

Yukon Socio-economic Data Gap Analysis

Synthesis Report

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Table of Contents

Summary	1
Introduction	3
Identification of Potential Socio-economic Effects	4
<i>Interviews</i>	4
<i>Case Studies</i>	5
<i>Social Fabric Metaphor</i>	5
Effects, Indicators and Valued Components: Valued Effects	6
Interview Themes	7
Theme 1: Extended Interpretations of the Social Fabric Metaphor	7
Theme 2: Contemporary Yukon Governance Context	9
Theme 3: Development-Associated Employment	9
Theme 4: Community Dynamics	10
An Indicator Typology for Socio-economic Effects Assessment	10
Concept Class 1. environmental and socioeconomic balance	11
Concept Class 2. holistic socio-economic circumstances	11
Concept Class 3. valued socio-economic effects	12
Concept Class 1 Measure Identification and Proposed Research Approaches	13
Concept Class 2 Measure Identification and Proposed Research Approaches	14
Concept Class 3 Valued Effect Identification, Gap Analysis and Proposed Research Approaches	15
Recommendations	18
References	20

Appendix 1: Interview Guide

Summary

The purpose of this project was to identify the gaps between a) the Yukon community-level socio-economic data currently available and b) the data required to assess the range of socio-economic effects that could potentially result from resource development projects in the Yukon. The stock of data currently available was proxied with the forthcoming Yukon Bureau of Statistics socio-economic web portal (SEWP). The range of socio-economic effects that could potentially result from Yukon resource development projects was elicited through 20 interviews with elders, community members, retired elected officials and socio-economic effects assessment practitioners. A second purpose of this project was to recommend research approaches that could be used to bridge the identified data gaps.

The research design for the project envisioned that interview participants would provide commentary on individual socio-economic effects and discuss the relative merits of using one type of indicator over another indicator to describe the effect. A social fabric weaving, with individual threads in the weaving representing a socio-economic effect, was developed and used as a grounding point for the semi-structured interviews. None of the interview participants expressed interest in embracing the social fabric metaphor on a thread-by-thread basis. How interview participants think about their socio-economic circumstances was not bounded by whether or not it is possible to quantitatively measure an effect.

A key discovery of this research paper, made through the integrative analysis of the 20 interviews, is that the data gaps perceived by community members are not all related to the indicators used to measure the socio-economic effects of development. Two other types of gaps also exist. A gap exists between a) the information needed for a community to be able to decide if the risk of environmental damage from a project outweighs the overall socio-economic benefits of the project and b) the information typically made available to community members via socio-economic effects assessments.

A gap also exists between a) the necessity for creating accurate descriptions of the current and overall socio-economic circumstances of Yukon communities and b) the socio-economic descriptions of communities that result from the use of a limited set of quantitative socio-economic data.

To explain how the three types of gaps might fit into the socio-economic effects assessment process, a three part typology of 'concept classes' was developed:

- 1) Concept Class 1: environmental and socio-economic balance;
- 2) Concept Class 2: holistic socio-economic circumstances; and,
- 3) Concept Class 3: valued socio-economic effects.

The paper proposes measures and research approaches for collection of data which address the Concept Class 1 and Concept Class 2 data gaps. With regard to Concept Class 3 indicators, collection of baseline data should be guided by input from assessment participants. A gap analysis of potential Concept Class 3 measures and Yukon Bureau of Statistics socioeconomic web portal indicators was also undertaken.

Several recommendations arise from the findings of the data gap analysis borne of the results of 20 interviews with elders, community members, retired elected officials and socio-economic effects assessment practitioners:

- A discussion should be initiated with First Nations, government departments and agencies, stakeholders and other interested parties to confirm the appropriateness of the proposed measures and the proposed research approaches.
- The Yukon Bureau of Statistics should track the valued socio-economic effects identified in future *Yukon Environmental and Socio-economic Assessment Act* assessments and, where appropriate, collect and house the secondary data that will facilitate the assessment of the identified effects.
- Socio-economic effects assessment practitioners should strive to ensure that the assessment of socio-economic values is not driven by the availability of secondary data.

Introduction

As of November 2005, development projects in the Yukon have been subject to assessment under the *Yukon Environmental and Socio-economic Assessment Act* (YESAA). With roots in Yukon First Nation land claim settlement agreements, YESAA features a much wider scope with regard to socio-economic effects assessment in comparison to its precursor legislation – the *Canadian Environmental Assessment Act* and the *Yukon Environmental Assessment Act*. The wider scope is in part due to the fact that under YESAA, the socio-economic effects of a project are no longer held to be by-products of environmental effects. Indeed, YESAA requires the explicit consideration of the socio-economic effects of a project, including negative impacts and positive benefits whether or not there are negative environmental effects.

Specifically, YESAA requires that the Yukon Environmental and Socio-economic Assessment Board (YESAB) take into consideration “the significance of any environmental or socio-economic effects of the project or existing project that have occurred or might occur in or outside Yukon, including the effects of malfunctions or accidents.”¹ At the same time as the scope of socio-economic assessment has broadened significantly, just what is meant by a ‘socio-economic effect’ is relatively undefined under YESAA. While the term *socio-economic effects* is defined to include “effects on economies, health, culture, traditions, lifestyles and heritage resources”² the scope and depth of analysis of those effects required to fulfill the intent of YESAA is not prescribed.

Assessment of the socio-economic effects associated with a project involves a comparison of predicted effects against socio-economic conditions which existed prior to project start-up. The description of *existing* socio-economic conditions is termed the baseline socio-economic analysis and is typically undertaken using *existing* socio-economic data. Existing socio-economic data for small, remote northern communities such as those which characterize the Yukon, consists primarily of Statistics Canada quinquennial Census data.

