Joint Base Lewis-McChord
Industrial Stormwater Pollution Prevention Plan

Prepared for:
Environmental Division
Directorate of Public Works
Joint Base Lewis-McChord, WA

Phone: 253-967-2837
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A copy of the 2021 MSGP can be found at the following location:
https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp

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Section 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 FACILITY INFORMATION.

Facility Information

Facility Name: Joint Base Lewis-McChord

Street/Location: BLDG 2012 Liggett Ave, Box 339500 MS 17

City: Joint Base Lewis McChord State: WA ZIP Code: 98433

County or Similar Government Subdivision: Pierce

NPDES ID (i.e., permit tracking number): WAR05F305

Primary Industrial Activity SIC code, and Sector and Subsector (2021 MSGP, Appendix D and Part 8):

Primary SIC code: 9711 (National Security)

Sector: S (Air Transportation)

Subsector: S-1 (Air Transportation Facilities (SIC Code 45810303)
Sector 92: Public Administration, Subsector 928: National Security and International Affairs, SIC Code: 928110: National Security / Air Transportation Facilities, Sector S, Subsector S-1

Co-located Industrial Activity(s) SIC code(s), Sector(s) and Subsector(s) (2021 MSGP, Appendix D):

Is your facility presently inactive and unstaffed and are there no industrial materials or activities exposed to stormwater? ☐ Yes ☒ No

Latitude/Longitude

Latitude: 47.06’12 º N (decimal degrees)

Longitude: 122.33’56 º W (decimal degrees)

Method for determining latitude/longitude (check one):

☐Maps (If USGS topographic map used, specify scale: ☒GPS

☐Other (please specify):

Horizontal Reference Datum (check one):

☐NAD 27 ☐NAD 83 ☒WGS 84

Is the facility located in Indian country? ☐ Yes ☒ No

If yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable). N/A

Are you considered a "federal operator" of the facility?

Federal Operator – an entity that meets the definition of "operator" in [the 2021 MSGP] and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, operating for any such department, agency, or instrumentality. ☒ Yes ☐ No

Estimated area of industrial activity at your facility exposed to stormwater: 449.3 (acres)
(to the nearest quarter acre)

Discharge Information

Does this facility discharge stormwater into a municipal separate storm sewer system (MS4)?
☒ Yes ☐ No

If yes, name of MS4 operator: Joint Base Lewis - McChord

Name(s) of surface water(s) that receive stormwater from your facility: Clover Creek

Does this facility discharge industrial stormwater directly into any segment of an "impaired water" (see definition in 2021 MSGP, Appendix A)? ☒ Yes ☐ No

If Yes, identify name of the impaired water(s) (and segment(s), if applicable): Clover Creek

Identify the pollutant(s) causing the impairment(s):

Temperature , Dissolved Oxygen, and Fecal Coliform Bacteria

Which of the identified pollutants may be present in industrial stormwater discharges from this facility?

Temperature, Dissolved Oxygen, and Fecal coliform bacteria

Has a Total Maximum Daily Load (TMDL) been completed for any of the identified pollutants? If yes, please list the TMDL pollutants: No

Does this facility discharge industrial stormwater into a receiving water designated as a Tier 2, Tier 2.5 or Tier 3 water (see definitions in 2021 MSGP, Appendix A)? ☐ Yes ☒ No

Are any of your stormwater discharges subject to effluent limitation guidelines (ELGs) (2021 MSGP Table 1-1)? ☐ Yes ☒ No
If Yes, which guidelines apply? N/A

1.2 CONTACT INFORMATION/RESPONSIBLE PARTIES.

Facility Operator(s):

Name: Joint Base Lewis-McChord

Address: BLDG 2012 Liggett Ave, Box 339500 MS 17

City, State, Zip Code: Joint Base Lewis-McChord, WA, 98433

Telephone Number:

Email address: usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil

(repeat for multiple operators by copying and pasting the above rows)

Facility Owner(s):

Name: Joint Base Lewis-McChord

Address: BLDG 2012 Liggett Ave, Box 339500 MS 17

City, State, Zip Code: Joint Base Lewis-McChord, WA, 98433

Telephone Number:

Email address: usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil

(repeat for multiple operators by copying and pasting the above rows)

SWPPP Contact(s):

SWPPP Contact Name (Primary): Joint Base Lewis-McChord Public Works Stormwater Program Manager

Telephone number: 253-967-2837

Email address: usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil

SWPPP Contact Name (Backup): Joint Base Lewis-McChord Public Works Compliance Branch Chief

Telephone number:

Email address: usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil

Fax number: 253-966-4985

1.3 STORMWATER POLLUTION PREVENTION TEAM.

Table 1, Stormwater pollution prevention team

Team Members	Individual Responsibilities
Chief, Environmental Division (ED)	• Approve and certify all Notices of Intent (NOI), Notices of Termination (NOT), annual reports, and budget submission request
Chief, Environmental Compliance Branch	• Review annual report and proposed budget • Delegate responsibilities in the absence of stormwater program manager
Stormwater Program Manager	• Coordinate with Region 10 Environmental Protection Agency (EPA) regulators and Army Environmental Command regarding permit implementation and regulation guidance • Ensure compliance with Permit conditions and notify Compliance Branch Chief of real or potential violations • Develop and track budget • Set priorities for the accomplishment of specific goals and approved recommendations • Conduct final edits and approve the Stormwater Pollution Prevention Plan (SWPPP), SWPPP updates or amendments, DMRs, assessments, and annual report • Approve sampling chain of custody forms • Review recommendations as put forth by other program staff
Stormwater Technical Staff	• Collect, report, and offer recommendations based on physical information about outfalls and the quality of industrial stormwater discharges • Conduct water quality monitoring, quarterly visual assessments, and quarterly facility inspections • Prepare DMRs for program manager review • Conduct records audits and quality assurance of water quality monitoring and inspections • Input data and maintain monitoring and inspection data base • Analyze sampling and assessment data and recommend actions to reduce or eliminate pollutants in discharge • Prepare initial draft of Annual Report and SWPPP updates • Provide stormwater best management practices (BMP) training to new employees and military personnel working in Multi Sector General Permit (MSGP) permitted facilities • Conduct illicit discharge investigations, document spills and impacts to the storm system, and make recommendations based on findings

1.4 SITE DESCRIPTION.

Applicable areas requiring MSGP coverage on Joint Base Lewis McChord (JBLM) include all facilities and outfalls associated with industrial activities occurring on McChord Air Field. Stormwater discharge associated with industrial activity is defined by 40 CFR 122.26(b) 14. Specific activities conducted on the installation meet the industrial criteria for Sector S (Air Transportation Facilities) as defined by the North American Industry Classification System (NAICS) code 928110 in addition to the primary SIC 9711 National Security. See appendix A and B for vicinity and site maps.

