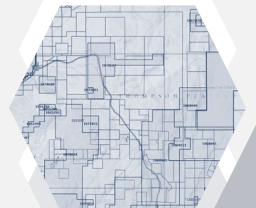


JOINT APPLICATION INFORMATION REQUIREMENTS TABLE

April 2024
Version 2.0



Ministry of
Energy, Mines and
Low Carbon Innovation



Ministry of
Environment and
Climate Change Strategy

PROVINCE OF BRITISH COLUMBIA
B.C. Ministry of Energy, Mines and Low Carbon Innovation
and
Ministry of Environment and Climate Change Strategy

Joint Application Information Requirements Table (IRT)
Version 2.0
Published April 2024

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Information Requirements Sign-off

Project:

Applicant Representative

Name:

Title:

Applicant signature to indicate agreement with
project specific requirements

Date signed

Ministry of Environment and Climate Change Strategy, Environmental Protection Division

Application (AMS Tracking #):

Ministry Representative

Name:

Title:

Ministry representative signature to indicate
agreement with project specific requirements

Date signed

Ministry of Energy, Mines and Low Carbon Innovation, Major Mines Office

Ministry Representative

Name:

Title:

Ministry representative signature to indicate
agreement with project specific requirements

Date signed

<p style="text-align: center;">Information</p> <p style="text-align: center;">(refer to Joint Application Information Requirements Guide for detailed information on each section)</p>	<p style="text-align: center;">Requirements</p>	<p style="text-align: center;">Comments</p>	<p style="text-align: center;">Location in Final Application</p>
1. INTRODUCTION AND PROJECT OVERVIEW			
1.1. Project Description	Required <input type="checkbox"/>		
1.2. Proponent Information	Required <input type="checkbox"/>		
1.3. Project Overview			
1.3.1. Project History	Required <input type="checkbox"/>		
1.3.2. Overview of Products	Required <input type="checkbox"/>		
1.3.3. Location, Access, and Land Use	Required <input type="checkbox"/>		
1.3.4. Mine Components	Required <input type="checkbox"/>		
1.3.5. Mine Design and Assessment Team	Required <input type="checkbox"/>		
1.3.6. Spatial Data	Required <input type="checkbox"/>		
1.3.7. Concordance with Environmental Assessment Conditions	Required <input type="checkbox"/>		
1.4. Regulatory Framework	Required <input type="checkbox"/>		
2. INDIGENOUS NATION ENGAGEMENT			
2.1. Background	Required <input type="checkbox"/>		
2.2. Engagement Efforts and Information	Required <input type="checkbox"/>		
2.3. Aboriginal Interests and Potential Project Impacts	Required <input type="checkbox"/>		
2.4. Engagement and Participation Throughout Mine Life	Required <input type="checkbox"/>		
3. BASELINE INFORMATION			
3.1. Meteorology and Climate	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.2. Geology			
3.2.1. Deposit Geology	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.2.2. Surficial Geology, Terrain, and Geohazard Mapping	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.2.3. Natural and Seismic Hazards Assessment	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.2.4. Soil Survey and Soil Characterization for Reclamation	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.3. Topography and Surface Drainage Features	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.4. Water Quantity			
3.4.1. Surface Water Quantity	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.4.2. Groundwater Quantity	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.5. Water Quality			
3.5.1. Surface Water Quality	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.5.2. Groundwater Quality	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.6. Sediment Quality	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.7. Fisheries and Aquatic Resources			
3.7.1. Periphyton and Benthic Invertebrate Community Measures	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.7.2. Fish and Fish Habitat	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.7.3. Tissue Residues	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.8. Ecosystems and Wildlife	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.9. Potential Receptors of Mine-related Influences	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.10. Land Status and Use	Required <input type="checkbox"/> Methods <input type="checkbox"/>		

