



Wastewater Management Department
Industrial Pretreatment Program
Riverside Park Water Reclamation Facility
4401 North Aubrey L. White Parkway
Spokane, WA 99205

FACT SHEET
FOR WASTEWATER DISCHARGE PERMIT #SIU-7542-02
Effective Date: April 1, 2024
Expiration Date: March 31, 2029

A. INDUSTRIAL USER INFORMATION

Metro Express Car Wash (HMX LLC a wholly owned subsidiary of WFM Enterprises LLC)
4201 E Sprague Avenue
Spokane, WA 99202

B. DESCRIPTION OF FACILITY OPERATIONS

Although the application states the official name of the company to be “HMX LLC, a wholly owned subsidiary of WFM Enterprises LLC,” the permit and fact sheet will refer to it as Metro Express Car Wash (Metro Express). Metro Express is engaged as an external automatic car wash SIC 7524 and NAICS Code 811192.

Metro Express provides a multi-step automobile cleaning process by moving vehicles along a conveyor through several different mechanized/hydraulic cleaning methods. These methods include high pressure washing, detergent foam application, scrubbing with automated brushes, soft water rinsing, blow-drying, and applying protectant. The business is classified as a Significant Industrial User because their average discharge exceeds 25,000 gallons per day (GPD). From January 2022 to July 2023, they discharged an average of 46,000 GPD.

Metro Express began operations at the facility in June of 2021. Metro Express employs 15 personnel, with 6 on-site at a time. They operate 7 days per week. Staff is on-site from 6:30 am to 9 pm, and the car wash runs from 7 am to 8 pm.

C. SAMPLE POINT DESCRIPTION/ FACILITY FLOW INFORMATION

The engineering report provided actual water usage data from January 2022 to July 2023 based on water bills from the City of Spokane. Actual usage during this period reported an average of 59,300 GPD of clean water was purchased from the City. Without a flow meter they estimated an average of 46,600 GPD of process water were used to wash an average of 1,300 cars per day. The report also provided projected flows based on this usage, shown below in Table 1.

Table 1: Sample Points and Expected Flows

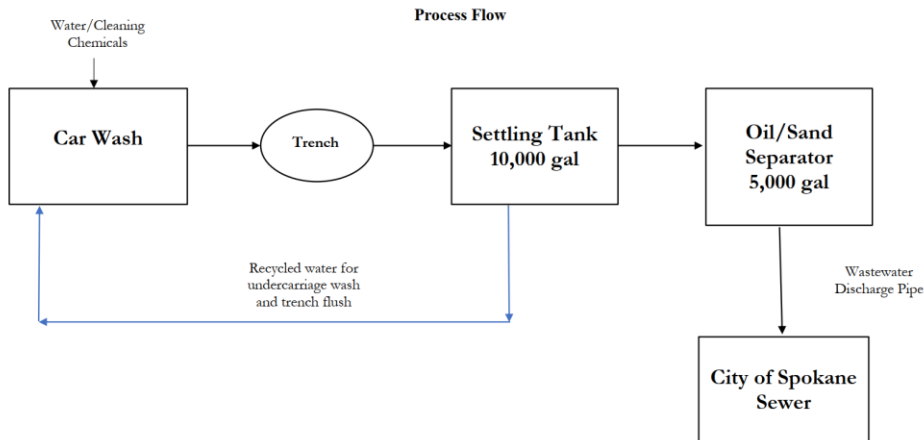
SAMPLE POINT	EXPECTED FLOW PER OPERATIONAL DAY (GPD)		DESCRIPTION
	TOTAL	PROCESS	
#1	Average: 96,500 Max: 134,000	Average: 76,100 Max: 105,600	Oversized manhole in the driveway furthest west of the grouping of manholes, downstream of the oil/sand separator. Expected pollutants include solids, metals, oil and grease, or pH if a chemical spill occurred. Discharge is continuous, by gravity when the car wash is running. End of process.
TOTAL	96,500 GPD	76,100 GPD	

Notes: 96,500 GPD represents the water used, but the application estimates 20,200 gallons of water lost to evaporation and carryout on cars. 76,100 GPD represents the estimated amount of water going down the drain.