At all facilities covered under this permit equipment, vehicle, and/or aircraft maintenance is conducted in association with airfield activities and deicing operations. Maintenance and repair work are conducted under cover in the hangars or shops, while fueling, aircraft startup, and deicing occur outdoors on the airfield and associated ramps. Areas outside airfield hangers and on ramps have higher risks of spills and leaks, thus requiring immediate spill response due to potential stormwater conveyance to the creek.

The 2015 MSGP coverage included Sector P as applied to JBLM motor pool facilities. Upon further assessment of industrial activities, discharges meeting 40 CFR 122.26(b)14, and at the recommendation of U. S. Army Environmental Command, JBLM adjusted coverage to Sector S as qualifying industrial activity and applicable discharge to receiving waters in 2021. Moving forward, facilities not associated with McChord Airfield deicing activities will be covered under JBLM's municipal separate storm sewer system (MS4) permit number WAS026638.

Table 2 identifies facilities associated with industrial activities. Potential pollutants associated with these industrial activities on JBLM are listed in Table 3. These facilities will remain on quarterly inspections along with associated outfalls and their stormwater treatment facilities, which are listed in Section 4.7

Maintenance and repair work under cover in the hangars, while fueling, aircraft startup, and deicing occur outdoors on the airfield and associated ramps. Maintenance and discharge of JBLM fire engines occur on McChord airfield as well. Vehicle/equipment rehabilitation, mechanical repairs, painting, fueling, lubrication, and cleaning are all associated activities with these areas. These activities may utilize hazardous materials and generate associated hazardous waste. The Operations branch manages these activities and JBLM, Public Works - Environmental Performance Assessment System (I-EPAS) team facilitates an internal inspection process. The Defense Logistics Agency manages operations and maintenance to fuel distribution conveyance systems at McChord Field.

Table 2, Description of JBLM, McChord Field industrial activities

Description	Building ID	Assoc. Outfall	Associated Activities
Deicer Storage	J00584	n/a	Liquid potassium acetate (E-36) storage building and vehicle loading location
	J41709	J023	Propylene glycol storage tanks (4) near building J00730, vehicle loading location
Motor Pool	J00778	J023	Airfield vehicle and fire engine maintenance
	J00707	J023	
	J00708	J023	
	J00709	J023	
	J00710	J020	
	J00761	J020	
	J00771	J020	
	J00780	J020	
Fuel Ta	J01194	unknown	Fuel storage tanks (12184-12187) with F-24, piped from tanks (12184-12187) by building J01154 to tanks (12184 & 12185) by building 1194
Air Cargo Transfer	J01200	J001	Buildings for vehicle maintenance, fueling, and deicing truck storage
	J01201	J005	
	J01168	J005	
	J01422	J001	Airport Services for personnel and cargo transportation
Airfield Hangars	J01160	J009	Aircraft maintenance
	J01164	J009	
	J01165	J009	
	J01166	J009	
	J01167	J009	
	J01178	J009	
	Hangar 1	J027	
	Hangar 2	J027	
	Hangar 3	J027	
	Hangar 4	J027	
Airfield Ramps	J-B Ramp	J001	Locations for cargo loading, aircraft fueling, and minor maintenance. Glycol deicing occurs on Ramps C, D, and J. All ramps receive E-36 liquid runway deicer during cold weather activities.
	J-C Ramp	J009	
	J-D Ramp	J016, J017	
	J-J Ramp	J009	

1.5 DRAINAGE SYSTEMS

The JBLM storm drainage system handles stormwater in the following ways:

- Directs sheet flow off paved or impervious areas onto adjacent grassy areas for infiltration,
- Delivers stormwater through catch basins and the conveyance system to pretreatment features like oil water separators (OWS) or low impact development (LID) stormwater features such as infiltration basins and bioretention swales, and
- Delivers stormwater through catch basins and the conveyance system to outfalls.

Areas conveying stormwater to Clover Creek associated outfalls contribute to the Chambers/Clover Creek Watershed, which drains to Lake Steilacoom. These areas are located east of the north-south Burlington Northern Santa Fe railroad line that bisects the installation. Refer to appendix B for system map or PW Maps for storm system details.

1.6 WATERS ASSOCIATED WITH INDUSTRIAL ACTIVITY.

Clover Creek originates from groundwater springs in Fredrickson, approximately 10 miles east of JBLM. The creek flows westerly through the communities of Spanaway and Parkland prior to entering JBLM's eastern boundary. Approximately 1,000 feet downstream of the JBLM boundary, the creek flows under the main runway of McChord Field through a new bridge a bridge project constructed in 2020. The new bridge replace two 16- foot diameter galvanized metal culverts that had deteriorated since their construction in the mid-1940s. The new bridge was constructed in a manner to facilitate a more natural streambed environment to encourage ecological health in Clover Creek. The stream daylights on the west side of the runway and flows adjacent to the airfield ramps, then off base, under Interstate 5, through Lakewood, and into Lake Steilacoom. Lake Steilacoom, in turn, discharges to Chambers Creek that flows into Puget Sound. The Clover Creek drainage basin encompasses 74 square miles and is 13.8 miles long. Non-native species, including grasses and blackberries grow within some reaches of Clover Creek's riparian zone. In some cases, this hinders the reestablishment of native vegetation. Native riparian vegetation observed in the Clover Creek watershed include Douglas firs, spruce, pine, alders, maples, hazelnut, ash, dogwood, salal, and trailing grape (Pierce County, 2013). Nine observed fish species (not including salmon) inhabit Clover Creek, (JBLM, 2013).

1.7 GENERAL LOCATION MAP.

The general location map for this facility can be found in Appendix A.

1.8 SITE MAP.

The site map for this facility can be found in Appendix B.

Section 2: POTENTIAL POLLUTANT SOURCES

The 2021 MSGP, which governs this SWPPP, requires identification and categorization of potential sources of pollution that may affect stormwater quality at JBLM. Table 4 below lists installation activities by sector or activity type and provides a brief description of the types of industrial activity associated with the specific sector. Industrial activities at the installation involve usage or storage of materials such as those listed below. These substances are stored in double-walled tanks and containers, or are located in covered areas, including buildings, warehouse facilities or secondary containment. Units are required to purchase all hazardous materials through the hazardous material control center (HMCC). Before being authorized to purchase hazardous materials, individuals are required to attend the environmental operations management (EOM) training course. Units must follow specific transportation guidelines, or alternatively, hazardous materials can be delivered by the HMCC. The HMCC maintains an authorized use list (AUL) and electronic database which tracks hazardous materials on JBLM.

2.1 POTENTIAL POLLUTANTS ASSOCIATED WITH INDUSTRIAL ACTIVITY

Aviation maintenance facilities at the installation service fixed wing aircraft. The process performed at the aviation maintenance facilities are comparable to motor pool and equipment facilities, with the exception of storage of nickel-cadmium (Ni-Cad) batteries used in aircraft and ground electrical systems. McChord Field utilizes propylene glycol to deice aircrafts and E-36, a liquid potassium acetate runway deicer, on runways, taxiways, and airside pavements.

