

# 2024

## Groundwater Extraction Summary Report



Monterey County Water Resources Agency  
June 2025



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# Overview of the Groundwater Extraction Reporting Program

## History of the Groundwater Extraction Reporting Program

In 1993, the Monterey County Board of Supervisors adopted Ordinances No. 3717 and 3718 that require water suppliers within Zones 2, 2A, and 2B to report water use information for groundwater extraction facilities (wells) and service connections, with a discharge pipe having an inside diameter of at least three inches, to the Monterey County Water Resources Agency (Agency). In 2024, Ordinance No. 5426 was adopted and Ordinance Nos. 3717 and 3718 were repealed. Ord. No. 5426 and the accompanying Groundwater Monitoring Program (GMP) Manual updated Agency regulations around groundwater extraction reporting.

The purpose of the Groundwater Extraction Reporting Program is to provide the Agency with the most accurate water use information available to effectively manage groundwater resources. In order to obtain accurate water pumping information,

methods of directly measuring water extractions have been implemented.

Historically, the Agency has collected groundwater extraction data from well operators annually for a period beginning November 1 and ending October 31 ("reporting year"). Data collection began with the 1992-1993 reporting year. Beginning with the 2025 annual report, reporting will be on a Water Year basis, covering the period from October 1 through September 30, in accordance with Ordinance No. 5426. Information submitted by more than three hundred well operators throughout four hydrologic subareas of the Salinas Valley is utilized to prepare this report (Figure 1).

Since the adoption of Ordinance 3851 in 1995, the Agency has required the annual submittal of Agricultural Water Conservation Plans, which outline the best management practices (BMPs) that are to be adopted each year by growers in the Salinas Valley. In 1996, an ordinance was passed that requires the filing of Urban Water

Conservation Plans (Ordinance 3886). Developed as the urban counterpart to the agricultural water conservation plans, the plans provide an overview of the BMPs to be implemented by urban water purveyors as conservation measures. For extraction reporting purposes, the Agency divides a portion of the Salinas Valley Groundwater Basin into four hydrologic subareas: Pressure, East Side, Forebay, and Upper Valley. These subareas are hydrologically and hydraulically connected, and their boundaries are defined by differences in local hydrogeology and recharge.

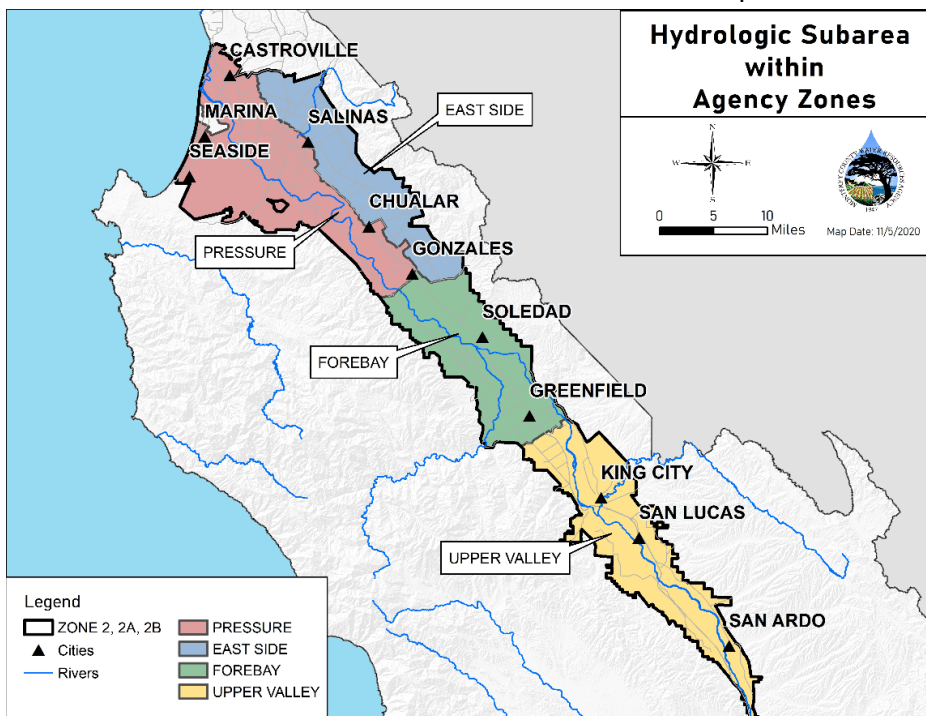


Figure 1. Hydrologic Subareas within Agency Zones 2, 2A, and 2B

## Groundwater Summary Report

The purpose of this report is to summarize the data submitted to the Agency by well operators in January 2025 from the following annual forms:

- Groundwater Extraction Forms (agricultural and urban)
- Water Conservation Plans (agricultural and urban)
- Water and Land Use Forms (agricultural)

The screenshot shows the 'Agricultural Water Conservation Plan - (2019)' form. It includes sections for 'List of Fields', 'Information for Facility', and a table for 'Monthly Data'. The table has columns for Month, Meter Type, Unit & Multiplier, Meter SN, and Month Total (AF). The data is organized by year from 2017 to 2019.

| Month    | Meter Type | Unit & Multiplier | Meter SN | Month Total (AF) |
|----------|------------|-------------------|----------|------------------|
| Oct 2017 | Flowmeter  | Acres Ft x 0.001  | 000000   |                  |
| Nov 2017 | Flowmeter  | Acres Ft x 0.001  | 000100   | 0.15             |
| Dec 2017 | Flowmeter  | Acres Ft x 0.001  | 000200   | 54.80            |
| Jan 2018 | Flowmeter  | Acres Ft x 0.001  | 123000   | 70               |
| Feb 2018 | Flowmeter  | Acres Ft x 0.001  | 234000   | 76.6             |
| Mar 2018 | Flowmeter  | Acres Ft x 0.001  | 345000   | 101.43           |
| Apr 2018 | Flowmeter  | Acres Ft x 0.001  | 456000   | 47.52            |

The agricultural data from the groundwater extraction program covers the reporting year of November 1, 2023, through October 31, 2024; the urban data covers calendar year 2024. The agricultural and urban water conservation plans for 2025 are also summarized. This report is intended to present a synopsis of current groundwater extraction within the Salinas Valley, including agricultural and urban water conservation improvements that are being implemented to reduce the total amount of water pumped. It is not the purpose of this report to thoroughly analyze the factors that contribute to increases or decreases in pumping.

## Compliance

The Agency received Groundwater Extraction Reports from ninety-six percent (96%) of the 1,940 wells in Zones 2, 2A, and 2B of the Salinas Valley that were required to report for the 2024 reporting year. Agricultural and Urban Water Conservation Plan submittal compliance for 2024 was eighty-five percent (85%) and eighty-three percent (83%), respectively.

## Reporting Format

Groundwater extraction data are presented in this report in units of acre-feet (AF). One acre-foot is equal to 325,851 gallons.

## Reporting Methods

The GMP Manual provides well operators with a choice of three different reporting methods: Water Flowmeter, Electrical Meter, or Hour Meter (timer). The summary of groundwater extractions presented in this report is compiled from data generated by all three reporting methods. The GMP Manual requires annual pump efficiency tests for well owners using the electrical meter method and flow meter calibration every five years to ensure the accuracy of the data reported. The distribution of methods used for the 2024 reporting year was: 86% Flowmeter; 13% Electrical Meter; and <1% Hour Meter.

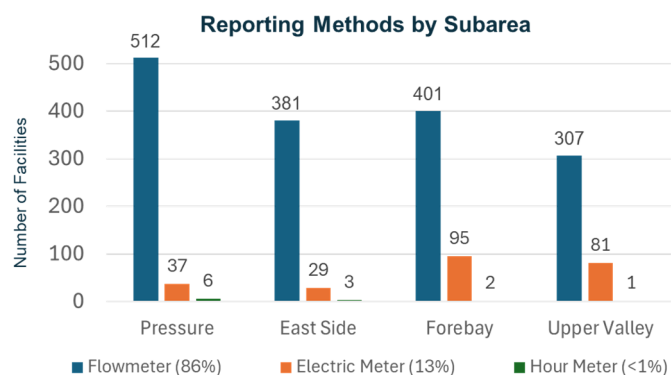


Figure 2. Reporting Method by Subarea

## Disclaimer

While the Agency has made every effort to ensure the accuracy of the data presented in this report, it should be noted that the data are submitted by individual reporting parties. In addition, since so many factors can affect the equipment calibration, it is understood that no reporting method is 100 percent accurate. The Agency maintains strict quality assurance in the compilation, standardization, and entry of the data received. Changes to historical data may occur due to additional submittals after the due date. Rounding errors may cause the total extraction values displayed to be within 5 AF of actual totals.

# Groundwater Extraction Form – Data Summary

## Total Extractions by Subarea and Type of Use

All data presented in this section are derived from the agricultural and urban Groundwater Extraction Forms.

| Subarea                 | Agricultural Pumping (AF) | Urban Pumping (AF) | Total Pumping (AF) |
|-------------------------|---------------------------|--------------------|--------------------|
| Pressure                | 83,841                    | 14,260             | 98,101             |
| East Side               | 69,683                    | 14,043             | 83,726             |
| Forebay                 | 104,387                   | 6,621              | 111,008            |
| Upper Valley            | 111,359                   | 2,478              | 113,837            |
| <b>Total (AF)</b>       | <b>369,270</b>            | <b>37,402</b>      | <b>406,672</b>     |
| <b>Percent of Total</b> | <b>90.8%</b>              | <b>9.2%</b>        | <b>100.0%</b>      |

Table 1. Extraction Data by Subarea and Type of Use.

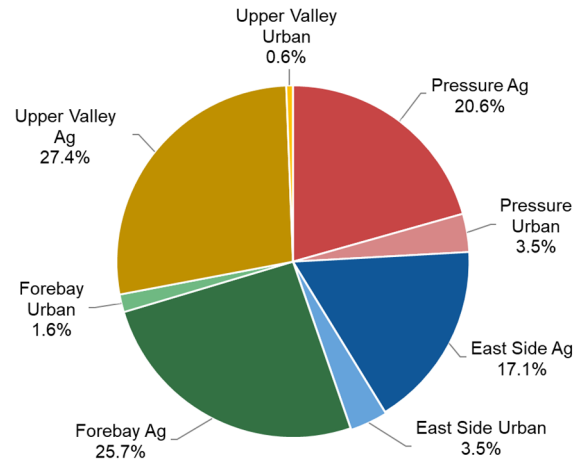


Figure 3. Percentage of Ag and Urban Extractions by Subarea.

## Urban Extraction Data by City or Area

The total groundwater extractions attributed to urban use include residential, commercial, institutional, industrial, and governmental pumping, and are summarized below.

