County Native SP-4842	County Native SP-4842-A	County Native RG-20516 et al.-C into SP-4842	County Native RG-20516 et al.-A & -B into SP-4842-A	Total TCLC Native Diverted	TCLC Native SP-4842-A	TCLC Native RG-20516 et al.-A & -B into SP-4842-A	Total SJC Diverted	City SJC SP-2847-E Diverted	County SJC SP-2847-E Diverted	TCLC SJC SP-2847-N-A Diverted
Oct	700	0	0	0	0	0	0	0	0	0	700	700	0	0
Nov	400	300	300	21	0	279	0	0	0	0	100	100	0	0
Dec	600	500	500	0	0	94	406	0	0	0	100	100	0	0
Total Projected	2,400	800	800	21	0	372	406	0	0	0	1,600	1,600	0	0

SJC in Storage as of Monday, September 1, 2025 (ac-ft)

City SJC in Storage	County SJC in Storage	TCLC SJC in Storage
10.901	986	548

Pg.1: Daily Diversions Buckman Direct Diversion

2025 Aug ac=lt MG

BDD Diversion Report (MG)
For each row, the meter read shown is the read at the end of the day.

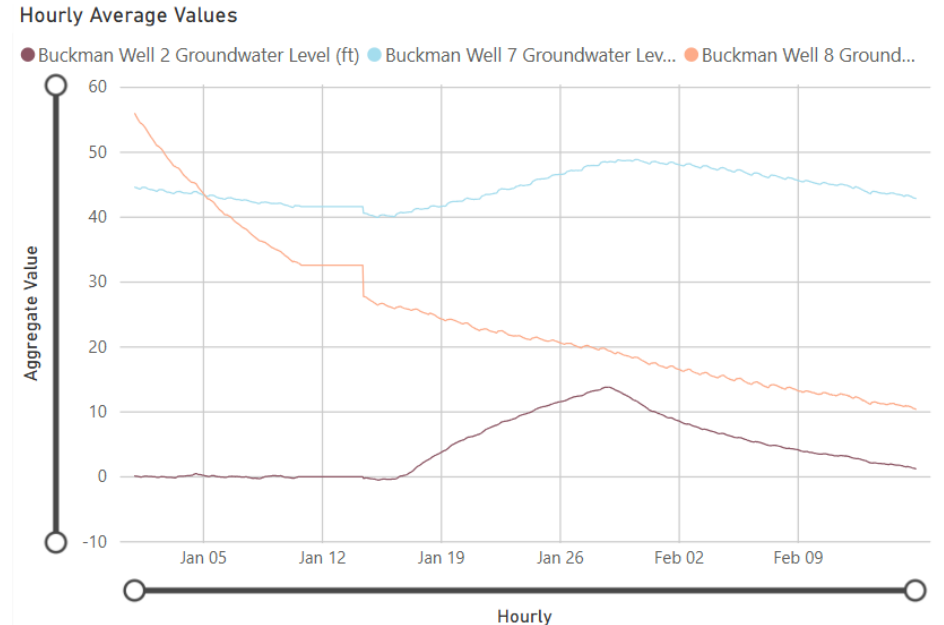
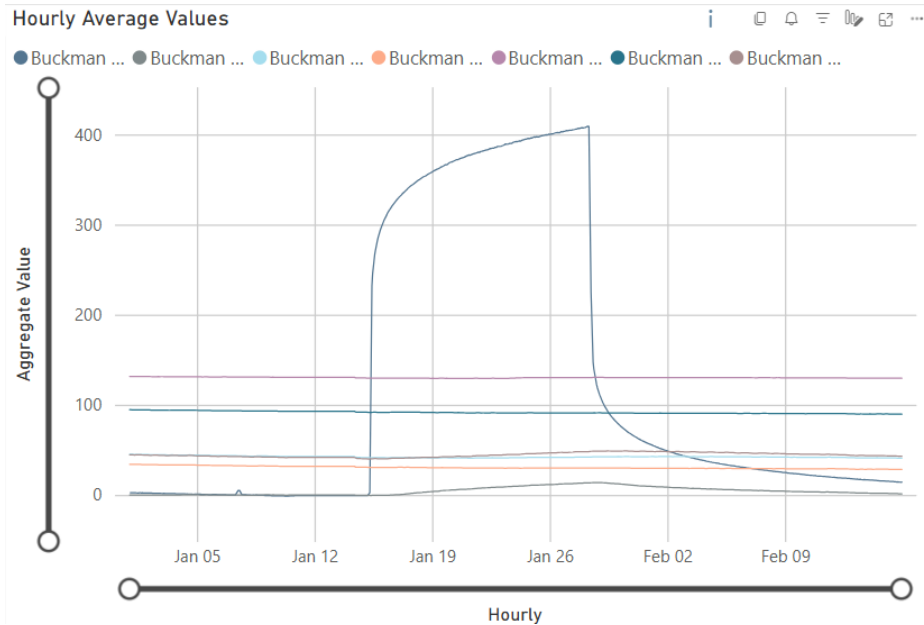
Meter Serial Number	OSE Meter Number	Month End Meter Reading	Previous Month Meter Reading (MG)	(MG)	(A/F)
CC000A16000-Return	TBD	134.41	130.46	3.95	12.12
CC004816000-Diversion	14255	9,772.92	9,721.10	51.82	159.02
CC004916000-Diversion	14256	9,654.40	9,602.51	51.89	159.24
CC004A16000-Diversion	15081	9,554.97	9,509.35	45.63	140.02
Monthly Total Diversion (Diversion - Return)				145.38	446.17