Table 3, Potential pollutants associated with industrial activity

Industrial Activity	Associated Pollutants
Maintenance of Fire Engines and Aircrafts	Fuels, oils, degreasers, solvents, hydraulic fluids, transmission fluids, anti-freeze, battery acid, and firefighting foams
Aircraft/Equipment Fueling	F24, Diesel, and JP8
Material Storage	General break down of materials (i.e., painted equipment and corroding metals)
Cold Weather Operations	Liquid calcium chloride (E-36), salt and sand
Deicing	Propylene glycol
Waste Storage (temporary)	Wasted out or recycled petroleum, oil or lubricant
Loading and unloading equipment and supplies	Debris, tire wear and corroding of galvanized equipment
General vehicle and aircraft movement	Metals from tire wear
Security Fences	Zinc from galvanized chain link fences
Buildings	Corrosion of metal roofs
Grounds Management	Fertilizers, pesticides, and herbicides.

If you are a Sector S (Air Transportation) facility, do you anticipate using more than 100,000 gallons of pure glycol in glycol-based deicing fluids and/or 100 tons or more of urea on an average annual basis?

☐ Yes ☒ No

JBLM, McChord field currently utilizes four above ground storage tanks (ASTs) each with 12,500-gallon capacity to store glycol-based deicing fluids. On an annual basis, current use does not exceed 100,000 gallons. Additionally, JBLM does not utilize urea in any deicing activities.

2.2 SPILLS AND LEAKS.

High risk areas for potential spills and leaks include fueling and deicing activity and storage areas. All outfalls included in this SWPPP have a potential to discharge spills and leaks from the industrial activities.

Table 4, Areas of site where potential spills/leaks could occur

Location	Discharge Points
Bldg. J00584 - Deicer Storage / Liquid potassium acetate (E-36) storage building and vehicle loading location	On site to infiltration
Bldg. J41709 - Deicer Storage / Propylene glycol storage tanks (4) near building J00730, vehicle loading location	J023
J00778 - Motor Pool	J023, J020
J00707 - Motor Pool	J023, J020
J00708 - Motor Pool	J023, J020
J00709 - Motor Pool	J023, J020
J00710 - Motor Pool	J020
J00761 - Motor Pool	J020
J00780 - Motor Pool	J020
J01194 – Fuel Tanks	On site to infiltration
J01200 - Air Cargo Transfer	J001, J005
J01201 - Air Cargo Transfer	J005
J01168 - Air Cargo Transfer	J005
J01422 - Air Cargo Transfer	J001
J01160 - Airfield Hangars	J009, *(J002 – MS4)*
J01164 - Airfield Hangars	J009, *(J002 – MS4)*
J01165 - Airfield Hangars	J009, *(J002 – MS4)*
J01166 - Airfield Hangars	J009, *(J002 – MS4)*
J01167 - Airfield Hangars	J009, *(J002 – MS4)*
J01178 - Airfield Hangars	J009, *(J002 – MS4)*
Hanger 1 - Airfield Hangars	J027
Hanger 2- Airfield Hangars	J027
Hanger 3- Airfield Hangars	J027
Hanger 4- Airfield Hangars	J035
J-B Ramp - Airfield Ramps	J005
J-C Ramp - Airfield Ramps	J009
J-D Ramp - Airfield Ramps	J017
J-J Ramp - Airfield Ramps	J009

Records of significant spills are maintained by Public Works Environmental Operational Branch electronically in the Spill Database. Criteria for significant spills include the following:

- **Oils and Fuels**. A significant spill is a quantity of oil or fuel that when discharged into a body of water either:

(1) Violates applicable water quality standards; or

(2) Causes a film sheen or discoloration on the water's surface adjoining shorelines or causes a sludge or emulsion to be deposited beneath the water's surface.

- **Other materials**. A significant spill is the discharge or spill of any quantity of material in excess of the reportable quantity listed in under the Clean Water Act Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC *§9602.*
- **Exceptions**. Any spill or discharge of oils, fuels, or other hazardous materials directly to the stormwater will be considered a significant spill.

2.3 UNAUTHORIZED NON-STORMWATER DISCHARGES EVALUATION.

An evaluation of all industrial facilities covered by this permit has been completed to ensure that unauthorized non-stormwater discharges are not present. The completed evaluations are filed with the quarterly inspections checklists, individual site map and other site-specific information in the environmental program information management system (EPIMS) as spill or illicit discharge reports. In the event of future unauthorized non-stormwater discharges an evaluation containing the following information will be added to this SWPPP:

- Date of evaluation:
- Description of the evaluation criteria used:
- List of the discharge points or onsite drainage points that were directly observed during the evaluation:
- Action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), or documentation that a separate NPDES permit was obtained. For example, a floor drain was sealed, a sink drain was re-routed to sanitary or an NPDES permit application was submitted for an unauthorized cooling water discharge

2.4 SALT STORAGE.

JBLM does not store salt in association with industrial activities covered in the 2021 MSGP.

2.5 DEICING CHEMICAL STORAGE.

When cold weather operations occur on McChord Field, liquid calcium chloride will be applied to runways, walkways, and ramps, and propylene glycol will be used on aircraft. Liquid calcium chloride (referred to as E-36) is stored in Public Works building J00584, which has a drain to the wastewater treatment plant inside. Propylene glycol is stored in four 12,000-gallon tanks on the asphalt outside of building J00730. Inspections occur at both buildings and areas associated with deicing activities. Best management practices per Section 3.1.7 below, shall also be followed.

2.6 SAMPLING DATA SUMMARY.

Sampling procedures are detailed in the MSGP Quality Assurance Plan (QAP), which also includes the monitoring schedule. Currently, JBLM conducts quarterly monitoring to meet state specific requirements for discharge to an impaired body of water, bi-annual indicator monitoring for PAHs, and additional monitoring requirements specified by the EPA for total zinc and copper discharge. All sampling data is stored and or tracked in the following ways locations:

- Electronically filed at and tracked by the Stormwater Program with other MSGP documentation.
- Electronically uploaded to EPIMS

A benchmark study for total zinc and copper at outfalls J009, J017, and J036 was completed in 2011, as average quarterly sampling for these outfalls were below benchmark for total and dissolved copper and zinc. JBLM continued monthly monitoring of outfall J001 for zinc due to quarterly averages exceeding the benchmark value of 50 ug/L until 2016. Data analsyis attributed areas with high levels of metals to sediment bound pollutants in the system requiring clean out. As a result projects to address multiple areas within these drainage basins have been routed for funding through contract and implementation through U.S. Army Corps of Engineers.