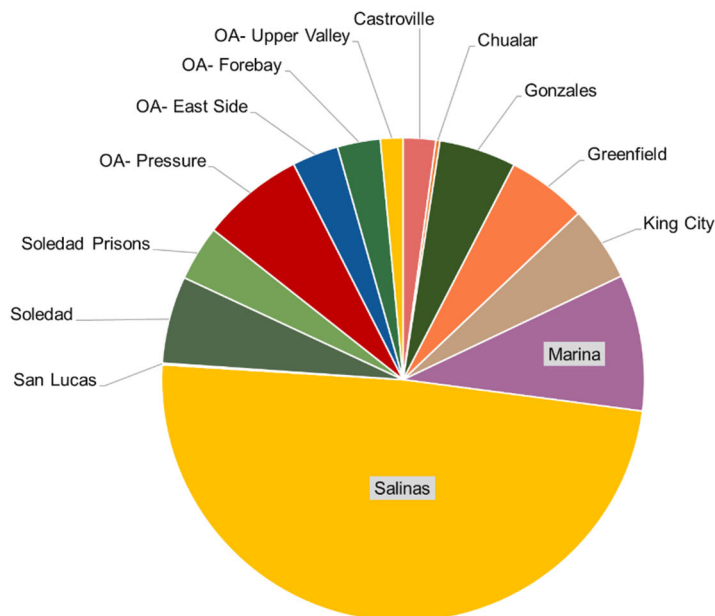


Figure 4. Distribution of Urban Extractions by City or Area.

Table 2. Urban Extractions by City or Area

| City or Area     | Urban Pumping (AF) | Percentage     |
|------------------|--------------------|----------------|
| Castroville      | 811                | 2.17%          |
| Chualar          | 102                | 0.27%          |
| Gonzales         | 1,921              | 5.15%          |
| Greenfield       | 1,993              | 5.34%          |
| King City        | 1,873              | 5.02%          |
| Marina           | 3,404              | 9.12%          |
| Salinas          | 18,249             | 48.91%         |
| San Ardo         | No Data            | 0.00%          |
| San Lucas        | 41                 | 0.11%          |
| Soledad          | 2,176              | 5.83%          |
| Soledad Prisons  | 1,380              | 3.70%          |
| OA- Pressure     | 2,567              | 6.88%          |
| OA- East Side    | 1,159              | 3.11%          |
| OA- Forebay      | 1,073              | 2.87%          |
| OA- Upper Valley | 564                | 1.51%          |
| <b>Total</b>     | <b>37,313</b>      | <b>100.00%</b> |

OA=Other Area

## Total Groundwater Extractions in Zones 2, 2A, 2B

This figure provides a spatial representation of groundwater extractions within Zones 2, 2A, and 2B for the 2024 reporting year. The figures and tables on the next six pages provide extraction information by subarea. The number of wells shown in Figures 4 to 15 may be different than the total number of wells in the program, as stated on Page 2, due to delinquent extraction reports.

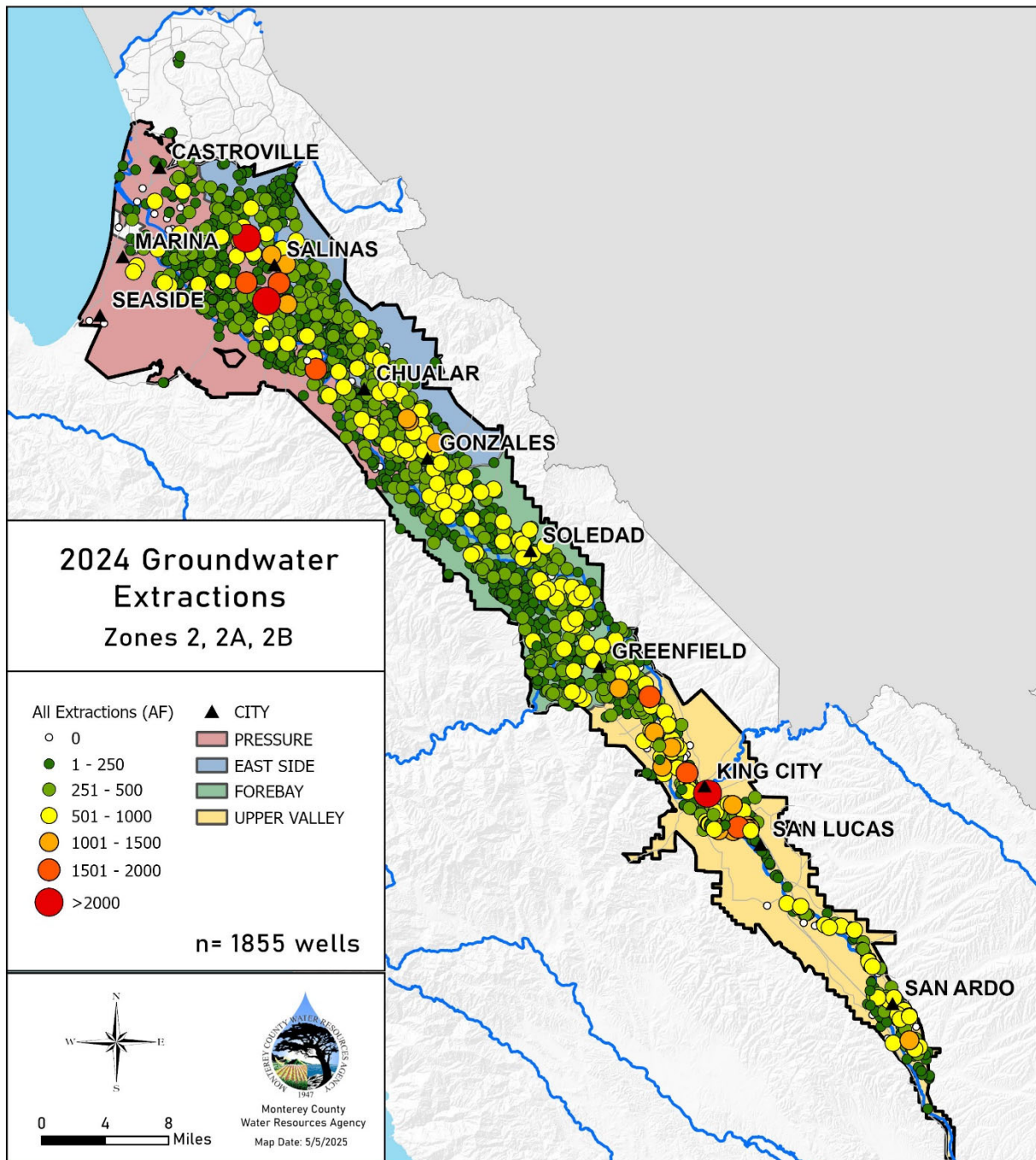


Figure 5. 2024 Groundwater Extractions (AF).

## Pressure Subarea – Extraction Data

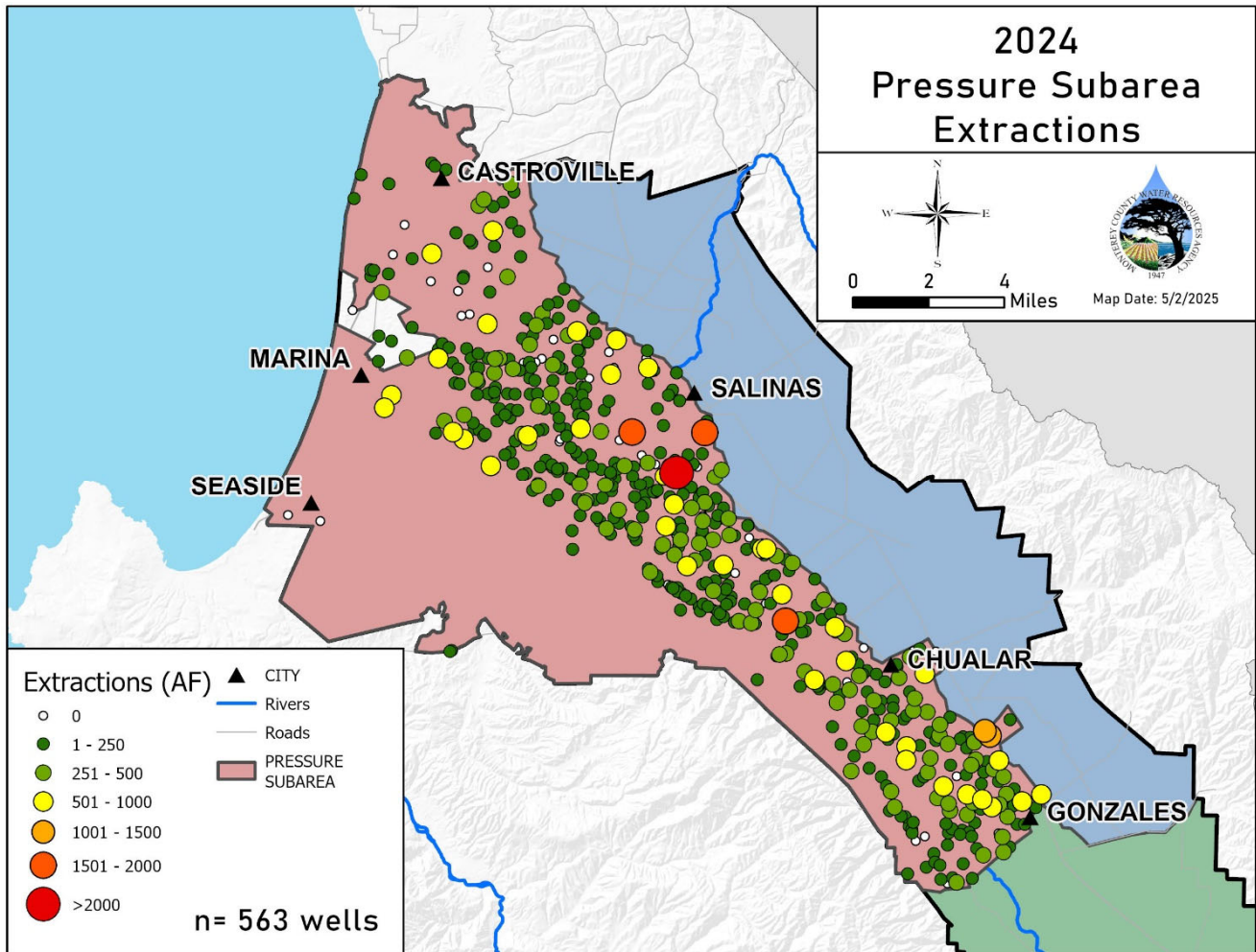


Figure 6. 2024 Groundwater Extractions in the Pressure Subarea.

