DRAFT

Wild Salmon Policy Implementation Work-plans

November 3, 2005

Background:

The Wild Salmon Policy (WSP) was released on June 24, 2005 with $1.1M in funding. A total of 700K was provided for implementation and 400K for Williams' related salmon Science research on the Fraser. The 700K has been allocated through Sectors as reported in Table 1. In some cases there are strings attached. The following work-plans outline proposals for FY's 05/06 and 06/07. There has not been a commitment within the Department to provide funding for FY 06/07, although the Minister stated at the time of the announcement that the $1.1M in funding would be ongoing. Most of the proposals will require more than one year to complete.

The approach to work planning has been to expand on the framework of strategies and associated action steps provided in the WSP. The Logic Model (Figure 1) describes the progression from input resources through implementation activities towards outcomes. Detailed proposals are attached that describe the activities/projects within each Strategy and Action Step. An Administration Proposal is also included that deals with overarching activities that are not specific to a single strategy. A summary of projects, their cost and timeline are provided in Table 2.

Table. 1 . WSP Implementation Resources by Organization and Year

DFO Branch/Organization	FY 2005/06	FY 2006/07
DFO-Science	400K	
DFO-Fisheries Mgmt	200K	
DFO-Oceans and Habitat Mgmt	100K	
DFO-Total	**700K**	
PFRCC	50K	
Grand Total	**750K**	

Figure 1. Logic Model for Wild Salmon Policy Implementation

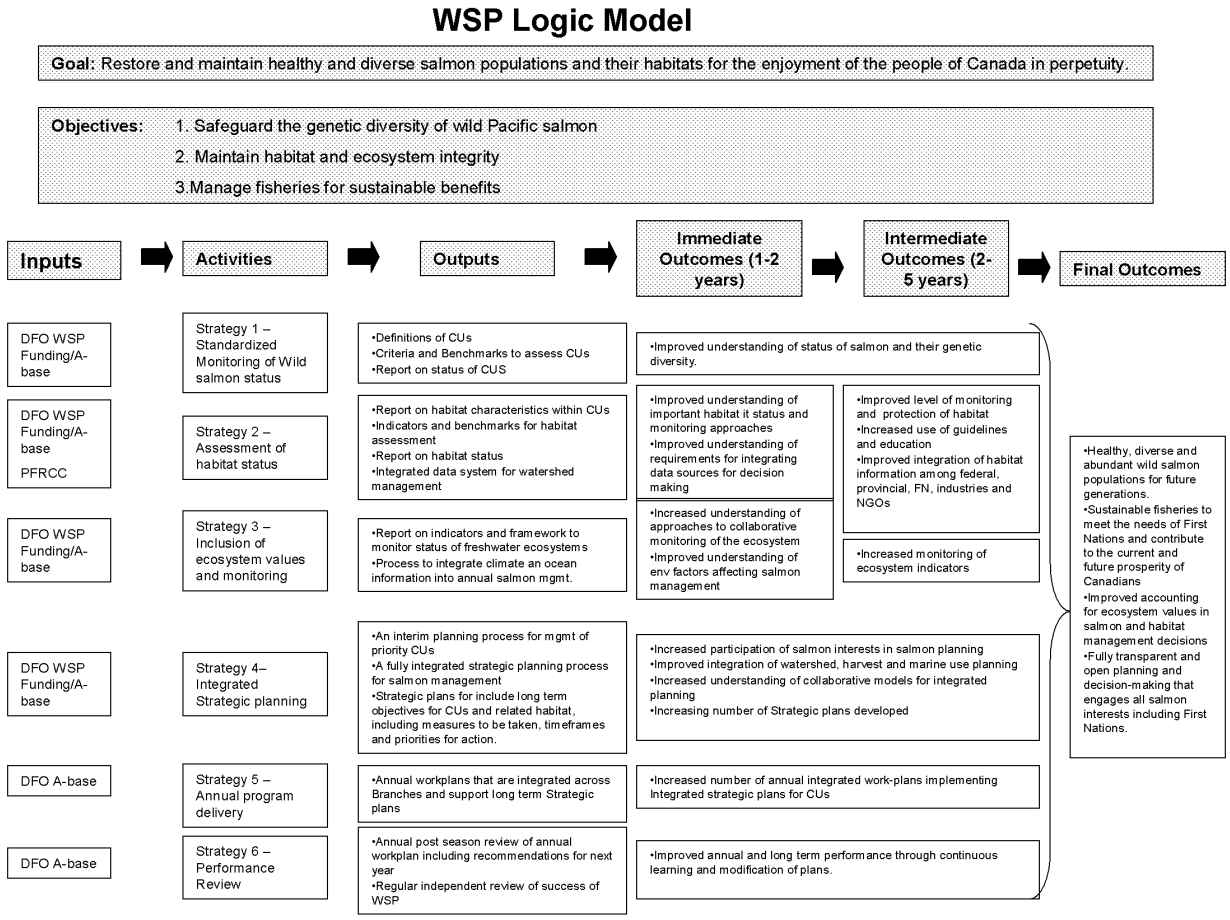

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Table 2. Project Summary including cost and timeline.

