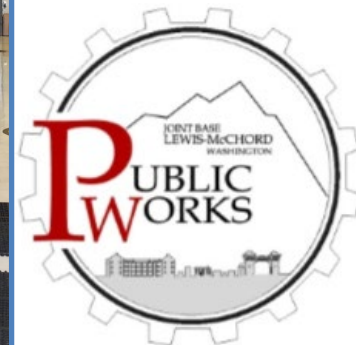


# Joint Base Lewis-McChord

*"Service Members Defending America"*



## Environmental Guidebook 2024 V1

*A resource for everyday materials, items, and practices found on JBLM and how to properly manage them.*

## **Introduction**

This Environmental Guidebook establishes responsibilities, policies, and instructions at Joint Base Lewis-McChord (JBLM), WA required by applicable federal, state, and local laws, regulations, and Army Regulation (AR) 200-1, Environmental Protection and Enhancement, and Fort Lewis Reg. 200-1.

If we do not consider the health and welfare of our troops, our mission will suffer. These instructions are designed to enhance and support the warfighter and make their mission more easily accomplished while simultaneously protecting and preserving our natural resources for future generations. Compliance avoids fines and penalties from regulatory agencies. Fines are paid from military and civilian activities' operating funds, which could reduce the amount of funds available for mission, training supplies, etc.

This Environmental Guidebook provides a quick reference for guidance on the most common environmental concerns that units and other organizations on JBLM encounter daily by providing fact sheets that cover topics such as used oil recycling, management of hazardous material, and handling procedures for aerosol cans, paint, batteries, tires, etc. Used properly, this book will enhance and support the warfighter, enable mission success, and preserve the limited training resources currently available to JBLM. Moreover, using this book can assist regulated facilities on JBLM in avoiding violations from regulatory agencies such as the Washington State Department of Ecology or the U.S. Environmental Protection Agency (EPA). These violations can result in heavy fines and possible criminal charges; therefore, it is imperative that leaders become familiar with the JBLM Environmental Guidebook and rely heavily upon the Environmental Officer (EO) who acts on the Commander's behalf to provide guidance and oversight of environmental compliance in the workplace.

## **Purpose and Scope**

This Environmental Guidebook supports JBLM Environmental Programs. It applies to the following:

- All organizations, activities, and contractors located on JBLM.
- Any outside organization or training activity at JBLM.

## **Reviews and Revisions**

The Environmental Guidebook was developed to provide the most current information. It is maintained online and can be continuously updated to provide the correct information when needed. When printing and posting these fact sheets, be careful to develop internal controls that will ensure the most current fact sheets are available, such as by checking the online version at [https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public\\_works-environmental\\_division/environmental-laws-regulations-and-policies](https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public_works-environmental_division/environmental-laws-regulations-and-policies) on a routine basis.

All EOs and any other JBLM personnel are encouraged to provide comments and suggestions to improve this Guidebook. Submit comments to the Environmental Outreach team at [usarmy.jblm.id-readiness.list.dpw-edpr1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-edpr1@army.mil).



## **Responsibilities**

The following responsibilities are organized according to the JBLM command structure.

### *Directorate of Public Works Environmental Division*

The Environmental Division (ED) will coordinate, inspect, assess, and/or assist with all aspects of Installation actions relative to environmental regulations. ED will serve as the single point of contact for federal, state, and local agencies regarding environmental permits, interpretation of regulatory requirements, and coordination and resolution of non-quality issues or findings.

ED will also

1. Guide the Installation's compliance with federal, state, and local environmental requirements, including tenants' activities.
2. Make recommendations to the Garrison Commander on the necessary or advisable policy changes to improve program management.
3. Inform the Garrison Commander of the receipt of enforcement notices of violation, consent orders, or quality agreements.

The Directorate of Public Works (DPW) is instrumental in supporting the mobilization, deployment, and redeployment of JBLM units. DPW-ED staff assist in the clearance of facilities and the deployment of military personnel and their equipment. Through these efforts, units can deploy and assume their military mission with little or no impact from the environmental laws and regulations JBLM must comply with.

### *Commanders and Facility Managers*

Implementing regulatory requirements and best management practices (BMPs) outlined in this Guidebook requires the support of unit commanders and facility managers.

Specifically, commanders and facility managers will

1. Assign personnel to key positions outlined in this Guidebook and ensure personnel are trained.
2. Enforce regulatory requirements, BMPs, and procedures.
3. Utilize the EO as the central point of contact for coordination and resolution of environmental issues.

### *Environmental Officer*

The function of the EO is to accomplish environmental compliance requirements on behalf of his or her responsible commander, director, or supervisor.

The EO will

1. Be trained in accordance with AR 200-1, local JBLM regulations, and Standard Operating Procedures (SOPs).
2. Take the Environmental Operation Management (EOM) Certification course. Personnel must register for this course through [usarmy.jblm.id-readiness.list.dpw-edpr1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-edpr1@army.mil).
3. Implement the instructions established by this Guidebook, as well as relevant SOPs and enforce compliance actions.
4. Meet the rank requirement established in FL 200-1 (see page 2-12). Staff Sergeant or above appointed by the commander while filling the ECO position at the Company level.
5. Conduct required environmental inspections of activity or unit areas and maintain documentation and records. Ensure weekly, monthly, and quarterly inspections are completed and documented. Conduct monthly and annual inspections of petroleum, oil,

and lubricants (POL) storage containers or aboveground storage tanks, as applicable to the unit area (see Aboveground Storage Containers/Tanks in Equipment section).

6. Maintain site contingency plan and implement spill response procedures when necessary.
7. Ensure that hazardous materials are on the unit/activities Authorized Use List or Restricted Use List.
8. Notify the ED of changes to operations, including waste stream process changes, new waste streams, new equipment, materials used, and materials stored.
9. Ensure that appropriate unit personnel receive the proper level of environmental training (SAA Operator, HAZMAT Custodian, Spill Planning and Prevention, emission control equipment, etc.).
10. As needed, request a Site Assistance Visit (SAV) from the Environmental Compliance and Assessment Team (ECAT) for guidance and assistance towards meeting environmental compliance and conformance standards.
11. Keep a copy within your work area to make the most of this Environmental Guidebook. These areas include not only motor pools, but also supply and administrative areas.
12. It is suggested that training be conducted with all personnel to inform them how each fact sheet should be used.
13. EOs should use the Environmental Guidebook and assist leadership by providing applicable fact sheets for daily activities and training exercises across JBLM.
14. The information contained within this book is the same information that the DPW ECAT uses when conducting environmental assessments on the Installation. Contact the ECAT Team at [usarmy.jblm.id-readiness.list.dpw-compliance-inspection-team1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-compliance-inspection-team1@army.mil) to obtain the most current copy of the checklist used for these assessments.

### *Satellite Accumulation Area Operator*

The SAA Operator will

- Attend initial and annual EOM training.
- Coordinate with ED to establish and maintain the SAA.
- Operate the SAA in accordance with this Guidebook.
- Conduct weekly inspections, document deficiencies and corrective actions, and enforce compliance.
- Coordinate with the EO to resolve any environmental noncompliance.
- Maintain required documentation in the SAA records.
- Implement spill response procedures when necessary.

### *Hazardous Materials*

Units may designate a HAZMAT Custodian to maintain materials in the HAZMAT storage units and lockers. These personnel receive procedural training from the EO or HAZMAT delivery personnel.

The HAZMAT Custodian will

- Coordinate with the EO and delivery personnel to maintain HAZMAT inventories.
- Maintain the Safety Data Sheet (SDS) binder.
- Procure and store materials in accordance with established procedures.
- Ensure the DPW Air program approves new solvents used on aerospace components.

- Ensure monthly usage of solvents with volatile organic compounds (VOCs) are reported to the Air Program.
- Follow all procedures outlined in this Guidebook.
- Ensure hazardous materials are on the unit/activities Authorized Use List or Restricted Use List.

### ***Leader Responsibilities***

Every JBLM unit and tenant must appoint an EO at a level of E-6 on official duty orders, civilian-supervisor, or above per AR Reg 200-1. Units are also encouraged to have additional EOs at the company level. EOs are critical for helping units and tenants maintain compliance with local, state, and federal regulations and laws, and in supporting a sustainable installation. Utilizing these available resources can reduce the risk of environmental impacts and avoid notices of violations, fines, and penalties.

### **How to Use This Book**

The Environmental Guidebook will assist in providing guidance on only the most common environmental concerns; however, DPW-ED staff can answer specific questions. The ECAT team is available for SAVs, training, and building clearances and can help confirm wastes are being recycled or disposed of properly. This Guidebook has six sections: Materials Handling and Disposal, Processes and Best Management Practices, Equipment, Cultural Resources, Fish and Wildlife Management, and Maps.

### ***Materials Handling and Disposal***

These fact sheets are limited to one page to provide a crucial summary of the compliance requirements associated with material usage and disposal. The online version allows hyperlinks to provide further information and allows questions to be submitted directly to a subject matter expert.

These fact sheets include three sections:

Potential Hazards and Environmental Concerns – This section describes the potential hazards as they relate to the environment.

Compliance and Handling Procedures – This section outlines steps describing the compliance requirements associated with usage and disposal.

General Information – When the previous two sections have not completely addressed the problem, contact information is provided in this section. References for regulatory documents may also be found in this section.

### ***Processes and Best Management Practices***

This section provides compliance requirements or best management practices (BMPs) associated with a process. BMPs are methods that have been determined to be the most effective and practical means of preventing or reducing pollution and/or environmental impacts.

These fact sheets include four sections:

Potential Hazards and Environmental Concerns – This section describes the potential hazards as they relate to the environment.



Compliance and Handling Procedures – This section outlines steps describing how to comply with associated environmental regulations.

Best Management Practices – This section provides a path to implement BMPs to reduce environmental impacts further.

General Information – When the previous three sections have not completely addressed the problem, contact information is provided in this section. References for regulatory documents may also be found in this section.

### ***Equipment***

This section provides compliance requirements or BMPs associated with the operation and maintenance of equipment.

These fact sheets include four sections:

Potential Hazards and Environmental Concerns – This section describes the potential hazards as they relate to the environment.

Compliance and Handling Procedures – This section outlines steps describing how to comply with associated environmental requirements.

Best Management Practices – This section provides a path to implement BMPs to reduce environmental impacts further.

General Information – When the previous three sections have not completely addressed the problem, contact information is provided in this section. References for regulatory documents may also be found in this section.

### **Contact Information:**

#### **Air Program:**

Email: [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil)

Phone: 253-966-1768 or 253-966-1766

#### **Solid Waste and Recycling Program:**

Email: [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@mail.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@mail.mil)

Phone: 253-966-1781

#### **Stormwater Program:**

Email: [usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil)

Phone: 253-967-2837

#### **Tanks Program:**

Email: [usarmy.jblm.id-readiness.list.dpw-env-tanks-program@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-env-tanks-program@army.mil)

Phone: 253-966-1801

#### **Toxic Substances Program (Lead and Asbestos):**

Email: [usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil)

Phone: 253-966-1768, 253-966-1782, or 253-966-1766

## TABLE OF CONTENTS

MATERIALS HANDLING AND DISPOSAL.....	1
Absorbents .....	2
Adhesives/Sealants/Epoxy .....	3
Aerosol Cans.....	4
Ammunition/Brass .....	5
Antifreeze (New or Spent) .....	6
Appliances.....	7
Asbestos (Brake Shoes, Brake Pads, and Clutch Disks) .....	8
Asbestos (Building Construction and Demolition Waste) .....	9
Atropine Injectors (ATNAA).....	10
Batteries .....	11
Cardboard .....	12
CBRNE/NBC Protective Mask Filters.....	13
Concertina Wire.....	14
Drain Pans and Drip Pans .....	15
DS2 Containers: Demilitarization (Demil) Required Property .....	16
Detector/Decon Kits.....	17
Electronic Waste (E-Waste).....	18
Film Plastic (Wrap and Plastic Bags).....	19
Fire Extinguishers.....	20
Fire Fighting Foam (AFFF/HEF) .....	21
Fuel Filters .....	22
Furniture.....	23
Gas Cylinders (Refillable – non-refrigerant) .....	24
Gas Cylinders (Single Use, non-refrigerant) .....	25
Glass.....	26
Grease/Used Cooking Oil (Kitchen).....	27
Grease (Maintenance).....	28
Household Hazardous Waste (HHW) .....	29
Illegal Dumping.....	30
Lead-Based Paint.....	31
Light Bulbs .....	32
Mattresses.....	33

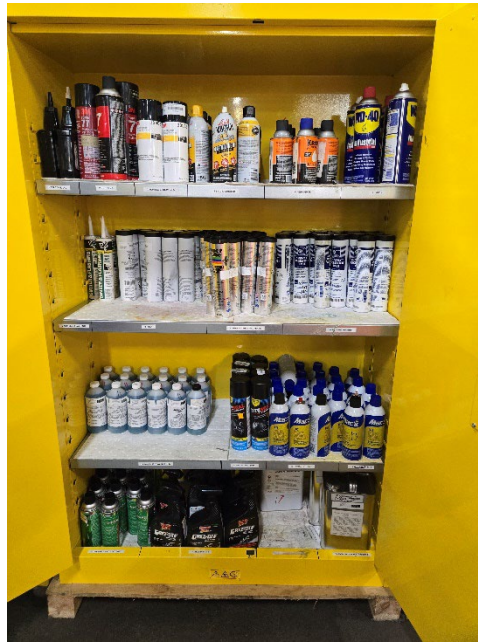
Mercury Containing Equipment/Items .....	34
Mop Water .....	35
MRE Heaters .....	36
Oil Filters .....	37
Paints, Coatings, and Stains (Oil-based, Latex-water based, CARC systems) .....	38
Pallets .....	40
Paper/Paper Products .....	41
PCB Ballasts and Transformers.....	42
Pesticides, Herbicides, and Rodenticides .....	43
Petroleum, Oils, and Lubricants (POL) (oil, fuel, and hydraulic fluids).....	44
Plastic.....	45
Radioactive Materials .....	46
Rags.....	47
Refrigerants HFCs and PFCs .....	48
Refrigerants Ozone Depleting Substances (ODS) .....	49
Refuse/Trash/Garbage .....	50
Scrap Metal .....	51
Solvents .....	52
Stryker Hull Water .....	53
Styrofoam .....	54
Sharps/Medications - Residential .....	55
Tires .....	56
Toner and Printer Cartridges.....	57
Unmarked/Unlabeled Containers.....	58
Vehicles.....	59
Wood.....	60
Yard Waste and Land Clearing Debris.....	61
PROCESSES AND BEST MANAGEMENT PRACTICES (BMPS).....	62
Aircraft Deicing .....	63
Concrete and Asphalt Recycling .....	64
Deployment/Redeployment .....	65
Dig Permits.....	66
Field Training.....	67
Food Services and Mobile Kitchens.....	70
Forest Management .....	72



Fueling - MOGAS .....	73
Tactical Fueling.....	74
Gray Water Collection/Disposal (Field Training).....	75
NEPA.....	76
Painting, Coating, and Staining Operations (Non-latex).....	77
Spills – Petroleum, Chemical or Dangerous Waste IMMEDIATE ACTION PROCEDURES ...	79
Tank Purging .....	80
Vehicle Washing .....	81
Water Purification .....	82
Water Quality and Stormwater Management .....	84
Wetlands .....	85
Yakima Training Center (YTC).....	86
EQUIPMENT .....	87
Aboveground Storage Containers (POL > 55gal).....	88
Aboveground Storage Tanks (containing POL) .....	89
Automated Floor Sweepers/Scrubbers (General) .....	90
Automated Industrial Floor Sweepers/Scrubbers (Maintenance Facilities).....	91
Generators Emergency .....	93
Generators Non-Emergency.....	95
Generators Tactical.....	97
Hazardous Material Storage Shed.....	98
Oil/Water Separator (OWS) .....	100
Paint Booths .....	101
Parts Washers/Solvent Tanks .....	102
Satellite Accumulation Area (SAA).....	103
Tactical Vehicle/Stryker Hull Water .....	104
Weapons Cleaning Tanks .....	107
CULTURAL RESOURCES .....	108
Archaeological/Historical Sites .....	109
Cultural Resources .....	112
FISH AND WILDLIFE MANAGEMENT.....	114
Fish and Wildlife Management .....	115
MAPS .....	120
Ammunition Amnesty Box Locations.....	121
Toner Recycling Locations.....	122

Wash Rack Locations .....123

## MATERIALS HANDLING AND DISPOSAL





# Absorbents

## BEST MANAGEMENT PRACTICES

Absorbents such as pads, towels, boom, dry sweep, clay, or other spill kit contents may become flammable and/or toxic when saturated with petroleum, oil, lubricants, solvents, or other substances. Contaminated absorbent materials are considered hazardous waste.

☆	Dry sweep and clay can be used up to two times on the same type of spill before disposal.
☆	Absorbents with substances that can easily evaporate, such as fuels and solvents, must be kept in closed containers.
☆	Absorbents contaminated with hazardous materials should be stored properly until picked up by your Hazardous Waste Technician. Always appropriately label storage containers.
☆	Absorbents saturated with oil and lubricants (e.g., clay used to clean up a small spill) can be double bagged and put in the dumpster.

## GENERAL INFORMATION

For questions or to a schedule pickup, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

Absorbent NSNs:

6850PHM00322953 (15LB) – GREASWEEP RICE HUSK ASH, <https://greasweep.com/>

4235PHM00377033 (25LB) – EP Minerals, LLC, Superior Oil Absorbent (Meets Bio-Based Requirements)

4235PHM00322224 (40LB) – Available in a leak-resistant and moisture-resistant poly bags.

4235PHM00370920 (1GAL) – COCO Products LLC, COCO ABSORB UNIVERSAL ABSORBENT, Eco-Friendly.

4235-01-415-9186 – White pads.

7930-01-436-8314 – Grey pads.

# Adhesives/Sealants/Epoxy

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Spent adhesives, sealants, epoxies, and other wastes generated from using these materials such as gloves, stir sticks, and old material removed during replacement are hazardous waste.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Store adhesives and sealants properly, in accordance with the product Safety Data Sheet (SDS) and AR 200-1.
☆	When spent or expired, place the items in the Satellite Accumulation Area (SAA) and contact the Hazardous Waste Program at 253-967-4786 to schedule a pick-up and for further information.
☆	Personnel living on the Installation may take used or spent items to Household Hazardous Waste (HHW) at Public Works Environmental Operations Building 9679: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions or to schedule a pickup, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Aerosol Cans

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Aerosol cans are under pressure and may be flammable, reactive, corrosive, and/or toxic, depending on the contents of the cans and the propellants involved. All aerosol cans on JBLM are considered hazardous waste.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Store aerosol cans properly in a hazardous material shed, in accordance with the product Safety Data Sheet (SDS) and AR 200-1.
☆	Coatings and paints applied using hand-held aerosol spray cans with capacity of <1 quart does not require an air quality permit.
☆	If cans with a capacity <1 quart are used contact the DPW Air quality program at <a href="mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil">usarmy.jblm.id-readiness.list.dpw-air@army.mil</a> to facilitate a permit application. Fees apply.
☆	Schedule pick-up of spent aerosol cans with your Hazardous Waste Technician, Environmental Operations, or 253-967-4786.
☆	Personnel living on the Installation may take used aerosol cans to Household Hazardous Waste (HHW) at Public Works Environmental Operations Building 9679. Phone: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions or to schedule a pickup, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

DPW-ED Air Program: 253-966-1768 or [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil).



# Ammunition/Brass

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Ammunition, simulators, brass, and smoke grenade residue can harm personnel and the environment. Training exercises generate live and expended ammunition. Ammunition and residue must be returned to the issuing Ammunition Supply Point (ASP) by the users when training is completed for proper accountability and disposal.

## COMPLIANCE AND HANDLING PROCEDURES

☆	If found, ammo/unexploded ordnance (UXO) items should not be touched or moved.
☆	Report to DPTAMS Range Support (if on ranges) and to Explosive Ordnance Disposal (EOD) for removal on Lewis Main, Lewis North and McChord Field.
☆	<b>Any ammunition item found larger than .50 caliber must be assumed live and dangerous.</b> Do not touch or move. Mark and secure the area. Notify military police immediately. This includes smokes, signals, and other pyrotechnic simulators.
☆	All ammunition-related items, such as boxes, cans, packaging, small parts, brass, links, pull rings, etc., must be turned into the ASP.
☆	Small arms ammunition (.50 caliber and below) may be returned to the ASP without paperwork or an appointment (M-F 0730-1500).
☆	Ammo (.50 caliber and below) can be placed, at any time, at the amnesty box locations with no questions asked and no fear of prosecution.

## GENERAL INFORMATION

### Contact Phone Numbers

#### Emergency

Range Support

Amnesty Boxes

Explosive Ordnance Disposal (EOD)

Non-Emergency line

Ammo Supply Point (ASP)

#### 911 (Ask for JBLM 911)

253-967-6371

253-967-6669/8764

719-351-3671

253-967-3107/3108

253-967-7822/7841

### Amnesty Box Locations

1. Ammunition Supply Point Parking Lot, Lewis Main
2. Ranger Motor Pool, Mastin Ave., 3<sup>rd</sup> and 4<sup>th</sup> Division Drive, Lewis Main
3. Wash rack on the Corner of Slone and South 20<sup>th</sup> Street, Lewis Main
4. Corner of A and 17<sup>th</sup> Street, Lewis North
5. Wash rack on corner of A Street and 8<sup>th</sup> Ave., Lewis North

# Antifreeze (New or Spent)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Antifreeze typically contains ethylene glycol. When uncontaminated, both new and spent antifreeze are recyclable materials. Used antifreeze may contain low concentrations of toxic metals. Never dump antifreeze down the sanitary sewer or storm drains.

## COMPLIANCE AND HANDLING PROCEDURES

☆	When the spent antifreeze tank or drum is $\frac{3}{4}$ full, call 253-967-4786 to request a pump out.
☆	Ensure the tank or drum has secondary containment and the caps/plugs are closed when not in use. Label containers appropriately with stored product ("Antifreeze" or "Spent Antifreeze").
☆	Personnel living on the Installation may bring used antifreeze for disposal to Hazardous Waste at Public Works Environmental Operations Building 9679. Phone: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Appliances

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Regardless of hand receipt, all government-owned or purchased appliances must be turned into the Installation Property Book Office (IPBO) Building 9660. Personally purchased appliances must be disposed of off-Installation at the county landfill or transfer station. Do not leave personally purchased appliances or furniture in, on, or around JBLM refuse containers. Illegal dumpers will be prosecuted. (See Ozone Depleting Substances and Refrigerants section for refrigerators, freezers, etc.).

