

# An Overview of the Agency's Groundwater Management System, FCGMAOnline.org, its Functions and Data Criteria



FCGMA Operations Committee  
August 28, 2024

# Agenda

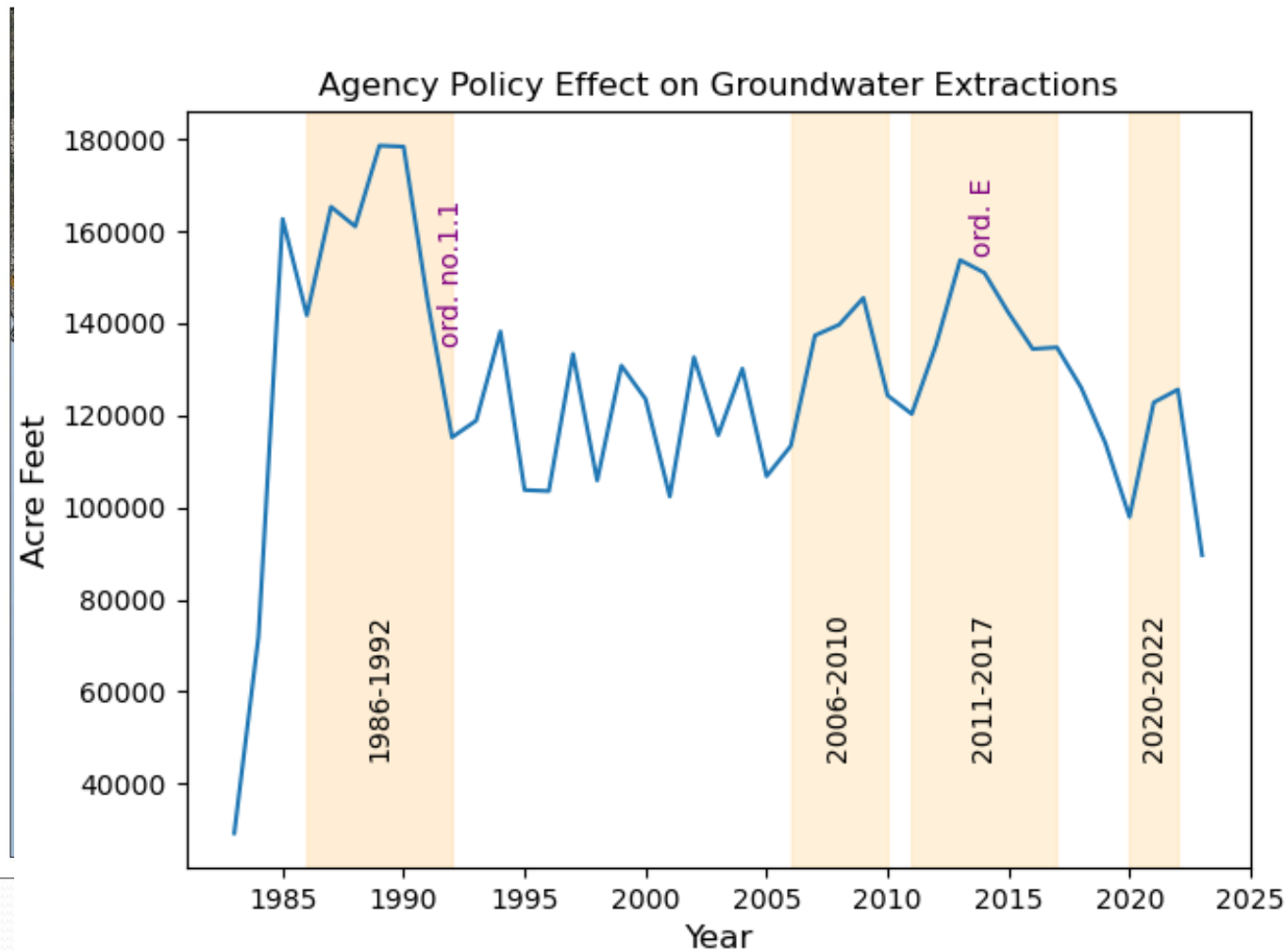
- Overview of FCGMAOnline.org
- Data Criteria
- Functions
- Challenges
- Recommendations
- Questions and Discussion

# FCGMAOnline Brief History

- Web based groundwater data management system.
- Purpose for development (2009):
  - improve functionality and quantification of estimates, and
  - identify ordinance compliance issues in a timely manner
- Went live 2010-1
- Current(2024)
  - 400+ CombCodes (Operator Accounts) (OPV – 263, LPV – 150, ASRV – 9)
  - 964 Wells Reporting (FCGMA Owner Accounts) (Active – 715, Inactive – 249)

# FCGMA Brief History

- AB 2995 (1982)
- Fox Canyon Aquifer
- Multiple basins
- Hydrological connectivity
- Complicated



## Fox Canyon GMA

### Legend

- WR Groundwater Basins
- ox Canyon Boundary
- pworth Gravels Manage
- os Posas Management Ar
- xnard Basin Management
- leasant Valley Basins Man
- utrop Area
- xpansion Zones

Printed Date:

8/28/2024

2.70 Miles

Scale: 1: 213,982.09

Notes

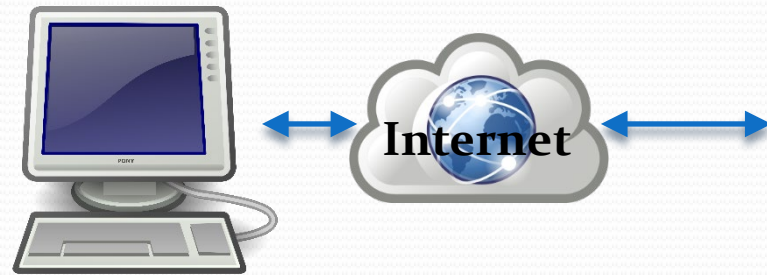
The information contained herein was created by the City Geographic Information System (GIS), which is a operated solely for the convenience of the County and residents.

