Fish Habitat Management System for Yukon Placer Mining

Economic Health Monitoring Protocol

Panel Survey Guide

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rev. 03 October 2009

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INTRODUCTION

A new system for managing placer mining activity under the *Fisheries Act* is being implemented by the Yukon Placer Secretariat. As part of the system, the Economic Health Monitoring Protocol was developed to measure and signal whether a viable placer industry is being maintained under the Fish Habitat Management System for Yukon Placer Mining.

A key feature of the Economic Health Monitoring Protocol is the use of a *panel survey* to determine whether changes in placer industry viability are attributable to the new management system. The panel survey will also be used to help determine the incremental costs of new mine site management practices required by the system. This guide presents background information on the design of the Economic Health Monitoring Protocol panel survey.

TERMINOLOGY

Some of the terms used in this paper are rather technical in nature. To facilitate the understanding of what follows, technical terms and acronyms used in the paper are briefly described below.

A ***case*** is an individual, subject or country. For purposes of the Economic Health Monitoring Protocol panel survey, a case is a placer mine operator.

A ***panel survey*** is a sampling technique where the same set of individuals (or individuals who fit a similar profile) are asked the same questions at periodic intervals.

A ***variable*** is an item of interest. For purposes of the EHMP panel survey, the variables are the Type A.1, Type A.2 and Type B indicators described on pages 5 and 7 of the *Yukon Placer Mining Industry Economic Health Monitoring Protocol.*

A ***wave*** is a running of a survey. The first running a panel survey is the first wave, the second running is the second wave, and so on.

THE PANEL METHOD

To the extent possible, implementation of the Economic Health Monitoring Protocol will be carried out using data from secondary sources – data published by statistical agencies such as Statistics Canada and the Yukon Bureau of Statistics. Accurate attribution of the effects of the new habitat management system on placer industry health will, however, require information at a level of detail which does not exist in published form. A primary data collection method, such as a survey, is therefore required to collect information at the necessary level of detail.

A panel survey is a method of primary research. It involves repeatedly asking the same individuals (or individuals who fit a similar profile) the same set of questions. A panel survey is being used to implement the Economic Health

Monitoring Protocol because it will allow the Yukon Placer Secretariat to describe patterns of change in the Yukon placer industry over a long time horizon and to have a better understanding of the magnitude of the changes. The ability to understand the effects of the new management system over time is a significant advantage of the panel approach in comparison to random and cross-sectional survey designs which would provide only snapshot of placer industry health at a given point in time.

While the panel survey approach will supply a data set rich enough to assess the effects of the new system on the economic health of the placer industry over time, a variety of well-known general issues accompany all panel surveys. The significant issues expected to be encountered in the implementation of the EHMP panel survey and proposed mitigations are outlined in Table 1 below.

Table 1: EHMP Design Issues and Mitigations

General Issue	EHMP Mitigation
staleness – panels tend to become less representative of the actual population over time, even in the absence of attrition bias, simply as a result of changes in the underlying population (e.g., placer mine closures, placer mine sales, changes in technology).	The panel selection criteria will clearly outline the desired characteristics of each panel member. The *Record of Placer Mines in Production*, to be developed as part of EHMP implementation, will be used to maintain panel freshness.
panel conditioning – responses in later surveys are influenced by earlier participation in the same survey i.e., panelist takes what they learned in one wave of the survey and uses it to direct responses in subsequent waves.	The highly structured design of the survey is intended to minimize panel conditioning effects.
recruiting bias – the type of people unwilling or unable to participate in a panel survey can create a bias in the makeup of the panel. For example, operators of the most productive placer mines are likely to have less time to participate and as a result may tend to be underrepresented on the panel.	The panel selection criteria will clearly outline the desired characteristics of each panel member. Industry support (e.g., Klondike Placer Miners Association) will be sought, as appropriate, to ensure full panel membership at all times.
attrition bias – panel surveys ask a lot of panel participants energy, time and patience. Thus, there is a natural tendency for people to get tired/bored/ fed up with the exercise and depart the panel.	While panel recruits are expected to have a strong incentive to participate since the survey is directly relevant to their livelihood, it is proposed that panelists be paid a small honorarium in recognition of their participation. Regular and continual contact will be maintained with panel participants through 'postcard' mailings.
baseline data tracking – to be able to explain observed behaviour over time, the state of the placer industry must be tracked over time.	To be accomplished through ongoing EHMP administration (secondary data-based Type I indicators).
analysis complexity – the panel survey approach will yield a rich data source for the Yukon placer industry. Harvesting the data for insights may in some cases require advanced methodologies and techniques of which there is limited expertise in the Yukon.	Assistance with data analysis will be sought from within the Government of Yukon (Yukon Economic Development, Yukon Bureau of Statistics), as appropriate.

