

Introduction to PWT

Programmed Water Technologies

Presenters



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Agenda

This presentation covers:

- PWT overview
- System benefits
- Applications
- System components



Sloan Programmed Water Technologies (PWT) Case Study: [Stanton Correctional Facility, Claybank Adult Detention Center](#), Fairfield, California

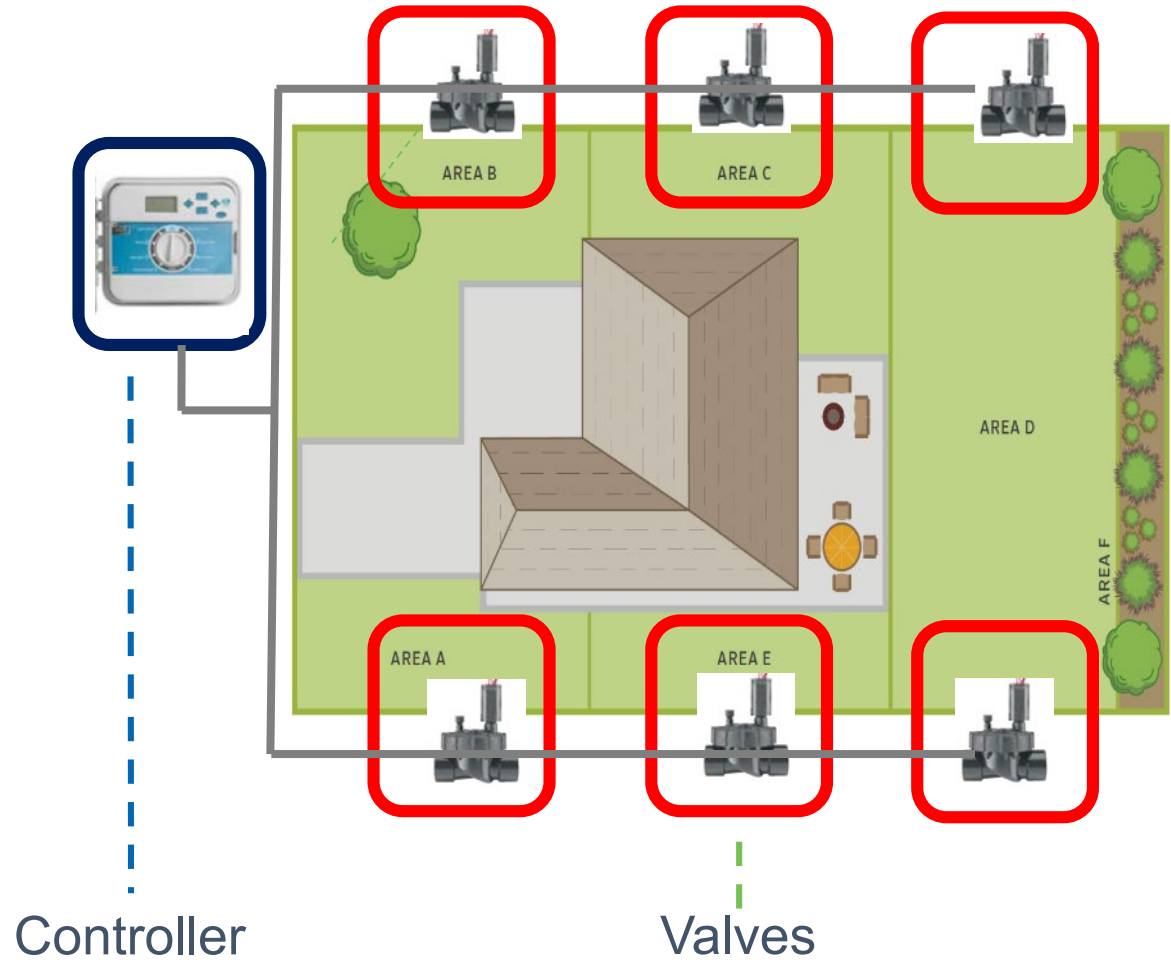
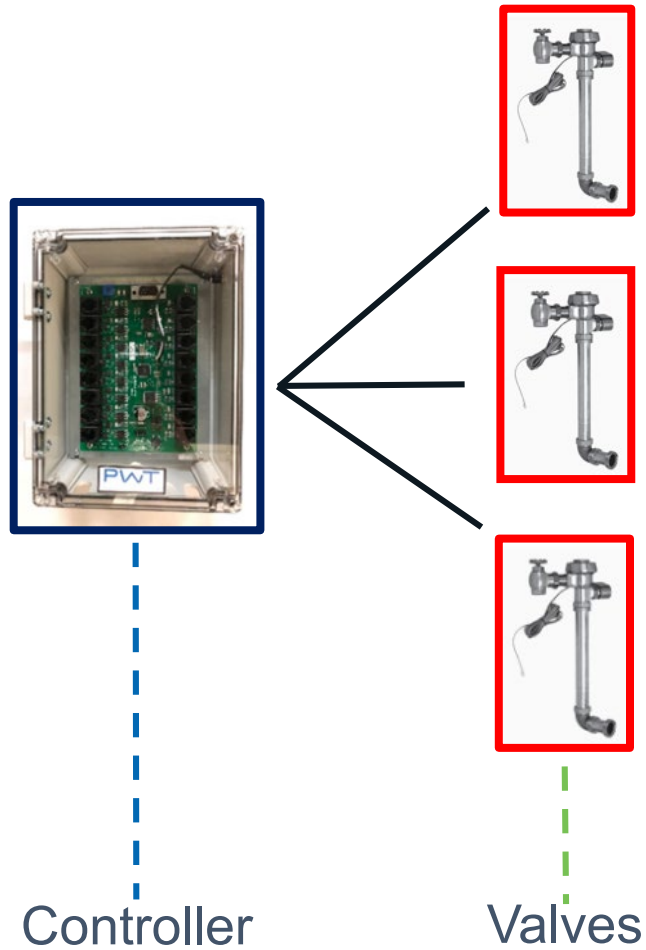
PWT is a Water Management System