D. PROCESS / FLOW INFORMATION

Process wastewater is generated from automatic car washing with various detergents and protectants. Wastewater is collected in a trench drain inside the car washing tunnel. This drains to a collection sump “pit” in the tunnel. This drains to the 10,000 gallon settling tank in the driveway. The recirculation system pulls from the end of the settling tanks. Downstream of the settling tank is a 5,000 gallon oil/sand separator.

Figure 1: Process Flow



From January 2023 – July 2023 Metro Express processed an average of 1,300 vehicles of varying sizes per day. With an expected annual growth rate of 5%, Metro Express anticipates washing 2,300 vehicles per day by 2033 without any major facility upgrades.

The total amount of process wastewater generated from the above operations is 76,100 GPD, based on 7 operational days per week. The values in Table 2 below represent the average discharge anticipated in 2033. These values were calculated by taking the average daily discharge from utility bills from Jan 2022 – June 2023 and compounding an annual 5% increase to process water and carryout.

Table 2: Facility Processes

SAMPLE POINT	PROCESS	PROCESS DESCRIPTION
#1	Car washing	76,100 gpd. Expected pollutants include solids, metals, or oil and grease.
#1	Recycled water ¹	Estimated over 400,000 gpd. Recycled water is used for vehicle side and underbody wash and trench flush. This water is drawn from the settling tank.
N/A	Sanitary	100 gpd. 2 employee bathrooms and a kitchenette.
N/A	Evaporation/Carryout	20,200 gpd. Based on 21% of water purchased, from International Car Wash Association.
N/A	Drywell/Irrigation	100 gpd. 3 swales.

Notes on Table 2:

Emails stated that about each vehicle uses about 100 gallons of recycled water.
 Current production averages 1,300 cars per day x 100 gallons per car = 130,000 GPD
 Future production estimates 2,300 cars per day x 100 gallons per car = 230,000 GPD
 The pumps that run the trench flush run when wash is operating pump at 400 gallons per minute. The wash is operating 7am to 8pm (780 minutes) x 400 gpm = 312,000 GPD.

E. DILUTION / AUXILIARY OPERATION / FLOW INFORMATION

There are no dilution wastestreams that combine with process wastewater. The only manhole available for sampling does not include sanitary wastewater.

F. FLOW MEASURING DEVICE

Metro Express is required to install and maintain an effluent flow meter. There is a large difference between water drawn from the City and what is estimated as going down the drain.

G. PRETREATMENT UNIT OPERATIONS

Metro Express collects all process wastewater in trench drains in the tunnel. These drain to a pit that has 2 large grates that function to prevent falls and to remove large debris. The wastewater drains from the pit to a 10,000 gallon settling tank on the south side of the building. The tank has 5 lids to allow for easier cleaning. The wastewater flows from east to west. At the end of the settling tank the water can either be drawn up by the reclaim system or continue to the oil and sand separator. The oil & sand separator is covered by 3 lids. The largest lids furthest to the west is their end of process.

H. POLLUTION PREVENTION / BEST MANAGEMENT PRACTICES

Metro Express has implemented the following pollution prevention practice(s) and/or best management practice(s).

Water recycle system, soft water system, eco-friendly cleaning products, proper detergent dosing, equipment and fittings are properly maintained.

Additionally, these Best Management Practices (BMPs) will be followed:

Car Wash BMPs

- Determine whether each waste material is hazardous by using the guidelines found in both WAC 173-303-9903 and WAC 173-303-9904.
- Post signs above drains/sinks prohibiting the discharge of chemicals and oils.
- Never allow wash water or any other liquids to enter the street, gutter, storm drains, or dry wells.
- Develop a written spill response plan, keep spill clean up materials on-site, immediately clean up spills, train employees on clean-up procedures, replace leaking containers.
- Install secondary containment for all liquid storage capable of containing 110% of the largest possible spill.
- Store batteries, chemicals, and all wastes where they will not be exposed to rainwater.
- Storage and waste containers must have clear labels indicating their contents.
- Dry sweep floors before mopping or hosing down.

