

**BORROW SOURCE AREA USE GUIDANCE PAPER**  
**Joint Base Lewis-McChord, WA**

**1.1 Borrow Source Area Use Authorization**

Borrow source area use is controlled and authorized by JBLM Directorate of Public Works (DPW). Borrow source area use includes the placement, stockpiling, excavation or removal of unsuitable aggregate/soil materials as well as remediation and restoration activities.

**Removal/mining of virgin aggregate/soil materials from any JBLM borrow source area is strictly prohibited unless authorized by the Director of DPW.**

Any use of JBLM borrow source areas must be authorized, prior to entry, by written notification. A completed *Borrow Source Area Use Authorization form* (HJB 224) must be submitted to the DPW/Environmental Division (ED) for review, approval and signed authorization.

**1.2 Performance Criteria**

The following describes operational requirements/restrictions for earth-moving, stockpiling, and removing of aggregate/soil and other operations in JBLM borrow source areas.

**1.2.1 Borrow Source Area Slopes**

Borrow source area slopes, are defined as the operating or working faces of the borrow source; the surfaces where aggregate/soil material is actually being or has been removed or stockpiled. Height and slope angle limitations are required as a safety precaution to prevent falls or other worker injury.

**1.2.2 Slope Height**

The maximum unbroken slope height in an active borrow source on JBLM will not exceed ten feet, measured vertically. Higher faces may be constructed with the inclusion of a bench each ten vertical feet. Each bench will be a minimum of five feet in horizontal width, be in-sloped a minimum of 5%, and slopes above and below the bench will be no steeper than 1.0 horizontal: 1.0 vertical (1.0H: 1.0V). For slopes less than or equal to 10 feet in vertical height, no minimum slope is required. No equipment, structures, or vehicles will be positioned on the top of a working face any closer to the top edge of the face than the vertical slope height plus 5 feet.

**1.2.3 Slope Angle**

For slope heights less than or equal to 10 vertical feet, (vertical to sloping toward the borrow source floor) all positive slope angles are allowed. For slope heights in excess of 10 vertical feet, the maximum slope angle will be 1.0H: 1.0V.

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1.2.4 Temporary Fencing Requirements

Temporary chain-link fencing may be required. Minimum horizontal distance shall be the vertical slope height plus 5 feet back from the top slope edge of the borrow source. If required, the fencing shall be placed above all slopes of the borrow source, whether the slopes are being worked or not. The purpose of the fencing is to discourage inadvertent falls over the face by individuals traversing the area and to discourage illegal dumping. Fencing will be in place at the close of the working day and on weekends, holidays, or other times when borrow source operations are not in progress. Berms of soil/aggregate at least three feet high may be used as a substitute for fencing.

1.2.5 Stockpile Geometry

Aggregate/soil material stockpiles established within the boundaries of JBLM borrow source areas will be constructed and maintained so they do not present a safety and health hazard to site workers or visitors. Stockpiles will be limited to:

- Height - no stockpile will exceed the height of the borrow source working face or 10 vertical feet, whichever is greater;
- Slope Angle - no stockpile will be established with side-slopes steeper than 1.5H:1.0V;
- Location - all stockpiles will be located as close as practicable to the working face. Stockpiles will be placed so they do not block access to other borrow source faces or roads within the borrow source area
- Setback Distance from the Working Face - stockpiles will be no closer than 10 feet from any borrow source face as measured from the bottom edge of the stockpile.

1.2.6 Stockpiling Unsuitable Soil/Aggregate Material

Unsuitable soil/aggregate materials refers to out-of-specification material usually generated from excavation activities associated with construction or utility work. This excess material typically consists of fine soil deposits with some aggregate material present. JBLM borrow source areas may only accept uncontaminated unsuitable aggregate/soil materials for stockpiling or borrow source area reclamation and restoration.

Stockpiling of unsuitable soil materials excavated from JBLM construction/utility activities will be utilized by JBLM to the maximum extent practicable. Every effort shall be made to segregate and process unsuitable materials to improve their quality for use in construction and landscaping projects.

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1.2.7 Analysis and/or Research to Determine Soil/Aggregate Contamination

Soil/aggregate material excavated from construction and utility projects must be uncontaminated to be considered acceptable for placement in JBLM borrow source areas. Historical land use records may be used by DPW/ED Staff to determine in soils are likely to be contaminated. Soil from developed sites and particularly sites with prior uses such as fueling stations, motor pools, vehicle washing/maintenance areas, or known spill or contaminated sites will be sampled and analyzed by the contractor under the direction of DPW/ED to determine if contamination exists.