- Manages water usage via number of flushes, length of water activation
- Designed to minimize vandalism risk
- Consists of several products - configurable in many ways for different applications



PWT sets new rules for user behavior

PWT versus a Sprinkler System





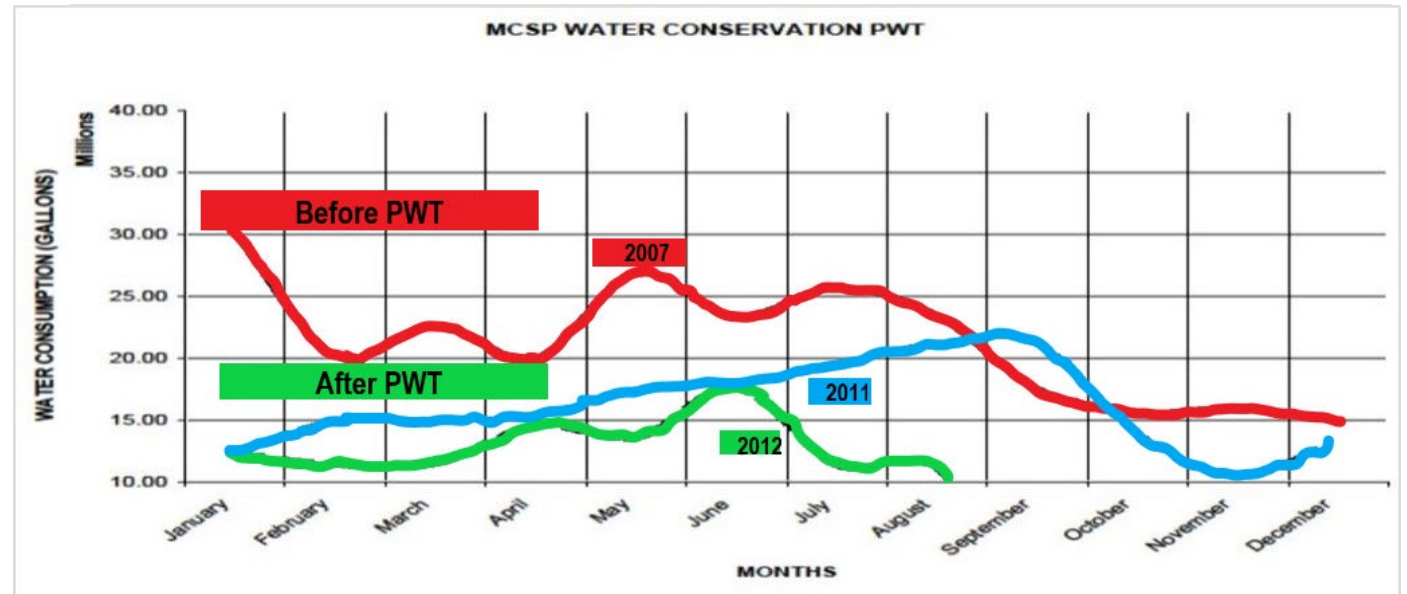
Benefits of PWT Systems

Sloan Programmed Water Technologies (PWT) Case Study, [California State Prison – Corcoran, Fairfield, California](#); [High Desert State Prison, Susanville, California](#)

Tremendous Water Savings, Excellent ROI



Mule Creek State Prison, Ione, California



Institution	Year	Month	Water Consumption in Gallons	Wastewater Flow
MCSP	2007	January	30,067,489.00	29,016,000.00
MCSP	2011	January	12,486,364.00	16,047,000.00
MCSP	2012	January	12,330,000.00	11,157,086.00

[Product Rebate Finder Tool](#)

Boredom Results in Needless Flushes

- California prisons recorded average of 85 activations in 24 hours
- Prevents use of hot water as a radiator



PWT Lowers Costs

PWT literally prevents assets and money from being flushed down the toilet.

- Limits fixture, plumbing abuse
- Prevents overflow
- Less cleaning
- Lowers maintenance time and parts
- Less linen and clothing replacement
- Lower medical costs



Sheets and clothing down the drain at San Mateo County Jail



Chronicle / Michael Maloney

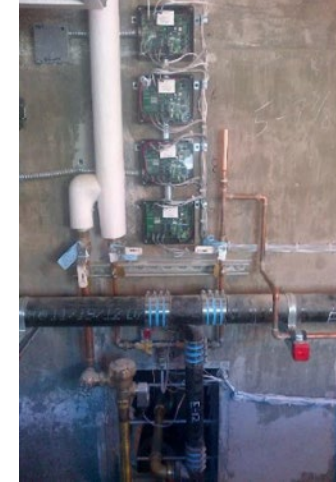


Chronicle / Michael Maloney

Maguire Correctional Facility fined \$781K for damage by improperly flushed Items

PWT Stops Toilets from Being Used for Improper Purposes

- **Trash can**
Flush drugs or contraband down the toilet
- **Communication**
The ultimate 'cell' phone
- **Clothes washer**
- **BBQ Pit**
- **"Mail" chute**
For passing contraband
- **Swimming pool**