## COMPLIANCE AND HANDLING PROCEDURES

☆	The IPBO accepts appliances from military activities or disposal at Building 9660. This includes appliances with refrigerants.
☆	Personally owned furniture should be donated if it is in good condition. Otherwise, it must be disposed of off-Installation at a county landfill/transfer station.
☆	Lewis-McChord Community residents, please contact your housing representative for disposal instructions or take them to your local landfill.

## GENERAL INFORMATION

For additional information, contact the Solid Waste Program at [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

### Contact Phone Numbers

Installation Property Book Office (IPBO)	253-967-2364
Hidden Valley Landfill (Puyallup)	253-847-7555
Tacoma Recovery & Transfer Center	253-502-2100
Thurston County Waste & Recovery Center	360-867-2491
JBLM ED Solid Waste PM	253-966-1781

# Asbestos

## (Brake Shoes, Brake Pads, and Clutch Disks)

### POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Some brake shoes, pads, and clutch disks may contain asbestos. By law, they cannot be thrown away as regular trash or placed in the metal recycling dumpster. Any non-serviceable brake shoes, brake pads, clutch disks, fuel or exhaust system gaskets, or other suspected asbestos-containing materials must be collected, permitted, correctly bagged, labelled, and taken to the Hazardous Waste facility for proper disposal.

### COMPLIANCE AND HANDLING PROCEDURES

☆	To properly dispose of asbestos-containing materials contact ED Toxic Substances Management (TSM) Points of Contact (POCs) at <a href="mailto:usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil">usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil</a> to request an Asbestos Removal Permit. It is valid for the disposal of asbestos-containing items for up to 10 days.
☆	Follow <i>Friction Gasket Asbestos Waste Information Paper</i> guidance for handling asbestos materials. <i>Information Paper</i> is available by request: 253-966-1776 or 253-966-1782.
☆	Personnel approved on a TSM Asbestos Removal Permit may contact Hazardous Waste: 253-967-4786, with permit in hand, to obtain approved disposal bags.
☆	Asbestos items must be placed in an Asbestos Waste bag, double bagged, gooseneck tied, and sealed with duct tape after contaminated materials and Personal Protective Equipment (PPE) have been placed into the bag. Bags cannot exceed 20 lbs. each and should not be more than half-filled.
☆	Properly bagged, labelled, and permitted asbestos-containing material must be transported to Hazardous Waste at Public Works Environmental Operations Building 9679 with two signed copies of your permit, one for your records and one to leave with the attendant.

### GENERAL INFORMATION

More detailed information on this procedure is available in the referenced *Information Paper*. Please call 253-966-1782 or 253-966-1776 or email [usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil) to request a copy.

# Asbestos

## (Building Construction and Demolition Waste)

### POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Asbestos is present in many buildings on this Installation. Asbestos is commonly found in walls, pipe insulation, floor tiles, doors, ceiling tiles, fire doors, etc. Proper handling and disposal are essential to avoid significant health risks and prevent non-compliance with state and local regulations.

### COMPLIANCE AND HANDLING PROCEDURES

☆	Prior to any alteration to your facility (additions, demolitions, any changes to a structure), contact your DPW representative or submit a work order request through the Army Maintenance Application (ArMA) <a href="https://www.armymaintenance.com/armma">https://www.armymaintenance.com/armma</a> .
☆	Determine if the building contains asbestos by emailing <a href="mailto:usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil">usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil</a> , or calling 253-966-1776 or 253-966-1782 to obtain records. ED Toxic Substances Management will advise you on correct procedures.
☆	Activities such as sanding, grinding, drilling, sawing, or removal of asbestos containing or suspected asbestos containing materials are not allowed. Only trained and certified abatement workers may disturb or remove asbestos contaminated materials.
☆	Any floor tile surface stripping or buffing must be performed with wet methods, low abrasion pads, and by equipment operating at less than 300 RPM.
☆	All safes and cabinets must be checked for asbestos prior to disposal. Call the Hazardous Waste Program front desk: 253-967-4786.

### GENERAL INFORMATION

For more information, please [contact usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil), or call 253-966-1782 or 253-966-1776.

# Atropine Injectors (ATNAA)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Atropine, Mark I Kits, and Antidote Treatment Nerve Agent Auto-Injector (ATNAA) are controlled medical items and require special storage and disposal. These items are an injection hazard and present a safety risk.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | All unused Atropine Injectors, excess or expired, should be turned into the Madigan Medical Warehouse. These items are considered viable and creditworthy. They are returned to the manufacturer for credit applied toward our prime vendor account. |
| ☆ | Unit organizations on the Installation must dispose of all needles/injectors through Madigan Army Medical Center (MAMC) contact 253-967-2583.  |

## GENERAL INFORMATION

Questions about drop-off, call 253-967-2583 located at Building 9665.



# Batteries

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Batteries are considered Universal Waste (UW) (WAC 173-303-040; 40 CFR Section 273.9). The cells of batteries contain hazardous components that are a concern during routine use and disposal. All batteries have special storage requirements.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Alkaline, lithium, ventable lithium, nickel cadmium, magnesium, nickel metal hydride, lead-acid, mercury, and rechargeable batteries require special storage and disposal. For questions regarding proper disposal or to schedule a pickup, contact your Hazardous Waste Technician.
☆	Batteries must be stored undercover or inside waterproof containment to prevent stormwater contamination.
☆	Military units can contact Corporate Waste Solutions at 253-982-3451 to have lead-acid vehicle batteries picked up and disposed of. If a lead acid battery is BROKEN it becomes a HAZARDOUS WASTE item so contact your Hazardous Waste Technician for pick up and disposal.
☆	Personnel living on the Installation may bring used batteries for disposal to Hazardous Waste at Public Works Environmental Operations Building 9679. Phone: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Cardboard

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Cardboard materials have the potential to act as an attractant for wildlife, posing an environmental concern.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Flatten and recycle clean cardboard in either a commingled recycling or cardboard only container.
☆	Dispose of cardboard contaminated with cooking oil, wax, food, and fuel as refuse since it cannot be recycled.

## GENERAL INFORMATION

Questions may be directed to the Solid Waste Program at: [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

### Contact Phone Numbers

Corporate Waste Solutions	253-982-3451
JBLM Refuse and Recycling COR Support	253-377-6110
JBLM ED Solid Waste PM	253-966-2814

# CBRNE/NBC Protective Mask Filters

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Protective mask filters may contain heavy metal chemical compounds.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | All CBRNE filters must be disposed of through the Defense, Reutilization, Accountability and Disposal (DARD) program. Contact 1-877-352-2255 or <a href="mailto:dlacontactcenter@dla.mil">dlacontactcenter@dla.mil</a> for more information. |
| ☆ | Ensure mask filters are unserviceable by demiling.   |
| ☆ | Separate mask filters by type and inventory.   |
| ☆ | Maintain Safety Data Sheets (SDS) for all mask types.  |

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Concertina Wire

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Concertina wire may pose a safety risk to soldiers and the environment.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | Segregate all unusable concertina wire, stakes, and banding. Cut into manageable lengths, coil, and place between two pallets (5 feet high max.). Band it securely together. For disposal, contact the JBLM Refuse and Recycling Coordinator at 253-967-9486.  |
| ☆ | For usable concertina wire, contact the Defense Logistics Agency (DLA) Scheduler at 253-844-3849/3851/3895 or email: <a href="mailto:DLADispositionServicesWebcontent@dla.mil">DLADispositionServicesWebcontent@dla.mil</a> to schedule an appointment, or you can visit their website at: <a href="https://www.dla.mil/DispositionServices/Contact/FindLocation/Lewis/">https://www.dla.mil/DispositionServices/Contact/FindLocation/Lewis/</a> . |

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Drain Pans and Drip Pans

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Use drip pans to capture petroleum, oil, lubricants (POL), or other hazardous substances. These materials are harmful to human health and contaminate the environment.

## COMPLIANCE AND HANDLING PROCEDURES

☆	When drain pans are used to drain fluids from equipment, immediately transfer those fluids into their proper storage containers. Do not leave drain or drip pans containing POL or hazardous materials unattended or exposed to rain.
☆	Place drip pans under known seeps and leaks to prevent discharges into wastewater and storm systems. Prioritize these vehicles for maintenance to repair leaks and/or faulty equipment.
☆	If rainwater is entering the drip pans, line them with an oil-absorbent pad that repels water. Replace when they can no longer effectively absorb contaminants (see "Absorbents" section above for disposal of the pads).
☆	If an oil water mixture is collected in a drain or drip pan, do not pour the mixture into used oil containers. Use a white absorbent pad across the top of the mixture to skim and collect the oil.
☆	Implement a routine inspection for in-use pans (e.g., every motor pool Monday). Units should empty drip pans after each rain event, using the procedures above. Check drip pans for oil sheen before releasing. If the water is clean, release into a grassy area.
☆	When drip pans are not in use, store them in a covered area or upside down. Drip pans may contain residual oil, which can fill with rainwater and create an illicit discharge into the storm drains.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# DS2 Containers: Demilitarization (Demil) Required Property

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

DS2, an alkaline liquid, Gram 4 label materials, and Super Tropical Bleach (STB) require special disposal procedures.

## COMPLIANCE AND HANDLING PROCEDURES

- ☆ Put all expired and partially used DS2 in containers. This material must be managed as a hazardous waste and identified to your assigned Hazardous Waste Technician. Disposal as hazardous waste must meet the demilitarization requirements for this property and will be certified/verified by the Defense Logistics Agency (DLA).

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.



# Detector/Decon Kits

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Kit contaminants are potentially flammable and toxic, requiring special disposal procedures.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |   |
|---|---|
| ☆ | Inventory and segregate items by type of kit.   |
| ☆ | Ensure you have the most current Safety Data Sheet (SDS) available for product turn-in. |

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Electronic Waste (E-Waste)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Personal electronic waste such as computers (desktop, laptop, and portable computers), monitors (LCD or Plasma), TVs, VCRs, DVD players, printers, copiers, fax machines, and other electronic items are recyclable for free under the law for E-CYCLE.

## COMPLIANCE AND HANDLING PROCEDURES

☆	For electronics with an operating system (OS), wipe the OS or reset it to factory default.
☆	<b>This does not include government appliances or property.</b> Do NOT e-cycle government property. Contact Installation Property Book Office (IPBO) at 253-967-5321.

## GENERAL INFORMATION

For more information, contact the JBLM Recycling Center at 253-982-3451 or e-mail [JBLMRecycling@divertmore.com](mailto:JBLMRecycling@divertmore.com).

# Film Plastic (Wrap and Plastic Bags)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Film wraps and plastic bags are a common fly away trash that can tangle and cause harm to wildlife. These items are not recyclable on JBLM. Please place them in the trash, not the recycling containers. Please check with grocery stores to see if they can take back plastic bags. Utilize reusable bags when possible.

## COMPLIANCE AND HANDLING PROCEDURES

☆ | Place in a trash receptacle.

## GENERAL INFORMATION

For questions, contact the Solid Waste Program at [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

# Fire Extinguishers

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Vehicle and equipment fire extinguishers may contain residue that could be a human health irritant.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |   |
|---|---|
| ☆ | Vehicle fire extinguishers are considered part of the vehicle itself and are the operators' responsibility to maintain.   |
| ☆ | If your vehicle or building fire extinguisher needs to be recharged or serviced, facility occupants must use their Government Purchase Card (GPC) to repair and replace fire extinguishers through a commercial vendor. The Base Supply Center 253-966-3582, and several vendors outside JBLM, can service and replace portable fire extinguishers (non-halon). |
| ☆ | Do not drill holes in, remove heads from, or discharge any fire extinguishers.  |

## GENERAL INFORMATION

# Fire Fighting Foam (AFFF/HEF)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Buildings may contain fire-suppression systems, which include the application of foam. Fire engines/trucks may also be equipped with foam fire-suppression systems. Firefighting foam typically contains glycols and foaming agents. When released into the sanitary sewer system, the foam can potentially disrupt processes at wastewater treatment facilities. Releases to the environment pollute surface and ground water, which is detrimental to the ecosystem. Aqueous Film Forming Foam (AFFF) contains per- and polyfluoroalkyl substances (PFAS), a group of chemicals that do not break down and are harmful to humans and animals. Samples of the drinking water wells on JBLM and Yakima Training Center (YTC) are collected to ensure our water is safe for consumption.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | When training with firefighting foam, train in an area where wastewater is contained. This area may be a dedicated training facility or could be a temporary training location. If a temporary training area is used, coordinate with ED in advance.   |
| ☆ | Do not discharge firefighting foam to the sanitary sewer.  |
| ☆ | Discharge to the stormwater system is not allowed and is an illicit discharge.   |
| ☆ | Coordinate with the stormwater program prior to planned fire foam activities to ensure there is no risk of impact to the storm system or body of water. Contact 253-967-2837 or <a href="mailto:usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil">usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil</a> . |

## GENERAL INFORMATION

If AFFF is discharged into the soil or any water supply, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Fuel Filters

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Filters contaminated with diesel, fuel, F-24, or JP-8 are considered hazardous waste. Regardless of waste designation, fuel filters must be segregated and disposed of properly.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Drain used filters into their respective fluid collection containers until they are as empty as possible (usually 12-24 hours).
☆	Place empty filters into an approved container located in the Satellite Accumulation Area/waste shed that has approximately 1 inch of absorbent material in the bottom.
☆	For proper disposal of oil filters, see "Oil Filters" section.
☆	Once full, contact the assigned Hazardous Waste Technician or DPW Hazardous Waste Program front desk at 253-967-4786 and request pick up of the container.
☆	Personnel living on base may bring their used or empty fuel containers to Household Hazardous Waste (HHW) at Environmental Operations Building 9679: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste program front desk at 253-967-4786.



# Furniture

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Donate reusable furniture to the Lewis Thrift Shop, Building 2071 or McChord Thrift Shop, Building 709, when possible. Check for other local donation facilities in Pierce and Thurston counties.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Personally owned furniture in poor condition must be disposed of at a county landfill/transfer station off base. Do not leave personally purchased furniture in, on, or around JBLM refuse containers. Illegal dumpers will be prosecuted.
☆	All government-owned or purchased furniture must be turned into the Installation Property Book Office (IPBO), Building 9660, regardless of whether it is on a hand receipt.
☆	Residents of on-base JBLM Housing, contact your housing office for disposal instructions or take them to your local landfill.  Liberty Military Housing residents: 253-912-3485 Email: lewiseast@lpsi.com, lewiswest@lpsi.com, lewismain@lpsi.com, lewisnorth@lpsi.com, McChord@lpsi.com to coordinate bulk pick-up or service-related questions.

## GENERAL INFORMATION

### Contact Phone Numbers

Installation Property Book Office (IPBO) Building 9660	253-967-2364
Hidden Valley Landfill (Puyallup)	253-847-7555
Tacoma Recovery & Transfer Center	253-502-2100
Thurston County Waste & Recovery Center	360-867-2912
JBLM ED Solid Waste PM	253-967-1781

Recycling questions: [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil)

For questions regarding acceptance policies contact: [fortlewisthriftshop@gmail.com](mailto:fortlewisthriftshop@gmail.com) or [mcchordthriftshop@gmail.com](mailto:mcchordthriftshop@gmail.com).

# Gas Cylinders (Refillable – non-refrigerant)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Oxygen, Acetylene, Argon, Nitrogen, etc.

Compressed gases present a unique hazard. The potential for exposure to both mechanical and chemical hazards exists. Gases may be flammable, combustible, explosive, corrosive, or a combination of hazards.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Exchange cylinders at the Hazardous Materials Control Point (HMCP), Building 9669, on a one-for-one basis with a DA3161.
☆	Turn in cylinders that are serviceable but no longer needed to your unit Supply Support Activity (SSA).
☆	For unserviceable cylinders or to schedule a pickup contact your Hazardous Waste Technician.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Gas Cylinders (Single Use, non-refrigerant)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Propane, Vehicle Starting Fluid, MAPP Gas, etc.

## COMPLIANCE AND HANDLING PROCEDURES

- ☆ Personnel living on base may bring their used cylinders (full or empty) for disposal to Household Hazardous Waste (HHW) to Environmental Operations Building 9679: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Glass

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Glass can break during collection and processing, potentially contaminating the other recyclables.

## COMPLIANCE AND HANDLING PROCEDURES

☆	<b>Glass cannot be placed in commingle recycling containers.</b>
☆	Glass can be dropped off at the Lewis or McChord recycling centers.
☆	To recycle large quantities of glass on JBLM, contact 253-982-3451 for additional options.

## GENERAL INFORMATION

Recycling questions: [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

# Grease/Used Cooking Oil (Kitchen)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Fats, oils, and grease (FOG) can block sanitary sewer systems. Any discharge to the sanitary system is a violation of the Wastewater Treatment Plant permit. Any discharge to storm drains violates JBLM's stormwater permits.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Dining facilities on the Installation can contact American Water at 253-366-9127 for grease interceptor repair or cleaning.
☆	Dining facilities can recycle used cooking oil in containers provided through AAFES. When the container is $\frac{3}{4}$ full, schedule pick-up or pump out (contact Grand Natural at 855-519-5550).
☆	Keep containers and immediate area clean by immediately wiping up any spills/drips. Ensure containers are closed, except when adding grease, to eliminate the potential for rain to enter the container. Keep grease collection containers in secondary containment.
☆	Used cooking oil stored in containers 55-gallons or greater is regulated under the JBLM SPCC Plan. See "Aboveground Storage Containers" fact sheet in the Equipment section for more information.
☆	Personnel living on base may recycle used cooking oil and grease at the McChord Recycle Center. Contact Corporate Waste Solutions at 253-982-3451 for more information.
☆	Personnel living on base may bring their used cooking oil and grease for disposal to Household Hazardous Waste (HHW) to Environmental Operations Building 9679: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact Grand Natural at 855-519-5550.

# Grease (Maintenance)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Grease, automotive, and artillery (GAA) contains petroleum hydrocarbons and additives. Grease contaminated with dirt, water, or other materials is a hazardous industrial waste due to its petroleum constituents.

## COMPLIANCE AND HANDLING PROCEDURES

☆	For questions regarding proper disposal or to schedule a pickup, contact your Hazardous Waste Technician.
☆	Personnel living on base may bring their used grease for disposal to Household Hazardous Waste (HHW) to Hazardous Waste Program Building 9679: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Household Hazardous Waste (HHW)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Leftover household products that contain toxic ingredients require special disposal to avoid harming human health or the environment. HHW includes products that contain corrosive, toxic, ignitable, or reactive ingredients. Products such as paint, cleaners, oils, batteries, and pesticides should be handled as hazardous waste. Any discharge to storm drains of HHW, including paint wash water, violates stormwater permits.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Never pour HHW down the drain, onto the ground, or into storm sewers, and never throw it in the trash.
☆	Personnel living on base may bring their HHW to the Hazardous Waste Program Building 9679: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, please contact the Hazardous Waste Program front desk at 253-967-4786.



# Illegal Dumping

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Illegal dumping is a major problem at JBLM. It is a major economic burden to the Installation, a stormwater permit violation, and a health hazard.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Dumping trash, furniture, mattresses, and hazardous materials in training areas or anywhere on the Installation is illegal.
☆	Bringing trash from off-base and putting it in or next to on-base dumpsters is illegal.
☆	If you witness illegal dumping, call 911. Be prepared to describe the incident and any identifiable information.

## GENERAL INFORMATION

Report illegal dumping to the Military Police (MP) at 253-967-3107.

# Lead-Based Paint

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Lead-based paint is a toxic substance and hazardous waste that must be removed using special work practices, as there may be increased health risks associated with its handling. Where lead-based paint is suspected, precautions must be taken during surface preparation to ensure no adverse effects on human health or the environment.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Prior to any alteration to your facility (additions, demolitions, any changes to a structure to include paint scraping, or any surface preparation for repainting): Contact your DPW Representative or call the DPW Demand Maintenance Order (DMO) Desk at 253-966-3131 to obtain Permissive Authority to Alter a Facility or submit a work order request through the Army Maintenance Application (ArMA) <a href="https://www.armymaintenance.com/arma">https://www.armymaintenance.com/arma</a> .
☆	Determine if the building contains lead-based paint by contacting the DPW-ED Toxic Substances Management (TSM) Program, Building 2012, at <a href="mailto:usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil">usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil</a> . They will direct you on how to proceed.
☆	Activities such as sanding, grinding, drilling, pressure washing, or sawing of lead-contaminated materials are only allowed by certified abatement workers trained on procedures to remove lead-contaminated materials.
☆	Any debris and wash water that may include lead-based paint must be captured for testing and appropriately disposed. Any discharge to storm drains violates JBLM's stormwater permits.
☆	Contact your Hazardous Waste Technician for disposal.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Light Bulbs

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Fluorescent tubes, compact fluorescent bulbs, incandescent bulbs, and mercury lamps contain harmful substances such as antimony, cadmium, barium, mercury, and/or lead. All lamps containing hazardous materials are managed as universal waste (UW; 40 CFR Section 273.9).

Bulbs marked "LED" do not contain harmful substances and can be disposed of with normal non-hazardous refuse. Currently, no LED recycling regulations or initiatives exist.

## COMPLIANCE AND HANDLING PROCEDURES

☆	IMCOM Units/Activities on the Installation may contact the Public Works Service Order Desk at 253-967-3131 to request new bulbs for their location or submit a work order request through the Army Maintenance Application (ArMA) <a href="https://www.armymaintenance.com/arma">https://www.armymaintenance.com/arma</a> .
☆	MEDCOM Units/Activities may request new bulbs for their location. Contact 253-968-0311 for further information.
☆	Mercury-based bulbs from housing are approved for recycling at the Hazardous Waste Program Building 9679.
☆	Decorative string lighting can be disposed of as non-hazardous refuse or recycled through online vendors.
☆	Personnel living on base may bring their used bulbs for disposal to Household Hazardous Waste (HHW) Facility located at Building: 9679. Phone: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Mattresses

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Government-owned mattresses must be turned into the Army Barracks Management Program (ABMP). All government-owned or purchased furniture must be turned in regardless of hand receipt.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Installation Property Book (IPBO) accepts furniture from units for disposal at Building 9660.
☆	Personally purchased mattresses must be taken to a local landfill or transfer station. Residents living in JBLM Family Housing must contact their property management representative for disposal options or self-haul to a local landfill.
☆	If you witness illegal dumping call 911 or contact JBLM Military Police Dispatch at 253-967-3107.

