ARTEMIS GOLD INC

Blackwater Mine

Invasive Plant Management Plan

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Invasive Plant Management Plan

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Acronyms and Abbreviations

Artemis	Artemis Gold Inc.
BC	British Columbia
BC Hydro	BC Hydro and Power Authority
Blackwater, or the Project	Blackwater Gold Project
BMP	Best management practices
BW Gold	BW Gold LTD.
CCCIPC	Cariboo Chilcotin Coast Invasive Plant Committee
CEA Agency	Canadian Environmental Assessment Agency
CRD	Cariboo Regional District
DS	Decision Statement
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
EDRR	Early Detection Rapid Response
EM	Environmental Monitor
EMC	Environmental Monitoring Committee
EMLI	Ministry of Energy, Mines and Low Carbon Innovation
EMP	Environmental Management Plan
EMPR	Ministry of Energy, Mines and Petroleum Resources
ENV	Ministry of Environment and Climate Change Strategy
EPCM	Engineering, Procurement and Construction Management
FLNRORD	Ministry of Forests, Lands, Natural Resource Operations and Rural Development
GM	General Manager
IAPP	Invasive Alien Plant Program
IMISWG	Inter-Ministry Invasive Species Working Group
Indigenous nations	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stellat'en First Nation and Nazko First Nation (as defined in the Project's Environmental Assessment Certificate #M19-01)
IPMP	Invasive Plant Management Plan

ISCBC	Invasive Species Council of BC
Joint MA/EMA Application or Application	Blackwater Gold Project Joint *Mines Act/Environmental Management Act* Permits Application
LSA	Local Study Area
m	Metre
MAFF	Ministry of Agriculture, Fisheries and Food
MOFR	Ministry of Forests and Range
MP	Management Plan
NWIPC	Northwest Invasive Plant Council
RCP	Reclamation and Closure Plan
SEPSCP	Surface Erosion Prevention and Sediment Control Plan
SMP	Soil Management Plan
SOP	Standard operating procedure
VP	Vice President

1.0 Project Overview

The Blackwater Gold Project (the Project) is a gold and silver open pit mine located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver. The Project is presently accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR and an exploration access road, which connects to the Kluskus-Ootsa FSR at km 142. The Kluskus FSR joins Highway 16 approximately 10 km west of Vanderhoof. A new, approximately 13.8 km road (Mine Access Road) will be built to replace the existing exploration access road, which will be decommissioned. The new Mine access road is at km 124.5. Driving time from Vanderhoof to the mine site is about 2.5 hours.

Major mine components include a tailings storage facility (TSF), ore processing facilities, waste rock, overburden and soil stockpiles, borrow areas and quarries, water management infrastructure, water treatment plants, accommodation camps and ancillary facilities. The gold and silver will be recovered into a gold-silver doré product and shipped by air and/or transported by road. Electrical power will be supplied by a new approximately 135 km, 230 kilovolt overland transmission line that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof.

The Blackwater mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation, and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa FSRs and Project transmission line cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation, and Yekooche First Nation (BC EAO 2019a, 2019b).

Project construction is anticipated to take two years. Mine development will be phased with an initial milling capacity of 15,000 tonnes per day (t/d) for the first five years of operation. After the first five years, the milling capacity will increase to 33,000 t/d for the next five-years, and to 55,000 t/d in Year +11 until the end of the 23-year mine life. The Closure Phase is Year +24 to approximately Year +45, ending when the Open Pit has filled to the target closure level and the TSF is allowed to passively discharge to Davidson Creek via a closure spillway. The Post-closure phase begins in Year +46.

New Gold Inc. received Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019 under the 2002 *Environmental Assessment Act* (BC EAO 219c) and a Decision Statement (DS) on April 15, 2019 under the *Canadian Environmental Assessment Act,* 2012 (CEA Agency 2019). In August 2020, Artemis Gold Inc. (Artemis) acquired the mineral tenures, assets, and rights in the Blackwater Project that were previously held by New Gold Inc. On August 7, 2020, the Certificate was transferred to BW Gold LTD. (BW Gold), a wholly-owned subsidiary of Artemis, under the 2018 *Environmental Assessment Act*. The Impact Assessment Agency of Canada notified BW Gold on September 25, 2020 to verify that written notice had been provided within 30 days of the change of proponent as required in Condition 2.16 of the DS, and that a process had been initiated to amend the DS.

BW Gold received *Mines Act Permit* M-246 on June 22, 2021, and *Environmental Management Act* Permit PE-110602 on June 24, 2021, authorizing early construction works for the Project. These works include clearing, grubbing ditching, and site levelling at the Plant Site location and sediment and erosion controls, including construction of ditches, diversions, and a sediment control pond (SCP). BW Gold received an amended *Mines Act* Permit M-246 on March 8, 2023, approving the Mine Plan and Reclamation Program and superseding the previous version. On May 2, 2023, BW Gold received *Environmental Management Act* Permits PE-110650 authorizing discharge of air contaminants to the atmosphere and PE 110652 authorizing discharge of effluent to surface water and groundwater from the Blackwater mine.

2.0 Purpose and Objectives

The purpose of the Invasive Plant Management Plan (IPMP) is to prevent the introduction, establishment and spread of invasive plants (and noxious weeds) on the Blackwater mine site. This IPMP outlines the steps that BW Gold will take to prevent, treat, and monitor invasive plant infestations on the mine site. The IPMP is applicable to the Construction, Operation, Closure, and Post closure phases.

The IPMP objectives are to:

- Minimize the creation of habitat suitable for colonization by invasive plant species (emphasis on Cariboo Chilcotin Coast Invasive Plant Committee (CCCIPC) priority species);
- Promptly detect and manage invasive plants through effective inventory, control, and monitoring program during all Project phases;
- Limit the introduction and spread of invasive plants through early detection; and
- Manage invasive plants through species-specific treatments, follow up monitoring and adaptive management.

The IPMP addresses the requirements in Section 9.9 of the Joint Application Information Requirements for *Mines Act* and *Environmental Management Act* Permits (EMPR & ENV 2019).

Best management practices (BMPs) produced by government bodies and regional agencies will be followed when practicable to ensure all prevention, treatment, and monitoring activities are completed in a proper manner, which includes the involvement of qualified personnel where appropriate.

2.1 Controlling Invasive Plants and Noxious Weeds

Control of noxious weeds and their seeds is regulated by the *BC Weed Control Act*. Noxious weeds are any invasive plant species designated by regulation to be noxious under the *BC Weed Control Act* and Regulations. They can displace native vegetation and reduce wildlife habitat and forage. Invasive plants are non-native or alien to the ecosystem under consideration. Invasive plant species can outcompete native vegetation through rapid growth, prolific seed production and distribution, disease and insect resistance, the formation of dense monocultures, and reduced soil productivity. Their introduction causes, or is likely to cause, economic or environmental damage, or harm to human health. In BC, the term invasive plant is synonymous with invasive alien plant.

Invasive plants and noxious weeds are primarily monitored by regional weed committees and are entered into a database administered by the Province of BC. The Blackwater mine site is in the Nazko sub-region of Cariboo Regional District (CRD) Electoral Area 1. The CCCIPC Regional Strategic Plan (2017) provides direction on invasive plant species of highest management priority for control, inventory, and monitoring in the Cariboo Chilcotin region.

Invasive plants in the Cariboo Chilcotin region are mostly limited to roadways, however, invasive species are not well documented in the sub-region (CCCIPC 2017). Appendix A provides the following priority species information and lists:

- Table A1-1 provides provincial priority invasive plant definitions and management objectives;
- Table A1-2 lists the provincial priority invasive plant species from the BC Inter-Ministry Invasive Species Working Group (BC IMISWG);
- Table A2-1 provides invasive plant priority ranking descriptions for the Cariboo Chilcotin region; and
- Table A2-2 lists the priority invasive plant species for the CCCIPC sub-regions.

The CCCIPC has prepared an educational document to inform the public, government agencies and industry sectors on managing current infestations and preventing new ones. The document presents a list of priority invasive plants by Sub-Region in the Cariboo Chilcotin Coast, and classify them as new invaders, containment, established or biological control. It also presents an Invasive Plant Species Profiles with recommended treatment (CCCIPC 2020).

The provincial priority list identifies Early Detection Rapid Response (EDRR) species (refer to https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/provincial_priority_is_list.pdf, updated March 2021). These EDRR species pose a significant threat and are those species that proliferate rapidly and are known to have adverse effects on native plant species. There are currently no EDRR listed species in the Nazko sub-region where the Project is located, however in the event that an EDRR species is found on site the guidance will be followed. Flag off the area as a no disturbance area and contact the EM who will engage a Qualified Professional to discuss appropriate eradication methods. The EDRR is regularly reviewed by the province. The province has also developed a list of invasive plants that are currently not in BC or are present but extremely limited in extent, and pose a significant threat to BC's environment, economy and/or human health (see https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/guidance-resources/edrr_candidate_invasive_plants.pdf).

The Inter-Ministry Invasive Species Working Group (IMISWG) has developed the provincial EDRR framework to make decisions on treatment of new invasive plants to the province. For more information on EDRR, see Invasive Species Early Detection and Rapid Response Plan for BC (BC IMISWG 2014).

2.2 Indigenous and Stakeholder Engagement

The IPMP has been developed in consultation with Aboriginal Groups. The draft plan was provided to Aboriginal Groups for review and comment and revised to address the comments. Aboriginal Groups and government agencies will have an opportunity to review and comment on proposed updates to the IPMP over the life of the mine.

2.3 Related Documents

The IPMP is linked to the following documents in the Joint MA/EMA Application and their respective updates: Reclamation and Closure Plan (RCP; Chapter 4 of the MA/EMA Application), Surface Erosion Prevention and Sediment Control Plan (SEPSCP; Appendix 9-A), Soil Management Plan (SMP; Appendix 9-B), Construction Environmental Management Plan (Appendix 9-C) Vegetation Management Plan (Appendix 9-G), and Wildlife Mitigation and Management Plan (Appendix 9-H).

Standard Operating Procedures (SOPs) were provided in previous versions of this management plan for permitting and review purposes. SOPs are managed on site by the project team and may be subject to more frequent revisions than the management plan to adapt to changing needs at site. However, the SOPs will continue to be aligned with and governed by the mitigations in the management plan. Up-to-date copies of SOPs can be requested from the site Geology Manager and/or site Environmental Manager or their designates and will be provided upon request.

3.0 Roles and Responsibilities

BW Gold has an obligation to ensure that all commitments are met and that all relevant obligations are made known to mine personnel and site contractors during all phases of the mine life. A clear understanding of the roles, responsibilities, and level of authority that employees and contractors have when working at the mine site is essential to meet Environmental Management System (EMS) objectives.

Table 3-1 provides an overview of general environmental management responsibilities during all phases of the mine life for key positions that will be involved in environmental management. Other positions not specifically listed in Table 3-1 that will provide supporting roles include independent environmental monitors, an Engineer of Record for each tailings storage facility and dam, an Independent Tailings Review Board, TSF qualified person, geochemistry qualified registered professional (QRP), and other qualified persons and QRPs.

Table 3-1: Blackwater Gold Roles and Responsibilities

Role	Responsibility
Chief Executive Officer (CEO)	The CEO is responsible for overall Project governance. Reports to the Board.
Chief Operating Officer (COO)	The COO is responsible for engineering and Project development and coordinates with the Mine Manager to ensure overall Project objectives are being managed. Reports to the CEO.
Vice President (VP) Environment & Social Responsibility	The VP Environment & Social Responsibility is responsible for championing the Environmental Policy Statement and EMS, establishing environmental performance targets and overseeing permitting. Reports to the COO.
General Manager (GM) Development	The GM is responsible for managing project permitting, he Project's administration services and external entities, and delivering systems and programs that ensure Artemis's values are embraced and supported, Putting People First, Outstanding Corporate Citizenship, High Performance Culture and Rigorous Project Management and Financial Discipline. Reports to the COO.
Mine Manager	The Mine Manager, as defined in the *Mines Act*, has overall responsibility for mine operations, including the health and safety of workers and the public, EMS implementation, overall environmental performance and protection, and permit compliance. The Mine Manager may delegate some of their responsibilities to other qualified personnel. Reports to the GM.
Construction Manager (CM)	The CM is accountable for ensuring environmental and regulatory commitments/ obligations are being met during the construction phase. Reports to the GM.
Environmental Manager (EM)	The EM is responsible for the day-to-day management of the Project's environmental programs and compliance with environmental permits, updating EMS and Management Plans. The EM or designate will be responsible for reporting non-compliance to the CM, and Engineering, Procurement and Construction Management (EPCM) contractor, other contractors, the Company and regulatory agencies, where required. The EM informs the Environmental Monitors of current site conditions that may influence monitoring programs. Supports the CM and reports to the Mine Manager.
Departmental Managers	Departmental Managers are responsible for implementation of the EMS relevant to their areas. Report to the Mine Manager.