While the quality of Statistics Canada data is regarded as world-class, because the Census is undertaken at five year intervals (combined with a one to two year reporting lag), Census data presents less of a baseline and more of an evenly spaced historical snapshot of socio-economic conditions in a given community. In addition, the Census considers a very narrow range of socio-economic variables. Notwithstanding the narrow range, not all are relevant to socio-economic effects assessments.

Accordingly, the purposes of this project are to a) identify the gaps between the socio-economic data currently available at the community level (as delineated by the Bureau of Statistics socio-economic web portal) and the data required to assess the range of socio-economic effects that could potentially result from resource development projects in the Yukon and b) identify and recommend research approaches that could be used to bridge the identified data gaps.

¹ Paragraph 42.(1)(c), *Yukon Environmental and Socio-economic Assessment Act*, S.C. 2003, c. 7.

² Subsection 2.(1), *Yukon Environmental and Socio-economic Assessment Act*, S.C. 2003, c. 7.

Identification of Potential Socio-economic Effects

Socio-economic effects resulting from past development projects in the Yukon were identified through 20 interviews and four case studies.

Interviews

The interviews were conducted with elders, community members, retired elected officials and socio-economic effects assessment practitioners willing to share perspectives on the socio-economic effects of past resource development projects in the Yukon. One group interview was conducted with six individuals. The interview guide is attached as Appendix 1 to this report.

Of the 20 interviews, 15 were conducted in person and five were conducted by telephone. As outlined in the interview guide, all information shared by interview participants has been and will be kept strictly confidential. Information in a form which would allow the identification of an individual interview participant has not and will not be provided to the Government of Yukon, the Yukon Environmental and Socio-economic Assessment Board or anyone else.

The 'knowledge coverage' of interview participants is outlined below:

- on a cumulative basis, the Yukon-based life experience of interview participants totaled more than 600 years;
- three quarters (76%) of interview participants were male, one quarter (24%) were female;
- 23% of interview participants were of First Nations ancestry;
- 35% of interview participants were elected or appointed officials, and an additional 25% of interview participants had served as advisors to elected officials;
- 45% of interview participants were elders or retired senior officials;
- 20% of interview participants were socio-economic effects assessment practitioners; and,
- collectively, interview participants spoke of development experiences in all 14 Yukon communities.

Interview participants indicated knowledge of development activities in a wide variety of sectors. Those sectors include: forestry (logging, milling, tree seed harvesting), tourism (air charters, fishing, national parks, wilderness tourism), trapping, oil and gas (Alaska Highway Pipeline, Beaufort Sea oil and gas exploration), outfitting, road construction, energy (Aishihik Hydro Facility), and community infrastructure. Participants also indicated knowledge of several mining related projects including:

- Arctic Gold and Silver Mine
- Brewery Creek Mine
- Clinton Creek Mine
- Dublin Gulch Project
- Faro Mine
- Faro Reclamation Project
- Grew Creek Project
- Ketz River Mine
- Mactung Project
- Mount Skookum Mine
- Sa Dena Hes Mine
- United Keno Hill Mine
- Venus Mine
- Whitehorse Copper Mine
- various placer mines

Case Studies

Projects selected for the case studies, and the rationale for their selection, are outlined in the table below:

Project Name	Rationale for Selection
Mactung Mine Project Proposal (2009)	Selected because it is the most recent example of an Executive Committee-level Project Proposal and because of its location in an area which has seen a significant amount of mineral development activity.
The Integrated Community Sustainability Plan Volume I: The City of Dawson and Tr'ondëk Hwëch'in (2008)	Selected for its potential to provide insight into a collaborative (Municipal – Self-governing First Nation) values-based planning exercise reflective of the Yukon's contemporary governance context.
Alaska Highway Pipeline Inquiry (1977)	Selected as a benchmark example of a community-based <i>ex ante</i> examination of socio-economic effects of a proposed large-scale industrial development. Also selected on the basis of its extensive geographic footprint.
<i>Socio-economic Impacts of the Faro Mine on the Community of Ross River (1978)</i>	Selected as a rare example of an <i>ex post</i> (rather than predictive) examination of the socio-economic impact of a large-scale industrial development on a rural Yukon First Nation community.

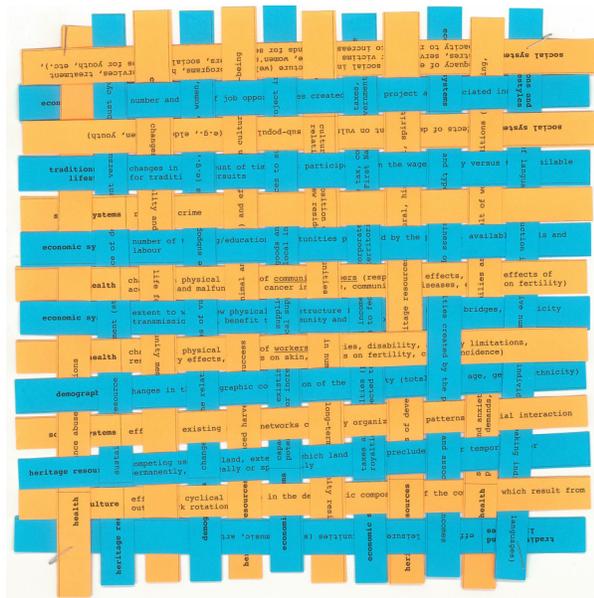
Each of the four project reports were reviewed for examples of socio-economic effects of past resource development projects in the Yukon and a list of socio-economic effects was compiled. The list of socio-economic effects was used in the gap analysis presented later in this report.