## GENERAL INFORMATION

Questions may be directed to [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

### Contact Phone Numbers

Installation Property Book Office (IPBO)	253-967-2364
Hidden Valley Landfill (Puyallup)	253-847-7555
Tacoma Recovery & Transfer Center	253-502-2100
Thurston County Waste & Recovery Center	360-867-2491

### Housing

Liberty Military Housing residents: 253-912-3485

Email: [lewiseast@lpsi.com](mailto:lewiseast@lpsi.com), [lewiswest@lpsi.com](mailto:lewiswest@lpsi.com), [lewismain@lpsi.com](mailto:lewismain@lpsi.com), [lewisnorth@lpsi.com](mailto:lewisnorth@lpsi.com), [McChord@lpsi.com](mailto:McChord@lpsi.com) to coordinate bulk pick-up or service-related questions.

# Mercury Containing Equipment/Items

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Mercury is a health hazard. It impairs neurological development and causes problems associated with the nervous system. When it is released into the environment, mercury can accumulate in the tissues of plants and animals.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | Report mercury spills, of any quantity, to the JBLM 911 Call Center.   |
| ☆ | Store mercury-containing equipment/items in tightly sealed containers in a cool, dry, well-ventilated area protected from exposure to weather and physical damage. |

## GENERAL INFORMATION

For questions or to schedule pickup, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Mop Water

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Mop water may have contaminants that could harm the environment if not properly handled. Additionally, detergents adversely affect oil water separators (OWSs). Contact American Water for questions at 253-366-9127.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Never dump mop water into an oil water separator or wash rack.
☆	Disposal to ground, vehicle hard stands, parking lots, storm drains, or ditches violates JBLM's stormwater permits.
☆	Contact your Hazardous Waste Technician for disposal determination.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# MRE Heaters

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Meals Ready-to-Eat (MREs) contain flameless ration heaters (FRHs). These are composed of a plastic bag containing a piece of fiberboard, powdered magnesium, or magnesium alloy, and other materials that react chemically to water. The U.S. Environmental Protection Agency (EPA) has determined that spent individual MREs containing FRHs may be disposed of as non-hazardous solid waste.

## COMPLIANCE AND HANDLING PROCEDURES

☆	While in training areas, unused individual heaters must be opened, doused with water, and fired off. Spent individual heaters can then be placed with normal trash.
☆	Unlike individual heaters, spent cases of MREs fall under the critical mass category and must be disposed of as hazardous waste.

## GENERAL INFORMATION

For questions or schedule a pickup, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Oil Filters

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Spent oil filters have the potential to pollute land and water resources. They contain hazardous materials such as arsenic, benzene, cadmium, chromium, and halogens. Oil filters are made of steel and can be recycled if properly drained and crushed. Any discharge to storm drains violates JBLM's stormwater permits.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | Drain used oil filters into their respective fluid container until as empty as possible (usually 12-24 hours). |
| ☆ | Once the oil collection container is full, call your Hazardous Waste Technician to request a pickup.           |

## GENERAL INFORMATION

For questions or to schedule pickup, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.



# Paints, Coatings, and Stains

## (Oil-based, Latex-water based, CARC systems)

### POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Paint and paint-related material may contain toxic chemicals that may be flammable and/or emit chemicals into the atmosphere, such as chromium or cadmium. The methods used for applying paints or coatings influence the environmental hazards and impacts. Refer to the product Safety Data Sheet (SDS) for specific hazards.

### COMPLIANCE AND HANDLING PROCEDURES

☆	The application of Chemical Agent Resistant Coating (CARC) will be done in accordance with AR 750-1.
☆	Coatings, paints, and stains must be approved and listed on Authorized Use Lists or Restricted Use List.
☆	Applying coatings and paints using high-pressure, low-volume paint guns MUST be performed in a permitted paint booth. See the "Painting, Coating, and Staining Operations (Non-latex)" pages under the Processes Section for further guidance.
☆	The use and reporting of coatings in aerospace applications must be done in accordance with SOP PWE-003 Air Quality Compliance Reporting Procedures for Aerospace Operations.
☆	The use and reporting of coatings in other applications must be done in accordance with SOP PWE-012 Air Quality Compliance Reporting Procedures for General Coating Operations.
☆	Liquid latex paint must be dry before being placed in the garbage. Contact your Hazardous Waste Technician for disposal.
☆	DO NOT clean paint materials, brushes, rollers, etc., in unit/activity parts washers.
☆	DO NOT dump paint/stain wash water on the ground, in a conveyance, or a storm drain. Reuse the wastewater by allowing solids to settle out and pour off water into another container. The latex solids can be dried out and managed as latex paint waste.
☆	Tarps, rollers, brushes, gloves, and dried stir sticks may be placed in the trash (latex paint) or disposed of through the DPW-ED Hazardous Waste Program (oil-based paint).
☆	Solvent-based CARC paint and containers that have been completely dried and do not contain heavy metals (see SDS) may be disposed of at a landfill.
☆	Spent thinners and solvents contaminated with CARC shall be disposed of as a hazardous waste.
☆	CARC-contaminated dust containing heavy metals (see SDS) must be analyzed via Toxicity Characteristic Leaching Procedure (TCLP) for heavy metals and properly disposed.
☆	Oil-based paint, stain, and unused CARC paint must be disposed of through your Hazardous Waste Technician.
☆	Personnel approved on a Customer Service Agreement (HJB Form 223) may contact their Hazardous Waste Technician to obtain approved hazardous waste containers.

☆	Personnel living on base may bring their personal paint or stains for disposal to the Hazardous Waste Program Building 9679, Phone: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.
---	--

#### GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Pallets

<b>POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS</b>
---

Pallets can be recycled in the clean wood recycling bin, usually located in unit motor pools or Supply Support Activity (SSA). Pallets with paint contamination cannot be recycled. Dispose in a dumpster.

<b>COMPLIANCE AND HANDLING PROCEDURES</b>
---

- |   |   |
|---|---|
| ☆ | Drop off or pick up pallets at either of the JBLM Recycling Centers.  |
| ☆ | For a stack of six or more pallets, call Corporate Waste Solutions (CWS) for on-site pick-up at 253-982-3451 or e-mail <a href="mailto:JBLMRecycling@divertmore.com">JBLMRecycling@divertmore.com</a> . |

<b>GENERAL INFORMATION</b>
----------------------------

For questions on pallet recycling contact [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

# Paper/Paper Products

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Newspaper and mixed paper are accepted for recycling in the recycling containers. Paper and paper products contaminated with food or hazardous material residue cannot be recycled and are considered trash (e.g., pizza boxes).

## COMPLIANCE AND HANDLING PROCEDURES

☆	Place paper in the commingled recycle container.
☆	Shredded paper can be recycled IF it is put in a clear plastic bag. Call 253-982-3451 for further guidance.
☆	If a unit, organization, or activity relocates, please leave recycle containers assigned to the building in place and notify DPW at 253-477-2988 or Corporate Waste Solutions 253-982-3451.

## GENERAL INFORMATION

JBLM hosts quarterly Shred Events. For those dates, please contact [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

# PCB Ballasts and Transformers

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Polychlorinated biphenyls (PCBs), which were banned in 1979, are toxic substances with a potential carcinogenic effect on humans. PCBs can affect the nervous, immune, endocrine, and reproductive systems. Environmental contaminants can impact the health and survival of fish and wildlife, making those natural resources unfit for human consumption. JBLM has removed PCB-containing materials over the last 20 years, but due to the size and age of the facility there is a possibility they could be found.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Check the equipment ID plate and ensure it states “non-PCB.” If not specifically identified, you must assume (by law) it is PCB-containing.
☆	PCBs with contamination levels of 50 parts per million (ppm) or greater are regulated under the Federal Toxic Substance Control Act (TSCA). Levels between 2-49 ppm are regulated by Washington State and considered hazardous waste. If PCB-containing materials are discovered, please notify the Toxic Substances Management Program at <a href="mailto:usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil">usarmy.jblm.id-readiness.list.dpw-env-toxic-substances@army.mil</a> or 253-966-1782.

## GENERAL INFORMATION

For questions regarding proper disposal, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Pesticides, Herbicides, and Rodenticides

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Pesticides, herbicides, and rodenticides contain harmful chemicals that pose a significant health risk to humans if not used properly. In addition, improper use could lead to stormwater permit violations. Store and use materials in accordance with product label guidelines, Safety Data Sheets (SDS), and AR 200-1. Be cautious when using non-American sources for Field Sanitation Team (FST) related items and pesticides because they may not comply with American manufacturing standards.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Maintain product marking, labeling, and identification on containers. Refer to the product's SDS for proper material handling and storage instructions.
☆	Most pesticides can only be used/applied by a certified applicator. Request/procure items using the EESOH-MIS system. To request professional pest management services in DPW-maintained facilities, contact the DPW Service Order Desk at 253-967-3131 or submit a work order request through the Army Maintenance Application (ArMA) <a href="https://www.armymaintenance.com/arma">https://www.armymaintenance.com/arma</a>
☆	Coordinate with JBLM Stormwater prior to application to stormwater swales or ponds. Call 253-967-2837 or email: <a href="mailto:usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil">usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil</a> .
☆	Madigan personnel, contact the Facilities Management Division (FMD) Help Desk at 253-968-0311.
☆	Personnel approved on a Customer Service Agreement (HJB Form 223), contact your Hazardous Waste Technician to deliver approved hazardous waste containers.
☆	Personnel living on base may bring their personal pesticides to Household Hazardous Waste (HHW) at Building 9679, Phone: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions regarding proper disposal, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Petroleum, Oils, and Lubricants (POL) (oil, fuel, and hydraulic fluids)

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Petroleum-based and synthetic oils (including all grades of motor oil, synthetic oils, transmission oil, brake fluid, and other hydraulic fluids) are non-hazardous industrial materials. Most brake fluids contain chemicals known to be toxic and corrosive such as glycol and polyethylene glycol. Most civilian brake fluids are glycol-based. Military vehicles use a silicon-based brake fluid. Fuel is a flammable and toxic material. Jet fuel, diesel, Coleman fuel, MOGAS (military term for motor gasoline), JP-8, F-24, and diesel are all considered recyclable materials unless they have been contaminated or mixed.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Do not mix silicon or glycol brake fluids together, or either with used oil. The following can be mixed: hydraulic fluid, transmission fluid, used motor oil, and used differential oil.
☆	All fuels must be segregated.
☆	Ensure containers and tanks are closed when not in use and are on secondary containment or in a flam-locker.
☆	Follow Spill Prevention, Control, and Countermeasure plan (SPCCP) storage guidelines for POL stored in containers 55 gallons or greater; see the "Aboveground Storage Container/Tank" fact sheet in the Equipment section.
☆	For containers issued through a Customer Service Agreement with the Hazardous Waste Program, contact your Hazardous Waste Technician when the tank or drum is $\frac{3}{4}$ full to request a pump out.
☆	Dispose of empty containers previously containing a flammable liquid through the DPW-ED Hazardous Waste Program, 253-967-4786.
☆	Do not dump POL into storm drains, oil/water separators, ponds, swales, or the sanitary system. Place in appropriate containers for disposal or recycling.
☆	Personnel living on the Installation may bring used or empty fuel containers for disposal to Hazardous Waste at Public Works Environmental Operations Building 9679: 253-967-4786. Open Monday-Thursday 1300-1500, Friday 1300-1400. Closed Federal holidays.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste front desk at 253-967-4786.

# Plastic

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Plastic waste poses a hazard due to its persistence in the environment. Improper disposal of plastics leads to environmental pollution.

For a list of recyclable commingle plastics, and items please go to: [https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public\\_works-environmental\\_division/recycling](https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public_works-environmental_division/recycling).

## COMPLIANCE AND HANDLING PROCEDURES

☆	Plastic contaminated with food or hazardous material residue cannot be recycled and should be disposed of appropriately.
☆	Hard plastics (e.g., kid's toys) are not recyclable.
☆	Remove any lids or caps and dispose of them as trash. Rinse containers.
☆	Do NOT place items previously containing hazardous materials in recycle containers.

## GENERAL INFORMATION

Need service? Call Corporate Waste Solutions 253-982-3451.

Need recycling containers in your area? Contact the JBLM Refuse and Recycling COR at 253-967-9486 or [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).



# Radioactive Materials

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

There are environmental and health-related issues concerning radiation exposure. The Joint Base Safety Office (JBSO) has oversight for the management of radioactive materials and wastes on JBLM.

Ionization smoke detectors have a small americium source encased in a layer of foil and ceramic, which stops the alpha particles from traveling outside of the smoke detector. Because of this shielding, the smoke detector poses no radiation health risk when they are properly handled. Use as directed. Do not tamper with your smoke detectors, as it could damage the shielding around the radioactive source inside of them.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Units and agencies that handle radioactive materials and/or require storage or disposal guidance should contact 253-966-9164.
☆	There are no special disposal instructions for ionization smoke detectors. They may be thrown away with household garbage.

## GENERAL INFORMATION

# Rags

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Rags saturated with petroleum, oil, lubricants (POL), coatings, paints, solvents, or other materials may be flammable and/or toxic. They release those toxins into the air or water if they are inappropriately managed or disposed.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Keep containers closed unless adding or removing used rags.
☆	Ensure rags are not left exposed to the elements by promptly disposing of them.
☆	Personnel approved on a Customer Service Agreement (HJB Form 223) may contact your Hazardous Waste Technician to deliver approved hazardous waste containers.

## GENERAL INFORMATION

For questions or to obtain a Customer Service Agreement, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Refrigerants HFCs and PFCs

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) are used as substitutes for ozone-depleting substances (ODS). Common non-ODS refrigerants used at JBLM include R-134a, R-226ea, R-227ea, R-407C, and R-410A. Although these substances do not harm the ozone layer, most are potent greenhouse gases and require compliant practices to prevent discharge to the environment. The U.S. Environmental Protection Agency (EPA) and WA State regulate refrigerants based on global warming potential. Any discharge to storm drains violates JBLM's stormwater permits.

## COMPLIANCE AND HANDLING PROCEDURES

☆	All personnel who purchase refrigerants or maintain, service, repair, or dispose of equipment that could release ODS into the atmosphere must have the appropriate 608 or 609 certification training.
☆	To ensure purchase and use is permitted on JBLM, use is limited to materials present on an Authorized Use List or Restricted Use List.
☆	Activities who own/maintain non-tactical equipment using refrigerants with a global warming potential (GWP) >53 and a full charge ≥ 50 lbs. (charge per circuit) must provide the DPW-ED Program with their equipment inventories by February 1 <sup>st</sup> of each year. Please contact the Air Program at 253-966-1766, 253-966-1768, or <a href="mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil">usarmy.jblm.id-readiness.list.dpw-air@army.mil</a> with questions.

## GENERAL INFORMATION

### Contact Phone Numbers

Installation Property Book Office (IPBO)	253-967-2364
Hidden Valley Landfill (Puyallup)	253-847-7555
Tacoma Recovery & Transfer Center	253-502-2100
Thurston County Waste & Recovery Center	360-867-2491

### Housing

JBLM Residents & Lewis-McChord Communities: 253-912-3485

# Refrigerants

## Ozone Depleting Substances (ODS)

### POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Ozone depleting substances (ODS), also called ozone-depleting chemicals (ODC) are substances that, can destroy the earth's protective ozone layer. Halon, R-11, R-12, and R-22 are the most common ODS on military installations. Household refrigerators and freezers manufactured before 1995 typically contain ODS, air-conditioning units, and dehumidifiers manufactured before 2010. NOTE: ODS are regulated as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) due to their high global warming potential. See the "Refrigerants, HFCs and PFCs" fact sheet.

### COMPLIANCE AND HANDLING PROCEDURES

☆	Personnel who purchase ODS or maintain, service, repair ODS-containing equipment or remove ODS from equipment must have the appropriate 608 or 609 certification training and comply with the JBLM ODC Management Plan. For a copy of the plan, contact the DPW-ED Air Program at 253-966-1776, 253-966-1768, <a href="mailto:usarmy.jblm.id-readiness.list.dpw-cir@army.mil">usarmy.jblm.id-readiness.list.dpw-cir@army.mil</a> or <a href="mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil">usarmy.jblm.id-readiness.list.dpw-air@army.mil</a> .
☆	Activities that own/maintain refrigerant-containing equipment must maintain an <u>accurate inventory of all refrigerant-containing equipment</u> to apply the appropriate regulatory requirements and meet JBLM's reporting deadlines. Activities who own equipment using ODS with a full charge of $\geq 50$ lbs. (charge per circuit) must provide the DPW-ED Program with their equipment inventories by February 1 <sup>st</sup> of each year and comply with the JBLM ODS Management Plan.
☆	The Installation Property Book Office (IPBO) accepts appliances containing refrigerants from units and organizations at Building 9660.
☆	Personally purchased refrigerant-containing appliances should be taken to your local landfill for proper disposal. If you have questions, email: <a href="mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil">usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil</a> .
☆	See "Refrigerants, HFCs and PFCs" fact sheet for information on non-ODS refrigerants.
☆	If you witness illegal dumping, call 911, or JBLM Dispatch at 253-967-3107.

### GENERAL INFORMATION

#### Contact Phone Numbers

Installation Property Book Office (IPBO)	253-967-2364
Hidden Valley Landfill (Puyallup)	253-847-7555
Tacoma Recovery & Transfer Center	253-502-2100
Thurston County Waste & Recovery Center	360-867-2491

#### Housing

JBLM Residents & Lewis-McChord Communities: 253-912-3485

# Refuse/Trash/Garbage

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

For all refuse information, please go to JBLM ED recycling page: [https:// home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public\\_works-environmental\\_division/recycling](https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public_works-environmental_division/recycling).

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | Keep dumpster lids closed to keep rainwater from collecting in the containers. |
| ☆ | If you witness illegal dumping, call JBLM Dispatch at 253-967-3107.            |

## GENERAL INFORMATION

If you need your dumpster emptied or additional pickups, call LeMay at 253-875-5886.

New services for garbage dumpsters in the cantonment area must be coordinated with the JBLM Refuse and Recycling COR at 253-967-9486.

Dumpsters in the training areas may be requested with approval and unit funding. Contact JBLM Refuse and Recycling COR at 253-967-9486 or [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@mail.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@mail.mil)

Housing area refuse collection must be coordinated through your Housing representative.

Liberty Military Housing residents: 253-912-3485

Email: [lewiseast@lpsi.com](mailto:lewiseast@lpsi.com), [lewiswest@lpsi.com](mailto:lewiswest@lpsi.com), [lewismain@lpsi.com](mailto:lewismain@lpsi.com), [lewisnorth@lpsi.com](mailto:lewisnorth@lpsi.com), [McChord@lpsi.com](mailto:McChord@lpsi.com), to coordinate bulk pick-up or service related questions.

# Scrap Metal

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Any funds raised from metal recycling go to the Qualified Recycling Program, which funds a variety of pollution prevention programs on JBLM and MWR.

## COMPLIANCE AND HANDLING PROCEDURES

- ☆ Scrap metal contaminated with Chemical Agent Resistant Coating (CARC) cannot be turned in as scrap metal. It must be turned into the Defense Logistics Agency (DLA) with the proper paperwork. Contact: 253-844-3878, 253-844-3855.

## GENERAL INFORMATION

Need a scrap metal box? Please contact JBLM Recycling and Refuse COR at 253-967-9486.  
To empty or dispose of scrap metal boxes, call 253-982-3451.

# Solvents

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Solvents are used in a variety of applications and processes at JBLM. Solvents are used to clean equipment by dissolving other materials/surface contaminants before performing other maintenance operations such as preparing surfaces for coatings, paints, or lubricants, etc. Solvents are used in used parts washers and solvent tanks or applied by hand using spray bottles, rags, cotton swabs, etc. Many solvents are hazardous materials capable of impacting air, or water supply if improperly used, managed, or disposed of. Volatile solvents, such as ethanol or dry-cleaning solution, are reportable under JBLMs Air Quality Permit.

## COMPLIANCE AND HANDLING PROCEDURES

☆	All solvents must be approved and listed on the Authorized Use List or Restricted Use List.
☆	Volatile solvents used in aerospace operations, such as ethanol or dry-cleaning solution, must be done in accordance with Standard Operating Procedure PWE-003 Air Quality Compliance Reporting Procedures for Aerospace Operations and reported monthly to the Air Program.
☆	For solvent use in parts washers or solvent tanks, go to “Parts Washer/Solvent Tanks” in the equipment section.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Stryker Hull Water

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Stryker hull water from military vehicles contains oils and other potentially hazardous chemicals. At JBLM, Stryker Operators must utilize the centralized wash racks to release hull water generated during field operations.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Small amounts of lubricants, JP-8, or diesel are permissible but if the hull water contains a significant amount of floating petroleum, oils, and lubricants (POL), remove it from the water with a white absorbent pad and drum it before discharging the hull water to the central wash rack. Discharge directly over the drain specified by the central wash rack to minimize the spread of any oily residue. Rinse any liquid or solid residue remaining after discharge into the drain, leaving the wash rack deck clear of oil or grease.
☆	Hull water containing chemicals, solvents, cleaning agents, soap, detergent, Simple Green, or any other emulsifying agent is not authorized for discharge to any JBLM facility. Place contaminated hull water in properly labeled hazardous waste containers for disposal. Stryker hulls can only be discharged at central wash racks on JBLM, and any discharge to the storm system is an illicit discharge.
☆	Do not dump Stryker hull water at motor pools. Ensure drain plugs on the Stryker hulls are in place when parked or driven unless draining at a wash rack.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

### Wash Rack Locations:

Southwest Wash Rack 1-2 SBCT Staff Duty, Building 3733 Stryker Ave., 253-966-3565.

Southeast Wash Rack 16 CAB Staff Duty, Building 3243 2<sup>nd</sup> Division Dr., 253-477-3538.

Lewis North Wash Rack 55 EN BDE Staff Duty, Building 12835 8<sup>th</sup> St., 253-967-5111.



# Styrofoam

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Styrofoam is not currently recycled on JBLM.

## COMPLIANCE AND HANDLING PROCEDURES



Please dispose of it as trash.