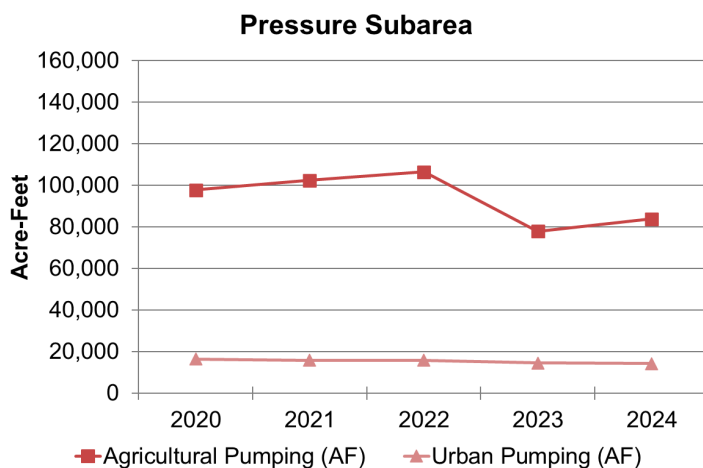


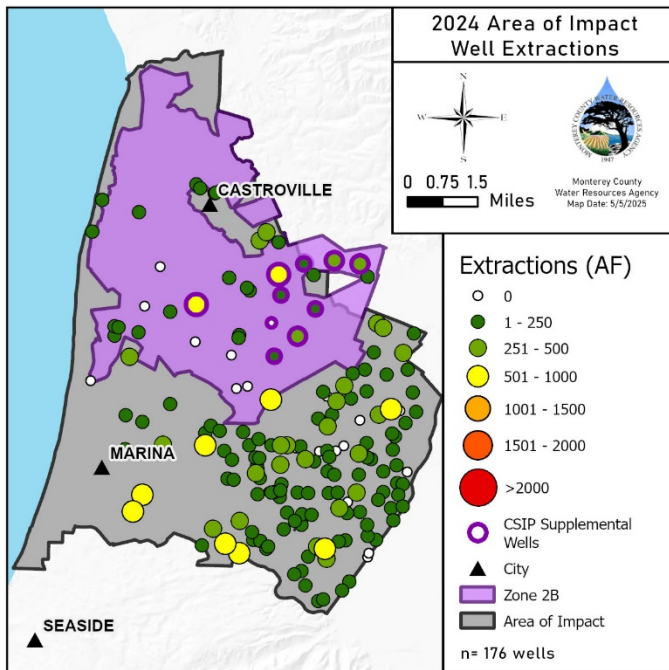
Figure 7. Agricultural and Urban Extractions (AF) in the Pressure Subarea 2020-2024.

| Year | Agricultural Pumping (AF) | Urban Pumping (AF) | Total Pumping (AF) |
|------|---------------------------|--------------------|--------------------|
| 2024 | 83,841                    | 14,260             | 98,101             |
| 2023 | 77,906                    | 14,516             | 92,422             |
| 2022 | 106,493                   | 15,847             | 122,340            |
| 2021 | 102,435                   | 15,785             | 118,220            |
| 2020 | 97,821                    | 16,452             | 114,273            |

Table 3. Total, Agricultural, and Urban Extractions (AF) in the Pressure Subarea 2020-2024.

## CSIP, Zone 2B and Area of Impact – Extraction Data

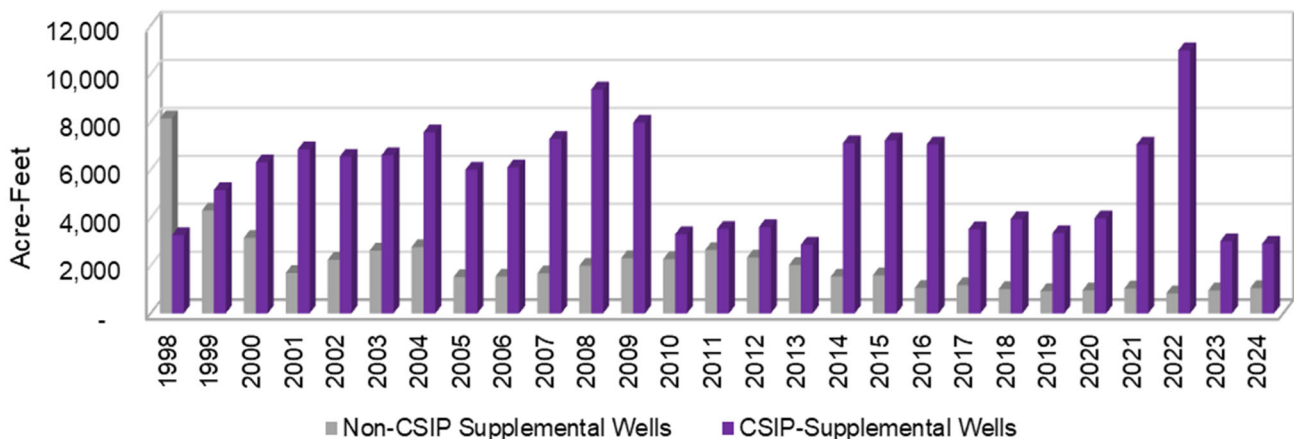
The Castroville Seawater Intrusion Project (CSIP) delivers recycled water from the Salinas Valley Reclamation Project, re-diverted stored reservoir water via the Salinas River Diversion Facility, and groundwater from ten supplemental wells to 12,000 acres of irrigated land in the Castroville area, referred to as Zone 2B, to reduce groundwater pumping near the coast. Pumping from non-CSIP supplemental wells (i.e. privately owned wells) has decreased since CSIP began operations in 1998 but is still occurring (Figure 8). Groundwater within the Area of Impact is considered vulnerable due to the presence of pathways for seawater intrusion to migrate vertically from the impaired overlying aquifers (Figure 7, Table 4). The data shown below is a subset of the Pressure Subarea extractions on the previous page.



| Aquifer                             | Agricultural Pumping (AF) | Urban Pumping (AF) | Total Pumping (AF) |
|-------------------------------------|---------------------------|--------------------|--------------------|
| 180-Ft Aquifer or East Side Shallow | 0                         | 0                  | 1,484              |
| 180 and 400-Ft Aquifer              | 869                       | 301                | 1,170              |
| 400-Ft Aquifer or East Side Deep    | 10,501                    | 0                  | 10,501             |
| Deep Aquifers                       | 8,441                     | 1,924              | 10,365             |
| Unknown                             | 2,566                     | 0                  | 2,566              |
| <b>Total (AF)</b>                   | <b>22,378</b>             | <b>2,225</b>       | <b>27,575</b>      |