In 2016, the National Marine Fisheries Service requirements (NMFS) added specific requirements to the 2015 permit (MSGP WAR05F305). NMFS specific requirements were pursuant to Part 6.2.5 of the 2015 MSGP and require the Facility to conduct stormwater monitoring for dissolved copper and dissolved zinc following the standard benchmark monitoring procedures outlined in the MSGP Part 6.2.1, with the variation that the monitoring must be conducted monthly for evaluation of discharges from outfalls L004, L005, and the Canal to assess discharges to the Puget Sound. NMFS identified 9 µg/L copper and 80 µg/L zinc when hardness is meassured to begreater than 50 µg/L. The summary of historic NMFS monitoring through Feburary 2020 was submitted to the EPA in the 2020 NMFS Data Report including exceedances at outfall L005. Corrective actions to exceedances at the L005 outfall have included a system inspection and mapping contract completed in 2021 and project routed to JBLM DPW Engineering Services Division (ESD). No exceedances have occurred since 2019 and under the updated action area of the 2021 MSGP Puget Sound discharge monitoring has been including with MS4 permit quarterly monitoring.

Since 2017, JBLM staff collected ongoing outfall sampling for fecal coliform, temperature, and dissolved oxygen at the following Clover Creek outfalls: J001, J005, J009, J016, J017, J020, J023, J027, J035, J036. Currently, there is no TMDL for Clover Creek and no limits are set for fecal coliform in the MSGP, however, high levels of

bacteria correspond to seasonal changes, concentrated wildlife areas, and portions of the system requiring clean out. The JBLM stormwater program has submitted work order requests to have this outfall cleared, and is pursuing long term solutions in collaboration with DPW's Systems Manager and Utility Maintenance.

Section 3: STORMWATER CONTROL MEASURES (SCM)

3.1 MINIMIZE EXPOSURE.

JBLM minimizes the exposure of industrial activities to rain, snow, snowmelt, and runoff by either locating industrial materials and activities inside or protecting them with storm resistant coverings.

In minimizing exposure, the installation also implements the following practices:

- Where possible, grading, berming, or curbing is used to prevent runoff of contaminated flows and divert run-on away from these areas;
- Hazardous materials and waste containers are stored within secondary containment and are covered (in buildings or with tarps);
- Spills and leaks are promptly cleaned up using dry methods (e.g., absorbents) to prevent the discharge of pollutants. The exception to this practice includes all areas on McChord Field where dry sweep poses a safety hazard to aircraft movement.
- Drip pans and absorbents are placed under or around leaky vehicles and equipment. When feasible, leaking vehicles and equipment are stored indoors or under cover;
- Spill/overflow protection equipment is used;
- All cleaning operations are performed indoors or in bermed areas that prevent runoff and run-on and that capture any overspray.

3.2 GOOD HOUSEKEEPING.

The installation developed the following general good housekeeping BMPs for activities and facilities with a potential risk to pollute stormwater. These BMPs are described below. Additionally, good housekeeping procedures specific to each applicable sector can be found in the MSGP under section 8.

Table 5, Good Housekeeping BMPs

ITEM	DESCRIPTION	RESPONSIBLE PARTY	SCHEDULE
1	Trash pickup	Contractor	On-going/ weekly
2	Order all hazardous material through the HMCC to control and track material movement throughout JBLM.	Unit	On-going/ as needed
3	Require Safety Data Sheet prior to purchasing any product.	Unit	On-going
4	Inspect new materials before accepting from Hazardous Materials Control Center (HMCC). Return unacceptable or damaged goods to the HMCC.	Unit	On-going
5	Move containers with powered equipment or hand trucks.	Unit	On-going
6	Use containers and shelving that protect materials from being spilled due to seismic activity.	Unit	On-going
7	Accumulate wastes indoors or in covered areas to prevent rainwater and moisture from seeping into containers or degrading container quality.	Unit	On-going
8	Clearly label all waste accumulation containers.	Unit	On-going
9	Store containers to allow visual inspections for corrosion and leaks.	Unit	On-going
10	Secure dumpsters from rainwater and unwanted waste.	Unit	On-going
11	Avoid container damage (stack properly, use pallets, keep bungs, rings and lids sealed on containers).	Unit	On-going
12	Store all hazardous wastes in approved buildings with secondary containment to prevent exposure to elements.	Unit	On-going
13	Capture and deposit reusable or recyclable materials drained from vehicles in recycling tanks.	Unit	On-going
14	Request scrap metal bins when and where needed.	Unit	On-going
15	Perform maintenance activities indoors when possible.	Unit	On-going
16	Use absorbents for spill and leaks.	Unit	On-going
17	Clean pavement using dry methods first.	Unit	On-going
18	Drain wash water to proper collection system.	Unit	On-going

ITEM	DESCRIPTION	RESPONSIBLE PARTY	SCHEDULE
19	Careful fueling of vehicles and aircrafts as designed, no topping off.	Contractor	On-going
20	Washing of equipment, vehicles and aircraft is only authorized at designated wash racks; these wash racks discharge to the WWTP or to a closed loop system. Wash water is not allowed to discharge to the storm sewer system.	Unit	On-going

3.3 MAINTENANCE.

Preventive Maintenance BMPs are listed in Table 7 below. Specific procedures for inspecting equipment located in industrial areas are located at the specific facility. Military issued technical manuals prescribe proper equipment maintenance.

Table 6, Preventative maintenance BMPs

ITEM	DESCRIPTION	ACTIVITY	SCHEDULE
1	Inspect all devices for debris blockages and overall operability.	O&M/ED	On-going/ Monthly
2	Inspect storage tanks.	ED/Unit	On-going
3	Inspect stormwater BMPs.	ED	Quarterly
4	Perform routine preventive maintenance of equipment, aircrafts, and vehicles in accordance with applicable tech manual.	Unit	On-going/ Weekly
5	Inspect all oil water separators for blockages and operability.	O&M/ED	On-going/ Monthly
6	Maintain all catch basins and check periodically for blockages.	O&M/ED/ Contract	On-going/ Quarterly
7	Remove brush and weeds from all outfall treatment facilities at least annually or as needed.	O&M	On-going/ Annually
8	Ensure spill response supplies are available	Unit	On-going
9	Conduct spill response training	Unit	Annually

3.4 SPILL PREVENTION AND RESPONSE PROCEDURES.

Federal and State laws requiring emergency response plans for hazardous substance response regulate JBLM. Below is the list of laws and regulations:

- The Clean Water Act (CWA)
- The Comprehensive Environmental Response, Compensation and Liability Act
- The Emergency Planning and Community Right-to-Know Act
- Title 40, Code of Federal Regulations (40 CFR-Protection of Environment), Parts 109, 112, and 262
- Title 29, Code of Federal Regulations (Occupational Health and Safety)
- Hazardous Waste Operations and Emergency Response Operations (29 CFR Part 1910.120)

These regulations establish the requirements for the Integrated Contingency Plan (ICP), Spill Prevention Control Countermeasures Plan (SPCCP) and the Facility Response Plan (FRP). The ICP, SPCCP, and FRP explain the procedures for properly labeling containers, secondary containment measures, spill response and reporting

requirements, and all plans are located with the ICP Program Manager. Industrial activities covered by this permit are required to follow these regulations and plans. Industrial activity and site-specific spill contingency plans and site maps are required to be current and posted at all hazardous waste accumulation sites and other places that store hazardous materials.