Opportunities for PWT Sales: Applications



PWT Configurations for Different Applications

Toilets Only

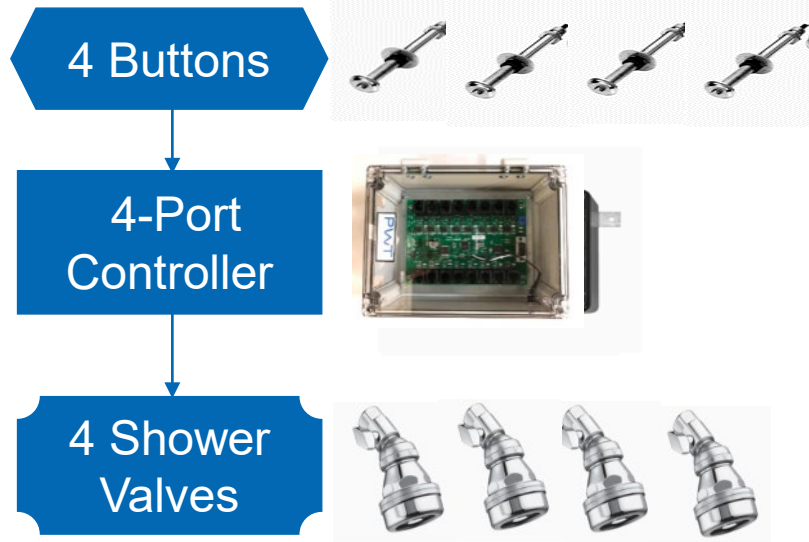
No Power Available



8603-ESM

Showers Only

Power Available: 4 Shower Clusters



Full Restroom: Toilet, Lav, Shower

- 4 Port Controller
- 4 Buttons
- 1 Flush Valve
- 1 Shower Solenoid
- 1 Lav Manifold
- Management Console (Optional)



PWT Applications Where Misuse and Vandalism are Concerns

- Behavioral health facilities
- Hospital/Drug testing labs
- Gyms, YMCA
- Highway restrooms
- Educational facilities
 - Locker rooms
 - Restrooms
 - Sports facilities



PWT Applications Where Water Management is a Priority

- Public showers
 - Water parks
 - no manual handles to break
 - limits rinse-off shower time
- Race tracks
 - pit crew showers
- Parks and recreation facilities



Creative Applications



High-End Health Club, South Africa

PWT system installed to manage
shower water

Ceiling sensor activates the
shower when guests enter and
deactivates when they step away



Park District Water Play Area, Pennsylvania

PWT system installed to control
feature activation

An empty basketball court was
converted into a family friendly
water play area



Zoological Park, Virginia

PWT system installed to
enable a splash feature

Primates are able to soak
visiting humans

PWT System Components



Sloan Programmed Water Technologies (PWT) Case Study
[Noble Adult Male Medium Security Correctional Facility](#), Caldwell, Ohio

Systems Consist of Several Products

PWT components include:

- Flushometers
- Controllers
- Manifolds – hot and cold water mix
- Buttons
- Shower valves
- Transformers
- Management console



[Battery Flushometers](#)



[Hardwired Flushometers](#)



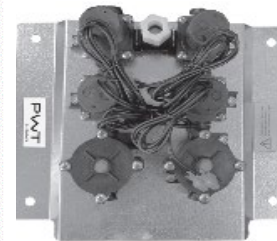
[PWT Retrofit Assemblies](#)



[PWT Controllers](#)



[PWT Push Buttons](#)



[PWT Manifolds](#)



[PWT Shower Systems](#)



[PWT Transformers](#)

Available for new installations, retrofits and upgrades

Typical PWT Fitted “Combi” Unit



[MCR-231D](#)
Hot & Cold Buttons



[MCR-321](#) Manifold



[MCR-183A](#)
Toilet Flush Button



Combination Unit
(Combi) by others



[Royal 603-ESM](#)
Solenoid Operated
Flushometer



[MCR-8012A](#)
Controller



[EL-154](#)
Transformer

How Does it Work?

Products Connect to Create a System



Button:

Sends a signal to activate flush



Battery



Hardwired

Controller:

Determines if water/flush can be activated

Number of flushes in a given time (5 minutes)

Length of time since last flush

[8603-ESM](#) head contains controller programming



Valve:

Receives message from controller to flush / activate

Shower & Lav:

Receives message from controller to run water for programmed length of time

Hardwire and Battery Flushometers

- 1.28, 1.6, 2.4 GPF diaphragm options
- [8603-ESM](#) Manual flush capability
 - Inside the chase
 - Universal button in cell
 - Optional LED button
 - Battery operated
 - Low battery LED warning



Hardwired
Royal 603-ESM



Battery
8603-ESM

Program Number	Number of Flushes	Time Window	Lockout Time
1	2	5 min	15 min
2	2	5 min	30 min
3	2	5 min	45 min
4	2	5 min	60 min
5 "Dorm"	1 w/ backside delay of 60 sec. No lockout.		