**Table 4. 2024 Extraction Data in the Area of Impact by Aquifer and Type of Use**

**Figure 8. 2024 Groundwater Extractions (AF) in the Area of Impact.**



**Figure 9. Groundwater Extractions in Zone 2B from CSIP and Non-CSIP Supplemental Wells, 1998-2024**

## Deep Aquifers – Extraction Data

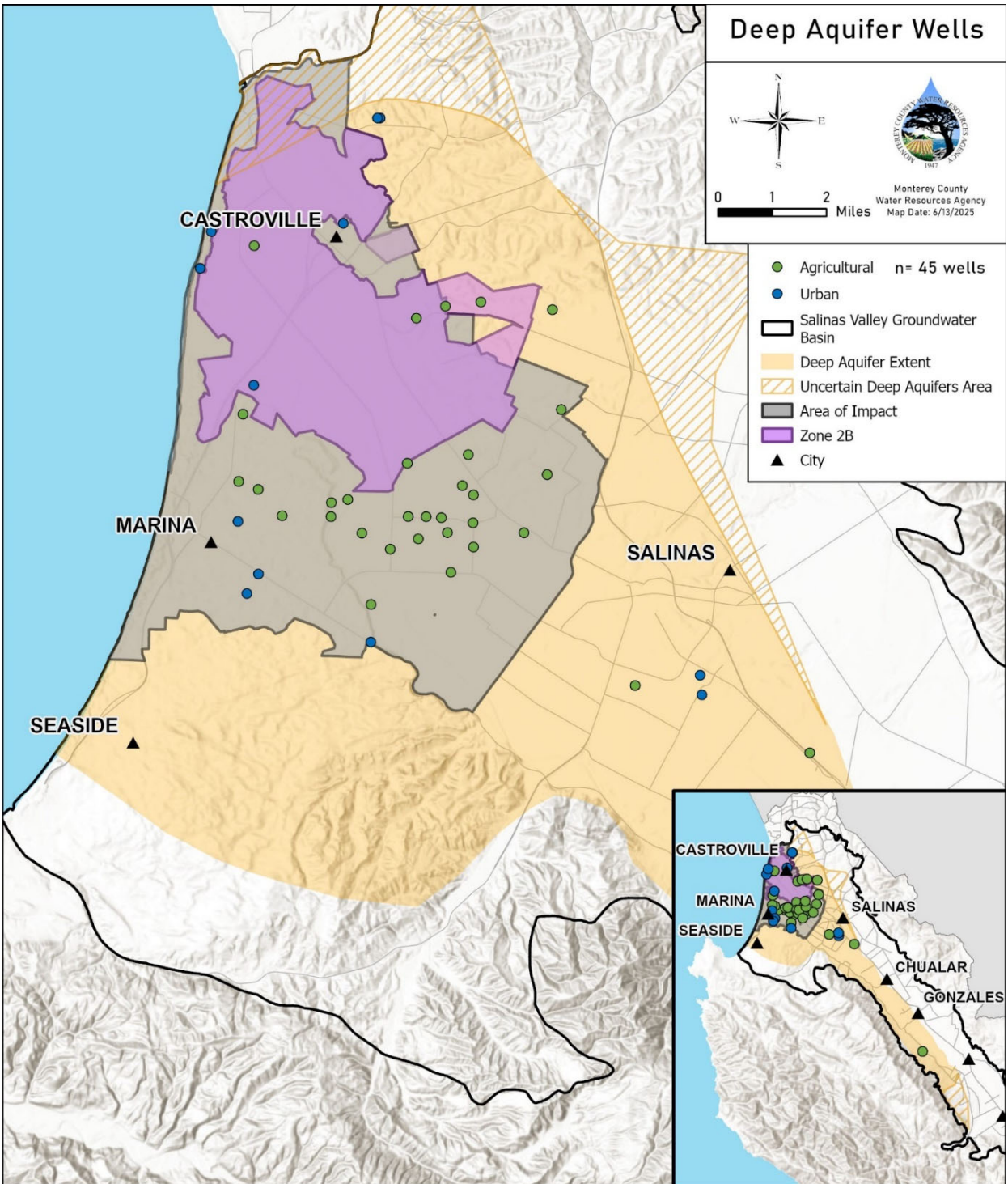


Figure 10. Deep Aquifers Wells by Type of Use

## Deep Aquifers – Extraction Data

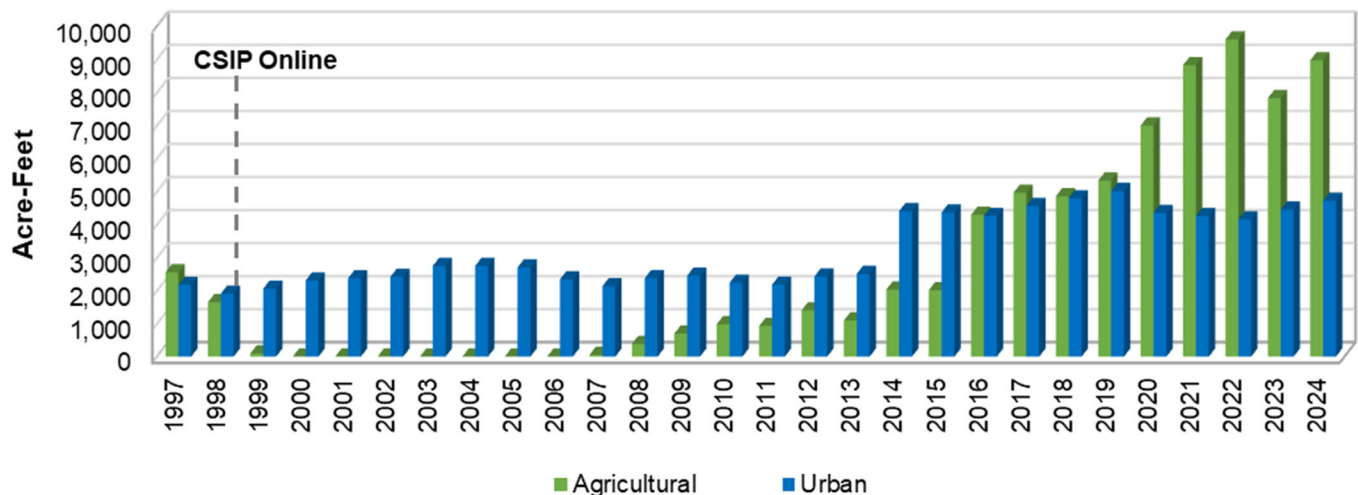
The Agency has historically categorized wells as being constructed to extract water from the Deep Aquifers based on best available data, which may include geologic descriptions from well logs, groundwater quality data, and/or groundwater level data. Following completion of the Deep Aquifers Study in 2024 by Montgomery & Associates, the Agency revised the categorization of some wells based on the newly available airborne electromagnetic (AEM) data, which changed the total number of Deep Aquifers wells reporting groundwater extraction data from 57 to 45. For the first time, the data reported in this section are derived using the same wells that were designated as Deep Aquifers wells in the Deep Aquifers Study.

| Reporting Year | Agricultural Pumping (AF) | Urban Pumping (AF) | Total Pumping (AF) |
|----------------|---------------------------|--------------------|--------------------|
| 2024           | 8,970                     | 4,718              | 13,688             |
| 2023           | 7,826                     | 4,453              | 12,279             |
| 2022           | 9,599                     | 4,154              | 13,753             |
| 2021           | 8,820                     | 4,258              | 13,078             |
| 2020           | 6,996                     | 4,348              | 11,344             |
| 2019           | 5,331                     | 5,016              | 10,347             |
| 2018           | 4,855                     | 4,790              | 9,645              |
| 2017           | 4,958                     | 4,558              | 9,516              |
| 2016           | 4,293                     | 4,259              | 8,552              |
| 2015           | 2,010                     | 4,363              | 6,373              |
| 2014           | 2,031                     | 4,404              | 6,435              |
| 2013           | 1,097                     | 2,505              | 3,602              |
| 2012           | 1,397                     | 2,424              | 3,821              |
| 2011           | 927                       | 2,173              | 3,100              |
| 2010           | 982                       | 2,236              | 3,218              |
| 2009           | 696                       | 2,450              | 3,146              |

Historical totals of groundwater extraction listed in Table 5 and on Figure 11 prior to 2024 have not been recalculated using the revised set of wells.

The amount of water extracted from the Deep Aquifers has increased in recent years (Table 5). The potential for inducing leakage from the overlying impaired aquifers is a serious concern as groundwater extractions from the Deep Aquifers continue to increase. The Deep Aquifers Study also noted that decreased groundwater elevations in the Deep Aquifers may depressurize clay units that could result in subsidence.

**Table 5. Deep Aquifers Groundwater Extractions by Type of Use, 1993-2024**



**Figure 11. Deep Aquifers Groundwater Extractions by Type of Use, 1997-2024**

## East Side Subarea – Extraction Data

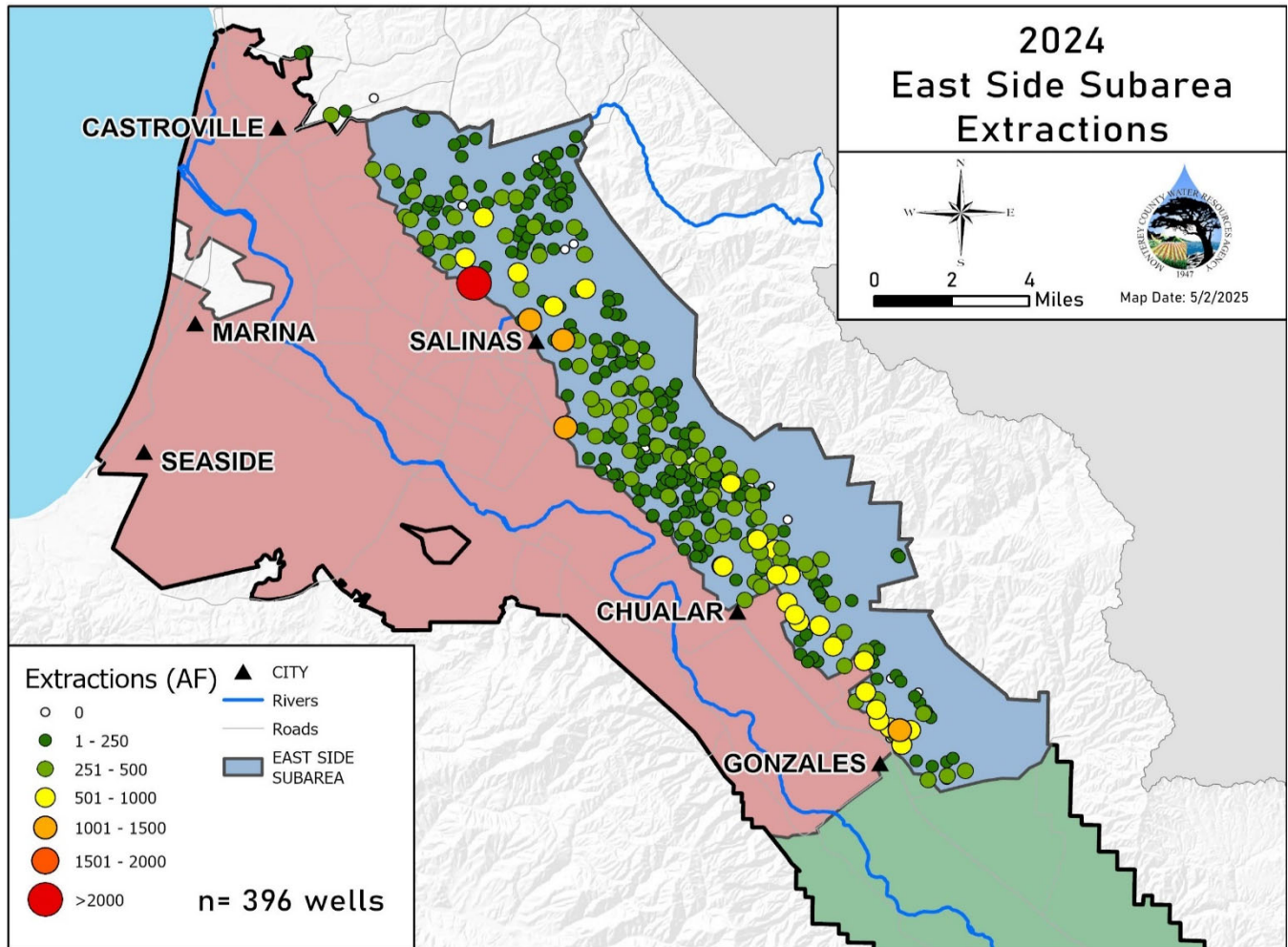


Figure 12. 2024 Groundwater Extractions in the East Side Subarea.

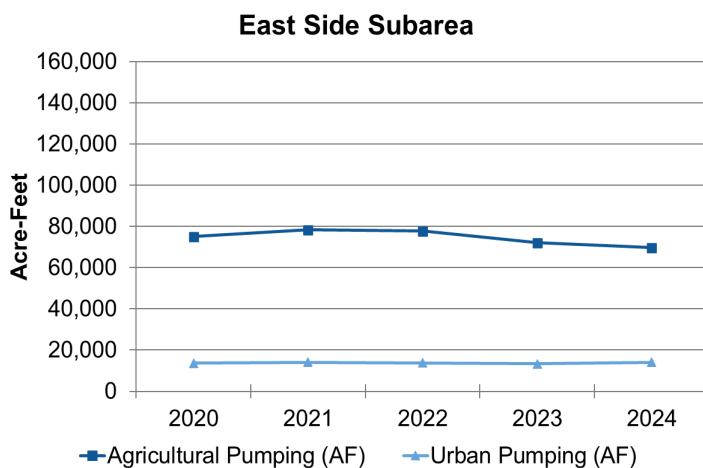


Figure 13. Agricultural and Urban Extractions (AF) in the East Side Subarea 2020-2024.

| Year | Agricultural Pumping (AF) | Urban Pumping (AF) | Total Pumping (AF) |
|------|---------------------------|--------------------|--------------------|
| 2024 | 69,683                    | 14,043             | 83,726             |
| 2023 | 72,157                    | 13,286             | 85,443             |
| 2022 | 77,731                    | 13,840             | 91,571             |
| 2021 | 78,283                    | 14,136             | 92,419             |
| 2020 | 75,125                    | 13,617             | 88,742             |

Table 6. Total, Agricultural, and Urban Extractions (AF) in the East Side Subarea 2020-2024.

