

**FACTUAL VALIDATION AND COMMENTARY ON
AUDIT AND EVALUATION REPORT
PROJECT NUMBER 60278
NOVEMBER 2004
“PACIFIC SALMON SELECTIVE FISHING PROGRAM”**

OVERVIEW:

There are an extensive number of fundamental contradictions and inconsistencies within this evaluation report that undermine its credibility. For example, Page 7 of the document indicates “no evidence to suggest fleet wide adoption of new gear”. At the same time, Page 8 of the document indicates “some selective gear and techniques became mandatory and were adopted.” Again, on Page 8 “(t)he PSSFP was successful in establishing and enforcing standards with respect to gear.” As another example, Page 17 indicates that “(l)ong term alterations in the behaviour of harvesters were not achieved...” Yet on Page 9, the report indicates “(t)he allocation principle was ... effective in promoting selective fishing strategies ... and changing the behaviour of harvesters.” Again, Page 10 notes “(s)cientists observed attitude changes” and Page 13 notes “project participants changed their fishing habits”. It is suggested that these and other contradictions and inconsistencies within the analysis need to be addressed and resolved in a final report.

In addition, a significant overall problem with the evaluation report is the limited, short term perspective that it brings to the issue. The focus on short term performance during the program funding period misses a key long term dimension of the program. The PSSFP was by its nature a “seed” program intended to begin a long term process of change in the salmon fishery. A key objective of the program was to create a selective fishing ethic in a fishery where historically it had been absent. From this perspective, it can be strongly argued that the selective fishing program was highly successful. The importance of selective fishing is now well accepted and understood in the fishery. This will continue to show results well into the future.

As specific illustrations, significant experimentation is continuing to find better methods to both avoid non-target species and to release non-target species unharmed in spite of the end of program funding. Of more importance, an ongoing effect of the program is an increasing willingness on the part of fishers to revisit how the fishery is organized and prosecuted. Prior to the program there was little appetite within the commercial fishing fleet to co-operate among themselves or with the department in addressing conservation issues. This meant that many potential fisheries could not be opened because of concerns over excess fishing capacity and lack of effective controls on catch and by-catch levels. Since the program, and with the new understanding of the importance of selective fishing, numerous experiments with catch sharing arrangements (including fleet pooling and individual quotas) have taken place at the direct request of fishers. The acceptance of working with each other and the department to address conservation issues has dramatically improved in recent years and is a very tangible benefit of the program that is

not reflected in the evaluation report. This has the potential to fundamentally transform the fishery in the longer term.

By focusing on the initiatives introduced and short term changes in fisher behaviour during the four years of funding alone, the evaluation report has in many ways missed the program's most significant contribution to the fishery. In addition, a number of the specific questions posed within the audit are really premature and cannot be properly answered at this time.

SPECIFIC COMMENTS:

Section 2.0 "Methodology"

The methodology indicates that 113 commercial, aboriginal and recreational licence holders were surveyed out of a total population of over 200,000. This is an extremely small sample and some comments on the statistical reliability or unreliability of this sample should be provided. In addition, there is no indication of the criteria used to select the "35 key informants" for detailed interviews. It is not clear that this group could be expected to provide a balanced view. Finally, it is not clear whether any interviews were conducted with staff from Conservation and Protection. This needs to be known to assess the credibility of the second recommendation from the report.

Section 3.2 "Relevance"

As noted above, the program has a long term aspect that should be highlighted. The audit finds the program "presented" an innovative plan that "was" in line with internationally acclaimed selective fishing practices. The audit also finds that the program "was" appropriately designed. Although specific funding under the program is no longer available, the 5% TAC set aside is still being used to test new selective fishing methods and encourage the adoption of selective fishing practices. Also, as noted above, a number of trials with different fishing arrangements are ongoing. The continuation of the program should be emphasized and noted.

Section 3.3 "Success"

To what extent did the PSSFP result in adoption of new technologies and methods?

The text under this heading provides a useful synopsis of new more selective technologies and fishing methods that have been established to date in license conditions. The text indicates that "few violations were reported" but then concludes there "was no evidence to suggest fleet wide adoption of the new gear." This conclusion does not appear to be justified in the text and directly contradicts the finding of few reported violations within the same section.