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3.11. Archaeology	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
3.12. Cultural Use	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
4. MINE PLAN			
4.1. Mine Plan Overview	Required <input type="checkbox"/>		
4.2. Existing and Permitted Mine Plan	Required <input type="checkbox"/>		
4.3. Proposed Mine Plan	Required <input type="checkbox"/>		
4.4. Mine Facility Engineering Designs	Required <input type="checkbox"/>		
4.4.1. Open Pits	Required <input type="checkbox"/>		
4.4.2. Underground Workings	Required <input type="checkbox"/>		
4.4.3. Tailings Storage Facilities, Dams, and Associated Infrastructure	Required <input type="checkbox"/>		
4.4.3.1. Small Dams	Required <input type="checkbox"/>		
4.4.3.2. Low Consequence Classification Dams	Required <input type="checkbox"/>		
4.4.3.3. Significant or Higher Consequence Classification Dams	Required <input type="checkbox"/>		
4.4.3.4. Tailings Storage Facilities	Required <input type="checkbox"/>		
4.4.4. Dumps and Stockpiles	Required <input type="checkbox"/>		
4.4.4.1. Dumps (Stability Class II or less)	Required <input type="checkbox"/>		
4.4.4.2. Dumps (Stability Class III or greater) and Major Dumps	Required <input type="checkbox"/>		
4.4.5. Surface Water Management Structures	Required <input type="checkbox"/>		
4.4.5.1. Ponds or Impoundments (without Dams)	Required <input type="checkbox"/>		
4.4.5.2. Water Conveyance Structures	Required <input type="checkbox"/>		
4.4.6. Mine Roads	Required <input type="checkbox"/>		
4.4.7. Processing Plant (Mill)	Required <input type="checkbox"/>		
4.4.8. Buildings, Ancillary Facilities, and Other Infrastructure	Required <input type="checkbox"/>		
4.4.9. Closure Designs	Required <input type="checkbox"/>		
4.4.9.1. Open Pits	Required <input type="checkbox"/>		
4.4.9.2. Underground	Required <input type="checkbox"/>		
4.4.9.3. TSFs and Dams	Required <input type="checkbox"/>		
4.4.9.4. Dumps and Stockpiles	Required <input type="checkbox"/>		
4.4.9.5. Surface Water Management Structures	Required <input type="checkbox"/>		
5. RECLAMATION AND CLOSURE PLAN			
5.1. End Land Use Objectives and Capability Metrics for Planned Infrastructure/ Disturbance Footprints	Required <input type="checkbox"/>		
5.1.1. Pre-Mining End Land Use and Capability	Required <input type="checkbox"/>		
5.1.2. Post-Mining End Land Use and Capability Objectives/Metrics	Required <input type="checkbox"/>		
5.2. Existing Mine Disturbance Footprints and Conditions	Required <input type="checkbox"/>		
5.3. Proposed 5-Year Mine Disturbance Footprint	Required <input type="checkbox"/>		
5.4. Life of Mine Disturbance Footprint	Required <input type="checkbox"/>		
5.5. Reclamation and Closure Approaches and Prescriptions	Required <input type="checkbox"/>		
5.6. Habitat Compensation	Required <input type="checkbox"/>		
5.7. Trace Elements in Soils and Vegetation	Required <input type="checkbox"/> Methods <input type="checkbox"/>		