## Forebay Subarea – Extraction Data

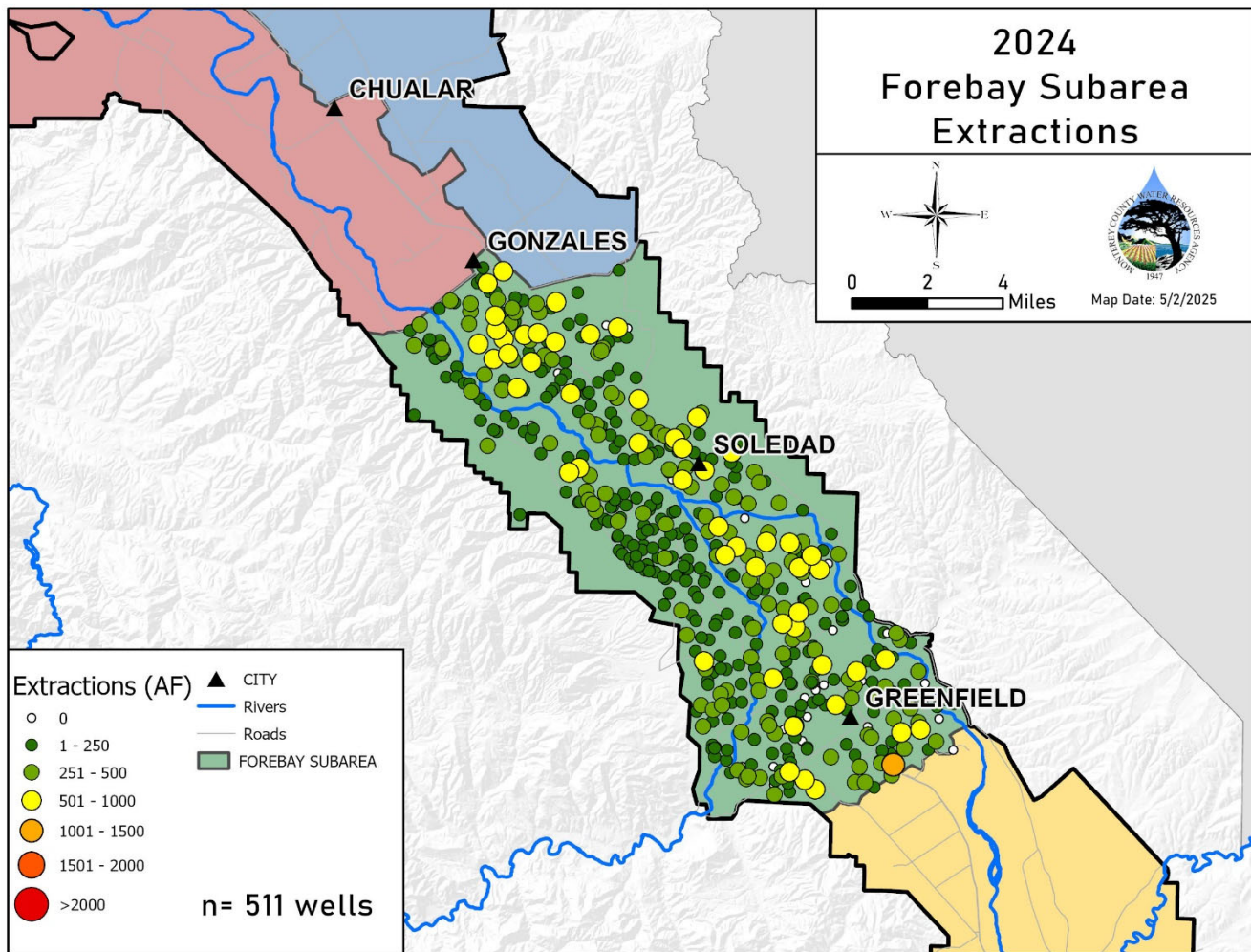


Figure 14. 2024 Groundwater Extractions in the Forebay Subarea.

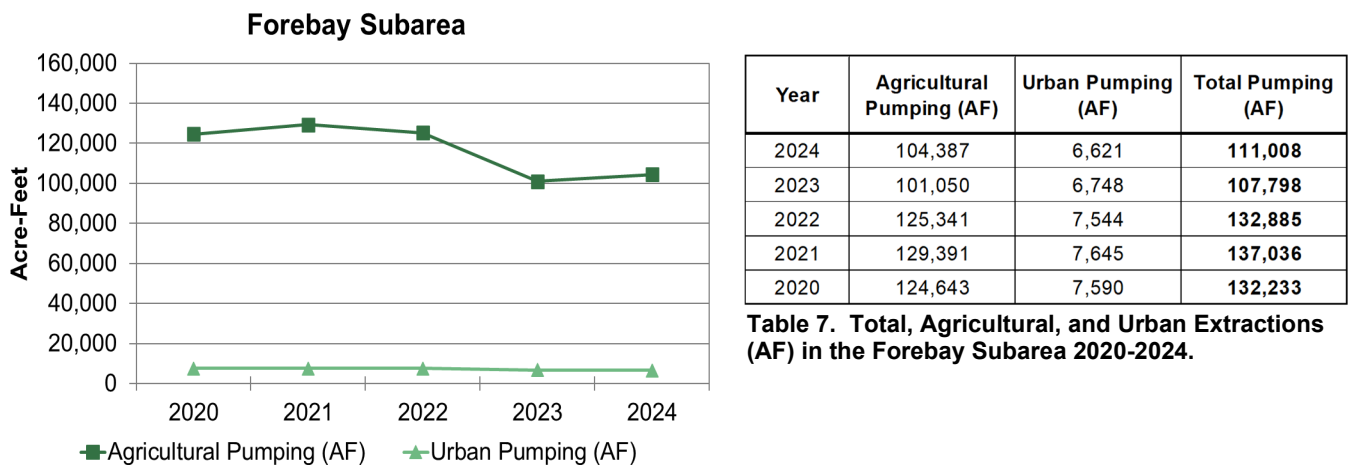
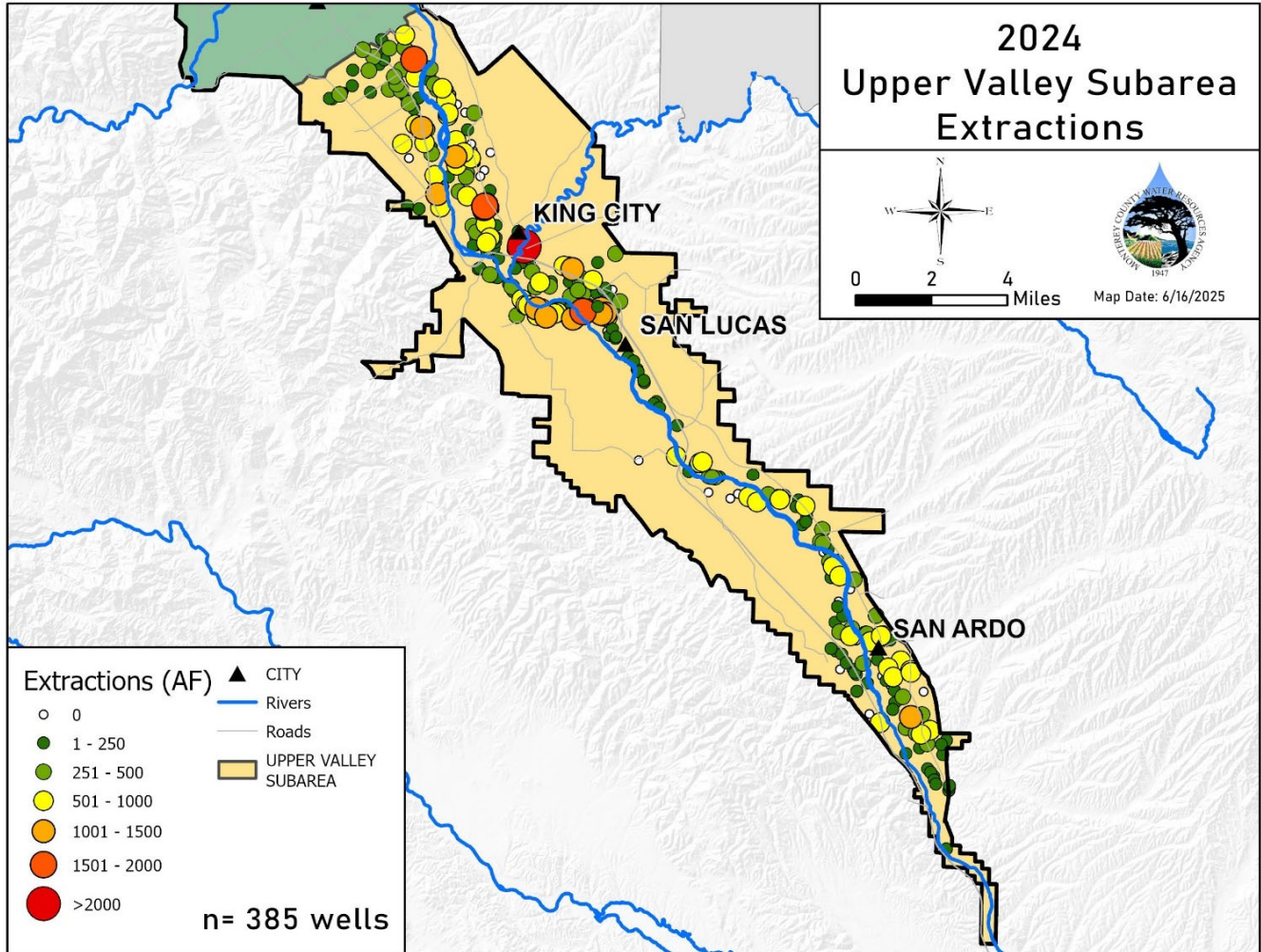


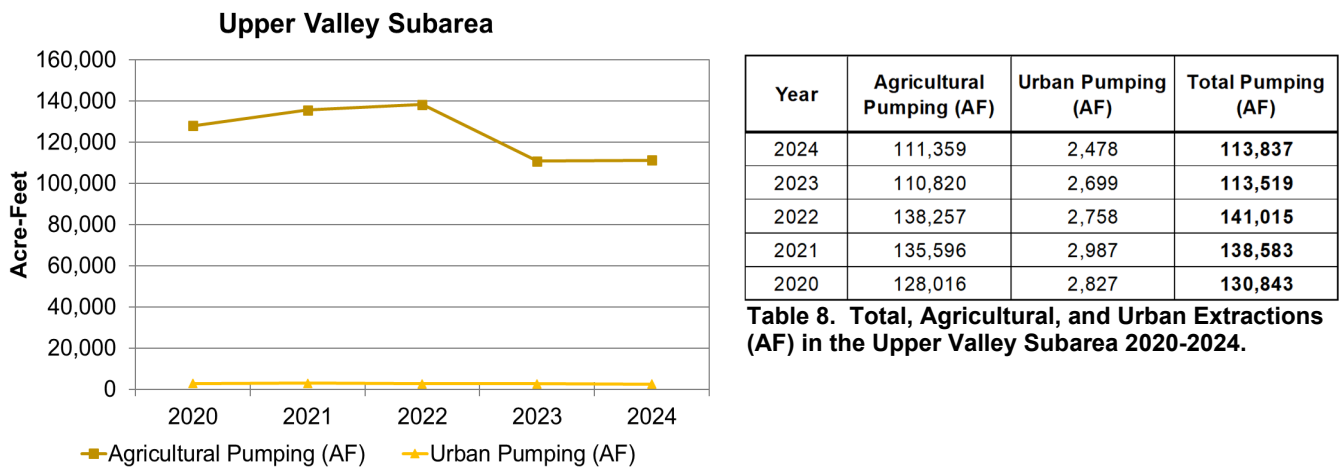
Table 7. Total, Agricultural, and Urban Extractions (AF) in the Forebay Subarea 2020-2024.

