

Vandenberg Village Community Services District

Water Conservation Program

Background: Vandenberg Village Community Services District (VVCSD) established a water conservation program in March 1996. The program was expanded and revised in November 2007 and May 2014.

Purposes:

- To reduce demand and promote efficient use of the District's groundwater supply to ensure a sustainable water source for present and future residents.
- To require future development to participate in water conservation efforts by either retrofitting existing properties or contributing in-lieu fees so development does not increase the District's net consumption of groundwater.

Applicability: The program applies to residents, property owners, schools, and developers in Vandenberg Village.

Funds: The principle source of funds for this program is in-lieu fees paid by developers. The District may supplement the program with funds from its annual operating budget, grants, or other sources.

The District will maintain these funds in a separate water conservation account.

Program Administration: District staff is responsible for administering the program.

The General Manager, through the District's can and will serve process, will determine the net consumptive use for new developments and ensure developers mitigate it through participation in this program.

The Water Conservation Coordinator is responsible for promoting the program and administering customer rebates.

The Water Conservation Coordinator will develop lists of eligible customers requesting rebates within the scope of the program. As long as sufficient funds are available, rebates will be made on a first-come, first-served basis regardless of the category of rebate.

The Water/Wastewater Committee will periodically review the effectiveness of the program and recommend changes to the Board of Directors.

If funds in the water conservation account are limited or depleted, the District reserves the right to suspend rebates and create a waiting list. Staff will notify customers by

newsletter, bill notices, or first class mail and advise them not to commit funds in anticipation of future rebates.

Coordination and Participation with Other Agencies: The District may contribute funds and participate in water conservation efforts of other agencies such as Santa Barbara County (water efficiency programs), the Groundwater Foundation, and the Water Education Foundation.

With prior approval of the Board of Directors, grants may be awarded to Lompoc Unified School District faculty or students in Vandenberg Village for water conservation activities.

Performance Period for Rebates: Customers who are notified that funds are available for rebate shall have 120 days from the date of their confirmation letter to furnish receipts documenting the installation of the program feature. If customers fail to furnish receipts within 120 days, they will be removed from the rebate eligibility list. They may reapply at the bottom of the list to establish new eligibility.

Inspection of Installations: The District reserves the right, at the discretion of the General Manager, to inspect the installation prior to and as a condition of a rebate. The purpose of the inspection shall be to ensure the removal of the old features and the installation of qualifying features.

Definitions:

Developer: A party or agent that has a real property ownership or interest in undeveloped property within the District boundaries that does not have, nor has it had, a connection to the District's water distribution or wastewater collection systems.

New Connection: A proposed connection to the District's water distribution or wastewater collection system that was not there previously. An increase in the size or capacity of an existing service connection is considered a new connection, whereas a decrease in service size or capacity is not considered a new connection for purposes of this program.

Single Family Equivalent (SFE): The average volume of water, measured in hundred cubic feet per month (ccf/mo), used by all single family residential connections to the District's water system, regardless of meter size. The SFE is defined and adopted in the District's Code of Ordinances.

Requirements for Developers: Developers are required to purchase fixtures and install/retrofit 10 residences with high-efficiency toilets, low-flow shower heads, and faucet aerators, or pay an in-lieu fee, for every SFE of net consumptive water use for the proposed development.

The American Water Works Association Research Foundation 1999 Residential End Use Water Study was used in determining this requirement.

For purposes of evaluating water balance and calculating net consumptive use for developments, it is assumed that 75 percent of the wastewater sent to the Lompoc Regional Wastewater Reclamation Plant percolates into the Lompoc Plain Sub-Basin and is considered recharge, not consumption. [Source: Revised Water Balance for Providence Landing, prepared by Todd Engineers, January 24, 2003]

Retrofit Cost Per Residence

Items (per residence)	Quantity	Approx Cost	Total
Toilet, high-efficiency, plus hardware	2	\$100.00	\$200.00
Toilet installation	2	\$60.00	\$120.00
Shower head, low-flow	2	\$6.00	\$12.00
Faucet aerator	3	\$1.50	\$4.50
Administration <i>Including staff time to communicate the program and for other water conservation efforts</i>	—	\$93.50	\$93.50
TOTAL			\$430.00

In-lieu fee: (10 residences) X (\$430 per residence) = **\$4,300** per SFE

For new connections other than single family residences homes, the estimated water use for the proposed development (commercial, industrial, public, etc.) will be converted to SFEs and used to determine the developer's retrofit requirement.

Based on historical experience in Vandenberg Village, apartments and condominiums/townhouses use approximately one-third of the volume of water used by a single family residence. For purposes of estimating water consumption, three apartments or three condominiums/townhouses use one SFE of water.