Role	Responsibility
Indigenous Relations Manager	Indigenous Relations Manager is responsible for Indigenous engagement throughout the life of mine. Also responsible for day-to-day management and communications with Indigenous groups. Reports to the VP Environment & Social Responsibility.
Community Relations Advisor	Community Relations Advisor is responsible for managing the Community Liaison Committee and Community Feedback Mechanism. Reports to the Indigenous Relations Manager.
Environmental Monitors	Environmental Monitors (Environmental Specialists and Technicians, including CPESC) are responsible for tracking and reporting on environmental permit obligations through field-based monitoring programs. Report to the EM.
Aboriginal Monitors	Aboriginal Monitors are required under EAC #M19-01 Condition 17 and will be responsible for monitoring for potential effects from the Project on the Indigenous interests. Aboriginal Monitors will be involved in the adaptive management and follow-up monitoring programs. Report to the EM.
Employees and Contractors	Employees are responsible for being aware of permit requirements specific to their roles and responsibilities. Report to Departmental Managers.
Qualified Registered Professionals and Qualified Persons	Qualified registered professionals and qualified persons will be retained to review objectives and conduct various aspects of environmental and social monitoring as specified in Environmental and Social Management Plans.

BW Gold will employ a qualified person as an EM who will ensure that the EMS requirements are established, implemented and maintained, and that environmental performance is reported to management for review and action. The EM is responsible for retaining the services of qualified persons or QRPs with specific scientific or engineering expertise to provide direction and management advice in their areas of specialization. The EM will be supported by Environmental Monitors that will include Environmental Specialists and Technicians and by a consulting team of subject matter experts in the fields of environmental science and engineering.

During the Construction phase, BW Gold will be entering into multiple Engineering, Procurement and Construction contracts, likely for the Transmission Line, Process Plant, Tailings and Reclaim System, and 25 kV Power Distribution. Each engineer/contractor will have their own CM and there will be a BW Gold responsible project manager and/or Superintendent who ultimately reports to the GM Development. Some of the scope, such as the TSF and Water Management Structures will be self-performed by BW Gold, likely using hired equipment. Other smaller scope packages may be in the form of EPCM contracts. The EPCM contractors will report to the CMs who will ultimately be responsible for ensuring that impacts are minimized, and environmental obligations are met during the Construction phase. For non-EPCM contractors, who will perform some of the minor works on site, the same reporting structure, requirements, and responsibilities will be established as outlined above. BW Gold will maintain overall responsibility for management of the construction and operation of the mine site and will therefore be responsible for establishing employment and contract agreements, communicating environmental requirements, and conducting periodic reviews of performance against stated requirements.

The CM is accountable for ensuring that environmental and regulatory commitments/obligations are being met during the construction phase. The EM will be responsible for ensuring that construction activities are proceeding in accordance with the objectives of the EMS and associated management plans. The EM or designate will be responsible for reporting non-compliance to the CM and EPCM contractor, other contractors, and regulatory agencies, where required. The EM or designate will have the authority to stop

any construction activity that is deemed to pose an unacceptable risk to the environment; work will only proceed when the identified risk and concern have been addressed and rectified.

Environmental management during operation of the Project will be integrated under the direction of the EM, who will liaise closely with Departmental Managers and will report directly to the Mine Manager. The EM will be supported by the VP of Environment and Social Responsibility to provide an effective and integrated approach to environmental management and ensure adherence to corporate environmental standards. The EM will be accountable for implementing the approved management plans and reviewing them periodically for effectiveness. Departmental area managers (e.g., mining, milling, and plant/site services) will be directly responsible for implementation of the EMS, management plans, and standard operating procedures relevant to their areas. All employees and contractors are responsible for daily implementation of the practices and policies contained in the EMS.

During closure and post-closure, staffing levels will be reduced to align with the level of activity associated with these phases. Prior to initiating closure activities, BW Gold will revisit environmental and health and safety roles and responsibilities to ensure the site is adequately resourced to meet permit monitoring and reporting. The Mine Manager will maintain overall responsibility for management of Closure and Post-closure activities at the mine site.

Pursuant to Condition 19 of the EAC #M19-01, Conditions A(10)(a-c) of the M-246 *Mines Act Permit*, Condition 3.7 of *Environmental Management Act* Permit #110652, BW Gold has established an Environmental Life of Mine Monitoring Committee (ELoMC) to facilitate information sharing and provide advice on the development and operation of the Project, and the implementation of ELoMC conditions, in a coordinated and collaborative manner. Committee members include representatives of the BC EAO, UFN, LDN, NWFN, StFN, SFN, NFN, BC EMLI, BC ENV, and BC MOF/WLRS.

Pursuant to Condition 17 of the EAC #M19-01, Aboriginal Group Monitor and Monitoring Plan, BW Gold will retain or provide funding to retain a monitor for each Indigenous nations defined in the EAC #M19-01 prior to commencing construction and through all phases of the mine life. The general scope of the monitor’s activities will be related to monitoring for potential effects from the Project on Indigenous nations’ interests.

4.0 Compliance Obligations, Guidelines, and Best Management Practices

4.1 Legislation and Regulations

Federal legislation applicable to invasive plant management includes:

- *Canadian Environmental Protection Act*, 1999;
- *Fisheries Act*;
- *Impact Assessment Act*;
- *Migratory Birds Convention Act*, 1994;
- *Pest Control Products Act*, 2002;
- *Plant Protection Act*;
- *Seeds Act*; and
- *Species at Risk Act*.

Provincial legislation applicable to invasive plant management includes:

- *Declaration on the Rights of Indigenous Peoples Act*;
- *Environmental Assessment Act*;
- *Forest and Range Practices Act*;
  - Invasive Plants Regulation;
- *Integrated Pest Management Act*, 2016;
  - Integrated Pest Management Regulation;
- *Plant Protection Act*;
- *Mines Act*;
  - Health, Safety and Reclamation Code for Mines in British Columbia (Code; EMLI 2022) – Part 10, section 10.7.7 (Re-vegetation);
- *Weed Control Act*;
  - Weed Control Regulation; and
- *Wildlife Act*.

4.2 Environmental Assessment Certificate and Decision Statement Conditions

There are no specific conditions in the EAC pertaining to invasive plants or noxious weeds.

The IPMP addresses Condition 6.8 of the Project's federal DS, which requires: *"The Proponent shall develop and implement measures in consultation with Indigenous groups [Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stellat'en First Nation, Nazko First Nation, Skin Tyee Nation, Tŝilhqot'in Nation, Métis Nation British Columbia, and Nee-Tahi-Buhn Band] to manage invasive species within the Designated Project area"*.

4.3 Existing Permits

BW Gold received *Mines Act* Permit M-246 on June 22, 2021, authorizing early works construction for the Project and received an amended M-246 on March 8, 2023 authorizing the Mine Plan and Reclamation Program for the Project. Condition 13 (Vegetation Management) of Part C (Protection of Land and Watercourses) of the permit outlines requirements related to invasive plant management.

The requirements in the IPMP (and any conditions in the *Mines Act* permit for full mine construction) will incorporate and may amend requirements in Permit M-246 relating to invasive plants and noxious weed management.

4.4 Guidelines and Best Management Practices

Guidelines, best management practices and reference materials related to invasive plant management include:

- Guide to Weeds in British Columbia (BC Ministry of Agriculture 2002);
- Invasive Plant Prevention Guidelines (Clark 2003);
- Invasive Alien Plant Program (IAPP) Reference Guide (BC Ministry of Forest and Range 2010a);
- Pest Management Plan for Management of Vegetation at BC Hydro Facilities #105-980-12/17 (BC Hydro 2012);
- Best Practices for Preventing the Spread of Invasive Plants during Forest Management Activities: A Pocket Guide for British Columbia's Forest Workers, 2013 Edition (BC MFLNRO and ISCBC 2013);
- Best Practices for Managing Invasive Species on Utility Operations: A Pocket Guide for British Columbia's Utility Workers, 2014 Edition (ISCBC 2014).
- Best Practice for Managing Invasive Plants on Roadsides: A Pocket Guide for Maintenance Contractors, 2019 Edition (BC MOTI and ISCBC 2019);
- Northwest Invasive Plant Council Strategic Plan (NWIPC 2015);
- Integrated Vegetation Management Plan for Control of Vegetation at BC Hydro Facilities #--105-985-21/26 (BC Hydro 2021);
- Cariboo Chilcotin Coast Invasive Plant Committee Regional Strategic Plan (CCCIPC 2017);
- Invasive Species Strategy for BC (ISCBC 2017);
- Invasive Plant Pest Management Plan for Provincial Public (Crown) Lands in the Southern Interior of British Columbia (BC FLNRORD 2019);
- Field Guide to Noxious Weeds and Other Selected Invasive Plants of British Columbia (ISCBC 2021); and
- Invasive Alien Plants Pest Management Plan on Provincial Crown Lands in Central and Northern British Columbia, and the Invasive (BC FLNRORD 2015).

5.0 Adaptive Management Framework

The IPMP is a living document that will evolve over time in response to monitoring results and regulatory changes. The Plan incorporates adaptive management as follows:

- **Plan**
  - Prepare SOP (standard operating procedure)
- **Do**
  - Implement IPMP and SOP
  - Implement training
  - Manage invasive plants
- **Monitor**
  - Implement monitoring
  - Review and update species lists, and maps annually based on review of provincial priority list/CCCIPC Regional Strategic Plan
  - QA/QC monitoring records
- **Adjust**
  - Review / update SOP as required
  - Review effectiveness of best management practices
  - Update IPMP as required

6.0 Training and Awareness

Employees and contractors will receive training in vegetation management on their arrival on site and prior to the start of work as part of the Site Orientation. The purpose of this training is to provide all site personnel with a basic level of environmental awareness and an understanding of their obligations regarding compliance with regulatory requirements, commitments, and best practices. Training will be delivered by means of classroom instruction, toolbox/tailgate meetings or other means as appropriate.

Site managers will be provided with a copy of the IPMP and targeted invasive plant management training will be provided to mine personnel responsible for vegetation management following the Best Practices for Preventing the Spread of Invasive Plants During Forest Management Activities: a Pocket Guide for British Columbia's Forest Workers, 2013 Edition (BC FLNRORD & ISCBC 2013) and copies of the guidebook will be provided to employees. Invasive plant lists and species profiles (Appendices B, C, and E), and maps of known occurrences at or near the mine site will be made available to personnel. Any updates to invasive plant lists and maps will also be made available.

BW Gold will review and update the training and awareness documentation based on changes in training needs and regulatory requirements annually. This will include updates to plant lists and maps as required and other methods such as posting awareness notices in common areas in the camp and offices.

7.0 Baseline Invasive Plants Summary

Known invasive plant locations are provided on Figure 7-1. Invasive plant baseline studies were completed by AMEC in 2011 to 2013 (Appendix 5.1.3.3A in New Gold 2015), and again in 2022 (ERM 2023). Field surveys found one invasive plant species, yellow salsify (Tragopogon dubius; Appendix B), on the southern boundary of the mine site and orange hawkweed (Hieracium aurantiacum; Appendix C) was identified just outside the LSA along the Klusus FSR northeast of the junction of the Mine Access Road (AMEC 2013), and at the northern end of the T/L. The CCCIPC Regional Strategic Plan recommends that yellow salsify "…be monitored to ensure [it] do[es] not become a serious concern." (CCCIPC 2017; MacKenzie 2012) and is considered invasive in the neighbouring Bulkley-Nechako Regional District (NWIPC 2012). Orange hawkweed is designated as a noxious weed in the CRD and Bulkley-Nechako Regional District under the Weed Control Regulation. There has been no treatment of yellow salsify or orange hawkweed within the mine site.

During the 2022 baseline inventory, 79 invasive plant transects were established throughout the LSA identifying seven invasive species recognized as either noxious, regional priority, or invasive species of concern. These include orange hawkweed (*Hieracium aurantiacum*), yellow hawkweeds (*Pilosella* spp. and *Hieracium* spp.), oxeye daisy (*Leucanthemum vulgare*), Canada thistle (*Cirsium arve*nse), creeping buttercup (*Ranunculus repens*), foxtail barley (*Hordeum jubatum*), and common (or yellow) toadflax (*Linaria vulgaris*). Additional nuisance species such as hawksbeard (*Crepis* sp.), common groundsel (*Senecio vulgaris*), white campion (*Silene latifolia*), tall buttercup (*Ranunculus acris*), and dock species (*Rumex* sp.) were also identified.