Figure 15. Agricultural and Urban Extractions (AF) in the Forebay Subarea 2020-2024.

## Upper Valley Subarea – Extraction Data



**Figure 16. 2024 Groundwater Extractions in the Upper Valley Subarea**



**Figure 17. Agricultural and Urban Extractions (AF) in the Upper Valley Subarea 2020-2024**

## Agricultural Water Conservation – Data Summary

In 1995, the Monterey County Water Resources Agency Board of Supervisors adopted Ordinance No. 3851 requiring the filing of Agricultural Water Conservation Plans. Ordinance No. 3851 was amended in 1999, resulting in Ordinance No. 4014. The Agricultural Water Conservation Plans include information on net irrigated acreage, irrigation methods, and crop type. This information is forecasted and indicates what the grower plans to do in the upcoming year. Figure 18 and Table 9 present a breakdown of irrigation methods by crop type. Figure 19 shows the change in irrigation methods over the length of the GEMS program and Figure 20 shows the top ten Best Management Practices (BMPs) to be implemented in 2025.

### Irrigation Methods for 2025

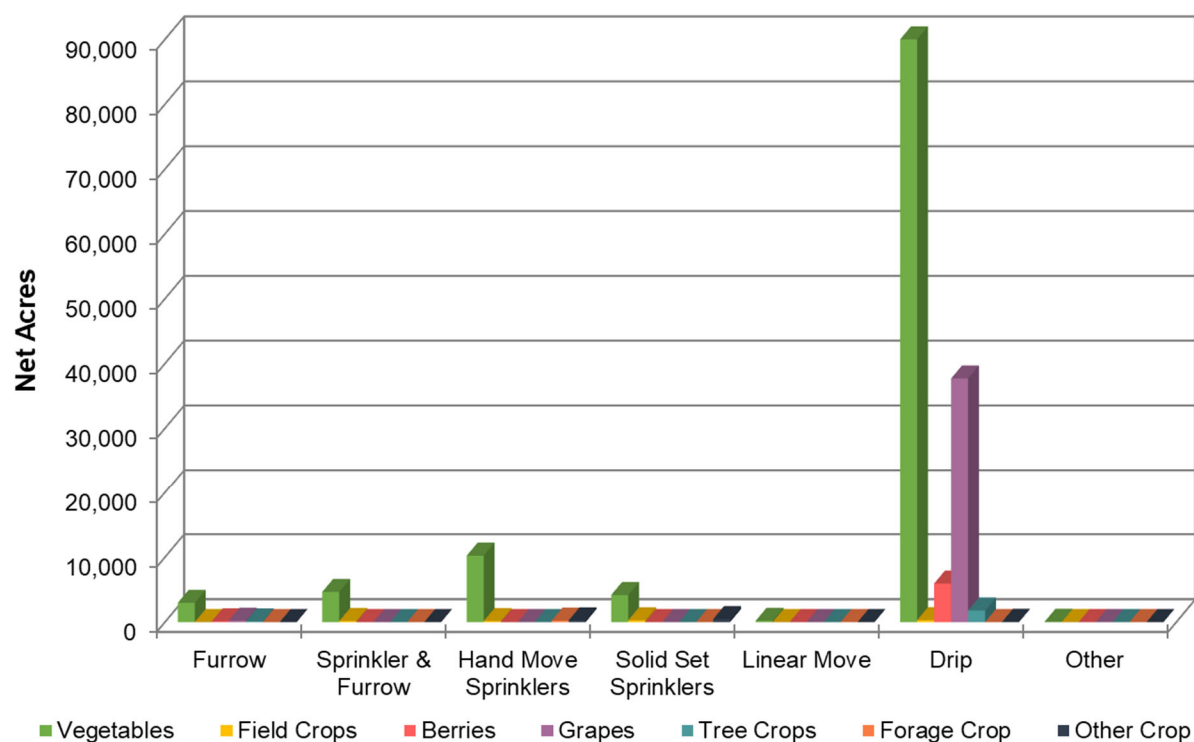


Figure 18. 2025 Forecasted Net Acre Distribution of Irrigation Methods by Crop Type.

| 2025         | Furrow       | Sprinkler & Furrow | Hand Move Sprinklers | Solid Set Sprinklers | Linear Move | Drip           | Other        | Total          |
|--------------|--------------|--------------------|----------------------|----------------------|-------------|----------------|--------------|----------------|
| Vegetables   | 2,959        | 4,636              | 10,223               | 4,161                | 194         | 103,405        | 50           | 125,628        |
| Field Crops  | 0            | 160                | 148                  | 271                  | 0           | 289            | 0            | 868            |
| Berries      | 116          | 0                  | 0                    | 0                    | 0           | 5,929          | 0            | 6,045          |
| Grapes       | 200          | 0                  | 0                    | 0                    | 0           | 37,688         | 0            | 37,888         |
| Tree Crops   | 105          | 0                  | 0                    | 0                    | 0           | 1,771          | 0            | 1,876          |
| Forage Crop  | 0            | 0                  | 223                  | 0                    | 15          | 0              | 0            | 238            |
| Other Crop   | 0            | 0                  | 268                  | 455                  | 0           | 38             | 0            | 761            |
| Unirrigated  | 0            | 0                  | 0                    | 0                    | 0           | 0              | 1,251        | 1,251          |
| <b>Total</b> | <b>3,380</b> | <b>4,796</b>       | <b>10,862</b>        | <b>4,887</b>         | <b>209</b>  | <b>149,120</b> | <b>1,301</b> | <b>174,555</b> |

Table 9. Net Acres by Irrigation Method and Crop Type.

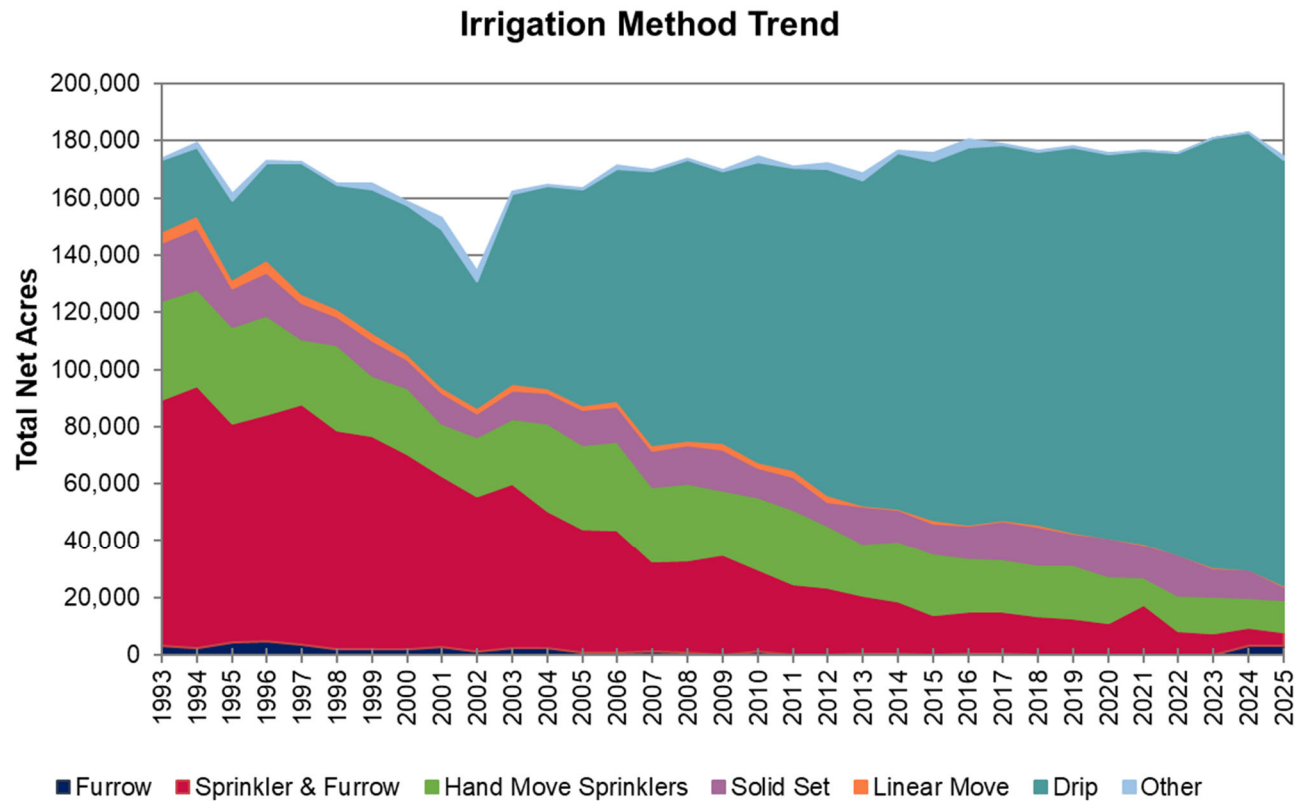


Figure 19. Changes in Irrigation Methods Used Over Time (1993 – 2025) in Zones 2, 2A, and 2B.



Figure 20. Top Ten BMPs Forecasted for 2025 Based on Reported Net Acres.

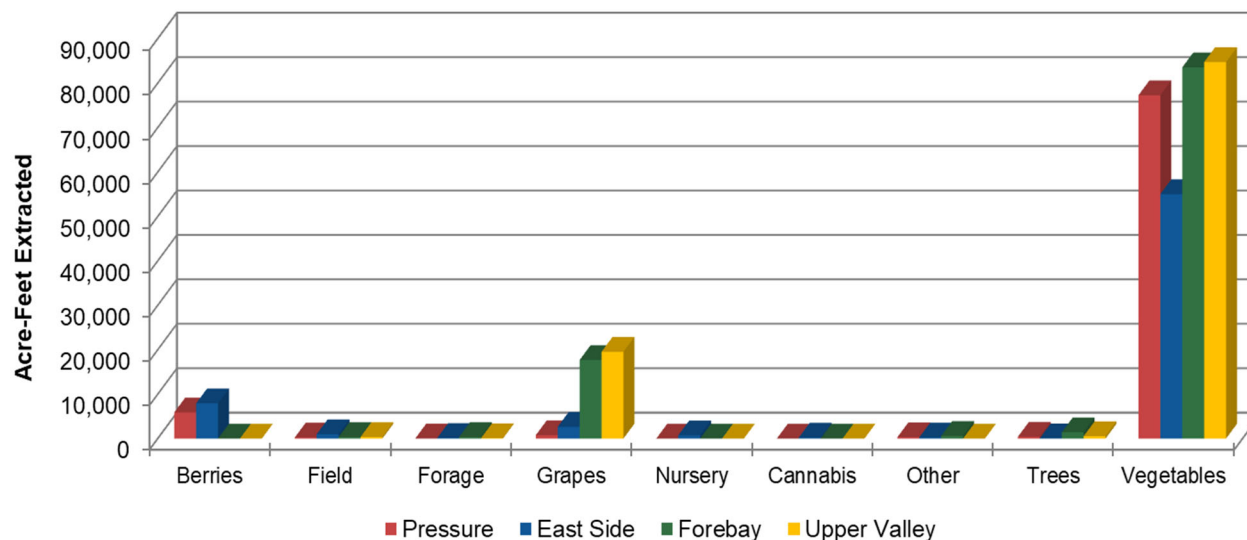
## Water and Land Use Form – Data Summary

The following three figures show the agricultural water extracted (Figure 21), irrigated net acres (Figure 22), and amount of water used per acre (Figure 23) by hydrologic subarea and crop type based on data submitted on the Water and Land Use forms. The data account for all crop types reported and all reporting methods: water flowmeter, electrical meter, and hour meter.