Developer in-lieu fees will be collected in the District's water conservation account and expended only for water conservation purposes addressed in this program or as otherwise authorized by the Board of Directors.

Program Features

Toilets: The District will provide rebates for customers who replace existing toilets with toilets that use less water, subject to the following requirements and limitations:

Only high-efficiency toilets (HET) with a single flush of 1.28 gallons per flush (gpf) or less, or a dual flush with a full flush no more than 1.6 gpf and a reduced flush no more than 1.1 gpf, that meet current plumbing and building codes will be eligible for rebates.

Replacement of a toilet that was manufactured and installed prior to 1994 with an HET:
\$160.00 rebate

Replacement of a 1.6 gpf ultra low-flow toilet (ULFT) with an HET: \$40.00 rebate

To receive a toilet rebate, customer must furnish paid receipts for toilets and installation costs to the District office. Staff will verify the adequacy of the receipts. Upon verification that the program requirements have been met, the District will issue a rebate check to the applicant or credit the customer's account.

Rebates are limited to the number of toilets in the residence or building.

Only toilets purchased and installed after June 7, 1996, are eligible for rebates.

Clothes Washers: Only high-efficiency clothes washers that appear on the Consortium for Energy Efficiency (CEE) approved list at <http://www.cee1.org> are eligible for rebates. The customer must provide paid receipts for the clothes washer to the District office. Staff will verify the adequacy of the receipts. Upon verification that the program requirements have been met, the District will issue a rebate check to the applicant or credit the customer's account in the amount of \$150.00. Each customer is eligible for one rebate per ten years.

Only clothes washers purchased and installed after July 1, 2007, are eligible for rebates.

Cash for Grass: Customers may receive a rebate to replace their grass with low water usage plants, rocks, and/or synthetic turf. To receive a rebate, customers must provide paid receipts for low water use plants, rocks, or synthetic turf; a sketch or drawing showing the approximate dimensions of grass removed; and pictures before and after the grass is removed. Staff will verify the adequacy of the receipts. Upon verification that the program requirements have been met, the District will issue a rebate check to the applicant or credit the customer's account up to \$2.00 per square foot with a \$1,000.00 maximum per assessor's parcel number.

Only materials purchased and installed after July 1, 2007, are eligible for rebates.

Irrigation Controllers: Only WaterSense labeled irrigation controllers using local weather and landscape conditions to control water schedules are eligible for rebates. The District will pay 50 percent of the cost to purchase the irrigation controller up to \$50.00 maximum.

Only irrigation controllers purchased and installed after May 6, 2014, are eligible for rebates.

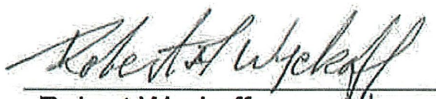
Rain Barrels: To be eligible for a rain barrel rebate, the rain barrel must be at least 50 gallons in size; connected to the downspout or installed under the roof drain; and must contain debris screen, spigot and hose, overflow tube, vector control, and lid. Unlined galvanized tanks are not eligible. Photographs after installation must be provided. Upon verification that the program requirements have been met, the District will issue a rebate check to the applicant or credit the customer's account up to \$50.00 per barrel.

Only rain barrels purchased and installed after May 6, 2014, are eligible for rebates.


Shower Heads, Faucet Aerators, and Other Devices: The District will stock shower heads, faucet aerators, and other water-saving devices and make them available for free distribution to Vandenberg Village residents.

Adopted by the Board of Directors of the Vandenberg Village Community Services District on May 6, 2014.