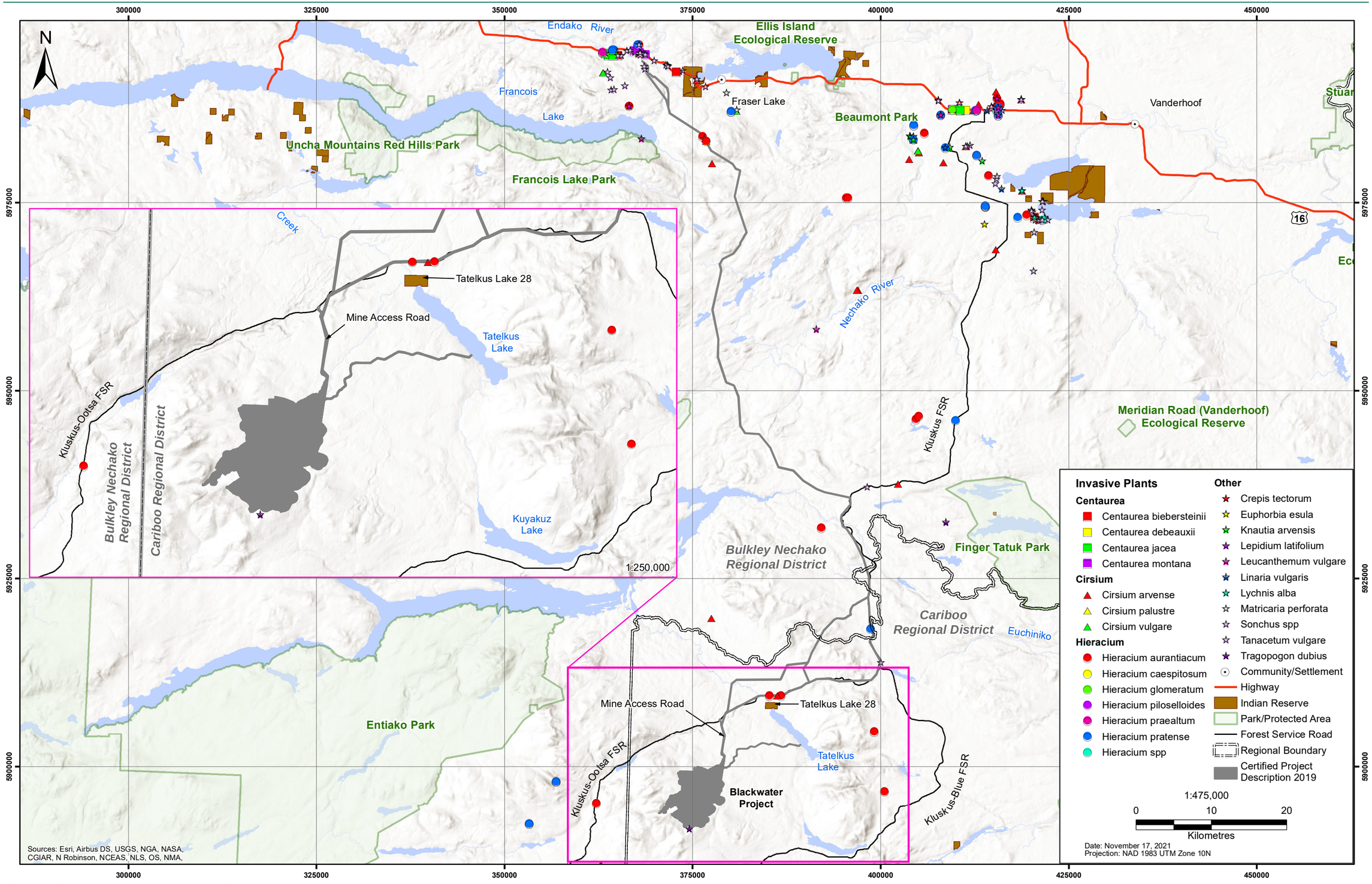


Figure 7-1: Known Invasive Plant Locations

8.0 Implementation

Invasive plant species thrive in recently disturbed areas where there is little shade or competition from other plant species; therefore, minimizing ground disturbance reduces the opportunity for invasive plant establishment (Clark 2003; Polster 2005).

Invasive plants may be introduced and spread throughout the life of the Blackwater mine. The Project's construction activities will generate the largest initial ground disturbances and create suitable conditions for both the introduction and establishment of invasive plants. During Operations, vehicles and machinery are common transport and dispersal mechanisms for invasive plants. The location and type of invasive plants located near site identified during baseline studies is provided in Figure 7-1. These species have the highest likelihood of being inadvertently spread on site because of their existing proximity to site. Invasive plants can also be found in seed mixes used for reclamation purposes, although this risk is low with certified 100% weed-free seed mixes. This section identifies measures and best management practices to prevent the spread of invasive plants and noxious weeds through all phases of the Project. Prior to commencement of Project construction, an SOP for invasive plant management will be finalized to provide direction for BW Gold employees and contractors. The SOP will be finalized with input from Indigenous Nations, EPCM and other contractors.

8.1 General Management Measures

The following measures will be implemented to prevent the introduction of invasive plant species:

- Employees and contractors will use project-designated roads and established pull-outs.
- Earth moving equipment and trucks are expected to be clean and free of soil and vegetation when they arrive on the mine site.
- Site Security will perform a visual inspection at the gate house for cleanliness (free of excessive dirt and debris above and beyond that reasonably expected from transport to site) on all earth moving equipment and vehicles upon arrival to the mine site. If debris (e.g., visible dirt and plant material) is observed on earth moving equipment or vehicles they will either be turned back for cleaning or cleaned on site at designated cleaning area (see Section 8.2.1). The driver will be directed to perform a final inspection to check that no clods of dirt are visible and radiators, grills and the vehicle interior are free of mud or plant material.
- Any employees/contractors coming from offsite will be expected to arrive fit for duty with clean equipment, boots, and clothes. Boot brushes will be available at offices/site entrances for employees to clean off their boots prior to entry. These areas will be monitored for invasive plants as part of the routine monitoring program (Section 9). If invasive species or noxious weeds are observed at designated cleaning stations, appropriate treatment methods will be applied as indicated in Section 8.2.2. If debris is noted on clothing while working in or prior to leaving an infested area, it will be brushed off within infested area before leaving. Debris are defined as plant material, seeds, or clods of dirt that may contain invasive plant seeds or propagules. Cleaning of debris from clothing will occur away from natural watercourses and native vegetation to minimize the spread of invasive species.
- Through onboarding training, ensure to inspect clothing and vehicle/equipment undercarriages for seeds and plant tissue when working in, and prior to leaving, areas known to contain invasive plants in accordance with the Invasive Plant Management SOP.
- Minimize clearing dimensions during construction to limit ground disturbance, specifically in areas with, or nearby, known invasive plant infestations.

- Minimize ground and soil disturbance and vegetation removal, including along road edges and outside work areas.
- Restrict equipment and vehicle use to Project roads, trails and pullouts through a combination of training, mapping and signage.
- Stabilize exposed soils and consider the drainage and gradient, length of time that areas would be left exposed to evaluate the need to re-seed with native seed mix, in accordance with the RCP.
- Minimize soil erosion and degradation through adherence to the SEPSCP. If straw bales are used for erosion control, only certified weed-free straw will be used.
- Maintain newly disturbed sites free of invasive plants in accordance with the Invasive Plant Monitoring SOP.
- Maintain equipment storage areas free of invasive species in accordance with the Invasive Plant Management SOP.
- Equipment and vehicles will not be parked in infested areas.
- Inspect clothing and vehicle/equipment undercarriages when working in, and prior to leaving, areas known to contain invasive plants.
- In accordance with the RCP and SMP, salvage topsoil during construction and operations. Topsoil will not be stockpiled or stored in areas containing invasive plant species.
- To re-vegetate roadways, use species that prevent erosion and are not wildlife attractants to prevent the establishment of invasive plants in accordance with the IPMP. Wildlife attracting species include legumes (family Fabaceae), brome (*Bromus* sp.), alfalfa (*Medicago sativa*), annual rye (*Lolium multiflorum*), barley (*Hordeum vulgare*), timothy (*Phleum pretense*), alpine bluegrass (*Poa Alpina*), and American sloughgrass (*Beckmannia syzigachne*) (Matheus & Omtzigt 2013).
- Stabilize exposed soils and promptly re-seed with native seeds mix and monitor to confirm effective vegetation recolonization.

The RCP provides details on revegetation including vegetation sources and planting density as well as the associated monitoring program. After revegetation, vegetation will be monitored for invasive plants for up to three complete growing seasons depending on the risk of invasive plants spread and establishment, proximity to known invasive plant populations, and success of revegetation.

8.2 Working in Infested Areas

If invasive plants are identified on the site, the following measures will be implemented.

8.2.1 Vehicle and Equipment Cleaning

Trucks and equipment are expected to be clean upon arrival at site. The EM or designate will inspect earth moving equipment and trucks when they arrive at site and direct cleaning if required.

Cleaning will be in designated areas using high pressure power washers. Water will be contained to remove seeds and propagules to prevent dispersion of invasive plants on the mine site. The specific methods to contain water and/or filter to remove seeds and propagules will likely be the use of a catchment/filtration area and potentially use of filter cloth. Wash water will be directed towards a sump which will be periodically cleaned out, with the waste being placed in a location that would prevent seeds from germinating (e.g., deep burial, placement in the TSF or other means). The specific method will be

determined when designated cleaning areas are assigned by the Environmental Manager to meet the requirements of the IPMP.

After working in areas with known infestations, vehicles and earth moving equipment will also be cleaned using similar methods to those noted above, within a portable containment structure at the infested site. Equipment cleaning will be located outside any Riparian Management Area in accordance with the Riparian Area Management SOP Vehicles will be washed 30 m away from watercourses and areas of vegetation, wash water be collected (and not disposed). Cleaning will be done in an area where contamination and seed spread is limited, such as a mud-free, gravel, concrete, or other hard surface. Truck wash water will be collected and decontaminated at a central location. Employees will inspect vehicle and equipment to ensure mud, soil, vegetation, and debris is removed and left at the site of infestation.

If vehicles or earth moving equipment can be confirmed as causing the spread of invasive plants or are working in areas of known infestations the following may be implemented, subject to the direction of a qualified person: a quarantine area may be established to block access to the infested area, treatment and control measures in the quarantine area, and use of portable wash stations.

8.2.2 Treatment and Control Measures

When invasive plants are identified on site, the CCCIPC or an appropriate authority will be consulted to determine the optimal approach for management. The CCCIPC is considered the primary authority to consult, however others such as the Inter-Ministry Invasive Species Working Group or Indigenous groups or ENV may be consulted and will be dependent on the invasive species. Qualified Professionals may also be consulted on the appropriate treatment methods. Treatments will align with the Invasive Alien Plants Pest Management Plan for Provincial Crown Lands in Central and Northern British Columbia. For each species, a treatment plan and management objective (see Table 8.2-1) will be established, which may include:

- Eradication: completely remove all individuals of invasive plant species. This objective is typically applied to species that occur in limited distributions.
- Containment: limit the extent of an infestation and prevent spread to un-infested areas or areas of high value, such as undisturbed or revegetated areas. This objective is typically applied when infestations are established but not widespread.
- Control: focus control efforts on high value areas such as native or revegetated areas. This objective is typically applied when established infestations are widespread.

The following criteria will be considered to determine the appropriate treatment:

- The status of the species- EDRR, high priority, and regulated noxious weeds receive higher priority for treatment (Table 8.2-1), with the intent to eradicate.
- The potential to eradicate the species from the site – limited infestations have a higher probability of eradication and receive higher priority for treatment; and
- The risk to native communities, sensitive ecosystems, and revegetated areas – infestations located in, or threatening these areas receive higher priority for treatment.

Table 8.2-1: Provincial Priority Invasive Plant Definitions and Management Objectives

Definitions	
Prevent	Species determined to be high risk to BC and not yet established. Management objective is to prevent the introduction and establishment.
Provincial EDRR	Species is high risk to B.C. and is new to the Province. Management objective is eradication.
Provincial Containment	Species is high risk with limited extent in B.C. but significant potential to spread. Management objective is to prevent further expansion into new areas with the ultimate goal of reducing the overall extent.
Regional Containment/ Control	Species is high risk and well established, or medium risk with high potential for spread. Management objective is to prevent further expansion into new areas within the region through establishment of containment lines and identification of occurrences outside the line to control.
Management	Species is more widespread but may be of concern in specific situations with certain high values (e.g., conservation lands, specific agriculture crops). Management objective is to reduce the invasive species impacts locally or regionally, where resources are available.

Source: BC Inter-Ministry Invasive Species Working Group, 2021

8.2.2.1 Injury Levels and Treatment Thresholds

The Integrated Pest Management Regulation defines the injury threshold as “the point at which the abundance of pests and the damage they are causing or are likely to cause indicates that pest control is necessary or desirable.” It is only when invasive plant species have expanded to a large area and rehabilitation of critical habitats and other values are contemplated that injury thresholds as defined under the Regulation are considered.

Section 58 of the Integrated Pest Management Regulation identifies requirements for pest management plans, which must include injury thresholds that will be applied in deciding whether a pesticide treatment is necessary and an explanation of how the thresholds were chosen, and how the thresholds will be applied. Injury thresholds will be determined on a case-by-case basis by considering the following factors (BC MFLNRO 2019):

- Species distribution within a defined area;
- Invasiveness (threat) of the invasive plant species;
- Susceptibility and significance of adjacent habitats that may be invaded or threatened;
- Density of the plants and the potential for the species to become dense; and
- Feasibility and costs of managing the invasive species on site.

Injury levels and treatment thresholds will consider the priority ranking of the species (Table A-3 in Appendix A) and site prioritization. Site prioritization will follow guidelines established by NWIPC (Table 8.2-2).

