Resolution 2025-08

A Resolution of the Board of Directors of the
Pajaro Valley Water Management Agency

Amending the Delivered Water Users Handbook

WHEREAS, in 1984, the State Legislature formed the Pajaro Valley Water Management Agency ("Agency") for the purpose, among others, of reducing long-term groundwater overdraft and seawater intrusion in the Pajaro Valley Groundwater Basin ("Pajaro Basin"), and to provide integrated management of the ground and surface water resources within the Pajaro Basin; and

WHEREAS, in 1994, the Agency adopted a long-term Basin Management Plan ("BMP"), which identified various water supply projects involving local water sources and importation of supplemental water to balance water demands with water supplies in the Pajaro Basin; and

WHEREAS, the Agency's first water supply project, the Harkins Slough Managed Aquifer Recharge & Recovery Facility became operational in 2002, and other facilities including supplemental water wells, a conveyance pipeline, and the Watsonville Area Water Recycling Facility (2009) followed; and

WHEREAS, the Agency's Board of Directors adopted Ordinance 2008-02 Establishing Rules and Regulations for Recycled Water Customers in Conformance with Title 22 of The California Code of Regulations; and

WHEREAS, the Rules and Regulations for Recycled Water Customers are designed to ensure that PV Water's recycled water system is operated in accordance with State laws and guidelines, as well as the adopted policies and procedures of PV Water's Board of Directors; and

WHEREAS, the Agency published a Delivered Water Users Handbook in 2002 and updated it several times, including a major revision in 2009 to accompany the Rules and Regulations for Recycled Water Customers; and

WHEREAS, the Delivered Water Users Handbook serves as a guide for delivered water customers and PV Water staff, to understand the Delivered Water Program and its requirements; and

WHEREAS, the Agency's Projects & Facility Operations Committee held three Delivered Water Workshops on October 30, 2024, November 19, 2024, and May 20, 2025, to:

- Gain input from Customers on managing the delivered water system to maximize equity and effectiveness to meet State mandates and water demand pressures
- Educate Customers on operational and delivery challenges to meet the stated objectives and proactively manage expectations
- Resolve demand and supply challenges collectively to meet the business and groundwater sustainability goals of Customers and PV Water
- Build trust among Customers and PV Water staff by operating transparently and in agreement on the terms of water delivery engagement
- Solicit suggestions from Customers to meet their planning expectations

- Update the Water Users Handbook to reflect improved delivery practices; and

WHEREAS, the Projects & Facility Operations Committee, during its June 25, 2025, meeting, voted in favor of recommending the Board of Directors approve the amended Delivered Water Users Handbook.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Pajaro Valley Water Management Agency hereby:

1. Amends the Delivered Water Users Handbook – 2025 Update, as incorporated herein; and

2. Directs the Projects & Facilities Operations Committee to review the Delivered Water Users Handbook annually, or more frequently as desired.

PASSED AND ADOPTED by the Pajaro Valley Water Management Agency, County of Santa Cruz, State of California, on the **16th** day of **July 2025,** by the following vote:

AYES: Rider, Culbertson, Newell, Broz, Hernandez, Miller
NOES: None
ABSENT: Bannister
ABSTAIN: None

Stephen Rider, Chair

Attest:

Asia Valdiva, Board Secretary

DELIVERED WATER USERS HANDBOOK

Agricultural Water Delivery through the Coastal Distribution System

2025 Update

Adopted July 16, 2025

Pajaro Valley Water Management Agency

40 YEARS SINCE 1984

Important Emergency Information

For **distribution system emergencies**, the Water System Operator can be reached by telephone at (831) 750-6265 seven days a week twenty-four hours a day (24/7).

For **cross-connection emergencies**, in addition to first calling the Water System Operator, contact the California Department of Public Health (CDPH) District Engineer at (831) 655-6939. If during off hours, contact the California Office of Emergency Services–Warning Center (ask for CDPH Duty Officer-Drinking Water Program) at (800) 852-7550, available 24/7. See Appendix A for Emergency Procedures.

Emergency Contacts

Organization	Name	Contact Numbers / Addresses
PV Water	**Water System Operator** *Available 24/7*	(831) 750-6265 36 Brennan Street Watsonville, CA 95076
California Department of Public Health (CDPH)	**District Engineer (DE)** If the DE is unavailable, call the CalOES Warning Center's 24/7 phone number (see next row)	**CDPH Office** (831) 655-6939 District Engineer Department of Public Health Drinking Water Field Operations Branch 1 Lower Ragsdale, Bldg. 1, Suite 120 Monterey, CA 93940
California Office of Emergency Services (CalOES)	CalOES Warning Center (Ask for CDPH Duty Officer-Drinking Water Program) *Available 24/7*	(800) 852-7550 (916) 845-8911
Police, Fire, HAZMAT	Call directly	911 Santa Cruz County Sherriff (831) 471-1121 Monterey County Sherriff (831) 755-3733

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Delivered Water Users Handbook

Executive Summary

The **Delivered Water Program** is exemplary of how Pajaro Valley Water Management Agency (PV Water) activates its mission, as defined in the Strategic Plan:

> *"PV Water's mission is to achieve sustainable groundwater resources in the Pajaro Valley for our vibrant agricultural, commercial, industrial, and residential communities for today and future generations."*

Through the Delivered Water Program, customers use supplemental water (any combination of recycled water, surface water and/or groundwater) for agricultural purposes, reducing their reliance on groundwater for irrigation. Reduced reliance on groundwater supports local efforts to comply with the Sustainable Groundwater Management Act by *reducing the rate of seawater intruding into freshwater aquifers* and *reducing groundwater overdraft*.

The **Delivered Water Users Handbook** is a guide for customers, and PV Water staff, to understand the Program and its requirements. Delivered Water is subject to regulation by the State of California because it includes recycled water as a source. Therefore, it is important that customers understand and abide by the Handbook, as it explains state mandated rules and regulations with which our customers are obligated to comply; they are included as Appendix B.

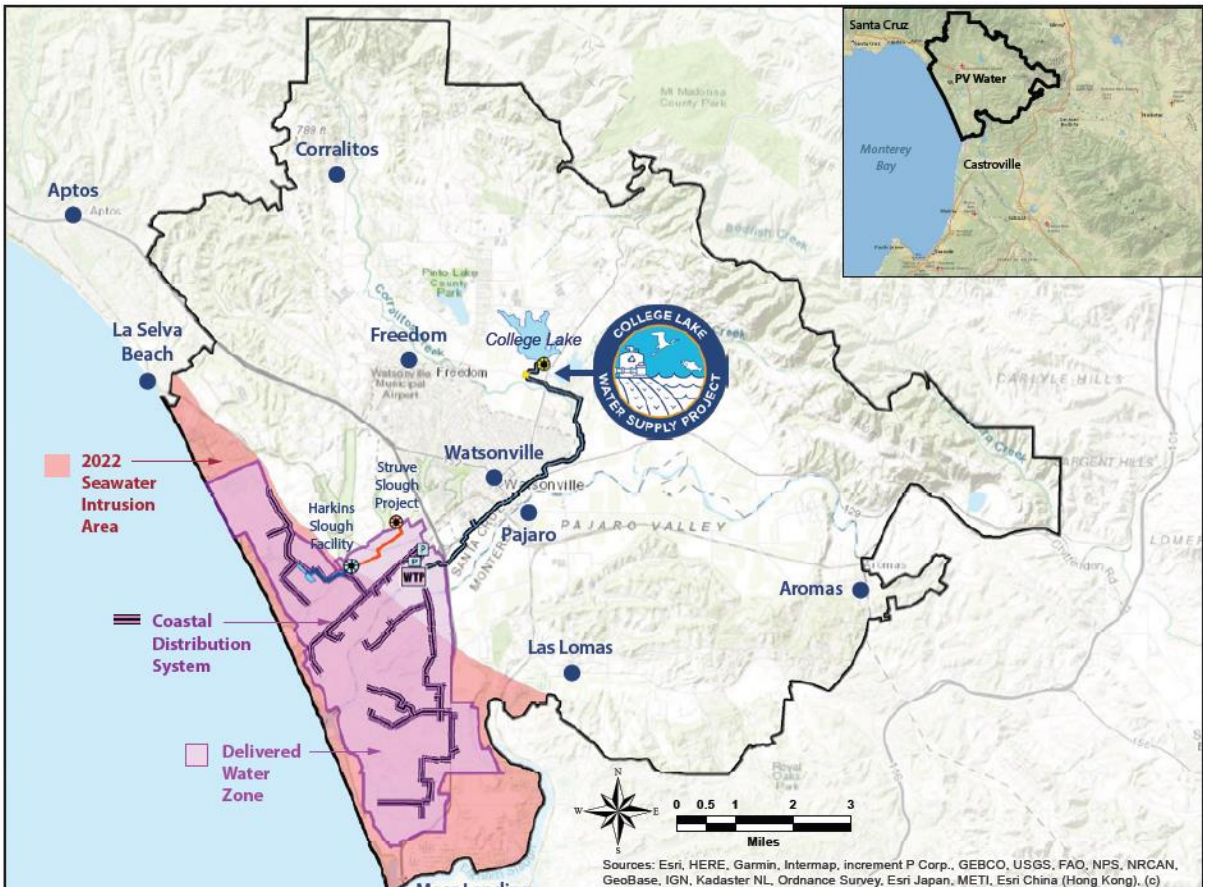
The Handbook includes four main sections, as listed below followed by a short summary of the contents of each.

- **Section 1**: Introduction to Delivered Water
- **Section 2**: Becoming a Delivered Water Customer
- **Section 3**: How to Use Delivered Water
- **Section 4**: Communication Protocols
- Appendices

Executive Summary Section 1: Introduction to Delivered Water

Section 1 is an introduction to the Delivered Water Program and Users Handbook.

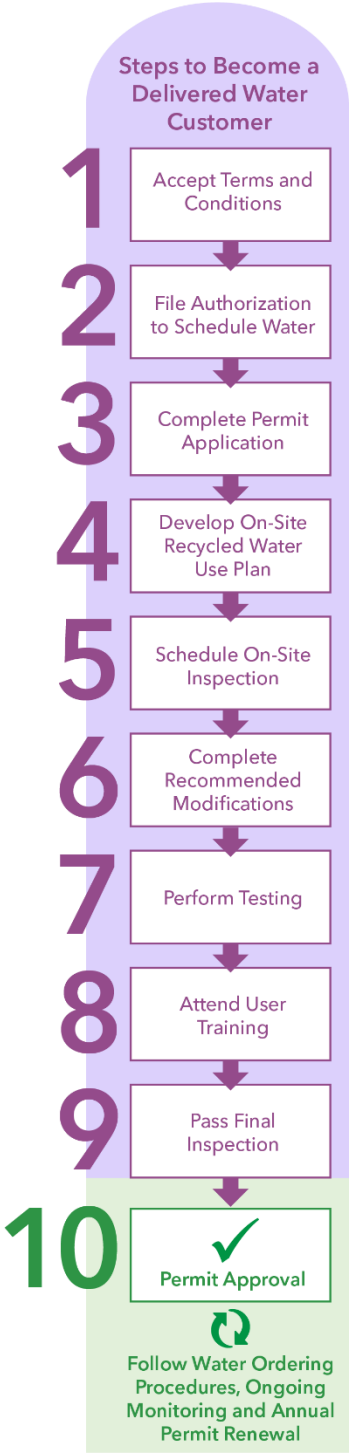
Section 1 Contents	
Section Heading	**Section Contents**
PV Water's Delivered Water Program	Definitions of Delivered Water and supplemental water, as well as the Delivered Water Program Vision and Code of Conduct as co-developed by the customer and PV Water.
Purpose of Delivered Water Users Handbook	Handbook history, its purpose, and information about the most recent update.
Delivered Water Sources	List and map of the supplemental water sources that are blended and conveyed to customers as Delivered Water.
Rules for Delivered Water	Rules and regulations (Title 22) affecting Delivered Water because it includes recycled water as a source.
Supporting Groundwater Sustainability	PV Water's role as a Groundwater Sustainability Agency and how the Delivered Water Program is an essential tool



Executive Summary Section 2: Becoming a Delivered Water Customer

Section 2 provides a detailed description of the 10-step process to become a Delivered Water customer.