## GENERAL INFORMATION

# Sharps/Medications - Residential

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Residential sharps and medications present both injection hazards and disease transmission hazards. These items are controlled medical items and require special storage and disposal.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Sharps - Get a puncture resistant, thick, plastic container such as a laundry detergent container or sharps container. Do not use water bottles or thin plastics. Put a small hole in the neck of the bottle to allow air to escape. Drop syringe needle-first into the container. Fill the container 3/4 full. Once 3/4 full, tape the lid closed. Label the outside of the container with a Biohazard sticker or write "Sharps—Do Not Recycle" in bold letters. Dispose of at a transfer station or in your garbage can.
☆	Medication - Contact JBLM Department of Public Health, Environmental Health Services for information on how to dispose of medication.

## GENERAL INFORMATION

For additional information or questions, contact JBLM Department of Public Health, Environmental Health Services: 253-968-4331 or [usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil](mailto:usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil).

# Tires

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Worn out tires taken off automobiles are considered scrap tires and should be disposed of appropriately.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Government purchased (Military) tires are considered Class 9 repair parts. Maintenance personnel must ensure the tires are properly accounted for prior to recycling. Take to supporting Supply Support Activity (SSA).
☆	Personally purchased tires should be taken to an appropriate recycling facility or tire retailer. If you are taking tires back to a retailer, you may have to pay a small fee.
☆	For tires found on the Installation, contact <a href="mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil">usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil</a> .
☆	If you witness illegal dumping, call JBLM Military Police Dispatch at 253-967-3107.

## GENERAL INFORMATION

### Contact Phone Numbers

Installation Property Book Office (IPBO)	253-967-2364
Hidden Valley Landfill (Puyallup)	253-847-7555
Tacoma Recovery & Transfer Center	253-502-2100
Thurston County Waste & Recovery Center	360-867-2491
JBLM Refuse and Recycling Coordinator	253-967-9486

### Housing

Liberty Military Housing residents: 253-912-3485.

Email: [lewiseast@lpsi.com](mailto:lewiseast@lpsi.com), [lewiswest@lpsi.com](mailto:lewiswest@lpsi.com), [lewismain@lpsi.com](mailto:lewismain@lpsi.com), [lewisnorth@lpsi.com](mailto:lewisnorth@lpsi.com), [McChord@lpsi.com](mailto:McChord@lpsi.com), to coordinate bulk pick-up or service related questions.

# Toner and Printer Cartridges

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

These items can be recycled. Spent ink cartridges can be remanufactured and reused.

## COMPLIANCE AND HANDLING PROCEDURES

- |   |  |
|---|--|
| ☆ | Place empty toner/printer cartridges in the original container, if possible.                     |
| ☆ | Take used or no longer needed cartridges to either Recycle Center or DPW Environmental Services. |

## GENERAL INFORMATION

Other locations to drop off used cartridges for recycling are:

Building 100	Building 3810
Building 516	Building 2072
Building 576	Building 11836
Building 690	Building 5290
Building 1210	Building 9025
Building 2027	Building 9040
Building 2140	Building 9640
Building 9669	Building 9900
Building R 6100	

# Unmarked/Unlabeled Containers

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Unmarked/unlabeled containers and chemicals can pose a great risk to people and the environment. Chemical identification/determination must be made for proper use, storage, and disposal. Testing of unknown substances is very expensive. Every effort should be made to maintain container labels and identification of materials/chemicals to comply with laws and regulations.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Make every attempt to identify possible contents.
☆	Once identified, use a DD Form 2522 label and fill in all applicable information.
☆	If unable to identify the material/chemical, contact your Hazardous Waste Technician for assistance.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Vehicles

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Abandoned vehicles have become a problem across JBLM. Vehicles leaking fluids may result in water and soil contamination. Washing of and repairs to vehicles of any kind are not permitted in housing, barracks areas, or parking lots.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Repairing and servicing your own vehicle can be conducted at the MWR Auto Crafts Center at Building 4043 on Lewis Main, 253-967-3728, or Building 1120 on McChord Field, 253-982-7226.
☆	Washing your personal vehicle on JBLM is only permitted at the commercial facilities on the Installation. Any discharge of wash water or detergents to storm drains violates JBLM's stormwater permits.
☆	To report an abandoned vehicle or if you witness illegal dumping, call the Military Police (MP) JBLM Dispatch at 253-967-3107.

## GENERAL INFORMATION

# Wood

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Clean and untreated wood is a valuable resource that, when recycled, may be reused for many purposes.

## COMPLIANCE AND HANDLING PROCEDURES

☆	Most treated wood can be disposed of as a non-hazardous solid waste.
☆	Do NOT mix treated, painted, stained wood or chips, or particle board with clean wood in recycle containers. Treated wood may be disposed of in refuse dumpsters.
☆	Cut creosote tar treated poles into 4-6 foot lengths and put them in the dumpster.

## GENERAL INFORMATION

If the wood bin needs to be emptied, please call Corporate Waste Solutions at 253-982-3451.

New service? Done with your wood bin? Contact the JBLM Refuse and Recycling COR at:  
Phone: 253-967-9486 or Email: [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

Other questions? Contact the Solid Waste Program: [usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-jblm-recycles@army.mil).

# Yard Waste and Land Clearing Debris

## POTENTIAL HAZARDS AND ENVIRONMENTAL CONCERNS

Yard waste includes wood chips, tree limbs, branches, brush, shrubs, and fallen leaves. No sod, dirt, rocks, grass or grass clippings, Scotch Broom, trash, plastic bags, or animal waste.

## COMPLIANCE AND HANDLING PROCEDURES



Yard waste from Military activities may go to Earthworks Composting Facility (Building 7602): 253-967-3803. Must call before arriving. Subject to change.

## GENERAL INFORMATION

For more information, please contact the Earthworks facility at 253-967-3803 or [usarmy.jblm.id-readiness.list.dpw-earthworks1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-earthworks1@army.mil).



## PROCESSES AND BEST MANAGEMENT PRACTICES (BMPS)



# Aircraft Deicing

## PROCESS OVERVIEW

Deicing is the process of removal and prevention of frost, ice, or snow accumulation on aircraft and airfield areas. The removal and prevention of frost, ice, or snow can require the application of chemical products. These products may enter the environment through storm water runoff. If collected and treated, the wastewater treatment plant may not be able to completely remove the Biochemical Oxygen Demand effects of deicing chemicals (e.g., glycols) before they are discharged to the environment. Dissolved oxygen can be depleted in groundwater and surface water or pose toxic risks to aquatic environmental receptors.

## COMPLIANCE AND HANDLING PROCEDURES

- Use only deicing agents approved in Army or Air Force technical manuals for aircraft.
- Block or close storm drain sewers.
- Conduct deicing operations in areas where fluids can easily be retained. Locations are identified in 62D Airlift Wing Instruction 21-03, Ramp Operations Procedures.
- Obtain a Wastewater Discharge Permit from American Water to discharge the captured deicing fluids to the sanitary sewer.
- If possible, recycle used antifreeze through an approved subcontractor in accordance with the State Dangerous Waste Regulation, Washington Administrative Code 173-303.
- Practice proper spill prevention and cleanup.
- Do NOT discharge self-lubricating organogels (SLUGs) of deicing chemicals to the sanitary sewer or surface water bodies.

## BEST MANAGEMENT PRACTICES

- Minimize the use of deicing agents whenever possible.
- Use mechanical vacuum sweepers or similar devices to capture runoff.

## GENERAL INFORMATION

For additional information, questions, or reporting deicing operations, please contact the DPW Stormwater Program at 253-967-2837 or [usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil).

# Concrete and Asphalt Recycling

## PROCESS OVERVIEW

The Earthworks Aggregate Stockpile Facility accepts concrete and asphalt from JBLM in-house and unit projects for recycling. Once the material is accepted and screened out at Earthworks, the key goal is to recycle and reuse the product as a backfill and/or underlayment for most of the roads, potholes, ditches, embankments, ranges, or any other areas the material is needed. The benefits of recycling construction and demolition (C&D) debris (i.e., concrete and asphalt) will not only save the installation time and money but will also help with the much-needed repairs across the military installation.

## BEST MANAGEMENT PRACTICES

Operator's must screen the **concrete** and **asphalt** to remove:

- Dirt
- Trash
- Embedded fence posts
- Other C&D debris

Contaminated loads will not be accepted.

Concrete and asphalt must be 2-foot by 2-foot or less with rebar cut to within 6 inches of all edges.

Incoming loads will be screened at Earthworks prior to acceptance.

- Asphalt and concrete must be separated prior to bringing the material to Earthworks.
- All mix loads will be rejected at Earthworks.
- Approval will be on a case-by-case basis.

For more information regarding the C&D Debris Acceptance Criteria, please contact the Solid Waste Program Manager at 253-966-1781.

## GENERAL INFORMATION

For additional information regarding the Earthworks Laydown Yard, please contact the Earthworks front desk at [usarmy.jblm.id-readiness.list.dpw-earthworks1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-earthworks1@army.mil) or phone: 253-967-3803.

# Deployment/Redeployment

## PROCESS OVERVIEW

Environmental concerns during deployment and redeployment involve minimizing habitat disturbance, managing waste responsibly, conserving energy and water resources, controlling air pollution, and ensuring compliance with environmental regulations. Preserving biodiversity, adoption of sustainable practices, and establishing robust monitoring systems are crucial to mitigating the ecological impact.

## COMPLIANCE AND HANDLING PROCEDURES

### PREDEPLOYMENT

- Sufficient personnel in the rear detachment with Environmental Officer (EO)/Hazardous Waste Technician (HWT)/Hazardous Material Technician (HMT) training must be available to ensure compliance with hazardous materials and hazardous waste management requirements during the unit's absence. Ensure that all Environmental Program continuity books and paperwork are handed off to the Rear Detachment Environmental Officer.
- Contact your assigned Hazardous Waste Technician to coordinate a consolidated pick-up of all hazardous waste from the unit prior to the unit's departure.
- Unit buildings that are going to be unoccupied during the unit's deployment must be clear of all hazardous waste and hazardous material.
  - To request turn-in of Environmental Equipment, units must contact their Hazardous Waste Technician.

### REDEPLOYMENT

- Appoint and schedule training for an EO, HMT, and HWT.
- Establish accounts at Environmental Services and the HMCP. Units must contact their Hazardous Waste Technician to inventory and sign for Environmental Equipment.
- Ensure that all hazardous waste generated during the unit's deployment is not brought back to JBLM and is properly disposed of in theater.

## BEST MANAGEMENT PRACTICES

### PREDEPLOYMENT

- Eight weeks prior to deployment, coordinate for a centralized refuse and recycle container in the unit area (Brigade units only). Coordinate with Refuse and Recycling COR at 253-967-9486, for additional recycling and refuse containers during preparation for deployment. Allow up to five days for a dumpster delivery.
- Contact the Environmental Compliance Assessment Team (ECAT) to schedule an appointment for an examination of all serviceable, unused hazardous material for turn-in to the re-issue program at the Hazardous Material Control Point (HMCP), and for guidance and possible assistance in transporting large quantities to the HMCP.

## GENERAL INFORMATION

Contact your Hazardous Waste Technician if you have any questions. If you don't know who your Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Dig Permits

## PROCESS OVERVIEW

Digging can affect underground utilities and environmentally or historically sensitive areas. Public Works requires a dig permit for all digging on JBLM.

## COMPLIANCE AND HANDLING PROCEDURES

Request a dig permit at least five business days prior to the scheduled digging event by submitting an Army Maintenance Application (ArMA) request at:

<https://www.armymaintenance.com/arma>

Once a permit or permits have been processed through the DPW Service Order Desk, they will then be distributed to numerous programs, one of which is Environmental.

To receive Environmental endorsement, the permits need to be sent to the appropriate DPW-ED Program to review. The most common programs are DPW-ED Cultural Resources Program and DPW-ED Fish and Wildlife Program, though other programs such as DPW-ED Forestry Program, DPW-ED Stormwater Program, and DPW-ED Installation Restoration Program may require coordination depending on the permit location and its scope of work. During the review, DPW-ED Programs may require more information to complete their review, which the proponents would need to provide.

After review, one of these outcomes will occur:

- The permit is signed and endorsed by DPW-ED Cultural Resources Manager.
- Same as above; however, the DPW-ED Programs may provide comments or stipulations that will appear on the permit. The permit is sent back to the proponent.
- The permit is disapproved, and the proponents are notified.

Any changes to permits need to either be coordinated with the DPW-ED Programs or a new permit submitted to show the changes.

## GENERAL INFORMATION

Contact DPW at 253-967-3131 or [usarmy.jblm.id-readiness.list.dpw-customer-service@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-customer-service@army.mil) for all other digging, dumping, or hauling inquiries. Hours: 0730 – 1530 Monday - Friday.

Website: <https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/directorate-public-works/dig-permits>.



# Field Training

## PROCESS OVERVIEW

Environmental concerns during field training encompass a range of factors aimed at minimizing the ecological footprint of military activities. These include strategies to mitigate habitat disturbance, effective waste management practices to prevent environmental pollution, and the adoption of energy-efficient measures. Additionally, emphasis is placed on water conservation and responsible use, as well as compliance with environmental regulations to ensure that training exercises do not compromise local ecosystems. Smoke-generating munitions emits particulate matter.

## COMPLIANCE AND HANDLING PROCEDURES

- For out of the ordinary training, consult with DPW-ED, 253-966-1780. For off-post training, refer to FL Reg 350-2, Appendices F and G. For on-post training, provide maneuver plans to and schedule field training with Range Control.
- Only cross water bodies at authorized fords. Do not conduct tracked and wheeled vehicle maneuvers, perform excavations, or establish bivouacs in areas protected by Seibert stakes or designated as a Special Use Area (SUAs).
- Do not move, remove, or run over Seibert stakes. Do not cut barbed wire between Seibert stakes. Do not remove Seibert stakes.
- Avoid damage to ground vegetation, shrubs, and trees. Do not harass or intentionally harm fish and wildlife.
- Upon discovery of any historic or prehistoric cultural remains or artifacts.
  - Cease mission activities in the vicinity, take steps to prevent further disturbance, inform the chain of command immediately, and inform Range Control of the discovery.
  - Cultural sites protected by Seibert stakes are off-limits to vehicle traffic or excavation.
- Upon discovering potentially hazardous waste site or criminal activity, cease mission activities in the vicinity and immediately call 911. Do not attempt to investigate the site.
- Consult the Environmental Coordination Map to avoid damage to wetlands and other sensitive areas.
  - Ensure a 50-meter buffer is maintained for all activities planned near wetlands or water bodies.
- No open burning is allowed on JBLM. Reference FL Reg 200-1, Appendix H. This does not include fires for the preparation of food and campfires.
- Conduct area police and clearance upon completion of training.
  - Ensure that solid waste (garbage, rubbish, refuse) is never buried or burned. Return all solid waste to the cantonment area for disposal.
  - Hazardous waste and hazardous material regulations apply.
- Properly secure hazardous material and waste to the vehicle to avoid spills when transporting.
- For more information on training restrictions refer to FL Reg 420-5.

## LIVE FIRE

- Normal hours for live-fire training are 0700-2200 daily. Follow charge and firing limitations as outlined in FL Reg 350-30 Chapter 3.

- Blasting and use of firearms shall be avoided during:
  - The eagle nesting period (1 December to 31 August).
  - At all nests and during the bald eagle wintering period (1 December to 31 March).
  - At communal night roosts listed in FL Reg 420-5.

### **SMOKE TRAINING**

- Schedule smoke training with Range Control and coordinate with DPW-ED.
- Ensure that smoke will not cross the Installation boundary, enter the cantonment area, or cross any public road.
- At the end of the exercise, provide Range Control with the type and amount of obscurant used and the date and duration of obscurant training.
- The daily, monthly, and annual use of smoke-producing munitions (smoke grenades, mortar rounds, artillery shells and smoke pots) is limited by an air quality permit and use is regulated under FL 350-3. Turn in all used munitions to enable accurate recordkeeping and reporting.

### **TACTICAL VEHICLES**

- Use only established roads and trails when moving between maneuver areas and ranges. Do not use ditches and road shoulders as tank trails.
- Tracked vehicles may not leave the main roads on the prairies in TA 21 and 22, including Darby, Merrill, and El Guettar Drop Zones.
- Do not conduct tracked and wheeled vehicle maneuvers, perform excavations, or establish bivouacs in areas protected by Seibert stakes. Do not move, remove, or run over Seibert stakes.
- Do not drive on erosion control structures, including earthen dams and gabions constructed across a natural depression, ditch, gully, or ravine.
- Use only approved hardened crossing sites as identified on the Environmental Coordination Map for river and stream crossing.

### **OFF-ROAD MOVEMENT**

- Stay at least 50 meters from the ordinary high waterline of all water bodies and wetlands unless a maintained road or designated crossing point exists. Vehicles not traveling on established roads in the vicinity of wetlands can cause significant erosion and adverse impacts to species and habitat.
- Stay outside of Siebert staked areas.
- Training activities involving off-road vehicular traffic and ground-disturbing activities are prohibited in the following areas: Johnson Prairie, Upper and Lower Weir Prairies, and most of the Artillery Impact Area.
- Operate the vehicle to minimize destruction of ground cover. Avoid unnecessary neutral steer turns and sharp turns that cause ruts in the soil.
- Exercise care in wooded areas to avoid damage to vegetation.

### **STREAMS AND RIVER CROSSING**

- Use only approved designated hardened crossings including bridges and low water crossings with sufficient tonnage ratings, or at authorized fording sites.
- Refer to the Environmental Coordination Map for locations.

## **VEHICLE MAINTENANCE**

- Have appropriate transfer containers/drums for used oil, antifreeze, and any other waste product produced while conducting maintenance in the field at JBLM and at Yakima Training Center (YTC). Ensure drip pans and spill kits are on hand.
- When transporting transfer containers, secure items properly to the vehicle.
- Once the unit returns from the field, place the used oil and used antifreeze into the appropriate recycle tank at the motor pool. Place hazardous waste into the appropriate container in the Environmental and Natural Resources Division (ENRD) Shed.

### **GENERAL INFORMATION**



# Food Services and Mobile Kitchens

## PROCESS OVERVIEW

Mobile kitchens provide cooking, storage, cleaning, and serving to fixed and mobile troops as well as to the public through tenant-based food trailers. Military mobile kitchens operate field heating stoves with propane gas tanks or liquid fuel. The portable stoves are used in range ovens, steam tables, ration heaters, sanitation equipment, and heating racks. Portable stoves also function as roasting, grilling, broiling, frying, and baking devices. Kitchen appliances may also be used in an open field without the benefit of a shelter. Cooking preparation and serving generates wastewater, cooking fats, oils and greases, and solid wastes, including food wastes.

## COMPLIANCE REQUIREMENTS

- Use care when storing and using portable stoves. Pressurized propane fuel tanks contain an explosive fuel. Similarly, store and use liquid fuels to prevent spills and fires. These stoves and their fuel source present potential environmental hazards. In addition to proper storage of fuels, inspect fuel supplies and containers for leaks.
- Ensure that adequate spill response supplies are on-board the mobile kitchen unit.
- Practice proper spill prevention and clean-up.
- Ensure kitchen staff understand and practice approved management procedures including the following:
  - Segregating and storing used grease and cooking oils in spill-proof containers provided by DPW and storing in areas protected from spills. Recycling all used cooking oils. Refer to 'Grease/Used Cooking Oil' in the Materials Handling and Disposal section for more information.
  - Collecting wash water or grey water, including mop water, in designated wastewater containers for disposal to the sanitary system.
- When departing from field training and returning to the Installation:
  - Obtain a sanitary sewer discharge permit from DPW customer service or wastewater treatment plant for the purpose of discharging wastewater and grey water collected in the field to an approved discharge site.
  - Transport mobile kitchens and containerized kitchens ONLY to the JBLM-North centralized wash rack for general cleaning with potable water.
  - Do not take mobile kitchens and containerized kitchens to the Southwest (Building 03925) or Southeast (Building 03560) wash racks as recycled wash water is used and may pose health risks, per Preventative Medicine.
  - Ensure household cleaners and surfactants that emulsify oils like Simple Green are not used as this can cause upsets in the wastewater treatment plant process.

## BEST MANAGEMENT PRACTICES

- Conduct cleaning by simple procedures such as wiping the equipment (e.g., stoves, surfaces, exhaust hoods, etc.) with a soapy wet cloth.
- Ensure kitchen staff understand and practice approved management procedures, including the following:
  - Pre-scraping pans and dishes prior to washing.
  - Keeping sink strainers in place and disposing of accumulations with food wastes.

- Placing food scraps in specially marked waste containers (segregate other solid waste from oily and food wastes).
- Regularly inspecting and cleaning grease traps, avoiding drain blockages and back-ups.
- When departing from field training and returning to the Installation:
  - Collect and segregate all debris and waste materials into designated waste containers before departing field training.
  - Ensure household cleaners and surfactants that emulsify oils like Simple Green are not used as this can cause upsets in the wastewater treatment plant process.

#### GENERAL INFORMATION

For additional information or questions, contact 253-968-4113 or 253-968-4189.

# Forest Management

## PROCESS OVERVIEW

The mission of the Forestry Branch is to provide good stewardship of the forested training lands of JBLM by ensuring the continued existence of a healthy forest that supports Military training, sustains native plants and animals, and benefits local communities.

## COMPLIANCE REQUIREMENTS

- During training exercises, use only downed limbs and foliage for camouflage.
- Do not cut live trees without approval from the DPW Environmental Forestry Branch.
- Do not go near active logging or equipment.
- To support the forest management effort at JBLM, immediately report all forest and range fires to Range Operations. Continue training until a Range Inspector arrives unless it is unsafe to continue. No one will enter an impact area for the purpose of fighting fires without the approval of the Range Officer.
- To prevent fires when using pyrotechnics, smoke pots, etc., place them in areas free of vegetation.

## BEST MANAGEMENT PRACTICES

- Take extra care when walking through or training near recently established young plantations. These areas are usually signed.
- Protect and conserve the natural resources for present and future generations as an integral part of the military mission.

## GENERAL INFORMATION

For additional information or questions, contact [usarmy.jblm.id-readiness.list.dpw-fish-wildlife1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-fish-wildlife1@army.mil).

# Fueling - MOGAS

## PROCESS OVERVIEW

MOGAS fueling from storage tanks with a rated capacity greater than <1,000 gallons requires an air quality permit from the regional air authority and must be equipment with a Stage 1 Vapor Recovery system prior to installation. Stations that dispense greater than 200,000 annually requires permitted Stage 2 Vapor Recovery Systems.