Social Fabric Metaphor

One way of describing the socio-economic baseline of a community is with the metaphor of a social fabric. The individual threads in the fabric represent the different issues, values and attributes that make each community unique. Each thread in the fabric is reliant on other threads to maintain its form. How well all of the threads fit together, how worn or strong each of the threads might be, speaks to the wellbeing of the community.

If the weave of the social fabric in a community is tight, the fabric keeps the community 'warm at night'. A torn or tattered fabric is less able to keep a community feeling 'warm and secure'.

A social fabric weaving was constructed for use in the interviews. A scan of the weaving is shown to the right. The fabric weaving was presented to participants in all 15 face-to-face interviews. With one exception, participants in interviews conducted by telephone were emailed a digital copy of the social fabric at the time of the interview.



The social fabric weaving was used as a grounding point for the semi-structured interviews. Participants were asked to keep the social fabric metaphor in mind, and to respond to the series of questions outlined below:

Q4. Now, thinking about the major development projects you have been witness to in the Yukon, please describe for me the socio-economic effects of those projects that you have seen contribute to the weakening of the social fabric in a community.

Q5. Were any of the socio-economic effects of those projects strong enough to cause a tear in the community's social fabric?

Q6. Next, can you describe for me the socio-economic effects of those projects that you have seen contribute to the strengthening of the social fabric in a community?

Q7. Were there any socio-economic changes brought about by development projects that continued to affect the community after project completion?

The social fabric metaphor and weaving proved to be a very useful data collection methodology as it allowed people to respond to the concept of socio-economic effects assessment on a variety of levels.

The research design outlined in the project proposal envisioned that interview participants would provide commentary on specific threads (i.e., individual socio-economic effects) and discuss the relative merits of using one type of indicator over another indicator to describe the effect. None of the interview participants expressed interest in embracing the social fabric metaphor on a thread-by-thread basis. Respondents spoke instead of their own personal experiences at a much more abstract level. Somewhat surprisingly, respondents were generally more apt to speak of the positive effects of development rather than the negative.

How respondents think about socio-economic circumstances was not bounded by whether or not it is possible to quantitatively measure an effect. This should serve as a reminder that socio-economic indicators are merely proxies for fragments of socio-economic circumstances. In consequence, effects assessment practitioners must strive to ensure that the assessment of socio-economic values is not driven by the availability of secondary data.

Effects, Indicators and Valued Components: Valued Effects

One of the findings of this research project was that the terminology used in socio-economic effects assessments is not always familiar to interview participants. Participants generally spoke in terms of socio-economic effects, the positive and negative social and economic changes that are experienced at the community level as a result of development. Descriptions of effects were sometimes presented with reference to indicators, or how the effect might possibly be measured. With the exception of the assessment practitioners, none of the interview participants made mention of the term "valued component" or "valued socio-economic component".

The YESAB *Guide to Socio-economic Effects Assessments* (2006, Appendix A) defines valued components as "aspects of the economic, social, biophysical or cultural fabric of a community or region that are considered important by the party who defines them."

While the YESAB definition of *valued component* refers to ‘aspects important to community members’, YESAB practice appears to be to use valued components as category headings for lists of indicators. To the extent that a list of indicators can collectively describe changes in an aspect of community life that has been identified as important, such an approach is conceptually congruent.

To effectively communicate the perspectives of interview participants, this paper introduces the term *valued effect*. A valued effect is defined to include the social and economic effects of development, both positive and negative, considered to be important by assessment participants whether or not the effects can be measured.

Interview Themes

Four key themes, each described below, emerged from the integrative analysis of the interviews:

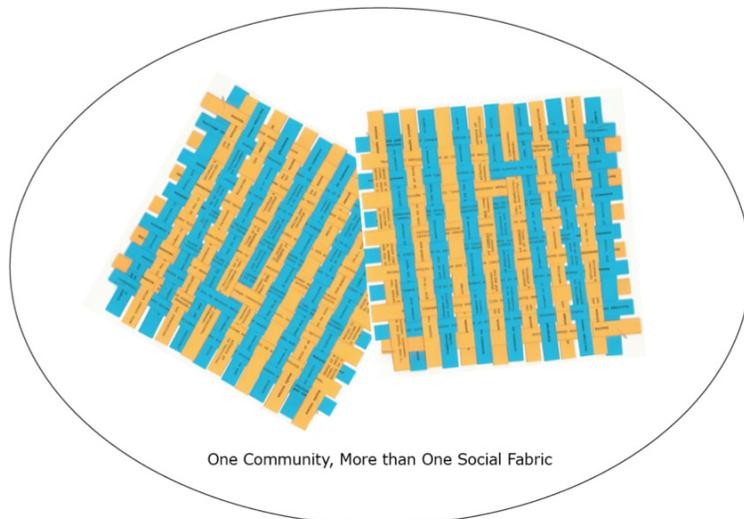
- extended interpretations of the social fabric metaphor;
- contemporary Yukon governance context;
- development-associated employment; and,
- community dynamics.

Theme 1: Extended Interpretations of the Social Fabric Metaphor

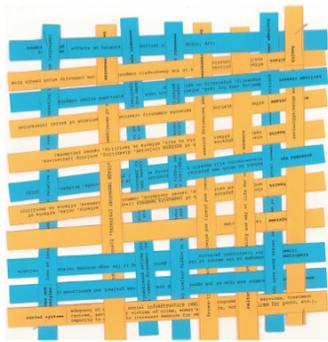
To indicate that interview participants did not embrace the social fabric metaphor on a thread-by-thread basis is not meant to suggest that participants did not engage with the metaphor. Indeed, quite the opposite was true as interview participants extended the social fabric metaphor in several different directions. Five expanded interpretations of the social fabric metaphor surfaced by interview participants are presented below.