1. **ACCEPT TERMS AND CONDITIONS.** Read and accept the Terms and Conditions to receive Delivered Water.
2. **FILE AUTHORIZATION TO SCHEDULE WATER.** Authorization from the parcel owner must be on file before a Permit Application can be approved.
3. **COMPLETE PERMIT APPLICATION.** Complete and submit permit application to PV Water for review.
4. **DEVELOP ON-SITE RECYCLED WATER USE PLAN.** Develop an On-Site Recycled Water Use Plan to describe the site and planned water uses in accordance with the *Rules and Regulations for Recycled Water Customers* and submit to PV Water for review. A Cross-Connection Control Survey may be required.
5. **SCHEDULE ON-SITE INSPECTION.** Schedule an On-Site Inspection with PV Water to verify information in the Permit Application and On-Site Recycled Water Use Plan.
6. **COMPLETE RECOMMENDED MODIFICATIONS**. Construct on-site modifications as recommended by PV Water.
7. **PERFORM TESTING**. Schedule an appointment with PV Water for backflow prevention device testing, or if required, arrange for a Cross-Connection Specialist to conduct cross-connection testing.
8. **ATTEND USER TRAINING**. Identify an On-Site Supervisor and ensure they, as well as any irrigators who will use Delivered Water at the site, receive training from PV Water prior to using Delivered Water.
9. **PASS FINAL INSPECTION**. Schedule a time for PV Water to confirm all site-specific requirements have been met, view signage and equipment labeling, and conduct a final cross-connection system test (when applicable).
10. **PERMIT APPROVAL**. PV Water approves permit, activates turnout, and customer pays applicable fees to receive water.



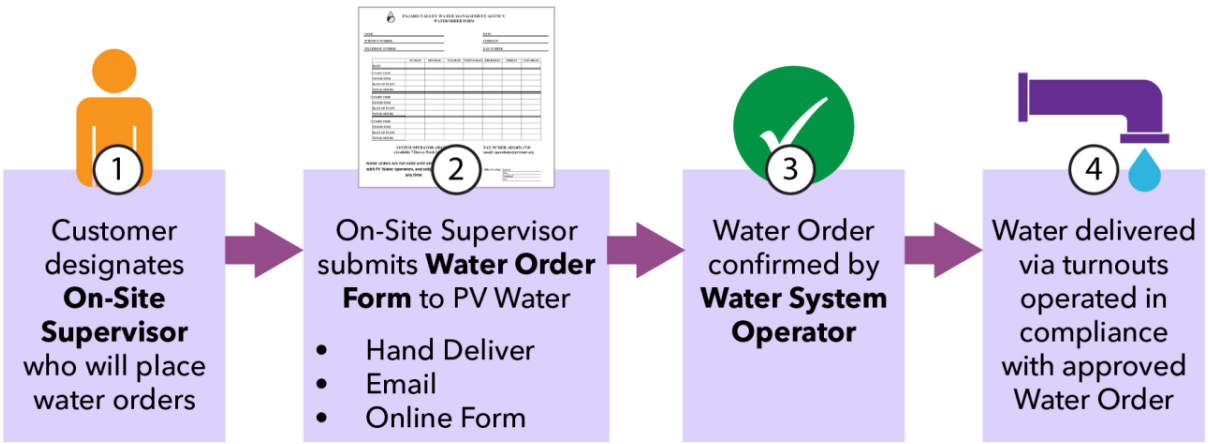
Executive Summary Section 3: How to Use Delivered Water

Section 3 describes the procedures for ordering and receiving Delivered Water, required on-site protective measures, and delivery prioritization methodology.

Water Ordering and Delivery Procedures Summary

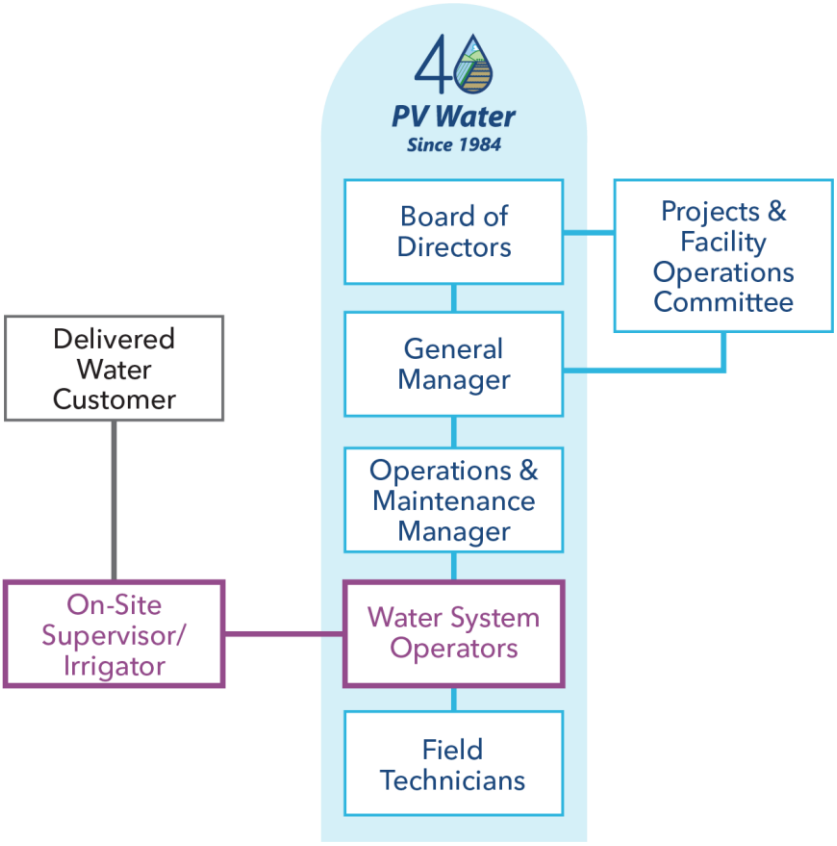
1. **Customer Designates On-Site Supervisor**: Delivered Water customers must assign an accountable On-Site Supervisor who will consistently place accurate water orders.
2. **On-Site Supervisor Submits Water Order**: The On-Site Supervisor completes the Water Order Form and submits a minimum of 48 hours in advance.
3. **PV Water Confirms Orders**: PV Water confirms water order times and flow rates with the On-Site Supervisor, according to Water Delivery Schedule availability.
4. **Water Delivered Per Water Delivery Schedule**: Water deliveries must be taken in compliance with the confirmed water order times and flow rates on the Water Delivery Schedule and the rules provided in the Handbook. Customer personnel formally trained by PV Water staff are the only authorized personnel who may operate the turnout butterfly valve to receive water deliveries and must follow the Handbook guidelines.

Water Ordering and Delivery Procedures



Executive Summary Section 4: Communication Protocols

Section 4 contains important contact information and communication practices.



The Delivered Water Users Handbook includes the following Appendices:

- Appendix A: Emergency Procedures
- Appendix B: Rules and Regulations for Recycled (Supplemental) Water Customers
- Appendix C: Glossary of Terms and Definitions
- Appendix D: Forms
- Appendix E: Backflow Prevention Device Specifications

The Delivered Water Users Handbook has seen iterations over time, and will continue to receive updates as the Program, PV Water, and the Pajaro Valley evolve and grow. The key to continued success is ongoing communication and shared expectations for both PV Water and its customers.

Section 1: Introduction to Delivered Water

Delivered Water is a blend of *Supplemental Water*, produced and conveyed to customers within the Delivered Water Zone (DWZ) based on customer requests. The definition of *Supplemental Water* per the Pajaro Valley Water Management Agency Act is as follows: *"surface water or groundwater imported from outside the watersheds of the groundwater basin, flood waters conserved and saved within the watersheds that would otherwise have been lost or not reached the groundwater basin, and recycled water."*

For this document, Supplemental Water is expanded to include groundwater from wells pumped into the network of pipelines used to convey water to customers through the Coastal Distribution System (CDS) to the DWZ. Customers access Delivered Water from the CDS using "turnouts," or access points, where customers attach their irrigation pipeline to the CDS to convey the water to their crops.

Delivered Water may only be used for agricultural-related/irrigation purposes. **Delivered Water is not a potable water supply, as it includes recycled water**.

PV Water provides Delivered Water with the express understanding that it is intended to be *supplemental* in nature and not expected to fully meet all demand from customers.

Frequently Used Terms

Delivered Water: A blend of Supplemental Water, produced and conveyed to PV Water customers within the Delivered Water Zone.

Coastal Distribution System (CDS): Network of pipelines, irrigation water wells, and appurtenances through which Delivered Water is conveyed.

Supplemental Water: Any combination of recycled water, surface water, and/or groundwater delivered to customers through PV Water's CDS for irrigation and other agricultural uses.

A glossary of commonly used terms and acronyms is included as Appendix C to this document.

PV Water's Delivered Water Program

PV Water operates its Delivered Water Program to meet two primary commitments:

- **PV Water's commitment to groundwater sustainability.** By delivering Supplemental Water to its customers, PV Water is reducing the need for groundwater pumping within the DWZ. By replacing groundwater pumping with Delivered Water, PV Water and its customers reduce the rate of seawater intrusion and negative impacts to groundwater quality, reduce groundwater overdraft, and help to stabilize groundwater levels.

- **PV Water's commitment to support the long-term sustainability of farming in the Pajaro Valley**. By delivering Supplemental Water, PV Water provides an additional source of irrigation water supply which helps to maintain agriculture, a vital part of the local economy and culture.

The foundation of this Handbook is built on PV Water's **Delivered Water Program Vision** and **Code of Conduct,** both of which are essential to the mutual success and achievement of the goals set by PV Water, its customers, and state and federal regulations. The Vision, as co-developed by PV Water and its customers in 2024, is provided below.

Delivered Water Program Vision

The success of the Delivered Water Program is incumbent upon customers and PV Water, in partnership with the City of Watsonville, to communicate and collaborate consistently, accurately, and transparently.

Together, we will improve accuracy related to the amount and timing of supplemental water available, water needed by customers, and actual water deliveries to align supply and demand expectations, maximize delivered water reliability, and evaluate cost of service strategies for Delivered Water customers.

The use of Delivered Water will help achieve sustainable groundwater resources and a vibrant farming economy for decades to come in the Pajaro Valley.

Code of Conduct

The Delivered Water Code of Conduct is a commitment between PV Water and its customers to abide by the Delivered Water Users Handbook to order, deliver, and receive supplemental water in accordance with Title 22 and procedures as outlined within the Handbook.

Purpose of Delivered Water Users Handbook

The purpose of the **Delivered Water Users Handbook** (Handbook) is to provide information to customers about Delivered Water Service and to aid in compliance with relevant rules and regulations.

The Handbook was originally developed circa 2002 to set guidelines pertaining to customer use of Delivered Water. When the Watsonville Area Water Recycling Facility was preparing to commence operations, adding *recycled water* to PV Water's supplemental water portfolio, the Handbook was modified in 2008 to be a companion document to the regulatory-mandated *Rules and Regulations for the Recycled Water Customers*, which the PV Water Board of Directors

adopted via Ordinance 2008-02 in June 2008. In the time since, the Handbook has been periodically reviewed and updated by PV Water's Projects & Facility Operations Committee.

In 2024, the Projects & Facility Operations Committee hosted two Delivered Water Customer Workshops to discuss the state of operations with customers and to consider revisions to the Handbook, which are reflected in this edition.