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sp

# FCGMA Web Application Architecture

Client

Fire



## What is GIGO?

*The quality of information coming out cannot be better than the quality of information that went in.*



- Web Application Client
- HTML, CSS, Javascript
- Data Validation

**Garbage In, Garbage Out**

ures

# Data Stored in FCGMAOnline.org

## **Wells (964)**

- Well Attributes
- Owner Profile
- Flowmeter Specs
- FM Visual Aids
- Calibrations

## **CombCodes (423)**

- Operator Profile
- Extraction Data
- Meter Photos
- Allocations / Carryover
- Billing

## **Other**

- GIS Mapping Tool
- APNs
- Irrigated Acres and Crop Type
- LPV Watermaster Functionality
- Other

# Function – User Interface

## Extraction Information

Enter **Current Meter Reading** for each well, then select **Calculate** to compute the **Difference**, **AF Extraction** for each well and **Total AF Extraction** for all wells. Select the **Meter Help** button for information on how to read your meter:



If there was a flowmeter malfunction, you may enter the value directly under the **AF Extraction** heading and enter 0 (zero) for the **Current Meter Reading**. Please also complete and submit a [Flowmeter Update Form](#) to: [FCGMA.Flowmeter@ventura.org](mailto:FCGMA.Flowmeter@ventura.org).

Select **Meter Info S/N** link to upload the corresponding flowmeter photograph for each flowmeter reading for the current reporting period.

State Well No.	Meter Info	Current Meter Reading (03/31/2024)	Previous Meter Reading (09/30/2023)	Difference	X Mult.	/ Div.	AF Extraction
██████ R04 <i>Destroyed</i>	S/N: Mfg: Exp:	0	0	0			0.000
██████ R05 <i>Active</i>	S/N: <a href="#">07210851</a> Mfg: Seametrics Exp: 07/20/2024	180327	158414	21,913	.01	1	219.130
██████ R05 <i>Active</i>	S/N: <a href="#">16-04242-12</a> Mfg: McCrometer Exp: 02/26/2021	0	0	0	1,000	325,851	0.000
██████ R06 <i>Active</i>	S/N: <a href="#">16-10118-08</a> Mfg: McCrometer Exp: 02/26/2020	0	0	0	100	325,851	0.000
██████ R06 <i>Active</i>	S/N: <a href="#">16-10118-08</a> Mfg: McCrometer Exp: 04/08/2023	0	3298770	0	100	325,851	0.000
██████ R06 <i>Active</i>	S/N: <a href="#">16-10118-08</a> Mfg: McCrometer Exp: 01/13/2026	358107	351332	6,775	100	325,851	2.079
██████ A01 <i>Deactivated 2005</i> <i>Destroyed</i>	S/N: Mfg: Exp:	0	0	0			0.000
██████ D01 <i>Destroyed</i>	S/N: Mfg: Exp:	0	0	0			0.000

Total AF Extraction: 221.209

Well Number: ████████ D01  
 Meter SN: 14-505121690  
 Meter Manufacturer: Netafim

## Meter Reading Photo Uploads

Photos shall include: CombCode, state well number, meter serial number, and date of photo. Photo must contain legible image of meter totalizer reading, totalizer units, and multiplier. Some meter models (digital meters with multiple displays) may require more than one photo per meter to satisfy the photo requirement.

Select the **Choose File** button to select a file for upload. Acceptable photo file formats are pdf, jpg or jpeg, png, gif, and tiff. Maximum file size is 3.0 MB.

Choose File No file chosen

Upload

Files Uploaded	Year Code	Date Received	Date Uploaded	Uploaded By	Status	Delete
<input type="checkbox"/> <a href="#">2024-1 ████████ D01 14-505121690 652.pdf</a>	2024-1	05/14/2024	05/15/2024	Weber, Elka	Approved	

Admin Photo Approval Process:  
(for all Review checked files)

- Administrative Review
- Returned for Corrections
- Approved
- Denied

Update Review Status

Admin Update Received Date:  
(for all selected/checked files)

mm/dd/yyyy

Update Received Date

# Function – User / Admin Flowmeter Resource

- FCGMA is **NOT** a utility company.

## Flowmeter Visual Aid

25 manufacturers



99 unique meter models

Sensus (Gallons x 100)

Current	-	Previous	=	Difference	X	Mult	/ Div =
16228						100	325,851

Flow Meter Readings

Sparling Tigermag EP (Gallons)

Current	-	Previous	=	Difference	X	Mult	/ Div =
85						100	325,851

Flow Meter Readings

The Tigermag cycles through two different operating screens. The totalizer is indicated by "COUNT =". The multiplier is shown on a separate screen cycle in the UNITS/COUNT area of the screen (in this example: 100 GAL/COUNT).