## COMPLIANCE AND HANDLING PROCEDURES

- Permitted fueling operations must comply with the applicable permit conditions and Standard Operating Procedure (SOP) PWE-004 Air Quality Compliance Procedures for Fueling Facilities.
- Modifications of Stage I equipment that are upgraded, including but not limited to replacement of all spill buckets, all drop tubes, or all adaptors require, notification to the regional air authority prior to the modification. A permit fee applies.
- Modifications of Stage 2 equipment to include but not limited to adding new fueling locations, replacing fuel dispensers, or upgrading Stage 2 vapor recovery equipment requires notification to the regional air authority prior to the modification. A permit fee applies.
- Fuel use must be reported monthly to the DPW ED Air Quality Program via the contact information below.

## GENERAL INFORMATION

For assistance with permitting actions please contact the DPW ED Air Quality Program at 253-966-1768 or [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil).

# Tactical Fueling

## PROCESS OVERVIEW

Mobile Tactical Refueling operations occur on JBLM.

## COMPLIANCE AND HANDLING PROCEDURES

- Ensure that fuel tankers have spill kits on the vehicle. When practical, avoid parking fuel tankers or placing fuel bladders within 100 feet of storm or sanitary sewer drains. Fuel bladders should be placed on a hardstand if possible.
- Avoid fueling/refueling operations within 100 feet of storm or sanitary sewer drains, waterbodies, or wetlands. If it is impractical to meet this requirement, ensure the drain is protected with a drain blocker and that a spill kit is readily available before commencing the fueling/refueling.
- Use drain blockers during refueling operations.
- When filling a tank and pump unit or any size container with fuel, if possible, perform this operation with two persons -- one to run the pump and the other to fill the container. This will enable monitoring of the pump for leaks, shutting off the pump in case of emergency, and preventing container overflow.
- Ensure that the issued Fuel Storage and Transfer standard operating procedure is available and used for aboveground storage tanks of greater than 1,000 gallons that store gasoline.

## GENERAL INFORMATION

For additional information or questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Gray Water Collection/Disposal (Field Training)

## PROCESS OVERVIEW

Environmental controls are necessary to protect our natural and cultural resources and to comply with environmental laws and regulations. This document provides guidelines regarding the proper collection and disposal of gray water generated during training exercises conducted in JBLM Training Areas (TAs). This document applies to anyone who generates gray water at JBLM. Gray water refers to wastewater from non-latrine sources such as showers, laundry, and kitchen operations.

## COMPLIANCE AND HANDLING PROCEDURES

- Field methods for disposal of gray water identified in ATP4-25.12 are not authorized on JBLM due to the high-water table, sole source aquifer designation as the Central Pierce County Aquifer System (Federal Register, Volume 59 Issue 1 [Monday, January 3, 1994]) and current groundwater standards (Chapter 173-200 WAC) that must be met for discharge of gray water. Ground water in Washington is protected as a potential source of drinking water.
- Gray water generated during training activities will be collected, transported, and discharged to the sanitary sewer through a temporary wastewater discharge permit in accordance with JBLM 200-2, Appendix D. The contractor/organization shall obtain a blank sanitary sewer discharge permit from American Water Military Services available at: [https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public\\_works-environmental\\_division/wastewater](https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public_works-environmental_division/wastewater)
- Collection and disposal can be accomplished by the unit using a temporary container, such as a collapsible water tank marked for “Gray Water or Wastewater” or a wheeled tank vehicle. Note that once a water container is used for gray water, it may never be used to contain source water/potable water. The unit must have an approved disposal permit per bullet 2, which will identify the discharge location for the gray water. The unit must always have the approved permit on-site during the discharge process.
- The requesting unit may select and pay for the services of a contractor to haul gray water. A local contractor that has performed such services is Skookum (a third-party contractor; 253-912-2015 or [sanitation@skookum.org](mailto:sanitation@skookum.org)). The unit would request a “Portable Latrine Request Form” for gray water management. In addition to providing portable toilets/latrines (e.g., black water), this company also provides containers, transportation, and disposal services of gray water from the TAs and other areas on post, as requested. Skookum will coordinate the temporary discharge permit per bullet 2.
- Payment to Skookum and other contractors must be executed via government credit card or separate contract, depending upon the scope/total cost of the proposed activity. Contractors do not accept Military Interdepartmental Purchase Request (MIPR) documents.

## GENERAL INFORMATION

For additional information or questions, contact [usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil](mailto:usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil).

# NEPA

## PROCESS OVERVIEW

The National Environmental Policy Act (NEPA) requires the federal government to consider environmental impacts on social, cultural, economic, and natural resources from proposed actions. In conjunction with US Army's Policy 32 CFR Part 651, Army Regulation 200-1 implements federal, state, and local environmental laws and DoD policies.

## COMPLIANCE AND HANDLING PROCEDURES

Proponents of all activities proposed within the cantonment area (areas outside of the designated JBLM Training Areas and Ranges), including military units, are required to submit a Request for Environmental Review Form and all corresponding project documents (e.g., statements of work, design drawings, and site photos) to the DPW Environmental Project Review Manager at [usarmy.jblm.id-readiness.list.environmental-project-review@army.mil](mailto:usarmy.jblm.id-readiness.list.environmental-project-review@army.mil). The documents will be distributed to the DPW-ED Programs and upon review, the level of NEPA can be determined.

Activities include, but are not limited to soil excavation, ground beautification or modifications; construction; renovation, maintenance, or demolition of buildings, motor pools, or structures; etc. Project proponents must complete Section 1 and the Project Description. Please include as much detail (i.e., total project area, potential alternative sites, potential area disturbance, maps, etc.) to prevent delays in completing environmental reviews. During the Environmental Project Review process, projects may qualify as one of the following:

- Categorically Excluded (CX) in which these activities were previously determined to be of no significant environmental impact and the project may proceed as described.
- Additional analysis required and initiated by the NEPA Program using a Record of Environmental Consideration (REC) in which the proponent may be contacted for additional information and/or further action. Completed RECs detail environmental requirements.

Project proponents must keep the REC in project records and are responsible for adhering to specified environmental requirements. If a project poses a significant impact, an Environmental Assessment (EA) or Environmental Impact Statement (EIS) will be initiated.

The project's qualification will be noted in an NPD 32 Form by a NEPA Specialist or the NEPA Program Manager and will be sent to the proponents by the Environmental Project Review Manager.

Routine military training in the Training or Range areas does not require Environmental Project Review but may require dig permits. These can be obtained at: [usarmy.jblm.id-readiness.list.dpw-customer-service-requests@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-customer-service-requests@army.mil).

Projects other than military training in the Training or Range areas, for example range construction, trail building, and installation of low water crossings, do require Environmental Project Review.

*For more information concerning Dig Requests, see Appendix A, Environmental Protocol Sheet 26-A. For examples concerning NEPA Program forms (FC Form 200-1, FC Form 200-2), see Appendix E.*

## GENERAL INFORMATION

For additional information or questions, contact the NEPA Program Manager at 253-966-1802.

# Painting, Coating, and Staining Operations (Non-latex)

## PROCESS OVERVIEW

Paints, coatings, and stains used for surface protection, beautification, or corrosion control commonly contain hazardous air pollutants (HAP) emitted from surface coating operations on motor vehicle and aerospace components are compounds of cadmium, chromium, lead, manganese, and nickel from heavy metals contained in coatings. Preparing surfaces for paints, coatings, and stains commonly includes sanding and/or abrasive blasting, generating small particulates containing hazardous pollutants such as chromium or cadmium that can enter the ambient air or water. Some of these processes or the associated equipment, referred to as stationary air pollutant sources, require individual permits with the regional air authority and/or are required to be reported under JBLMs Air Quality Permit. For information on material usage, see the Paintings, Coatings, and Stains sheet in the materials section. (put in page number)

## COMPLIANCE AND HANDLING PROCEDURES

### Surface preparation:

- Sanding: Hand sanding, use of handheld sanding equipment, and sanding equipment controlled by fabric filters are exempt from permitting or reporting.
- Abrasive blasting:
  - Permits are not required for the following activities but must be reviewed by the Air Program to document the exemption:
    - Blast cabinets <100 cubic feet vented to a fabric filter.
    - Hydroblasting using exclusively water as the abrasive.
    - Portable equipment using steel shot.
  - All other abrasive blasting operations require a permit (fees apply), and operations must be reported monthly to the DPW Air Program.

### Painting, coating, and staining:

- Roll on, brush, brush painting, and use of handheld aerosol paints in cans <1 qt are exempt from permit and reporting requirements.
- High-volume low-pressure paint (HVLP) paint guns:
  - Applying coatings and paints onto motor vehicles or aerospace components using HVLP guns MUST be performed in a permitted paint booth. Using HVLP guns outside a paint booth for these operations violates federal and state regulations. See the applicable Standard Operating Procedures (SOPs) for compliance and monthly reporting requirements.
  - If HVLP usage is required contact the DPW ED Air Program at 253-966-1768 or email [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil) for permitting requirements. Fees apply.
- Applicable Standard Operating Procedures:
  - SOP PWE-003 Air Quality Compliance & Reporting Procedures for Aerospace Operations.
  - SOP PWE-012 Air Quality Compliance & Reporting Procedures for General Coating Operations.
- Perform these activities away from floor drains or areas where pollutants can enter oil/water separators (OWSs) or the sanitary sewer. Refer to the "Oil/Water Separator (OWS)" fact sheet in the Equipment section for further information.



- Practice proper spill prevention and cleanup.

#### GENERAL INFORMATION

For additional information or questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

For additional information or assistance with air quality requirements, or copies of SOPs please contact the Air Program at 253-966-1768 or [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil).

# Spills – Petroleum, Chemical or Dangerous Waste

## IMMEDIATE ACTION PROCEDURES

### PROCESS OVERVIEW

Petroleum chemicals or dangerous waste can potentially contaminate the environment and harm humans and wildlife. Jet fuel and other fuels contain flammable or combustible materials. The JBLM Integrated Contingency Plan designates the proper immediate action procedures for individuals discovering a spill. The actions are summarized below.

### COMPLIANCE AND HANDLING PROCEDURES

An individual discovering a petroleum or hazardous substance spill will take the actions listed below. Caution must be exercised. The primary concern in all actions taken must be the protection of personnel and others from effects of the spills. The sequence in which actions will be performed will depend on the circumstances.

- **PROTECT** self and others from harm.  
**EVACUATE THE PREMISES, if necessary.**  
**ONLY IF IT CAN BE DONE SAFELY**, take the following steps:
  - Approach spills from upwind if possible.
  - Avoid physical contact with spilled chemicals or petroleum products.
  - Use appropriate protective clothing.
  - Extinguish smoking materials away from the spill.
  - Remove other sources of potential ignition.
  - Avoid generating static electricity, which can ignite flammable liquids or gases.
  - Place the area off limits to unauthorized personnel.
- **CALL 911 to report the spill, with the following exceptions:**
  - Small spills located in shops or shop areas that are routinely cleaned up by shop personnel in the course of daily work.
  - For spills less than 5 gallons that do not enter the storm drain, water, or soil, call 911 and DPW Environmental Services at 253-967-4786.
- **STOP THE FLOW**, if possible.  
**ONLY IF IT CAN BE DONE SAFELY**, take the following steps:
  - Close the valve.
  - Turn a ruptured or punctured container so the point of exit is up.
  - Place the leaking container in another container (over-pack drum).
- **CONTAIN THE SPILL**, if possible.  
**ONLY IF IT CAN BE DONE SAFELY**, take the following steps:
  - Protect floor or storm drains (cover with a mat; isolate and surround with absorbents).
  - Place sand, sawdust, sweeping compound, and sandbags in the path of flow.
  - Place dry sweep, absorbent pillows, pads and/or mats to contain the spill.
  - Assist the initial response team, normally from Fire & Emergency Services. Upon arrival, the Senior Fire Officer (Incident Commander) will assume control at the scene.

### GENERAL INFORMATION

For spills less than 5 gallons, call 911.

# Tank Purging

## PROCESS OVERVIEW

Hazardous material containers contain residue that may be dangerous during maintenance or transportation. Tank and container purging may be required for maintenance, transportation, and turn in. Note that all waste material generated during purging must be characterized prior to disposal. A wastewater discharge permit is required to dispose wastewater into the sanitary sewer and must meet pretreatment standards. If the waste material does not meet pretreatment standards it must be containerized for disposal.

## COMPLIANCE AND HANDLING PROCEDURES

- Determine if purging of containers/vehicles is required.
- Purging cannot be done on unit wash racks.
- Special pump out requirements apply for large quantities of fuel (more than 55 gallons). Contact DPW-ED Hazardous Waste Program: 253-967-4786.

## GENERAL INFORMATION

For additional information or questions about wastewater discharge permits, contact American Water Military Services at 253-366-9127. For container disposal, contact your Hazardous Waste Technician. If you do not know who your Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Vehicle Washing

## PROCESS OVERVIEW

Excessive oil, grease, and sediment washed from vehicles can contaminate and clog the sanitary and stormwater systems. Heavy metals, detergents, and sediment from washing are harmful to the environment. Note that all wash racks discharging to the sanitary wastewater system must meet pretreatment standards. All permit-required management practices must be followed.

## COMPLIANCE AND HANDLING PROCEDURES

- ONLY wash vehicles at the centralized wash racks or at commercial car wash facilities.
- Coordinate wash rack access with unit staff duty points of contact.
- Remove mud and materials before using the wash rack.
- Do not use detergents at wash racks. Aircraft wash racks to the sanitary system are an exception as long as the detergent is listed in the Qualified Product list from the applicable Technical Manuals and the Unit's authorized use list (AUL) issued by DPW-ED Pollution Prevention.
- Do not purge fuel, transfer fuel, defuel, or change oil at wash racks.
- There are waste oil amnesty tanks at each location. These oil amnesty tanks are for oil only. Ensure no trash or ammunition enters the tanks.
- Stryker hull water may be discharged at the central wash rack. See "Stryker Hull Water" fact sheet for more information.
- Wash Containerized Kitchens, Mobile Kitchen Trailers (MKT) only at the Lewis-North Wash Rack.
- Place any dunnage or ammunition casings in Amnesty boxes (located near each centralized wash rack).

## GENERAL INFORMATION

For additional information or questions about wastewater discharge permits, contact American Water Military Services at 253-366-9127.

Southwest Wash Rack 1-2 SBCT Staff Duty, Building 3925, 253-966-3565.

Southeast Wash Rack 16 CAB Staff Duty, Building 3560, 253-477-3538.

Lewis North Wash Rack 555 EN BDE Staff Duty, Building 11930, 253-967-5111.

# Water Purification

## PROCESS OVERVIEW

Reverse Osmosis Water Purification Unit (ROWPU), Tactical Water Purification (TWP), and Lightweight Water Purifier (LWP) Systems Field Training take place on JBLM. Environmental controls are necessary to protect natural and cultural resources and to comply with environmental laws and regulations. This section provides guidance for field training exercises utilizing ROWPU, TWP, and LWP systems at JBLM.

## COMPLIANCE AND HANDLING PROCEDURES

- The primary designated freshwater training location for ROWPU, TWP, and LWP systems is the stormwater detention system at the Earthworks Facility Close-in Training Area-Lima (CTA-L) on DuPont-Steilacoom Road. The only designated saltwater training location is Solo Point, with no training authorized between 1 March and 30 June each year. Access coordination for either of these sites must be made with DPW-ED Natural Resources (253-967-3474), Stormwater Program Manager (253-967- 2837) and Range Control (253-967-5060). Solo Point access may require coordination with Military Police.
- Secondary freshwater training locations are Sequalitchew Lake, Lewis Lake, Chambers Lake, Wright Marsh, and Johnson Marsh. Use of these sites for ROWPU, TWP, or LWP training must include prior coordination with Range Support (253-967- 5060), Stormwater Program Manager (253-967-2837), and Natural Resources (253-967-3474).
- Units conducting the field training exercises should use the minimum amount of chemicals and produce the minimum amount of drinking water and associated wastewater required to achieve their training requirements. Hazardous materials must be on your EESOH-MIS Authorized Use List (AUL) and procured via the Hazardous Material Control Point (253-966-0472) utilizing EESOH-MIS and GCSS-Army. Disposal of excess or unused chemical concentrate or undiluted chemicals in the field is strictly prohibited. Contact your Hazardous Waste Technician for assistance with authorized disposal of these materials.
- During the field training exercises, potable water generated by any of the purification units may be discharged to the ground provided the chlorine concentration of the water is less than 0.1 mg/L. Water with a higher chlorine concentration must be dechlorinated by the training unit before discharge. Discharge to the ground must be at least 50 meters from any surface water or wetlands. Chlorine concentrations will be monitored by Madigan Army Medical Center Environmental Health personnel. Training schedules should be coordinated with that office (253-968-4342).
- Potable water may not be discharged back into any of the water bodies at the secondary training locations, regardless of the chlorine concentration. However, as described above, the water may be discharged to the ground at least 50 meters from the water's edge, provided the chlorine concentration is less than 0.1 mg/L. Water is to be discharged slowly such that soil disturbance or erosion does not occur.
- Potable water may be discharged to the sanitary sewer without dechlorination, provided a Wastewater Discharge Permit has been obtained. See the next bullet.

- Wastewater generated during all field training exercises must be containerized and characterized by the Hazardous Waste Program to determine disposal/discharge options. For discharge to the sanitary sewer, a Wastewater Discharge Permit must be obtained from American Water Military Services. A permit application may be obtained at [https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public\\_works-environmental\\_division/wastewater](https://home.army.mil/lewis-mcchord/index.php/my-Joint-Base-Lewis-Mcchord/all-services/public_works-environmental_division/wastewater)

#### GENERAL INFORMATION

Questions concerning any purification unit systems training environmental controls should be directed to the Public Works ED Stormwater Program at 253-967-2837 or [usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil).

Questions regarding discharge procedures should be directed to the Solo Point Wastewater Treatment Plant (253-967-7453); [usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil](mailto:usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil).

# Water Quality and Stormwater Management

## PROCESS OVERVIEW

JBLM must protect water resources on the Installation to include groundwater and surface waters.

## COMPLIANCE AND HANDLING PROCEDURES

JBLM operates in compliance with the Clean Water Act and Safe Drinking Water Act. Under 40 CFR 112, Oil Pollution Prevention, JBLM maintains a spill prevention, control, and countermeasure plan (SPCCP) that establishes the procedures, methods, and equipment to prevent the discharge of oil into the navigable waters of the US. The installation develops, implements, and enforces a stormwater management program designed to reduce the discharge of pollutants to the maximum extent practicable to protect water quality. The program implements control measures including illicit discharge (e.g., dumping) detection and elimination, construction site stormwater runoff control, and new stormwater treatment facility construction. Certain activities on the Installation must also meet compliance with the Washington State National Pollutant Discharge Elimination System (NPDES) General Permits for Municipal Separate Storm Sewer System (MS4) and Multi-Sector General Permit (MSGP) for industrial activities. Installation staff, tenants, activities, contracting offices, and contractors must comply with all the requirements outlined in JBLM Reg. 200-3 and Reg. 200-2 and JBLM Stormwater Management Plan and Stormwater Design Guidance. JBLM Stormwater Program staff conducts inspections of site activities as needed to ensure compliance with Clean Water Act permits. Dumping of petroleum, oil, and lubricant (POL) products, paint, concrete wash water, and other pollutants into the storm sewer system, including drains, ditches, and streams, is prohibited on JBLM. Certain field training activities, such as water purification operations and food service graywater, have a potential for polluting water resources. Please consult applicable environmental protocol sheets.

## GENERAL INFORMATION

The JBLM Stormwater Program can answer any questions. Email: [usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil).

# Wetlands

## PROCESS OVERVIEW

JBLM's water resources include surface and ground water. Surface streams continually interact with groundwater, which flows beneath the surface through fractured limestone and serves as JBLM's drinking water reserve.

## COMPLIANCE AND HANDLING PROCEDURES

JBLM's quality of life is directly related to the quality and wise use of these resources. A wetland is a collective term for swamps, marshes, and similar areas that develop between open water and dry land. These sites are a valuable natural resource improving water quality, reducing flood and storm damage, providing wildlife habitat, supporting hunting and fishing activities, and providing educational and aesthetic promise. The majority of federal and state listed threatened and endangered species inhabit these unique areas. Wetlands are currently protected areas.

### Unit Responsibilities:

- Avoid activities in and around wetland areas that will produce extended soil compaction, excess soil disturbance or vehicular traffic through a suspected site.
- Police wetland areas for trash or other field equipment left behind.
- Any activity that requires digging should be referred to the DPW Conservation Branch and will require a TN One-Call issued dig permit (See Environmental Protocol Sheet A-26/26A for details).

## GENERAL INFORMATION

The JBLM Stormwater Program can answer any questions. Email: [usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-stormwater@army.mil).



# Yakima Training Center (YTC)

## PROCESS OVERVIEW

Units that are traveling to YTC for training missions are prohibited from taking hazardous waste drums and pollution prevention (P2) equipment. YTC has a One-Stop Shop where units who are training at that facility can utilize those assets. YTC has strict in and out-processing procedures to help ensure a safe trip to and from the facility. For more information regarding training at the YTC, call 509-577-3151.

## BEST MANAGEMENT PRACTICES

- Ask questions about refuse and recycling at YTC: 509-577-3400.
- Ask questions about hazardous waste at YTC: 509-577-3545.
- Review the website for all YTC information at:  
[https://home.army.mil/yakima/application/files/1315/8405/6610/Training\\_Unit\\_SOP\\_20200313.pdf](https://home.army.mil/yakima/application/files/1315/8405/6610/Training_Unit_SOP_20200313.pdf).

## GENERAL INFORMATION

## EQUIPMENT



# Aboveground Storage Containers (POL > 55gal)

## EQUIPMENT OVERVIEW

Aboveground storage containers greater than 55 gallons that store used or new petroleum, oil, or lubricants (POL), including used cooking oil, are subject to 40 CFR 112. POL containers are primarily found at motor pools, hangars, and dining facilities.

## COMPLIANCE AND HANDLING PROCEDURES

**Petroleum-Containing Aboveground Storage Tanks (ASTs)** – The user needs to ensure monthly inspections are conducted using HJB Form 959 (or an equivalent checklist approved by the DPW-ED Tanks Program). Annual AST inspections are required. Keep records for three years.

- Ensure the container is free of visible leaks.
- Ensure there is no sign of spillage on the ground or in the secondary containment. Any spillage from emptying caddies, drip pans, or other receptacles into the container must be cleaned up immediately and thoroughly.
- Ensure container is within its designated storage area/secondary containment and situated to prevent discharge outside containment.
- Close all caps and plugs when not in use.
- Ensure the container is free of significant distortions, buckling, denting, or bulging.
- If the container is metal, ensure it is free of significant corrosion and pitting. If painted, ensure the protective coating is largely intact.
- Ensure the immediate surrounding area is clear of debris and that no water has collected in the secondary containment.
- Ensure the tank is labeled with the stored product, tank size, and any appropriate hazard classifications.