This updated Handbook outlines procedures to become a Delivered Water customer, including how to request and receive water deliveries. The procedures described in this Handbook will be revised periodically in collaboration with the Projects and Facility Operations Committee and Delivered Water customers.

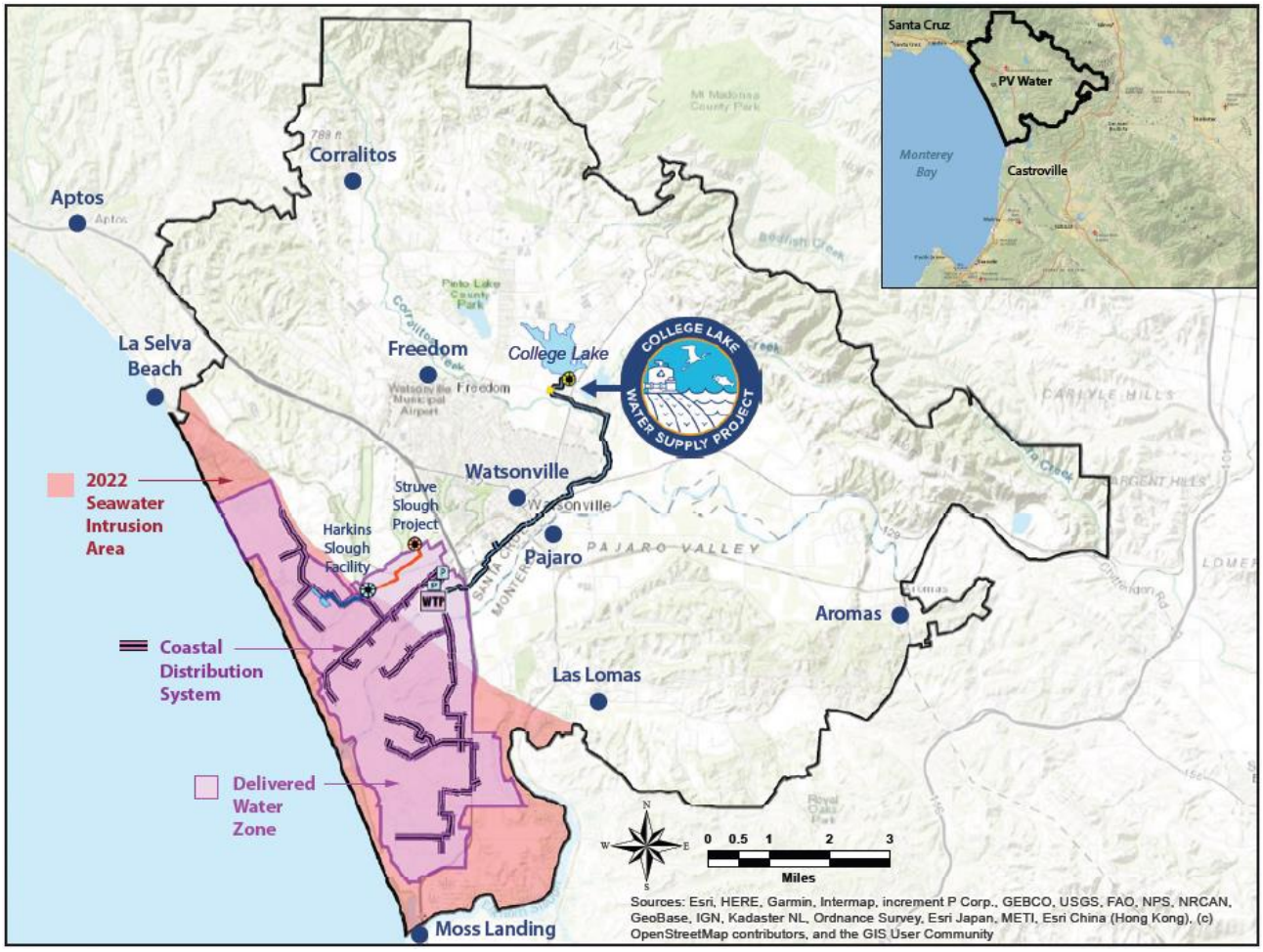
Delivered Water Sources

Delivered Water includes the following Supplemental Water sources that are blended and delivered through the CDS:

- Watsonville Area Water Recycling Facility
- College Lake Integrated Resources Management Facility (anticipated completion – Summer 2025)
- Watsonville Slough System Managed Aquifer Recharge and Recovery Project
  - Harkins Slough Diversion (operational)
  - Struve Slough Diversion (anticipated to be constructed in 2027 & 2028)
- City of Watsonville Potable Water
- Supplemental Water Wells

Figure 1 is a map of PV Water's Delivered Water system showing Supplemental Water source locations listed above, the DWZ where customers receive Delivered Water, and the network of pipelines in the CDS.

Figure 1. Delivered Water System Map



Rules for Delivered Water

Delivered Water is subject to regulation by the State of California because it includes ***recycled water*** as a source. Applicable rules and regulations, ordinances, and specifications that govern the use of recycled water are shown in **Table 1**.

Table 1. Documents Governing the Use of Recycled Water

Document Title	Organization
California Code of Regulations, Title 22, Division 4, Wastewater Recycling Criteria	California Department of Public Health
California Code of Regulations, Title 17, Regulations Relating to Cross-Connections	California Department of Public Health

Document Title	Organization
Master Reclamation Permit for Distribution of Recycled Water (Order # R3-2008-0039)	Central Coast Regional Water Quality Control Board (Region 3)

PV Water's *Rules and Regulations for Recycled Water Customers* (Appendix B) are designed to comply with the documents listed above and largely inform the processes described in this Handbook. All Delivered Water customers **must agree to follow the *Rules and Regulations for Recycled Water Customers***.

IMPORTANT! NON-POTABLE WATER!

Delivered Water contains recycled water and is not potable.
Use of Delivered Water for potable purposes is specifically prohibited.

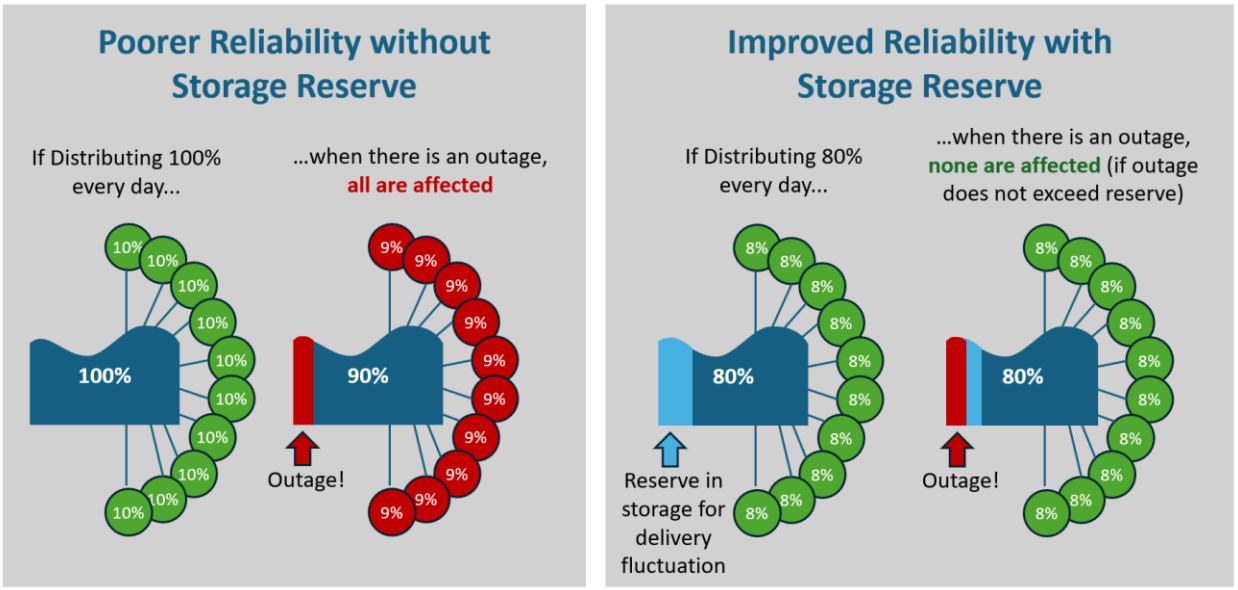
Supporting Groundwater Sustainability

PV Water, as the Groundwater Sustainability Agency for the Pajaro Valley Groundwater Basin (No. 3-002-01), is charged with achieving sustainable groundwater resources by 2040. Operating the Delivered Water Program is an essential tool to reduce the rate of seawater intruding into freshwater aquifers, to reduce groundwater overdraft, and to preserve farming. The full suite of projects and management actions designed to achieve sustainable groundwater resources in the groundwater basin is described in detail in PV Water's *Basin Management Plan: Groundwater Sustainability Update 2022* (GSU22), which is available on the Sustainable Groundwater Management webpage: https://www.pvwater.org/sgm.

Delivered Water Reserves

The demand for Delivered Water often exceeds the existing supply during the peak irrigation months over the summer, and because water supply amounts fluctuate year-over-year and PV Water facilities are subject to unplanned interruptions (e.g., due to power outages, and/or other circumstances), PV Water has developed a procedure to improve reliability for customers. As more facilities are constructed, the reliability of the system will improve. However, as presented at the 2024 Projects & Facility Operations Committee Growers Workshop, Figure 2 illustrates how to keep a percentage of available supply in reserve so that customers are less affected during unplanned interruptions to regular operations.

Figure 2. Conceptual Illustration for Storing Water in Reserve



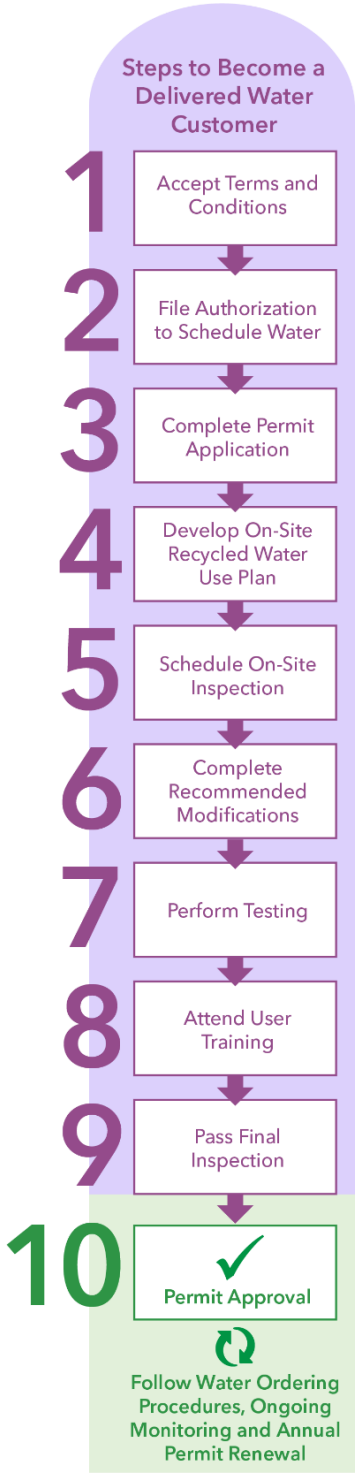
Disclaimer

The amount of Delivered Water that PV Water can deliver will vary based on numerous factors, including but not limited to water supply and quality, the amount of rainfall received, operational limitations, customer demand, and other unforeseeable events. While PV Water seeks to reliably deliver Delivered Water, it makes no promise that the amount of Delivered Water actually delivered will completely satisfy each individual customer request or need. No amount of Delivered Water is guaranteed. PV Water disclaims all liability to customers if the amount of Delivered Water actually delivered does not fully satisfy a customer's Delivered Water request. Delivered Water users understand that in participating in the PV Water Delivered Water program, Delivered Water users agree to accept and assume any and all risks, known or unknown, including but not limited to the risk of crop loss. By voluntarily accepting all risks, known and unknown, to the fullest extent permitted by law, Delivered Water users agree not to assert any claim, institute any suit or other legal process against PV Water, its officers, officials, employees, or agents for injury or damage resulting from or in any way related to its participation in the Delivered Water program.