For example, department staff confirms that the seine fleet is acutely aware that their sets are to be brailed and unauthorized by-catch released after time in revival tanks. At-sea

patrols confirm that compliance is reasonable with respect to brailing. Few reported violations is evidence that the vast majority are in compliance i.e. had adopted the new procedures required by licence condition.

To what extent has DFO, working with affected harvesting sectors, developed selective fishing standards?

In Pacific fisheries where bycatch is an issue, to what extent (are) harvesters meeting the specified standards of selectivity?

The report indicates that the “PSSFP was successful in establishing and enforcing standards with respect to gear”. However, the report indicates that standards with respect to acceptable encounter rates, limits for total allowable mortality, and definitions for the type of care needed in handling by-catch have not been developed.

While it is certainly true that general standards with respect to encounter rates and total mortality have not been developed and implemented across all salmon fisheries, considerable progress has been made with respect to stocks of significant conservation concern. For example, exploitation rate limits for Thompson and WCVI chinook salmon were developed and have been prominent features of Integrated Fisheries Management Planning in the salmon fishery for several years. More recently, exploitation rate limits have also been developed for late run Fraser sockeye and have been applied in the development of Fraser sockeye fishing plans. In virtually all cases these “standards” have been achieved or bettered in the prosecution of fisheries.

With the most recent impacts of the SARA legislation, and with the impending Wild Salmon Policy, much more is being done and will be done in this area on an ongoing basis. However, this will not lead to general selective fishing standards for encounter rates and total mortality that apply across all salmon fisheries as suggested in the evaluation report. Salmon fisheries are highly diverse and the level and nature of non-target by-catch varies significantly from one fishery to another. In addition, the significance of the by-catch for resource conservation is highly dependent on both time and location. For example, chinook or coho bycatch in the prosecution of sockeye fisheries in some areas at some times may be of little significance while in other areas or at other times it may be of great concern. As a result, standards with respect to acceptable encounter rates and limits on total allowable mortality will always need to be tailored to local conditions and specific circumstances. All of this needs to be reflected in the evaluation report.

To what extent have harvest allocations and access to fisheries been shaped by success at fishing selectively?

Principle 6 of the allocation policy for Pacific salmon is accurately described in the report as containing two elements: a set aside within the salmon TAC for testing of new more selective gear and harvesting technology and a general statement that, over time, commercial allocations will favor those that can demonstrate their ability to fish selectively. However, a direct connection drawn between the two elements of this

allocation principle in the audit report is really misleading. In effect, the 5% TAC set aside for testing of selective harvesting methods is identified in the audit report as a mechanism to achieve a reallocation of the harvest in the longer term. In reality, the 5% TAC set aside is a short term tool to encourage continuing experimentation in selective fishing methods in all sectors of the commercial fleet. It has done this effectively and as noted in the audit report, it is strongly supported by commercial harvesters.

In the longer term, experimentation that results in relatively more effective selective fishing methods in one sector or the other may lead to a formal permanent reallocation of the TAC to that sector that comes up with relatively more effective selective fishing methods. There is no clear evidence that one sector has become relatively more selective than another at this time and no formal permanent reallocation of catch shares has taken place. However, even in the short term, the actual allocations achieved by the different fleet sectors have reflected considerations of selectivity. Annual target allocations documented in annual Integrated Fisheries Management Plans take into account pre-season estimates of abundance (there is no such thing as a “pre-season logbook” as noted in the evaluation report) and projections of the effectiveness of the different gear type in achieving their allocation share under the fishing constraints required for conservation reasons (not “in-season catch estimates” as noted in the evaluation report). This has meant that, on occasion, the different sectors have significantly under or over achieved relative to the sharing arrangement established in the allocation policy. None of this complexity is reflected in the evaluation report.

Were monitoring and enforcement activities effective?

This first section in this part of the evaluation report fails to distinguish between “fishery monitoring” and “catch reporting”. As a result, the analysis is seriously flawed. The following definitions taken from the Pacific Region’s Fishery Monitoring and Catch Reporting Framework help to clarify the distinction.