Oil Water Separator (OWS) BMPs

- Maintenance must be performed by a company that specializes in OWS servicing, collection, and disposal.
- 3 years of maintenance records must be on-site and available upon request.

- OWS must be serviced when one of the following occur:
 - When there is ≥ 6 inches of sludge
 - When there is ≥ 1 inch of oil
- Do not add antifreeze, degreasers, detergents, fuels, alcohols, solvents or concentrated amounts of any oily substance directly to the OWS.

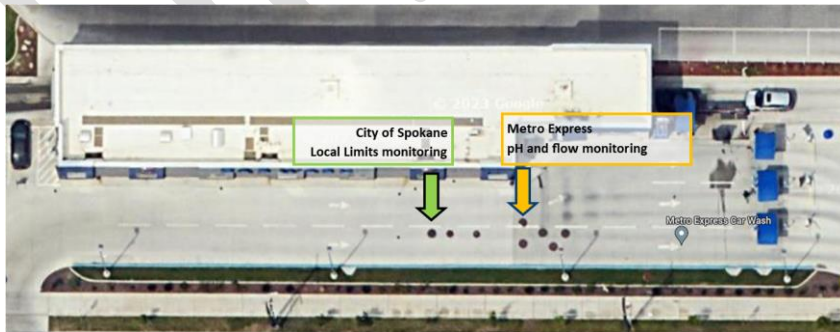
Pollution Prevention BMPs:

- Chemicals shall be stored in a manner that will prevent the entry of these solutions into the sanitary sewer, storm sewer system, or waters of the state.
- The user shall use spill prevention practices to preclude the discharge of any substance that violates General Discharge Prohibitions, or conditions of this permit.
- The disposal of sludges and spent chemicals generated shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act, and any state hazardous waste requirements.

I. RATIONALE FOR MONITORING LOCATIONS

The City of Spokane must monitor at the end of process in the last chamber of the oil and sand separator since there is no available sample location that combines sanitary and process wastewater. The westernmost manhole in the driveway to the south of the car wash will be known as sample point #1. Metro Express has elected to monitor at the end of the settling tank since there is already conduit to that manhole and would easily allow for the installation of pH and flow monitoring. Having the City and Metro Express sample at slightly different locations is acceptable since no other wastewater is added between the settling tanks and the oil and sand separator. See Figure 2 below.

Figure 2: overhead view of sampling locations



J. RATIONALE FOR MONITORING FREQUENCY REQUIREMENTS

Since this is Metro Express' first permit with the City, local limits will be monitored on a quarterly basis to gather data. Metro Express will provide continuous pH and flow monitoring (continuous means a measurement taken every 2 minutes.) These will be reported to the City monthly on the Discharge Monitoring Report.

Metro Express is also required to analyze for the complete list of Priority Pollutants listed in Section 8 of the accompanying permit as part of each permit renewal.

K. RATIONALE FOR REPORTING REQUIREMENTS

1. Signatory Requirements (SMC 13.03A.0305(A))

All discharge permit applications and user reports must be signed and certified by an authorized representative as defined in SMC 13.03A.0103. Metro Express has designated the following individuals listed in Table 3 as authorized facility representative(s) and Electronic Signature Agreements are on file with the City to allow electronic reporting.

Table 3: Authorized Representatives

Name	Title
Derek Martin	Chief Operating Officer
Tom Cline	Regional Vice President

2. Discharge Monitoring Report (SMC 13.03A.0403)

The City of Spokane requires monthly reporting from Significant Industrial Users in the form of discharge monitoring reports. This report will include those pollutants for which the industry self-monitors. For Metro Express, this will include flow and pH. If the industry monitors any regulated pollutant at the appropriate sampling location more frequently than required, the results of the monitoring shall be included in the report. (40 CFR §403.12(g)(6)).