One Community, More than One Social Fabric

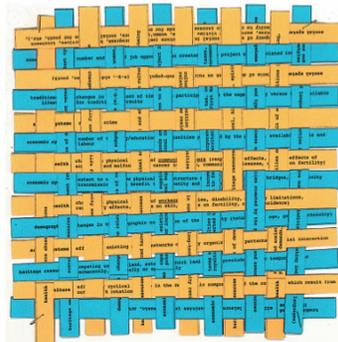
It is sometimes assumed that a given community features a single social fabric representative of the whole community. As was pointed out by more than one interview respondent, a single community may feature more than one social fabric. A thorough socio-economic effects assessment will need to recognize that the socio-economic issues of concern will likely be different for each of the fabrics in a community.



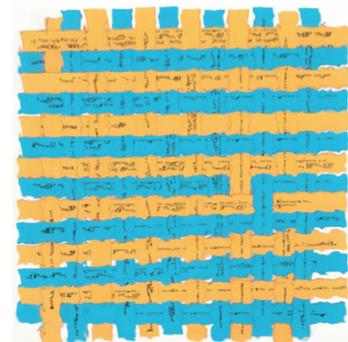
Multiple Communities, Multiple Social Fabric Conditions



Worn Social Fabric



Resilient Social Fabric



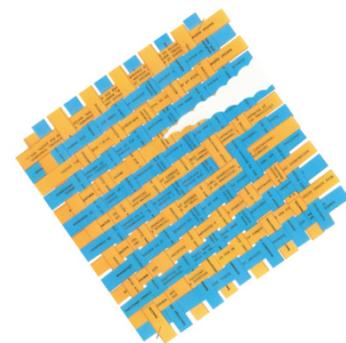
Brittle Social Fabric

Interview participants shared several insights about how the condition of a social fabric can vary from community to community. The fabric in one community could be worn, suggesting that the community is not well poised to maximize the positive benefits and minimize the adverse effects of development. A community with its social fabric in such a condition may well prefer to see development occur at some point in the future rather than at the present time.

The social fabric in another community may be highly resilient, suggesting that the community can readily adapt to change brought about by development. The community is poised to maximize the positive benefits and minimize the adverse effects of development. In another community, what was described by one respondent as a “backlog of grief” can make the social fabric rigid or brittle. Such a community may not be well-positioned to respond to development proposals in a comprehensive manner. A go-slow and long term lead-in to development projects was suggested as an appropriate strategy for a community with social fabric in such a condition.

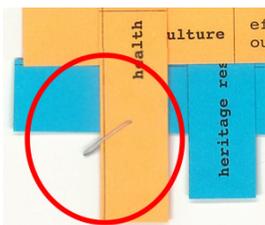
Torn Social Fabric

Interview participants also pointed out that a past event or series of events may have caused the social fabric (or some particular aspect of the fabric) to tear years or even decades before. This speaks to the importance of the baseline assessment attempting to be more than a snapshot of the community circumstances at the time of filing of a Project Proposal. It was also noted that sometimes how a project is presented to a community can on its own cause the fabric to tear.



Torn Social Fabric

Community Leaders



‘How interesting that you’ve used staples to hold the paper weaving together, the staples are like leaders in a community, they hold things together.’ This observation by an interview participant pointed out that the success of a community’s response to development is connected to its leadership. Communities with effective leaders are better poised to maximize the positive benefits and minimize the adverse effects of development.

Theme 4: Community Dynamics

Several interview participants pointed out that Yukon communities, even those which feature a single social fabric, are not homogeneous. This was expressed by some in terms of the existence of two economies, one a traditional land-based economy and the other an industrial economy. Individuals who participate fully or near-fully in the traditional land-based economy go about their lives in the absence or near-absence of public institutions. Given that the environmental assessment process is highly institutionalized, it is not reasonable to expect all community members to engage in an institutionalized consultation process at every opportunity, or even at all.

Community dynamic-related observations of interview participants also included:

- the notion that a proponent has “talked” to a community is not borne out if a broad cross section of the community has not been involved in the discussions;
- it is important to recognize that people in a community who are in a position to benefit from development will tend to be in favour of development; and,
- a healthy community can “tip” a development opportunity into something of overall benefit to the community, a community that is less healthy may not be able to effect the “tip”.

A Typology for Socio-economic Effects Assessment

The synthesis of themes described above led to a discovery that the gaps perceived by interview participants are not all related to the indicators used to measure the socio-economic effects of development. Two other types of gaps also exist. First, a gap exists between community-level perceptions about what socio-economic effects assessment is attempting to achieve and what analysis of socio-economic indicator data can deliver. Second, a gap also exists between how socio-economic data is used to describe the socio-economic circumstances of a community and the key socio-economic questions that assessment participants have about the proposed development.

To explain how the three types of gaps might fit into the socio-economic effects assessment process, a three part typology of ‘concept classes’ was developed. The three concept classes include:

- 1) measures that speak to the balance between the environmental and socio-economic effects of a project;
- 2) measures that consider the holistic well-being of the community; and,
- 3) measures that consider specific valued effects³ of projects.

³ As introduced earlier in the paper, a *valued effect* is defined to include the social and economic effects of development, both positive and negative, considered to be important by assessment participants whether or not the effects can be measured.