Table 8.2-2: Site Prioritization of Invasive Plant Species Infestations

Priority		Purpose or Intent
1	Extremely High Opportunity for Control	To stop the spread of invasive plants threatening currently un-infested, highly susceptible areas. These sites are less than or equal to 0.25 ha and there is a good expectation of control. This priority also includes sites that are threatening a large neighbouring economic base, for example, seed and other high value crops.
2	High Opportunity for Control	To stop the enlargement of sites in highly susceptible areas. These sites are less than or equal to 0.5 ha. Must have a reasonably good expectation of control.
3	Moderate Opportunity for Control	To stop the enlargement of sites greater than or equal to 0.5 ha in highly susceptible areas, or less than or equal to 0.5 ha in moderately susceptible areas.
4	Low Opportunity for Control	To stop the enlargement/contain sites greater than 0.5 ha in moderately susceptible areas.

Source: NWIPC 2015

8.2.2.2 Treatment Options

Potential treatment options for invasive plant species include mechanical, cultural control, biological control, or through a combination of these methods, as discussed below. The management objective, biology and ecology of the species, size of the infestation, and site conditions determine the appropriate treatment for an invasive plant species. Integrating more than one control strategy is often more effective than using a single treatment approach, and repeated treatments are often required for the successful management of invasive plants (BC FLNRORD 2019; Polster 2005).

Given the risks and potential impacts to human health and indigenous plants and wildlife, the use of pesticides (including herbicides) on LDN Territory requires consent from the LDN Chief and Council (see Appendix G for requirements of the scope work to be completed). The LDN policy also indicates that chemical treatment for invasive plant management will not be considered within 100 m of identified harvesting areas (e.g., berry patches, medicinal plants, or traplines) or 100 m of riparian areas. In addition to LDN (Appendix G), other Indigenous groups have communicated to BW Gold that chemical treatment (i.e., herbicide application) is not an acceptable method for the purpose of invasive plant management (see Appendix G for herbicide bans from Nadleh Whut'en First Nation, Saik'uz First Nation, and Stellat'en First Nation). The Project is within the overlapping Traditional Territories of Indigenous nations; therefore, BW Gold will conform to all Indigenous nation policies and has not included chemical treatment as one of the options for invasive plant management in this plan. However, in the case that a Qualified Professional has identified that chemical treatment may be the only effective invasive plant management option available for an infestation (i.e., all other treatment options have proven ineffective), BW Gold will look to Indigenous nations for approval of limited herbicide use for the specific infestation in their Traditional Territory. Prior to the use of herbicide use, BW Gold would develop a treatment plan detailing the requirements listed in the LDN herbicide use policy (for approval from the LDN Chief and Council) as well as mitigation measures for spray drift, run off, herbicide carryover, damage to non-target species, and operator error. In addition, the herbicide selection and application methods will be informed by consultation with Indigenous nations and CCCIPC as well as site conditions, target species and treatment objectives. Herbicide application would comply with BC's *Integrated Pest Management Act* and be documented using the BC MFLNRO Invasive Plant Chemical & Mechanical Treatment Record (BC MOFR 2010b). Pesticides would be purchased from a licensed vendor and only be applied by those with training and certification.

Mechanical Control

Mechanical controls include removal via hand pulling/hand cutting/digging (all bagged and removed from site), mowing, and revegetation (Table 8.2-3). This method of control is appropriate for infestations with few plants covering a small area or areas where herbicide application is prohibited or impractical. It may not be a suitable method for some species (e.g., rhizomatous species) where mechanical removal stimulates growth. During removal, all of the plant, including flowers, branches, roots, or seeds needs to be removed and properly disposed of to prevent spread to new areas. Disposal methods may vary by species and could include burning (including in incinerator), deep burial in a landfill, or bagging. In remote areas, the CCCIPC recommends bagging flowers/seeds for disposal and leaving uprooted plant parts to dry out and decay (CCCIPC 2021). Ideally, removed plants will be moved directly to disposal areas, minimizing the need for any temporary storage locations and rehandling.

Table 8.2-3: Mechanical Control Methods for Invasive Plants

Method	Effective Time	Efficiency	Equipment Required
Collecting and bagging	Before plants flower or shed seed	Removes seeds, effective for annual and biennial invasive plants, requires treatment over multiple years.	Bags, gloves
Hand cutting or mowing	Early season before plants flower or set seeds	Effective on annual or biennials, kills individuals and prevents seed production.	Sickle, weed-whacker
Hand pulling or digging	After the plants have bolted in the spring and prior to flowering and production of seed	Less effective on perennials or species with extensive root systems.	Gloves, shovels
Re-vegetation and seeding	Late fall is best, otherwise early spring	Does not control plants, rather it has the potential to reduce spread and density	Appropriate seed, sowing method

Source: Modified from CCCIPC 2017

Cultural Control

Cultural control involves the manipulation of practices to increase the mortality or decrease the rate of damage of invasive plant species. Methods of cultural control include using targeted grazing, mulching, and revegetation.

Targeted grazing uses farmed animals (e.g., cattle, goats, or sheep) for invasive plant control to retard plant development and seed formation, and gradually deplete root reserves through continuous grazing. This may be a feasible option if farmed animals are readily available, and in areas where mechanical control methods cannot be used. Limitations and challenges of targeted grazing include the potential removal of desirable plant species due to the non-selective nature of grazing, the necessity of multiple treatments, additional soil disturbance and compaction, conflicts with wildlife populations (i.e., predation, disease transmission), stimulated vegetative growth and spread of some invasive plant species, infrastructure to contain livestock, and transportation costs (BC FLNRORD 2019).

Using a thick layer of mulch can block sunlight, smother seedlings and shorter vegetation, and prevent seed germination and growth. An effective method for controlling dense groundcover species is to use a layer of cardboard followed by a layer of thick organic mulch. Water holes can be created where water

pools above the mulch. The cardboard will compost in situ, and the organic mulch will decompose and add beneficial nutrients to the soil (Manning and Miller 2011). Mulching can also be used where invasive species have been removed if there is a delay between removal and revegetation.

Revegetation of disturbed areas or areas infested with invasive plant species will encourage a plant community composed of desired species, and the eventual re-establishment of a self-sustaining and resilient ecosystem. Considerations to include when revegetating an area to control invasive species include seed or plant availability of species appropriate to and locally-adapted to the site, timing of seeding/planting, soil conditions, precipitation for establishment, and if site preparation is required (BC FLNRORD 2019).

Biological Control

Biological control involves using living organisms to control pest populations. Biological control agents are usually insects that attack or weaken target invasive species, reducing the competitive ability and population density of the target species over time. Biological control agents are suitable for use in pesticide-free zones or for widespread infestations where mechanical or chemical control would be inefficient or ineffective. However, biological control methods may be slow to take effect, and do not currently exist for all invasive plant species (BC FLNRORD 2019). BW Gold currently does not plan to implement biological control for any of the known invasive plant species that are currently found on or near the mine site. If, in the future, observed species are best controlled via biological controls, BW Gold will engage the Cariboo Chilcotin Coast Invasive Plant Committee and Invasive Species Council of BC for their recommended treatment program and required approvals.

9.0 Monitoring

Invasive plant surveys will be conducted by appropriately qualified Environmental Monitors, under the direction of the BW Gold EM, and in accordance with IAPP standardized methods. The monitoring program will assess:

- The regeneration success of re-vegetated of areas to ensure invasive species have not become established;
- Specific locations where invasive species have been previously identified and the extent of plant populations; and
- The effectiveness of treatments, where control activities were undertaken.

Baseline information related to invasive plants will be updated based on monitoring results. Any changes to invasive plant species will be reflected in annual updates to the IPMP.

Table 9-1 describes the invasive species monitoring program.

The IAPP Site & Invasive Plant Survey Record form (Appendix F) will be used to document species, location, population distribution types and densities, and total area affected.

Most monitoring activities will occur between late spring and early summer (Table 9-1). The timing of the surveys will be determined by the EM (or designated qualified person) based on plant phenology (e.g., timing of biological activities such as flowering, propagation, and seed dispersion). A minimum of two weeks between treatments will be observed (BC MOFR 2010a). Treatments applied after flowering (autumn) will involve the removal and disposal of seed heads to an appropriate waste disposal location.

If invasive plants are observed, surveyors will record the GPS location, take photographs, and if needed to confirm the invasive plant species, collect a sample (bag and label). If invasive species or noxious weeds are observed, the Environmental Monitor will report to the EM who will designate a qualified professional to select the appropriate treatment method, oversee the treatment, conduct follow-up monitoring to document treatment efficacy, and document and report the activities, findings, and recommendations to the EM. The EM will consult Aboriginal Groups, ENV and CCCIPC on the treatment method. If herbicide treatment is required, it will be applied before the flowering stage (early spring) when plants are most susceptible (BC MOFR 2010b).

Quality assurance and quality control (QA/QC) will be followed during monitoring. Field data sheets will be used to standardize data collection. All data will be transferred to a database and will be reviewed prior to finalization to ensure all necessary information is provided. A Qualified professional will be consulted on development and any modifications to the monitoring program and mitigation measures, in addition to decisions on treatment methods to be used for invasive plant management.

Table 9-1: Invasive Plant Monitoring Program

Monitoring Activity	Description	Frequency	Timing and Duration
Pre-clearing visual surveys within confirmed clearing boundaries	• Pre-clearing survey completed to determine presence of invasive species. • For each invasive plant observation, photograph, record GPS location.	Variable	• Prior to clearing occurring.
Known locations of invasive plant species (Figure 7-1)	• Investigation by qualified person to assess treatment control requirements. • Monitor areas proximate to known sites (in areas of disturbance within 500 m of the known infestation areas) to confirm/refute spread.	Monthly (during the growing season)	• Early Spring 2022 – investigate to determine treatment. • Continue monthly monitoring (during the growing season) until treatment has been confirmed to be effective.
Junction of Mine Access Road and Kluskus-Ootsa FSR	• Monitor to assess if invasive plant species have infested these areas due to transportation by equipment or workers, or disturbance from cleaning activities. • If observed, qualified person assesses site and determines treatment and control measures. • Record observations and update records using the IAPP Site & Invasive Plant Survey Record. Any new observations reported to the EM immediately. New observations entered into IAPP's "Report Invasives" Program, a provincial online mapping and reporting tool, by the EM or designate. • The junction is a priority monitoring area because it is the transition area from the Klukus-Ootsa FSR (i.e., not BW Gold-controlled) to the mine access road (i.e., BW Gold-controlled) and an area for early detection before plants encroach up the mine access road.	Monthly (during the growing season)	• Continue annually until treatment has been confirmed to be effective.

Monitoring Activity	Description	Frequency	Timing and Duration
Exploration Access Road	• Once decommissioned, monitor to assess if invasive plant species have infested these areas due to transportation by equipment or workers, or disturbance from decommissioning activities. • If observed, qualified person assesses site and determines treatment and control measures. • Record observations and update records using the IAPP Site & Invasive Plant Survey Record. Any new observations reported to the EM immediately. New observations entered into IAPP's "Report Invasives" Program, a provincial online mapping and reporting tool, by the EM or designate.	Annual	• Revegetated areas will be monitored before plants produce seeds that year (e.g., late spring-early summer). • Disturbed areas that have not yet been revegetated will be monitored in the late spring-early summer before plants produce seed. • Monitor for up to three complete growing seasons depending on the risk of invasive species spread and establishment, proximity to known invasive plant populations, and success of revegetation in accordance with the RCP.
Mine Access Road	• Monitor to assess if invasive plant species have infested these areas due to transportation by equipment or workers, or disturbance from cleaning activities. • If observed, qualified person assesses site and determines treatment and control measures. • Record observations and update records using the IAPP Site & Invasive Plant Survey Record. Any new observations reported to the EM immediately. New observations entered into IAPP's "Report Invasives" Program, a provincial online mapping and reporting tool, by the EM or designate.	Monthly (during the growing season)	• Continue annually until treatment has been confirmed to be effective.
Disturbed areas (roads, trails, etc.), cleared and revegetated areas	• Monitor revegetated sites to assess the effectiveness of revegetation activities where applicable, and that invasive species have not become established during the growing season. • Record observations and update records using the IAPP Site & Invasive Plant Survey Record. Any new observations to be reported to the EM immediately. New observations entered into IAPP's "Report Invasives" Program, a provincial online mapping and reporting tool, by the EM or designate.	Annual	• Revegetated areas will be monitored before plants produce seeds that year (e.g., late spring-early summer). • Disturbed areas that have not yet been revegetated will be monitored in the late spring-early summer before plants produce seed. • Monitor for up to three complete growing seasons depending on the risk of invasive species spread and establishment, proximity to known invasive plant populations, and success of revegetation in accordance with the RCP.

Monitoring Activity	Description	Frequency	Timing and Duration
Treated areas	• Monitor effectiveness of treatment and controls, and record using the IAPP treatment monitoring forms. • If treatment and control methods are not successful, decide on other treatment and control and implement. • Monitor area within 100m of the treatment area for spread.	Bi-weekly observations between treatments to assess efficacy of selected treatment	• During the same growing season for areas treated in the same year before the target invasive species produce seeds. Specific timing will depend on the target species. • For areas treated in the previous year, monitoring will occur in the summer. • Monitoring will continue annually until treatment has been confirmed to be effective.
Truck washing bay, other designated cleaning areas, mine site entrance, equipment yards, and storage areas, Operations camp parking lot	• Monitor to assess if invasive plant species have infested these areas due to transportation by equipment or workers, or disturbance from cleaning activities. • If observed, qualified person assesses site and determines treatment and control measures. • Record observations and update records using the IAPP Site & Invasive Plant Survey Record. Any new observations reported to the EM immediately. New observations entered into IAPP's "Report Invasives" Program, a provincial online mapping and reporting tool, by the EM or designate.	Annually	• Late spring-early summer before plants produce seed for the duration of the Project.
Newly disturbed areas and not yet vegetated	• Monitor for presence of invasive species. • If observed, qualified person assesses site and determines treatment and control measures. • Record observations and update records using the IAPP Site & Invasive Plant Survey Record. Any new observations to be reported to the EM immediately. New observations entered into IAPP's "Report Invasives" Program, a provincial online mapping and reporting tool, by the EM or designate.	Annually	• Late spring-early summer before plants produce seed. • Six weeks prior to disturbance if not recently surveyed.