L. RATIONALE FOR SPECIAL CONDITIONS

1. Slug Potential Evaluation

The City of Spokane conducted a slug potential evaluation of Metro Express on 1/8/2024.

The City of Spokane has determined that Metro Express is required to develop and implement a slug control plan. The plan was submitted to the City on October 2, 2023. The plan was reviewed on 1/9/2024 to ensure it contained all the minimum federal

requirements as listed in 40 CFR 403.8 (f)(2)(vi). The plan submitted with the engineering report did not meet all the requirements in the CFR, so an update will be due 90 days after the effective date of the permit.

2. Operation and Maintenance Manual

In those cases where the facility includes mechanical components, a detailed Operation and Maintenance (O&M) manual must be prepared before completing the construction. The purpose of the manual is to present technical guidance and regulatory requirements to the operator to enhance operation under both normal and emergency conditions. [WAC 173-240-080]

3. AKART

Washington State requires all dischargers to treat wastewater using all known, available, and reasonable methods of prevention, control, and treatment (AKART). AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

An AKART evaluation was provided in Metro Express' Engineering Report. The methods utilized at this facility include: a water recycle system, settling tank, and oil and sand separator.

M. RATIONALE FOR WASTEWATER DISCHARGE LIMITATIONS

Metro Express will be required to meet the applicable limits in the table below at sample point #1.

Table 4: Comparison of compliance data to applicable limits

Parameter	Average Concentrations from 2023 permit application	Maximum Allowable Discharge Limit ¹
Arsenic, total	ND, <0.05 mg/L	0.12 mg/L
Cadmium, total	ND, <0.004 mg/L	0.093 mg/L
Chromium, total	0.014 mg/L	<5.0 mg/L
Copper, total	0.082 mg/L	0.74 mg/L
Lead, total	ND, <0.014 mg/L	0.32 mg/L
Mercury, total	ND, <0.02 mg/L	0.012 mg/L

Molybdenum, total	ND, <0.02 mg/L	0.66 mg/L
Nickel, total	ND, <0.03 mg/L	1.74 mg/L
Selenium, total	ND, <0.05 mg/L	0.40 mg/L
Silver, total	ND, <0.02 mg/L	0.46 mg/L
Zinc, total	0.28 mg/L	2.59 mg/L
Cyanide, total	ND, <0.02 mg/L	1.01 mg/L
Benzene	ND, <1.0 ug/L	<0.5 mg/L
pH ²	N/A	Between 5.0-12.0

Notes:

1. Maximum Allowable Discharge Limit is defined as the maximum concentration or loading of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.
2. The City of Spokane POTW has pH limits of 5.0-12.0, which will be enforced.

Permit application testing also included Total Suspended Solids (TSS) and Oil and Grease to see if those should be analyzed during this permit cycle. The chart below compares those, and the pollutants that came up on the Priority Pollutant Scan.

Table 5: Comparison of potential pollutants of concern

Pollutants Tested	Metro Express Sample	Average Plant Influent ¹	Standard Strength Wastewater ²
acetone	3050 ug/L	158 ug/L ³	--
diethyl phthalate	490 ug/L	0.52 ug/L ⁴	--
FOG	ND, <5.4 mg/L	39.4 mg/L	--
TSS	121 mg/L	194 mg/L	125-215 mg/L

Notes:

1. Average Plant Influent is based on 1/2019 to 10/2023 trending data unless otherwise noted.
2. SMC 13.03.1136 "Standard Wastewater Strength"
3. Value represents all the VOCs so is artificially high, although most of the detects came from acetone specifically.
4. Plant Influent from 1/2019 to 4/2023 is non-detect for diethyl phthalate, first time detection was 5/10/2023. Results J flagged on report.

Since Metro Express' TSS was 121 mg/L which is below Influent and Standard Strength levels, quarterly testing of TSS will not be required by this permit. Since FOG levels were also below influent levels, it appears this is not a pollutant of concern for this permit cycle. As long as the oil and sand separator is properly maintained by Metro Express, as required by SMC 13.03.0508, then quarterly Oil and Grease testing will not be required.