Fishery Monitoring: means observing and understanding the fishery and its dynamics. It includes observing and examining the catching and landing of fish and any related activities, including the counting of fishing vessels or gear and the sampling of any fish caught. Fishery monitoring is generally carried out by someone other than the harvester although information from harvesters may be required to facilitate monitoring activities. Fisheries and Oceans Canada staff including fishery officers, fishery guardians, fishery managers, biologists, and scientists presently carry out monitoring activities. In addition, First Nations and, increasingly, third party observers designated by the Regional Director General, perform fishery monitoring.

Catch Reporting: means providing information, either verbally, in writing or electronically, on what is caught and other essential details related to the fishing activity (location, gear type etc.). Catch reporting is performed by harvesters or by fish buyers, off-loaders or contracted third party dockside monitors/observers (designated by the Regional Director General) on behalf of harvesters.

The log book and log book data phone in programs discussed in the evaluation report are “catch reporting” programs. The observer program described in the text is a “fishery monitoring” program that was intended to provide biological samples and validate the degree of accuracy of the catch reporting programs. One relevant question is whether this observer based monitoring program was effective in **identifying the degree of accuracy** of logbook and other catch reporting programs **and facilitated appropriate adjustments** (in conjunction with other monitoring activities such as aerial over flights) **to the reported harvest data**. A second relevant question is whether the observer program obtained sufficient quality samples for biological analysis and assessment purposes. Neither of these questions is asked or answered in the evaluation report. The only comments related to the observer program were that the data from it were reliable but that it was expensive. Both are valid comments but are effectively irrelevant in terms of the specific question posed in the evaluation (Were monitoring activities effective?).

In addition, as noted above, the objectives of the observer program were limited to catch sampling and catch reporting validation. Achieving compliance was not a specific objective of the observer program. Consequently, the statement in the evaluation report that the “presence of observers encouraged compliance, yet considering the span of coverage it had, its success was limited.” is misleading.

Further, the conclusion that other alternatives such as on-board video cameras need to be considered ignores the ongoing testing of video surveillance in a number of fisheries and presupposes that on-board cameras are more effective and/or more efficient in the salmon fishery. After a number of experimental trials with this type of technology, this remains to be proven and there are a number of outstanding questions regarding the relative effectiveness and cost of the technology. It is inappropriate for the evaluation to suggest that video surveillance is a blanket solution.

Finally, the comments within this section of the report regarding enforcement are also confused. First, it introduces the concept of “regulatory monitoring” without a clear definition. The distinction between this and other terminology introduced such as “compliance monitoring” and “regulatory enforcement” is left open to interpretation. As noted above, monitoring is an activity that relates to observing and understanding the fishery and its dynamics. Enforcement on the other hand is an activity that is most cost effectively applied when monitoring indicates issues or problems. Compliance is not an activity at all – it is an outcome from a collection of behaviours which conform to laws and regulations. If there is compliance then no enforcement action is needed.

This confusion in terminology is again reflected in serious flaws in the analysis. For example, it is noted that “when regulatory monitoring decreased, compliance went down as well”. This finding is illogical. If monitoring decreased, surely no conclusion can be drawn as to the rate of compliance. Similarly, it is noted that “compliance officers have observed ... a correlation between monitoring and compliance”. Within the Department there are Fishery Managers? (primarily responsible for monitoring and managing fisheries) and Fishery Officers (primarily responsible for enforcement). However, there is no such thing as a “compliance officer”. As a result, the source of this comment lacks

credibility. The final conclusion is that “monitoring ... will only be adequate if enforcement measures are applied in parallel”. This implies that monitoring will always find that compliance is inadequate and that enforcement will be required. This does not logically follow at all. It also implies that enforcement is the problem, but all of the preceding comments in the section (such as the observed “correlation between monitoring and compliance”) implies that monitoring, not enforcement, is the problem.

To what extent did the PSSFP contribute to the conservation of salmon stocks?

This section of the report focuses exclusively on the performance of on-board revival tanks in the fishery. This fundamentally ignores a large number of other selective fishing measures that were introduced including barbless hooks in both the troll and recreational fisheries, short setting and day light setting for gillnets and brailing in seine fisheries. All of these measures were designed to improve the condition of fish prior to the use of revival tanks.