PWT Touch Buttons



[MCR-324-L](#)
Universal LED Button



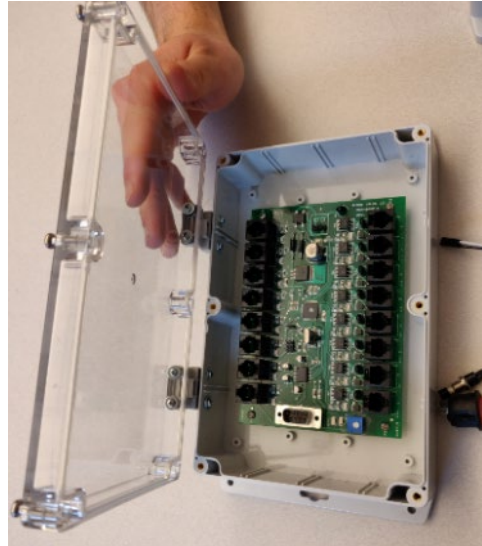
[MCR-231D](#)
Piezo Button for
Hardwired Application



MCR-324-L Features and Benefits

- Universal mounting system
 - Easily adjusted for wall thickness up to 12"
- LED for lockout communication to user
 - Reduces inmate frustration
 - Optimized for minimal battery life impact
- White alignment arrows on cables
 - Easy alignment in typical chase lighting conditions
- Other buttons
 - [MCR-325](#) Standard flushometer button
 - [MCR-231D](#) Piezo button (lav and shower)

PWT: Water Resistant Controller Box



3 Options

- [MCR-4011A](#) 4 port Communicating
- [MCR-4014A](#) 4 port standard
- [MCR-8012A](#) 8 port standard

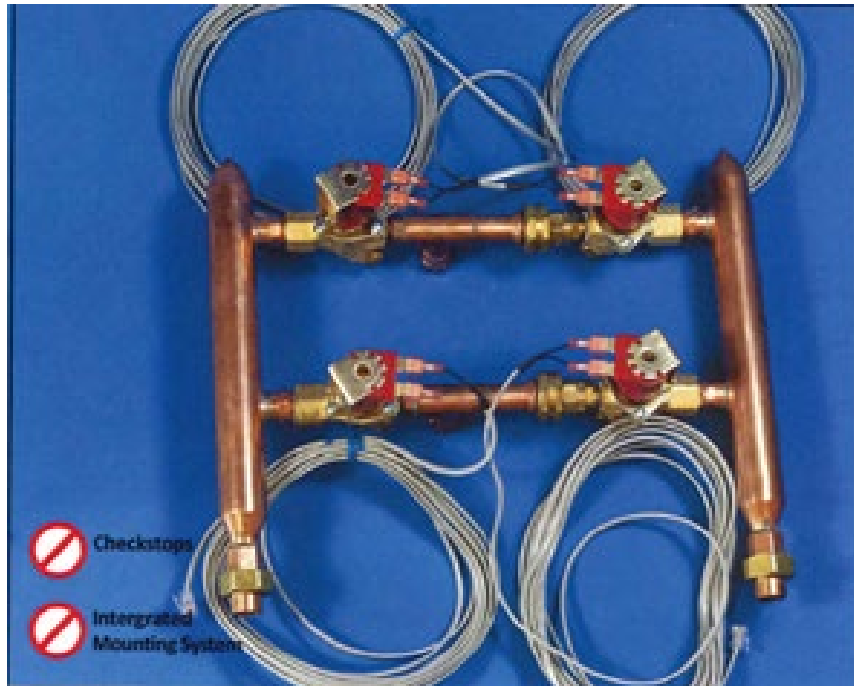
Benefits

- Increased water & dust protection (IP 53)
- Hinges for easy access
- Captive screws on cover
- Gaskets on cover
 - Bottom is open for wires
- Universal mounting plate
 - able to mount the 4 I/O board or the 8 I/O board into the same box