Section 2: Becoming a Delivered Water Customer

There is a 10-step process to become a Delivered Water customer. A summary of the steps is listed below, followed by detailed descriptions of each step.

1. **ACCEPT TERMS AND CONDITIONS.** Read and accept the Terms and Conditions to receive Delivered Water.
2. **FILE AUTHORIZATION TO SCHEDULE WATER.** Authorization from the parcel owner must be on file before a Permit Application can be approved.
3. **COMPLETE PERMIT APPLICATION.** Complete and submit permit application to PV Water for review.
4. **DEVELOP ON-SITE RECYCLED WATER USE PLAN.** Develop an On-Site Recycled Water Use Plan to describe the site and planned water uses in accordance with the *Rules and Regulations for Recycled Water Customers* and submit to PV Water for review. A Cross-Connection Control Survey may be required.
5. **SCHEDULE ON-SITE INSPECTION.** Schedule an On-Site Inspection with PV Water to verify information in the Permit Application and On-Site Recycled Water Use Plan.
6. **COMPLETE RECOMMENDED MODIFICATIONS**. Construct on-site modifications as recommended by PV Water.
7. **PERFORM TESTING**. Schedule an appointment with PV Water for backflow prevention device testing, or if required, arrange for a Cross-Connection Specialist to conduct cross-connection testing.
8. **ATTEND USER TRAINING**. Identify an On-Site Supervisor and ensure they, as well as any irrigators who will use Delivered Water at the site, receive training from PV Water prior to using Delivered Water.
9. **PASS FINAL INSPECTION**. Schedule a time for PV Water to confirm all site-specific requirements have been met, view signage and equipment labeling, and conduct a final cross-connection system test (when applicable).
10. **PERMIT APPROVAL**. PV Water approves permit, activates turnout, and customer pays applicable fees to receive water.



Upon request, PV Water may offer assistance with many of the steps outlined below (e.g., coordination with applicable State and local agencies). Contact PV Water for information about assistance that may be available.

Step 1: Accept Terms and Conditions

Customers agree to follow the **Terms and Conditions to Receive Delivered Water** by applying for and using Delivered Water.

Terms and Conditions to Receive Delivered Water

NO TRANSFERS. The customer shall not transfer Delivered Water distributed by PV Water to other water districts or agencies. Delivered Water shall not be applied to lands that are outside the DWZ.

REGULATORY COMPLIANCE. The delivery of water is subject to all state and federal regulations, ordinances, and resolutions of the PV Water Board of Directors as they may exist now or hereafter be amended or adopted. Board-adopted ordinances are available on the PV Water website at the following URL: https://www.pvwater.org/resources-references. In the event that this URL is modified in the future, please contact PV Water for updated information. In the event of a conflict between the provisions of this Delivered Water Users Handbook and the regulations, ordinances and resolutions, the more restrictive or higher authority (e.g., state is higher than county) shall prevail.

WATER ORDER FORM. Customers agree to use the Water Order Form, as described in **Section 3** of this document, to provide water orders in advance. Consistent and correct use of the form allows PV Water to efficiently manage the distribution system.

WATER DELIVERY SCHEDULE. Customers will follow the Water Delivery Schedule (see example in Appendix D) that is maintained by PV Water based on approved water orders. If customers do not follow the schedule, the system may not be capable of providing water for all customers. The Water Delivery Schedule **does not guarantee the quantities of water requested** and is subject to change.

WATER FLOW AND PRESSURE. Upon start-up of a turnout, the Water System Operator will adjust the pressure as needed, depending on the location, site system pressure, and customer's intended irrigation type. Subsequent pressure adjustments will be made by PV Water as requested by the customer and may be subject to an administrative fee for each adjustment. **Customer adjustment of delivery pressure using the PV Water pressure and flow control valve is not permitted** and constitutes a violation of the Terms and Conditions, which may subject the customer to fines and penalties. The customer can adjust water flow with the customer valve (see page 24), however the flow delivered must correspond to the approved amount in the recorded Water Order. The designed maximum water delivery flows for each turnout cannot be exceeded, but lower flow amounts and pressure can be delivered.

DELIVERIES BY REQUEST ONLY. PV Water will only provide Delivered Water pursuant to a request from the customer for delivery at a specified flow rate, during specified times, to a specified turnout. **Requests are not valid until verbally confirmed by the Water System Operator.** It is the responsibility of the customer to make the request as described in Section 3 of this Handbook.

NON-POTABLE USE ONLY. The water delivered by PV Water is not potable and use of Delivered Water for potable purposes is **prohibited**. PV Water cannot warrant the suitability of the water for any particular agricultural use at any time. While PV Water will make a reasonable effort to deliver the highest quality water possible, given the limits of available water supply, Delivered Water quality may vary substantially due to variances in the water sources. While PV Water makes a reasonable effort to make information about the quality of Delivered Water available (salinity, turbidity, etc.), the customer is responsible for determining whether the water is suitable for the proposed application (Refer to Section 7.0, Conditions of Service, of the *Rules and Regulations for Recycled Water Customers, Appendix B*).

PENALTIES. PV Water may assign a lower priority for water orders, lock the delivery facilities of, discontinue water service, and/or enforce any of the penalties outlined in the Delivered Water Users Handbook upon any customer who violates these Terms and Conditions, the *Rules and Regulations for Recycled Water Customers*, or the procedures of the Delivered Water Users Handbook.

PRIORITIZATION. Customers must accept the prioritization guidelines as outlined in this Delivered Water Users Handbook in Section 3.

PV Water may update these Terms and Conditions with approval of the Projects and Facility Operations Committee.

Step 2: File Authorization to Schedule Water

The Authorization to Schedule Water is included in Appendix D: Forms. It authorizes lessee(s), sub-lessee(s), operator(s), and/or affiliate(s) (“Authorized Representative”) to apply for a Recycled Water Use Permit, purchase, and place water orders through the named turnout number. Authorization from the owner of the parcel on which a turnout exists must be on file before a Permit Application can be approved.

PV Water will notify the landowner by certified mail upon receipt of a Recycled Water Use Permit Application from an Authorized Representative. The landowner will have five (5) business days from the receipt of written notice to object (in writing) to the application. This authorization will be effective until the term end date as specified by the landowner on the form.

Step 3: Complete Permit Application

To comply with State regulations, all prospective customers must complete, and submit to PV Water, a Recycled Water Use Permit Application (see Appendix D: Forms).

The application requires the following information:

- Turnout Number
- Ranch Name or Description
- Site address or location
- List of all parcels that will receive Delivered Water from this turnout
- Applicant's name, address, and contact information
- Applicant's relationship to the subject property (legal owner, tenant, or lessee)
- Contact information for the customer's designated On-Site Supervisor, including address and 24-hour phone number
- Description of planned Delivered Water use on the property
- Total irrigated area, expressed in appropriate units (square feet, acres)
- Estimated annual flow and peak flow at point of connection (gallons per minute)
- Property land use type
- Identification of other governmental entities that may have regulatory jurisdiction over the site related to on-site water use, drinking water, food handling, or public health issues (e.g., U.S. Department of Agriculture, State Food and Drug, State Licensing and Certification)
- Wells or other water sources
- Signatures of both the On-Site Supervisor and the Applicant

For more information on the Recycled Water Permit Application Process, see Section 8.1 of *Rules and Regulations for Recycled Water Customers* (Appendix B). For information on permit costs, contact PV Water.

Step 4: Develop On-Site Recycled Water Use Site Plan

As part of the Recycled Water Use Permit Application, an On-Site Recycled Water Site Plan is required. A summary of the required information is provided below. For full instructions, see the On-Site Recycled Water Service Plan Form in Appendix D: Forms.

On-Site Recycled Water Use Site Plan Contents Summary

- All residences and other buildings on the site
- Boundaries of the intended use area
- Adjacent streets
- Locations of all major improvements on the site

- All facilities supplied with recycled or potable water service
    - Facilities include, but are not limited to, drinking fountains, restrooms, outdoor eating areas, decorative fountains and showers
    - If there are no facilities located in the defined use area, then a note on the plan must indicate that no facilities exist
- Any wells, lakes, ponds, reservoirs, storage tanks or other water impoundments located on-site or within 100 feet of the site
- Proposed signage location(s) and types
- Description of what will be irrigated (e.g., landscape, specific food crops)
- Method of irrigation (i.e., spray, flood, or drip)
- Location of potable water pipelines and domestic water supply wells in or adjacent to the use area
- Description of site containment measures
- Direction of drainage and description of the area to which the drainage will flow
- Protection measures of drinking water fountains and designated outdoor eating areas
- Proposed irrigation schedule (if public access is included)
- Measures to be taken to exclude or minimize public contact
- Proposed uses that include **impoundment** and the purpose of the impoundment
    - Description of the degree of public access
    - Conditions under which the impoundment can be expected to overflow and the expected frequency
    - Direction of drainage and description of the area to which the drainage will flow
- Information on piping, if space permits, or a **Piping Plan**
- Any other relevant items

Step 5: Schedule On-Site Inspection

After receiving an application and site plan, PV Water will conduct an on-site inspection for the following purposes:

- Verify the information provided in the Recycled Water Use Permit Application and On-Site Recycled Water Use Site Plan
- Identify site improvements or modifications needed to comply with PV Water's *Rules and Regulations for Recycled Water Customers*
- Assess preliminary cross-connection potential

PV Water may recommend modifications as a result of the inspection or information provided in the application or site plan.

Step 6: Construct Recommended Modifications

Identification Devices and Language

Identification devices shall be used to identify various components of the site's Delivered Water system. Some examples of identification devices are:

- Tags (e.g. for valves)
- Tape (e.g. for piping)
- Stickers (e.g. for piping)
- Signs (e.g. for impoundments)

Figure 3. Example Recycled Water Signs

Buffer Zones

No impoundment of Delivered Water shall occur within 100 feet of any potable (domestic) water supply well, *as Delivered Water may contain recycled water*.

No irrigation with Delivered Water, *which may at any time may contain recycled water*, shall occur within 50 feet of any potable (domestic) water supply well unless ALL conditions listed below have been met:

- Geological investigation shows an aquitard exists at the well between the ground surface and the uppermost aquifer being drawn from
- Well contains an annual seal from the ground surface into the aquitard
- Well is housed to protect wellhead facilities from spray irrigation
- Ground surface around well is contoured to drain surface water away from the well
- Owner of the well approves the elimination of the buffer zone requirement

If a customer wishes to eliminate the 50-foot buffer zone for irrigation around a potable water supply well, the customer shall submit appropriate documentation to demonstrate to PV Water that the conditions above have been met (e.g. geological reports, well drilling records). This documentation should accompany the On-Site Recycled Water Use Site Plan.

Vehicle Identification

Any vehicle used to transport Delivered Water shall be clearly marked with labels or signs.

- These labels or signs shall contain the words "RECYCLED WATER - DO NOT DRINK" in black, two-inch high minimum letters on a purple background.
- The label shall also include any other appropriate languages to accommodate the customer's irrigation personnel who do not read English.
- One label or sign shall be placed on the tank closest to both the driver and passenger doors.
- One label or sign shall be placed on the rear surface of the tank.
- All labels and signs shall be placed where they can easily be seen by the personnel using the vehicle.

