

conservation
department.

Revised WaterSaver Car Wash Program



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Conservation Manager



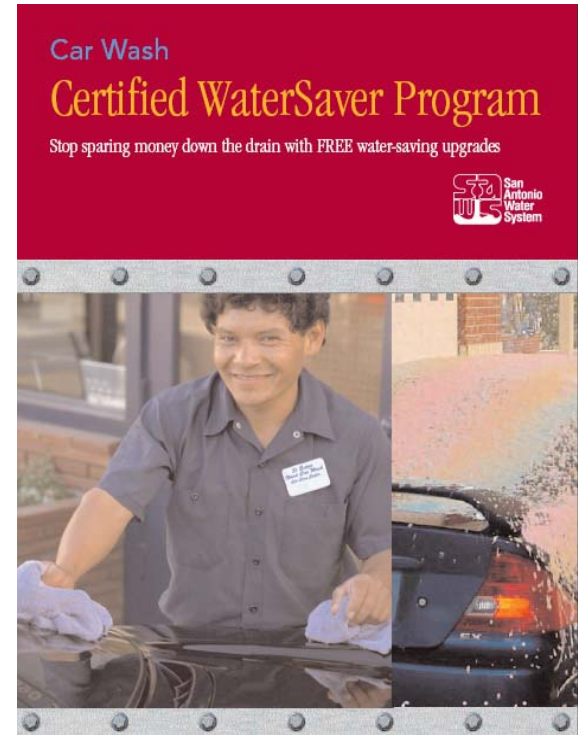
Our water. Our future.

NEW LOGO



Overview

1. Service Area Statistics
2. Best Management Practices
3. Benefits to SAWS
4. Cost/Benefit Analysis



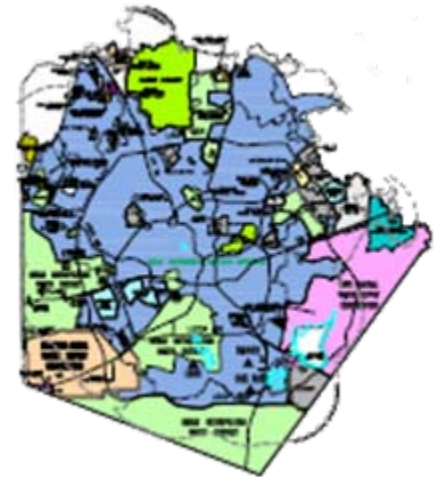
Service Area Statistics

There are 346 Car Washes within the SAWS Service Area

- 28 Full-Service Washes
- 100 Self-Service Washes
- 218 In-Bay Automatic Washes

There are Approximately 1,011,200 Vehicles within the SAWS Service Area

- 9,187,188 Car Washes per Year
- 9 Washes per Car per Year
- 40.6 Gallons per Wash (All Facilities)
- Total Consumption = 373.4 Million Gallons per Year



Full-Service Wash Statistics

There are 28 Full-Service Washes within the SAWS Service Area

Total Usage = 21,368,421 Gallons per Year

Total Usage per Facility = 763,158 Gallons

Average Gallons per Wash = 14.5 Gallons

Average Washes per Day = 144 Washes

Total Washes per Year = 1,473,684 Washes



Self-Service Wash Statistics

There are 100 Self-Service Washes within the SAWS Service Area

Total Usage = 48,180,000 Gallons per Year

Total Usage per Facility = 481,800 Gallons

Average Gallons per Wash = 15 Gallons

Average Washes per Day = 88 Washes

Total Washes per Year = 3,212,000 Washes



In-Bay Automatic Wash Statistics

There are 218 In-Bay Automatic Washes within the SAWS Service Area

Total Usage = 303,851,579 Gallons per Year

Total Usage per Facility = 1,393,815 Gallons

Average Gallons per Wash = 56.54 Gallons

Average Washes per Day = 67.5 Washes

Total Washes per Year = 4,501,504 Washes



Required Best Management Practices

All Washes

1. Reuse water utilized for landscape irrigation at car wash facilities when the SAWS Aquifer Management Plan is in effect.
2. All water using devices must be maintained to original or improved specifications for the conservation of water.
3. All spray nozzles must be replaced annually with Stainless Steel or Hard Ceramic Nozzles to ensure maximum efficiency.
4. All water leaks must be repaired as they occur.
5. All toilets utilized at the facility must use no more than 1.6 gallons per flush.



Required Best Management Practices

All Washes

6. All hoses or faucets that are in use must be attended or shutoff.
7. All driveways or impervious surfaces should be cleaned by sweeping for purposes other than health and safety.
8. Driveways may be washed with high pressure, low volume systems for health and safety purposes only.
9. All Spot-free reverse osmosis concentrate (if such system is in place) must be reused in the wash water holding tank.