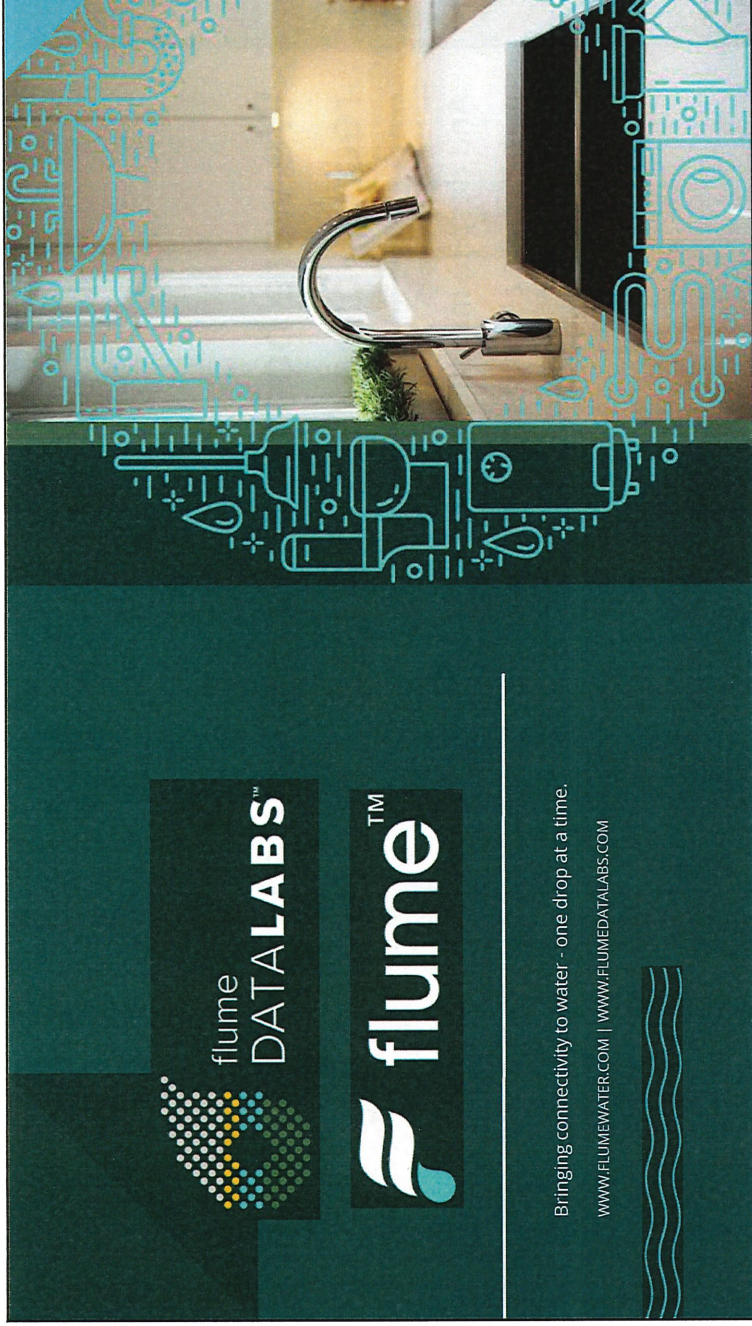
ATTEST:



Robert Wyckoff
President, Board of Directors



Stephanie Vlahos
Secretary to the Board of Directors

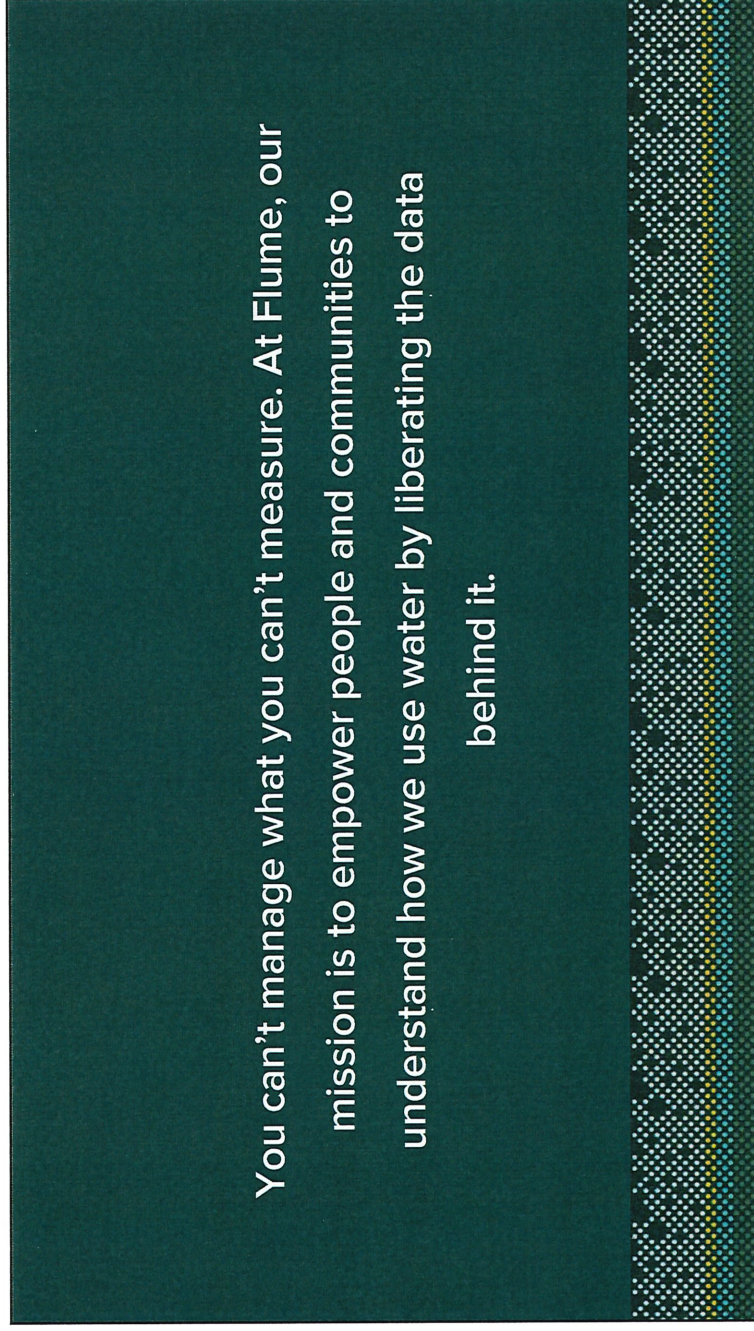


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DATA LABS™

flume™

Bringing connectivity to water - one drop at a time.
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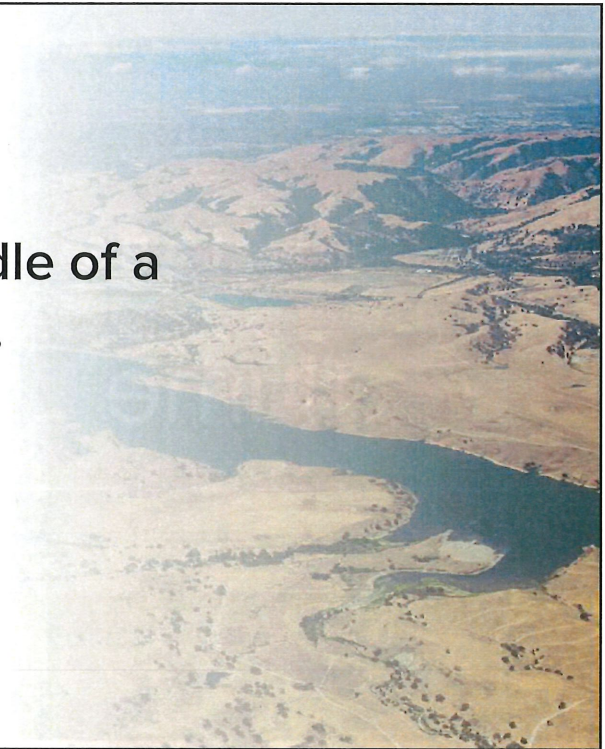


You can't manage what you can't measure. At Flume, our mission is to empower people and communities to understand how we use water by liberating the data behind it.

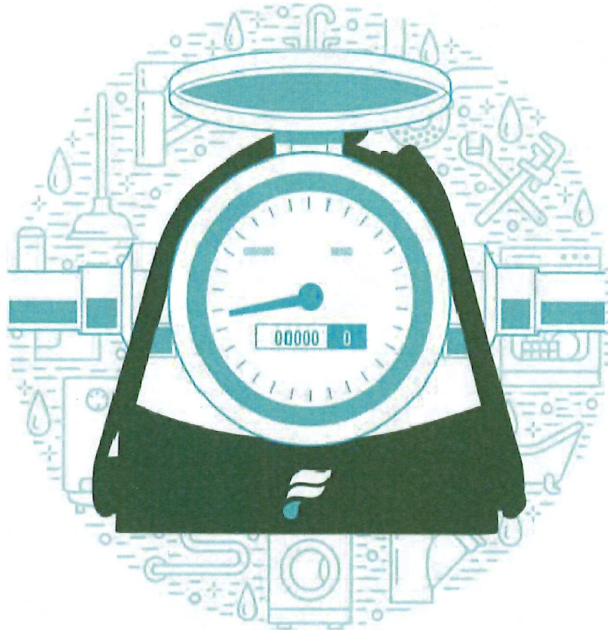
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We were born in the middle of a record-breaking drought.

And despite messages from our water utility asking us to conserve, we didn't know where to start.