Distribution Piping

PV Water approval is not required for typical daily or seasonal relocation of irrigation lines. Changes to the irrigation piping must not create any cross-connection between the well head and/or on-site potable system, per State regulation. **The backflow device shall not be bypassed.**

PV Water approval is required for modifications that include:

- Adding, deleting, or switching on-site wells
- Modifications to piping located between the backflow device and the well
- Modifications to any PV Water required backflow device
- Interconnection of piping intended to serve any other property not specifically listed in the permit

Backflow Prevention

Connections to supplement or backup Delivered Water (that may at any time contain recycled water) with water from a **public potable water system** shall be made only through an air-gap separation which complies with the requirements of Sections 7602(a) and 7603(a) of Title 17, California Code of Regulations.

Connections to supplement or backup Delivered Water with water from a **private potable water system** (e.g., on-site domestic well) shall be made through an air-gap separation (see Appendix E for details).

Connections to supplement or backup Delivered Water with water from a **private irrigation water well** shall be made through an AWWA-approved Double Check Device or Reduced Pressure Principal (RP) Assembly (see Appendix E for details).

Step 7: Perform Testing

Cross-connection and backflow prevention device tests must be completed to receive Delivered Water. Customers shall submit test results to PV Water.

Cross-Connection Testing

This requirement is applicable to sites with:

1) a connection to a potable water system –**or**–
2) a private potable water well

Customers must have a cross-connection test performed by an AWWA-certified Cross-Connection Control Specialist.

Backflow Prevention Device Testing

This requirement is applicable to sites with installed backflow prevention devices. It is the responsibility of the customer to have backflow devices tested to ensure their proper function prior to receiving Delivered Water and to provide copies of passing backflow prevention device test results to PV Water.

Step 8: Attend Training

PV Water provides training on the *Rules and Regulations for Recycled Water Customers* and methods for training customer operations personnel. Customers must identify an **On-Site Supervisor** and ensure they, as well as any irrigators who will use Delivered Water at the site, attend PV Water training and refresher sessions.

Step 9: Pass Final Inspection

PV Water will conduct a final on-site inspection before the customer is connected to Delivered Water. This inspection should occur after the final cross-connection test, if required. PV Water's inspector will check to see that the proper equipment is being used and that all required tags, labels, and signs are in place. The inspection includes a coverage test to verify that conditions which create runoff or windblown spray outside the approved use area, and/or ponding within

the use area, do not exist. Spray patterns will be checked to see they do not encroach upon areas outside the approved use area.

Step 10: Permit Approval

PV Water will approve the permit when:

- All paperwork is complete
- Construction is complete in accordance with approved plans
- All cross-connection tests are performed
- Final on-site inspection is conducted
- All requirements are met satisfactorily

After the Recycled Water Use Permit is approved and all applicable fees have been paid, PV Water will authorize the activation and use of the turnout. PV Water periodically inspects customer systems to ensure compliance with the Handbook and all applicable rules and regulations.

Section 3: How to Use Delivered Water

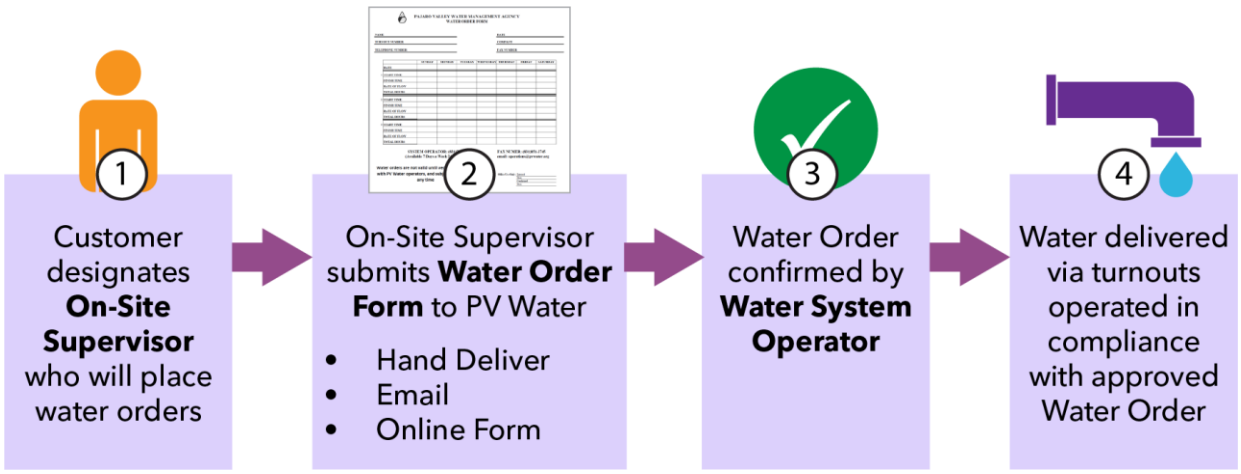
Authorized Uses of Delivered Water

Delivered Water contains recycled water and therefore is limited to on-site agricultural irrigation ONLY. Pending system capacity, limited use may be authorized by PV Water on a case-by-case basis for dust control, on-site construction, or earthwork related to agriculture. **The State's list of approved uses of Recycled Water (Title 22), includes additional uses, however they fall outside of the processes described in this document and are not approved for use in the PV Water service area**. For more information on Authorized Uses of Delivered Water, see Appendix B: *Rules and Regulations for Recycled Water Customers*, Section 4.1.

Water Ordering and Delivery Procedures

To maximize use of the limited supply of Delivered Water available and ensure this highly valued resource is available to all customers, it is crucial that all Delivered Water customers follow the procedures for ordering as instructed below. Proper adherence to these procedures ensures prompt response to emergencies, continued deliveries to all customers, and efficient operation of PV Water's distribution system. Water Ordering Procedures are summarized in **Figure 4**.

Figure 4. Water Ordering and Delivery Procedures



1. Customer Designates On-Site Supervisor

Delivered Water customers must assign an accountable **On-Site Supervisor** who will consistently place accurate water orders.

2. On-Site Supervisor Submits Water Order

The On-Site Supervisor completes the **Water Order Form** (see **Figure 5** below and Appendix D) and submits a minimum of **48 hours in advance** by the following methods:

Hand-delivery (Monday through Friday, 7:00 AM to 3:00 PM)

- PV Water office: 36 Brennan Street, Watsonville
- Drop box near Turnout 13: 2268 West Beach Road, Watsonville

Email

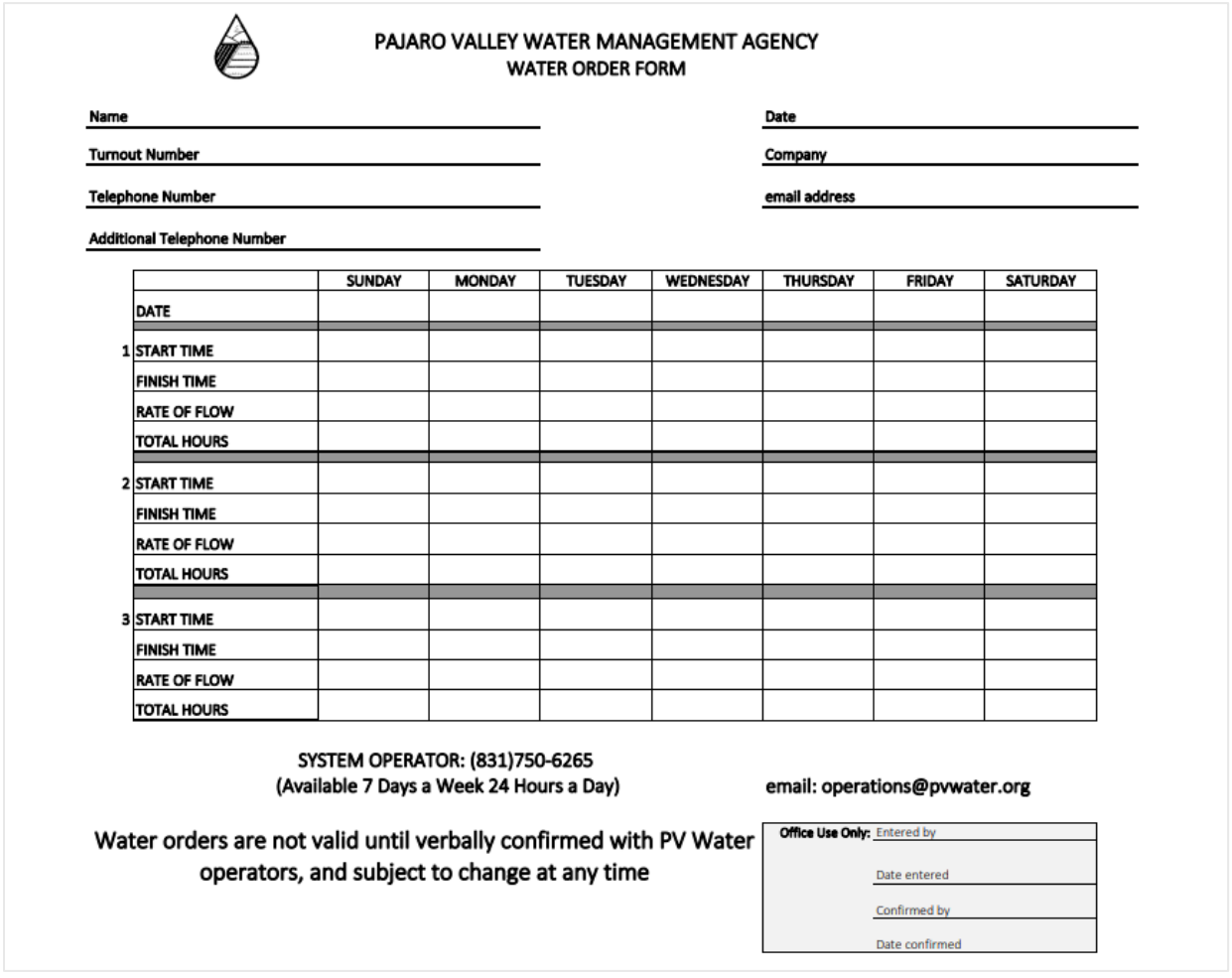
- Send to: operations@pvwater.org

Online

- Through PV Water's online form

Customers must provide accurate water orders and not over-order.

Figure 5. Water Order Form



PAJARO VALLEY WATER MANAGEMENT AGENCY
WATER ORDER FORM

Name _____ Date _____

Turnout Number _____ Company _____

Telephone Number _____ email address _____

Additional Telephone Number _____

		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	DATE							
1	START TIME							
	FINISH TIME							
	RATE OF FLOW							
	TOTAL HOURS							
2	START TIME							
	FINISH TIME							
	RATE OF FLOW							
	TOTAL HOURS							
3	START TIME							
	FINISH TIME							
	RATE OF FLOW							
	TOTAL HOURS							

SYSTEM OPERATOR: (831)750-6265
(Available 7 Days a Week 24 Hours a Day)

email: operations@pvwater.org

Water orders are not valid until verbally confirmed with PV Water operators, and subject to change at any time

Office Use Only: Entered by
Date entered
Confirmed by
Date confirmed

Flow Rates and Times

- Requested flow rates will be a **minimum of 200 gallons per minute (gpm)** with additions in multiples of **50 gpm**.
- Maximum flow rates at each turnout are limited by the design capacity of the turnout.
- Requested **delivery duration will be a minimum of 2 hours with additions in multiples of 1 hour.**
- Orders **will not be accepted more than 14 days** in advance of the requested delivery date.

Monday Deliveries

Water orders for Monday delivery must be placed prior to **3:00 PM on the previous Friday**. Be advised, during peak irrigation season the schedule fills quickly, customers are encouraged to place their orders for the following week by 12:00 PM on the previous Friday.

High Demand Periods

PV Water may elect to require additional notice for placing water orders (**u**p to one week in advance) during high-demand periods.

3. PV Water Confirms Orders

The **Water System Operator** confirms orders. Water Orders are not valid until confirmed by PV Water. PV Water and its customers share the responsibility for the system to operate in a manner that minimizes disruptions in system pressures while maximizing the amount of water delivered on a daily and seasonal basis.

