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Oct 21/04

Background Information Related to: Financial Considerations Associated with Potential SARA Listing of Sakinaw & Cultus Lake Sockeye

What does the estimated \$125 Million include?

This figure is based on the assumption that current exploitation rates of around 10%-12% would be further reduced to less than 5% to provide more stringent protection for those two sockeye populations if they were legally listed.

The \$125 million (2004-2007) represents the estimated reduction in gross value for southern sockeye fishery over a four year cycle (2004-2007). It includes includes gross value estimates for 4 components:

1. *First Nations FSC Harvest Value*: based on an inputted value¹ for the replacement food costs of subsistence. The rationale was that it was better 'to appreciate its limitations as a measure of value' than to not include any value at all. (\$11 M)
2. *Commercial Harvest Value* – based on gross landed values (costs were not netted out). 2003 landed prices were adjusted for bonuses and used. (\$62 M)
3. *Processing Value* – based on 'value added' which is the difference between market value and the landed value. (costs were not netted out) (\$44 M)
4. *Recreational Value*: based on expenditure value² approach. (\$8 M)

What Approach Was Used to Conduct the Analysis?

1. Background:

In the spring of 2004, a cross-section Departmental staff worked with a consultant ³ to develop a Multiple Account Framework within which to analyze economic, social and environmental impacts associated with change. This model was then populated with data from the Sakinaw and Cultus situation to illustrate how it worked.

As part of the pre-season planning process the illustrative report called 'Socio-Economic Implications of the Species-At-Risk' was presented at and distributed to participants who attended the Multi-Sector meeting on May 10th, 2004 and the Salmon Advisory Board Meeting on June 4th, 2004. Feedback on methodology was sought.

Participants generally supported the analysis and methodology but felt that the analysis should cover at least 4 years and that there be more information on the geographic range of the impacts and social aspects (i.e. identify fishers ages, employment level).

¹ First Nation FSC value is based on the average weight of 2.7kg per fish and in-river value of \$2.90 per kg. and a marine fish value of \$3.85 per kg. These values are assigned for comparative purposes only. FSC are not eligible for sale.

² Recreational sector values were based on expenditure of \$200 per tidal angler day or \$400 per tidal sockeye caught and on in-river expenditures of \$100 per freshwater angler day or \$100 per freshwater sockeye caught.

³ GSGislason & Associates.

2. Current Analysis (\$125M)

The current analysis considers impacts over four years 2004-2007 and uses the Fraser Panel Pre-Season Model to estimate catch projections for the three scenarios. (Recent Historical 20%-25%: Target for 2004 of 10% to 12%; and more restrictive measures of less than 5%)

The Fraser Panel Pre-season model is a 'box-car' type model that simulates the movement of Fraser River sockeye through all fishing areas, including US waters. It has been published in the Canadian Journal of fisheries and Aquatic Sciences (Vol 51).

Catch projections are calculated using the model. There are 5 **key** assumptions. These include: Uncertainty in run size, diversion rate assumptions, measures to protect other co-migrating stocks, management flexibility and international obligations.

3. Social & Community Impacts

Social and community impacts were also considered. While actual economic and social dependence was not measurable, it is believed that communities such as Port Hardy, Port McNeil and Alert Bay and Quadra Island that are characterized by:

- High concentration of fishing industry employment to total population;

- High dependence of fishery related revenue for household income;

- Low diversification in their economies

are likely to most affected.