Strategy	Action Step	Task	Resources		FY 2005/06							FY 2006/07										
			FY0506	FY 0607	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
WSP - Admin																							
	Coordination of WSP implementation		39	126																			
	Development of WSP Implementation Plan	Drafting of WSP Workplan	2																				
		WSP FN and Multi-interest Fora to review draft implementation plan	40																				
		Finalize Implementation plan																					
		Develop and implement communication plan incl website	35																				
		Total	**126**	**126**																			
Strategy 1- Standarized monitoring of wild salmon status	1.1 Identification and assessment of CU status	1.1.1 Preliminary identification and assessment of CU status	115																				
		1.1.2 Develop multi-attribute approach to CU identification	25	1																			
		1.1.3 Develop georeference database linking CU status and habitat info																					
		1.1.4 Genetic analyses to ID Cus	10	10																			
		1.1.5 Finalization of CUs		3																			
	1.2 Develop criteria to assess CUs and ID benchmarks	1.2.1 Study northern coastal sockeye CUs	32	2																			
		1.2.3 Develop assessment criteria and ID benchmarks		125																			
	1.3 Monitor and assess status of Cus	1.3.1 Templates of CU status to WSP website	10																				
		1.3.2 Complete operational frameworks		43																			
		1.3.3 Web development and maintenance		15																			
		Total	**192**	**199**																			

Strategy	Action Step	Task	Resources		FY 2005/06							FY 2006/07										
			FY0506	FY 0607	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Strategy 2- Assessment of habitat status	2.1 Document habitat characteristics for CUs	2.1.1 Overview of habitat characteristics and issues for each	50																			
		2.1.2 Complete and refine habitat characteristics and confirm templates		110																		
	2.2 Select indicators and develop benchmarks for habitat assessments	2.2.1 Review literature and conduct workshop on habitat indicators	PFRCC																			
		2.2.2 Finalize Selection of Indicators																				
		2.2.3 Develop benchmarks for individual Cus		25																		
	2.3 Monitor and assess habitat status	2.3.1 Pilot monitoring study of habitat restoration	40																			
		2.3.2 Begin development of ongoing operational frameworks		25																		
	2.4 Establish linkages to devleop an integrated data system for watershed management	2.4.1 Initiate or review existing data sharing with partners espec. Prov of BC																				
		2.4.2 Review of data availability																				
		2.4.3 Develop linkage between OHEB GIS and CU status data from 1.1	30																			
		2.4.4 Link OHEB GIS systems with With CU status templates		20																		
		2.4.5 Continue development of data sharing linkage with partners																				
		Total	**120**	**180**																		
Strategy 3 - Inclusion of ecosystem values and monitoring	3.1 Identify indicators to monitor status of freshwater ecosystems	3.1.1 Small workshop with ecosystem experts participating	25																			
		3.1.2 Expert Panel assisted by consultation faciitator to ID pubic and professional expectations and determine appropriate ecosystem indicators.	81	219																		

Strategy	Action Step	Task	Resources		FY 2005/06							FY 2006/07										
			FY0506	FY 0607	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
		3.1.3 DFO to formulate operational framework and consult		25																			
	3.2 Integrate climate and ocean information intoannual salmon management processes																						
		Total	**106**	**244**																			
Strategy 4 - Integrated Strategic Planning	4.1 Implement and interim process for management of priority Cus	4.1.1 Pilot 5-step planning procedure	150																				
		4.1.2 Convene response teams for priority Cus																					
		4.1.3 Develop Strategic plans for priority Cus		60																			
	4.2 Design and implement a fully integrated strategic planning process for salmon conservation	4.2.1 Establish a DFO integrated Planning Team																					
		4.2.2 DFO workshop to draft integrated planning structure	5																				
		4.2.3 Review of Strategy 4 Implementation plan with WSP Advisory Fora																					
		4.2.4 Development of a FN advisory structure	20	30																			
		4.2.5 Development of Draft planning structure		23																			
		4.2.6 Hold 2 advisory for a develop planning structure		20																			
		4.2.7 Implement final planning process																					
		Total	**175**	**133**																			
Strategy 5 - Annual program delivery	TBD																						
Strategy 6 - Performance	6.1 Conduct post season review of	6.1.1 Develop process for integrated review of annual workplans																					