## GENERAL INFORMATION

For questions about tank management, please contact the ED Tanks Program at [usarmy.jblm.id-readiness.list.dpw-env-tanks-program@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-env-tanks-program@army.mil) / 253-967-5337.

# Aboveground Storage Tanks (containing POL)

## EQUIPMENT OVERVIEW

Aboveground storage tanks (ASTs) greater than 55 gallons which store new or used petroleum, oil, and lubricants (POL), including used cooking oil, are subject to 40 CFR 112. ASTs also store antifreeze, and various other hazardous materials. ASTs are found around JBLM at motor pools, hangars, and office buildings and are attached to emergency generators. Used cooking oil dumpsters are found at dining facilities.

## COMPLIANCE AND HANDLING PROCEDURES

### **POL-Containing ASTs (55 gallons and greater)**

The user needs to ensure monthly inspections are conducted using HJB Form 959 (or an equivalent checklist approved by DPW-ED Tanks Program.) Annual AST inspections are required. Keep records for three years.

- Ensure the tank and piping are free of visible leaks.
- Ensure there is no sign of spillage on the ground or in the secondary containment. Any spillage from emptying containers or drip pans into the AST must be cleaned up immediately and thoroughly.
- Ensure AST is double-walled or placed on secondary containment.
- Close all caps and plugs when not in use.
- Ensure the paint is intact and there is no significant corrosion on the tank or any associated piping.
- If the vehicle is equipped with a spill-bucket, ensure the spill-bucket is closed and does not contain any standing oil. Keep the spill-bucket clean and dry.
- Ensure the fuel level and interstitial monitoring gauges are working properly, and the interstitial gauge is not triggered.
- Ensure the immediate surrounding area is clear of debris and pests and that no water has collected in the secondary containment.
- Ensure the tank is labeled with the stored product, tank size, and any appropriate hazard classifications.

For repairs or servicing of ASTs, submit a work order request through the Army Maintenance Application (ArMA) <https://www.armymaintenance.com/arma>

## GENERAL INFORMATION

For questions about tank management, please contact DPW-ED Tanks Program at [usarmy.jblm.id-readiness.list.dpw-env-tanks-program@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-env-tanks-program@army.mil) / 253-967-5337.

# Automated Floor Sweepers/Scrubbers (General)

## EQUIPMENT OVERVIEW

Automated floor cleaners (including walk-behind, stand-on, and riding) are a type of floor cleaning machine that is used to scrub and/or sweep floors containing light amounts of debris, dust, floor markings, oil, and grease. Automated floor cleaners usually have an internal plumbing system to separate the dispensing tank water/solution from the recovered wastewater. When automated floor cleaners are used for general housekeeping in non-industrial facilities, the recovery tank wastewater may contain contaminants that could harm the environment if not properly handled.

## COMPLIANCE AND HANDLING PROCEDURES

- To reduce the generation of hazardous wastewater, ensure that recovered wastewater from floor cleaning in a nonindustrial facility is discharged to an appropriate drain that goes to the sanitary sewer (i.e., mop or utility sink).
- If a hazardous substance is cleaned using an automated floor cleaner, DO NOT discharge the contaminated recovery water to the sanitary sewer system. The Hazardous Waste Program can characterize the wastewater. American Water Military Services will determine if the wastewater is safe to discharge to the sanitary sewer system. Please contact the Public Works Hazardous Waste Program to schedule a waste characterization study at 253-967-4786.
- Minimize contaminants recovered by automated floor cleaners:
  - Always spot clean and use "dry" cleanup techniques prior to using floor cleaners.
  - Practice proper spill prevention and cleanup.
  - Use cleaners at the recommended dilution ratio.
  - Sweep large debris and material to prevent it from being discharged.
  - Store dry or liquid chemicals, hazardous materials, and hazardous waste only at approved locations.
- If cleaning a maintenance area with an automated floor scrubber, refer to the PRMP for automated floor scrubbers (for use at maintenance facilities).

### DO NOT:

- Do not use automated floor cleaners without first using "dry" cleanup techniques.
- Do not discharge potentially hazardous waste which can create a fire or explosion hazard.
- Do not discharge any solid or viscous pollutants in amounts that will cause obstruction to flow, or that contain solids greater than one quarter inch (1/4") or 0.64 centimeter.
- Never use automatic floor cleaners to clean up puddles or spills of oils, fuels, antifreeze, hydraulic fluids, lubricants, or battery acid.
- Do not discharge potentially hazardous wastewater to the sanitary sewer system.

## GENERAL INFORMATION



# Automated Industrial Floor Sweepers/Scrubbers (Maintenance Facilities)

## EQUIPMENT OVERVIEW

Automated industrial floor cleaners (including walk-behind, stand-on, and riding) are used to scrub and/or sweep floors containing light amounts of debris, dust, floor markings, oil, and grease in industrial environments. Automated floor cleaners usually have an internal plumbing system for separating the dispensing tank water/solution from the recovered wastewater. When automated floor cleaners are used in maintenance facilities, the recovery tank wastewater can become extremely polluted. This is especially true at maintenance facilities that do not practice spot cleaning of oil or other engine fluids with "dry" cleanup techniques. Additionally, the use of soaps and detergents in the dispensing tank can emulsify oil and other engine fluids, adversely affecting the functionality of the facility's oil-water separator (OWS) and potentially leading to pass-through or 'slugs' of untreated pollutants entering the sanitary sewer system. Some pollutants of concern in automated floor cleaning recovery water include metals (copper, zinc, chromium, nickel, and lead), non-polar oil and grease (petroleum), and solvents.

## COMPLIANCE AND HANDLING PROCEDURES

To reduce the generation of hazardous wastewater:

- Always make sure recovery water discharges into a drain that leads to the facility's OWS. For help determining if your facility has an OWS or for help determining which drains connect to your facility's OWS, please contact the American Water Military Services at [usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil](mailto:usarmy.jblm.imcom-central.list.dpw-pretreatment@army.mil).
- Maintenance facilities without an OWS should not use automated floor sweepers to clean their maintenance bays unless they can containerize the recovered wastewater and dispose of it as hazardous waste. Coordinate with your hazardous waste technician to request disposal of this wastewater.
- Minimize contaminants being recovered by your automated floor cleaners:
  - Always spot clean and use "dry" cleanup techniques prior to using floor cleaners.
  - Practice proper spill prevention and cleanup.
  - Place drip pans or containment devices under all drips and leaks.
  - Sweep large debris and material to prevent it from being discharged.
  - Store dry or liquid chemicals, hazardous materials, and hazardous waste only at approved locations.
  - Use ONLY WATER for the solution in the dispensing tank.
  - Refer to the Oil/Water Separator (OWS) fact sheet for further information.

### DO NOT:

- Do not discharge recovery water into a drain that is not connected to a sanitary system OWS.
- Do not use detergents in the dispensing solution tank to help clean floors.
- Do not use automated floor cleaners without first using "dry" cleanup techniques.
- Do not discharge potentially hazardous waste, which can create a fire or explosion hazard.

- Do not discharge any solid or viscous pollutants in amounts that will cause obstruction to flow, or which contain solids greater than one quarter inch (1/4") or 0.64 centimeter.
- Never use automatic floor cleaners to clean up puddles or spills of oils, fuels, antifreeze, hydraulic fluids, lubricants, or battery acid.

#### GENERAL INFORMATION

# Generators Emergency

## EQUIPMENT OVERVIEW

Emergency generators or backup generators provide power during a power outage or natural disaster. Generators emit *hazardous* pollutants and particulates into the atmosphere during use and their operation is reportable under JBLM's Synthetic Minor Permit. Liquid fueled generators have fuel storage that can leak, contaminating the soil or ground water.

Regulations applicable to generators are complex. This sheet addresses the most common requirements associated with emergency generator usage at JBLM. Operation of emergency engines outside the allowances of the U.S. Environmental Protection Agency (EPA) and state law poses high risk of Notices of Violations (NOVs) to JBLM. .

Generators used/intended to be used >500 hours per year are not emergency generators and require a permit. See "Generators – Non-Emergency".

NOTE: A 14-day emergency is 336 hours, allowing the Army to meet mission needs without requiring a permit for emergency generators.

## COMPLIANCE AND HANDLING PROCEDURES

Installation and Permitting:

- Emergency generators may not be installed without DPW approval.
- The installing unit/activity/program must provide all mechanical specifications to the DPW-ED Air Program for JBLM to calculate monthly and annual emissions required to be reported to the state.
- A portable generator, including tactical generators, in use at one location longer than 12 months, or used seasonally in the same location, is no longer portable and requires classification and management as an emergency or non-emergency generator. Contact the DPW-ED Air Program for guidance.
- If a generator's attached fuel tank has a capacity >55 gallons, it is subject to 40 CFR 112. See the "Aboveground Storage Tanks (ASTs)" fact sheet for more information.

Minimum Mechanical Requirements:

- Emergency generators must have a non-resettable hour meter that records the hours of operation.
- Functioning automatic transfer switches.

Operational Requirements and Limitations:

- Emergency generators may be operated as long as necessary for a bonafide emergency.
- Generators may not be operated in anticipation of an emergency.
- Operation for maintenance and testing may not exceed 100 hours per calendar year. Only 50 of these 100 hours may be used for non-emergency use.
- Non-emergency use includes hours a generator operates due to an equipment malfunction. Emergency generators that operate over 50 hours per calendar year, due to



an equipment malfunction, must be repaired or replaced within one year or the generator will require classification and management as a non-emergency engine.

#### Maintenance Requirements:

- Maintenance requirements depend on the engine type and year of manufacture. Refer to the applicable Standard Operating Procedure (SOP) for maintenance requirements. At a minimum the following maintenance requirements must be performed:
  - Change oil every 500 hours or annually, whichever comes first. Oil analysis may be used to extend this time. Replace as necessary.
  - Inspect spark plugs and air cleaners every 1000 hours or annually, whichever comes first. Replace as necessary.
  - Inspect all hoses and belts every 500 hours or annually, whichever comes first. Replace as necessary.

#### Reporting and Recordkeeping Requirements:

- The owner/operator must report the following to the DPW ED Air Program
  - Monthly hours of operation to the by the 15<sup>th</sup> of each month, that accurately identify the reason for each type of operation (reason for emergency, maintenance and testing, equipment failure, etc.).
  - Annual usage exceeding:
    - 100 hours for maintenance and testing and/or
    - 50 hours of non-emergency use, i.e. for equipment malfunction, exercises.
- Usage and maintenance records must be maintained for a minimum of five years.

Fuel (diesel): operators may use only ultra-low sulfur diesel or ultra-low sulfur biodiesel, with sulfur content of 15 parts per million (ppm) or 0.0015% sulfur by weight or less. Purchase records must be maintained for five years to show compliance with this requirement.

#### GENERAL INFORMATION

For assistance contact the Air Program by emailing [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil) or 253-966-1768.

# Generators

## Non-Emergency

### EQUIPMENT OVERVIEW

Non-emergency generators provide prime power to a source and include portable generators, including tactical generators, used at one location for >12 months or used seasonally. Regulations applicable to non-emergency generators are complex and restrictive and pose a high risk of Notices of Violations (NOVs) to the Department of Defense (DoD). Non-emergency generators are therefore prohibited on JBLM without approval by DPW. Generators emit hazardous pollutants and particulates into the atmosphere during use and are regulated under JBLM's Synthetic Minor Permit. Liquid fueled generators have fuel storage that can leak, contaminating the soil or ground water.

### COMPLIANCE AND HANDLING PROCEDURES

#### Installation or Use:

- Non-emergency generators of any size MAY NOT be installed without approval from DPW and the DPW ED Air Program.
- Diesel non-emergency generators that provide  $\geq 50$  horsepower output or intended to be used/used >500 hours per year require approval and a permit from the local regulatory agency.
  - Permit applications must be submitted and approved prior to operation.
  - The application requires the proponent to allocate funding for the permit application, and the emission reviews.
  - Diesel fueled non-emergency generators that exceed emissions thresholds will not be approved by the state without added emission controls, which can be costly.
  - These generators must have a Tier 4 engine.

#### Minimum Mechanical Requirements:

- A non-resettable hour meter that records the hours of operation. Meter replacement must be documented and reported to the DPW-ED Air Program.

#### Maintenance Requirements:

- Maintenance requirements depend on the engine size, type, and year of manufacture and can be complex. DPW-ED Air Program will therefore develop an equipment specific Standard Operating Procedure (SOP) for each non-emergency generator.

#### Reporting and Recordkeeping Requirements:

- The owner/operator must report monthly hours of operation to the DPW-ED Air Program by the 15<sup>th</sup> of each month.
- Recordkeeping will be done in accordance with the equipment specific SOP.

#### Fuel (Diesel):

- Operators may use only ultra-low sulfur diesel or ultra-low sulfur biodiesel, with a sulfur content of 15 parts per million (ppm) or 0.0015% sulfur by weight or less. Purchase records must be maintained for 5 years to show compliance with this requirement.

Reminder Note: Portable non-emergency generators used at one location for less than 12 months do not require approval or reporting unless they are used seasonally at that location.

#### GENERAL INFORMATION

For assistance contact the Air Program by emailing [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil) or 253-966-1768.

# Generators Tactical

## EQUIPMENT OVERVIEW

This guidance applies to portable tactical diesel generators listed on Military Table of Organization and Equipment (MTOE) or equivalent and used to provide prime (non-emergency) power outside of normal training operations, such as tactical petroleum laboratories, activities within deployable containers (CONEX), or to provide prime power to buildings to include semi-permanent or permanent buildings on training ranges. Regulations applicable to non-emergency generators are complex, restrictive and pose a high risk of Notices of Violations (NOVs) to JBLM, so the use of tactical generators for non-tactical purposes requires review and approval.

## COMPLIANCE AND HANDLING PROCEDURES

Tactical generators used or intended to be used for the following purposes must be reviewed by the DPW ED Air Program and units/activities must maintain documentation (Memorandum of Record from the DPW ED Air Program) of that review.

- Use at one location for more than 12 months for any purpose or,
- Used to power non-tactical semi-permanent or permanent buildings/structures. Diesel generators used for these purposes that are >50 HP, or are used/intended to be used >500 hours per year, require approval and a permit from the local regulatory agency:
  - Permit applications must be submitted and approved prior to operation.
  - The proponent must allocate funding for the permit application, and emissions reviews.
  - Diesel fueled non-emergency generators that exceed emissions thresholds will not be approved by the state without emission controls, which can be costly.
  - These generators must have a Tier 4 engine.
  - Minimum Mechanical Requirements: A non-resettable hour meter that records the hours of operation. Meter replacement must be documented and reported to the DPW-ED Air Program.
  - Maintenance Requirements: Maintenance requirements depend on the engine size, type, and year of manufacture. The DPW-ED Air Program will develop an equipment specific Standard Operating Procedure (SOP) for each non-emergency generator.
  - Reporting: The owner/operator must report monthly hours of operation to the DPW-ED Air Program by the 15<sup>th</sup> of each month.
  - Fuel (Diesel): Operators may use only ultra-low sulfur diesel or ultra-low sulfur biodiesel, with a sulfur content of 15 parts per million (ppm) or 0.0015% sulfur by weight or less. Purchase records must be maintained for 5 years to show compliance with this requirement.

## GENERAL INFORMATION

For assistance contact the Air Program by emailing [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil) or 253-966-1768.

# Hazardous Material Storage Shed

## EQUIPMENT OVERVIEW

Hazardous materials and hazardous waste have special handling and storage requirements. Some products are incompatible with others (e.g., metals, flammables, and oxidizers) and can create unsafe working conditions, cause health and welfare issues for human and environmental health and have the potential to release toxins. Comply with product Safety Data Sheet (SDS) directions and JBLM installation Regulation 200-1 provisions for storage.

## COMPLIANCE AND HANDLING PROCEDURES

### Corrosive Locker

Used for the storage of corrosive materials. The SDS will provide information to determine if the product is corrosive and incompatible with other types of products.

### Flammable Locker

Used for storing of hazardous flammable and combustible materials. The SDS will provide information needed to determine if the product is flammable or combustible, and compatibility with other products. These products must be placed in a National Fire Protection Agency (NFPA) approved and properly marked storage area. These types of lockers also provide for limited amount of secondary containment if spill should occur.

Before placing a flammable or corrosive locker in your area contact the Fire Prevention Office at 253-966-7156 for proper placement. Call 253-966-6449 to see if any are available. If none are, then the unit must procure.

### Blue Sheds

Used for storage of bulk hazardous materials, or as weapons cleaning stations. All hazardous materials must be stored in an approved and properly marked storage area to include NFPA 704. Before placing a shed in your area contact the Fire Prevention Office at 253-966-7156, for proper placement. Call 253-966-6449 to see if any are available. If none are available, then the unit must procure.

### White Sheds

Used for storage of hazardous waste. Hazardous materials may also be stored in white sheds if adequate visual separation and other conditions required by JBLM installation Regulation 200-1 (Appendices E and F) are in place.

- White sheds are prioritized for the storage of hazardous waste.
- Sheds must have NFPA 704 label that is properly secured.
- Sheds must have an alarm, Class C Fire extinguisher, spill kit, and a spill contingency site map posted.
- Sheds must have the SAA Site Specific Contingency Plan posted.
- Some non-regulated waste containers should be managed in the accumulation site due to the possible risks associated with the waste.

Before placing a white shed in your area contact, the Fire Prevention Office at 253-966-7156 for proper placement. Call Environmental Operations at 253-967-4786 to see if any excess sheds are available. If none are, then the unit must procure.

## Polypaks

Typically used for storage of “In-Use” hazardous materials. They can be used as a hazardous waste accumulation site if properly labeled.

### BEST MANAGEMENT PRACTICES

## Flammable Locker

Flammable lockers should not be stored outside. The cabinets are not watertight, and water may leak into the cabinet and fill the secondary containment located in the bottom of the container.

### GENERAL INFORMATION

For additional information about hazardous material storage, please contact the Environmental Compliance Assistance Team (ECAT) at [usarmy.jblm.id-readiness.list.dpw-compliance-inspection-team1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-compliance-inspection-team1@army.mil).

Contact DPW Environmental Operations for locker issues: 253-967-4786.

# Oil/Water Separator (OWS)

## EQUIPMENT OVERVIEW

Oil/water separators (OWSs) are devices used to separate oil from wastewater discharges. They are installed to pre-treat wastewater prior to discharge into sanitary or storm sewer systems. They employ various separation methods, including gravity, filtering, flocculation, and flotation. OWSs are typically used in maintenance and industrial areas that receive oily wastewater from lubricating, fueling, vehicle and heavy equipment repair, and steam or pressure washers. Cleaning products, degreasers, solvents, and hot/steam water can interfere with the effectiveness of OWSs. This guidance is for sanitary OWSs only. Discharge to stormwater OWSs is prohibited.

## COMPLIANCE AND HANDLING PROCEDURES

To properly maintain an OWS:

- Minimize contaminants going to the OWS.
  - Prevent and/or minimize wastewater or spills draining into floor drains.
  - Use "dry" cleanup techniques.
  - Do not use detergents.

Note: Exceptions are only permitted for aircraft when authorized by the DPW-ED.

- Minimize wastewater to the OWS.
  - Use centralized vehicle wash facilities for general interior and exterior vehicle washing.
- Do not dump any trash, filters, oil, water with cleaning solvents, and other engine fluids into the OWS.
- Practice proper spill prevention and cleanup. For additional pretreatment information or to request OWS maintenance, contact American Water Military Services at 253-366-9127.

## BEST MANAGEMENT PRACTICES

- Visually inspect to ensure the OWS is properly functioning.
- For repairs or servicing, submit a work order request through the Army Maintenance Application (ArMA) <https://www.armymaintenance.com/arma>

## GENERAL INFORMATION

For OWS discharging to a sanitary sewer, you will need a Temporary Wastewater Discharge Permit ([https://home.army.mil/lewis-mcchord/application/files/9016/4391/0060/Temp\\_Discharge\\_Permit\\_AWMS\\_F\\_2021.pdf](https://home.army.mil/lewis-mcchord/application/files/9016/4391/0060/Temp_Discharge_Permit_AWMS_F_2021.pdf))

# Paint Booths

## EQUIPMENT OVERVIEW

As discussed in the Material Section, paints and coatings can emit hazardous air pollutants (HAPs) from surface coating operations on motor vehicle and aerospace components. These pollutants include cadmium, chromium, lead, manganese, and nickel from heavy metals contained in coatings. A substantial fraction of coating is atomized, does not reach the part, and becomes what is termed “overspray.” The hazardous compounds in the overspray float to the ambient air, mix with other pollutants in the atmosphere and pose a health risk to the general population.

The level of impact to the ambient air is based on the type of application. Application by hand or by aerosol can is a low hazard because the paint is not atomized, whereas application using high-volume low-pressure (HVLP) paint guns pose a significant hazard and must be performed in a permitted paint booth. This fact sheet provides the requirements for paint booths.

NOTE: This Fact Sheet does not address worker safety. Please consult with Industrial Hygiene for worker protection.

Unpermitted paint booths, such as DuroAir can be used for safety reasons but only for the application of paints and coating applied by hand (brush, roll-on, etc.) and aerosol can with capacities of less than 1 quart.

Paint booths at JBLM can be permitted and unpermitted based on the type of application used to paint and coat surfaces.

## COMPLIANCE AND HANDLING PROCEDURES

All paint booth enclosures must be reviewed by the DPW Air Program prior to installation, replacement, or upgrades.

- All HVLP painting of motor vehicle and aerospace parts and components requires permitting/must be performed inside a permitted paint booth.
  - Permit applications must be submitted prior to purchase/construction of any paint booth.
  - The application requires the proponent to allocate funding for the permit application, and emissions reviews.
- Painting and coating applied by methods that do not include use of HVLP paint guns must be reviewed by the DPW ED Air Quality Program. The DPW ED Air Program will develop a memorandum for record to verify the process is exempt from permitting requirements.

## GENERAL INFORMATION

For assistance, call 253-966-1768 or email [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil)



# Parts Washers/Solvent Tanks

## EQUIPMENT OVERVIEW

Parts washers and solvent tanks are used to clean and maintain equipment to keep them in good operating order. They are also used to prepare surfaces for coatings, paints, or lubricants, etc. Most solvents are hazardous materials emitting chemicals into the air or risking our water supply if improperly used, managed, or disposed of. Solvent use is regulated and reportable under JBLMs Air Quality Permit.