Set the totalizer multiplier so that it is consistent with the entry on the meter registration form.



# Function – Admin Interface

State Well No.	Meter Info	Current Meter Reading (03/31/2024)	Previous Meter Reading (09/30/2023)	Difference	X Mult.	/ Div.	AF Extraction
██████ P03 Active	S/N: <a href="#">04222862</a> Mfg: Seametrics Exp: 04/26/2025	<input type="text" value="0"/>	<input type="text" value="10873"/>	0	.01	1	<input type="text" value="0.000"/>
██████ P03 Active	S/N: <a href="#">052016002445</a> Mfg: Seametrics Exp: 09/02/2024	<input type="text" value="0"/>	<input type="text" value="0"/>	0	.01	1	<input type="text" value="0.000"/>
██████ J04 (Main) Active	S/N: <a href="#">12-06026-08</a> Mfg: McCrometer Exp: 08/21/2021	<input type="text" value="0"/>	<input type="text" value="1446988"/>	0	.001	1	<input type="text" value="0.000"/>
██████ BR04 Active	S/N: <a href="#">147019149</a> Mfg: Netafim Exp: 08/04/2024	<input type="text" value="0"/>	<input type="text" value="192675"/>	0	.01	1	<input type="text" value="0.000"/>

**Total AF Extraction: 0.000**  
**Calculate**

Manual Billing Statements											
Statement: SAES-████████████████████								Due Date: 02/14/2003			
CombCode: ██████████								Days Over Due: 0			
	Extraction Charge:	Sustain Fee:	Surcharges:	Interest:	Penalty:	Civil Penalty:	Gemes:	Other:	Total Due:	Total Paid:	Balance Due:
<b>Charges:</b>	\$57.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$57.00	\$57.00	\$0.00
<b>Pd To Date:</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
<b>This Pmt:</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
<b>Waived:</b>	\$0.00	\$0.00	\$0.00	\$0.00	Total Waived: \$0.00						
<b>This statement has been marked uncollectible Interest and Penalties</b>											
<b>SUM:</b>										<input type="text"/>	
<b>Calculate Payment</b>											

**Well Information** [Start over](#)

**Back**

Current Owner: \*  [Current Owner Info](#)

New Owner Change Date:

Previous Owners:

HA:

State Well Number: \*

Well Name:

State Record No.:

County Permit:

GMA Permit:

Well Status: \*

Well Date:

Registration Date:

Exempt Inactive:

Exempt Domestic:

---

Agency:  FCGMA Basin: \*

DWR Basin:

AQ Level:

ETO Code:

Zone:

Usage: \*  AG  DOM  M&I  Primary

NLPCode:

Single Family Residence:

Qualify for Dom. Exemption:

---

Address/Location:

People Served:

APN:

Parcel Acreage:

X Coord:

Y Coord:

**GIS SAYS**

APN: Service Not available.

Parcel Acreage: Service Not available.

X Coord: 1689174.65

Y Coord: 258195.16

# Function – Admin Interface

**User Profile**

Last update by Kathy Jones on 2/23/2022 9:54:53 AM

Required fields\*

First Name: \*

Last Name: \*

Middle Name:

Business Name:

Contact Name:

Mailing Address:

City:

State:

Zip Code:

Phone:

Fax:

Mobile:

Email Address:

Username: \*

Password:

Retype Password:

Active:

CombCode	Basin	Active
<input type="text"/>	OXF	<input type="checkbox"/>
<input type="text"/>	OXF	<input checked="" type="checkbox"/>
<input type="text"/>	OXF	<input checked="" type="checkbox"/>
<input type="text"/>	OXF	<input checked="" type="checkbox"/>
<input type="text"/>	OXF	<input type="checkbox"/>

Associated CombCodes:

Select Meter:

<< Hide Meter Info

**Meter Information**

Currently in use:  Last update by Kathleen Riedel on 11/15/2023 4:17:13 PM

Is this a Bypass meter?  Yes  No

Is the meter new from manufacturer? Yes (SWN) 01N21W01B05

Meter Serial No (S/N):  ID: 3273 Meter Status:

Installed Date:  Start Reading:

Removed Date:  End Reading:

Meter Manufacturer:  Electric Meter No:

Meter Style:  Meter Type:

Manufacturer Date:  Meter Use:

Discharge Pipe Size:  Units of Measure:

Motor/Engine:  Multiplier Units:

Meter Size:  Conversion Units:

Years for Calibration:

Expiration Date:

Well Access:  Shed  Open  Behind Locked Gate  Underground Vault

Other

**Uploads**

Please include the following:

1. At least one readable photo of dial (meter) face.  
2. At least one readable photo of dial cover.  
3. At least one meter installation photograph from approximately 10' distance showing meter and well in the same photo frame.