All spills of any quantity are reported by calling 911, the JBLM Fire Department as well as JBLM Spill Response Team will respond. The JBLM Spill Response Team is responsible for notifying the JBLM Stormwater Program if any spill impacts the storm system or has potential to enter US waters. The Response Team also has the responsibility to notify, when appropriate, the National Response Center (NRC).

Spill prevention and response BMPs are listed in Table 8 below. Oil water separators act as a last resort treatment device for spills.

Table 7, Spill response BMPs

ITEM	DESCRIPTION	ACTIVITY
1	The Spill Contingency and Countermeasure Plan that contains site-specific information regarding stormwater BMPs.	ED/Unit
2	EMS objective to reduce accidental spills and discharges emphasized at various training.	ED/Unit
3	Spill kits located at potential spill sites.	Unit
4	Spill contingency plans located at all potential spill sites.	Unit
5	Alarms located at all waste storage sites	Unit
6	Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur.	ED/Unit
7	Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling.	Unit
8	Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases.	ED/Unit
9	Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.	ED/Unit

3.5 EROSION AND SEDIMENT CONTROLS.

JBLM, McChord Field controls erosion and sediment through source control and structural BMPs. Industrial activities on JBLM are typically on concrete or asphalt (aka hard stand) and do not have erosion concerns. Some areas are gravel and the use of BMP C233 (silt fence) BMP C207 (check dams), and/or BMP C235 Wattles are incorporated when needed to filter sediment-laden water. There is no soil disturbance

associated with JBLM's industrial activities and associated areas as part of airfield operations, and routine sweeping with a mechanical broom sweeper is completed for all hard stand areas. Joint Base Lewis-McChord also utilizes BMPC24 (sediment traps) at many of its outfalls to catch any remaining particles. Catch basins within the facilities are cleaned routinely via a service contract. Flow velocity dissipation is accomplished through a combination of designs. Some outfalls have concrete aprons that vary in size depending on flow velocity. Riprap is also used at some smaller outfalls or in combination with an apron. In general, the control structures in place and the velocity of discharge are not a cause for erosion concern on JBLM. Additionally, during the last permit cycle scouring was not identified as a concern.

3.6 MANAGEMENT OF STORMWATER.

The BMPs listed below control, divert, infiltrate and otherwise reduce stormwater runoff at JBLM:

- Natural dispersion
- Infiltration trenches
- BMP T11.11 Coalescing plate (CP)

3.7 SALT STORAGE PILES OR PILES CONTAINING SALT.

N/A

3.8 DUST GENERATION AND VEHICLE TRACKING OF INDUSTRIAL MATERIALS.

Industrial activities covered under this SWPPP require very little dust control measures due to hardstand, gravel areas and building cover. If the need arises for dust control, as determined through inspection, anonymous report and other forms of notification, a Public Works service order will be created. Public Works has water trucks available in-house to manage dust.

Track-out is minimized or eliminated by using good housekeeping measures and management practices associated with hazardous material and/or waste transportation. Vehicles that move through a motor pool are generally required to have a ground guide that provides an excellent means for identifying track-out. If corrective action is identified during an inspection, by anonymous report or any other notification means, the specific facility will be notified and an appropriate action will be taken to resolve the issue.

3.9 NUMERIC EFFLUENT LIMITATIONS BASED ON EFFLUENT LIMITATIONS GUIDELINES (ELGS).

This section does not apply to JBLM. Sector S applies to facilities utilizing urea for pavement deicing, and JBLM only uses propylene glycol and potassium acetate solution (E-36) for deicing operations.

3.10 WATER QUALITY-BASED EFFLUENT LIMITATIONS AND WATER QUALITY STANDARDS.

JBLM industrial facilities discharge to one impaired water body, Clover Creek. Clover Creek is impaired for temperature, dissolved oxygen, and coliform bacteria. While none of these conditions are a potential pollutant of concern at JBLM's respective industrial activities. The use of Propylene Glycol for deicing aircraft does pose a potential risk to Clover Creek due to its high chemical oxygen demand (which can depress dissolved oxygen in aquatic environments. To prevent such an event from happening, storm drains are sealed/covered during deicing. Any deicing product (Propylene Glycol) remaining on the ground that has potential to flow into the stormwater system after deicing activities is collected with a vacuum truck and discharged to the sanitary system where it is treated at the wastewater treatment facility. Currently, there is no established TMDL for Clover Creek.

3.11 SECTOR-SPECIFIC NON-NUMERIC EFFLUENT LIMITS.

During deicing aircraft, JBLM staff deploy stormdrain covers to isolate any excess Propylene Glycol that reaches the ground or has potential to enter the storm system. Excess product is vacuumed up with vactor trucks and discharged to the installation's sanitary system. JBLM staff also conduct deicing inspections during these operations to insure proper handaling and dispoal of excess product or potential impacts to the stormwater system.

Section 4: SCHEDULES AND PROCEDURES

4.1 GOOD HOUSEKEEPING.

The installation has developed the following general good housekeeping BMPs for activities and facilities with a potential risk to pollute stormwater. These BMPs are listed in Table 6 on page 22.

4.2 MAINTENANCE.

Preventive Maintenance BMPs are listed in Table 7 on page 24. Specific procedures for inspecting equipment located in industrial areas are located at the specific facility. Military issued technical manuals are followed for proper equipment maintenance.

4.3 SPILL PREVENTION AND RESPONSE PROCEDURES.

JBLM is regulated through Federal and State laws requiring emergency response plans for hazardous substance response. Below is the list of laws and regulations:

- The Clean Water Act (CWA)
- The Comprehensive Environmental Response, Compensation and Liability Act
- The Emergency Planning and Community Right-to-Know Act
- Title 40, Code of Federal Regulations (40 CFR-Protection of Environment), Parts 109, 112, and 262
- Title 29, Code of Federal Regulations (Occupational Health and Safety)
- Hazardous Waste Operations and Emergency Response Operations (29 CFR Part 1910.120)

These regulations establish the requirements for the Integrated Contingency Plan (ICP), Spill Prevention Control Countermeasures Plan (SPCCP) and the Facility Response Plan (FRP). The ICP, SPCCP, and FRP explain the procedures for properly labeling containers, secondary containment measures, spill response and reporting requirements, and all plans are located with the ICP Program Manager. Industrial activities covered by this permit are required to follow these regulations and plans. Each specific industrial activity has site-specific spill contingency plan and site map which is required to be current and posted at all hazardous waste accumulation sites and other places that store hazardous materials.

All spills of any quantity are reported by calling 911, the JBLM Fire Department as well as JBLM Spill Response Team will respond. The JBLM Spill Response Team is responsible for notifying the JBLM Stormwater Program if any spill enters a US waters or has a potential to enter US waters. The Response Team also has the responsibility to notify, when appropriate, the National Response Center (NRC).

