

PWX
PUBLIC WORKS EXPO
HOUSTON

The Road Map to a Clean Fleet

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ROOTED IN
Service
POWERED BY
Community

#PWX2026



LEARNING OBJECTIVES

At the end of this learning experience, I will be better able to...

- 1** **Compare** manual, rollover, and drive-through fleet washing methods.
- 2** **Evaluate** which washing approach best fits your fleet, staffing, facility, and budget.
- 3** **Identify** wash priorities that help reduce corrosion, maintenance costs, and downtime.

WHY CLEAN YOUR FLEET?



Maintaining a clean fleet of public works vehicles is about more than appearance:

- Safety
- Reduce Corrosion & Protect Investment
- Improve Public Image
- Environmental Responsibility

CLEANING CHALLENGES

- Heavy salt & grime
- Frequent cleanings in winter
- Limited staffing
- Harsh environment



METHOD 1: MANUAL WASHING

- Pressure washer (hose & wand)
- Low-Cost Equipment
- Flexible
- Labor Intensive



MANUAL WASHING: PROS & CONS



Pros: lower cost of entry, simple, detail-oriented

Cons: time-consuming, physically demanding, inconsistent, missing undercarriage

METHOD 2: IN BAY ROLLOVER SYSTEMS

- Vehicle remains stationary
- Wash system moves over vehicle
- Consistent results



Credit: Image from American Truck Wash "Freedom Gantry"
<https://americantruckwash.com/fleet-truck-wash-systems/freedom-wash/>

IN BAY ROLLOVER: PROS & CONS

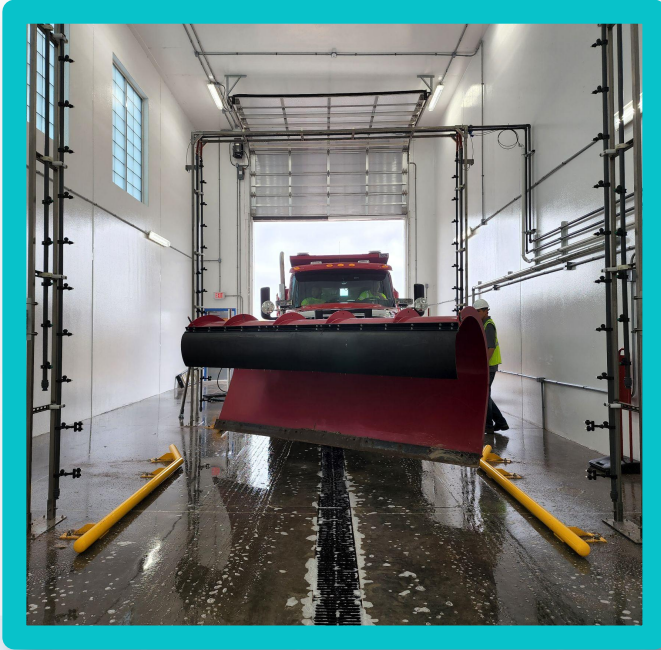


Credit: Image from D & S "IQ MAX - Large Vehicle Wash"
<https://parts.dscarwash.com/iq-max-large-vehicle-wash/>

Pros: Consistent, enclosed, undercarriage, faster than manual washing

Cons: ~ 7-15 min process, more maintenance, infrastructure

METHOD 3: DRIVE-THROUGH SYSTEMS

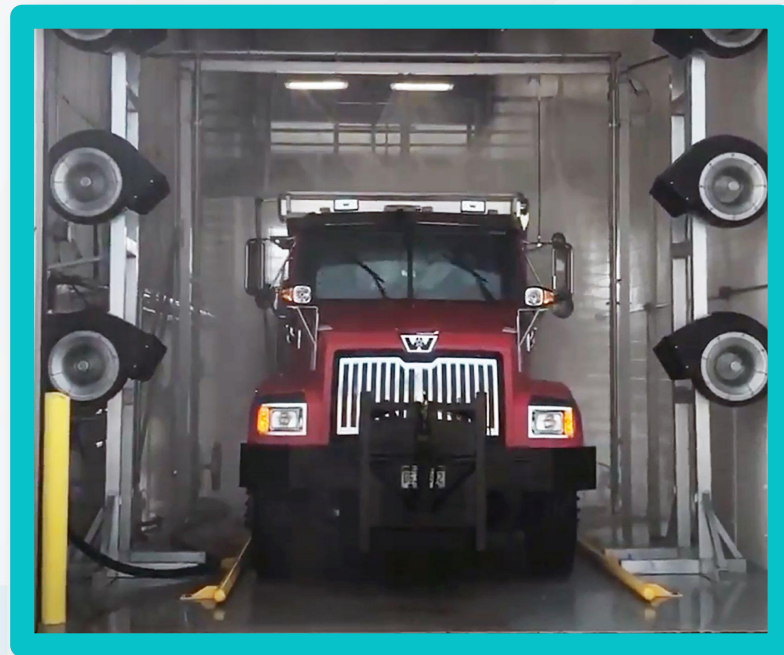


- Equipment remains stationary
- Vehicle drives through system
- Consistent results