<p style="text-align: center;">Information</p> <p style="text-align: center;">(refer to Joint Application Information Requirements Guide for detailed information on each section)</p>	<p style="text-align: center;">Requirements</p>	<p style="text-align: center;">Comments</p>	<p style="text-align: center;">Location in Final Application</p>
5.8. Contaminated Sites and Ecological Risk Assessment	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
5.9. Disposal of Chemicals, Reagents, Hazardous Materials, and Contaminated Materials	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
5.10. Groundwater Well Decommissioning	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
5.11. Reclamation and Closure Research	Required <input type="checkbox"/>		
5.12. Reclamation Monitoring	Required <input type="checkbox"/>		
5.13. Post-closure Reclamation Maintenance	Required <input type="checkbox"/>		
5.14. Care and Maintenance	Required <input type="checkbox"/>		
6. WATER QUALITY MITIGATION AND WATER MODELLING			
6.1. Metal Leaching and Acid Rock Drainage Characterization	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.2. Geochemical Source Terms	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.3. Conceptual Site Model	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.4. Water Quality Mitigation Measures			
6.4.1. Source Control	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.4.1.1. Management Practices	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.4.1.2. Engineered Controls	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.4.2. Water Management Measures	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.4.3. Technology Selection			
6.4.3.1. Best Achievable Technology Evaluation	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.4.3.2. Technology Readiness Assessment	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.4.4. Water and Effluent Treatment			
6.4.4.1. Description	Required <input type="checkbox"/>		
6.4.4.2. Location	Required <input type="checkbox"/>		
6.4.4.3. Detailed Design	Required <input type="checkbox"/>		
6.4.4.4. Site-specific Treatment Effectiveness	Required <input type="checkbox"/>		
6.4.4.5. Performance Risks	Required <input type="checkbox"/>		
6.4.4.6. Influent and Effluent Water Quality	Required <input type="checkbox"/>		
6.4.4.7. Waste By-products	Required <input type="checkbox"/>		
6.4.4.8. Maintenance	Required <input type="checkbox"/>		
6.4.4.9. Emergency Response Procedures	Required <input type="checkbox"/>		
6.4.4.10. Contingency Plans	Required <input type="checkbox"/>		
6.4.4.11. Monitoring Plans	Required <input type="checkbox"/>		
6.4.4.12. Schedule	Required <input type="checkbox"/>		
6.4.5. Water Treatment Research and Development Program	Required <input type="checkbox"/>		
6.5. Hydrogeologic Modelling			
6.5.1. Conceptual Hydrogeologic Model	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.5.2. Numerical Hydrogeologic Model	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.6. Site-wide Water Balance Model	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
6.7. Surface Water Quality Model	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
7. EFFLUENT DISCHARGES TO THE ENVIRONMENT			

<p style="text-align: center;">Information</p> <p style="text-align: center;">(refer to Joint Application Information Requirements Guide for detailed information on each section)</p>	<p style="text-align: center;">Requirements</p>	<p style="text-align: center;">Comments</p>	<p style="text-align: center;">Location in Final Application</p>
7.1. Domestic Water/Sewage Treatment	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
7.2. Effluent Discharge	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
7.2.1. Non-point Source Discharges	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
7.3. Receiving Environment Modelling			
7.3.1. Initial Dilution Zone	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
8. ENVIRONMENTAL EFFECTS ASSESSMENT			
8.1. Aquatic Environment	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
8.2. Terrestrial Environment	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
8.3. Human Health	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
9. ENVIRONMENTAL MONITORING			
9.1. Mine Site Water Monitoring Program	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
9.2. Discharge Monitoring Program	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
9.3. Environmental Monitoring Program	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
9.4. Aquatic Effects Monitoring Program	Required <input type="checkbox"/> Methods <input type="checkbox"/>		
10. MANAGEMENT PLANS			
10.1. Environmental Management System	Required <input type="checkbox"/>		
10.2. Erosion and Sediment Control Plan	Required <input type="checkbox"/>		
10.3. Soil Management Plan	Required <input type="checkbox"/>		
10.4. Construction Environmental Management Plan	Required <input type="checkbox"/>		
10.5. Metal Leaching and Acid Rock Drainage Management Plan			
10.5.1. Definition of PAG and Metal Leaching Materials	Required <input type="checkbox"/>		
10.5.2. ML/ARD Management	Required <input type="checkbox"/>		
10.5.3. ML/ARD Monitoring	Required <input type="checkbox"/>		
10.5.4. ML/ARD Reporting	Required <input type="checkbox"/>		
10.6. Mine Site Water Management Plan	Required <input type="checkbox"/>		
10.7. Vegetation Management Plan	Required <input type="checkbox"/>		
10.8. Invasive Plant Management Plan	Required <input type="checkbox"/>		
10.9. Wildlife Management Plan	Required <input type="checkbox"/>		
10.10. Fugitive Dust Management Plan	Required <input type="checkbox"/>		
10.11. Archaeological Management and Impact Mitigation Plan	Required <input type="checkbox"/>		
10.12. Fuel Management and Spill Control Plan	Required <input type="checkbox"/>		
10.13. Combustible Dust Management Plan	Required <input type="checkbox"/>		
10.14. Chemicals and Materials Storage, Transfer, and Handling Plan	Required <input type="checkbox"/>		
10.15. Waste (Refuse and Emissions) Management Plan	Required <input type="checkbox"/>		
11. RECLAMATION LIABILITY COST ESTIMATE			
11.1. RLCE Parameters			
11.1.1. Time Period	Required <input type="checkbox"/>		
11.1.2. Costing Scenarios	Required <input type="checkbox"/>		
11.1.3. Progressive Reclamation	Required <input type="checkbox"/>		