4 port and 8 port options

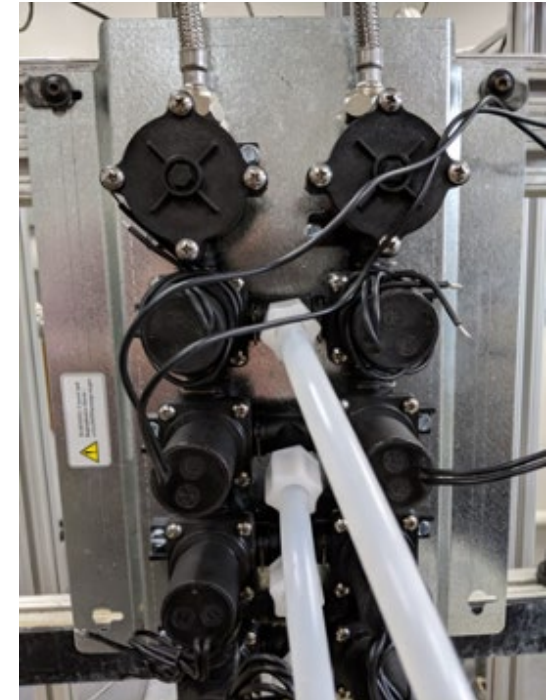
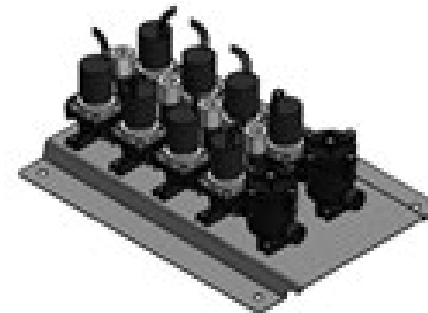
PWT 2.0: New Manifolds

Current Manifold: [MCR-101](#) Series



New Manifold System: [MCR-321](#) Series

- Clean compact look
- Smaller footprint
- Easier installation
- Complete mounting system, back-check valves and hoses included