**1.3 Borrow Source Area Restrictions**

1.3.1 Equipment Use Restrictions

Equipment brought into JBLM borrow sources for excavation and processing of materials will be setup in a manner to prevent damage or contamination to the environment and to minimize disturbance to the borrow source and adjacent areas.

1.3.2 Environmental Restrictions

Borrow source area users will ensure that equipment used within the borrow source area is mechanically sound and operated in a safe manner. Equipment having leaks of any type, including, but not limited to hydraulic fluid, cooling fluid, lubricating fluid, fuel, etc., will be immediately removed from service at the site and repaired. All spills of fuels, mechanical fluids, chemicals, etc. onto the ground will be immediately reported to the JBLM Fire Department at telephone number 911. Spill mitigation will be undertaken by the borrow source user under the direction of JBLM DPW/ED at the sole expense of the borrow source area user. Spills will be mitigated to the extent required to meet JBLM, local, state, and federal requirements.

1.3.3 Site Disturbance

Disturbance of the borrow source area, access roads, and adjacent areas will be minimized during use. No vegetation will be disturbed or removed without the express approval of JBLM DPW. At any time, all excavated depressions must have side slopes which are no steeper than 1.5H : 1.0V and no deeper than 4 feet from the established borrow source area floor surface or to the groundwater table, whichever is less.

1.3.4 Debris and Trash Management

Incidental organic debris (less than 10%) may be placed with soil/aggregate in JBLM borrow source areas.

Under no circumstances will debris or trash be left within a borrow source area or on adjacent property at the end of the use period. Under no circumstances will debris or trash be buried within a borrow source area or at any other location on JBLM. Borrow source users will maintain the area in a clean and orderly condition throughout the period of use.

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1.3.5 Stormwater Control

The restoration, soil stockpiling and backfilling of existing borrow source areas on JBLM must use stormwater best management practices (BMP) to prevent erosion and sediment discharge onto adjacent properties or into any receiving waterways. Measures include but are not limited to:

- Limit vehicle access (entry and exit) to one route, if possible.
- Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking of sediment onto public roads.
- If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling or sweeping. Transport sediment to an approved disposal area.
- As needed, design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. Minimize sediment discharges by infiltrating runoff on-site.
- Protect properties and waterways downstream of borrow source areas from erosion and sediment deposition.
- Conduct street washing only after sediment is removed in accordance with the above.
- Conduct maintenance, fueling, and repair of heavy equipment and vehicles using applicable spill prevention and control measures. Report and clean contaminated surfaces immediately following any spill incident.

1.3.6 Multiple Users

Use of a single borrow source area by multiple contractors working on unrelated projects may, at times, be required by JBLM DPW/ED. Due to the variations in the JBLM construction program over time, it may not be possible to provide specific boundaries for individual use. JBLM DPW/ED will attempt to determine the use boundaries for each borrow source user at the time the entry/use authorization is issued. Each borrow source user will restrict their activities to those areas within a borrow source area where access has been authorized. Borrow source users will be responsible for all activity and materials within their use boundaries for the duration as specified by their approved *Borrow Source Area Use Authorization form*.

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**1.3.7 Project Completion Notification and Inspection**

Borrow source users will notify JBLM DPW/ED upon their completion in the borrow source area. The JBLM DPW/ED staff will schedule an inspection with the borrow source user at the site for final grade. At that time the JBLM DPW/ED staff will either issue a borrow source area use completion approval or issue a notice for corrective action. The borrow source user must address all corrective action items within the specified time period.

**1.4 Borrow source area Access Roads**

Borrow source area access roads will, in all cases, consist of gravel or native surfaced, single or double lane roads. Borrow source users will restrict vehicle travel to established gravel or native surfaced haul roads into and around borrow sources.

The following guidance will be followed by borrow source users.

- During heavy or extended rainfall when maintenance of the road surfacing becomes impracticable, work in the borrow source will be halted until conditions improve.
- Dust control will be a priority of borrow source users when using the gravel and native surfaced roads and wheel tracks. Dust control using water is preferred. Fugitive dust emissions are not acceptable and will require immediate implementation of dust control measures.

**1.5 Damage and Repairs**

Any damage done to JBLM roads and/or facilities, caused by the borrow source area user or its employees will be fully repaired by the user. The user shall restore the facility to its pre-damaged condition per JBLM DPW specifications. The user will be liable for all expenses incurred, including those of JBLM DPW in evaluating the damage, designing corrective measures, and inspections during and at the completion of actual repairs.