## COMPLIANCE AND HANDLING PROCEDURES

- Notify the DPW Air Program at [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil) or 253-966-1768 when purchasing/installing parts washers/solvent tanks using solvents that are not owned by the DPW Environmental Division.
- Solvent use must be reported to the DPW-ED Air Program. For instructions on reporting solvent changes to the DPW-ED Air Program, call 253-966-1768 or email [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil).
- Read and adhere to the applicable solvent and cleaning agent Safety Data Sheets (SDSs), warning labels, and information posted on parts washing equipment.
- Order all solvents through the Hazardous Material Control Point (HMCP) using the EESOH-MIS system. Do not use deployment solvents without approval from the Installation.
- Pre-clean equipment or parts (i.e., removal of excess grease or dirt) before using parts washing equipment.
- Do not contaminate parts washer solvent with other chemicals.
- Do not block access to the parts washer.
- Label parts washer "Keep Closed". If your parts washer does not have this label, contact the Hazardous Waste Program at 253-967-4786 to obtain one.
- Prior to servicing, moving, or adding additional product to the equipment, contact your organization's Hazardous Waste Technician.
- Solvent based parts washers that contain MIL-PRF 680 Type II solvent are used on JBLM. New MIL-PRF 680 Type II solvent is considered a hazardous material because it has a high flash point. Once it is contaminated with whatever is being cleaned, the resulting mixture may fall under a hazardous waste classification.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. If you do not know who your Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

For assistance determining whether your solvent is regulated under the DPW-ED Air Program call 253-966-1768 or email [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil).

# Satellite Accumulation Area (SAA)

## EQUIPMENT OVERVIEW

Satellite Accumulation Areas (SAA) are used to accumulate hazardous waste (e.g., CBRNE/NBC wastes, MOGAS fuel filters). Refer to applicable environmental fact sheets for specific procedures.

## COMPLIANCE AND HANDLING PROCEDURES

A container holding hazardous waste must be always closed during accumulation, except:

- When adding, removing, or consolidating waste or
- When temporary venting of a container is necessary
  - For the proper operation of equipment, or
  - To prevent dangerous situations, such as build-up of extreme pressure.

## GENERAL INFORMATION

For additional information about SAAs, please contact your Hazardous Waste Technician. If you do not know who your Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

# Tactical Vehicle/Stryker Hull Water

## EQUIPMENT OVERVIEW

Stryker hull water from military vehicles contains oils and other potentially hazardous chemicals.

Small amounts of lubricants, JP-8, or diesel are permissible. Still, if the hull water contains a significant amount of floating petroleum, oil, and lubricant (POL), it must be removed from the water and drummed before discharging the hull water to the central wash rack. Hull contents must be mostly water. Actual discharge must occur directly over the drain to minimize spread of any oily residue. Any liquid or solid residue remaining after discharge must be rinsed into the drain, leaving the wash rack deck clear of oil or grease.

Hull water containing chemicals, solvents, cleaning agents, soap, detergent, Simple Green, or any other emulsifying agent is not authorized for discharge to any JBLM facility. Contaminated hull water must be placed in properly labeled hazardous waste containers for disposal. Stryker hulls can only be discharged at wash racks on JBLM and any discharge to the storm system is an illicit discharge.

## COMPLIANCE AND HANDLING PROCEDURES

### DRIP PAN WATER MANAGEMENT IN UNIT MOTOR POOLS

Stryker Units with stored vehicles are authorized to discharge hull water collected from drip pans only at the pretreatment pre-approved wash rack drain served by an oil water separator. Stryker vehicles are strictly prohibited from discharging drip pan hull waters at any other locations, including, but not limited to, wash racks without an oil water separator, streets, trails, or undeveloped areas of JBLM.

- Inspect engine, gearbox, transmission, and hydraulic components over hulls for obvious signs of spilled fluids. If drip pan hull water contains floating oil, fuel, or grease (more than a sheen), remove it from the water with pads before discharging the hull water to the oil water separator.
  - Dirty pads shall be placed in properly labeled hazardous containers for disposal.
  - Drip pan hull water containing chemicals, solvents, cleaning agents, soap, detergent, Simple Green, or any emulsifying agent is not authorized for discharge to any JBLM facility.
  - Contaminated drip pan hull water must be placed in properly labeled waste containers for disposal.
- Ensure absolutely no brass is deposited in drains and motor pool oil water separators; place all live munitions and or residue such as brass casings and other munition type of materials in a designated munitions amnesty box.
- Do not drain any Stryker vehicle fluids (other than drip pan hull water) including but not limited to spent oil, antifreeze, transmission fluid, brake fluid, mechanical grease, petroleum, and diesel into motor pool oil water separators and drains as it is strictly prohibited.
- Inspect drip pans for evidence of petroleum, oils, and lubricants greater than a sheen and collect with absorbent pads and place in properly labeled waste containers for disposal before discharging water to an oil water separator.

## **DISCHARGE OF HULL WATER AT CENTRAL WASHRACK FACILITIES**

Military vehicles are authorized to discharge hull water at Consolidated Wash Rack (CWR) facilities only, subject to the restrictions stated below.

- Tactical vehicles are strictly prohibited from discharging hull waters at any other locations, including motor pools, streets, trails, or undeveloped areas of JBLM.
- Engine, gearbox, transmission, and hydraulic compartments over the hull shall be inspected for obvious signs of spilled fluids prior to discharge.
- If the hull water contains floating oil, fuel, or grease (more than a sheen), it must be removed from the water with pads before discharging the hull to the wash rack.
  - Dirty pads shall be placed in properly labeled waste containers for disposal.
  - Hull water containing chemicals, solvents, cleaning agents, soap, detergent, Simple Green, or any other emulsifying agent is not authorized for discharge to any JBLM facility.
  - Contaminated hull water must be placed in properly labeled waste containers for disposal. Tactical vehicle maintenance and/or draining of any vehicle fluids (other than hull water) at the CWR facilities is strictly prohibited.
- Actual discharge must take place directly over the drain to minimize the spread of any oily residue.
  - Any liquid or solid residue remaining after discharge must be rinsed into the drain, leaving the wash rack deck clear of oil or grease.

### **BEST MANAGEMENT PRACTICES**

## **GENERAL MANAGEMENT PRACTICES**

The most effective management tool for hull water is prevention:

- Use environmental covers as a first line of defense.
  - Larger footprint tarps prevent water intrusion resulting from rain that enters through the engine block area and into the hull.
- Use large one-piece environmental covers that cover the entire vehicle.
- Securely tie down the cover to maximize effectiveness.
- Inspect environmental cover weekly to make sure the entire vehicle is covered, and that the environmental cover is securely tied. There are 15 separate compartments in the hull with 15 corresponding plugs.
- To prevent spills, keep all plugs in place.
  - If drain plugs must be removed while the vehicle is parked, position a drip pan directly under each drain plug hole to prevent illicit discharge of POL to the storm system.
  - If drain plugs have been removed, ensure drain plugs are in place prior to movement of the vehicle.
- Inspect drip pans for evidence of petroleum, oils, and lubricants greater than a sheen and collect with absorbent pads and place in properly labeled waste containers for disposal before discharging water to an oil water separator.

#### GENERAL INFORMATION

Contact Hazardous Waste at 253-967-4786 for questions.

**Temporary Discharge Permit for Oil Water Separator:** Contact American Water for questions at 253-366-9127.

Wash Rack Locations:

Southwest Wash Rack 1-2 SBCT Staff Duty, Building 3925, 253-966-3565.

Southeast Wash Rack 16 CAB Staff Duty, Building 3560, 253-477-3538.

Lewis North Wash Rack 55 EN BDE Staff Duty, Building 11930, 253-967-5111.

# Weapons Cleaning Tanks

## EQUIPMENT OVERVIEW

Solvents used for weapons cleaning may be a hazardous material and be regulated under JBLMs air quality permit due to emissions, and/or be a hazardous waste. That determination is made using the Safety Data Sheet (SDS). The SDSs should be posted near the tank.

## COMPLIANCE AND HANDLING PROCEDURES

- Adhere to the guidance in the SDS and post warning labels on weapons cleaning equipment.
- Only order solvents through the Hazardous Material Control Point (HMCP) and report solvent changes to the Air Quality program within 15 days at [usarmy.jblm.id-readiness.list.dpw-air@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-air@army.mil) or 253-966-1768.
- Do NOT place solvent used during deployment in Installation weapons cleaning tanks.
- Clean only weapons in these machines.
- Pre-clean weapons and parts before using weapons cleaning equipment (i.e., remove excess dirt).
- Do NOT contaminate parts washer solvent with other chemicals such as paint, gasoline, etc.
- Ensure a label is on the weapons cleaner indicating to keep closed. Request this label through your Hazardous Waste Technician.
- Do not block access to the weapons cleaning tank.

## GENERAL INFORMATION

For questions, contact your Hazardous Waste Technician. For those who do not know who their Hazardous Waste Technician is, please contact the Hazardous Waste Program front desk at 253-967-4786.

## CULTURAL RESOURCES





# Archaeological/Historical Sites

## PROCESS OVERVIEW

The DoD is the largest steward of historic buildings in the United States, managing over 10,000 historic buildings. Historic preservation is a powerful element in a community and economic development strategy, and an essential tool for DoD stewardship and regulatory compliance. These resources provide installation personnel with a sense of being part of military heritage. The historic areas are not just aesthetically pleasing and livable; they become the heart and soul of the installation.

## BEST MANAGEMENT PRACTICES

### DEFINITIONS

The **Installation Commander** is responsible for the Installation's cultural resources, just as the Commander is responsible for all installation assets. When a pro-active approach is taken toward cultural resources management, appreciation of these properties becomes a positive aspect of management responsibility.

**Cultural Resource Managers (CRMs)** are charged with identifying and protecting all cultural resources on Federal land as applicable to all Federal laws and regulations. CRMs and their teams on Federal military lands ensure that all actions on their installations are completed in compliance with laws and regulations.

The **State Historic Preservation Officer (SHPO)** is appointed by the governor, coordinates the state's historic preservation program, and consults with agencies during Section 106 review.

**Tribal Historic Preservation Officers (THPOs)** are officially designated by federally recognized Indian tribes to consult with agencies when the projects can potentially affect historic properties on tribal lands or historic properties of significance to such tribes located off tribal lands.

**Cultural resources** encompass archaeological, traditional, and built environment resources, including but not necessarily limited to buildings, structures, objects, documents, districts, cemeteries, monuments, and sites. DoD Instruction 4715.16 defines cultural resources to include:

- Buildings, structures, sites, districts, and objects eligible for or included in the National Register of Historic Places (NRHP), as defined under regulations (36 CFR 60).
- "Cultural Items" as defined under the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC § 3001). These include human remains, associated and unassociated funerary objects, sacred objects, and cultural patrimony objects.
- American Indian, Eskimo, Aleut, or Native Hawaiian sacred sites for which access is protected under the American Indian Religious Freedom Act (42 USC § 1996).
- "Archaeological resources" as defined under the Archaeological Resources Protection Act (ARPA) (16 USC 470 aa-11). These include any material remains of past human life or activities that are of archaeological interest as determined under ARPA regulations.



- “Archaeological artifact collections and associated records” as defined under the Curation of Federally Owned and Administered Archaeological Collections (36 CFR 79). Under these guidelines, collections include material remains such as artifacts, objects, specimens, and other physical evidence, excavated or removed during a survey, excavation, or other study of a prehistoric or historic resources. Associated records include original records (or copies thereof) documenting efforts to locate, evaluate, record, study, preserve, or recover a prehistoric or historic resource.

## REGULATIONS

Guidance for managing military cultural resources is found in DoDI 4715.16 and in the Service-specific environmental regulations.

For the Army, the specific regulation is found in **AR 200-1**.

Guidance on the legal responsibilities for federal land managers is also provided by the National Park Service (<http://www.nps.gov>) and the Advisory Council on Historic Preservation (ACHP) (<http://www.achp.gov>).

**The Archaeological Resources Protection Act (ARPA)** of 1979 can be found in Title 16 United States Code, Sections 470aa-470mm, which requires a permit to excavate, remove, or collect archaeological resources and requires notification of tribes. ARPA specifies that collections must be curated in museums or similar institutions, and forbids the interstate or foreign trade, sale, transport, or exchange of objects in violation of state or local law. Agencies are directed to survey their lands to identify potential sites, and that site information is exempted from the Freedom of Information Act (FOIA).

**Section 106 of the National Historic Preservation Act (NHPA)** requires federal agencies to consult with the ACHP. The ACHP has delegated its consultation responsibility to the individual State Offices of Historic Preservation for any action that could potentially affect historic property. As long as the federal agency, in this case a military installation, can demonstrate that they have offered the SHPO an opportunity to comment on the effects of the action, and provided the SHPO sufficient time to review the action, the requirement has been met. If the SHPO does not concur with the federal agency’s effect determination, more consultation may be required to conclude the process; however, ultimately, it is the federal agency’s responsibility to “take into account the effects of their actions” on historic properties.

To successfully complete Section 106 review, federal agencies must do the following.

- Gather information to decide which properties in the area that may be affected by the project are listed or are eligible for listing in the National Register of Historic Places (NRHP).
- Determine how those historic properties might be affected.
- Explore measures to avoid, mitigate, or reduce harm (adverse effect) to historic properties.
- Reach an agreement with the SHPO/THPO (and the ACHP in some cases) on such measures to resolve any adverse effects or, failing that, obtain advisory comments from the ACHP, which are sent to the head of the agency.

## **HISTORIC PROPERTIES & ARCHAEOLOGICAL SITES**

Regular maintenance of historic buildings is crucial; many older buildings are well-constructed and incorporate sustainable technologies if their materials and systems are properly maintained and repaired. All repairs, renovations, additions, maintenance, or demolition to any historic property at JBLM (buildings and structures at least 50 years old) are considered undertakings that must be reviewed by the Cultural Resources team. It is important for the project's proponent to be proactive in communication with the Cultural Resources team as early as possible in the project planning phase. This also includes any project requiring ground disturbance of any kind, for example, mechanical digging/trenching, fence post installation, driving vehicles or heavy equipment, and brush or landscape clearing.

Pro-active compliance means staying ahead of the mission requirements so that cultural resources activities are nearly transparent to the project proponents. In other words, the survey and/or building evaluation, associated consultation, and required mitigation are completed so far ahead of the construction schedule, that the trainers or engineers only see a memo. Sometimes, planning and implementing potential mitigation ahead of time means that the CRM has a solution ready even before it is needed.

In situations where archaeological sites with well-defined perimeters are found within or adjacent to proposed construction footprints, consider design avoidance. If the archaeologist can work directly with the design engineer, it is often possible to completely save an archaeological site and tens of thousands of dollars. Take time to evaluate the design. Look for opportunities within the proposed footprint to avoid the site. Remember that archaeologists often have soil and landscape data that can be extremely valuable to the project designer. Make the engineers see the benefits of working with the Cultural Resources team.

Sometimes, a federal undertaking will damage a historic property or an archaeological site, and there is no alternative. At this point, the mitigation process begins. It is well worth the time for the master planners, design engineers, airfield managers, range trainers, and any other potential project proponent to discuss ongoing project plans and their dreams with the CRM. It is remarkable how often a project dream comes true on a military installation. Also, the more CRMs learn about the planning, design, and construction process for different projects, the better they will be able to develop solutions, offer alternatives, and understand other stakeholders. Effective CRMs treat other stakeholders as customers, developing practices, and solutions that help move everyone's mission forward.

### **GENERAL INFORMATION**

For additional information about archaeological/historical sites, please contact the Environmental Division Cultural Resources Program Manager at 509-339-0572.

# Cultural Resources

## PROCESS OVERVIEW

The JBLM Cultural Resources Program identifies, manages, and protects all the archaeological sites, historic structures, sacred sites, and cultural and natural resources significant to Tribes on JBLM while sustaining the Army's mission. These sites are protected resources that help us to understand the landscape, Tribes, and communities that were here before JBLM. The interpretation of the artifacts (objects that have been modified by people) range from projectile points to glass bottles, to bricks and trash pits, and are used by archaeologists to tell the story for each archaeological site.

## BEST MANAGEMENT PRACTICES

Native peoples lived on land for thousands of years, and it is now under the jurisdiction of JBLM. The oldest scientific evidence on JBLM documents their occupation to over 8,000 years ago. A total of 3,300 acres of tribal allotments within the Nisqually Reservation are located within the current boundaries of JBLM. Through all this change, traditional lifestyles incorporated new resources while maintaining a connection to the land and its resources. To this day, Tribes' access JBLM throughout the year to harvest various natural resources, such as camas and cedar. There are also about 3,600 historic built resources associated with the military history of the Installation; the majority of assessed eligible resources are contained in three National Register Districts located on the Installation: The Fort Lewis Historic Garrison District, Old Madigan Hospital District, and the McChord Historic District.

Any work that occurs on a National Register listed or eligible building and/or work that occurs in any of the three historic districts must comply with the Secretary of Interiors standards for restoration and rehabilitation and follow JBLM guidelines for design, repairs, restoration, rehabilitation, and maintenance. These guiding principles, policies, and requirements apply to historic sidewalks, roadways, signage, landscapes, viewsheds, and buildings.

Any work that occurs on a historic resource, building, archeological site, or within a historic district requires Cultural Resources review to ensure compliance with Section 106 of the National Historic Preservation Act.

The JBLM Cultural Resources Program strives to protect all the archaeological sites and historic structures on the Installation. These properties are nonrenewable resources; once a site or structure is damaged or destroyed, all its valuable historical information is gone forever. Please help protect and conserve JBLM's cultural resources.

- Under federal law, it is illegal to excavate, damage, or alter archaeological sites on JBLM.
  - Severe criminal penalties, including jail time and fines, can be imposed for damaging archaeological sites and/or collecting artifacts from these sites.
- Recreational use of metal detectors within JBLM is strictly prohibited.
- Prior to any hand and/or mechanical excavation on JBLM the environmental review process must be followed.
  - Prior to a training activity that involves any ground disturbance, a Dig Permit must be obtained from DPTMS Range Branch (See Environmental Protocol Sheet A-26/26A for details).

- Please contact the JBLM NEPA Program before any construction projects that involve ground disturbance and/or the modification of any structures (See Environmental Protocol Sheet A-26).
- If human remains are encountered, they should be reported immediately to the Criminal Investigation Command (CID) and the Cultural Resources Program (CRP). Please secure the immediate vicinity to prevent further disturbance pending inspection by CID and the CRP Manager.
- If artifacts are encountered during any ground disturbance or training exercise, please report the location to the CRP Manager immediately.

There are approximately 473 known archaeological sites on JBLM. These include Native American villages, camp sites, fishing stations, Hudson Bay Company era farms, homesteads, logging camps, dairies, hop farms and processing plants, and old town sites. Although no standing structures remain, a wealth of information remains hidden from view. Sites are recorded and filed with the Washington Department of Archaeology and Historic Preservation. This program maintains an in-house database and tracks all sites in the Geographic Information System (GIS). Most cemeteries, archaeological, and other culturally sensitive sites on JBLM are fenced with Seibert stakes or chains.

- To avoid accidentally impacting a culturally sensitive site, always make sure that dig requests are submitted. Digging within cemeteries for any reason is strictly prohibited.
- All training activities should avoid cemeteries.
- Report any recent cemetery damage and/or ground disturbance to the CRP Manager.
- If exposed human remains are found within a cemetery or anywhere else, contact CID and the CRP Manager.

#### GENERAL INFORMATION

Questions and comments regarding the cultural history of JBLM, dig permits, and to report the inadvertent discovery of archaeological materials and/or human remains should be directed to the Cultural Resources Program Manager: 509-339-0572.

## FISH AND WILDLIFE MANAGEMENT





# Fish and Wildlife Management

## PROCESS OVERVIEW

The goal of the JBLM Fish & Wildlife (JBLM F&W) program is to manage the Installation's natural resources to facilitate and prioritize military testing and training, mission readiness, and range sustainability while stewarding those resources and complying with applicable environmental and conservation laws. Natural resource management on JBLM is implemented using scientifically accepted ecological principles and an ecosystem-based approach to conserve biodiversity and allow sustainable multipurpose uses while ensuring that military lands support present and future training and testing requirements. Over the long term, this approach is intended to maintain and improve the biological diversity of terrestrial and aquatic ecosystems while supporting the environment required for realistic military training operations. Management strategies are meant to produce healthy and resilient habitats and ecosystems, both on and off the Installation.

## BEST MANAGEMENT PRACTICES

Five program elements drive land management strategies on JBLM:

- Federally endangered, threatened, proposed and candidate species.
- State listed, rare, and special status species.
- Game management.
- Oak and pine ecosystem management.
- Puget Lowland Prairie management.

### I. Federally Endangered, Threatened, Proposed, and Candidate Species

The Endangered Species section of the JBLM F&W Program is governed by the Integrated Natural Resources Management Plan (INRMP). The goal of the endangered species section of the INRMP is to ensure compliance with the Endangered Species Act (ESA) while supporting the military mission. Identified in the INRMP are conservation goals and objectives designed to protect federally listed species and assist in their recovery.

Thirteen federally listed species have been documented at JBLM, including one invertebrate, one amphibian, four birds, two mammals, and five fish. Among these, three species drive most land management on the Installation: the federally endangered Taylor's checkerspot butterfly, the federally threatened streaked horned-lark and the Mazama pocket gopher. Management of these three species overlaps considerably with Puget Lowland Prairie restoration efforts, discussed below.

#### Taylor's Checkerspot

This butterfly species is present on the landscape year-round and is active from February to June. Surveys are conducted during the flight season (March–April) in coordination with the Washington Department of Fish and Wildlife (WDFW). Active conservation efforts include prairie restoration, captive breeding and release, and annual population monitoring.

#### Streaked Horned-Lark

These ground nesting birds are present on the landscape during the breeding season, from April to August. They nest primarily on open prairies, the Artillery Impact Area, and both airfields on base. As a non-flushing species, they are extremely vulnerable to harm as a result of human

activities. Management of the streaked horned lark on JBLM includes monitoring and protecting existing populations and maintaining and expanding suitable habitat across the installation through the application of prescribed fire.