10.0 Reporting and Record Keeping

10.1 Reporting

Reporting is the responsibility of BW Gold's EM, with delegation as necessary to appropriate personnel. Consultants and contractors hired to implement aspects of the monitoring programs will be suitably qualified professionals or qualified persons.

10.1.1 Incidental Observations

Incidental observations of invasive plant species in the field will be flagged, photographed and recorded as follows:

- Type of observation (e.g., if suspected invasive species);
- Project area (UTM coordinates if possible);
- Date of observation; and
- Name of observer.

Incidental observations will be recorded using a standard field data sheet and submitted to the EM daily. The EM will follow up on incidental observation reports within one week. If there is a new invasive plant observation, the EM will complete an IAPP report (see Appendix F).

10.1.2 Annual Reclamation Report

Vegetation monitoring and management activity will be reported in the Annual Reclamation Report (ARR) (EMLI 2021b; 2022). The ARR will be submitted to EMLI and provided to Aboriginal Groups on or before March 31 each year. The ARR will provide a summary of monitoring results and describe mitigation measures, including treatments applied and the next year's monitoring program. If treatment is applied, the ARR will provide details of how, where, when, treatments type and method (e.g., hand-picking) were applied in addition to follow-up monitoring completed or to be completed to assess the efficacy of the treatment plan. If herbicide treatment is applied, BW Gold will provide the follow-up report provided by the contractor in accordance with BC's *Integrated Pest Management Act.*

10.2 Record Keeping

The EM is responsible for data management, reporting and records related to the IPMP. Data will be entered into suitable electronic databases (consideration will be given to programs such as Microsoft Access or SAP) and provided to IAPP via an IAPP report (provided in Appendix F). Quality control checks will be performed by a senior member of the environment team upon receipt of results. Data will be entered in a format and program(s) (such as Microsoft Excel or R Project) that allows for comparison between years and be stored in a single file format for each type of survey or monitoring activity. Monitoring data will be stored for 25 years beyond decommissioning and be made available for review upon request for regulatory inspections and for auditing purposes. The EM will report key results of invasive plant monitoring to the Blackwater Environment Committee and Indigenous Groups during routine meetings.

QA/QC will be followed during monitoring. Field data sheets will be used to standardize data collection. All data will be transferred to a database and will be reviewed prior to finalization to ensure all necessary information is provided.

The EM is responsible for data management, reporting and records related to invasive plants. The EM will report key results of invasive plant monitoring to the Blackwater Environment Committee and Aboriginal Groups during routine meetings. Monitoring data will be entered into an electronic database and have quality control checks completed upon receipt of results. Data will be entered into a standard format that allows for data reporting and analyses. Data and data comparisons will be stored in a single file format for each type of survey or monitoring activity. Monitoring data will be stored for the life of the mine and will be made available for review upon request. Changes to invasive plant species will be recorded and reported annually in the Blackwater Project Annual Reclamation Report.

11.0 Evaluation and Adaptive Management

The IPMP objective is to promptly detect, inventory, monitor and manage invasive plants. In the event, a new invasive species is discovered on the mine site, adaptive management will be implemented and would include:

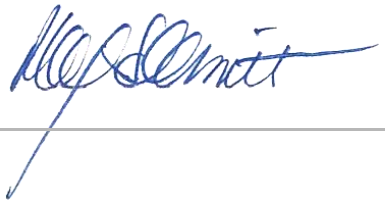
- Confirm species taxonomy by engaging a qualified professional;
- Source management monitoring, determine the extent of the plant distribution;
- Determine the treatment plan in consultation with Aboriginal Groups, CCCIPC and ENV;
- Implement the plan; and
- Monitor treatment effectiveness.

12.0 Plan Revision

The IPMP is a “living” document and it will be reviewed annually at a minimum through the ELoMC request for review. Changes to the IPMP, including additions or updates to site specific ESC prescriptions, mitigation measures or monitoring programs, will be driven largely by revisions to discipline-specific management plans. Proposed changes will be documented via the provision a change log document including rationale for changes, which will be provided at the same time (where possible) or following resubmission of the IPMP. Revised versions of the IPMP will be dated, version controlled, signed and filed with EMLI through Mine Space, the Environmental Assessment Office via and Aboriginal Groups via email and posted to BW Gold’s Project website in accordance with EAC Condition 42(c). Upon submissions of updated Management plans, reviewers will be invited to share and direct any comments, questions, or concerns on the IPMP updates through the ELoMC. Regular presentations of implementation of management plans including the IPMP will also be provided to reviewers per the ELoMC annual schedule of topics/development of monthly meeting agendas.

13.0 Qualified Professionals

This management plan has been prepared and reviewed by the following qualified registered professionals:

Reviewer Role	Name	Signature	Date
Prepared by:	Shannon Seahra, Ph.D. Consultant II, ERM		16 June 2023
Reviewed by:	Rolf Schmitt, P.Geo. Technical Director		16 June 2023

14.0 References

Definitions of the acronyms and abbreviations used in this reference list can be found in the Acronyms and Abbreviations section.

Legislation

Canadian Environmental Protection Act, 1999, SC 1999, c. 33.

Declaration on the Rights of Indigenous Peoples Act, SBC 2019, c. 44.

Environmental Assessment Act, SBC 2018, c. 51.

Fisheries Act, RSC 1985, c. F-14.

Forest and Range Practices Act, SBC 2002, c. 69.

Impact Assessment Act, RSC 2019, c. 28.

Integrated Pest Management Act, SBC 2003, c. 58.

Integrated Pest Management Regulation, BC Reg. 604/2004.

Invasive Plants Regulation, BC Reg. 18/2004.

Migratory Birds Convention Act, 1994, SC 1994, c. 22.

Mines Act, RSBC 1996a, c. 293.

Pest Control Products Act, SC 2002, c. P-10.

Plant Protection Act, SC. 1990, c. 22

Seeds Act, RSC 1985, c. S-8.

Species at Risk Act, SC 2002, c. 29.

Weed Control Act, RSBC 1996b, c. 487.

Weed Control Regulation, 2011 BC Reg. 66/85.

Wildfire Act, SBC 2004, c. 31.

Wildlife Act, RSBC 1996c, c. 488.

Wildfire Regulation, SBC 38/2005.

Secondary Sources

AMEC. 2013. *Blackwater Gold Project Application for an Environmental Assessment Certificate / Environmental Impact Statement Assessment of Potential Environmental Effects.* Appendix 5.1.3.3A Vegetation 2011 – 2013 Baseline Report. Burnaby BC.

BC EAO. 2019a. *Assessment Report for Blackwater Gold Mine Project (Blackwater) With respect to the Application by New Gold Inc. for an Environmental Assessment Certificate pursuant to the Environmental Assessment Act*, S.B.C. 2002, c.43. Prepared by the Environmental Assessment Office. May 17, 2019.

BC EAO. 2019b. *Summary Assessment Report for Blackwater Gold Mine Project (Blackwater) With respect to the application by New Gold Inc. for an Environmental Assessment Certificate pursuant to the Environmental Assessment Act*, S.B.C. 2002, c. 43.BC EAO. 2019c. *In the matter of the Environmental Assessment Act S.B.C. 2002, c. 43 (the Act) and in the matter of an Application for an Environmental Assessment Certificate (Application) by New Gold Inc. (Proponent) for the Blackwater Gold Project Environmental Assessment Certificate #M19-01.*

BC EAO. 2019c*. In the matter of the Environmental Assessment Act S.B.C. 2002, c. 43 (the Act) and in the matter of an Application for an Environmental Assessment Certificate (Application) by New Gold Inc. (Proponent) for the Blackwater Gold Project Environmental Assessment Certificate #M19-01.*

BC EMPR & ENV. 2019. *Joint Application Information Requirements for Mines Act and Environmental Management Act Permits*. Province of BC. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/permitting/2019_09_24_joint_application_information_requirements.pdf

BC EMLI. 2022. *Health, Safety and Reclamation Code of Mines in British Columbia.* https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/health-and-safety/code-review/health_safety_and_reclamation_code_apr2021.pdf

BC EMLI. 2022. *Mines Act Permit Reclamation Report: General Information and Format Requirements*. Revised December 2022. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/reclamation-and-closure/annual-reclamation-reports-supporting-files/2022_annual_reclamation_report_-_format_requirements.pdf

BC FLNRORD and ISCBC. 2013. *Best Practices for Preventing the Spread of Invasive Plants during Forest Management Activities: A Pocket Guide for British Columbia's Forest Workers.* 2013 Edition. BC Ministry of Forests, Lands and Natural Resource Operations and Invasive Species Council of BC. https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/forestry-bp-09-11-2013-web.pdf

BC FLNRORD. 2015. *Invasive Alien Plants Pest Management Plan on Provincial Crown Lands in Central and Northern British Columbia*. Revised April 2021. https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/pest-management/south_coastal_mainland_pmp_2016_update_2020.pdf

BC FLNRORD. 2019*. Invasive Plant Pest Management Plan for Provincial Crown Lands in the Southern Interior of British Columbia*. Revised April 2021. https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/pest-management/flnrord_southern_interior_pmp_402-0678-1924_2019_to_2024.pdf

BC FLNRORD. 2021. *Invasive Alien Plant Program (IAPP) Database & Map Display*.

BC Hydro. 2021. *Integrated Vegetation Management Plan for Control of Vegetation at BC Hydro Facilities*. BC Hydro. Burnaby BC. Integrated Vegetation Management Plan For Control of Vegetation Within Transmission Rights of Way (bchydro.com)

BC IMISWG. 2014. *Invasive Species Early Detection and Rapid Response Plan for BC*.

BC IMISWG. 2021. *Provincial Priority Invasive Species*.

BC MAFF. 2002. *Guide to Weeds in British Columbia*.

BC MOE. 2020. *Safe Disposal of Unwanted Pesticides*.

BC MOFR. 2010a. *Invasive Alien Plant Program (IAPP) Reference Guide*.

BC MOFR. 2010b. *Invasive Plant Chemical & Mechanical Treatment Record*.

BC MOTI and ISCBC. 2019. *Best Practice for Managing Invasive Plants on Roadsides: A Pocket Guide for Maintenance Contractors*. BC Ministry of Transportation and Infrastructure and Invasive Species Council of BC.

CEA Agency. 2019. *Decision Statement Issued under Section 54 of the Canadian Environmental Assessment Act*, 2012 to New Gold Inc. c/o Ryan Todd, Director, Blackwater Project Sunlife Plaza Suite 610, 1100 Melville Street Vancouver, British Columbia V6E 4A6 for the Blackwater Gold Project.

CCCIPC. 2017. *Regional Strategic Plan for Invasive Plant Management*. Version 3.1

CCCIPC. 2020. *Invasive Plants of Concern in the Cariboo Chilcotin Educational Document and Executive Summary*. https://cccipc.ca/documents/2020_Invasive_Plant_Summary-compressed.pdf

CCCIPC. 2021. *How Can You Help? Cariboo Chilcotin Coast Invasive Plant Committee*.

Clark, J. 2003. *Invasive Plant Prevention Guidelines*. Centre for Invasive Plant Management: Bozeman, MT.

Dickinson, R. and F. Royer. 2014. *Weeds of North America*. 605 p. 1254 color plates. University of Chicago Press.

ERM. 2023. *Blackwater Gold Project – 2022 Invasive Plants Baseline Report,* Vancouver, BC.

ERM. 2017. *Blackwater Gold Project – Consolidated Ecosystem Composition and Plant Species and Ecosystems at Risk Valued Components Effects Assessment*. Vancouver, BC.

ISCBC. 2014. *Best Practices for Managing Invasive Species on Utility Operations: A Pocket Guide for British Columbia's Utility Workers*. 2014 Edition.

ISCBC. 2021. *Field Guide to Noxious Weeds and Other Selected Invasive Plants of BC*. 8th edition.

Klinkenberg, Brian. (Editor) 2020b. *E-Flora BC: Electronic Atlas of the Flora of British Columbia*. Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. https://ibis.geog.ubc.ca/biodiversity/eflora/ (accessed March 2021).

Manning, S. and Miller, J., 2011. *Manual, mechanical, and cultural control methods and tools. In: Invasive Plant Management Issues and Challenges in the United States*. ACS Sympiosium Series; American Chemical Society. Washington, DC. 232-244.,

Matheus, P.E. and Omtzigt, T., 2013. *Yukon revegetation manual: Practical approaches and methods*. Yucan Environmental Planning.