Strategy	Action Step	Task	Resources		FY 2005/06							FY 2006/07										
			FY0506	FY 0607	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Review	annual workplans																						
	6.2 Conduct regular reviews of the success of the WSP	6.2.1 Determine process of regular independent review																					

Appendix 1. WSP Admin Proposal

PROJECT PROPOSAL

DFO Wild Salmon Policy
FY 2005-06/FY 2006/07

PROJECT TITLE: Administration of WSP Implementation

DESCRIPTION AND LINK TO WSP STRATEGY / ACTION STEP:
Attach separate sheets as necessary

The Wild Salmon Policy has costs associated with completion of the policy in FY05/06. Co-ordination of WSP implementation is required for the first two years during start-up.

TIMEFRAME: (1 yr/multi-year)

Multi-year

2005/06 – Completion of the Wild Salmon Policy and coordination of implementation
2006/07 – Coordination of implementation

PARTICIPANTS:

Wild Salmon Policy Coordinator
Multi-Branch WSP Implementation Team including representatives from Science, Fisheries Management, OHEB, Treaty and Areas.

RESOURCES SOUGHT:

Detailed breakdown of budget: for salaries, O&M, equipment, ship time, proposed contracts, etc

Year	FTE	Salary (K $)	O & M (K $)	Total (K$)
2005/06			126	126
2006/07			126	126

PROPOSAL DETAILS:
FY 2005/06

Task	Deliverable(s)	Outcomes	Completion Date	FTE	Salary $	O&M	Budget	Accountable Manager(s)	Notes
Coordination of WSP Implementation	WSP Start-up projects for 06/07					Travel 15K Phones 2K Equipment 2K Consultation admin assistance 20K	39K	Saunders	Consultation admin assistance for consultation for all 4 strategies. Could be 6mo assignment PM2-4 level
Development of WSP Implementation Plan	**Meeting of WSP Implementation Team** to review Workplan and discuss Implementation Plan		Sept 13_2005				2K	Saunders	
	Draft Implementation Plan		Mid November					Saunders WSP Implementation Team	
	Meeting of WSP FN and Multi-interest Fora to review draft Implementation Plan		Early December			Travel 30K Facilitator 10K	40K	Saunders/Hartling	
	WSP		Mid						

Task	Deliverable(s)	Outcomes	Completion Date	FTE	Salary $	O&M	Budget	Accountable Manager(s)	Notes
	Implementation Plan		December						
Develop and implement a WSP Communication Plan	Communication Plan Website detailing progress on implementation and status of CUs and habitat	Well informed and engaged First Nations, Public and salmon interests	Plan complete by late November Website complete by March 2006			Website 15K Fall information sessions 20K	35K	Saunders/Mishima/Adam	
Development of performance management strategies Action steps 6.1 and 6.2	Performance measurement plans	Improved performance measurement of biological, social and economic objectives	March 2006					Saunders WSP Implementation Team	
Total for F/Y 2005/06						**126**	**126**		
F/Y 2006/07									
Coordination of WSP Implementation	WSP Start-up projects for 06/07					Travel 15K Phones 2K Equipment 2K Training 2K Website 15K Consultation 50K	86K	Saunders	Consultation resources to continue Consultation assistant
Con	**Meeting of WSP FN and Multi-interest Fora** to review progress of Implementation Plan		October 2006			Travel 30K Facilitator 10K	40K	Saunders/Hartling	

Task	Deliverable(s)	Outcomes	Completion Date	FTE	Salary $	O&M	Budget	Accountable Manager(s)	Notes
Total for 2006/07						126K	126K		

Appendix 2. Strategy 1 Proposal

PROJECT PROPOSAL[1]

DFO Wild Salmon Policy
FY 2005-06/FY 2006/07

PROJECT TITLE: Standardized Monitoring of Wild Salmon Status (i.e. WSP Strategy 1)

DESCRIPTION, OBJECTIVES & LINK TO WSP STRATEGY / ACTION STEP:
(See attached table)

Action Step 1.1 **Identify Conservation Units**
Action Step 1.2 **Develop criteria to assess Conservation Units and identify benchmarks to represent biological status**
Action Step 1.3 **Monitor and assess status of Conservation Units**

It is necessary to monitor and assess the status of Conservation Units (CUs)[2] to know if the Wild Salmon Policy (WSP) is successfully restoring and maintaining healthy and diverse salmon populations. A combination of initiatives will allow us to identify CUs and their components in BC and the Yukon (see attached table). WSP teams coordinated by a new/re-assigned biologist will work cooperatively and suggest CUs along with their constituent populations and local spawning groups. This will require additional analysis of genetic and other relevant information. Area representatives will be responsible for meeting with, and assembling information from First Nations and stakeholders. Status (red, amber, green) and other relevant information will be documented in CU-specific status templates that will incorporate habitat information (Appendix 1). This information will be documented on a WSP Web site established through Strategy 4.