Browse to Upload Files (max size 3.0 MB):

No file chosen

<a href="#">20231001_01N21W01B01</a>	<input type="checkbox"/>	<input type="checkbox"/>
2 Face_2422.pdf	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">20231018_01N21W01B05</a>	<input type="checkbox"/>	<input type="checkbox"/>
2 Install_2423.pdf	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Function – Data Exports

## Extraction Statements

**FOX CANYON GROUNDWATER MANAGEMENT AGENCY**  
 800 N. Yosemite Avenue | Yuba, CA 95999-1010 | Tel: (805) 443-1772 | FCGMA\_Report@foxcanyon.org | www.FCGMAOnline.org

**SEMI-ANNUAL GROUNDWATER EXTRACTION STATEMENT**

Comb Code: **AG** Due Date: **06/27/2024** Semi-Annual Code: **2024-1**  
 Primary Use: **AG** DWR Basin: **DXN** Statement Number: **SAES-2024-1-051714**

Reporting Period: **October 1, 2023 - March 31, 2024**

Contact:  
 Well Operator: **[REDACTED]**  
 Address: **[REDACTED]**  
 City/State/Zip: **[REDACTED]**  
 Telephone: **[REDACTED]**  
 Email: **[REDACTED]**

Please carefully fill out fields 1-18, and return this form with required payment by the due date (postmarked by due date is acceptable). If returned late, you are required to self-assess interest on any unpaid extraction charges (Field 7) plus Field 10), and self-assess late penalty on any unpaid surcharges (Field 11). Do this by multiplying the extraction and surcharge amounts by 1.5% times the number of whole months the payment is past due.

Pursuant to 2004 and 2006 amendments to the California Water Code Section, all groundwater extractions are reported to the State Water Resources Control Board by the FCGMA or its appointees. No additional fee is charged for this reporting. Your records may be made available to other governmental agencies, pursuant to Sections 50090(a) and 50091(c) respectively of the California Water Code.

State Well Number	Meter SN	Check Box for Current Meter	Flow Meter Readings				Div. / Unit/AF	AF Extraction
			1 Current (Mar. 31, 2024)	2 Previous (Sep. 30, 2023)	3 Difference	4 Mult. /		
02N22W02R04 Destroyed		<input type="checkbox"/>						Destroyed
02N22W02R05 Active	07210851	<input type="checkbox"/>	180,327	156,414	21,913	0.0100	1	219.130
02N22W02R05 Active	16-04242-12	<input type="checkbox"/>					1,000	325.851
02N22W02R06 Active	16-10118-08	<input type="checkbox"/>					100	325.851
02N22W02R06 Active	16-10118-08	<input type="checkbox"/>		3,298,770			100	325.851
02N22W02R06 Active	16-10118-08	<input type="checkbox"/>	358,107	351,332	6,775		100	325.851
02N22W02R06 Rehabilitated 2005)		<input type="checkbox"/>						Destroyed
02N22W12R01 Destroyed		<input type="checkbox"/>						Destroyed
02N22W12R01 Destroyed		<input type="checkbox"/>						Destroyed
<b>Total Extraction (AF):</b>								<b>221.209</b>

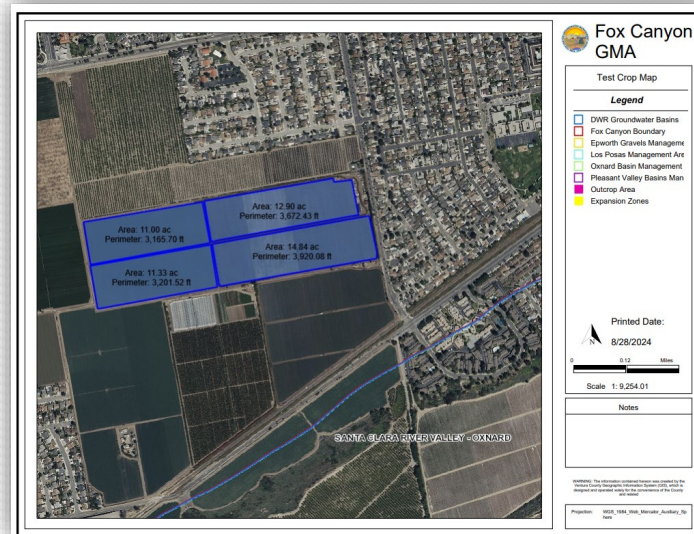
**CALCULATE ACRE/FEET (AF) TO THE 3rd DECIMAL PLACE (Example: 50.0019 AF = 50.002 AF)**

Upload Meter Photos at [FCGMAOnline.org](http://FCGMAOnline.org)

Photographs of all meter readings are required to be submitted with each extraction statement before the SAES due date. This applies to all wells requiring a meter in accordance with Agency Ordinance Code. Photos shall include meter face with totalizer reading, multiplier and units.