New Gold. 2015. *Blackwater Gold Project Application for an Environmental Assessment Certificate / Environmental Impact Statement.*

NWIPC. 2015. *Northwest Invasive Plant Council Strategic Plan*. Prince George, BC.

Polster, D.F. 2005. *The role of invasive plant species management in mined land reclamation*. Canadian Reclamation, Summer/Fall 2005: 24-32.

Appendix A Provincial and Regional Priority Invasive Plant Species Lists

Appendix A Provincial and Regional Priority Invasive Plant Species Lists

Provincial Priority Invasive Plants

Table A-1: Provincial Priority Invasive Plant Definitions and Management Objectives

Definitions	
Prevent	Species determined to be high risk to BC and not yet established. Management objective is prevent the introduction and establishment.
Provincial EDRR	Species is high risk to BC and is new to the Province. Management objective is eradication.
Provincial Containment	Species is high risk with limited extent in BC but significant potential to spread. Management objective is to prevent further expansion into new areas with the ultimate goal of reducing the overall extent.
Regional Containment/ Control	Species is high risk and well established, or medium risk with high potential for spread. Management objective is to prevent further expansion into new areas within the region through establishment of containment lines and identification of occurrences outside the line to control.
Management	Species is more widespread but may be of concern in specific situations with certain high values (e.g., conservation lands, specific agriculture crops). Management objective is to reduce the invasive species impacts locally or regionally, where resources are available.

Source: BC Inter-Ministry Invasive Species Working Group, 2021

Table A-2: Provincial Priority Invasive Plant Species

Category	Common Name	Genus	Species
Management	Bur chervil	Anthriscus	caucalis
	Carpet burweed	Soliva	sessilis
	Cypress spurge	Euphorbia	cyparissias
	Eurasian water milfoil	Myriophyllum	spicatum
	Gorse	Ulex	europaeus
	Invasive yellow hawkweeds	Hieracium	spp.
	Longspine Sandbur	Cenchrus	longispinus
	Mountain bluet	Centaurea	montana
	Purple loosestrife	Lythrum	salicaria
	Scentless chamomile	Tripleurospermum	inodorum
	Scotch thistle	Onopordum	acanthium
	Spurge laurel	Daphne	laureola

Category	Common Name	Genus	Species
Management *(cont'd)*	Sulphur cinquefoil	Potentilla	recta
	Sweet fennel	Foeniculum	vulgare
	Tansy ragwort	Jacobaea	vulgaris
Prevent	Camelthorn	Alhagi	maurorum
	Clary sage	Salvia	sclarea
	Common crupina	Crupina	vulgaris
	Eggleaf spurge	Euphorbia	oblongata
	Goatsrue	Galega	officinalis
	Halogeton/Saltlover	Halogeton	glomeratus
	Hydrilla	Hydrilla	verticillata
	Iberian starthistle	Centaurea	iberica
	Italian thistle	Carduus	pycnocephalus
	Johnsongrass	Sorghum	halepense
	Jointed goatgrass	Aegilops	cylindrica
	Kudzu	Pueraria	montana var. lobata
	Meadow Clary	Salvia	pratensis
	Mediterranean sage	Salvia	aethiopis
	Medusahead	Taeniatherum	caput-medusae
	Purple nutsedge	Cyperus	rotundus
	Purple starthistle	Centaurea	calcitrapa
	Red bartsia	Odontites	serotina
	Silverleaf nightshade	Solanum	elaeagnifolium
	Slender/Meadow foxtail	Alopecurus	myosuroides
	Slenderflower thistle	Carduus	tenuiflorus
	Spring milletgrass	Milium	vernale
	Spurge Flax	Thymelaea	passerina
	Squarrose knapweed	Centaurea	virgata ssp. squarrosa
	Syrian bean-caper	Zygophyllum	fabago
	Texas blueweed	Helianthus	ciliaris
	Water soldier	Stratiotes	aloides
Provincial Containment	Garlic mustard	Alliaria	petiolata
	Giant hogweed	Heracleum	mantegazzianum
	Poison hemlock	Conium	maculatum

Category	Common Name	Genus	Species
Provincial Containment *(cont'd)*	Rush skeletonweed	Chondrilla	juncea
	Wild chervil	Anthriscus	sylvestris
	Wild parsnip	Pastinaca	sativa
Provincial Early Detection Rapid Response (EDRR)	African rue	Peganum	harmala
	Black henbane	Hyoscyamus	niger
	Brazilian elodea/Waterweed	Egeria	densa
	Dyer's woad	Isatis	tinctoria
	European common reed	Phragmites	australis
	Flowering rush	Butomus	umbellatus
	Giant reed	Arundo	donax
	Invasive cordgrasses	Spartina	spp.
	Maltese star thistle	Centaurea	melitensis
	Mouse-ear hawkweed	Hieracium	pilosella
	North Africa grass	Ventenata	dubia
	Perennial pepperweed	Lepidium	latifolium
	Shiny geranium	Geranium	lucidum
	Slender false brome	Brachypodium	sylvaticum subsp. sylvaticum
	Water hyacinth*	Eichhornia	crassipes
	Water lettuce*	Pistia	stratiotes
	Yellow floating heart	Nymphoides	peltata
	Yellow starthistle	Centaurea	solstitialis
Regional Containment/ Control	Blueweed	Echium	vulgare
	Common bugloss	Anchusa	officinalis
	Common tansy	Tanacetum	vulgare
	Field scabious	Knautia	arvensis
	Himalayan blackberry	Rubus	armeniacus
	Himalayan knotweed	Persicaria	wallichii
	Hoary alyssum	Berteroa	incana
	Hoary cress	Cardaria	draba
	Knotweeds (Japanese, Giant, and Bohemian)	Fallopia/Reynoutria & Polygonum	spp.
	Leafy spurge	Euphorbia	esula

Category	Common Name	Genus	Species
Regional Containment/ Control *(cont'd)*	Marsh plume thistle/marsh thistle	Cirsium	palustre
	Orange hawkweed	Hieracium	aurantiacum
	Policeman's helmet/ Himalayan balsam	Impatiens	glandulifera
	Puncturevine	Tribulus	terrestris
	Scotch broom	Cytisus	scoparius
	Spotted knapweed	Centaurea	stoebe
	Teasel	Dipsacus	fullonum
	Whiplash hawkweed	Hieracium	flagellare
	Yellow archangel	Lamium	galeobdolon
	Yellow flag iris	Iris	pseudacorus

** Status under review.*

Source: BC Inter-Ministry Invasive Species Working Group, 2021

Regional Priority Invasive Plant

Table A-3: Invasive Plant Priority Ranking Descriptions

Priority Ranking	Description
1 New Invaders	Newly established species, current limited distribution, or at our borders. Expected to flourish if they become established, or if not managed. Management objective is elimination.
2 Containment	Well established species in our region, but have not yet infested all potential habitats. New sites will be managed to contain them and prevent further spread.
3 Established	Common and widespread species that occupy most or all potential habitats. Widespread control of these species is not currently possible.
4 Biological Control	Well established species in our region, for which effective biocontrol agents exist.

Source: CCCIPC 2020

Table A-4: Priority Invasive Plant Species by Sub-Region in the Cariboo Chilcotin

Sub-Region Name	North Cariboo	Central Cariboo	South Cariboo	Nazko	Chilcotin
Regional District Electoral Areas	**A, B, C**	**D, F**	**E, G, H, L**	**I**	**J, K**
Baby's-Breath	1	1	1	1	1
Black Henbane1	1	1	1	1	1
Blueweed	1	1	1	1	1

Sub-Region Name	North Cariboo	Central Cariboo	South Cariboo	Nazko	Chilcotin
Regional District Electoral Areas	**A, B, C**	**D, F**	**E, G, H, L**	**I**	**J, K**
Burdock	3	3	3	3	2
Canada Thistle	3	3	3	3	3
Caraway	1	1	1	1	1
Common Tansy	2	2	2	1	1
Dalmatian Toadflax	4	4	4	1	2[3]
Diffuse Knapweed	2	2	2	1	2
Field Scabious	2	1	1	1	1
Flowering Rush[1]	1	1	1	1	1
Himalayan Balsam	1	1	1	1	1
Hoary Alyssum	1	1	1	1	1
Hoary Cress	1	1	1	1	1
Hound's-Tongue	1	1	4[5]	1	1
Knotweed Spp.	1	1	1	1	1
Leafy Spurge[2]	1	1	1	1[7]	1
Marsh Plume Thistle	1[9]	1	1	1	1
Meadow Knapweed	1	1	1	1	1
Mountain Bluet	1	1	1	1	1
Nodding Thistle	4	4	4	4	4
Orange Hawkweed	3	3	3	3	1
Oxeye Daisy	3	3	3	3	3
Perennial Pepperweed[1]	1	1	1	1	1
Plumeless Thistle	1	1	1	1	1
Purple Loosestrife	1[3]	1	1[3]	1	1
Russian Knapweed	1	1	1	1	1
Scentless Chamomile	2	3	3	2	3[3]
Spotted Knapweed	2	2[4]	2	1	2[8]
St. John's Wort[6]	2	2	2	1	1
Sulphur Cinquefoil	1	2	2	1	1
Tansy Ragwort	1	1	1	1	1
Yellow Flag Iris	1	1	1	1	1
Yellow Hawkweeds, Invasive	3	3	3	3	2

Sub-Region Name	North Cariboo	Central Cariboo	South Cariboo	Nazko	Chilcotin
Regional District Electoral Areas	**A, B, C**	**D, F**	**E, G, H, L**	**I**	**J, K**
Wild Chervil	1	1	1	1	1
Wild Parsnip	1	1	1	1	1

Notes:

Blackwater Mine Site Is Located in the Nazko Sub-Region (modified from CCCIPC 2020).

Species ranks that are in SHADED CELLS indicate the species is NOT known to exist in that sub-region. If not shaded, the species is present.

[1] Provincial EDRR (Early Detection Early Response) species.

[2] Biocontrol agent is present on dry sites, but not yet effective, it is effective in the TNRD near Canoe Creek.

[3] Biocontrol agent is the primary means of control.

[4] Biocontrol agent is present, but not yet effective.

[5] In the Canoe/Dog/Churn Creek areas, species is mainly controlled by biocontrol agents.

[6] Biocontrol appears to be affected by a parasite.

[7] Classified as a New Invader (1) in the Western Nazko.

[8] Grassland are at highest threat.

[9] Outside the established containment area.

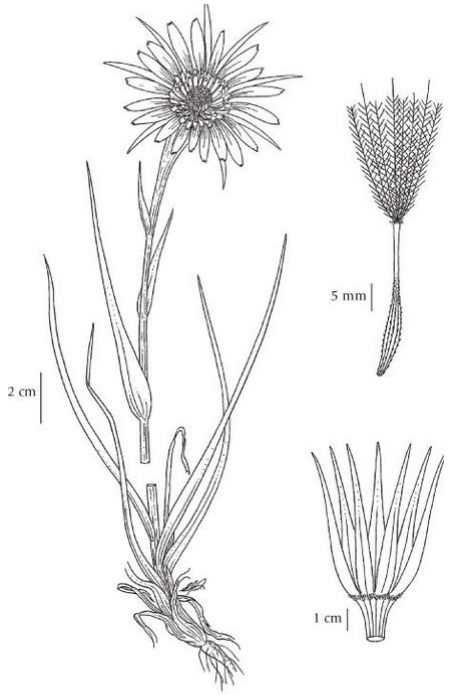
References

BC Inter-Ministry Invasive Species Working Group. 2021. *Provincial Priority Invasive Species*. https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/provincial_priority_is_list.pdf (accessed August 2021).

Cariboo Chilcotin Coast Invasive Plant Committee (CCCIPC). 2020. *Invasive Plants of Concern in the Cariboo Chilcotin Educational Document & Executive Summary*. https://cccipc.ca/documents/2020_Invasive_Plant_Summary-compressed.pdf (accessed August 2021).

Appendix B Yellow Salsify (*Tragopogon dubius*) Factsheet

Tragopogon Identification And Control



Common Name(s): Western Goat's beard or Yellow salsify
Scientific Name: ***Tragopogon dubius Scop.***
Legal Status: Exotic with a low extant.

*There are significant inventory gaps.
Invasiveness: High Threat: Low

General:

Biennial or sometimes annual herb from a taproot; stems erect, solitary, simple or sometimes branching from the base, lightly woolly-hairy when young, becoming glabrous except at leaf bases, exuding milky juice when broken, 0.3-1 m tall. Cross section of plant stem is triangular.

Flowers:

Heads with strap-shaped flowers, solitary, on much-enlarged, hollow stalks terminating the stems or few branches; involucres 2.5-7 cm tall; involucral bracts linear-lanceolate, equal, usually about 13 or only 8 on dwarfed plants or on last-formed heads, distinctly surpassing the ray flowers; ray flowers pale yellow.

Leaves:

Basal leaves lacking; stem leaves entire, grasslike, tapering uniformly from base to the apex, parallel-veined, with clasping bases, 20-50 cm long, 0.5-2 cm wide.

Fruits:

Heads with strap-shaped flowers, solitary, on much-enlarged, hollow stalks terminating the stems or few branches; involucres 2.5-7 cm tall; involucral bracts linear-lanceolate, equal, usually about 13, distinctly surpassing the ray flowers; ray flowers pale yellow; disk flowers lacking.