Both options available to customers

Management Console

Enhanced customer experience

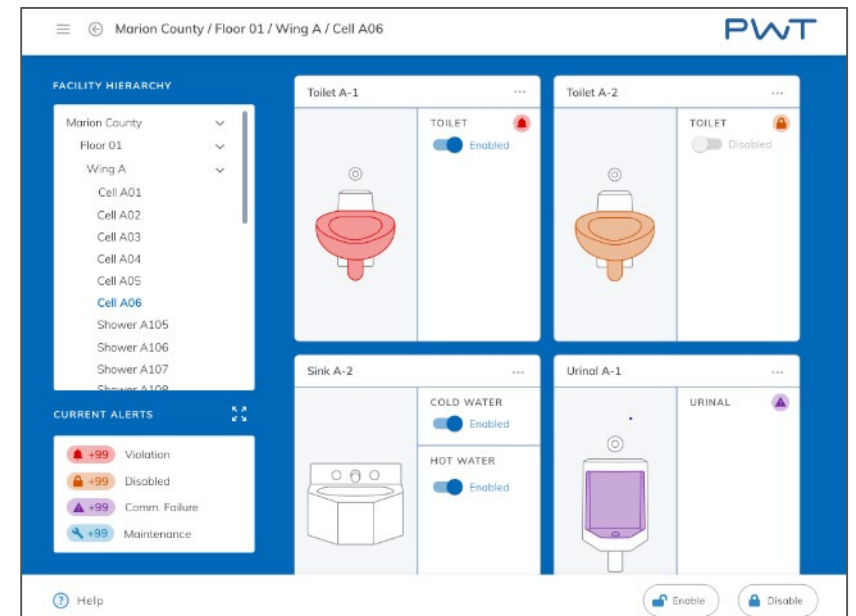
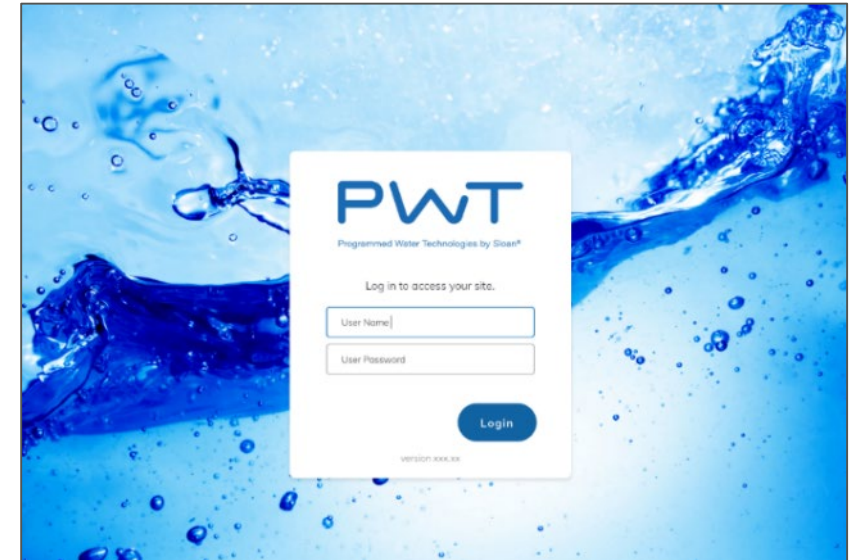
- Updated user interface
- Increased control capabilities