Concept Class 1. environmental and socio-economic balance

Several interview participants expressed the sentiment below:

'YESAA assessments should help communities be able to decide if the risk of environmental damage from a project outweighs the overall socio-economic benefits of the project'.

For the project assessment to be successful, adequate and understandable information must be presented to allow community members to decide if the risk of environmental damage is greater than the potential net benefits of the project. Note that it is not the role of YESAB to ensure that a balance is achieved, but rather to ensure that sufficient non-technical information has been presented to assessment participants.

To be effective, measures within this concept class need to address the temporal and spatial dimensions of the project. For example, if the risk of environmental damage is being balanced off against the potential for employment and business opportunities, assessment participants will need to know if the environmental risk is temporary or perpetual. Similarly, assessment participants will need to know the expected mine life and number of jobs and scale of business opportunities likely to accompany the project.

The environmental impacts and adverse social effects of development projects tend to be localized and concentrated while the positive economic benefits tend to be distributed more widely according to existing economic linkages. To be able to determine if a double balance can be achieved, community members will need to know the spatial distribution of predicted impacts and effects of the project.

Concept Class 2. holistic socio-economic circumstances

Unlike the natural sciences or the field of accounting, the practice of socio-economic effects assessment operates within the realm of the social sciences, a realm fraught with measurement difficulties. One result of those measurement difficulties is that a complete picture of the socio-economic circumstances of a community is usually left out of the assessment discussion simply because it cannot be measured. Arguably, the purpose of a socio-economic baseline is to draw a comprehensive picture of the socio-economic circumstances of a community. When that picture, however, is limited by data availability it cannot purport to be a complete picture.

To paraphrase one interview participant, 'you need to know in a holistic sense where a community is at before the socio-economic effects assessment is done, otherwise the whole socio-economic effects assessment process is speculative at best'. This perspective was echoed by several interview respondents. For the socio-economic baseline to be truly holistic, interview participants indicated that the baseline assessment needs to:

- in collaboration with the community, assess the past and current condition of the social fabric in the whole community;
- ensure that all community members have had their say in the assessment, not just the 'land claims elite', not just the articulate and literate;
- recognize that the social fabric in a community is ever changing, that there is an ebb and flow to community well-being;

- recognize that the current condition of the social fabric in a community is the result of past events in the community, that development can amplify underlying socio-economic conditions;
- identify the potential of the project to enable the bringing forward of traditional (land, language and culture) values to the next generation.

Concept Class 3. valued socio-economic effects

As noted in the introduction to this paper, YESAA features a much wider scope with regard to socio-economic effects assessment in comparison to its precursor legislation. The socio-economic effects of a project are no longer held to be by-products of environmental effects. In consequence, the socio-economic effects of a project, including negative impacts and positive benefits, must be explicitly considered.

Socio-economic effects are selected for inclusion in the assessment on the basis of whether or not they are important (i.e., valued) by community members. The *Proponents Guide to Information Requirements for Executive Committee Project Proposal Submissions* issued by YESAB states that project proponents are to:

“Identify the key environmental and socio-economic components that may be affected by the project and present a selected list of expected VCs⁴ for the project, and the rationale for each selection. Focus on the components identified as being the most important according to the issues and concerns raised by government, stakeholders, First Nations and the public.”⁵

The *Proponents Guide to Information Requirements for Executive Committee Project Proposal Submissions* also states:

“Although no process for identifying VCs has been formalized, these components are typically identified through consultation with relevant government departments and agencies, stakeholders, local First Nations and other interested parties.”⁶

To be clear, the identification of valued socio-economic effects is to be done in collaboration with the proximate communities. It is not the role of the regulator to prescribe the valued effects for which a path of information from baseline through all subsequent steps in the assessment process can be traced.

With the three concept classes now explained, the next two sections of the paper consider how the Concept Class 1 and 2 gaps can be addressed through a series of proposed measures. Research approaches to populate the measures are also described. The third section following presents a gap analysis of potential Concept Class 3 valued effects (with identified measures compared against the current contents of the Yukon Bureau of Statistics socio-economic web portal) and proposes research approaches for identified data gaps.

⁴ “VCs” is an abbreviation of “Valued Environmental and Socio-economic Components”.

⁵ Yukon Environmental and Socio-economic Assessment Board, *Proponents Guide to Information Requirements for Executive Committee Project Proposal Submissions*, 2005, p.34.

⁶ Yukon Environmental and Socio-economic Assessment Board, *Proponents Guide to Information Requirements for Executive Committee Project Proposal Submissions*, 2005, p.32.

Concept Class 1 Measure Identification and Proposed Research Approaches

Proposed Concept Class 1 measures and research approaches are presented below. As noted earlier, the gap identified by interview participants exists between a) the information needed for a community to be able to decide if the risk of environmental damage from a project outweighs the overall socio-economic benefits of the project and b) the information that is typically made available to community members via socio-economic effects assessments. There are currently no socio-economic data being collected that address this gap.