Required Best Management Practices

All Washes

10. Oil-water separators in proper working order.
11. Remain in good standing with SAWS Wastewater Compliance.
12. Submit yearly pumping receipts showing quarterly manifest of sump serviced by licensed waste hauler. (required by city ordinance Sec.34-518.1.c)



Required Best Management Practices Self-Service

1. All chamois wringer sinks must have positive shut off valves.
2. All high-pressure wash nozzles and pump systems shall be calibrated to flows no greater than 3 gallons per minute. This may be achieved by replacing existing nozzles with a reduced size nozzle and adjusting the pressure generated by the pumps as needed.
3. To alleviate misunderstandings for waste disposal, all implementing mandatory posted signs prohibiting dumping of vehicle/household fluids in an effort lessen these types of practices.
4. All wash wands must incorporate Nozzle Protectors at all times.



Required Best Management Practices

Full-Service

1. Automatic high-level water cut-offs must be installed in all towel and chamois washing machines.
2. A minimum of 50% of water utilized in the rinse phase must be recycled to the collector tanks to be used for the washing phase.



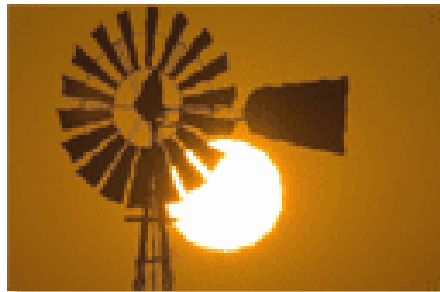
Required Best Management Practices In-Bay Automatic

1. All chamois wringer sinks must have positive shut off valves.
2. Some mechanical means must be used to create at least a 5-second dwell time for water to run off the vehicle into the sanitary sewer before vehicle can exit the bay.
3. Direction of spray and timing shall be properly set and shut-off when no longer in contact with vehicle.
4. Basic wash package shall use no more than 40 gallons. Total annual savings are calculated at 988,829 gallons.
5. Premium Wash package shall use no more than 75 gallons. Total savings as a result of this adjustment are calculated at 1,371,628 gallons



Drought Management Requirements

1. **Highest In-Bay Automatic Wash Shall not Exceed Average Consumption of 60 Gallons During Drought Stages. New Average of 47.39 Gallons per Wash During Drought = 12% Savings or 2,453,318 Gallons per Month Saved.**
- **“Non-Certified” Car Wash Operations will be limited during later stages of drought.**



Charity Car Washes

As part of the program, participating car washes commit to hosting a minimum of three (3) charity car washes a year per location. Although the Certified Car Washes are required to hold a minimum amount of events per year, the new city ordinance does not limit car wash fundraisers only to Certified Car Washes.

Charity car wash fundraisers taking place in the San Antonio city limits can be held at any permanent car wash facility. A list of certified car washes will be available on the SAWS website.



Flat Rate Sewer Credit

It is our recommendation that a Flat Rate Sewer Program (FRSP) credit (sewer credit for evaporative loss) of 10% be established for qualifying locations. Recent studies show the evaporation/carry-out median to be a 20% loss for the three types of carwashes[1]. All participating locations will receive marketable recognition through the SAWS website and SAWS certification logos for display and public press. The intent of this incentive will be to grab the attention of the remaining businesses who have not previously participated.

[1] Brown, Chris. International Carwash Assoc. Study. Sept 2002



Non-Certified Car Washes

As part of the adopted Drought Surcharge Plan, Non-Certified Car Washes will be limited during later stages of drought.

Financial Impact to SAWS

The annual financial impact to SAWS is projected to be no more than \$78,000. This amount assumes 100% participation. This calculation is based on 100% participation and the 2006 total water consumption used by the 346 listed facilities.

Yearly, the cost to the SAWS conservation department is estimated at \$5,000.00.



Water Savings

Annual Savings can be broken down into the following categories. Savings for each category are based on 100% participation.

- Annual Replacement of Nozzles at All Facilities: 56,000,000 Gallons
- Basic Wash for In-Bay Automatics not to exceed 40 Gallons - 988,829 Gallons
- Premium Wash for In-Bay Automatics not to exceed 75 Gallons - 1,371,628 gallons



Cost/Benefit Analysis

Estimated Annual Water Savings = 58,360,457 Gallons Per Year

Annual Costs for conservation materials and sewer credits are estimated at \$83,000.00 per year. These costs are based on 100% participation.

The cost benefit analysis, in terms of acre-feet of water saved for a one-year period is \$468.00 per acre-foot. In terms of conservation funds expended, the cost per acre-foot is calculated at \$28.00 per acre-foot for a one-year period.



Inspections

Year one, all participants are expected to download and submit the online application (www.saws.org/conservation/Ordinance/carwash/), along with the checklist, and completed sump manifest. The certification checklist/inspection form must be completed and signed by one of the following:

Registered Professional Engineer

Licensed Plumber

Licensed Irrigator

Accredited Back-flow Prevention Assembly Tester (TCEQ)



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