DRIVE THROUGH: PROS & CONS

Pros: Fast, efficient, enclosed, undercarriage, ~ 3-5 min process, low maintenance

Cons: Higher upfront costs, drive speed variability, infrastructure needs



ADDITIONAL CONSIDERATIONS

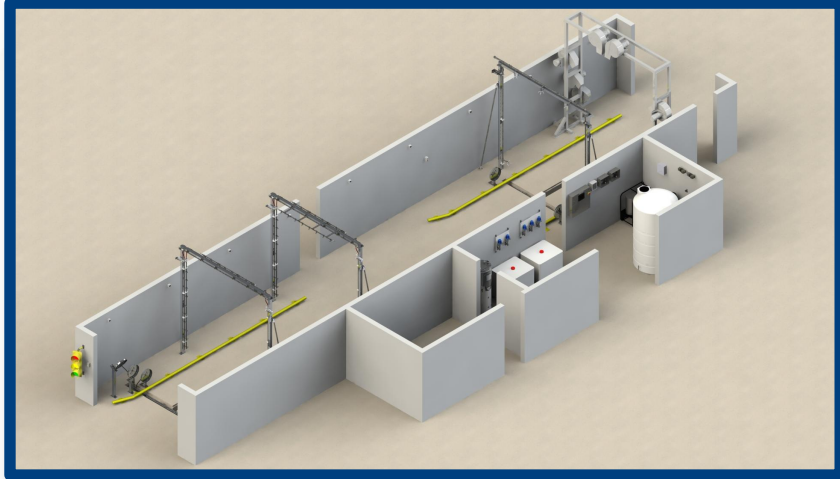
- Enhanced Undercarriage Wash
- Blow Dryer Systems
- Water Reclaim Systems
- Salt Neutralizers
- Detergents
- Spot-Free rinse



COMPARISON CHART

	Hand Washing (In-House)	Rollover / Gantry Wash System	Drive-Through Wash System
Labor Requirements	High (in-house staff per truck)	Medium (automated with operator)	Low (automated or 1 operator)
Wash Time per Truck	30–60+ minutes	7–15 minutes	3–5 minutes
Consistency of Clean	Variable (depends on employee effort)	High (automated process)	High (automated process)
Water Usage	High	Moderate	High
Equipment Footprint	Minimal (tools/supplies only)	Compact (fits in small bay)	Medium to Large (requires longer bay)
Equipment Investment	~\$500–\$10,000+	~\$100K+	~\$100K+
Ongoing Costs	High labor	Maintenance & repairs	Maintenance
Average Cost-Per-Wash	\$15–\$30+ (labor + materials)	\$6–\$8 (after capital investment)	\$3–\$6 (after capital investment)
Ideal For	Small fleets	Medium Fleets or space restricted areas	High-Volume with dedicated wash space

*all numbers are based on real situations but can vary significantly based on location, system design, operating practices, and other factors



Real-World Example:

Grand Traverse County Road Commission

Northern Michigan

Results:

- Decreased wash time by **90%**
 - **2 ½ minutes** per wash
- Saved over **\$9,000-\$15,000 per year** in ***just brake valve replacements***
- Wash **every vehicle** multiple times per week
- Decreased **truck downtime** due to maintenance issues
- Increased vehicle resale value by more than **15%**

OPERATIONAL & FINANCIAL BENEFITS

Safety - Fleet & Personnel

- Improve visibility of lights, cameras & markings
- Make inspections and maintenance easier

Reduce Corrosion & Maintenance Costs

- Remove salt and road contaminants
- Protect components and extend vehicle life



Improve Public Image

- Present well-maintained public equipment
- Demonstrate responsible stewardship of assets

Environmental Compliance

- Properly contain and manage wash water
- Consider reclaim & local requirements

KEY TAKEAWAYS

- No one size fits all
- Match solution to fleet size & budget
- Prioritize undercarriage and frequency

