

# CAR WASH PORTFOLIO:

## *H2MINUSO CASE STUDY & ANALYSIS*



5 Locations  
Coast to Coast - USA

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# Introduction

## Evaluating Water Efficiency, Cost Reduction, and Long-Term Operational Benefits

This case study provides an in-depth evaluation of the **H2minusO Flow Management Device**'s impact on water consumption, billing accuracy, financial savings, and long-term value creation across multiple car wash locations. The findings, verified by independent third-party reviews, confirm the technology's effectiveness in reducing water waste while maintaining uninterrupted operations.

By analyzing data from car washes of varying sizes and regions, this report highlights the scalability and adaptability of the solution, establishing a compelling proof of concept for businesses seeking cost efficiency, sustainability, and improved profitability.



*"Think of a river—when it's calm, water flows smoothly. But when rocks and sudden drops appear, turbulence creates foam and bubbles. In pipes, this same effect causes air to mix with water, artificially inflating meter readings."*

## H2minusO Technology Overview

Car washes are among the most water-intensive businesses, consuming significant amounts of water to provide premium services. However, pipeline turbulence introduces air pockets into the flow, leading to inflated meter readings and unnecessary utility costs.

### **Common Causes of Pipeline Turbulence:**

- Pump activations cause sudden flow changes and create unstable pressure zones.
- Pipe size transitions result in variations that disrupt the flow and introduce air.
- Infrastructure changes or damages introduce trapped air, affecting meter accuracy.

The **H2minusO Flow Management Device** eliminates turbulence by stabilizing water flow, ensuring businesses only pay for the water they consume—not excess air—resulting in significant operational savings. More accurate meter readings.

## Key Findings Across Car Wash Locations

### Water Consumption Reduction

Independent reviews confirmed measurable reductions in water usage across tested locations:

Location	Water Savings	Pre-Install Usage	Post-Install Usage	Annual Savings
Sherman Oaks Car Wash	42%	14,037 gal/day	8,142 gal/day	\$22,500/year
Major Car Wash, Rahway	28%	21.44 gal per car	15.40 gal per car	\$18,600/year
Brighton Carwash	22.5%	29.95 gal per car	23.26 gal per car	\$16,000/year
Hertz Corporation (LAX)	19%	5.75 million gal/year	4.65 million gal/year	\$70,000/year
Crew Carwash	9%	8.9 million gal/year	8.1 million gal/year	\$35,000/year

## Case Study Summaries

### Sherman Oaks Car Wash - Sherman Oaks, CA

- **Objective:** Optimize daily water consumption and enhance efficiency.
- **Solution:** Installation of the H2minusO Flow Management Device.
- **Key Results:**
  - Pre-Installation: 14,037 gal/day
  - Post-Installation: 8,142 gal/day
  - Savings: 42% reduction in daily water usage
- Update: **Local Utility Rate Increases:**
  - The **Metropolitan Water District of Southern California** has approved 8.5% water rate increases in 2025 and 2026 due to drought-related revenue declines.
  - Sewer rates in **Los Angeles County** are projected to rise 10-15% over the next five years.

## Major Car Wash - Rahway, NJ

- **Objective:** Implement flow management technology to reduce water consumption and improve operational efficiency.
- **Solution:** Installation of the OEM H2minusO Flow Management Device.
- **Key Results:**
  - Pre-Installation: 21.44 gal per car
  - Post-Installation: 15.40 gal per car
  - Savings: 28% water reduction per car
- **Update: Local Utility Rate Increases:**
  - The Rahway City Council approved 10% water rate increases in 2024, followed by 8% hikes in 2025 and 2026, before stabilizing at 5% annual increases through 2030.

## Brighton Carwash - Naperville, IL

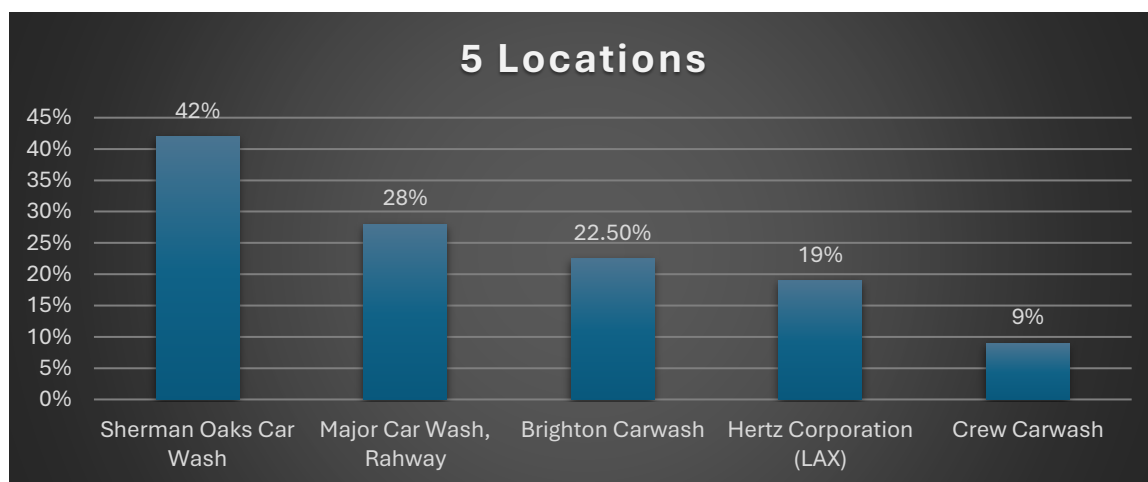
- **Objective:** Reduce water consumption and support sustainable practices within car wash operations.
- **Solution:** Installation of the H2minusO Flow Management Device, monitored daily in collaboration with Greenworks Energy Solutions.
- **Key Results:**
  - Pre-Installation: 29.95 gal per car
  - Post-Installation: 23.26 gal per car
  - Savings: 22.5% water reduction per car
- **Update: Local Utility Rate Increases:**
  - The City of Naperville has planned progressive water rate increases through 2025, driven by infrastructure improvements and regulatory requirements.