Month Year	RW Meter CC004816000 15FIT21001	RW Meter CC004916000 15FIT21002	RW Meter CC004A16000 15FIT21003	Return Meter CC000A16000 15FIT33000	Daily Volume Diverted	Cumulative Volume Diverted
July 2025						
7/31/2025	9,721.103	9,602.507	9,509.349	130.457	8.497	8.497
August 2025						
8/1/2025	9,724.171	9,602.593	9,510.915	130.572	4.607	4.607
8/2/2025	9,724.171	9,602.593	9,510.915	130.572	0.000	4.607
8/3/2025	9,727.340	9,605.476	9,512.496	130.786	7.418	12.025
8/4/2025	9,730.919	9,608.055	9,515.063	131.015	8.496	20.520
8/5/2025	9,733.080	9,610.182	9,519.517	131.246	8.512	29.032
8/6/2025	9,736.043	9,612.621	9,521.792	131.433	7.491	36.523
8/7/2025	9,739.970	9,615.249	9,524.482	131.683	8.995	45.518
8/8/2025	9,742.148	9,619.399	9,527.377	131.912	8.994	54.512
8/9/2025	9,742.148	9,624.523	9,527.377	132.048	4.988	59.500
8/10/2025	9,742.148	9,624.523	9,532.493	132.177	4.987	64.486
8/11/2025	9,745.390	9,625.868	9,532.493	132.302	4.463	68.949
8/12/2025	9,748.529	9,627.940	9,532.493	132.486	5.028	73.976
8/13/2025	9,751.870	9,628.412	9,533.810	132.625	4.990	78.967
8/14/2025	9,751.870	9,629.053	9,538.288	132.759	4.985	83.952
8/15/2025	9,751.870	9,634.157	9,538.288	132.878	4.985	88.937
8/16/2025	9,756.977	9,634.157	9,538.288	132.995	4.989	93.926
8/17/2025	9,756.977	9,635.412	9,542.093	133.120	4.934	98.861
8/18/2025	9,759.804	9,636.211	9,543.079	133.234	4.498	103.359
8/19/2025	9,759.804	9,637.838	9,546.347	133.421	4.708	108.067
8/20/2025	9,760.858	9,641.673	9,546.347	133.552	4.759	112.825
8/21/2025	9,763.530	9,641.690	9,548.769	133.677	4.987	117.812
8/22/2025	9,767.742	9,642.605	9,548.769	133.810	4.992	122.805
8/23/2025	9,768.773	9,643.944	9,549.861	133.907	3.366	126.170
8/24/2025	9,768.773	9,647.496	9,551.430	134.034	4.993	131.163
8/25/2025	9,771.234	9,649.345	9,552.242	134.165	4.993	136.156
8/26/2025	9,771.234	9,649.345	9,552.242	134.165	0.000	136.156
8/27/2025	9,771.234	9,649.345	9,552.276	134.165	0.034	136.190
8/28/2025	9,771.234	9,649.345	9,552.331	134.169	0.051	136.241
8/29/2025	9,772.814	9,649.345	9,554.100	134.256	3.260	139.501
8/30/2025	9,772.921	9,649.345	9,554.438	134.275	0.427	139.928
8/31/2025	9,772.921	9,654.397	9,554.975	134.407	5.457	145.384