- Flexible reports and data extraction

Product support flexibility

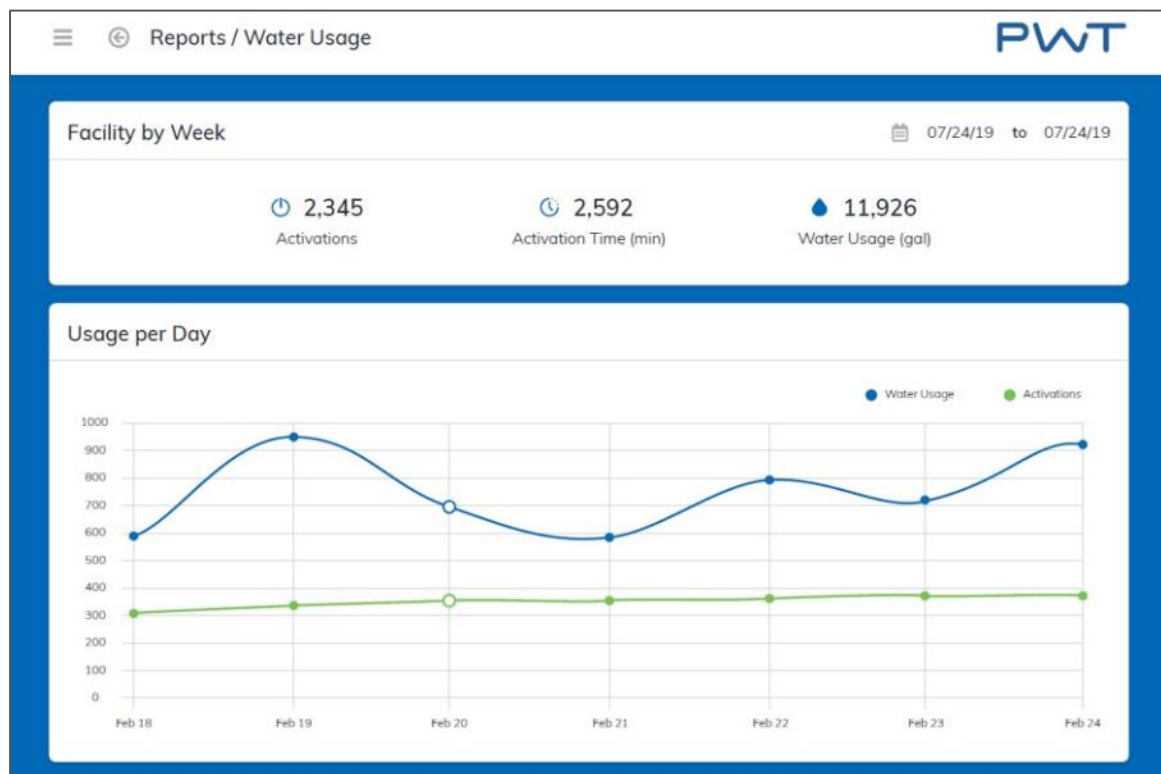
- Backward compatible with PWT 1.0 systems
- Supports all updated web interfaces
- Works with modbus systems