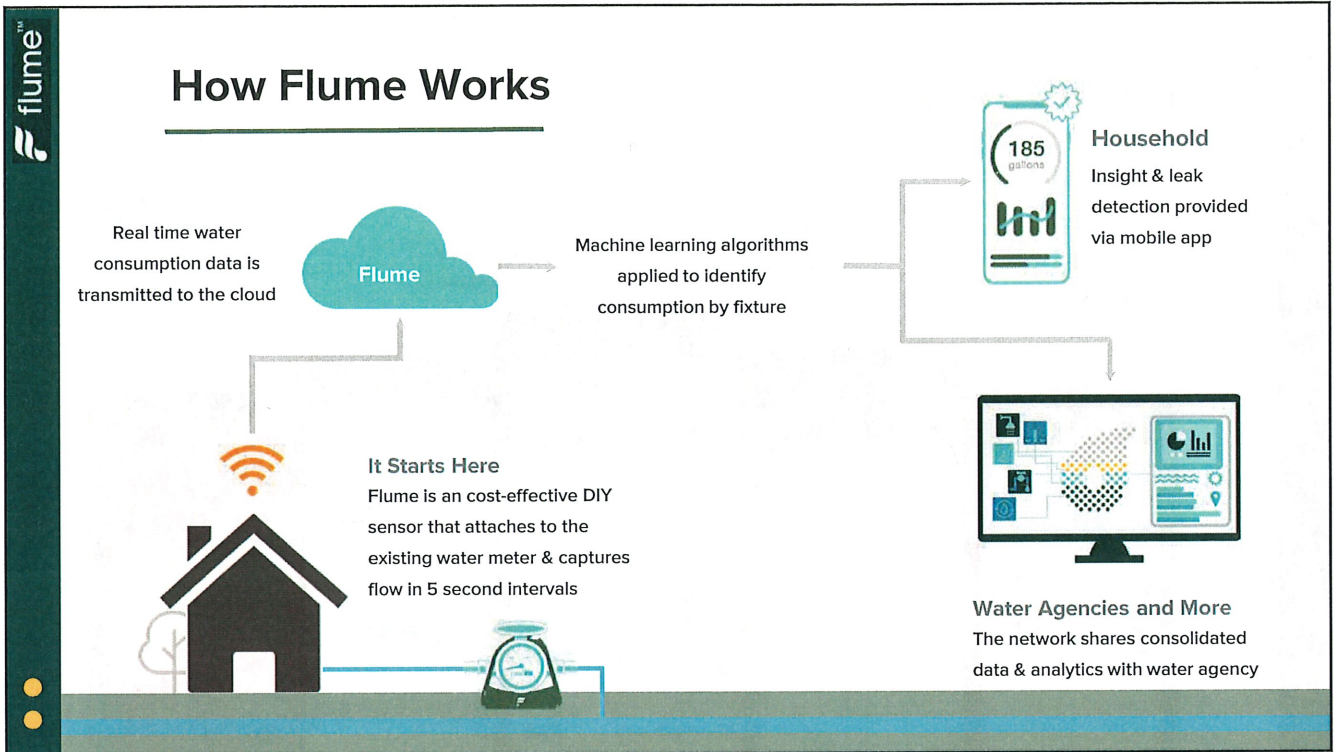
3



So, Flume created a smart water sensor

A plug-and-play system designed to help homeowners easily understand and manage their use.

4



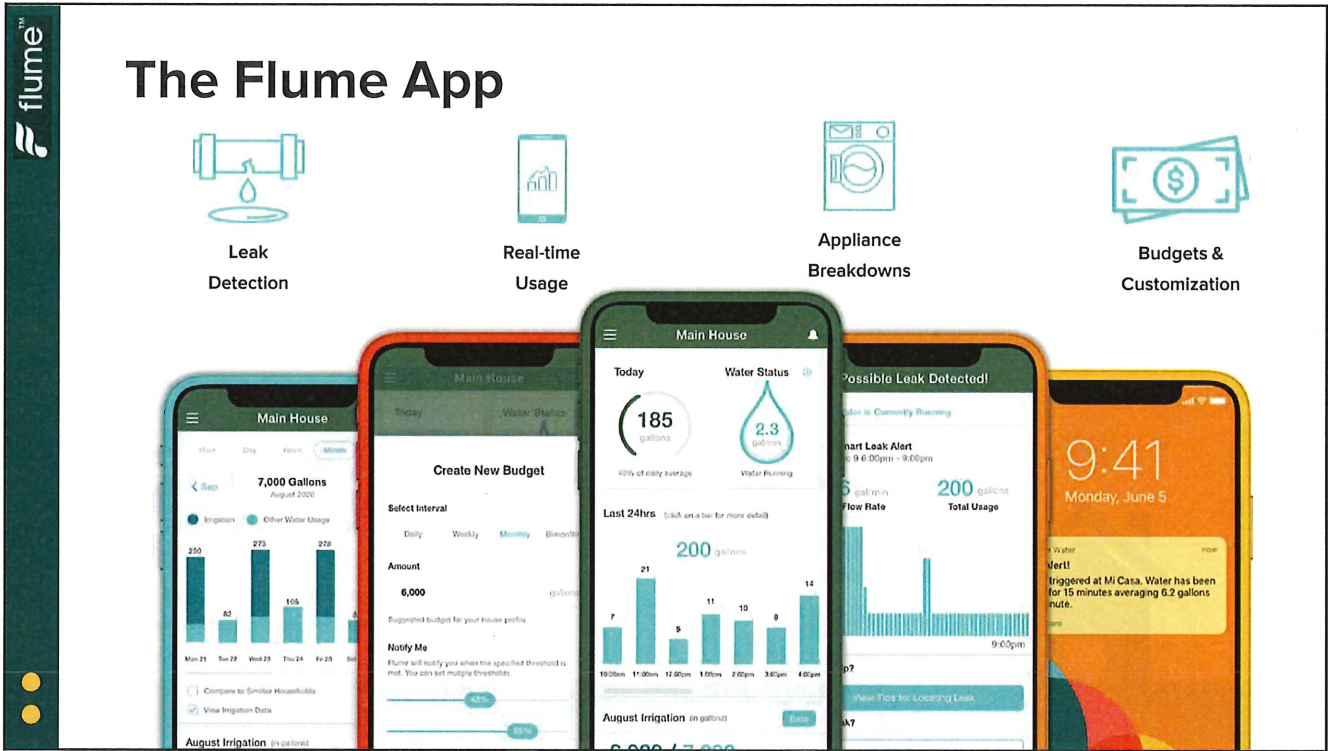
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flume™