4. Water Delivered Per Approved Order

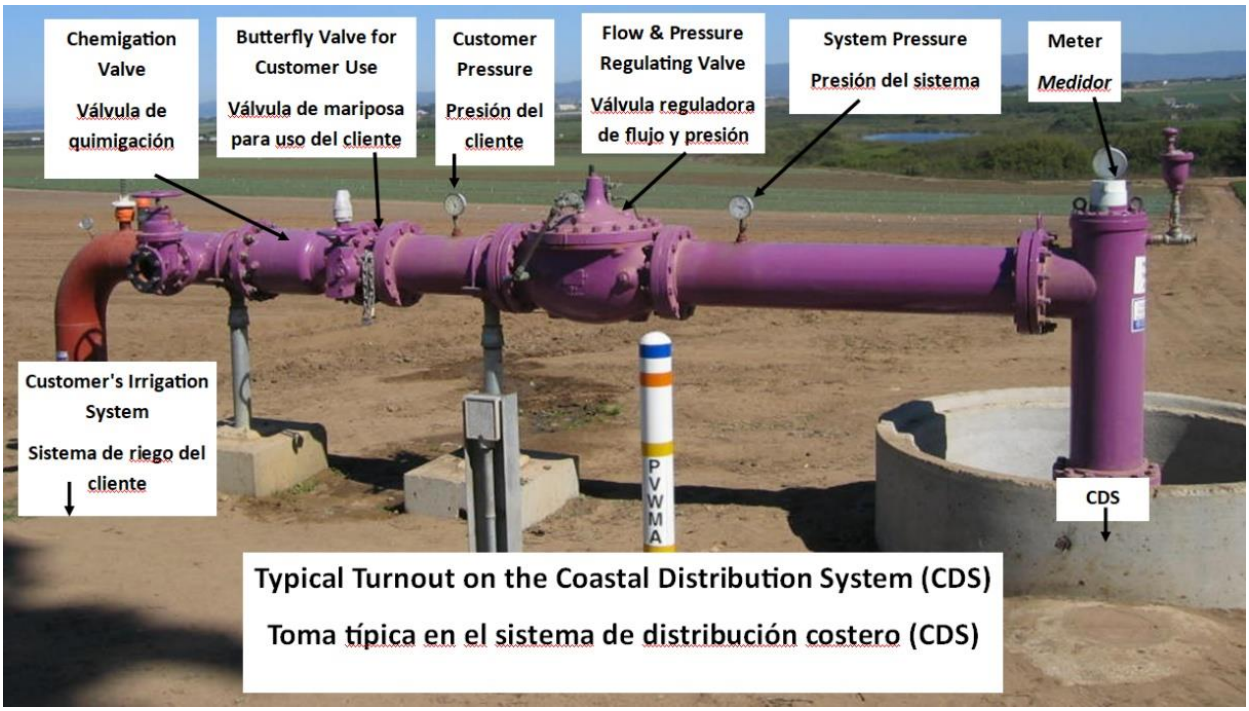
Water deliveries must be taken in compliance with an approved Water Order and the rules provided in this Handbook. Customer personnel **formally trained by PV Water staff** are the only authorized personnel who may operate the turnout butterfly valve to receive water deliveries and must follow the guidelines below.

- On the day of delivery, water deliveries must **start and stop within five minutes** before or after the approved times, unless the Water System Operator is notified by phone.
- On the day of delivery, actual flows (as indicated by the turnout meter) must be set within **25 gpm below or above the approved flow rate.**
- Customers may change the flow rate and duration of water order from one irrigation event to another if such changes are reflected in the customer's water order. If changes

are requested after PV Water has confirmed the water order, then changes must be confirmed verbally with the Water System Operator prior to making the changes. Flow adjustments should only be made at the beginning of the scheduled delivery and should not be changed without notifying the Water System Operator by phone.

- Customer adjustment of delivery pressure using the PV Water pressure and flow control valve **is not permitted**. The customer may only adjust water flow with the customer valve (**Figure 6**).

Figure 6. Typical PV Water Turnout



Failure of customers to follow PV Water's procedures when operating turnouts can be harmful to the distribution system and create problems for other customers. **It is very important that irrigators notify the Water System Operator by phone if there are any on-site changes from the approved water order needed on the day of delivery. Texts and emails are not acceptable forms of notification to request day-of changes, as the on-call system is not equipped to receive texts and emails might not be received in time for PV Water to adjust the system pumps.**

Rescheduling

Change requests, other than for emergencies, must be received by the Water System Operator at least twelve (12) hours prior to the requested change. Requests for changes in delivery should be made in writing and specify the turnout number, the requested change (time and/or flow rate), and a contact telephone number for confirmation and notification purposes.

Notification of emergencies for pipeline breaks and leaks should be phoned in to the Water System Operator on duty as soon as possible. **See Appendix A for Emergency Procedures.**

The Water System Operator will accommodate change requests using the following priorities:

1. **Emergency changes necessary to protect life and property**
2. Requests for early delivery terminations
3. Requests for reduced delivery flow rates
4. Delivery orders delayed from the previous day
5. Current delivery orders
6. Requests for increased delivery flow rates

The Water System Operator will confirm the irrigation time with the customer at least 4 hours in advance of the rescheduled starting time. **Customers who make excessive changes to water orders may be given lower priority for scheduling, as described in Section 3.**

The Water System Operator will take actions to modify project operations in response to conditions threatening human life, property damage, or damage to PV Water facilities. In all cases, preservation of human life and prevention of personal injury will be the highest priority.

Required On-Site Protective Measures

Protective Measures are designed to prevent threats to human life, property, or damage to PV Water and customer facilities. Protective Measures described in this section include:

- Supervising Water Use
- Monitoring and Inspection
- Periodic Cross-Connection and Backflow Prevention Device Testing

Supervising Water Use

It is the responsibility of the Delivered Water customer to provide surveillance and supervision of the Delivered Water system and infrastructure to ensure compliance at all times with current regulations. In order to *accomplish this, the customer shall designate, with the approval of PV Water, an* On-Site Supervisor as a liaison with PV Water. The On-Site Supervisor must be a full-time employee responsible for the on-site distribution system who is available at all times and has the authority to carry out any requirements requested by PV Water.

The On-Site Supervisor should always be available during scheduled use of the turnout and make frequent visits to the Delivered Water use site as described in the Recycled Water Use Permit. Installation, operation, maintenance, and prevention of potential hazards on the

designated use site and potable water systems are the responsibility of the customer via the established On-Site Supervisor.

On-Site Supervisor Responsibilities

The On-Site Supervisor*'s* **primary responsibility is** to ensure the following:

- No cross-connections are made between any potable and recycled (Delivered) water systems
- Backflow devices are installed and operating properly, and tested as described in this Delivered Water Users Handbook
- Delivered (recycled) Water is being properly used and other requirements (signage, training of workers, prohibited uses, etc.) are being implemented as per the requirements of the approved permit
- Orders are accurate and submitted in a timely manner

On-Site Supervisor Requirements

The customer shall ensure that the On-Site Supervisor satisfies the following minimum requirements:

- Be knowledgeable of the following:
    - Provisions contained in the *Rules and Regulations for Recycled Water Customers* (Appendix B)
    - Provisions contained in this Delivered Water Users Handbook
    - Information in the customer's specific Recycled Water Use Permit
    - Provisions of Title 17 and Title 22 as related to the safe use of recycled water and maintenance of accurate records
- Be familiar with and trained in the basic concepts of backflow and cross-connection prevention, system testing, and related emergency procedures
- Should be permanently stationed at the permitted use site, or at a minimum, make frequent visits to the Delivered (recycled) Water use site as specified in the Recycled Water Use Permit
- Attend a training workshop facilitated by PV Water before their first delivery of recycled (Delivered) water and attend a refresher training workshop at a minimum of every two (2) years

The customer must notify PV Water immediately of any change in personnel for the On-Site Supervisor position.

Monitoring and Inspection

Because Delivered Water contains recycled water as a source, self-monitoring shall take place while Delivered Water is being used, and shall include observations of the following:

- Evidence of **runoff** of Delivered Water from the site
- Evidence of **direct spraying** of Delivered Water on potable water fixtures or food handling facilities
- Evidence of **prolonged ponding** of Delivered Water as a result of excessive irrigation, and evidence of mosquito breeding as a result of ponding
- Adequate posting of **warning signs** or notices to inform the public of the use of Recycled Water for irrigation
- Maintenance of the required **buffer distance** from wells and other areas to be protected
- Indicators of **damage**, such as:
    - Odor of wastewater origin at or near the site
    - Leaks or breaks in the irrigation system
    - Broken or defective sprinklers or emitters
    - Overflows or leaks from storage facilities or impoundments

PV Water may conduct periodic inspections of Delivered Water use sites. These inspections shall include, at a minimum:

- Visual inspection of all backflow prevention devices, pump rooms, exposed piping, valves, pressure reducing stations, points of connection, sprinklers, drip system emitters, controllers, lakes, storage facilities, signs, labeling, tags, and other equipment as needed
- The On-Site Supervisor*'s* maintenance records shall be inspected to review all maintenance since the last inspection

Periodic Cross-Connection and Backflow Prevention Device Testing

The Delivered Water customer shall be responsible for conducting a periodic cross-connection test and backflow prevention device test as required in the *Rules and Regulations for Recycled Water Customers* (Appendix B), unless visual inspections reveal a requirement for more frequent testing. Results shall be submitted to PV Water. The On-Site Supervisor must be present during all tests. PV Water may require more, or less, frequent cross-connection or backflow prevention device testing, if conditions dictate.

On-going Cross-Connection Tests

Cross-connection tests must be performed at least annually by customers with connections to any of the following:

- Potable water system
- Private potable water well
- Private irrigation/non-potable water well

These tests do not need to be completed by an AWWA Certified cross-connection specialist. Customers shall submit results of cross-connection tests to PV Water.

On-going Backflow Prevention Device Tests

Backflow prevention devices must be tested annually to verify functionality. Results of backflow prevention device tests shall be submitted to PV Water.

Delivery Prioritization

Agronomic irrigation scheduling relies on the application of the correct amount of irrigation water at the proper times to maximize crop yield while also promoting the efficient use of irrigation water. It is the goal of PV Water to develop scheduling priorities that facilitate this agronomic approach to water management, while maintaining public health and maximizing water system flexibility, reliability, and convenience for customers.

Delivered Water is scheduled to customers based on a "first request received, first served" basis using the **date of receipt** of the completed Water Order Form (Appendix D). Water orders are generally scheduled one week in advance, but not later than 48 hours in advance, and approved by Friday the week before.

As outlined in the Rules and Regulations, PV Water may at its discretion, make the allocation of Delivered Water for the best and highest use of the water in a manner most efficient for preserving and restoring the groundwater basin, and may establish priorities for water assignments to balance salt loadings, meet customer needs, or other criteria. This prioritization shall be adhered to in the assignment of water deliveries.

This includes, but is not limited to, the prioritization of customers who entered into a written contract with PV Water for the lease, sale, or donation of an existing well or leased, sold, or donated real property for PV Water to drill a new well to PV Water, with an express contractual provision of first priority basis. Those customers will have first priority within each timing bracket, outlined below. During periods of high demand, water requests may be re-scheduled to optimize water deliveries to meet the needs of PV Water operations and priorities based on system capacity and the priorities for customers as listed below:

- **FIRST COME, FIRST SERVED. Water requested up to one week in advance** will have first priority based on date received, with an *exception to help protect crops in stages of transplanting or germination* and subject to those customers with first priority basis. For crops in stages of transplanting or germination, notification is required at least 24 hours in advance to allow the Water System Operator to arrange the schedule accordingly, however it is advised to notify the Water System Operator 7 days in advance of plans to ensure there is adequate room on the schedule.