Filed on: 05/21/2024, Signed on: 05/21/2024 Page 1 of 4

## GIS Mapping Tool Exhibit



- Groundwater Extraction Reports
- Well and Meter Information
- Meter Calibration Expirations
- Billing Transactions
- Well Owner / Operator Contacts
- Allocations / Transfers
- Irrigated Acres and Crop Data

# Data Input Process

- Agency Staff entry of user submitted forms vs. User online submittal



# Challenges

- Errors & omissions increase steps, decrease efficiency, and productivity



VS

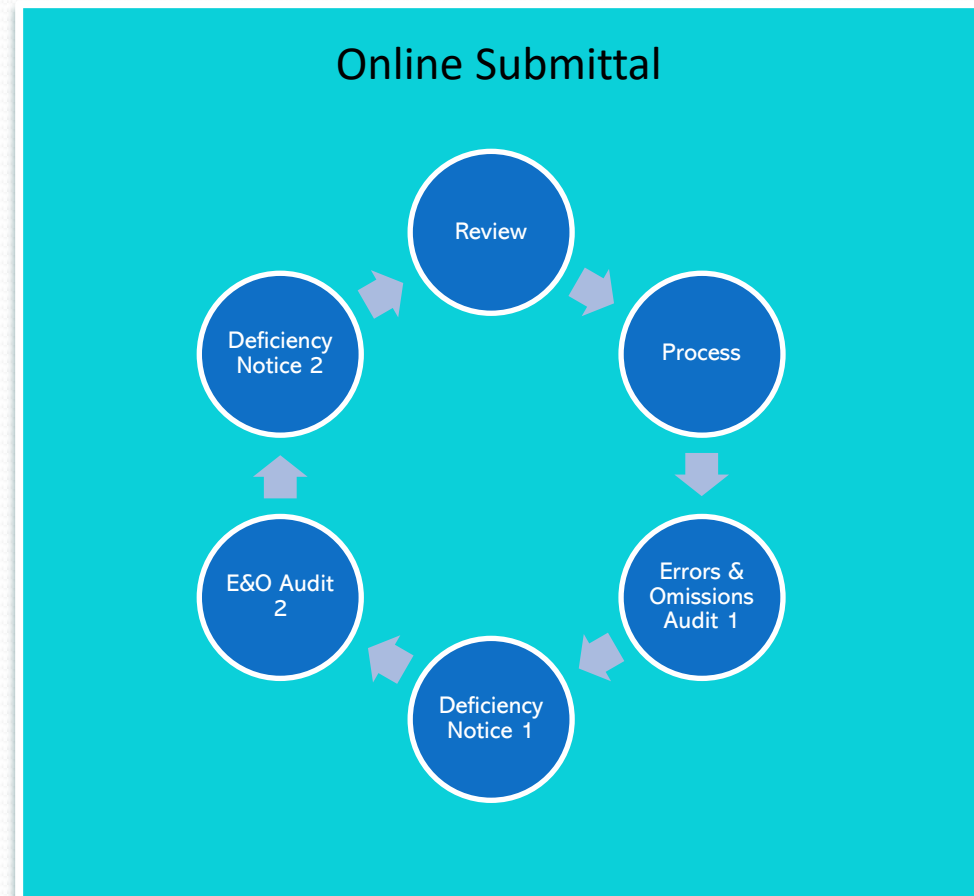


# Challenges continued...

- Rework increase steps, slows efficiency, and productivity



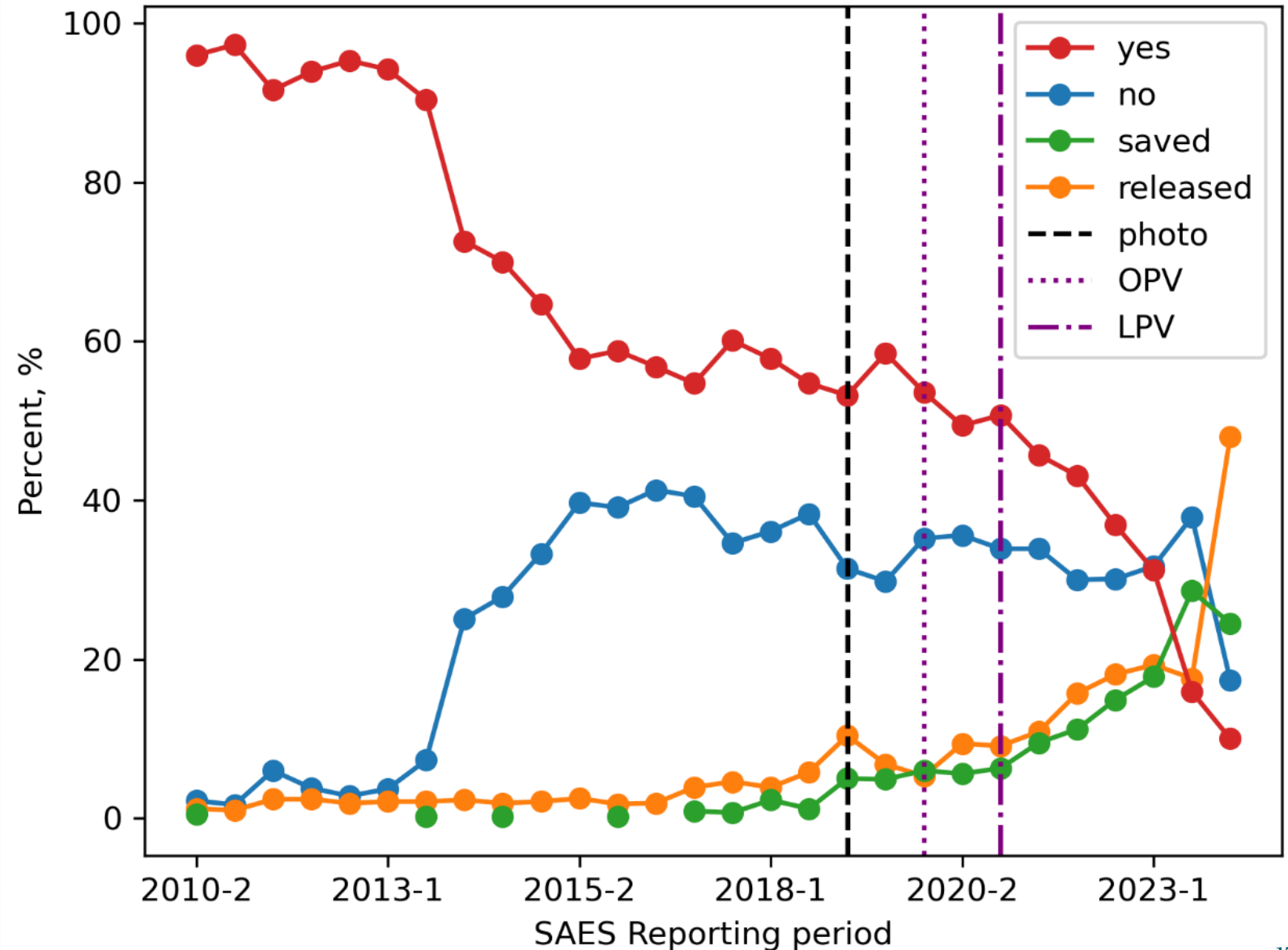
VS



# Challenges

- Safeguards may have unintended consequences on SAES reporting and operations

FCGMAOnline staff assisted reporting



# Operational Impacts Timeline

Year	Major Operational Events
2014	<ul style="list-style-type: none"><li>• Emergency Ordinance E</li></ul>
2016	<ul style="list-style-type: none"><li>• Three New Agency Staff [Kim Loeb (Jul), Keely Royas (Sep), Kathy Jones (Dec)]</li></ul>
2017	<ul style="list-style-type: none"><li>• Water Market Implementation Phase I</li><li>• NRCS AMI Grant Implementation</li></ul>
2018	<ul style="list-style-type: none"><li>• AMI Ordinance</li><li>• AMI Implementation for AG by 12/31/2018</li></ul>
2019	<ul style="list-style-type: none"><li>• Meter Photo Requirement Implementation</li><li>• AMI Implementation for M&amp;I by 10/1/2019</li><li>• Water Market Phase 2</li><li>• LPV Litigation, Discovery and Depositions</li></ul>
2020	<ul style="list-style-type: none"><li>• COVID &amp; Staff Reassignment as Emergency Response Contact Tracers</li></ul>