Help Your Customers Help Themselves

Empowering your customers with more information about their water use benefits everyone. With our smartphone app sharing real-time water use information, customers are able to catch leaks and understand where their water is going by appliance and fixture. More than **66%** of users said they feel less of a need to call their utility and more than **67%** discovered a leak within the first month of use.

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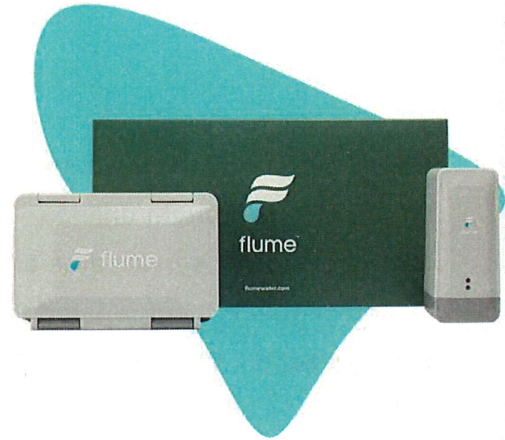
Utilities are deploying Flume through one-of-a-kind Direct Distribution programs specifically targeted to their community.

8



The Easiest, Most Effective Rebate Program You Will Ever Run

Unlike other rebate programs, Flume will do all of the heavy lifting for you. All you have to do is advertise this program to your customers, Flume will ship the product directly to your customers and help them install it. Once installed, your customers will decrease their overall water use by an average of **14%**.



The Customer Experience

City of Santa Barbara - Flume

flumewater.com/partners/sb/

Get Flume For Just \$115 (plus tax and shipping) after Rebate!
Only 92 Remaining

GET OFFER

City of Santa Barbara & Flume

Special Offer! Get Flume for just \$115 (plus tax and shipping) after rebate from the City of Santa Barbara!

Protect your property, take control of your water use, and save money on your next water bill.

GET OFFER

Main House

Today: 185 gallons (40% of daily usage)

Water Status: 2.3 gpm (Water Flowing)

Last 2 hrs: 200 gallons (used or at risk for new week)

August Irrigation: 6,000 / 7,000 gallons

80% of Overall Usage for August

The Flume Utility Portal



Once installed by the customer, all information is brought online instantly for both service area and customer-specific, aggregated flow, disaggregation, water use, and leak data.



Some of Flume's Partners





Sample Pricing



Get started for as little as \$20,000. Price includes:

- Setup of landing page and marketing materials
- 100 Flume Rebates (\$130 each)
- Portal Access for 1 year

Resident pays \$75 after installation.

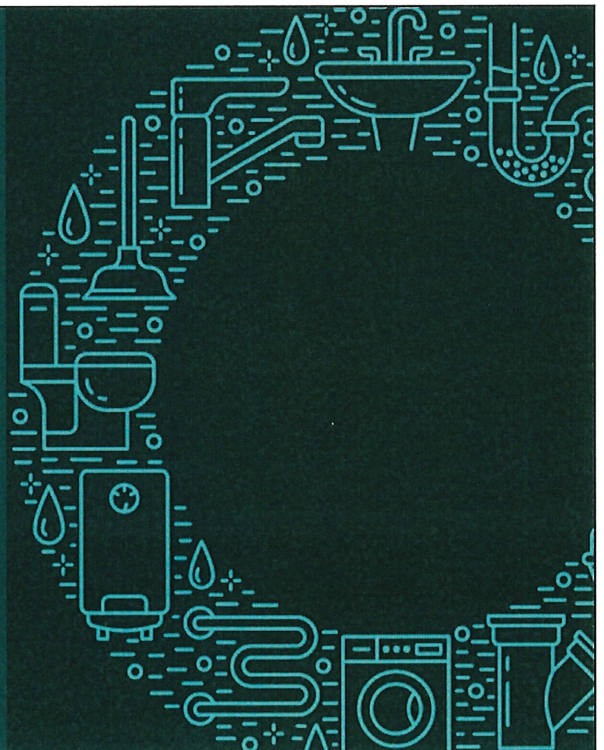


THANK YOU



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Flume Smart Home Water Monitor

Frequently Asked Questions

How does Flume work?

