



# **Fish Habitat Management System for Yukon Placer Mining**

## **Economic Health Report (2011)**

*Prepared by*

**The Yukon Placer Secretariat**

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## ECONOMIC HEALTH MONITORING REPORT (2011)

The Fish Habitat Management System for Yukon Placer Mining replaced the Yukon Placer Authorization (YPA) in 15 Yukon watersheds on April 11, 2008 and one Yukon watershed on November 1, 2010. Founded on principles of adaptive management and incorporating a risk-based approach to decision-making, the system is intended to balance the objectives of a sustainable Yukon placer mining industry with the conservation and protection of fish and fish habitat supporting fisheries.

Adaptive management recognizes that the effectiveness of any management system is hampered by a degree of uncertainty and lack of knowledge. It seeks to improve the system by monitoring the effects of management actions, in order to learn from the results. The Adaptive Management Framework for Yukon placer mining is complemented by water quality objectives monitoring, aquatic health monitoring, economic health monitoring programs and traditional knowledge. The results should provide new information and a rational basis for making any adjustments required to achieve the two management objectives.

The economic health monitoring program is governed by the Economic Health Monitoring Protocol, and has been designed to measure and signal whether a viable placer industry is being maintained under the fish habitat management system. The Protocol consists of two steps. In Step 1, eight indicators are evaluated to determine whether the industry's economic health is increasing or decreasing. If a downward trend is detected then Step 2 is invoked by administering a Panel Survey to a representative cross-section of placer miners. The Panel Survey is designed to determine whether an adverse trend can be attributed to the fish habitat management system, or is related to other factors (i.e. gold prices, cash costs, natural conditions etc.).

Following consultation it was agreed that as a precautionary measure the Panel Survey will be administered automatically for the first five years following implementation of the fish habitat management system. The Panel Survey has been conducted four times to date.

### Economic Health Monitoring – Step 1

The following table lists the viability indicators potentially correlated with the management system. The indicators are present in order of weighting. The indicators which hold the greatest potential to monitor placer industry health appear at the top of the list. The table also includes information on the potential adverse changes.

Advancement to the Panel Survey will normally proceed if there is an adverse change of more than 15% (in comparison to the previous period) in two or more of the top four indicators or when an adverse change of more than 10% is recorded in four or more of any eight indicators.

	A.1 Industry-wide indicators (secondary data)	2008 Potential adverse change in viability if the arrow goes	2009 Potential adverse change in viability if the arrow goes	2010 Potential adverse change in viability if the arrow goes	2011 Potential adverse change in viability if the arrow goes
Top 4	record and count the number of placer mines in production (2010 – 140, 2011 – 192)	↓ ↑ +12%	↓ ↓ -33%	↓ ↑ +9.4%	↓ ↑ +73%
	gold royalty collected (October to September)	↓ ↓ -18%	↓ ↓ -25%	↓ ↓ -0.4%	↓ ↓ -11.5%
	number of person days of employment (workers' compensation) Increase of 4.7% for 2010, 2011 not available until spring of 2012)	↓ ↑ +5%	↓ ↑ +5%	↓ ↑ +0.7%	↓ ↑ +4.7%
	level of non-compliance (number of "inspector's directions") More Inspectors in the field in 2011	↑ ↓ nil	↑ ↓ -42% 4 directions	↑ ↑ +200% 12 directions	↑ ↑ +75% 21 directions
Bottom 4	total claims staked in the reporting period 709 Claims	↓ ↑ +27%	↓ ↑ +8% 770 claims	↓ ↓ -25% 580 claims	↓ ↑ +35% 888 claims
	total fuel consumption (fuel tax exempt permit data/fuel tank manifests – Using the 2010 fuel information – 2011 not available until early spring of 2012)	↓ ↓ -19%	↓ ↓ -19%	↓ ↑ +8.5%	↓ ↑ +9.0%
	number of claims in good standing per type of stream classification (* See table at the end of this document for more details)	↓ ↑ +.1%	↓ ↑ +.02%	↓ ↓ -0.4%	↓ ↑ +3.7%
	number of active water licenses (>40,000 cubic yards moved per year)	↓ ↑ +8	↓ ↑ +18.5%	↓ ↑ +175%	↓ ↓ -10%

There is a downward change to two of the indicators listed above: gold royalty collected and number of active water licenses. This result would not normally trigger the Panel survey to be conducted, but as mentioned the survey will be carried out automatically for the first five years following implementation of the fish habitat management system.

### Economic Health Monitoring – Step 2

The first wave of the panel survey was on April 3, 2009, the second wave of the panel survey was undertaken on November 25, 2009 and the third wave of the panel survey was undertaken on November 26, 2010 in Whitehorse. The fourth wave of the panel survey was undertaken on November 25, 2011 in Whitehorse.

Attendees for the 4<sup>th</sup> wave included four placer miners, one consultant representing the placer industry and one consultant with the Yukon Placer Secretariat. Completed panel surveys were received from all four placer miners in attendance. Four additional surveys were later received by fax and/or mail. Thus, the population size (n) for the third panel survey was 8.

The attached report discusses the results of the November 25, 2011 panel survey session. Please note that it was not mandatory for the participants to complete all questions within the survey, therefore some of the responses do not add to the population size for the panel survey.

*General observation*

- Overall, the November 25 session was very productive. Panel Survey participants candidly shared their knowledge and experiences, and their verbal and written input provided valuable insight into the placer miners' operating circumstances.

**Number of claims in good standing per type of stream classification**

<b>Stream Classification</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>↓ ↑ %</b>
Areas of Special Consideration	525	476	489	489	0
High Suitability	59		86	86	0
Low Suitability (Freshwater Fisheries)	13737	13534	13774	14347	↑ 4.1%
Moderate-Low Suitability	1427	1457	1419	1778	↑ 25%
Moderate-High Suitability	108	97	164	220	↑ 3.4%
Moderate-Moderate Suitability	721	735	731	890	↑ 20%
Not Classified	398	420	321	329	↑ 2.5%
Lakes	139	132	104	101	↓ 2.9 %
Water Quality	283	293	320	337	↑ 5.3%
<b>Total</b>	<b>17945</b>	<b>17144</b>	<b>17408</b>	<b>18577</b>	<b>↑ 3.7%</b>