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7.2.1 Identification and Selection of Valued Components

This subsection presents the rationale and justification for Candidate Valued Components (VCs), Selected VCs, and Candidate VCs not selected as VCs for Social Condition.

The approach of selecting VCs is consistent with the Guideline for the Selection of Valued Components and Assessment of Potential Effects (British Columbia Environmental Assessment Office (BC EAO), 9 September 2013) and requirements under the final Environmental Impact Statement (EIS) Guidelines (Agency, 2013) including the terminology and definitions for VCs and indicators. The purpose of this evaluation process is to select VCs that reflect the types of effects identified in the relevant legislation, revealed and identified though the issue scoping process, and to ensure effective, efficient, and focused analysis of potential effects from the proposed Blackwater Gold Project (the Project) (BC EAO, 2013).

Section 4.2 describes the methods used for determination of selected VCs. The process involves three steps:

- Identify Candidate VC;
- Evaluate Candidate VC; and
- Select Appropriate VCs.

The first step is the identification of the candidate VCs, which involves issue scoping. Issue scoping is done by identifying the interaction of the Project components or activities with the five pillars (Environmental, Economic, Social, Heritage, and Health), through consultation with stakeholder groups and by applying professional judgement taking into account environmental assessments conducted in the past on similar projects. Baseline characterization results provide the information to identify relevant candidate VCs representative of the five pillars.

The BC EAO established a Working Group (WG) consisting of provincial and federal regulatory agencies, Aboriginal groups, and identified stakeholder groups likely to be involved in, or affected by the Project. The WG's involvement in the pre-Application stage has focused primarily on reviewing the draft Application Information Requirements (dAIR) that includes information on the candidate VCs for the project. The public also provided comments on the dAIR. The comments from the WG and public on the candidate VCs have been incorporated into the issues scoping process. In addition, the Project-specific issues are generally indicative of local and regional values held by the public, First Nations, and other stakeholders. Issues tracking tables that document issues and concerns raised during the preparation of the AIR and Application are presented in **Appendix 3.1.3A** and **Appendix 3.1.3B** of this section. A summary of consultations is provided in **Appendix 3.1.3C**.

Table 7.2.1-1 includes the rationale for choosing each candidate VC as a result of the issue scoping, including details on the interactions of between the candidate VC and with Project activities.



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The second step is the evaluation of the candidate VCs to selected VCs. The candidate VCs were examined to confirm if they would interact with Project components and activities, and if those interactions would result in an environmental effect. Key interactions were identified as those that had a greater potential to result in adverse effects of higher significance. The evaluation also uses the VC attributes and key questions from the Guideline for the Selection of Valued Components and Assessment of Potential Effects (BC EAO, 9 September 2013) and is presented in **Table 7.2.1-2.**

In the evaluation process, if all attributes and questions were confirmed and answered with "Yes", the candidate VC becomes a selected VC. If "No" was answered to one or more of the attributes or evaluation questions; the candidate VC was not considered as a selected VC, unless it was a confirmed to be a component of concern. The outcome of the interactive process is a shorter list of VCs that appropriately reflects the concerns raised and the aspects of the broader 'environment' that are of most value to society. This list allows the assessment to focus on key issues for decision-makers and to address key concerns. **Section 4, Table 4.3-2** (Project Component and Activity Interaction Matrix) shows the potential key and moderate interactions between Project activities and components of the selected VCs.

The evaluation resulted in seven selected VCs considered for the Social effects assessments:

- Demographics;
- Regional and community infrastructure;
- · Regional and local services;
- Family and community well-being;
- Non-traditional land and resource use;
- Current Land and Resource Use for Traditional Purposes; and
- Visual resources.