Control: Most effective control is chemical as mowing will not eradicate the plant.

Chemical: A combination of 2, 4-D and dicamba applied during the rosette stage provides effective control and helps to increase perennial grasses.

For more information on invasive plant species visit
www.nwipc.org

References
Mangold, J.M. & Lansverk, A.L. 2013. Testing control options for Western salsify (*tragopogon dubius*) on Conservation Reserve Program Lands. Weed Technology, 27(3), 509-514.
EfloraBC. 2013. Electronic Access of Plants in British Columbia. Retrieved from http://linnet.geog.ubc.ca/DB_Query/CommonName.aspx
Images from Google images and EfloraBC

Appendix C Orange Hawkweed (*Hieraceum aurantiacum*) Factsheet

Appendix C Orange Hawkweed (*Hieraceum aurantiacum*) Factsheet

Orange Hawkweed (*Hieraceum aurantiacum*)

Description: Orange hawkweed was introduced to North America as an ornamental species towards the end of the 19th century in the eastern United States. Within 25 years it had spread from New England to Michigan and is currently one of the most widespread invasive plants in North America (Wilson and Callihan 1999).

Orange hawkweed is a creeping perennial with milky sap and a shallow, fibrous root system (Wilson and Callihan 1999). The basal rosette of hairy leaves and the cluster of dark orange compound flowers at the top of a 0.3 to 1.2 m tall, leafless flower stalk serve to distinguish this species from other hawkweeds in British Columbia.

Type: Perennial

Habitat and Impacts: Orange hawkweed occupies a wide range of well-drained habitats, but prefers coarse soils and unshaded sites.

Method of Spread: It reproduces by seed or by stolon or rhizome and can form large, continuous mats with up to 3500 plants per square metre (Wilson and Callihan 1999). Seed production is generally low, but seeds can be produced sexually or asexually without pollination. Animals, people or vehicles disperse the majority of seeds. Although seeds are plumed, they are not widely spread by wind. Seeds can remain viable in the soil for more than 7 years, although most germinate within one year of production.

Management Options

Mechanical: Hand pulling of young plants can be effective, but small root fragments can resprout and allow the infestation to persist. Mowing can control seed production, but encourages vegetative growth and spread.

Digging plants or otherwise disturbing roots can help spread orange hawkweed, since new plants can become established from root, stolon, or rhizome fragments (Wilson and Callihan 1999). Orange hawkweed should not be tilled unless this treatment is done in combination with a chemical treatment and followed by reseeding.

Chemical: Dicamba, Picloram, Aminopyralid, Clopyralid or Picloram and 2,4-D are effective at controlling orange hawkweed during the spring growing season.

Biological: Biological control agents are currently being developed but are not yet available for distribution.

Cultural: Ammonium Sulphate (Nitrogen fertilizer) can be applied to fields to suppress the competitive edge of orange hawkweed.

Treatment Options: Local Level – hand pulling small infestations, chemical and fertilization for larger sites. Landscape Level – chemical treatments.

CCCIPC Priority and Treatment Strategy and Location

Preventing additional sites from establishing in western parts of the region is a priority. A containment line is established east of Highway 97 along the Interior Douglas Fir/Sub-Boreal Pine Spruce biogeoclimatic zone boundary to Williams Lake, then along the West Fraser Road to Narcosli/Deep Creek, then west to the Itcha Mountains (see maps in Appendix 6). All sites outside the containment line will be aggressively controlled.

Year	North Cariboo	Central Cariboo	South Cariboo	Nazko	Chilcotin	Outer Coast	Hagensborg East	Bella Coola
2008: Orange hawkweed is currently concentrated in the eastern part of the Cariboo Chilcotin Coast from east of 100 Mile House to the northern boundary but there are sites along the length of Highway 97. Scattered sites are recorded in the Chilcotin, and it is not recorded in the coastal areas of the region.								
2009	3	2	2	3	1	1	1	1
Notes: Sites found on private property in Bella Coola.								
2010	3	2	2	3	1	1	1	1
2011	3	2	2	3	1	1	1	1
2012	3	2	2	3	1	1	1	1
2013	3	2	2	3	1	1	1	1
Notes: Containment line moved to Dog Creek Road: to TNRD boundary in the south, north to Highway 97. Line moved for both orange hawkweed and yellow hawkweed.								
2014	3	2	2	3	1	1	1	1
Notes: Orange hawkweed is still being managed in the Chilcotin, need to be on the lookout for it in the Tatlayoko and Bella Coola Valleys.								
2015	3	3	3	3	1	1	1	1
Notes: Containment line moved to Dog Creek Road: to TNRD boundary in the south, north to Highway 97. Line moved for both orange hawkweed and yellow hawkweed.								
2016	3	3	3	3	1	1	1	1

Notes:

Species ranks that are in white indicate the species is NOT known to exist in that sub-region (i.e., if black, the species is present).

An N/A indicates that this species is not ecologically suited to that given sub-region and is not expected to occur there.

Source: CCCIPC. 2017. Regional Strategic Plan for Invasive Plant Management.

Appendix D CCCIPC Invasive Plant Species Profile

Invasive Plant Species Profiles

The recommended treatments have been used as effective means of control in our region. Other options do exist should jurisdictions prefer alternative treatments. **Please check with your local government to confirm the correct treatment for the plant and area of concern.**

Baby's Breath *(Gypsophila paniculata)*

Type: perennial
Method of Spread: seed spread by wind or by plant tumbling

Black Henbane *(Hyoscyamus niger)*

Type: annual or biennial
Method of Spread: exclusively by seed

Blueweed *(Echium vulgare)*

Type: biennial
Method of Spread: exclusively by seed sticking to hair, clothing or feathers

Caraway

Type: biennial
Method of Spread: seeds

Common Tansy *(Tanacetum vulgare)*

Type: perennial
Method of Spread: seed or creeping roots

Dalmatian Toadflax *(Linaria dalmatica)*

Type: perennial
Method of Spread: seed or creeping root

Diffuse Knapweed *(Centaurea diffusa)*

Type: biennial or short-lived perennial
Method of Spread: exclusively by seed

Field Scabious *(Knautia arvensis)*

Type: perennial
Method of Spread: exclusively by seed

Flowering Rush *(Butomus umbellatus)*

Type: perennial
Method of Spread: seed, root buds and root fragments

Himalayan Balsam *(Impatiens glandulifera)*

Type: annual
Method of Spread: seed

Hoary Alyssum *(Berteroa incana)*

Type: biennial or short-lived perennial
Method of Spread: exclusively by seed

Hoary Cress *(Cardaria draba)*

Type: perennial
Method of Spread: spreading roots, seed

Hound's Tongue *(Cynoglossum officinale)*

Type: biennial to short-lived perennial
Method of Spread: exclusively by seeds encapsulated in burrs

Knotweeds including Himalayan Knotweed *(Polygonum polystachyum)*, other Knotweeds *(Fallopia spp.)*

Type: perennial
Method of Spread: seeds and vegetative through rhizomes and root fragments

Leafy Spurge *(Euphorbia esula)*

Type: perennial
Method of Spread: seed or lateral roots

Marsh Plume Thistle *(Cirsium palustre)*

Type: biennial
Method of Spread: exclusively by seed

Meadow Knapweed *(Centaurea pratensis spp)*

Type: perennial
Method of Spread: primarily by seed, but also from root and crown fragments

Mountain Bluet *(Centaurea montana)*

Type: annual
Method of Spread: primarily by seed, but also from rhizomatous roots

Nodding Thistle *(Carduus nutans L.)*

Type: biennial
Method of Spread: primarily by seed

Perennial Pepperweed *(Lepidium latifolium)*

Type: perennial
Method of Spread: seed or root fragments

Plumeless Thistle *(Carduus acanthoides)*

Type: biennial
Method of Spread: primarily by seed

Purple Loosestrife *(Lythrum salicaria)*

Type: perennial
Method of Spread: plant parts and seed spread by water and wind

Russian Knapweed *(Acroptilon repens)*

Type: perennial
Method of Spread: primarily through seed; however, it can re-grow from root and crown fragments

Spotted Knapweed *(Centaurea stoebe)*

Type: biennial to short-lived perennial
Method of Spread: exclusively by seed

St. John's Wort *(Hypericum perforatum L.)*

Type: perennial
Method of Spread: seed and roots

Sulphur Cinquefoil *(Potentilla recta)*

Type: perennial
Method of Spread: seed and roots

Wild Chervil *(Anthriscus sylvestris)*

Type: Annual, biennial or perennial
Method of Spread: seed and roots

Yellow Flag Iris *(Iris pseudacorus)*

Type: perennial
Method of Spread: seed and roots

TREATMENT SYMBOLS LEGEND

herbicide
covering
mowing
cutting
livestock
digging
bio-control
dead heading
hand pulling
fertilization

FOR MORE INFO AND TO REPORT WEEDS: 1-800-665-1636(CRD) or with your cell phone www.reportweedsbc.ca »www.cccipc.ca » #100 - 197 2nd Ave. N., Williams Lake, BC V2G 1Z5

Appendix E Herbicide Application and Use Guidance

Appendix E Herbicide Use and Handling

Topic	Requirement
Qualifications and Responsibilities of Persons Applying Herbicides	• The required practices for pesticide applicators are detailed in BC Ministry of Environment, Canadian Pesticide Education Program Applicator Core Manual and Work Safe B.C. (2009) Standard Practices for Pesticide Applicators. • Herbicide applications must be conducted or supervised by a person who holds a Pesticide Applicator Certificate endorsed for the class of pesticide. • Those authorized to treat invasive plants will be provided with pre-work information and sufficient oversight to ensure they fully understand the legislative requirements.
Herbicide Transportation Section 58(3)(a)(i) of the Integrated Pest Management Regulation (IPMR)	• Ensure that the herbicide is properly secured during transport to prevent accidental discharge or unauthorized removal, and to prevent contamination of food or drink intended for animal or human consumption, household furnishings, toiletries, clothing, bedding, or similar items transported with the herbicide. • Keep herbicides in their original containers and with original packaging and labelling affixed, or in appropriate containers with trade name, name of active ingredient, concentration of active ingredient, and pesticide registration number affixed. • Keep in the vehicle a first aid kit, fire extinguisher, spill contingency plan, and spill contingency kit (with WorkSafe BC regulated contents). Vehicle operators must be trained to handle spills.
Herbicide Storage Section 58(3)(a)(ii) of IPMR	• Keep herbicides in their original containers and with original packaging. If original packaging is not available, the herbicides shall be placed in appropriate containers that have the trade name, active ingredient concentration and pesticide registration number affixed. • Store herbicides separately from food intended for human consumption. • Keep herbicides in storage facilities that are locked when unattended, not used for storage of food intended for human or animal consumption, ventilated to the outside, and accessible only to authorized persons. • Mark storage facility in block letters: “WARNING: CHEMICAL STORAGE – AUTHORIZED PERSONS ONLY” so signs are visible to persons approaching each door providing access to the facility. • Store fumigants and other pesticides that release vapours or bear a poison symbol on the label in a storage facility that is not attached to or within a building used for living accommodations. • Within 60 days after starting to store an herbicide at a location, provide notice of the storage location to the fire department closest to that location. • Keep storage facilities separate from work and living areas, and away from flammable materials, and bodies of water. • Keep a herbicide inventory log book, current product labels, Safety Data Sheets, and a copy of WorkSafe BC’s Occupational Health & Safety Regulation at the storage facility. • Keep at the storage facility a first aid kit, fire extinguisher, Spill Response Contingency Plan, and a spill kit with WorkSafe BC regulated contents. Persons storing herbicides must be trained to handle spills.

Topic	Requirement
Mixing, Loading and Applying Herbicides Section 58(3)(a)(iii) of IPMR	• Do not wash or submerge in a body of water any container used to prepare, mix, or apply herbicides. • When drawing water from a body of water or an irrigation system into a container for herbicide use, maintain a gap between the herbicide and the equipment to prevent herbicide from entering the body of water. • Before mixing, read the product label and Safety Data Sheet, and follow all safety precautions. • Ensure that persons mixing or loading herbicides are Certified Pesticide Applicators, and use proper protective equipment and clothing as recommended on the label. • Ensure that emergency wash facilities, first aid equipment, spill kits spill response plans, and emergency phone numbers are close at hand. • Use clean water free of any suspended particles. Use appropriate procedures to prevent backflow of herbicides into the water source. • Conduct mixing and loading in areas selected to prevent any spilled herbicides from entering the pesticide free zones for bodies of water, wells, and water intakes. • Mix herbicides in well-ventilated areas outdoors, under low wind conditions. Ensure there is adequate light and stand upwind to avoid contaminating yourself. • Keep containers well below eye level to prevent splashing or spilling herbicides in the face or eyes.
Herbicide Disposal Section 58(3)(a)(iv) of IPMR	• Plan all applications carefully to minimize excess and waste. Any leftover herbicide mix should be saved for future use or disposed of in an appropriate manner. • Triple -rinse empty metal, glass, or plastic containers before disposal. Rinse sprayers and containers well away from any body of water or well. • Puncture or break any non -recyclable containers so that they cannot be reused, then discard at an approved sanitary landfill.
Spill Response Plan Section 58(3)(a)(v) of IPMR	• Ensure the safety of workers and public by limiting access to the area, protecting people from exposure, and ensuring wash facilities are nearby. • Put on protective equipment before cleaning up the spill, including protective clothing, respirators, and eye protection. • Contain the spill. • Report spills to the Provincial Emergency Program (PEP) as per the Spill Reporting Regulation. • Clean up the site.
Pre-treatment Inspection Procedures Section 58(3)(b)(iv) of IPMR	• Before vegetation management is conducted at a specific site, a pre -treatment inspection is completed to ensure that environmentally sensitive areas are protected. At this stage, the work method is confirmed to ensure it is appropriate for the site, and specific environmental concerns are identified.

