NORTHWEST TERRITORIES POWER CORPORATION
Empowering Communities

January 2022

Snare Hydro Vegetation Removal Standard Operating Procedure

This Standard Operating Procedure (SOP) applies to all project personnel, and contractors. Its purpose is to minimize the impacts to vegetation and wildlife habitat in areas where earthworks and site clearing may take place at the Snare Hydro Facilities, including, but not limited to the winter roads, quarry and borrow sites, temporary camp and fuel storage areas, and major construction projects at Snare Hydro. **This SOP provides the following mitigation measures to be used during all vegetation removal, site clearing and earthwork activities at the Snare Hydro Facilities as required by Land Use Permit W2021Q0011**:

- This Standard Operating Procedure is to be used in conjunction with the mitigation measures as outlined in the *Snare Hydroelectric Facility Vegetation and Wildlife Management Plan*, the *Snare Winter Roads and Quarries – Operations & Maintenance and Reclatmenation Plan,* and the *Snare Hydro Facility Erosion and Sediment Control Plan*
- Locations for temporary clearings for laydowns and other temporary facilities will be located on previously impacted areas as much as possible.
- Before major vegetation clearing and/or quarrying projects are completed a wildlife survey must be completed by an environmental professional to identify wildlife features and submitted to ENR and the WLWB for approval.
- Prior to any clearing/grubbing or stripping, limits shall be marked in the field using fencing, stakes, or flagging to ensure vegetation in adjoining areas are not disturbed, and to mitigate against over clearing. 30m Buffer zones will be implemented around sensitive areas such as wetlands and water courses where possible.
- Where possible, vegetation should be removed by using cutting methods rather than clearing methods, avoiding ground disturbance, and leaving roots intact to encourage natural re-growth following construction activities.
- During winter road construction, vehicle pullouts are to be constructed in non-vegetated locations along the alignment, and vegetation clearing will be minimized to brushing and danger tree removal only, unless absolutely necessary to do so.
- When removing vegetation there are few key principles that must be followed to meet GNWT requirements
    - **Vegetation must be kept separate from overburden**
        - **Vegetation should be piled and disposed using approved techniques below**
        - **Overburden should not be disturbed when possible. If quarrying or completing earthworks overburden should be stored in a designated pile for reclamation when work is complete**
    - **Edge of clearing should be debris free**
        - **Vegetation should not be pushed and piled around edges of clearing**

Example of Proper Vegetation Removal with minimal removal of overburden, clean vegetation perimeter with no debris and overburden stockpiled for reclamation once scope of work is completed.

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- Approved techniques for disposing of vegetation as per meet GNWT requirements include:
    - For minor spot clearing vegetation can be placed particular into forest edge and allowed to naturally decompose. Vegetation should not be piled and evenly spaced to avoid fuel loading for fire.
    - Removed vegetation can be piled and burned.
        - Piles should not include any soil
        - Piles should only be burned in the winter months when no risk of forest fire is present
    - When possible merchantable timber (=>5" diameter) that is removed will be stacked for salvage/use.
    - **For large clearing work chipping and/or mulching is the preferred method of vegetation disposal as this is the safest and most efficient way to dispose of large amounts of vegetation at Snare**

Example of vegetation removal and chipping along powerline ROW (http://yukontreeservices.ca/photo-gallery/chipping-hydro-line-right-of-way-mt-mac-whitehorse-yt/).

- Grading and major earthworks is guided by the *Snare Winter Roads and Quarries – Operations & Maintenance and Reclatmenation Plan* but a few key principles that apply to vegetation clearing with equipment are:
    - All slopes from any excavations will be graded to ensure stability to avoid failure and erosion.
        - **Slopes must be less than 70 degrees to prevent nesting.**
    - If drainage issues occur (ponding water or washout areas) re-grading will be completed to ensure proper drainage is present to minimize erosion.
- Information on vegetation clearing practices is also provided in Document No. EMSG-008 on Powerline *Transmission and Distribution Procedure*.