Metro Express' diethyl phthalate result of 490 ug/L does not violate any local limits but is a pollutant the City will be monitoring in our influent and biosolids. Further testing will influence whether any action is needed on the part of Metro Express.

Although acetone tested higher than our influent, no local limit exists for acetone. Categorical pharmaceutical limits do not apply to Metro Express, but for the sake of comparison, a daily max concentration of 20.7 mg/L is allowed. Since Metro Express' wastewater only tested at 3.0 mg/L, regular testing of acetone will not be needed.

Table 6: Discharge Flow Limits

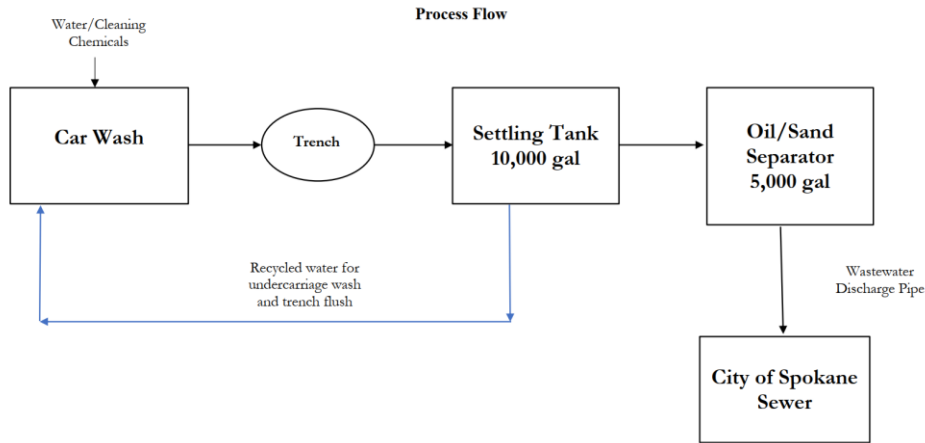
Maximum Instantaneous Flow Limit	Shall not exceed 150 gallons per minute
Total Daily Maximum Flow Limit	Shall not exceed 126,900 gallons per day

1. The Maximum Instantaneous Flow limit has been approved by a City of Spokane Sewer Engineer. The Total Daily Maximum Flow limit is per user request. A 20% safety factor was added to the 105,700 gpd requested by Metro Express because the pipe has adequate capacity.

N. RATIONALE FOR SAMPLE TYPE

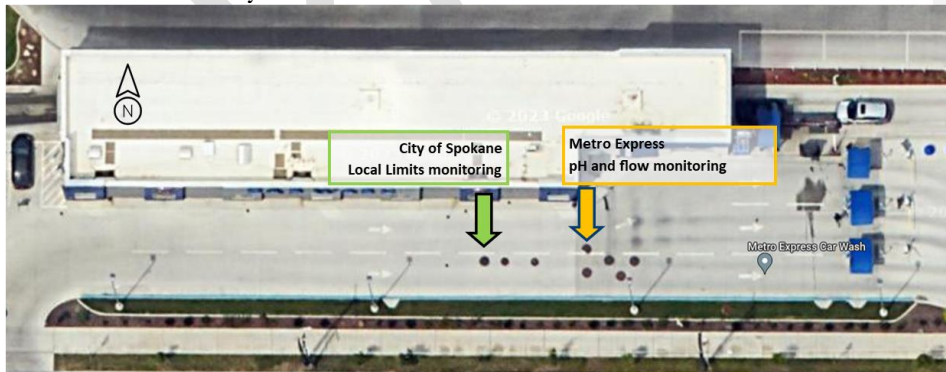
Metro Express will continuously monitor for pH and flow to verify compliance with the limits in Table 6 above. The City of Spokane will perform compliance monitoring for the pollutants in Table 4 on a quarterly basis. Metro Express operates day and evening, but the nature of pollutant in their wastewater stays relatively consistent. Based on this, grab or grab composite samples will be used as required in the methods approved by 40 CFR 136.