Flume reads the magnetic signal coming off the rotating disc within mechanical water meters. This signal is translated to flow data in real-time and transmitted via radio waves to the WiFi Bridge inside the home. From here, it is uploaded to the Cloud where customers are able to view their water use in the Flume App every minute.

What is required for Flume to work?

WiFi and a mechanical water meter.

What is Flume's compatibility?

Flume can work on mechanical meters up to and including 2" and can transmit data up to 1000 ft from the meter pit to the WiFi Bridge inside the home.

Is Flume battery powered?

Flume is powered by AA Lithium ion batteries and comes with 4 batteries pre-installed. Customers have the option to insert 4 more to extend the lifetime of their device, which typically last 2-3 years. Customers are notified when batteries are running low.

How is Flume installed?

At Flume, we believe gaining access to your home's water data shouldn't be difficult. That's why we designed Flume to be simple and easy Installation. With our DIY hardware and software interface, we make it easy for anyone and everyone to install the device. Customers begin by downloading the Flume App. The app then guides customers through a less-than 10-minute installation process, which involves strapping the sensor directly around the existing water meter with a rubber strap (similar to a watch wrist strap). Once attached, customers will set up the WiFi Bridge. That's it. No pipe-cutting, no wiring and absolutely zero changes to

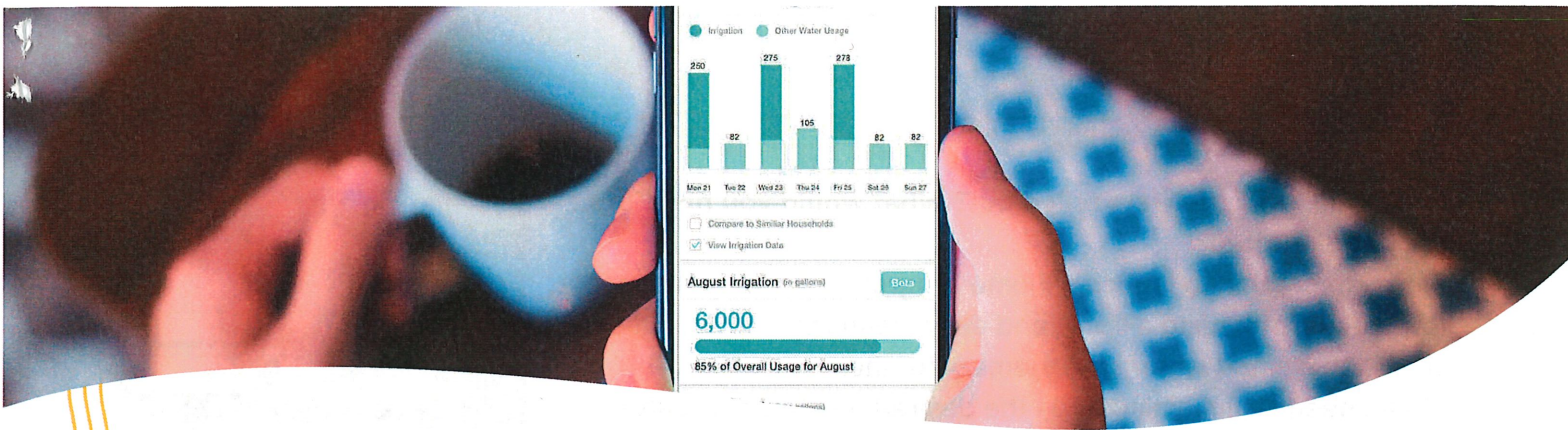
infrastructure required. Flume is totally noninvasive. To date, Flume customers have successfully installed tens of thousands of units across all 50 states in the US, but in the off-chance they have questions or need help, our Customer Support team is here to help.

What data can utilities access?

Flume offers utilities customer-specific and community aggregated data, including:

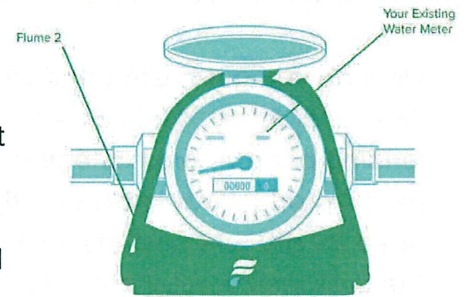
- Service area water use
- Flow rate
- Leak detection and live alerts
- Top water users
- Disaggregated end-use information (i.e., customer separation of indoor vs. outdoor water use) and more





We don't let customers in the meter pit. Have you had issues with customers installing?