Future sustainability

- Windows 10



Management Console



Marion County / Floor 01 PWT

FACILITY HIERARCHY

- Marion County
- Floor 01
- Wing A
 - Cell A-1
 - Cell A-2
 - Cell A-3
 - Cell A-4
 - Shower A-1
 - Shower A-2
 - Shower A-3
 - Shower A-4
- Wing B

CURRENT ALERTS

- +99 Violation
- +99 Disabled
- +99 Comm. Failure
- +99 Maintenance

Floor 01 / Wing A

- Cell A-1
- Cell A-2 (VIOLATION)
- Cell A-3
- Cell A-4
- Shower A-1 (MAINTENANCE)
- Shower A-2
- Shower A-3
- Shower A-4 (DISABLED)

Floor 01 / Wing B

- Cell B-1 (NO NODE)
- Cell B-2 (NO STATUS)
- Cell B-3
- Cell B-4
- Shower B-1 (NO NEURON ID)
- Shower B-2
- Shower B-3
- Shower B-4 (COMM. FAILURE)

Floor 01 / Wing C

- Cell C-1
- Cell C-2 (VIOLATION)
- Cell C-3
- Cell C-4

Enable Disable

Summary

PWT is the ideal solution

- For multiple applications
- For connected equipment flexibility
- For water management and control
- From Sloan – a well-known and trusted brand

Water Control
Effortlessly oversee and manage your facility's water flow.

PWT* Flushometers
Electronically operated and designed for prisons and high-security institutions.

PWT* Shower Systems
Complete systems that control water-run time for entire operations.

PWT* MicroPlumb* Controllers
The nerve center of our PWT* offering. Modular, pre-programmed units.

PWT* Push Buttons
Waterproof, rugged assemblies for high-abuse installations.

PWT* Manifolds
Used to supply hot, cold and mixed water to lavatory prison fixtures.

PWT* Solenoids
Engineered for use in lavatory and shower applications.

[Sloan Programmed Water Technologies](#)

Find your local Sloan representative for more information

[Sloan Rep Locator](#) tool.

- Local code knowledge
- Familiarity with existing sites
- Product knowledge
- Available for onsite consultation





Questions?

Upcoming Sloan Training Webinars



June 4th

Overview of Sloan
Touch-Free Faucets



June 11th

Introduction to Sloan
Touch-Free Soap
Dispensers



June 18th

Sloan Sensor 101
Installation, Start-Up,
Function and
Troubleshooting

Upcoming Sloan Training Webinars



June 25th

Commercial Restroom
Products and ADA
Compliance



July 2nd

Flushometer Care and
Maintenance Part 1 –
Manual Diaphragm Units



July 9th

Power Supply Options
and Installation
Recommendations for
Sloan Sensor Faucets

Training Comments, Questions, or Suggestions?

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