- Customers who have excessively abused the flexibility of the system for non-emergency situations (e.g., repeated same-day verbal requests, making excessive or last-minute changes to approved schedules, flow rates, and times) **will be given lower priority, and/or have service shut off, and/or be locked out, and may forfeit their privileges** to be a Delivered Water customer.

Penalties and Fees

To ensure compliance with the Terms and Conditions to Receive Delivered Water, *Rules and Regulations for Recycled Water Customers,* and procedures outlined in the Handbook, **PV Water will enforce the following penalties** as provided in *Section 7.4 Penalty for Violations* found in the *Rules and Regulations for Recycled Water Customers* (Appendix B) and excerpted below.

> ***Public Nuisance****. The use of recycled water in any manner in violation of these Rules and Regulations, or any permit issued hereunder is hereby declared a public nuisance and shall be corrected or abated as directed by the Agency. Any person who violates any provision of these Rules and Regulations or any permit issued hereunder shall be liable pursuant to Section 1108 of the Agency Act for civil penalties in the amount of one thousand dollars ($1,000.00) per day for each day of that violation, in addition to any other penalties that may be prescribed by law.*
>
> ***Injunction****. Whenever a use of recycled water is in violation of these Rules and Regulations, or any permit issued hereunder, or otherwise causes or threatens to cause a condition or nuisance, the Agency may seek injunctive relief as may be appropriate enjoin such discharge or use.*
>
> ***Permit Revocation****. In addition to any other statute or rule authorizing termination of recycled water service, the Agency may revoke a permit issued hereunder if a violation of any provision of these Rules and Regulations is found to exist or if use of recycled water causes or threatens to cause a nuisance.*

> ***Penalty**. Any owner and/or operator who violates any penal provision of this Ordinance shall, for each day of violation, or portion thereof, be subject to a fine not exceeding $1000.00. In addition, recycled service to the property may be terminated as a penalty for such violation.*

From time to time there may be amendments to the existing Rules and Regulations as approved by the PV Water Board of Directors by ordinance. These amendments may be made without the consent of the Delivered Water customer. These amendments will be enforced upon their effective date.

Section 4: Communication Protocols

Delivered Water customers and PV Water must follow communication protocols to ensure efficient and effective water ordering and delivery of the shared and limited supplemental water supply. As shown in **Figure 7**, the customer designates an On-Site Supervisor who is responsible for compliance with this Delivered Water Users Handbook and for submitting water orders to the Water System Operator. The Water System Operator reports to PV Water's General Manager, who is accountable to the Board of Directors.

The Projects & Facility Operations Committee advises the Delivered Water Program and makes recommendations to the Board. The Committee also serves to communicate issues and concerns regarding water quality and project operations between the Agency, landowners and growers within PV Water's service area. Customers are encouraged to attend the Projects & Facility Operations Committee monthly meetings as published on PV Water's website.

To improve communication with customers, PV Water is in the development phase of a digital dashboard to communicate real-time information that the customers can access 24/7.

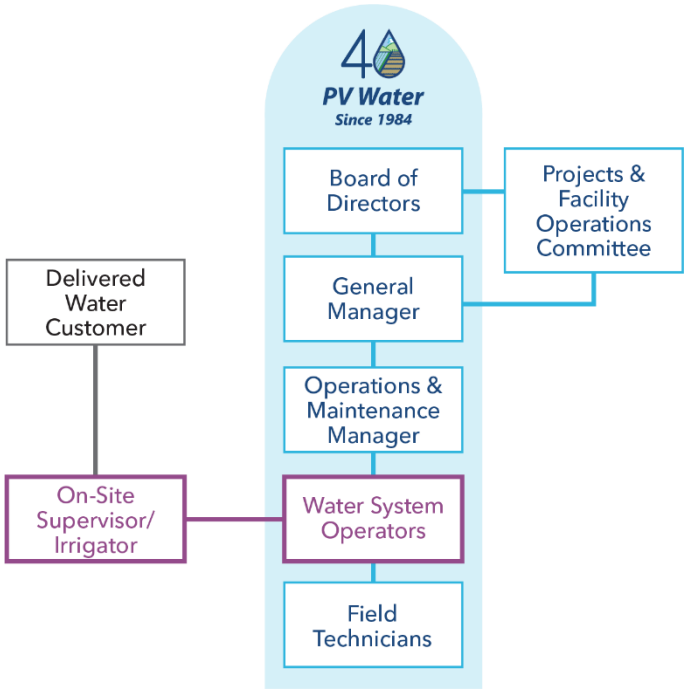


Figure 7. Communication Channels

Non-Emergency Contacts

Organization	Name	Contact Information
PV Water	**Water System Operator**	(831) 750-6265 operations@pvwater.org
PV Water	**Operations and Maintenance Manager**	(831) 722-9292
PV Water	**General Manager**	(831) 722-9292

For emergency contacts, see **Appendix A: Emergency Procedures**.

Appendix A: Emergency Procedures

In the event that a backflow incident or cross-connection is suspected or occurs, the following procedures shall be implemented immediately.

Emergency Procedures

1. **Notify the PV Water and the California Department of Public Health (CDPH) by phone immediately (see Emergency Contacts below).** This notification is to be followed by a written notice within 24 hours to PV Water and CDPH. The written notice is to include an explanation of the nature of the cross-connection, date and time discovered, and the steps taken to mitigate the cross-connection(s).
2. Keep the potable water system pressurized and post **"Do Not Drink" signs** at all potable water fixtures and outlets in both English and Spanish.
3. Immediately shut down the Supplemental Water supply to the facility at the meter.
4. Provide bottled water for employees until the potable water system is deemed safe to drink.
5. Collect water samples from the potable water system and **perform a 24-hour bacteriological analysis**. Water samples should be collected from the closest acceptable point to the cross-connection. PV Water may supply the appropriate sample bottles, obtain the samples and arrange for laboratory analysis.
6. Identify the cause and location of backflow and eliminate the cross-connections.
7. Conduct a cross-connection test verifying that all cross-connections were eliminated.
8. If the bacteriological analysis conducted in Number 5 above is positive, chlorinate the potable water system maintaining a chlorine residual of **at least 50 mg/l for 24 hours**. If the bacteriological analysis is negative, proceed to Number 11.
9. Flush the potable water system after 24 hours (without discharging flushed non-dechlorinated water to surface waters) and perform standard bacteriological analysis.
10. If the results from Number 9 are acceptable to PV Water and to the CDPH, proceed to Number 11. Otherwise, repeat Numbers 8-9.
11. Obtain final approval from PV Water and CDPH before removing signs or bringing the Supplemental or potable water systems back into service.

Emergency Contacts

Organization	Name	Contact Numbers / Addresses
PV Water **(notify immediately)**	**Water System Operator** *Available 24/7*	(831) 750-6265 operations@pvwater.org 36 Brennan Street Watsonville, CA 95076
California Department of Public Health (CDPH) **(notify immediately)**	**District Engineer (DE)** If the DE is unavailable, call the CalOES Warning Center's 24/7 phone number (see next row)	**CDPH Office** (831) 655-6939 District Engineer Department of Public Health Drinking Water Field Operations Branch 1 Lower Ragsdale, Bldg. 1, Suite 120 Monterey, CA 93940
California Office of Emergency Services (CalOES)	CalOES Warning Center (Ask for CDPH Duty Officer-Drinking Water Program) *Available 24/7*	(800) 852-7550 (916) 845-8911
Police, Fire, HAZMAT	Call directly	911 Santa Cruz County Sherriff (831) 471-1121 Monterey County Sherriff (831) 755-3733

- For **distribution system emergencies**, the Water System Operator can be reached by telephone at (831) 750-6265 seven days a week twenty-four hours a day (24/7).
- For **cross-connection emergencies**, in addition to first calling the Water System Operator, contact the California Department of Public Health (CDPH) District Engineer at (831) 655-6939. If during off hours, contact the California Office of Emergency Services – Warning Center (ask for CDPH Duty Officer-Drinking Water Program) at (800) 852-7550, available 24/7. Follow the Emergency Procedures in Appendix A.

Appendix B: Rules and Regulations for Recycled (Supplemental) Water Customers

In 2008, the PV Water Board of Directors adopted the *Rules and Regulations for Recycled Water Customers*, attached here as Appendix B, to comply with the applicable rules and regulations, ordinances, and specifications that govern the use of recycled water. The *Rules and Regulations for Recycled Water Customers* apply to the entire Supplemental Water Program because, in addition to other sources, the program uses recycled water as a source.

The *Rules and Regulations for Recycled Water Customers* incorporate the documents shown in the table below.

Document Title	Organization
California Code of Regulations, Title 22, Division 4, Wastewater Recycling Criteria	California Department of Public Health
California Code of Regulations, Title 17, Regulations Relating to Cross-Connections	California Department of Public Health
Master Reclamation Permit for Distribution of Recycled Water (Order # R3-2008-0039)	Central Coast Regional Water Quality Control Board (Region 3)

All Delivered Water customers **must agree to follow** PV Water's *Rules and Regulations for Recycled Water Customers* if they want to participate in the Delivered Water Program.

Appendix C: Glossary of Terms and Definitions

Acre-Foot (AF) – Volume of water required to cover one acre to a depth of one foot (43,560 cubic feet). An acre-foot equals 325,851 gallons

Aquitard – Geologic formation or stratum that has low permeability and restricts the flow of water between aquifers. It allows only a small amount of liquid to pass through, acting as a barrier for groundwater movement. Aquitards are typically composed of compacted layers of clay, silt, or rock, and they separate aquifers, partially disconnecting the flow of water underground

Backflow Device – Device installed between a potable water system and a non-potable water system that prevents cross contamination of the potable system with non-potable (recycled) water

Board of Directors or Board – Board of Directors of the Pajaro Valley Water Management Agency (PV Water)

Coastal Distribution System (CDS) – Network of pipelines, irrigation water wells, and appurtenances through which Supplemental Water is delivered as irrigation water to the turnouts

Customer – Recipient of Delivered Water which may include the landowner, grower, or any other person or entity who is authorized to order and accept water deliveries from a turnout for irrigation or other agricultural purposes

Customer Valve – Above-ground valve located at each turnout downstream of the PV Water valve

Delivered Water – A blend of Supplemental Water, produced and conveyed to PV Water customers within the Delivered Water Zone

Delivered Water Zone (DWZ) – All parcels where Supplemental Water is available for use, and the *Rules and Regulations for Recycled Water Customers* are in effect (Appendix B)

Design Flow or Design Flow Rate – Maximum rate of water flow to be delivered to a turnout during normal Supplemental Water operation

General Manager - General Manager of the Pajaro Valley Water Management Agency (PV Water)

Irrigator – Individual employed by the customer, who irrigates with Delivered Water under the supervision of the customer's Designated On-Site Supervisor (must attend a training before using Delivered Water)

On-Farm Storage Pond – Any pond located on lands irrigated with Delivered Water used by the customer for water storage, flow regulation, or to receive Delivered Water deliveries

On-Site Distribution System – All components of the on-farm distribution system owned or operated by the customer on the customer's side ("downstream") of the PV Water's turn-out (water within the On-site Distribution System is no longer considered Delivered Water since changes in the water quality may be made via chemigation, on-site blending, etc.)

On-Site Supervisor – Individual employed by the customer who is responsible for ensuring that the use of Delivered Water (which includes Recycled Water) meets all applicable laws and policies, and this Delivered Water Users Handbook (may be the customer)

Potable Water Use – Use of water for drinking, cooking, bathing, showering, dish washing, and maintaining oral hygiene, or for purposes of commerce, trade or industry. **Delivered Water is not considered potable water** under the Rules & Regulations as outlined in Appendix B.