Spill prevention and response BMPs are listed in Table 8 on page 25. Oil water separators act as a last resort treatment device for spills.

4.4 EROSION AND SEDIMENT CONTROL.

JBLM controls erosion and sediment through source control and structural BMPs. Industrial activities on JBLM are typically on concrete or asphalt (aka hard stand) and do not have erosion concerns. Some areas are gravel and the use of BMP C233 (silt fence) and/or BMP C235 Wattles are incorporated when needed to filter sediment-laden water. There is no soil disturbance associated with JBLM's industrial activities and associated areas as part of airfield operations, routine sweeping with a mechanical broom sweeper is completed for all hard stand areas. Joint Base Lewis-McChord also has sedimentation traps at many of its outfalls to catch any remaining particles. Catch basins within the facilities are cleaned routinely via a service contract. Flow velocity dissipation is accomplished through a combination of designs. Some have concrete aprons that vary in size depending on flow velocity. Riprap is also used at some smaller outfalls or in combination with an apron. In general, the control structures in place and the velocity of discharge are not a cause for erosion concern on JBLM. Additionally, during the last permit cycle scouring was not identified as a concern.

4.5 EMPLOYEE TRAINING.

Training for pollution prevention is provided to employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of the 2021 MSGP. Any major repairs or maintenance of facilities is completed via service contract. The contractors for these services are responsible for ensuring that their workers are properly trained. Table 12 below identifies pertinent employee training programs on JBLM.

Table 8, Employee training BMPs

ITEM	DESCRIPTION	Training Provider	SCHEDULE
1	SWPPP team members shall participate in initial and follow on training offered by JBLM personnel or an outside organization on stormwater requirements on an as needed basis. This training will include an overview of what is in the SWPPP.	ED	As Required
2	Conduct site specific spill prevention and response training for employees. Related to spill response procedures, good housekeeping, maintenance requirements, and material management practices at JBLM.	Unit	Annually
3	Conduct general awareness training tailored to facility activities.	ED	As Requested
4	Environmental Operations Management (EOM) class is required for all environmental officers, waste technicians and material technicians. The class is a one-day, 8-hour class with a two-hour annual refresher training course. This class is given to the units by Public Works staff.	ED	Annually
5	New Stormwater Program inspection technicians receive on the job training from senior staff.	ED	As Required

4.6 INSPECTIONS AND ASSESSMENTS.

The two inspection and assessment categories applicable to JBLM and specified in the 2021 MSGP include:

- Routine facility inspections and
- Quarterly visual assessment of stormwater discharges.

In addition to these two categories, JBLM developed and utilizes a third category called a spot check. A spot check is performed when a full inspection is unnecessary but a finding is required to be documented. All inspection and assessment files are logged into the Air Program Information Management System (APIMS) database and copies are saved to the Stormwater Program MSGP files. APIMS serves as a recordkeeping and report generating database for the Stormwater Program.

Additionally, there are facilities that are designed to treat and infiltrate on-site. However, if proper maintenance is not conducted or alterations to the system occur, the facility has the potential to discharge to waters of the U.S. These sites will be monitored as needed and added to the SWPPP industrial facilities list if found to be discharging to waters of the U.S.

4.7 ROUTINE FACILITY INSPECTIONS.

JBLM conducts routine facility inspections at all facility areas where industrial materials or activities are exposed to stormwater and drain to waters of the U.S. Routine facility inspections are currently conducted on a quarterly basis (i.e. once each calendar quarter). However, in some instances, more frequent inspection (e.g. monthly) may be appropriate for some types of equipment, process and/or control measures or areas of the facility with significant activities and materials are exposed to stormwater. Inspections are performed during periods when the facility is in operation. At least once each calendar year, the routine facility inspection will be attempted from October to April when a stormwater discharge is most likely to occur. Inspections will be performed primarily by a stormwater technician or stormwater specialist but may be performed by any other qualified stormwater team staff. All areas outside of the industrial facilities listed in Table 13 below are exposed to stormwater and will be inspected. Some outfall locations include treatment facilities and are inspected at the same frequency as an industrial facility. These facilities are identified on the site maps provided in Attachment B.

During routine inspections, inspectors will examine the following:

- Industrial materials, residue or trash that may have come in contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final or water materials from areas of no exposure to exposed areas;
- Control measures needing replacement, maintenance, or repair; and
- Discharge points during storm events

-

Table 9, Outfalls and associated oil water separators

OUTFALL	FACILITY NUMBER	OIL WATER SEPARTOR
J001	1200	82037
	1422	
	B Ramp	
J005	1201, 1168 (Included in 1200 Inspections)	
J009	1194	82038
	1160	
	1164	
	1165	
	1166	
	1167	
	1178	
	C Ramp	
	J Ramp	
J016	D Ramp	
J017	D Ramp	82039
J020	707, 708, 709, 710, 761, 771, 780 (Included in 778 Inspections)	
J023	730	707
	778	
J027	Hangar 1	17
	Hangar 2	
	Hangar 3	
J035	Hangar 4	19
J036	D Ramp	82040
NA	584	

JBLM will document findings of each routine facility inspection performed. Each type of facility at JBLM has a specific inspection sheet addressing pollution concerns for the respective sector. An example of a routine facility inspection form and inspection checklists can be found in Attachment G. Inspection reports are filed with the Stormwater Program MSGP files Building 2012. All reports, at a minimum, will indicate the following:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;

- All observations relating to the implementation of control measures at the facility, including;
    - A description of any discharges occurring at the time of the inspection;
    - Any previously unidentified discharges from and/or pollutants at the site;
    - Any evidence of, or the potential for, pollutants entering the drainage system;
    - Observations regarding the physical condition of and around all outfalls, including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving waters;
    - Any stormwater control measures needing maintenance, repair, or replacement;
- Any additional control measures needed to comply with the permit requirements;
- Any incidents of noncompliance; and
- A statement, signed and certified in accordance with MSGP Appendix B, Subsection 11.

Note: If a particular facility does not have industrial activities occurring, i.e. no maintenance is occurring or facility is cleared out awaiting for new unit, these inspections will be indicated as no-industrial activities and other inspection areas will not be assessed. These facilities will stay on the routine inspection schedule; being visited at least quarterly.

4.7.1 Corrective Actions.

All findings during a facility inspection will be evaluated to determine whether formal corrective action will be taken in accordance with MSGP Part 5. See Section 6 for details. Inspection findings not requiring formal corrective action will be addressed during the inspection by contacting the facility point of contact. For for findings not requiring immediate action, the inspection report will be provided to the point of contact in a timely manner. All findings will be re-inspected during the next quarterly inspection.

Section 5: CONTROL MEASURES USED TO COMPLY WITH EFFLUENT LIMITS

The control measures found in Section 3 are essential for meeting effluent limits. In addition oil water separators (OWSs) are located just prior to most of the outfalls. Below is a list of the outfalls that have OWSs associated with them and the coordinate location. These OWS are inspected at least quarterly.