## Hertz Corporation (LAX) - Los Angeles, CA

- **Objective:** Reduce water consumption for high-volume car wash operations.
- **Solution:** Installation of a 3" Flow Management Device (FMD).
- **Key Results:**
  - Annual Savings: 2,353,354 gal
  - Savings: 19% water reduction
- **Update: Local Utility Rate Increases:**
  - The Los Angeles City Council approved a 22% sewer rate hike starting in October 2024, with additional increases planned through 2028.

## Crew Carwash - Brownsburg, IN

- **Objective:** Reduce water usage and operational costs for car wash facilities.
- **Solution:** Installation of two 2" ECO Flow Management Devices (FMDs).
- **Key Results:**
  - Annual Savings: 882,512 gal
  - Savings: 9% reduction in water usage
- **Update: Local Utility Rate Increases:**
  - The Town Council has implemented 1% annual sewer rate increases, ensuring gradual adjustments for infrastructure maintenance.



## Payback Period and ROI Calculation

Across all locations, the payback period for the H2minusO Flow Management Device ranged from 5 to 12 months, significantly faster than industry averages for water-saving technologies.

### **Example ROI Calculation: Brighton Carwash**

The Brighton Carwash location achieved a 22.5% water savings, reducing consumption from 29.95 gal per car to 23.26 gal per car, resulting in \$16,000 in annual savings.

With a payback period of 8 months, the ROI accumulates over the remaining warranty period of 9.3 years, generating an estimated \$148,800 in net savings.

This ensures long-term financial stability and profitability, as cost reductions extend far beyond the initial investment, making H2minusO a high-value operational enhancement for car wash operators.



## Offset Future NOI Increases Due to Rising Utility Rates

Since water and sewer rates increase almost yearly, the H2minusO Flow Management Device helps offset future NOI increases by continuously reducing unnecessary water costs.

- Continuous savings as utility rates rise ensure that operational expenses remain lower than projected.
- Higher NOI over the warranty period ensures future utility rate hikes are absorbed through stabilized water efficiency.
- Long-term ROI compounds over time, with the 10-year warranty ensuring savings are locked in, providing predictable and long-term financial stability.

# Chemical Usage Optimization

In addition to its impact on water efficiency and cost savings, the H2minusO Flow Management Device delivers benefits in chemical management for car wash operations:

- Accurate water meter readings allow car wash operators to forecast chemical needs more effectively, avoiding overstocking or shortages.
- Purchasing efficiency is improved by aligning chemical orders with precise usage data, reducing waste and ensuring cost-effective inventory management.
- Mixing precision is enhanced as accurate water measurements ensure proper chemical-to-water ratios, resulting in better cleaning performance, minimized waste, and optimized chemical costs.

## Operational and Property Value Impact

### **NOI (Net Operating Income) Improvement**

- Recurring utility savings contribute directly to NOI improvements.
- Reduced water expenses increase profit margins over time.
- Higher operational efficiency minimizes unexpected costs and ensures stable returns.

### **Property Value Enhancement**

Since commercial real estate valuation is driven by NOI and Cap Rate, sustained water cost savings positively impact long-term asset valuation. For example, assuming a Cap Rate of 6%, a \$32,000 annual savings per location equates to a **\$533,000 increase in property value**, providing an additional financial incentive beyond operational savings.

### **Competitive Advantages and Sustainability**

- Significant cost reductions lower water and wastewater costs, directly improving profit margins.
- Sustainability appeal aligns with growing eco-conscious consumer expectations.
- Improved efficiency stabilizes water flow, reducing operational risks associated with turbulence.
- Asset appreciation links directly to increased NOI, enhancing long-term property valuation.



## Final Summary and Takeaways



The Car Wash Portfolio case study confirms that the H2minusO Flow Management Device:

- Reduces water consumption by an average of 24.7% across multiple car wash locations.
- Businesses save an average of \$32,000 annually per location.
- Provides a rapid payback period of 5-12 months, with ROI extending across a 10-year warranty period.
- Enhances operational efficiency while positively influencing NOI and property valuation.
- Offsets future NOI increases caused by annual water and sewer rate hikes, ensuring sustained financial stability.
- Supports chemical management improvements, including accurate forecasting, efficient purchasing, and precise mixing, which reduce costs and improve service quality.

With its proven success across diverse regions and facility sizes, the **H2minusO Flow Management Device** offers car wash operators a reliable solution to reduce costs, improve sustainability, and enhance long-term financial stability.