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Table 7.2.1-1: Candidate Valued Component Rationale

Valued Component Candidates	Interaction with Project Activities	First Nations ⁽¹⁾	The Public and Other Stakeholders ⁽²⁾	EIS Guidelines
1. Demographics	Proposed Project's workforce demands and purchases	Saik'uz First Nation; Ulkatcho First Nation; Lhoosk'uz Dene Nation, Stellat'en.	No comments noted to date.	Section 9.1.2 Biophysical Environment – Human Environment
Regional and community infrastructure	 In-migration will create demands on housing, infrastructure and services in the region Population changes and mine-related logistics will create additional demands on transportation network infrastructure 	Sai'kuz First Nation; Ulkatcho First Nation	District of Vanderhoof, Nechako Valley Historical Society, Nechako Waste Reduction Initiative, landowner, Vanderhoof and District Chamber of Commerce, Vanderhoof International Air Show Society; Batnuni Lakes Guides & Outfitters Ltd.	Section 9.1.2 Biophysical Environment – Human Environment
3. Regional and local services	In-migration will create demand on regional services	Lhoosk'uz Dene Nation	RCMP, landowner, District of Vanderhoof, Nechako Valley Historical Society Nechako Waste Reduction Initiative, Vanderhoof and District Chamber of Commerce, Vanderhoof International Airshow Society, School District No. 91, Lakes Community District, Burns Lake Community Health Center, Regional District of Buckley-Nechako, Village of Burns Lake, District of Fort St. James, and Northern Health Authority	Section 9.1.2 Biophysical Environment – Human Environment
4. Family and community well-being	Proposed Project workforce demands and purchases will create changes in demographics and new project- related income and employment which would affect the well-being of families and communities	Ulkatcho First Nation; Sai'kuz First Nation	District of Vanderhoof	Section 9.1.2 Biophysical Environment – Human Environment
5. Non-traditional land and resource use	Potential effects due to land alterations associated mine facilities and traffic		Canadian Forest Products Ltd., landowner, BC FLNRO, West Chilcotin Tourism Association, and Crystal Lake Resort; CTN Ranching Ltd.; West Fraser Mills Ltd.	Section 9.1.2 Biophysical Environment – Human Environment
6. Current Land and Resource Use for Traditional Purposes	Potential effects due to land alterations associated mine facilities and traffic	Saik'uz First Nation; Ulkatcho First Nation; Lhoosk'uz Dene Nation	BC FLNRO	Section 9.1.2 Biophysical Environment Section 9.1.2 Biophysical Environment – Human Environment
7. Visual Resources	Potential effects due to land alterations, associated mine facilities and traffic	Saik'uz First Nation;	Rim Rock Ranch	NA
8. Culture Camps	Potential effects due to land alterations, associated mine facilities and traffic	Ulkatcho First Nation	No comments noted to date.	NA
9. Navigable Waters	Potential effects due to land alterations, associated mine facilities and traffic	Saik'uz First Nation; Ulkatcho First Nation; Lhoosk'uz Dene Nation	No comments noted to date.	Section 9.1.2 Biophysical Environment – Human Environment
10. Transportation	Potential effects due to land alterations, associated mine facilities and traffic	Saik'uz First Nation;	No comments noted to date.	Section 9.1.2 Biophysical Environment – Human Environment

Note: (1) "First Nation" concerns are from comments in the tracking tables in reference to Version A through F of the dAIR.

(2) "The Public and Other Stakeholders" comments do not include comments specific to study design, methods proposed for sampling.

Refer to Table 4.3-2 Project Component and Activity Interaction Matrix for Selected VCs



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Table 7.2.1-2: Evaluation of Candidate Valued Components