Beyond that, it concludes that there is no “conclusive evidence that the conservation objectives with regard to successful spawning have been achieved (through the use of revival tanks)”. This ignores earlier evidence within the section indicating that the short term condition of fish improves within the revival tanks and further documented evidence that shows low mortality of fish after 24 hours of release from revival tanks. While this is not “conclusive” evidence of eventual spawning success it is certainly highly suggestive. A more appropriate conclusion on the basis of this evidence is that spawning is likely to have been improved as a result of the implementation of revival tanks. Further, the condition of fish has likely improved prior to entry to revival tanks as a result of the other measures applied in the fishery.

To what extent was the PSSFP successful in altering the behaviour of harvesters?

This section of the report is internally inconsistent. It indicates that “managers have observed that project participants changed their fishing habits”. It also indicates that harvesters are increasingly working as a team. However, it finds that “there is no conclusive evidence to suggest that harvesters have altered their behaviour”. They either have or they haven’t changed their habits and altered their behaviour. As noted in the introduction to these comments and in other sections of the evaluation report, there is strong evidence of continuing behavioural change in the fishery.

Did the PSSFP contribute to a more viable and sustainable fishing industry?

This section of the report does not really address the question asked. It indicates areas of program success but draws a number of vague conclusions with respect to “constraints” that “hindered the Program’s further progress”. This is in direct contrast to strong conclusions drawn on page iii of the Executive Summary that “(t)he Program was successful in maintaining fishing activity and sustaining the industry through a period of low abundance.” These findings are reiterated and elaborated on Page 10 in the body of the evaluation report.

In reality it is premature to evaluate the long term contribution of the Program to a more viable and sustainable fishing industry at this time. There are many positive signs but no conclusions can be drawn on the basis of an evaluation focused on the limited period of program funding alone. This is a more appropriate finding with respect to this question.

Section 5.0: “Lessons Learned”

The second of the two lessons suggested is that we should “Determine which results will be achieved through direct expenditures, indirect expenditures and which results will be achieved through other means such as enforcement and compliance.”

This lesson is seriously flawed for two reasons. First, it implies that “enforcement” is free. This is very far from the case. Enforcement costs money as do other activities to encourage compliance such as education programs or financial incentives. This creates the misconception that enforcement is something that is just done without any expenditure. Second, it implies that compliance is an activity. As noted above it is not an activity at all but an outcome of conforming behaviour. Compliance is not a means but an end.

Section 6.0 “Recommendations”

1. Standards for Selective Fishing Need to be Developed

As indicated in the audit report, a number of selective fishing standards with respect to gear and fishing methods have been implemented successfully in the fishery through licence conditions. Further experimentation with selective gear and fishing methods is continuing and this will lead to further standards as the success of new technology and methods is proven. In addition, the Department has already developed and implemented selective fishing standards with respect to encounter rates and total mortality for stocks of significant conservation concern. This will continue to be done on an ongoing basis as necessary.

2. Train and engage DFO Conservation and Protection staff on the specific objectives of selective fishing to ensure that enforcing compliance with new rules and regulations is given a high priority.

It is unclear how this recommendation is formulated as a result of an evaluation of the selective fishing program, when, in fact, enforcement of selective fishing gear standards was deemed a success. The recommendation also contains several misconceptions which render it illogical and impossible to implement. Firstly, the phrasing implies that C&P staff are not adequately trained and lack engagement, which has led to inaction. In reality, C&P staff are aware of the objectives of the selective fishing program, and Fishery Officers are fully cognizant of their responsibility to take enforcement action when violations of condition of licence are encountered, particularly where there may be an impact to threatened stocks such as coho. Secondly, priority of tasking is not assigned

through training, nor according to the “newness” of rules and regulations. Prioritization of the multitude of demands placed on C&P staff is assigned through a risk assessment process which enables informed decisions to direct effort toward the highest risks to sustainability. This process already considers selective fishing objectives and both new and existing laws and regulations. Thirdly, one can not enforce compliance. As already discussed, where a state of compliance exists, no enforcement action is necessary. And finally, the premise that it is solely C&P’s responsibility to ensure compliance with selective fishing is unfair, unrealistic, and contrary to the principles of fisheries co-management and shared stewardship. Implementation of this recommendation would serve to undo a tangible benefit accrued through the selective fishing program - the improved relationship with harvesters, who are willing to continue to collaborate with the department to address conservation issues.