Measures for Concept Class 1: environmental and socio-economic balance

Proposed Balance Measure (BM)	Proposed Research Approach
BM 1. Degree to which the community feels it understands the project timing	Multi-stage community engagement: 1) project introduction, 2) advance communication of presentation materials, 3) presentations (town hall, small group), 4) follow-up (town hall, small-group), 5) final call for questions, 6) survey of community leaders to assess degree of understanding.
BM 2. Degree to which the community feels it understands the technical aspects of the project	Multi-stage community engagement: 1) project introduction, 2) advance communication of presentation materials, 3) presentations (town hall, small group), 4) follow-up (town hall, small-group), 5) final call for questions, 6) survey of community leaders to assess degree of understanding.
BM 3. Degree to which the community feels it understands the environmental risks of the project	Multi-stage community engagement: 1) project introduction, 2) advance communication of presentation materials, 3) presentations (town hall, small group), 4) follow-up (town hall, small-group), 5) final call for questions, 6) survey of community leaders to assess degree of understanding.
BM 4. Degree to which the community feels it understands the potential positive socio-economic effects of the project	Multi-stage community engagement: 1) project introduction, 2) advance communication of presentation materials, 3) presentations (town hall, small group), 4) follow-up (town hall, small-group), 5) final call for questions, 6) survey of community leaders to assess degree of understanding.
BM 5. Degree to which the community feels it understands the potential adverse socio-economic effects of the project	Multi-stage community engagement: 1) project introduction, 2) advance communication of presentation materials, 3) presentations (town hall, small group), 4) follow-up (town hall, small-group), 5) final call for questions, 6) survey of community leaders to assess degree of understanding.
BM 6. Spatial project effects assessment	Cross benefit analysis showing the geographic span of 1) predicted environmental risks, 2) predicted adverse socio-economic effects and 3) predicted positive socio-economic effects.
BM 7. Temporal project effects assessment	Time horizon analysis showing predicted timing of 1) environmental risks, 2) adverse socio-economic effects and 3) positive socio-economic effects.

Concept Class 2 Measure Identification and Proposed Research Approaches

Proposed Concept Class 2 measures and research approaches are presented below. As noted earlier, interview participants identified a gap between a) the necessity for creating accurate descriptions of the current and overall socio-economic circumstances of Yukon communities and b) the socio-economic descriptions of communities that result from the use of a limited set of quantitative socio-economic data. There are currently no socio-economic data being collected that address this gap.

Measures for Concept Class 2: holistic socio-economic circumstances

Proposed Holistic Measure (HM)	Proposed Research Approach
HM 1. Regional-level assessment of the distribution and scale of potential economic effects for each proximate community	Regional-level economic impact analysis specific to the dimensions of the proposed project that identifies the scale and duration of the potential “economic wave” for each proximate community.
HM 2. Condition of social fabric(s) in proximate communities	Collaborative research with proximate communities to 1) determine how to assess the social fabric and 2) assess the social fabric.
HM 3. Estimate of size available labour force in proximate communities interested in training/ employment opportunities	Interviews with community and government officials.
HM 4. Assessment of efforts by project proponent to create employment opportunities for people resident in the community who would not otherwise have opportunities	Interviews with community and government officials.
HM 5. Estimate of location of residence of rotational workforce	Comparative analysis of contemporary mining projects in the Yukon to identify how much of the project workforce is likely to reside outside of the project area, outside of proximate communities and outside of the Yukon.
HM 6. Estimate of the distribution of adverse socio-economic effects by demographic and gender strata	Collaborative primary research with proximate communities.
HM 7. Estimate of the distribution of positive socio-economic effects by demographic and gender strata	Collaborative primary research with proximate communities.
HM 8. Assessment of quality of options presented by project proponent for different project implementation alternatives (e.g., minimize adverse socio-economic effects, maximize socio-economic benefits, market optimized)	Qualitative analysis of project implementation alternatives [may require YESAB to direct proponent to describe implementation alternatives].
HM 9. Potential for the project to bring forward traditional (land, language and cultural) values	Collaborative primary research with proximate communities.
HM 10. Consolidation of geographic footprint of YESAA designated office-level applications since 2005.	Data mining of YESAB Online Registry to identify previous loss of habitat, loss/creation of wildlife corridors in project area.

Concept Class 3 Valued Effect Identification, Gap Analysis and Proposed Research Approaches

To better fulfill its YESAA-related obligations on behalf of the Yukon Government, the Yukon Bureau of Statistics is currently building a socio-economic web portal (SEWP). The web portal will include the Bureau’s community-level statistical data holdings as well as administrative data from other Yukon Government departments and agencies. The table below, supplied by the Bureau, outlines the data sets that have so far been identified for inclusion in the portal.

YBS Socio-economic Web Portal (SEWP) Data Tables

2006 Census Data	Yukon Bureau of Statistics Data
Population [by age and sex]	Real Estate Transactions
Marital Status and Family Structure	Median Rent and Vacancy Rates
Housing Tenure, Condition, Period of Construction and Structural Type	Health Care Population Estimates
Private Household Size and Type	Vital Statistics (Birth and Death Rates)
Mother Tongue	Building Permits
Language [official and non-official]	Aircraft Movements
Mobility and Immigration	Fuel Prices
Aboriginal Population	Community Spatial Price Index
Labour Force Participation	Crime Statistics
Labour Force Class	Business Statistics [number of businesses]
Labour Force by Occupation	Public School Enrolment
Labour Force by Industry	
Place of Employment	
Employed Labour Force Mode of Transportation	
Language Used Most Often at Work	
Unpaid Work	
Postsecondary Qualifications by Major Field of Study	
Highest Certificate, Diploma or Degree	
Postsecondary Qualification by Location of Study	
Aboriginal Ancestry	
Visible Minority Groups	
Population by Ethnic Origin	
Total, After-tax and Employment Income in 2005	
2005 Economic Family Income	
2005 Non-economic Family Income	
2005 Household Income	
Dwelling and Household Costs	
Population by Immigrant Status and Place of Birth	

The list of potential valued effects presented in the table below (Measures for Concept Class 3: valued socio-economic effects) is an adaptation of the list of effects contained in the paper weaving of the social fabric. The social fabric list was augmented with valued effects identified by interview participants and gleaned from the case studies.