Groundwater Sustainability

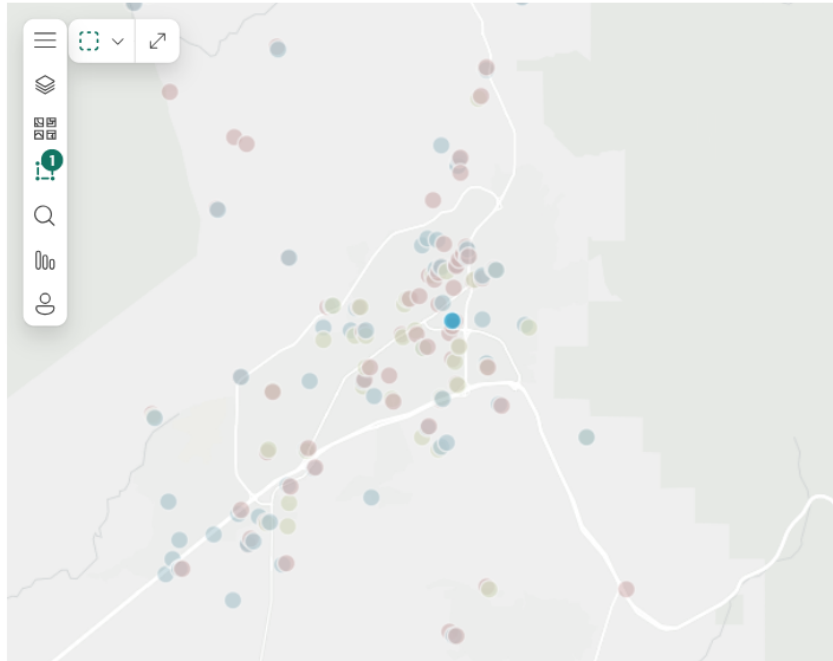
Performing Aquifer Tests to Better Understand Aquifer Dynamics and Groundwater Sustainability



Groundwater Sustainability and Regional Collaboration

Interactive Groundwater Level Dashboard – Collaborating with NM Water Data Initiative

Lat, Long and Source

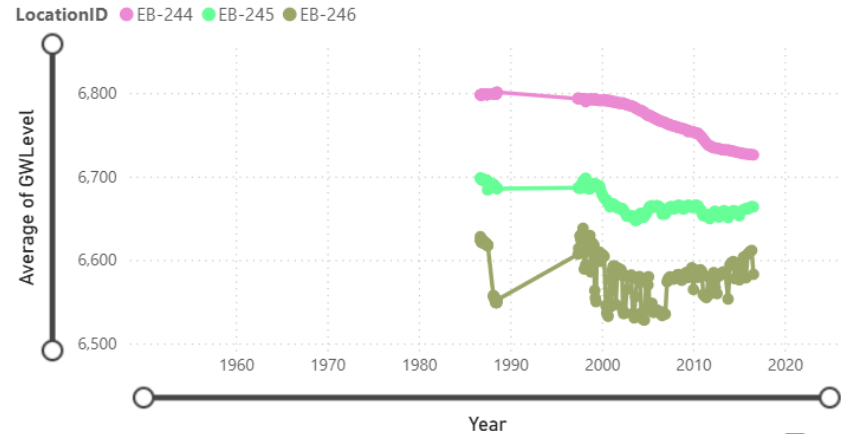


Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Mana... Powered by Esri

Source EBH3 NMWDI SFMN USGS

FirstYear: 1937, 2020 | LastYear: 1937, 2022 | yr_count_data: 10, 68 | AQFR_...: All