Table 10, Locations of oil water separators associated with outfalls

OWS Associated Outfall	Latitude (decimal degrees)	Longitude (decimal degrees)	Northing WGS84 UTM	Easting WGS84 UTM
J001 – 82037	47.14900	122.49549	5221846	538249
J009 – 82038	47.14188	122.49156	5221056	538552
J017 – 82039	47.13754	122.48920	5220575	538734
J023 – 707	47.13641	122.48857	5220450	538783
J027 – 17	47.13572	122.48658	5220374	538934
J035 – 19	47.13449	122.48239	5220240	539253
J036 – 82040	47.13423	122.48161	5220211	539312

5.1 QUARTERLY VISUAL ASSESSMENT OF STORMWATER DISCHARGES.

Quarterly visual assessments performed at JBLM will include the information listed below and will be entered on an visual inspection form (See Attachment E):

5.1.1 Person(s) or positions of person(s) responsible for assessments.

Inspections will be performed primarily by a stormwater technician but may be performed by a qualified stormwater team staff.

5.1.2 Schedules for conducting assessments.

Per section 3.2.3 of the MSGP, visual Assessments will be conducted quarterly at all outfalls associated with industrial activities during the months of October through April when rain events are sufficient enough to produce outfall discharge. Additionally, if a rain event occurs but no discharge from the outfall is visible this will be noted in a no discharge log filed with the Stormwater Program MSGP files Building 2012.

5.1.3 Specific assessment activities.

Assessments will be in accordance with MSGP Part 3.2.1. They will be taken at the outfall points listed in Section 4.6.1.6. A clean, colorless glass or plastic container will be used to conduct the assessment. The collection of the sample will be within the first 30 minutes of the actual discharge from the storm event. If it is not possible to collect the sample within the first 30 minutes of the discharge, an attempt will be made to collect it as soon as practicable. All visual assessments will be documented to include whether the collection was within the 30 minute timeframe. If collection was not within 30 minutes of discharge, it will be documented as to the reasoning to why it was not. In the case of snowmelt, samples will be taken during a period with a measurable discharge from the site. Whenever possible, sample collection will occur for storm events that occur at least 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if it is documented that less than a 72-hour (3-day)

interval is representative for local storm events during the sampling period. All visual assessments will inspect or observe the sample for the following water quality characteristics:

- Color;
- Odor;
- Clarity (diminished);
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;
- Oil sheen; and
- Other obvious indicators of stormwater pollution.

5.1.4 Assessment Documentation.

The documentation for these assessments will be in accordance with MSGP Part 3.2.2. The visual assessments are filed into APIMS. If no discharge is observed at any particular outfall, documentation of this observation will be logged and filed in the inspection report. At a minimum, all reports will indicate the following:

- Sample location(s);
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt)
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination;
- If applicable, why it was not possible to take samples within the first 30 minutes; and
- A statement, signed and certified in accordance with Appendix B, Subsection 11 of the MSGP.
- In the event that there is no precipitation it will be noted in the comment section of all applicable outfall inspection sheets.
    - The weekly comments will include a date and times associated with the comment. For example, " During the week of _____ no precipitation was observed during daytime work hours between the hours of ____-____."
- In the case that there is precipitation, but it is less than 0.1 inches in a day, this will be recorded along with precipitation data from NOAA.
    - In the case that there is precipitation and it is greater than 0.1 inches in a day, we will provide a stamped picture for each outfall to back up the observation.

5.1.5 Corrective Actions.

Whenever a visual assessment shows evidence of stormwater pollution, corrective action/s will be taken in accordance with MSGP Part 5.

Exception to Routine Facility Inspections and Quarterly Visual Assessments for Inactive and Unstaffed Sites.

All industrial facilities will be visited in accordance with the required inspection schedule. On occasion, some industrial facilities will be unstaffed and inactive. For these situations, full inspections will not be conducted, but the inactivity will be recorded.

Section 6: MONITORING.

The following identified monitoring activities are applicable at JBLM under the 2021 MSGP:

☒ Indicator - PAHs
☒ State Specific
☒ Impaired Waters
☒ Additional Monitoring Required by the EPA

The MSGP Monitoring and Quality Assurance Plan outlines all monitoring procedures and details.

Section 7: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

7.1 DOCUMENTATION REGARDING ENDANGERED SPECIES ACT (ESA) LISTED SPECIES AND CRITICAL HABITAT PROTECTION.

There are endangered species on JBLM. Applicable to the airfield are the Streaked Horned Lark, which are part of a collaborative conservation and management program with McChord's Bird Airstrike Hazard (BASH) program and the Environmental Program's Natural Resources Programs. Criterion C Eligibility Form was submitted on 18 September 2015 in accordance with 2015 MSGP Part 1.1.4.5. In 2021 the Criterion C2: Facility eligible for Criterion C in the 2015 MSGP with changes to ESA-listed species, critical habitat, or action area was selected. A copy of the eNOI with ESA information can be found in appendix C.

7.2 DOCUMENTATION REGARDING NATIONAL HISTORIC PRESERVATION ACT (NHPA)-PROTECTED PROPERTIES.

Based upon cultural and historic resources assessments as required by 2015 MSGP Part 1.1.4.6, JBLM is eligible for coverage under Criterion A. Documentation to support determination of eligibility with respect to historic properties is provided in Attachment H. Upon review in 2021, it was determined there were no relevant changes in operations that increased the potential to effects on historic properties at properties associated with areas falling within permit coverage.

Section 8: CORRECTIVE ACTIONS AND ADDITIONAL IMPLEMENTATION MEASURES

8.1 CONDITIONS REQUIRING SWPPP REVIEW AND REVISION TO ENSURE EFFLUENT LIMITS ARE MET.

Corrective Actions and SWPPP review and revision are required if any of the conditions listed below occur:

- An unauthorized release or discharge (e.g. spill, leak, or discharge of non-

stormwater not authorized by this or another NPDES permit to a WATER of the U.S.) occurs on JBLM.
- Control measures are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in the MSGP.
- A required control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained.
- Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, and foam).
- Note: Numeric limits found in the MSGP Table 2-1 is not applicable for the types of activities associated with industrial activities on JBLM.

8.2 CONDITIONS REQUIRING SWPPP REVIEW TO DETERMINE IF MODIFICATIONS ARE NECESSARY.

Conditions requiring SWPPP review to determine if modifications are necessary are listed below:

- Construction or change in design, operations, or maintenance at the facility that significantly change the nature of pollutants discharged in the stormwater from the facility, or significantly increase the quantity of pollutants discharged.
- The average of four quarterly sampling results exceeds an applicable benchmark. If less than four benchmark samples have been taken, but the results are such that an exceedance of the four-quarter average is mathematically certain this is considered a benchmark exceedance, triggering review.

Note: A benchmark exceedance does not trigger a corrective action if JBLM determines that the exceedance is solely attributable to natural background sources, or if JBLM makes a finding that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practices.