Changing weather patterns, variable soil types, and crop types affect the amount of water needed for efficient irrigation. Even during a normal rain year, pumping rates will vary from one subarea to another, and crop types will vary depending on economic demand.

Examples of crop type categorizations include strawberries and raspberries under Berries; beans and grains under Field Crops; alfalfa and pasture under Forage Crops; avocados and lemons under Tree Crops; and sod, flower bulbs, ornamentals, and cactus pears under Other Crops.

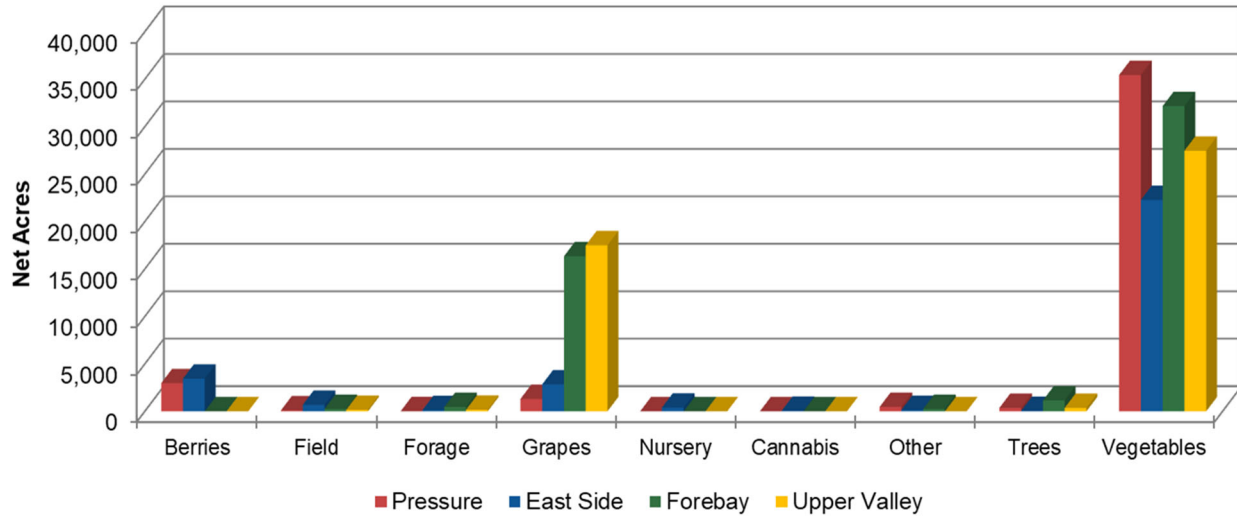
**2024 Total Extractions by Subarea and Crop Type**



| 2024         | Berries | Field | Forage | Grapes | Nursery | Cannabis | Other | Trees | Vegetables |
|--------------|---------|-------|--------|--------|---------|----------|-------|-------|------------|
| Pressure     | 5,868   | 234   | 12.3   | 755    | -       | -        | 292   | 396   | 77,246     |
| East Side    | 7,924   | 975   | 117    | 2,631  | 729     | 198      | 243   | 45.0  | 54,999     |
| Forebay      | -       | 347   | 356    | 17,674 | -       | -        | 596   | 1,393 | 83,520     |
| Upper Valley | -       | 335   | 79.5   | 19,524 | -       | -        | -     | 524   | 84,728     |

**Figure 21. 2024 Extractions in Acre-Feet Reported by Crop Type and Subarea.**

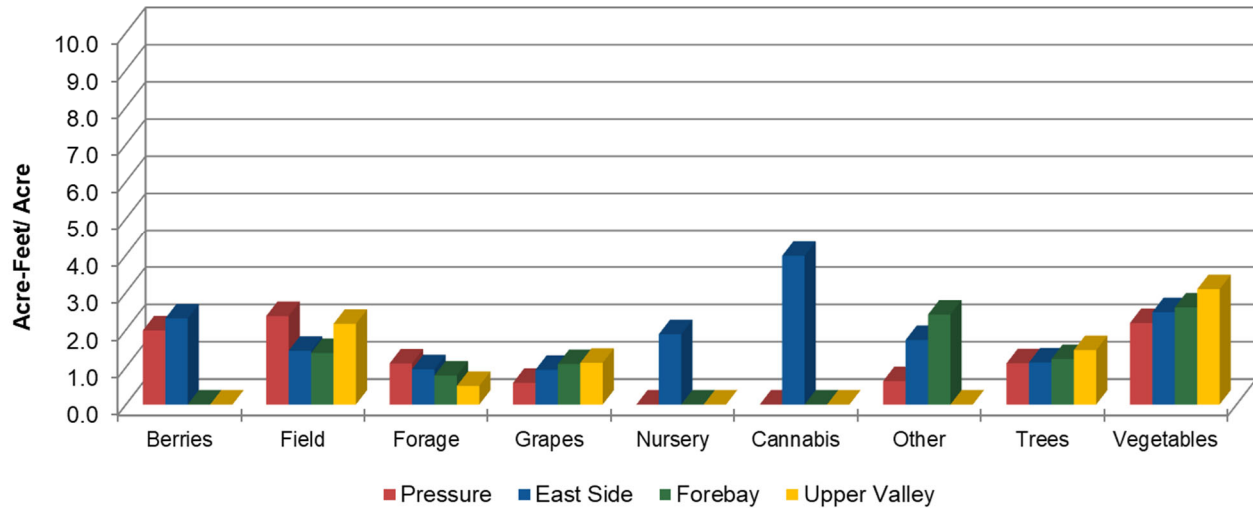
### 2024 Total Irrigated Net Acres by Subarea and Crop Type



| 2024         | Berries | Field | Forage | Grapes | Nursery | Cannabis | Other | Trees | Vegetables |
|--------------|---------|-------|--------|--------|---------|----------|-------|-------|------------|
| Pressure     | 2,961   | 98.8  | 11.2   | 1,301  | -       | -        | 466   | 359   | 35,437     |
| East Side    | 3,441   | 678   | 124    | 2,837  | 388     | 49.6     | 141   | 40.0  | 22,268     |
| Forebay      | -       | 252   | 460    | 16,333 | -       | -        | 248   | 1,145 | 32,157     |
| Upper Valley | -       | 155   | 160    | 17,496 | -       | -        | -     | 360   | 27,456     |

Figure 22. 2024 Irrigated Net Acres Reported by Crop Type and Subarea.

### 2024 Average Water Usage (Acre-Feet/Acre) by Subarea and Crop Type



| 2024         | Berries | Field | Forage | Grapes | Nursery | Cannabis | Other | Trees | Vegetables |
|--------------|---------|-------|--------|--------|---------|----------|-------|-------|------------|
| Pressure     | 2.0     | 2.4   | 1.1    | 0.6    | -       | -        | 0.6   | 1.1   | 2.2        |
| East Side    | 2.3     | 1.4   | 0.9    | 0.9    | 1.9     | 4.0      | 1.7   | 1.1   | 2.5        |
| Forebay      | -       | 1.4   | 0.8    | 1.1    | -       | -        | 2.4   | 1.2   | 2.6        |
| Upper Valley | -       | 2.2   | 0.5    | 1.1    | -       | -        | -     | 1.5   | 3.1        |

Figure 23. 2024 Average Water Use in Acre-Feet/Acre Reported by Crop Type and Subarea.

## Urban Water Conservation – Data Summary

In 1996, the Monterey County Water Resources Agency Board of Supervisors adopted Ordinance No. 3886 requiring that all cities and urban water purveyors within Zones 2, 2A, or 2B file plans showing the water conservation measures that were implemented during the prior year and which are planned for implementation in the coming year. Since 1996, the Agency has collected data on Urban Water Conservation Plans. Tables 10 and 11 show the top ten Best Management Practices (BMPs) for 2025 as a percentage of total acreage reported for “large” water systems (200 or more customer connections), and “small” water systems (between 15 and 199 customer connections). The reported water use per connection for different connection classes are summarized for small (Table 12, Figure 24) and large water systems (Table 13, Figure 25).

| <b>Top Ten BMPs Implemented for Large Water Systems</b>                                                                                                                                          | <b>2025</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Advise customers when it appears possible that leaks exist on customer's side of water meter                                                                                                     | 100%        |
| Implement requirements that all new connections be metered and billed by volume of use                                                                                                           | 100%        |
| Perform distribution system leak detection and repair whenever the audit reveals that it would be cost-effective                                                                                 | 99%         |
| Complete an audit of water distribution system at least every three years as prescribed by American Water Works Association                                                                      | 99%         |
| Provide conservation information in bill inserts                                                                                                                                                 | 99%         |
| Review proposed water uses for new commercial and industrial water service, and make recommendations for improving efficiency before completion of building permit process                       | 99%         |
| Provide individual historical water use information on water bills                                                                                                                               | 98%         |
| Establish a program to retrofit any existing unmetered connections and bill by volume of use                                                                                                     | 97%         |
| Enact and enforce measure prohibiting water waste as specified in Monterey County Water Resources Agency Ordinance No. 3932 or as subsequently amended, and encourage the efficient use of water | 96%         |
| Enforcement and support of water conserving plumbing fixture standards, including gradual requirement for High Efficiency Toilets (HET) in all new construction                                  | 96%         |