The table also presents the results of the socio-economic web portal gap analysis. A 'no' indicates that the SEWP portal does not contain the data required to assess the effect; a data gap exists. A 'yes' indicates that the SEWP portal contains the data required to assess the effect; no data gap exists. 'Partial' indicates a partial data gap.

Measures for Concept Class 3. valued socio-economic effects

Potential Valued Effects (VE)	SEWP Data?	Proposed Research Approach
Economic Systems and Demographics		
VE 1. Number and type of jobs	no	Proponent estimates, multiplier analysis, comparative analysis.
VE 2. Labour force participation	yes	2006 Census.
VE 3. Labour incomes	no	Proponent estimates, multiplier analysis, Survey of Employment, Payroll and Hours.
VE 4. Number and type of businesses	yes	YBS business survey.
VE 5. Available skills and labour (education, training, experience)	partial	Education levels from 2006 Census, training plan analysis.
VE 6. Index of "opportunity cachet" for employment opportunities	no	Collaborative primary research with proximate communities.
VE 7. Capacity of existing Yukon suppliers of goods and services to supply project inputs	partial	YBS Business Survey, interviews with community officials.
VE 8. Potential for project to result in a boom and bust scenario	no	Economic impact analysis, analysis of the distribution of positive socio-economic effects.
VE 9. Taxes and royalties (personal income tax, corporate income tax, commodity taxes, resource royalties) flowing to federal, territorial and First Nation governments	no	Economic modeling to estimate taxes, fees and royalties.
VE 10. Stock and quality of physical infrastructure in and near the community (roads, bridges, electricity, communications, municipal services)	no	Interviews with community and government officials.
VE 11. Housing stock and quality	yes	2006 Census.
VE 12. Land availability (residential and commercial)	no	Interviews with community officials.
VE 13. Potential for technology transfer	no	Interviews with company and community officials.
VE 14. Potential for price inflation	yes	YBS data.
VE 15. Potential for crowding out in other economic sectors	no	Interviews with community officials.
VE 16. Demographic composition of the community in terms of total level, age, gender and ethnicity	yes	2006 Census. YBS Health Care Population Estimates.
VE 17. Sizes of vulnerable populations (e.g., elders, women, youth) relative to overall population	yes	2006 Census. YBS Health Care Population Estimates.
VE 18. Population mobility/turnover	partial	2006 Census. YBS Migration Estimates.

Potential Valued Effects (VE)	SEWP Data?	Proposed Research Approach
Health		
VE 19. Physical health of workers (injuries, disability, activity limitations, respiratory effects, effects on skin, effects on fertility, cancer incidence)	no	Yukon Community Health Survey. (Yukon-level data in Canadian Community Health Survey).
VE 20. Physical health of community members (respiratory effects, noise, effects of accidents and malfunctions, cancer incidence, communicable diseases, effects on fertility)	no	Yukon Community Health Survey. (Yukon-level data in Canadian Community Health Survey).
VE 21. Stress and anxiety experienced by families as a result of work conditions (scheduling, physical demands, etc.)	no	Yukon Community Health Survey.
VE 22. Prevalence of substance abuse/addictions	no	Yukon Community Health Survey. (Yukon-level data in Canadian Community Health Survey).
VE 23. Potential for traffic accidents	no	Analysis of transportation routing options.
VE 24. Potential for industrial accidents	no	Comparative analysis.
Culture		
VE 25. Cultural composition of communities (e.g., proportion of long-term community residents relative to new residents)	yes	2006 Census.
VE 26. Quality and way of life for community members	no	Collaborative primary research with proximate communities.
Traditions and Lifestyles		
VE 27. Time spent participating in the wage economy versus time available for traditional pursuits	no	Collaborative primary research with proximate communities.
VE 28. Traditional land use	no	Collaborative primary research with proximate communities.
VE 29. Relative number of individual speaking indigenous languages	yes	2006 Census.
VE 30. Leisure opportunities (sports, music, art, crafts, etc.)	no	Collaborative primary research with proximate communities.
Heritage Resources		
VE 31. Preservation of heritage resources (cultural, historical, spiritual)	no	Collaborative primary research with proximate communities.
VE 32. Harvesting success (both animal and plant)	no	Collaborative primary research with proximate communities.
VE 33. Competing uses for land, extent to which land use is precluded either temporarily or permanently, physically or spiritually	no	Collaborative primary research with proximate communities.
VE 34. Sustainable resource development (stable pace of development versus boom-bust cycle)	no	Economic impact analysis, estimate of the distribution of positive socio-economic effects.

Potential Valued Effects (VE)	SEWP Data?	Proposed Research Approach
Social Systems		
VE 35. Capacity of existing social infrastructure (wellness programs, health services, treatment centres, services for victims of crime, women's shelters, social services for youth, etc.)	no	Yukon Government administrative data, collaborative primary community research, case studies.
VE 36. Community leadership capacity and potential	no	Collaborative primary research with proximate communities.
VE 37. Rates of crime	yes	YBS data.
VE 38. Well being of vulnerable sub-populations (e.g., elders, women, youth)	no	Community interviews.
VE 39. Patterns of social interaction	no	Collaborative primary community research.
VE 40. Safety and security	partial	Crime rate statistics, officer counts, collaborative primary community research. (Yukon-level data in General Social Survey).
VE 41. Community participation (incl. volunteerism)	yes	2006 Census.
VE 42. Having a decent place to live	partial	2006 Census, collaborative primary community research.
VE 43. Degree of cooperation among different services agencies in proximate communities	no	Collaborative primary community research.
VE 44. Potential for social destabilization	no	Estimate of income gap (top quartile vs. bottom quartile).
VE 45. Change in family dynamics	no	Family case studies.