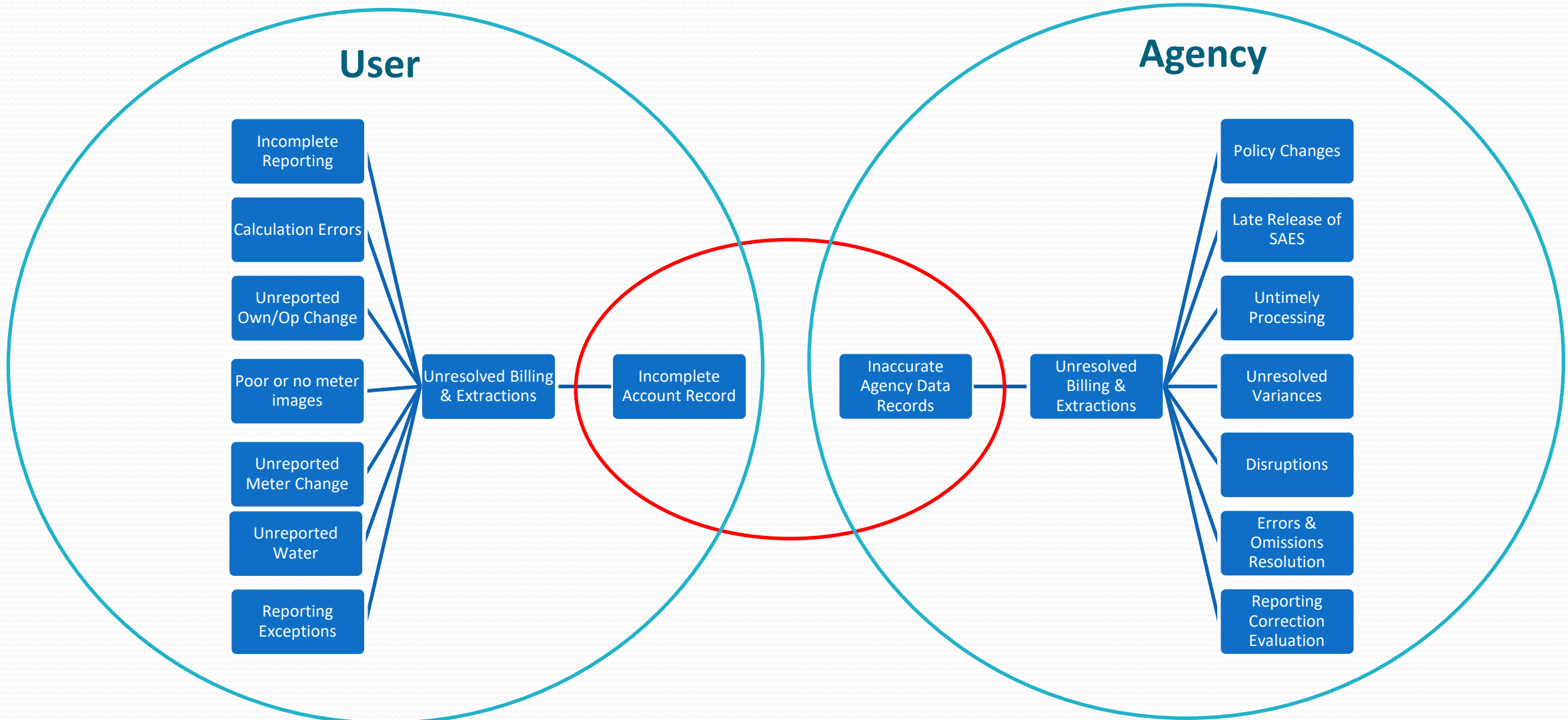
# Operational Impacts Timeline

Year	Major Operational Events
2020	<ul style="list-style-type: none"><li>• AMI Implementation for DOM by 10/1/2020</li><li>• AMI Exemption for DOM by 10/1/2020</li><li>• Water Market Phase 2 Extension</li><li>• OPV Allocation Ordinance Implementation</li><li>• OPV Transition to Water Year</li><li>• OPV Variance Process, Workshop &amp; Review Committee</li></ul>
2021	<ul style="list-style-type: none"><li>• LPV Allocation Ordinance Implementation</li><li>• LPV Transition to Water Year</li><li>• OPV Carryover Accrual</li><li>• Litigation Discovery</li></ul>
2022	<ul style="list-style-type: none"><li>• Partial Refund of 2021 Reserve Fees Paid</li><li>• Hydrogeologist Retirement (Apr)</li><li>• Compliance Specialist LOA &amp; Resignation (Apr)</li></ul>

# Operational Impacts Timeline

Year	Major Operational Events
2023	<ul style="list-style-type: none"><li>• LPV Adjudication Judgment Ruling</li><li>• LPV Watermaster Implementation</li><li>• Staffing Model Evaluation</li></ul>
2024	<ul style="list-style-type: none"><li>• Groundwater Manager (Jan) &amp; Executive Officer Retirement (Mar)</li><li>• Clerk of the Board resignation (Feb)</li><li>• LPV Watermaster Implementation</li><li>• LPV Watermaster Basin Assessment</li><li>• LPV Watermaster Extraction and Usage Reporting</li><li>• Fiscal Budget Renovations</li></ul>