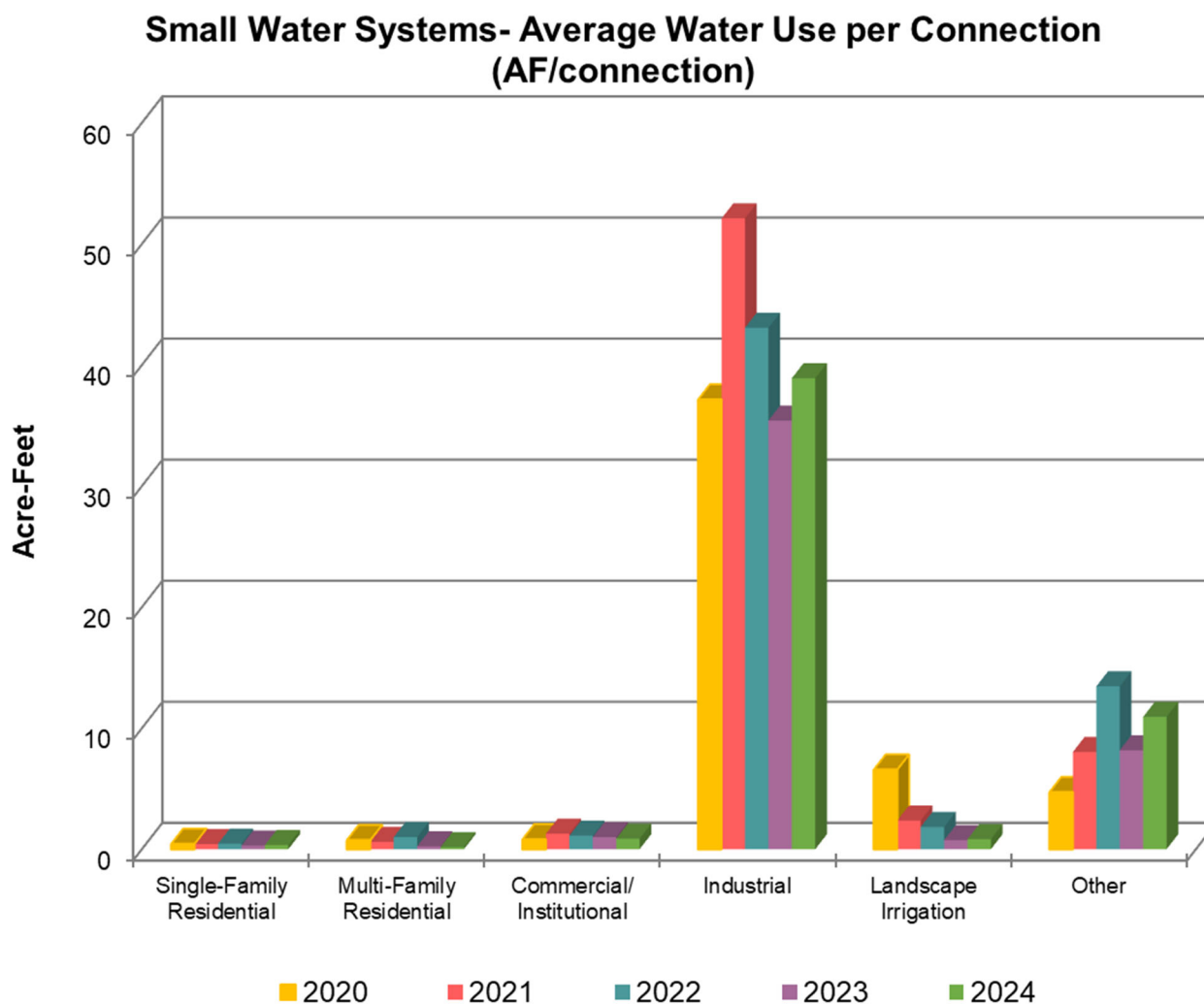
**Table 10. Top Ten BMPs – Large Water Systems.**

| <b>Top Ten BMPs Implemented for Small Water Systems</b>                                                                                                   | <b>2025</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Advise customers when it appears possible that leaks exist on customer's side of water meter                                                              | 92%         |
| Implement requirements that all new connections be metered and billed by volume of use                                                                    | 91%         |
| Provide individual historical water use information on water bills                                                                                        | 58%         |
| Establish a program to retrofit any existing unmetered connections and bill by volume of use                                                              | 58%         |
| Perform distribution system leak detection and repair whenever the audit reveals that it would be cost-effective                                          | 57%         |
| Support of legislation prohibiting sale of toilets using more than 1.6 gpf                                                                                | 57%         |
| Encourage and promote the elimination of non-conserving pricing and adoption of conservation pricing policies                                             | 56%         |
| Implementation of conservation pricing policy                                                                                                             | 56%         |
| Designate a water conservation coordinator responsible for preparing the water conservation plan, managing its implementation, and evaluating its results | 55%         |
| Encourage local nurseries to promote use of low water use plants                                                                                          | 54%         |

**Table 11. Top Ten BMPs – Small Water Systems.**

| <b>Small Water Systems:<br/>Water Use (AF) Per Connection Class</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Single-Family Residential                                           | 0.429       | 0.423       | 0.454       | 0.300       | 0.342       |
| Multi-Family Residential                                            | 0.738       | 0.600       | 0.998       | 0.234       | 0.166       |
| Commercial/ Institutional                                           | 0.806       | 1.276       | 1.115       | 0.996       | 0.872       |
| Industrial                                                          | 37.142      | 52.108      | 43.073      | 35.402      | 38.906      |
| Landscape Irrigation                                                | 6.565       | 2.369       | 1.832       | 0.741       | 0.825       |
| Other                                                               | 4.702       | 8.035       | 13.451      | 8.166       | 10.934      |

**Table 12. Water Use per Connection – Small Water Systems (2020-2024).**



**Figure 24. Urban Water Use per Connection – For Small Water Systems**

| <b>Large Water Systems:<br/>Water Use (AF) Per Connection Class</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Single-Family Residential                                           | 0.273       | 0.282       | 0.281       | 0.262       | 0.257       |
| Multi-Family Residential                                            | 1.032       | 0.836       | 0.873       | 0.815       | 0.739       |
| Commercial/ Institutional                                           | 1.414       | 1.380       | 1.316       | 1.763       | 1.406       |
| Industrial                                                          | 20.480      | 20.227      | 20.472      | 10.501      | 13.487      |
| Landscape Irrigation                                                | 2.318       | 2.433       | 2.245       | 1.926       | 2.066       |
| Agricultural Irrigation                                             | 124.190     | 161.299     | 47.313      | 26.659      | 31.679      |
| Other                                                               | 2.191       | 2.176       | 2.553       | 2.021       | 4.816       |

Table 13. Water Use per Connection – Large Water Systems (2020-2024).

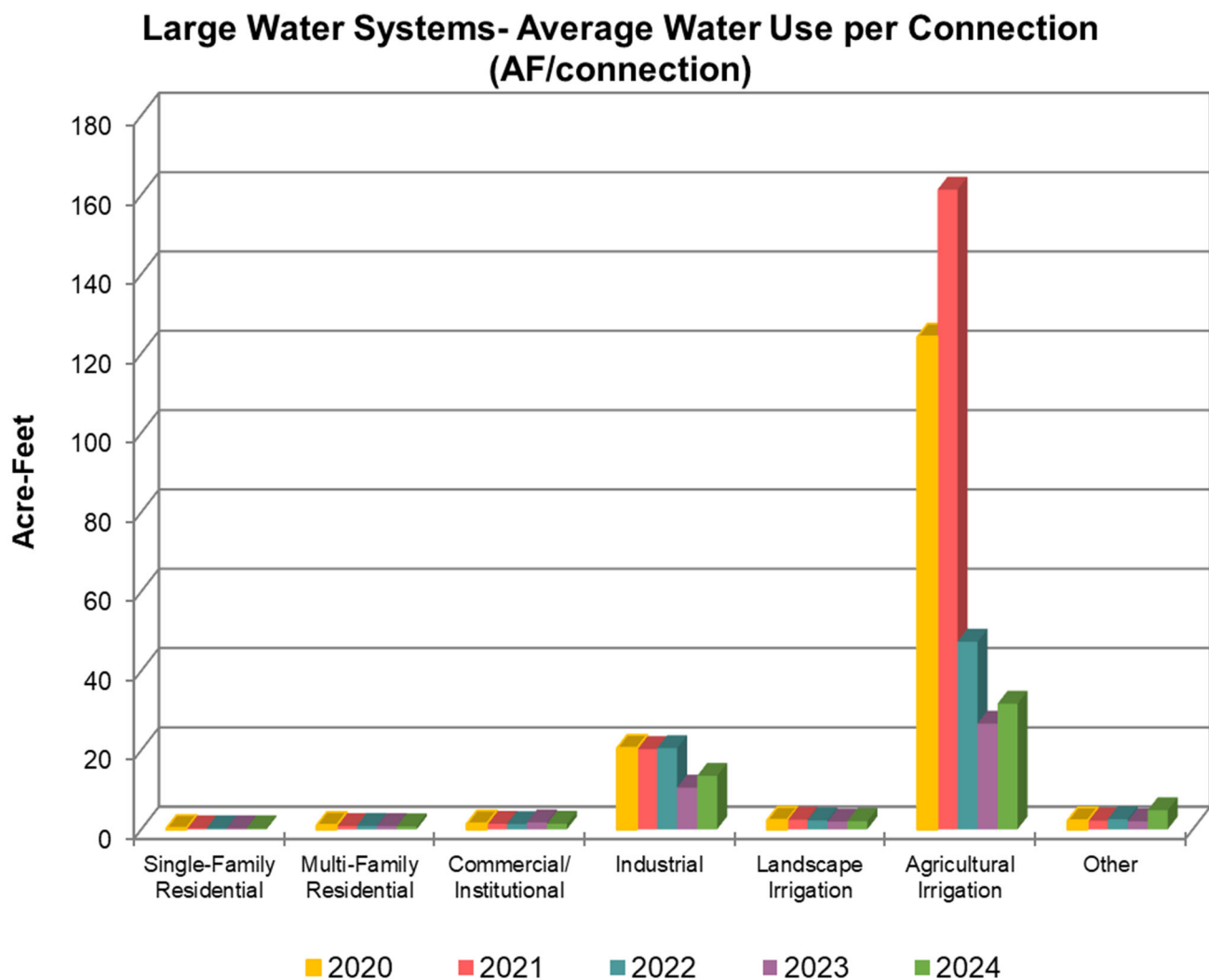


Figure 25. Urban Water Use per Connection – For Large Water Systems

**Monterey County Water Resources Agency  
Board of Supervisors**

|                              |             |
|------------------------------|-------------|
| Luis Alejo                   | District #1 |
| Glenn Church                 | District #2 |
| Chris Lopez, Chair           | District #3 |
| Wendy Root Askew, Vice Chair | District #4 |
| Kate Daniels                 | District #5 |

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Board of Directors**

|                        |                                 |
|------------------------|---------------------------------|
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| Mike Scattini          | District #2                     |
| Jon Conatser           | District #3                     |
| Deidre Sullivan        | District #4                     |
| Ken Ekelund            | District #5                     |
| Matt Simis, Vice Chair | Grower-Shipper Association      |
| Jason Smith            | Monterey County Farm Bureau     |
| John Baillie           | Agricultural Advisory Committee |
| Mike LeBarre, Chair    | City Select Committee           |

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Shaunna Murray, Deputy General Manager

**Groundwater Extraction Summary Report Team**

Amy Woodrow, Senior Water Resources Hydrologist  
Ricardo Carmona, Water Resources Hydrologist  
Guillermo Diaz-Moreno, Water Resources Hydrologist  
Riley Clark, Water Resources Technician

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