Tens of thousands of customers have successfully installed Flume devices without any issue. However, we understand that some utilities are concerned about maintaining the integrity of their infrastructure. This is why our utility programs require all customers to agree to Terms and Conditions prior to receiving their device, agreeing to install the device without tampering with the meter in any way and accepting full liability in the event that there is any damage. In all of the Flume devices that have been installed by customers, not one has ever damaged or tampered with the water meter. Flume is the easiest, safest, and quickest way to access high-definition water use insights.



What is End-Use Disaggregation and how does it work?

Flume 2 has the capacity to separate and label certain water use events. Every water use “event” has a distinguishable water use signature. For example, a toilet flush may use 1.5 gallons in one minute, a shower may use 1.6 GPM for 10-15 minutes, and an irrigation cycle might have a sustained flow of 2-3 GPM for 2+ hours. Using machine learning and algorithms informed by artificial intelligence, Flume is able to identify certain events by their signature and label them.

My water meter boxes tend to fill with water. Is Flume weatherproof?

The Flume Water Sensor is certified to withstand temperatures ranging as low as -40° to as high as 140° Fahrenheit. Furthermore, the sensor is entirely watertight and will continue operating even under as much as 2 feet of water. In case of issue, the Flume 2 device has the capacity to continue capturing water use data offline for up to 60 days, after which it will backfill all water use events to the appropriate time and place.

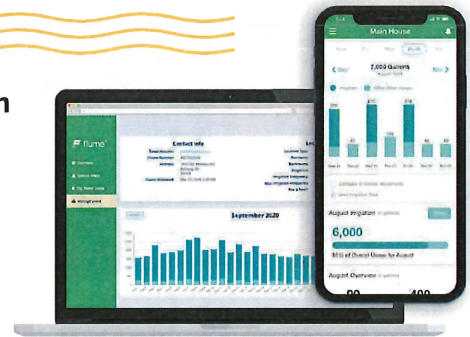
More than 70% of Flume customers have found a leak, and 37% found a leak within the first week of use.

What makes Flume the best flow monitoring and leak detection device?

Flume is the only smart water monitor that captures whole home use, providing both indoor and outdoor water use insights and reports to customers and their utility. Flume is also the only solution on the market that offers a utility-facing dashboard for utility access to the data, and is the only solution on the market that is DIY-installed by the customer in minutes. No pipe-cutting. No wiring. No professional appointments needed. Lastly, Flume is the only product in the category with verified water use savings data and 1:1 utility partnerships.

How is a Flume program rolled out? What would you need from me to get started?

From conception to launch a Flume program can take just a few weeks, providing a quick and easy means by which utilities can enable smart water management for their customers. All Flume needs is an estimate on the desired number of rebates your utility would like to provide and how much you want to rebate your customers. From here, Flume easily generates a utility landing page specifically for your utility, after which you may begin directing customers to your new program to claim the available rebates.



How do you get customer data sharing agreements?

As part of every Flume direct distribution and rebate program, Flume hosts a utility-specific landing page where customers are directed to opt-in to the program. Because Flume is a WiFi-based product, we know exactly when and where a device gets installed, circumventing the need for pre and post-inspections, stacks of rebate paperwork, and a delayed rebate credit to the customer's water bill. With Flume, customer eligibility and verification is completed upfront, prior to receiving their device, by agreeing to the Terms and Conditions during the checkout process.

What is an instant rebate?

An instant rebate differs from the industry standard of post-purchase rebates, where a customer purchases some water efficient fixture at retail and then receives credit down the line after some paperwork and time for processing. Our instant rebate cost-share mechanism allows customers to opt-in to an already allocated rebate, allowing customers to purchase their device net-of the rebate, i.e. a utility offers a \$150 rebate on Flume, the customer opts in for \$49. Instant rebates reduce cost barriers to entry, ensuring equity of access to water saving opportunities while simultaneously lifting the burden of traditional rebate paperwork off utilities and enabling rapid at-scale deployment.

What utilities can I reach out to for reference that have rolled out Flume programs?

Flume would be happy to coordinate contact with any of our utility partners for you. For more information on our utility partners, please contact us at Partnerships@flumewater.com.

What results have utilities seen after partnering with Flume?

88%
of Flume customers
reported a change in
water use

10%
average reduction in
water consumption
amongst Flume users

75%
of Flume customers
feel less of a need to
reach out to their utility