Table 1: EHMP Design Issues and Mitigations

General Issue	EHMP Mitigation
expense– panel surveys require significant resources (dollars and time) over an extended period of time.	Yukon Energy Mines and Resources has committed to providing ongoing resource support. The number of panel participants will be minimized and the number of questions optimized.
administrative longevity – the long lifecycles of panel surveys can make it a challenge to keep project administrators interested and up to speed on how to properly administer the survey.	EHMP panel survey experiences will be documented in a living report (e.g., a private blog). Administrative procedures will be established to ensure that best practices are handed on from administrator to administrator.

EHMP PANEL SURVEY OVERVIEW

Table 2 presents an overview of the various design features of the Economic Health Monitoring Protocol panel survey.

Table 2: Features of the EHMP Panel Survey – Overview

Time period between waves	As recommended by the Implementation Management Group[1], the EHMP panel survey will be run once every year in each of the next five years. Subsequent waves are triggered when an adverse change of more than 15% (in comparison to the previous period) in two or more of the "Top Four" A.1 indicators[2] is recorded or when an adverse change of more than 10% is recorded in four or more of any of the eight A.1 indicators.
Number of waves	After the first five years, subsequent waves will be triggered as outlined above. The time span of the panel survey is indefinite; a scheduled end has not been determined. Thus, the total number of waves is currently not known.
Type of survey instrument	The panel survey will be launched in a face-to-face setting with the inaugural panel at the conclusion of the 2008 placer mining season. Subsequent contact with panel participants will be via telephone interview.
Continual panelist contact	Panel survey success will be facilitated by high-quality relationships between the Yukon Placer Secretariat and panel participants. Continual panelist contact will be maintained through semi-annual postcard updates.
Sample size	As of November 2006, a total of 115 operators were estimated to be active in the Yukon placer industry (N = 115). Each panel survey wave will include 15 cases. The fifteen cases will be selected to constitute a reasonably representative cross-section of the Yukon's placer industry.
Incentives	To reduce panel attrition due to the high level of energy, time and patience required, panel participants will be paid an honorarium each time they participate in the panel survey.
Panel refreshment procedures	Upon the departure from the panel, a new panelist will be selected that fits the same profile (as delineated by the panel selection criteria outlined in Table 3) as the departing panel member.
Panel selection criteria	The criteria for selecting panelists are presented in the next section of this guide.

[1] The Implementation Management Group is comprised of representatives from Yukon Energy, Mines and Resources, Yukon Environment, the Council for Yukon First Nations and Fisheries and Oceans Canada.

[2] The top four A.1 indicators include: a) record and count of the number of placer mines in operation, b) gold royalty collected, c) number of person days of employment and d) level of compliance. The remaining four A.1 indicators include e) total claims staked in reporting period, f) total fuel consumption, g) number of claims in good standing per type of stream classification and h) the number of active water licenses (>40,000 cubic metres of material moved per year).

PANELIST SELECTION

Table 3 outlines the criteria that will be used to select the 15 panel members.

Table 3: Panel Selection Criteria

Habitat Suitability Class	Size of Mining Operation	Total
High	n/a	0
Moderate – High	1 L *and* 1 S	2
Moderate – Moderate	3 L *and* 3 S	6
Moderate – Low	2 L *and* 2 S	4
Low	1 L *and* 1 S	2
Total	7 L *and* 7 S	14

Notes:
- The rules for operating in High Suitability Habitats are unchanged, so no effort will be devoted to determining incremental cost increases for operations in these areas.
- S = Small placer operations: operated with less than 5 full-time (seasonal) employees.
- L = Large placer operations: operated with more than 5 full-time (seasonal) employees.
- All panel participants must have 3 years of placer mine operations experience.
- Two panel members may be individuals not actively placer mining but who have demonstrated knowledge of the Yukon placer industry.

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