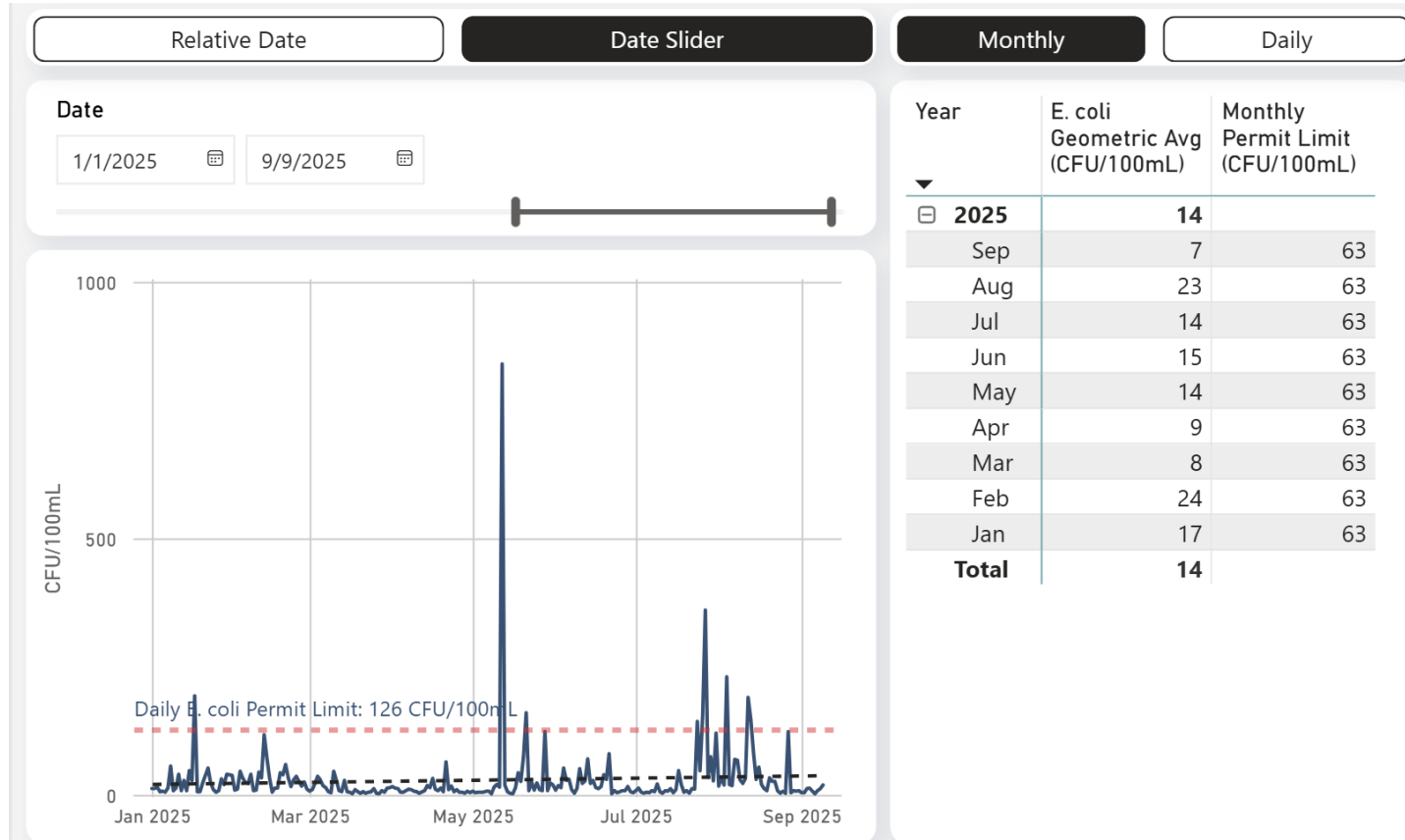
Average of GWLevel by Year, Quarter, Month, Day and LocationID



LocationID	Common Name	Well Depth	Count of GWLevel	AQFR_NM	FirstYear	LastYear	NumYearsWithData
EB-244	SF-1A	1,952	223		1986	2016	23
EB-245	SF-1B	1,060	220		1986	2016	23
EB-246	SF-1C	780	218		1986	2016	23

Public Transparency

Wastewater effluent E. coli available to the public via City website



Recap of Dashboard Benefits/Success Stories

- **Reduced staff time / increased efficiency**
 - *BDD Accounting*
 - *Water Resource dashboards*
- **Data-driven decision making**
 - *Water Resource dashboard and weekly meetings*
- **Interdepartmental collaboration**
 - *Parks demand dashboard page*
- **Water conservation**
 - *Demand dashboard – found high per-unit apartments to retrofit*
- **Permit Compliance and Reporting**
 - *BDD Accounting*
- **Improved understanding of groundwater sustainability**
 - *Aquifer monitoring and testing*
- **Regional collaboration**
 - *Groundwater level dashboards*
- **Transparency**
 - *Public: Wastewater e coli results*
 - *Internal: BDD Accounting*



Status and Next Steps

- **Current activity**
 - **Continuing QA-QC**
 - **Using for long-range planning**
 - *Power BI is very powerful in processing large datasets*
 - *Allows us to run tens of thousands of futures, and easily digest the results*
- **Next steps**
 - **Roll up to key metrics and insights for internal use**
 - **Provide public access to key summaries on our website**
 - **Increased interdepartmental collaboration**
 - **Support data-driven water conservation targets**

Questions?