# Challenges continued...

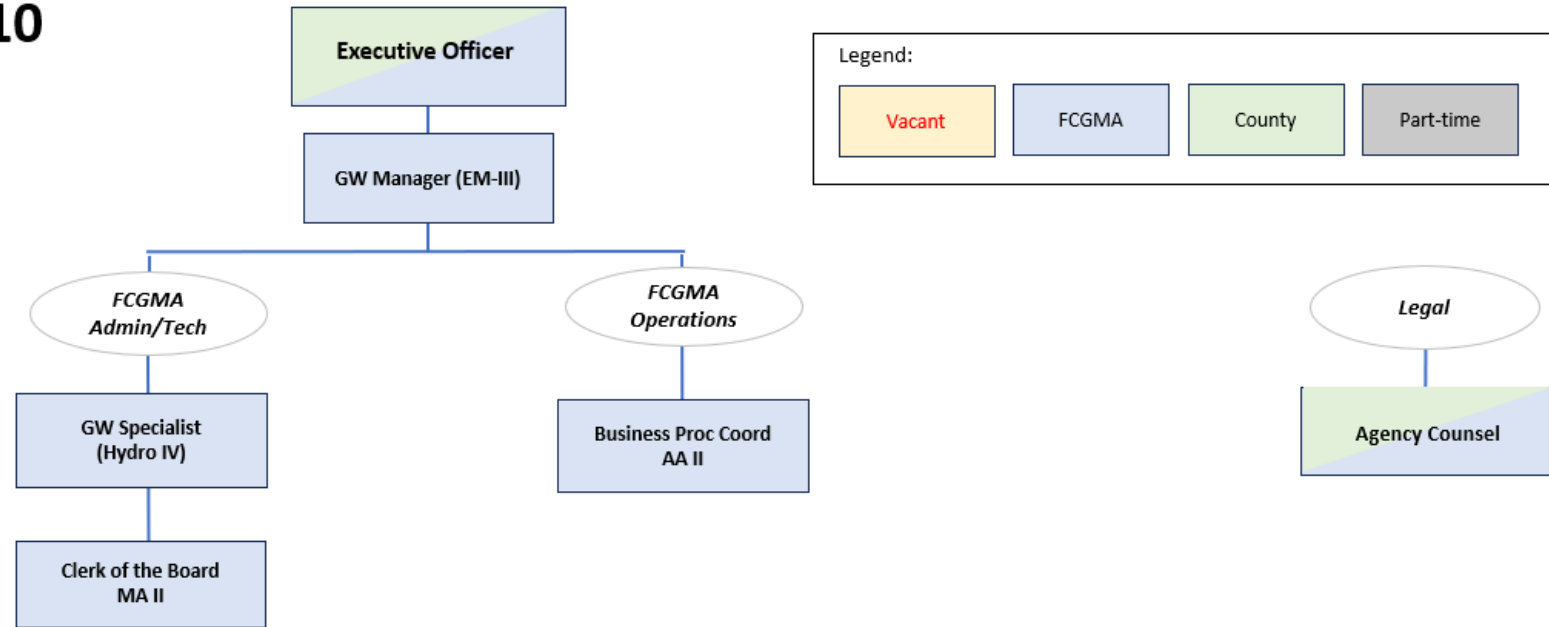


# Continuous Improvement Data / Operations

- Data management system
  - Meter Photo Upload
  - Meter Visual Aid Expansion
  - Payment Interface Enhancements
- Policy
  - Flowmeter Program
  - AMI Ordinance
  - Meter Photo Requirement
  - Hire Additional Staff

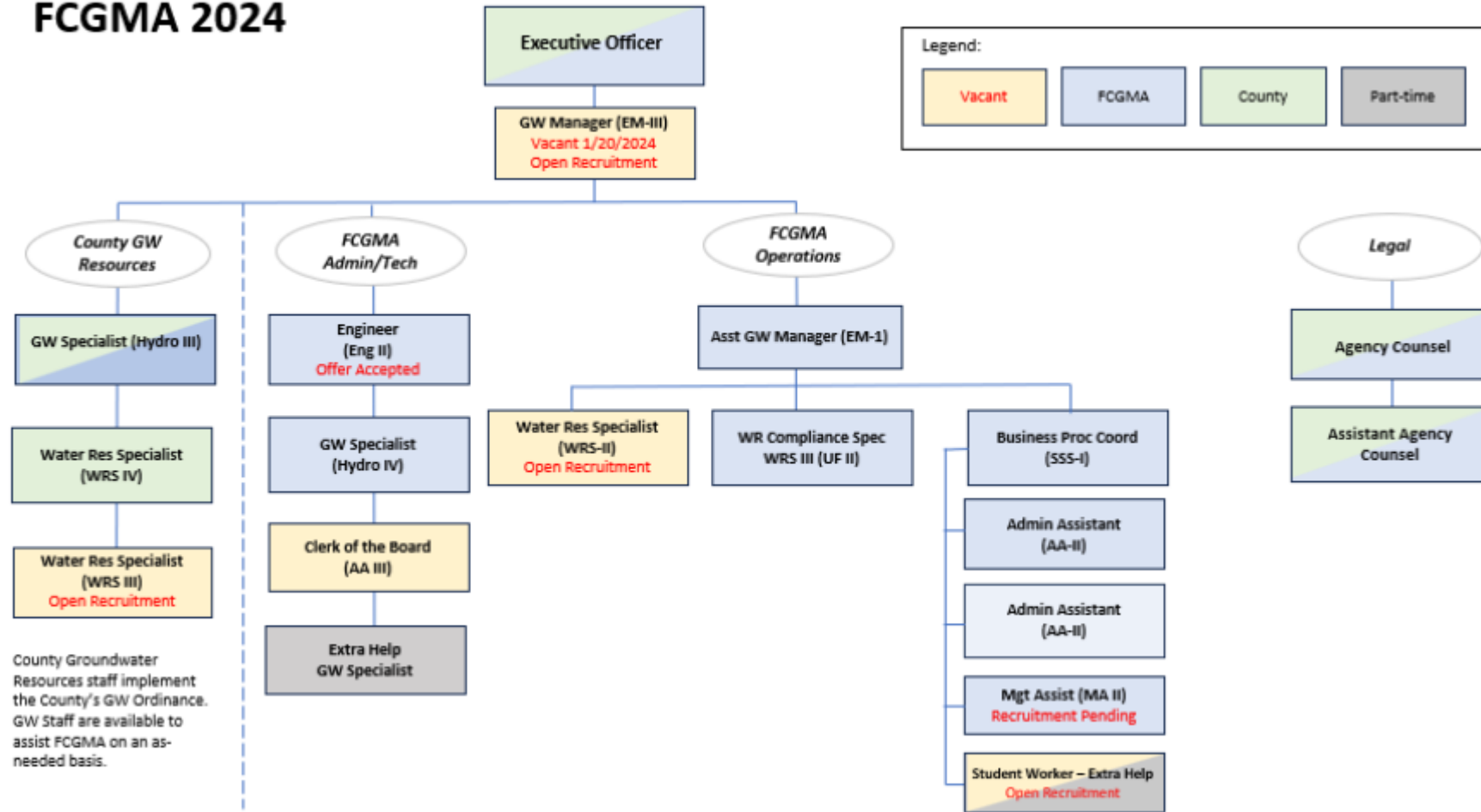
# Staffing Resources

## FCGMA 2010



# Staffing Resources

## FCGMA 2024



# Recommendations for Consideration

- Prioritize resolution of backlog
- Incentivize online reporting
- Finalize variances resulting from OPV / LPV Allocation Ordinance
- Administrative processing fee for specific functions in OPV / ASRV
- New owner / operator outreach and workshops
- Implement well owner / operator termination process
- Collaborate with IT Staff during policy changes
- Allocation System for ASRV (proposed test pilot group for AMI SAES reporting)
- Replace FCGMAOnline.org?

# Questions and Discussion