Source: Integrated Vegetation Management Plan for Control of Vegetation at BC Hydro Facilities (BC Hydro 2021)

Appendix F IAPP Site and Invasive Plant Survey Record

IAPP Site & Invasive Plant Survey Record

Entered into IAPP (YYYY-MM-DD):	*By:*	*Assigned Site IDs recorded on this form:* ☐

Site Created Date (YYYY-MM-DD): *

Invasive Plant Survey Date (YYYY-MM-DD): *
(only if different from Site Created Date)

Site ID: (assigned at IAPP data entry)

Site Details

Jurisdiction: * (see reverse for choices/codes)

District Lot Nr:

Range Unit:

Site Paper File ID:

UTM Zone: *

UTM Easting: * (no initial zero)

UTM Northing: * (7 digits)

Site Soil Texture:
coarse ☐ fine ☐ organic ☐

Slope:

Aspect:

Elevation (m):

Site specific use: *

Site Location (and directions how to get there):

Site Comments (anything else important /useful):

Invasive Plant Survey Details

Survey Agency: *

Employer:

Surveyor(s):

Invasive Plants * Species name or code	**Area** * Dimension or Ha	Distr. Code (see reverse for codes)	Density Code	**Survey Type** * **C**ursory /**O**perational /**P**recise	Proposed Activity Man	Chem	Bio
				C ☐ O ☐ P ☐	☐	☐	☐
				C ☐ O ☐ P ☐	☐	☐	☐
				C ☐ O ☐ P ☐	☐	☐	☐

Site Image Details

Date taken (YYYY-MM-DD): *

Reference No. *

Perspective: *
(see reverse for codes)

Image Comments:

Site Created Date (YYYY-MM-DD): *

Invasive Plant Survey Date (YYYY-MM-DD): *
(only if different from Site Created Date)

Site ID: (assigned at IAPP data entry)

Site Details

Jurisdiction: * (see reverse for choices/codes)

District Lot Nr:

Range Unit:

Site Paper File ID:

UTM Zone: *

UTM Easting: * (no initial zero)

UTM Northing: * (7 digits)

Site Soil Texture:
coarse ☐ fine ☐ organic ☐

Slope:

Aspect:

Elevation (m):

Site Location (and directions how to get there):

Site Comments (anything else important /useful):

Invasive Plant Survey Details

Survey Agency: *

Employer:

Surveyor(s):

Invasive Plants * Species name or code	**Area** * Dimension or Ha	Distr. Code (see reverse for codes)	Density Code	**Survey Type** * **C**ursory /**O**perational /**P**recise	Proposed Activity Man	Chem	Bio
				C ☐ O ☐ P ☐	☐	☐	☐
				C ☐ O ☐ P ☐	☐	☐	☐
				C ☐ O ☐ P ☐	☐	☐	☐

Site Image Details

Date taken (YYYY-MM-DD): *

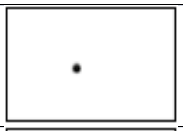
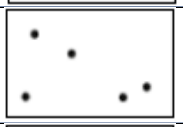
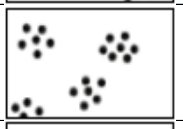
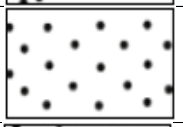
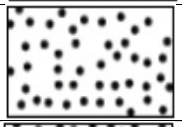
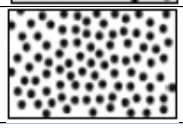
Reference No. *

Perspective: *
(see reverse for codes)

Image Comments:

** indicates mandatory field - this form may be used for 2 sites, with their invasive plant surveys, and site images (if taken).*

Some commonly used codes in IAPP:

Distribution Code		
Code	Reference	Description
1		Rare individual, a single occurrence
2		Few sporadically occurring individuals
3		Single patch or clump of a species
4		Several sporadically occurring individuals
5		A few patches or clumps of a species
6		Several well-spaced patches or clumps of a species
7		Continuous uniform occurrence of well-spaced individuals
8		Continuous occurrence of a species with a few gaps in the distribution
9		Continuous dense occurrence of a species

Density Code		
Code	Reference	Description
1	Low	≤ 1 plant/m^2
2	Medium	2-5 plants/m^2
3	High	6-10 plants/m^2
4	Dense	> 10 plants/m^2

Jurisdiction Codes	
MFR	Ministry of Forests and Range
AH	Alaska Highway
HYDR	BC Hydro
BCR	BC Rail
BCTC	British Columbia Transmission Corp.
BNSF	Burlington Northern Santa Fe
CNR	CN Rail
CPR	CP Rail
DND	Department of National Defense
GL	Grazing Lease
FN	First Nations Reserves
MN	Mining Companies
MOT	Ministry of Transportation and Infrastructure
MOE	Ministry of Environment - *except Provincial Parks*
MOP	Municipality owned land
PIPE	Oil and Gas Companies
PNG	Pacific Northern Gas
PCAN	Parks Canada
P	Private Land
PP	Provincial Parks
MRD	Regional District owned land
TEL	Telus
TER	Terasen Gas Inc.
TRP	TransCanada Pipelines
WE	Westcoast Energy Inc.

Appendix G Indigenous Group Herbicide Policies

SAIK'UZ FIRST NATION

P: 250.567.9293 | F: 250.567.2998
135 Joseph Street, Vanderhoof, BC, V0J 3A1
www.saikuz.com

RESOLUTION OF THE COUNCIL OF THE SAIK'UZ FIRST NATION

WHEREAS Saik'uz First Nation Chief & Council at a duly convened meeting on October 25, 2022, are in support of banning all use of herbicides within Saik'uz First Nation Territory

AND WHEREAS Saik'uz First Nation Chief & Council following the directive of Saik'uz First Nation Members and oral history of our late Elders who recognize our responsibility to protect the land and its resources for future generations.

AND THAT Saik'uz First Nation Chief & Council following the directive of Saik'uz First Nation Members and oral history that honors Saik'uz Whut'enne's connection to the land, waters, resources, and features of the natural environment that provide for member's physical and spiritual needs.

THEREFORE BE IT RESOLVED THAT:

a) Saik'uz First Nation Chief and Council hereby declares a ban on all use of herbicides within Saik'uz First Nation Traditional Territory.
b) Saik'uz First Nation believes that the use of herbicides negatively impacts our Aboriginal Rights to pick medicinal plants, our ceremonial lives, and our hunting and fishing rights.
c) The use of herbicides conflicts with the Yinka Dene 'Uza'hné Water Management Policy also known as the Yinka Dene Water Law.

A quorum for the Saik'uz First Nation Council is three (3) Councillors.	**Saik'uz First Nation COUNCIL MEETING HELD AT:**		*135 Joseph Street, Vanderhoof, B.C.*	
	DATED:		October 25 2022	
	MOVED BY:	Alison Johny	**SECONDED BY:**	Jasmine Thomas

Chief Priscilla Mueller ◆ Councillor Alison Johnny ◆

Councillor Jackie Thomas ◆ Councillor Jasmine Thomas ◆ Councillor Rodney Teed ◆

#20221025A2

Due to risk and impacts to human health, important Indigenous plant and wildlife, and possible contamination from spills when mixing, overfilling tanks, rinsing spray equipment near a water source, and others, pesticides will be considered a last resort for pest management on LDN Territory. Many pesticides, specifically herbicides for invasive plant management, contain a residual element that can impact seed germination and plant growth in subsequent years (the length of the residual varies for each herbicide). Therefore, the use of all pesticides on LDN Territory requires consent from LDN's Chief and Council. A memo addressing the proposed scope of work must be submitted to LDN's Chief and Council with a suggested motion for consent to pesticide use.

The document must contain:

- A clear justification of <u>why</u> other management methods are not being used
- <u>Where</u> treatments will be conducted (description and UTMs must be provided)
- <u>What</u> species are being targeted
    - Include proposed pesticide and application rate for the target species
- <u>Who</u> will be administering the treatment
    - For invasive plant management, proof of the Industrial Vegetation and Noxious Weed Pesticide Applicator certification must be provided
    - LDN request the applicator has a minimum of two years' experience in pesticide application
- <u>How</u> pesticides will be applied
- <u>When</u> treatments will take place
    - Request for motion for consent must be submitted a minimum of 4 weeks before pesticide application is scheduled

Specific pesticide labels and Material Safety Data Sheets (MSDS) for the proposed pesticide to be used must be submitted with the document. These documents will provide an all-encompassing awareness of the product that have been proposed for use in LDN Territory.

Specifically for invasive plant management, chemical treatment will be considered for the following applications:

- Large, dense infestations where mechanical or other treatments will not be effective
- Around infrastructure where natural vegetation is not desired (e.g., within the mine site at storage facilities)
- Spot treatment applications using a backpack sprayer or wicking to avoid damage to surrounding vegetation

Chemical treatment for invasive plant management will **<u>not</u>** be considered for the following applications:

- Within 100m of identified harvesting areas (e.g., near berry patches, medicinal plants, or traplines)
- Within 100m of riparian areas
    - The use of glyphosate may be considered within the mine site only

- Aerial spraying of herbicides for conifer release or other purposes
- Within operational areas (i.e., no in-block spraying)

BAND COUNCIL RESOLUTION

The Council of the
Nadleh Whut'en Band

Province
British Columbia

Place
Nadleh Reserve

Date	**16**	**11**	**2022**
	Day	**Month**	**Year**

DO HEREBY RESOLVE:

WHEREAS Nadleh Whut'en First Nation Chief & Council at a duly convened meeting on November 16, 2022, are in support of banning all use of herbicides within the Nadleh Whut'en First Nation Territory.

WHEREAS Nadleh Whut'en First Nation Chief & Council following the directive of Nadleh Whut'en First Nation Members and the Nadleh Whut'en First Nation Land Use Plan to "ensure that the natural environment is sustainably managed and protected for use for generations to come".

WHEREAS Nadleh Whut'en First Nation Chief & Council following the directive of Nadleh Whut'en First Nation Members and the Nadleh Whut'en First Nation Land Use Plan to "protect air quality, and surface and ground water resources for the benefit of the environment and human health and ensure these resources are available for future generations".

NOW THEREFORE BE IT RESOLVED:

1. THAT the use of herbicides conflicts with the Yinka Dene 'Uza'hne Water Management Policy also knows as the Yinka Dene Water Law.
2. THAT Nadleh Whut'en First Nation Chief & Council supports banning all use of herbicides within Nadleh Whut'en First Nation Territory.
3. THAT Nadleh Whut'en First Nation believes the use of herbicides negatively impact our Aboriginal Rights to pick medicinal plants, to fish, our ceremonial lives and our hunting rights.

Chief Martin Louie

Councillor Damien Ketlo

Councillor Mark Lacerte

Councillor Ashley Heathcliff

Councillor Eleanor Nooski

Councillor Roy Nooski

A quorum for this Band consists of 4

STELLAT'EN FIRST NATION
BOX 760, FRASER LAKE BC V0J 1S0—PHONE (250) 699-8747 - FAX (250) 699-6430
www.stellaten.ca

Band Council Resolution 2022.12.07.01

Ban the use of herbicides in Stellat'en First Nation Territory

WHEREAS Stellat'en First Nation Chief & Council at a duly convened meeting on October 27, 2022, are in support of banning all use of herbicides within Stellat'en First Nation Territory.

WHEREAS Stellat'en First Nation Chief & Council following the directive of Stellat'en First Nation Members and the Stellat'en First Nation Community Plan "recognizes its responsibility to protect the land and it's resources for future generations".

WHEREAS Stellat'en First Nation Chief & Council following the directive of Stellat'en First Nation Members and the Stellat'en First Nation Community Plan "Honors its connection to the land, resources, and features of the natural environment that provide for its members physical and spiritual needs".

NOW THEREFORE BE IT RESOLVED:

1. **THAT** Stellat'en First Nation Chief and Council supports banning all use of herbicides within Stellat'en First Nation Traditional Territory.

2. **THAT** Stellat'en First Nation believes that the use of herbicides impacts our Aboriginal Rights to pick medicinal plants, to fish, they negatively affect our ceremonial lives, and they also impact our hunting rights.

3. **THAT** The use of herbicides conflicts with the Yinka Dene 'Uza'hné Water Management Policy also known as the Yinka Dene Water Law.

Executed this 27th day of October 2022 in the Province of British Columbia at Stellaquo I.R #1.

Robert Michell
Chief

Kenneth Schmidt
Councilor

Clifford Louis
Councilor

Walter Ward
Councilor

Yvonne George
Councilor