ATTACHMENT A – Industry Submittals

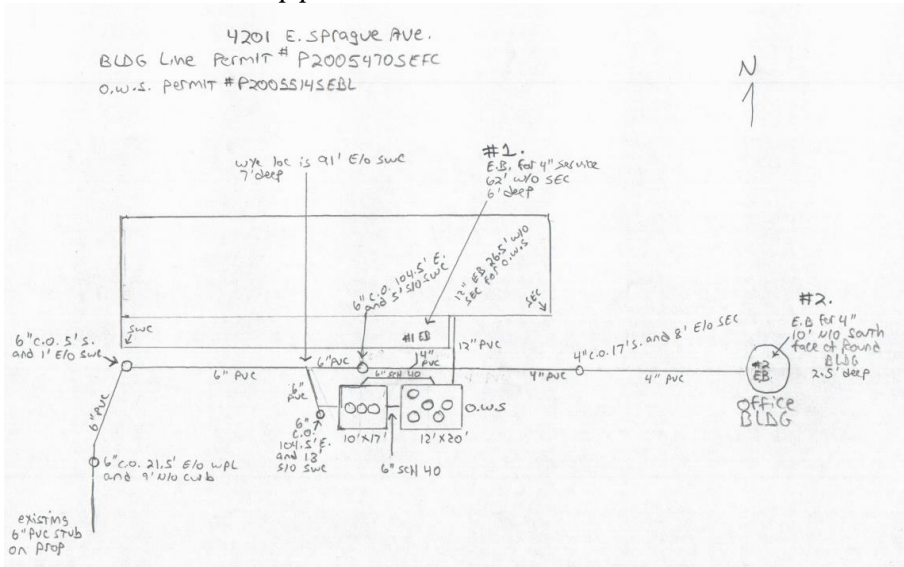


ATTACHMENT B –Maps (GIS, Side Sewer, Sampling Locations, etc.)

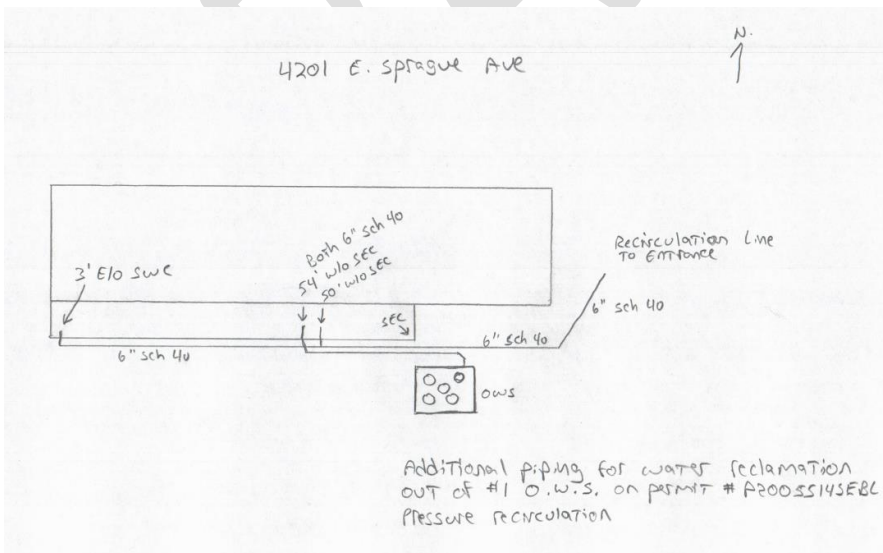
Overhead view of facility:



As built drawing from side sewer card
a. Sketch of sewer pipes



b: sketch of recirculation system piping



#1 OWS is referred to as a settling tank by Metro Express.

Commented [AB1]: Include corrected Attachment 1-1 from ER and Sheet A7.1 requested as part of P&S

Commented [AB2R1]: P&S due Feb 7

APPENDIX A: COMMENTS ON PERMIT AND FACT SHEET

DRAFT