PV Water – Special District Water Management Agency and Groundwater Sustainability Agency for the Pajaro Valley

PV Water Pressure and Flow Control Valve – PV Water valve located downstream of the PV Water meter that controls water delivery pressure and flow. PV Water staff adjusts this valve. **Adjustment by anyone else is prohibited.**

PV Water Valve – PV Water butterfly valve located at each turnout that directly controls flow to the Supplemental Water customer valve.

Responsible Party – Landowner or authorized person(s), as designated in writing by the landowner, authorized to order, accept, and pay for water deliveries.

Recycled Water – Highly treated wastewater which meets all the "Title 22" public health and safety standards as found in the State of California's Code of Regulations. Also known as Reclaimed water. Delivered Water contains recycled water and all handling will be under the *Rules and Regulations for Recycled Water Customers* (Appendix B).

Recycled Water Use Site – Area defined in the Recycled Water Use Permit Site Plan for purposes of documenting the Delivered Water use area, backflow prevention, etc.

Standby Well – Agricultural well owned and operated by a customer or other entity that can be used to provide an irrigation water supply, under limited circumstances, as defined in PV Water Ordinance No. 2000-02

Supplemental Water – Any combination of recycled water, surface water and/or groundwater delivered to customers through PV Water's CDS for irrigation and other agricultural uses

Supplemental Well – Any well maintained and/or operated by PV Water as part of Delivered Water operations and facilities

Turnout – Above-ground piping to which the customer's on-farm irrigation system is physically connected to the CDS for receipt of Supplemental Water

Water Conservation – Care and protection of water as a natural resource, including planned management to prevent unnecessary losses and waste

Water System Operator – PV Water Staff who operates the Delivered Water sources and CDS. The operator is the main contact for the customer, on-site supervisor, and irrigators to order and receive water deliveries.

Water Year – 12-month period used to track seasonal rainfall and water use (beginning October 1 and ending September 30 of each year)

Appendix D: Forms

- Water Order Form
- Example Water Delivery Schedule
- Recycled Water Use Permit Application and Permit
- On-Site Recycled Water Service Plan Form
- Authorization to Schedule Water
- Weekly Site Inspection Report

Appendix E: Backflow Prevention Device Specifications

PV Water Double Check Device Installation Specifications

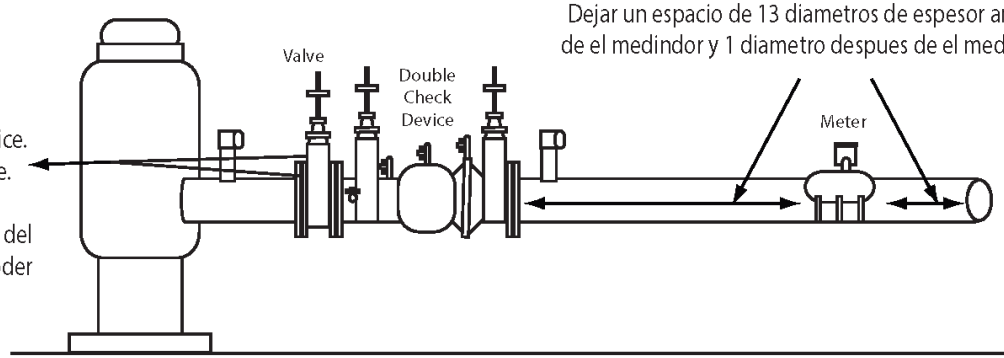
BASIC INSTALLATION:

INSTALLACION BASICA DE VALVULA DE PROTECCION:

Maintain at least 13 pipe diameters upstream of meter and 1 pipe diameter downstream.
Dejar un espacio de 13 diametros de espesor antes de el medindor y 1 diametro despues de el medidor.

Install a butterfly or gate valve upstream of the device. This is required so that annual testing can be done.

Instalar una válvula mariposa o de compuerta ántes del dispositivo de protección. Esto es necesario para poder hacer las pruebas anuales.

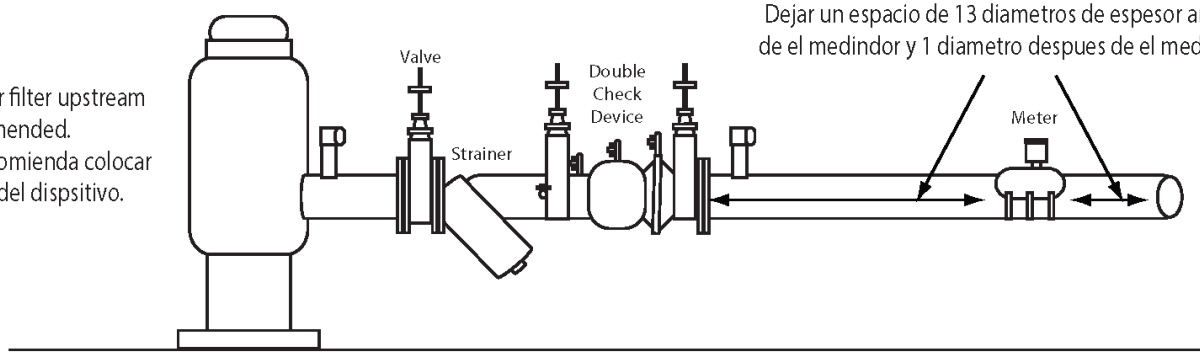


WITH OPTIONAL WYE STRAINER:

CONTENEDOR DE GRAVA O ARENA ES OPCIONAL:

Maintain at least 13 pipe diameters upstream of meter and 1 pipe diameter downstream.
Dejar un espacio de 13 diametros de espesor antes de el medindor y 1 diametro despues de el medidor.

If well pumps sand, a strainer or filter upstream of the device is recommended.
Si el pozo bombea arena, se recomienda colocar un filtro o contenedor antes del dispsitivo.



PV Water Reduced-Pressure Principal Device Installation Specifications

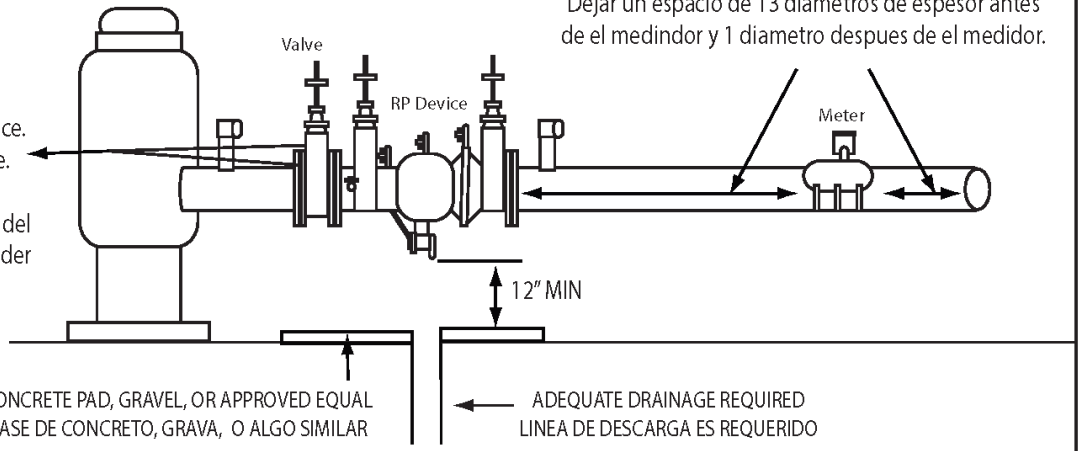
BASIC INSTALLATION:

INSTALLACION BASICA DE VALVULA DE PROTECCION:

Maintain at least 13 pipe diameters upstream of meter and 1 pipe diameter downstream.
Dejar un espacio de 13 diametros de espesor antes de el medindor y 1 diametro despues de el medidor.

Install a butterfly or gate valve upstream of the device. This is required so that annual testing can be done.

Instalar una válvula mariposa o de compuerta ántes del dispositivo de protección. Esto es necesario para poder hacer las pruebas anuales.

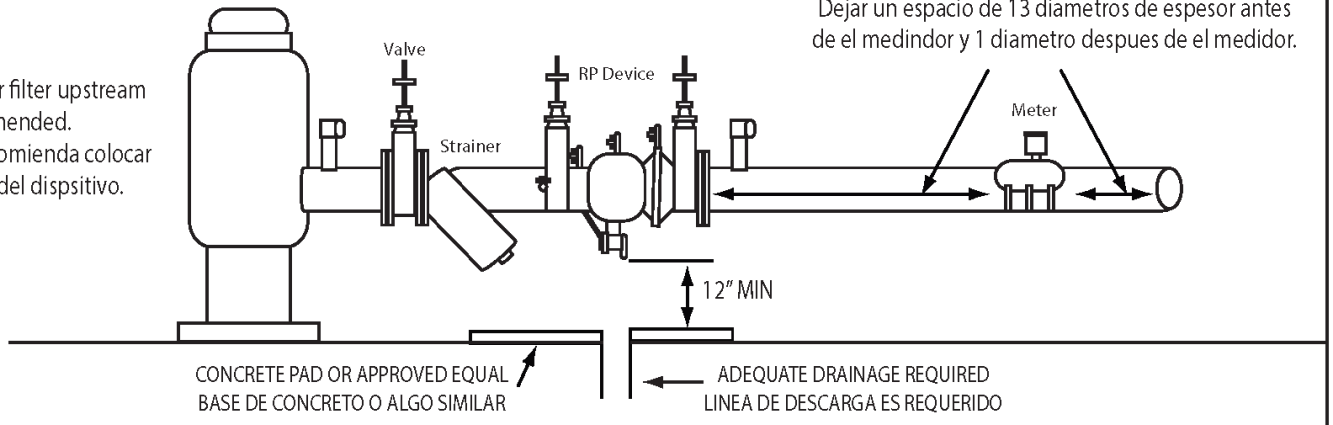


WITH OPTIONAL WYE STRAINER:

CONTENEDOR DE GRAVA O ARENA ES OPCIONAL:

Maintain at least 13 pipe diameters upstream of meter and 1 pipe diameter downstream.
Dejar un espacio de 13 diametros de espesor antes de el medindor y 1 diametro despues de el medidor.

If well pumps sand, a strainer or filter upstream of the device is recommended.
Si el pozo bombea arena, se recomienda colocar un filtro o contenedor antes del dispsitivo.



This PV Delivered Water Users Handbook supersedes all prior versions of PV Water's Handbooks, as listed below.

Delivered Water Users Handbook Editions

Year	Prior Handbook Versions
2025	PV Water Delivered Water Users Handbook supersedes all prior versions of the Water User's Handbooks
2024	October and November 2024 Supplemental Water Customers Workshops 1 and 2 were facilitated with customers, Projects & Facility Committee (PV Water Board appointed), and PV Water Staff. Input from the Workshops and Customer Survey were included in the 2025 Update of the PV Water Supplemental Water Guide to provide more accessible and equitable delivery of Supplemental Water
2020	Update of Appendices Forms and Process for Permit Application and Landowner Authorization, Permit Renewal Forms
2011	Revisions to Section 4.3.1 – Water Delivery Priority / Scheduling
2009	Recycled Water use first delivered to PV Water
2008-2002	Interim Users Handbook incorporates PV Water *Rules and Regulations for Recycled Water Customers* (Appendix B), adopted by Ordinance No. 2008-02 in June 2008, and the PV Water guidelines and procedures as contained in the Recycled Water Program.

As changes occur to the water delivery facilities, water supplies or regulations, supplemental and updated information may be incorporated into the Delivered Water Users Handbook.

Questions about the Delivered Water Users Handbook, regulations for recycled water, and water system operating procedures can be answered by contacting PV Water, located at 36 Brennan Street, Watsonville, California 95076. Office hours are 8:00 AM to 5:00 PM, Monday through Friday. You also may reach the PV Water by telephone at (831) 722-9292 or by sending e-mail to operations@pvwater.org.

Pajaro Valley Water Management Agency

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