	Candidate VC	Attributes					Evaluation Key Questions				
et		Relevant ⁽¹⁾	Comprehensive ⁽²⁾	Representative ⁽³⁾	Responsive ⁽⁴⁾	Concise ⁽⁵⁾	Measurable ⁽⁶⁾	Grouping ⁽⁷⁾	Ultimate Receptor ⁽⁸⁾	Component of Concern ⁽⁹⁾	Selected VC (Included or Excluded)
1.	Demographics	Y – Applicable to the Social Pillar	Y – VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component.	Y – VC has measureable parameters.	Y – The potential effects of the candidate VC cannot be effectively represented by another VC.	Y - VC is an end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process.	Y – Demographics is a selected VC. Included
2.	community	Y – Applicable to the Social Pillar	Y- VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component.	Y – VC has measureable parameters.	Y – The potential effects of the candidate VC cannot be effectively represented by another VC.	Y - VC is an end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process.	Y - Regional and community infrastructure is a selected VC. Included
3.		Y – Applicable to the Social Pillar	Y- VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component.	Y – VC has measureable parameters.	Y – The potential effects of the candidate VC cannot be effectively represented by another VC	Y - VC is an end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process.	Y - Regional and local services is a selected VC. Included
4.	community well-	Y – Applicable to the Social Pillar	Y- VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component.	Y – VC has measureable parameters.	Y – The potential effects of the candidate VC cannot be effectively represented by another VC.	Y - VC is an end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process.	Y - Family and community well-being is a selected VC.
5.	Non-traditional land and resource use	to the Social	Y- VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component.	Y – VC has measureable parameters.	Y – The potential effects of the candidate VC cannot be effectively represented by another VC.	Y - VC is an end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process.	Y - Non-traditional land and resource use is a selected VC. Included
6.	Current Land Use for Traditional Purposes	Y – Applicable to the Social Pillar	Y – VC is needed to have full understanding of the Social Pillar.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component.	Y – VC has measureable parameters.	Y – The potential effects of the candidate VC cannot be effectively represented by another VC.	Y - VC is an end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process.	Y - Current Land Use for Traditional Purposes is a selected VC. Included
7.	Visual resources	Y – Applicable to the Social Pillar	Y- VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component.	Y – VC has measureable parameters.	Y – The potential effects of the candidate VC cannot be effectively represented by another VC.	Y - VC is an end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process.	
8.			N – VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e N – There is not a clear interaction with project activities and/or project component	N – VC does not have measureable parameters.	N – The potential effects of the candidate VC can be effectively represented by another VC.	N – VC is an intermediate receptor not the end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process	N – Culture Camps is not a selected VC. Excluded
9.	J	to the Social Pillar	,	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component	Y – VC has measureable parameters.	N – The potential effects of the candidate VC can be effectively represented by another VC.	N – VC is an intermediate receptor not the end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process	N- Navigable Waters is not a selected VC Excluded
10	·		Y- VC needed to have full understanding of the Social Pillar and Social subject area.	Y - VC is illustrative of the human environments to be possibly affected by the proposed project.	Y – VC is responsive to the potential project effects	e Y – Clear interaction with project activities and/or project component	Y – VC has measureable parameters.	N – The potential effects of the candidate VC can be effectively represented by another VC.	N – VC is an intermediate receptor not the end point in the effects pathway.	Y – VC is raised as a concern though the issues scoping process	N – Transportation is not a selected VC. Excluded

Notes: (1) Relevant to one of the five pillars (environmental, economic, social, heritage and health) and clearly linked to the values reflected in the issues raised in respect to the project; (2) Comprehensive, taken together, the VCs selected for an assessment should enable a full understanding of the important potential effects of the project; (3) Representative of the important features of the natural and human environment likely to be affected by the project; (4) Responsive to the potential effects of the project; (5) Concise, so the nature of the project-VC interaction and the resulting effect pathway can be clearly articulated and understood, and overlapping or redundant analysis is avoided; (6) Measurable, the potential effects of the project on the VC can be measured and monitored.; (7) Grouping, the potential effects of the candidate VC cannot be effectively represented by another VC.; (8) Ultimate Receptor, the ultimate receptors are humans.; (9) Component of Concern, includes issues and/or legislation raised by FNs, Federal or Provincial governments.

Refer to Table 4.3-2 Project Component and Activity Interaction Matrix for Selected VCs



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The evaluation process also resulted in several candidate VCs not chosen as selected VCs. Further rationale for not selecting these candidates VCs is show in **Table 7.2.1-3**.

Indicators are identified as required to further focus the analysis of interactions between the project and the selected VC. Indicators are aspects of the VC used to understand and evaluate the potential effect on the VC. They may comprise a species group, guild, or sub-population, or some other functional aspect, such as habitat, that is important to the integrity of the VC.