<p style="text-align: center;">Information</p> <p style="text-align: center;">(refer to Joint Application Information Requirements Guide for detailed information on each section)</p>	<p style="text-align: center;">Requirements</p>	<p style="text-align: center;">Comments</p>	<p style="text-align: center;">Location in Final Application</p>
11.1.4. Third-party Costs	Required <input type="checkbox"/>		
11.1.5. Revenue Streams	Required <input type="checkbox"/>		
11.1.6. Mobilization/Demobilization	Required <input type="checkbox"/>		
11.1.7. Project Management	Required <input type="checkbox"/>		
11.1.8. Engineering/Consulting Costs	Required <input type="checkbox"/>		
11.1.9. Contingency Fees	Required <input type="checkbox"/>		
11.1.10. Discount Rates	Required <input type="checkbox"/>		
11.2. Required Components			
11.2.1. RLCE Summary Report	Required <input type="checkbox"/>		
11.2.2. RLCE Spreadsheets	Required <input type="checkbox"/>		
11.3. Cost Categories			
11.3.1. Cost Category 1 – Infrastructure Removal			
11.3.1.1. General Requirements	Required <input type="checkbox"/>		
11.3.1.2. Infrastructure Types	Required <input type="checkbox"/>		
11.3.2. Cost Category 2 – Site Remediation			
11.3.2.1. Contaminated Sites Investigations	Required <input type="checkbox"/>		
11.3.2.2. Soil Treatment	Required <input type="checkbox"/>		
11.3.3. Cost Category 3 – Conventional Reclamation			
11.3.3.1. General Requirements	Required <input type="checkbox"/>		
11.3.3.2. Mine Components	Required <input type="checkbox"/>		
11.3.3.3. Reclamation Activities	Required <input type="checkbox"/>		
11.3.3.4. Costs	Required <input type="checkbox"/>		
11.3.4. Cost Category 4 – Water Quality Mitigations			
11.3.4.1. General Requirements	Required <input type="checkbox"/>		
11.3.4.2. Capital Costs	Required <input type="checkbox"/>		
11.3.4.3. Operating Costs	Required <input type="checkbox"/>		
11.3.5. Cost Category 5 – Site Staffing			
11.3.5.1. General Requirements	Required <input type="checkbox"/>		
11.3.6. Cost Category 6 – Site Maintenance			
11.3.6.1. General Requirements	Required <input type="checkbox"/>		
11.3.6.2. Site Maintenance Items	Required <input type="checkbox"/>		
11.3.7. Cost Category 7 – Site Monitoring and Reporting			
11.3.7.1. General Requirements	Required <input type="checkbox"/>		
11.3.7.2. Monitoring Programs	Required <input type="checkbox"/>		
11.3.7.3. Monitoring Costs	Required <input type="checkbox"/>		
11.3.7.4. Reporting Costs	Required <input type="checkbox"/>		



Joint Application Information Requirements Table
(IRT)