8.3 CORRECTIVE ACTION DOCUMENTATION.

Documentation of any of the conditions listed above will be completed within 24 hours of becoming aware of the condition. All effort will be made to document conditions triggering corrective action in the currently utilized stormwater database. If the database is not able to be used, documentation will be via memo and the memo will be place in the SWPPP as an attachment. Corrective Actions must include the following documentation:

- Description of the condition triggering the need for corrective action review. For any spills or leaks, include the following information: a description of the incident including material, date/time, amount, location, and reason for spill, and any

leaks; spills or other releases that results in discharges of pollutants to water of the U.S., through stormwater or otherwise;
- Date the condition was identified;
- Description of immediate actions taken pursuant to MSGP Part 4.3.1 to minimize or prevent the discharge of pollutants. For any spill or leaks, include response actions, the date/time clean-up completed, notifications made, and staff involved. Also include any measures taken to prevent the reoccurrence of such releases; and
- A statement, signed and certified in accordance with MSGP Appendix B, Subsection 11.

For any action that cannot be completed “immediately”. The below must be followed: Corrective actions will be completed before the next storm event if possible, and within 14 calendar days from the time of discovery of the corrective action condition. When it is infeasible to complete the corrective action within the 14-day timeframe a justification must be documented as to why. When the 14-day timeframe is not feasible a schedule will be identified for completing the work as soon as possible, but no longer than 45 days after discovery. If the corrective action cannot occur within 45 days EPA Region 10 will be notified as required in the MSGP Part 5.3.1.

Section 9: SWPPP CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____ Title: Stormwater Program Manager

Signature:  Date: 14 June 2021

For re-certification:

#1
Name: _____ Title: _____
Signature: _____ Date: _____

#2
Name: _____ Title: _____
Signature: _____ Date: _____

#3
Name: _____ Title: _____
Signature: _____ Date: _____

#4
Name: _____ Title: _____
Signature: _____ Date: _____

#5
Name: _____ Title: _____
Signature: _____ Date: _____

Section 10: SWPPP MODIFICATIONS

The below table will be updated with all SWPPP modifications regardless whether re-certification is required. If re-certification is required based on requirements listed in Section 6 of this SWPPP, "Yes" should be indicated appropriately in Table 15 below. SWPPP re-certifications shall be signed in Section 7.

Table 11, SWPPP modifications

Mod No.	Modification Description	Re-certification Required Yes/No	Modification Made by	Date	Signature

Section 11: SWPPP AVAILABILITY

JBLM's SWPPP can be found on the JBLM Stormwater Website or upon request of the Stormwater Program.

Email: usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil

Website: https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public_works-environmental_division/stormwater

Section 12:

SWPPP APPENDICES

A – General Location Map

B – Site Maps

- ***Maintained by the stormwater program***

C –2021 eNOI documentation

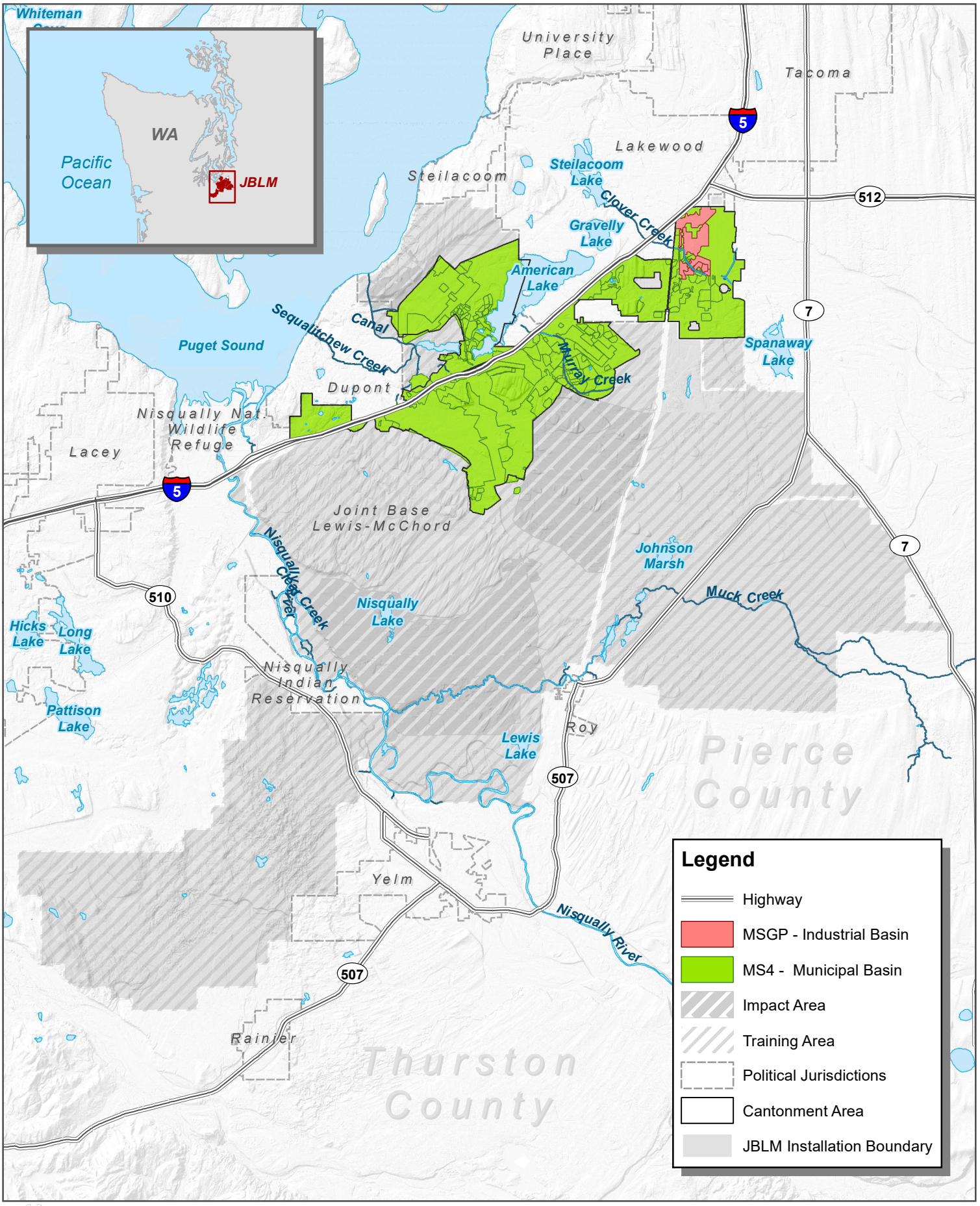
- ***Maintained by the stormwater program***

APPENDIX A – GENERAL LOCATION MAP

Scale 1:173,000

JBLM Stormwater Basins

Joint-Base Lewis McChord, WA



Map Atlas | Produced by Public Works, GSO
Size: 8.5 x 11 | Published: July 17, 2019

2 1 0 2 Kilometers
2 1 0 2 Miles

N