Recommendations

Several recommendations arise from the findings of the data gap analysis borne of the results of 20 interviews with elders, community members, retired elected officials and socio-economic effects assessment practitioners:

- The Concept Class 1 and Concept Class 2 approaches and associated measures represent a significant augmentation to current YESAA assessment practices. It is recommended that a discussion be initiated with First Nations, government departments and agencies, stakeholders and other interested parties to confirm the appropriateness of the proposed measures and the proposed research approaches.
- While not all of the data recommended for collection falls within the mandate of the Yukon Bureau of Statistics, effective assessment of the potential valued effects listed on pages 15, 16 and 17 will require the Yukon Bureau of Statistics to expand and maintain the range of community-level socio-economic data beyond what it currently collects. It is recommended that the Yukon Bureau of Statistics track the valued socio-economic effects identified in future YESAA assessments and, where appropriate, collect and house the secondary data that will facilitate the assessment of the identified effects.
- How interview participants think about their socio-economic circumstances and potential socio-economic effects of development is not bounded by whether or not it

is possible to quantitatively measure the circumstance or effect. It is recommended that effects assessment practitioners strive to ensure that the assessment of socio-economic values is not driven by the availability of secondary data.

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**Improving the Effectiveness of
YESAA Socio-economic Baseline Assessments**

Interview Guide

Respondent name: _____

Respondent code: _____

Interview completed by: _____

Date of interview: _____

Improving the Effectiveness of YESAA Socio-economic Baseline Assessments

Introduction

Thank you for taking the time to meet with us today. On behalf of the Yukon Bureau of Statistics and the Yukon Environmental and Socio-economic Assessment Board, we are conducting interviews with Yukon people who have first-hand knowledge of the socio-economic effects of past resource development projects in the Yukon. Before we begin I'd like to explain a bit more about what we're up to and why we have come to speak with you today.

The *Yukon Environmental and Socio-economic Assessment Act* features a much wider scope with regard to socio-economic effects assessment in comparison to its precursor legislation – the *Canadian Environmental Assessment Act* and the *Yukon Environmental Assessment Act*. The wider scope is in part due to the fact that under YESAA, the socio-economic effects of a project are no longer held to be by-products of environmental effects. Indeed, YESAA requires the explicit consideration of the socio-economic effects of a project, including negative impacts and positive benefits whether or not there are negative environmental effects. The wider scope provides a window of opportunity for the inclusion of a broader range of economic and social effects such than was previously the case in the Yukon. The term "socio-economic effects" includes effects on economies, health, culture, traditions, lifestyles and heritage resources.

YESAA assessments must ensure that development projects are done in a way that 'fosters beneficial socio-economic change without undermining the ecological and social systems on which communities and their residents depend'. The Board must consider the significance of the socio-economic effects of projects. Where adverse effects have been identified, the Board must also examine the significance of socio-economic effects of the project in combination with socio-economic effects of other projects.

Key to identifying and assessing the socio-economic effects of projects is an understanding of the pre-development socio-economic conditions in communities. For a variety of reasons, baseline studies of socio-economic conditions are often very lengthy and badly focused. Typically, relatively little of the socio-economic content in the baseline analysis can be properly matched with predicted socio-economic effects either in terms of content or in terms of timing.

To improve the effectiveness of baseline socio-economic studies we are seeking to identify the gaps between available community-level socio-economic data and the data needed to properly assess the socio-economic effects of development projects. The first step in the project will be to identify the socio-economic effects that flowed from previous Yukon development projects (or in the lingo of environmental assessment, the potential valued socio-economic components [VESECs]). The second step is to identify the socio-economic data required to prepare robust baseline assessments. The third step is to identify the gaps between the required data and the available data and recommend approaches for generating the data needed to bridge the gaps.

We are here today to ask for your help with the first step, identifying the socio-economic effects that flowed from previous Yukon development projects. Please be assured that any information you share with us today will be kept strictly confidential. Your information will not be provided to the Government of Yukon, the Yukon Environmental and Socio-economic Assessment Board or anyone else in a form which would allow the identification of an individual interview participant.

Improving the Effectiveness of YESAA Socio-economic Baseline Assessments

Introductory Questions

Q1. To begin, in what communities have you lived or worked in the Yukon where you have seen major development projects be planned and implemented?

Q2. Over how many years have you seen major development projects be planned and implemented in the Yukon?

Q3. Which major development projects have you seen be planned and implemented in the Yukon?

Social Fabric Metaphor

One way of describing the socio-economic baseline of a community is by using the metaphor of social fabric. The individual threads in the fabric represent the different issues, values and attributes that make each community unique. Each thread in the fabric is reliant on other threads to maintain its form. How well all of the threads fit together, how worn or strong each of the threads might be, speaks to the social health of the community.

I have made a social fabric weaving out of paper to show you what I mean. The colors I have chosen have no significance and the threads I have chosen to include are merely illustrative. Now, with the social fabric metaphor in mind, I would like to ask you some more questions....

[prompts]...

- *health*
- *social systems*
- *culture*
- *heritage resources*
- *traditions and lifestyles*
- *demographics*
- *economic systems*

Q4. Now, thinking about the major development projects you have been witness to in the Yukon, please describe for me the socio-economic effects of those projects that you have seen contribute to the weakening of the social fabric in a community.

Q5. Were any of the socio-economic effects of those projects strong enough to cause a tear in the community's social fabric?

Q6. Next, can you describe for me the socio-economic effects of those projects that you have seen contribute to the strengthening of the social fabric in a community?

Q7. Were there any socio-economic changes brought about by development projects that continued to affect the community after project completion?