#### Mazama Pocket Gopher

These ground burrowing rodents occupy prairie and oak savanna habitat on JBLM, eating plant roots from below. Two subspecies are present on JBLM, and they exist in virtually all training areas where prairies occur. They are extremely vulnerable to off-road driving damage, which is why it is important to stay on improved gravel roads when crossing JBLM's prairies. Management actions focus on maintaining native prairie quality and surveying active populations.

#### Unit Responsibilities:

- Plan military activities by following Range Operations and environmental guidance to avoid adverse effects on threatened and endangered species.
- Do not drive off-road in prairies, grasslands, or oak/pine woodlands.
- Report off-road driving damage found on prairies to Range Operations, Conservation Law Enforcement, and/or JBLM F&W.
- Obey all posted signage.

Department of Defense personnel who violate the provisions of the ESA or implemented regulations are subject to both civil and criminal penalties.

## **II. State Listed, Rare, and Special Status Species**

Washington's State Wildlife Action Plan (SWAP), prepared by WDFW in 2015, identifies species and habitats critically imperiled or in rapid decline in Washington and identifies monitoring and management implementation strategies to conserve and protect them over the long term. Species managed under the SWAP include 10 rare plants, six invertebrates, two reptiles/amphibians, 16 birds, two mammals, and two fish. JBLM incorporates an ecosystem-based management approach that aims to conserve and enhance the habitats and ecological systems for many of these species. JBLM works closely with WDFW to address threats impacting these species and define best management practices using the most current data to document and evaluate the success of conservation actions. The JBLM management program focuses on (1) conserving natural habitats in the size and configuration that best supports native fish and wildlife populations, (2) eliminating, minimizing, or offsetting habitat disruptions such as forest fragmentation and damage by invasive species, (3) enhancing habitat conditions for species having recognized conservation priority (i.e., threatened, endangered, species of concern, etc.), and (4) monitoring species and habitats to evaluate and set priorities for future management actions.

## **III. Game Management**

Starting in 2023, JBLM F&W was tasked with the management of hunting, fishing, and recreation in the JBLM Training Areas. This includes the administration of all applicable regulations, game species management, the sale of recreation permits, and the administration of a web-based management system called iSportsman ([jblm.isportsman.net](http://jblm.isportsman.net)). Harvest reports of JBLM hunters and anglers are captured and aggregated by the iSportsman system, providing an overview of annual hunting and fishing impact. These reports, as well as game species surveys to be conducted where possible, inform sustainable game species management decisions. All game species are managed so as not to exceed maximum sustainable yield. Area

closures, daily hunter capacities, and regulations revisions will be used as necessary to avoid excessive recreational harvest of game species.

Game species on JBLM include black-tailed deer, Roosevelt Elk, black bear, wild turkey and other upland birds, waterfowl, various kinds of small game, and game fish including salmonids, trout, and others.

#### **IV. Oak and Pine Ecosystem Management**

JBLM hosts the only ponderosa pine forests west of the Cascade Mountains and hosts many communities of Oregon white oaks, Washington's only native oak species. Most Oregon white oak and ponderosa pine communities on JBLM occur as ecotones between open prairies and conifer forests. For this reason, they share characteristics with both ecosystem types and are often difficult to delineate. Oak and pine communities are unlikely to be self-sustaining and require regular management to mimic historical processes, such as prescribed burns, to retain specific ecosystem functions. Oak and pine communities are a fire-dependent ecosystem; fire provides key ecosystem functions that cannot be achieved with other management techniques. In its absence, encroaching conifers overtop, suppress, and eventually replace oaks. Frequent low-intensity fires reduce the amount of understory vegetation in oak communities, therefore reducing the risk of catastrophic, stand-replacing fires. Both ecosystem types provide habitat for several rare species, including the Western gray squirrel and Mazama pocket gopher, tying their management into the management of state and/or federally endangered, threatened, or rare species.

#### **V. Puget Lowland Prairie Management**

JBLM F&W management of prairies focuses on species conservation, maintenance, and enhancement. The program uses broad-scale management techniques that include prescribed burns, herbicide treatment of invasive species, planting, seeding, tree removal/girdling, and other habitat enhancement actions. Prairie habitats at JBLM are fire-dependent and were historically burned by Native Americans for thousands of years prior to colonial settlement. Species native to this ecosystem have adapted to a high-frequency, low-intensity fire regime. Frequent fires play an important role in nutrient cycling, seedling germination, and preventing invasion by woody and/or non-native plants. Prairies have degraded over time due to the exclusion of fire and the spread of invasive species, which alter plant communities and soil structure. Fire provides key ecosystem functions that cannot be mimicked by other management techniques and has reduced woody cover on sites within JBLM, making those sites more suitable for species such as the streaked horned lark. Management of prairie habitat on JBLM is a balance between maintaining suitability for military training and providing a robust, diverse, resilient habitat capable of supporting prairie-dependent species, which include most of the rare and endangered species on the Installation.

##### **Unit Responsibilities:**

- Complete all necessary co-use documentation and confer with JBLM F&W about acceptable activities in Priority Habitat Areas (PHAs).
- Do not drive off-road, bivouac, dig, or refuel within PHAs or Seibert staked areas.
- Obey all posted signage.
- Report off-road driving damage found on prairies to Range Operations, Conservation Law Enforcement, and/or JBLM F&W.



## **Aquatic Ecology/Watershed Management**

The surface water resources at JBLM include rivers, streams, lakes, wetlands, and marine areas. Four major basins occur on JBLM: (1) the Nisqually River basin, (2) the Sequimitchew Creek basin (including American Lake), (3) the Deschutes River basin, and (4) the Chambers/Clover Creek basin (Clover Creek runs through McChord Field). Surface water runoff is generally low because of highly permeable soils across the Installation.

JBLM works to ensure compliance with the Washington State Coastal Zone Management Program, applicable U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) permits, and Washington State water quality requirements. Industrial and commercial process wastewater on JBLM is routed through the Solo Point Wastewater Treatment Plant prior to being discharged into the Puget Sound. This plant has improved discharged water quality significantly. Stormwater from commercial and industrial sectors of the cantonment area is routed through stormwater treatment facilities, which may include oil/water separators, prior to discharge. Erosion beyond natural processes is very minor due to management actions such as riparian enhancement projects on JBLM streams, stream crossing only at designated hardened crossing sites, and a 50-meter buffer zone along all bodies of water and wetlands. Ground-disturbing activities are prohibited within the buffer zone. As a result of these actions, human-caused sedimentation is so minor that almost none reaches the coastal zone.

### **Unit Responsibilities:**

- Cross streams only at hardened crossing sites.
- Do not dig, refuel, bivouac, or otherwise disturb the ground within 50 meters of a body of water or wetland.
- Dispose of wastewater or other commercial/industrial waste products through approved channels and in proper receptacles.

## **Wildlife Interactions**

Whether downrange during training exercises or in the cantonment area during normal daily activities, human/wildlife interactions are inevitable. Never approach, harass, or feed wildlife. Wild animals are unpredictable, and many carry diseases such as rabies or distemper. As a general rule, if you leave them alone, they will leave you alone. Residents or employees of JBLM can call the DPW Pest Management Program at 253-967-3131 (option 2) to report problem wildlife, including raccoons, geese, opossums, or others.

## **Stewardship**

Stewardship with nature and wildlife is everyone's responsibility and goes beyond compliance requirements. JBLM and its associated community are committed to protecting, conserving, and enhancing native species and habitats. As the footprint of human activity continues to expand, native habitats are degraded, reduced, and fragmented. Because of this, it is increasingly important that everyone play a role in long-term ecosystem sustainability.

At a minimum, a good steward:

- Removes all personal and military residue when leaving the field and properly disposes of liquid waste through approved channels.

- Uses hardened stream crossings, does not drive in the streams, and does not wash vehicles in streams.
- Does not conduct off-road maneuvers in grasslands, prairies, or within 50 meters of a waterbody.
- Does not approach, harass, or feed wildlife.
- Does not remove trees greater than 3 inches in diameter without coordinating with JBLM F&W.
- Obeys all posted signage.

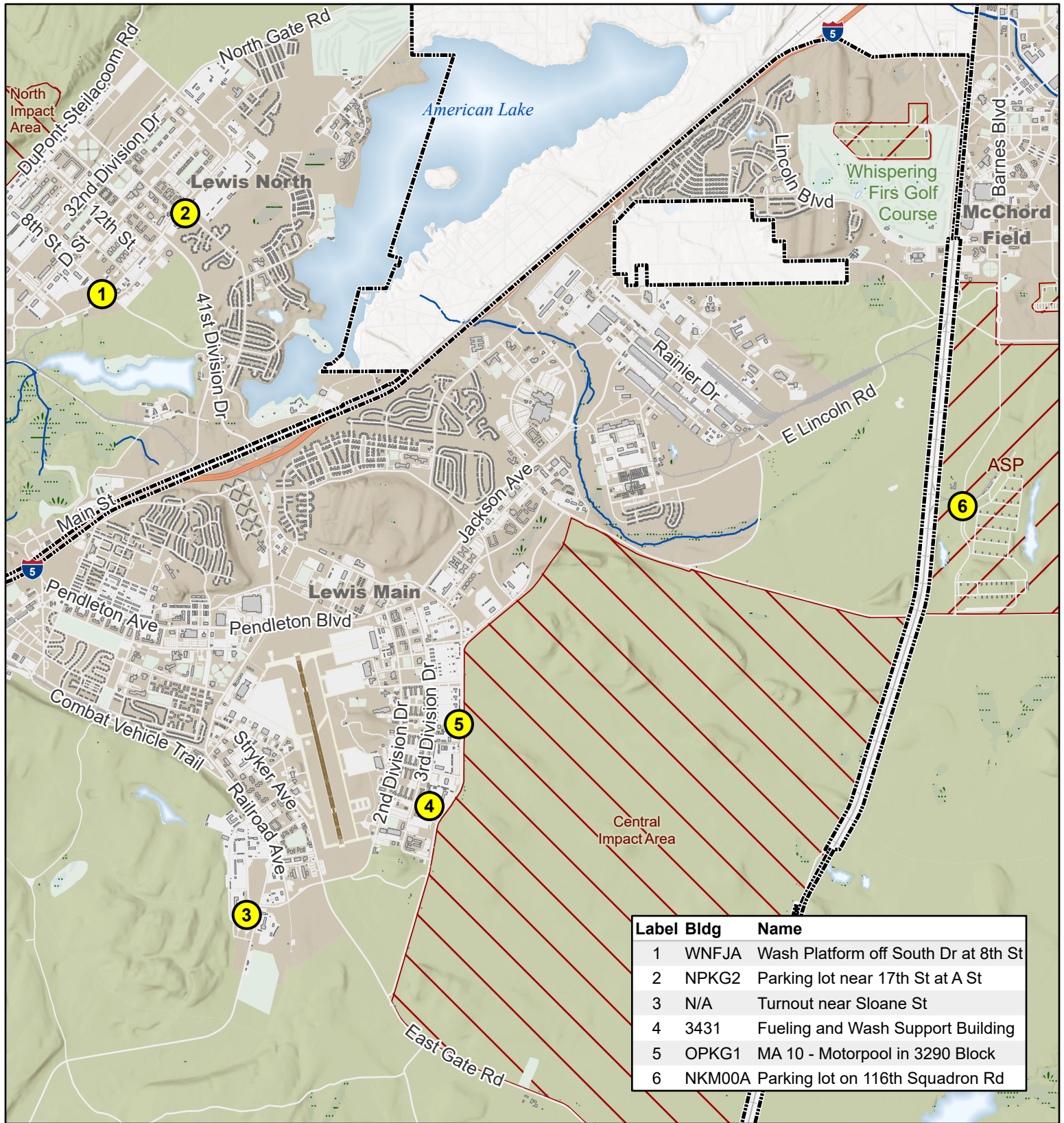
#### GENERAL INFORMATION

Questions and comments regarding endangered species or wildlife should be directed to the JBLM Fish and Wildlife Program Manager [usarmy.jblm.id-readiness.list.dpw-fish-wildlife1@army.mil](mailto:usarmy.jblm.id-readiness.list.dpw-fish-wildlife1@army.mil).

## MAPS







Label	Bldg	Name
1	WNFJA	Wash Platform off South Dr at 8th St
2	NPKG2	Parking lot near 17th St at A St
3	N/A	Turnout near Sloane St
4	3431	Fueling and Wash Support Building
5	OPKG1	MA 10 - Motorpool in 3290 Block
6	NKM00A	Parking lot on 116th Squadron Rd

## Amnesty Box Locations

Joint Base Lewis-McChord, Washington

Scale: 1:50,000

Size: 8.5 x 11 inches

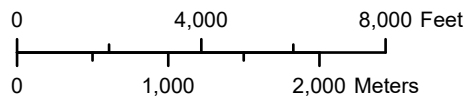
Published: March 13, 2024

Geospatial Support Office

Directorate of Public Works

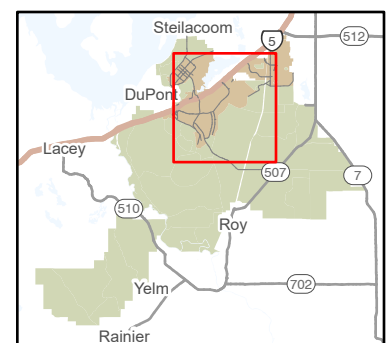
Joint Base Lewis-McChord, WA

usarmy.jblm.id-readiness.list.dpw-geospatial-requests2@army.mil

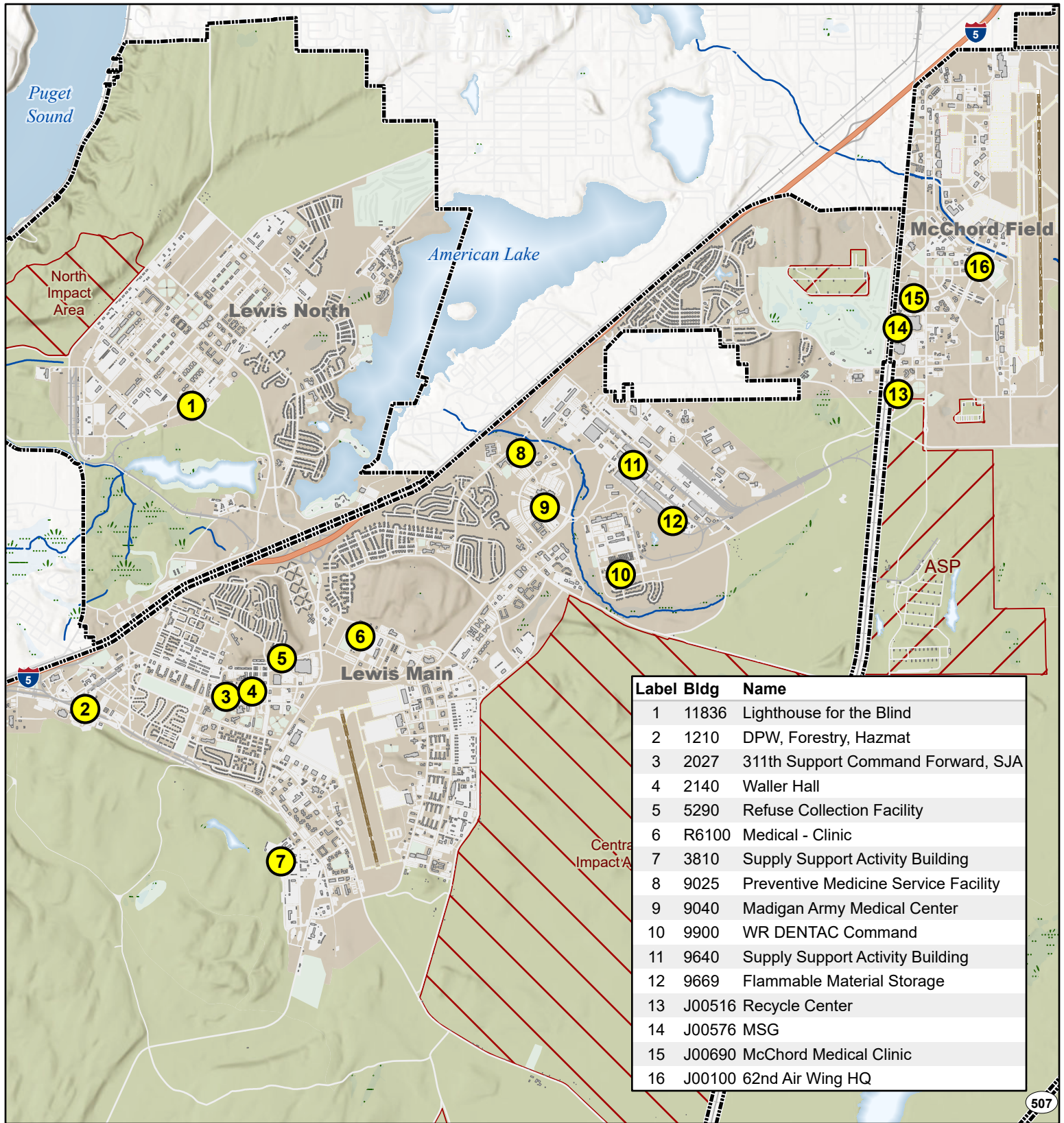


Amnesty Box

JBLM Border







## Toner Recycling Drop Off Locations

Joint Base Lewis-McChord, Washington

Scale: 1:60,000

Size: 8.5 x 11 inches

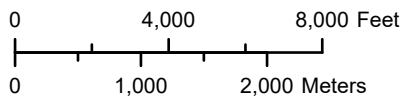
Published: March 13, 2024

Geospatial Support Office

Directorate of Public Works

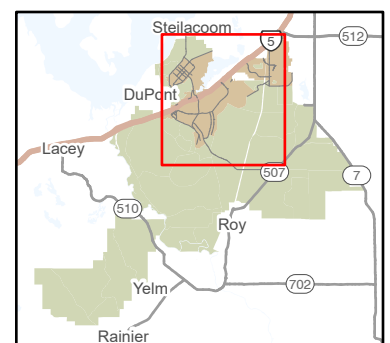
Joint Base Lewis-McChord, WA

usarmy.jblm.id-readiness.list.dpw-geospatial-requests2@army.mil

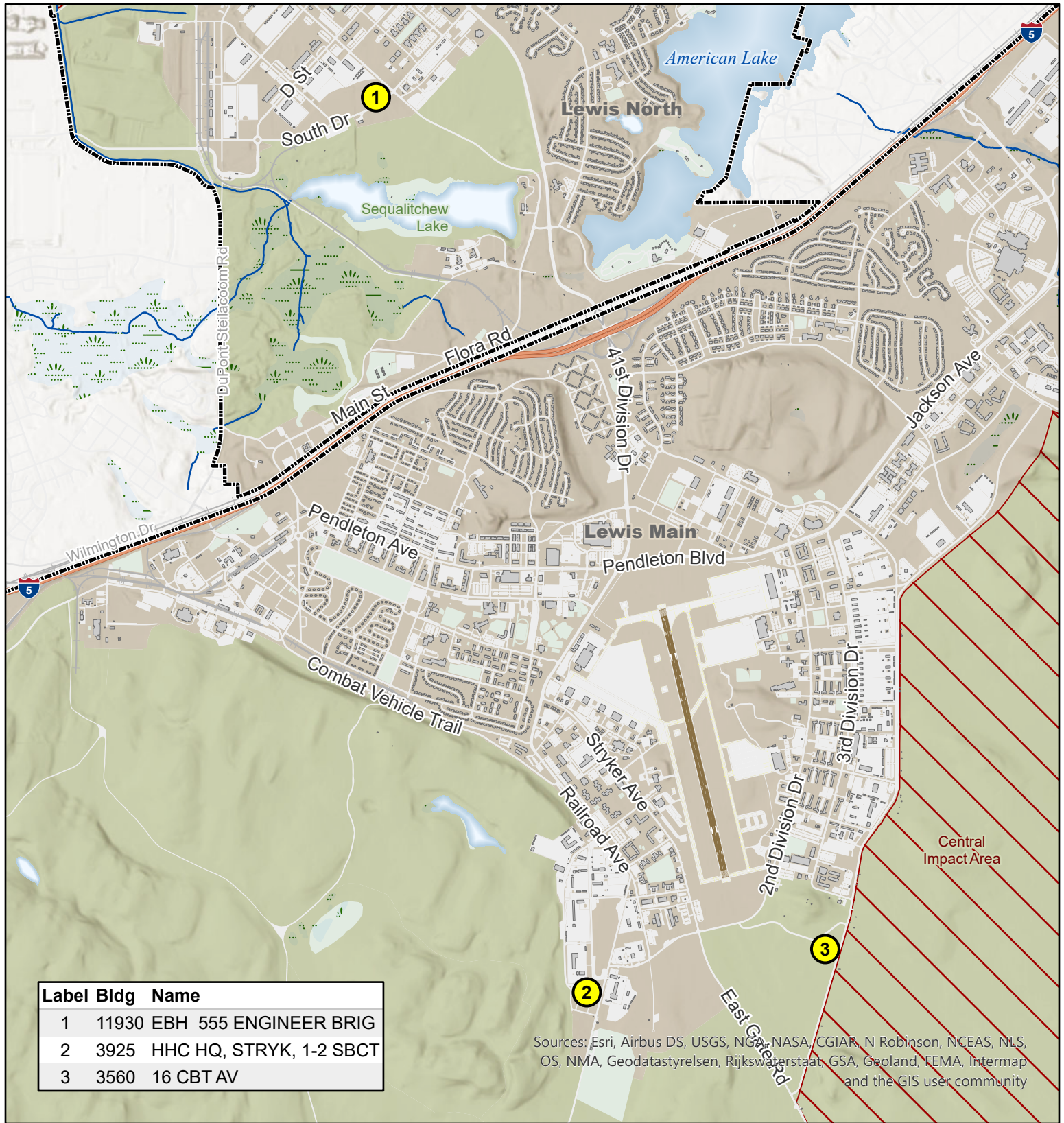


Yellow circle: Toner Recycling

Dashed line: JBLM Border







## Centralized Wash Rack Locations

Joint Base Lewis-McChord, Washington

Scale: 1:35,000

Size: 8.5 x 11 inches

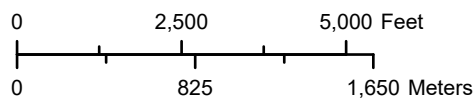
Published: April 02, 2024

Geospatial Support Office

Directorate of Public Works

Joint Base Lewis-McChord, WA

usarmy.jblm.id-readiness.list.dpw-geospatial-requests2@army.mil



Yellow circle: Wash Rack

Dashed line: JBLM Border