To be effective and useful, indicators must have the following attributes from the Guideline for the Selection of Valued Components and Assessment of Potential Effects (BC EAO, September 9, 2013). The rationale for the indicators proposed for the selected VCs is shown in **Table 7.2.1-4**.

Table 7.2.1-3: Candidate Valued Components Not Selected

Candidate Valued Component and Indicators	Rationale
Culture Camps	Culture Camps is not a selected VC but is captured within the Current land use for traditional purposes (CLUTP) VC. CLUTP has an indicator "Other cultural and traditional uses of the land (e.g., cultural and spiritual places, trails, navigation)".
Navigable Waters	Navigable Waters is not a selected VC but is captured within the Non-traditional land and resource use VC as the indicator "Recreational and commercial use of waterways."
Transportation	Transportation is not a selected VC but is captured within the Regional and community infrastructure VC.

Note: Refer to Table 4.3-2 Project Component and Activity Interaction Matrix for Selected VCs



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Table 7.2.1-4: Selected Valued Components and Rationale of Indicators and/or Factor

Pillar	Valued Components	Indicators and/or Factors for Assessment		Rationale of Indicator and/or Factor ⁽¹⁾
	1.Demographics	Population	•	The selected indicator is a measureable parameter and chosen because it can measure population changes.
	Regional and community infrastructure	 Regional and municipal infrastructure (water supply, water/sewage treatment, landfills, communications, electricity, and recreational facilities) Community housing and temporary accommodation Regional transportation (road, rail, air) 	•	These measureable parameters are chosen because they capture potential effects of the project on regional and community infrastructure.
	3. Regional and local services	Regional and local services and conditions (educational, health, social, and protective services)	•	These measureable parameters are chosen because they capture potential effects of the project on regional and local services.
	4.Family and community well- being	Economic hardshipCrime (including drug and alcohol abuse)Family relationships	•	These measureable parameters are chosen because they capture potential effects of the project on family and community well-being.
Social	5. Non-traditional land and resource use	 Protected areas and parks Recreation/tourism use (e.g., all-terrain vehicle use) Mining, exploration, and mineral tenures Forestry and timber resource use Hunting/trapping/guide outfitting Fishing and aquaculture Agriculture and grazing Range use Land ownership and tenures Recreational and commercial use of waterways Groundwater resource use Surface water resource use 	•	These measureable parameters are chosen because they capture potential effects of the project on Non-traditional land and resource use.
	6. Current land use for traditional purposes	 Hunting and trapping Fishing Plant gathering Other cultural and traditional uses of the land (e.g., cultural and spiritual places, trails, navigation) 	•	These measureable parameters were chosen though consultation with First Nations, Provincial and Federal governments to capture potential effects of the project on Current land use for traditional purposes.
	7. Visual resources	Visual record Demonstrated aesthetic value	•	Visual record is measure through viewshed analyses, to determine whether line of sight will occur between identified sensitive receptors and project facilities. Where spatial analyses confirm the occurrence of line of sight, potential effects are rated according to magnitude, geographic extent, duration, frequency and reversibility.
			•	Potential effects of the Project are assessed at locations where project components are expected to interact with features with



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Pillar	Valued Components	Indicators and/or Factors for Assessment	Rationale of Indicator and/or Factor ⁽¹⁾
			demonstrated aesthetic value. Landscapes designated with recreational significance, scenic value and visually sensitivity, and recreation sites and trails have been identified in the visual resources study areas. Potentially sensitive receptors where users are expected to congregate, represent users or observers of aesthetic value.

Note:

(1) Included indicators follow these attributes: *Relevant*: indicators must relate directly or indirectly to the integrity of the selected VC; *Practical*: there must be a practical way to evaluate the indicator, using existing or achievable data, predictive models, or the means; *Measurable*: the measurement of the selected indicator must generate useful data that inform our understanding of the potential effect on the VC; *Responsive* to the potential effects of the project; *Predictable* in terms of their response to the project. LSA = Local Study Area; RSA = Regional Study Area; VC = Valued Component

Refer to **Table 4.3-2** Project Component and Activity Interaction Matrix for Selected VCs