A separate initiative will apply a multi-attribute approach to identify probable CUs and status, producing a geo-referenced database. A paucity of information on northern coastal sockeye lakes and their tributaries necessitates separate work to refine and document methods to assess and monitor their habitat and productive capacity. This

[1] 16 Sept 05
[2] A Conservation Unit is a group of wild salmon sufficiently isolated from other groups that, if extirpated, is very unlikely to recolonize naturally within an acceptable timeframe.

project, relevant to Strategy 2, will help us determine how many of these separate lakes constitute CUs, and develop criteria and benchmarks to assess their status (WSP Action Steps 1.1 and 1.2 respectively). Each of these projects will produce peer reviewed reports.

In 06/07, additional genetic analyses will assist in the identification of CUs (Action Step 1.1). WSP teams, whose activities will continue to be coordinated by a biologist, will carry on with work, resulting in status designations and benchmarks for each CU (Action Step 1.2). Completing operational frameworks that will identify annual monitoring tasks (Action Step 1.3) will require much of the time of one person focusing on this task for the second entire year. Frameworks will be summarised in a PSARC Working Paper(s), along with PSARC Working Papers and/or other publications that apply the multi-attribute approach and describe methods to assess and monitor the habitat and productive capacity of sockeye CUs. Interim progress reports and templates will be updated on the WSP Web site.

TIMEFRAME: multi-year

2005/06 – Preliminary identification of Conservation Units and constituent components, establish regional teams, develop status templates and geo-referenced database and provide input to WSP website.

2006/07 – Finalise identification of Conservation Units, update status templates, PSARC papers evaluating multi-attribute approach to describe CUs, method to assess + monitor habitat and productive capacity of sockeye CUs, and operational frameworks with annual monitoring tasks plus input to website.

***PARTICIPANTS*:**

Multi-area team including Jim Irvine, term or seconded bio, participants from each of Core, Yukon, LFR, BCI, NC, and SC.

***RESOURCES SOUGHT*:**
(See attached table for detailed breakdown of budget)

Year	FTE	Salary (K $)	O & M (K $)	Total (K$)
2005/06	.5	29	163	192
2006/07	1.0	72	127	199

***PROPOSED DELIVERABLES*:**

- Identification of CUs and benchmarks.
- Status templates for each CU that will include preliminary status benchmarks and designations.
- Comprehensive geo-referenced database.
- PSARC or DFO MS Report plus primary manuscript refining and documenting methods to assess and monitor the habitat and productivity capacity of sockeye CUs.
- PSARC paper applying the multi-attribute approach to describe probable BC CUs and DUs and status.
- PSARC paper(s) describing operational frameworks with annual monitoring tasks necessary to assess CU status.
- Input to WSP website.

***RISKS COMPROMISING SUCCESS*:**
The successful completion of this project in the proposed time frame hinges primarily on our ability to identify suitable staff from StAD Core and the areas. Some work is already underway but a biologist will need to be hired or re-assigned to provide overall coordination for the workplan. Area staff will also need to devote time to provision and review of CU information. The most suitable approach will vary among areas, in some cases CU information will be most effectively gathered by staff while in other areas contract dollars is more cost effective. The major risk to completion within the proposed time frame is availability of staff and resources in the face of competing priorities.

Action Item	Task	Deliverable(s)	Outcomes	Completion Date	FTE	Salary (S)	O&M	Budget (K)	Acc.Mgr(s)	Notes
1.1 Identify Conservation Units	1.1.1 Preliminary Identification and assessment status of Conservation Units, and associated habitats	• Preliminary CU template • WSP Strategy 1 teams with area and core participants • Revised CU template • Preliminary CU list • Analysis of genetic and other information • List of populations and demes for each CU • Information from First Nations and stakeholders • List of major information sources and deficiencies by CU • Partial completion of CU templates including preliminary CU and habitat status	• Consistent approach • Improved understanding of CU structure • First Nations/stake-holder consultations • Linkages with Habitat Action Step 1.1 Draft templates for most CUs	March 31_2006	0.4	29	Travel 30K Phone 2K Contract/area staff costs 50K Equipment 4K Total 86K	115	Irvine	Requires 1 PBS-based bio full time for remainder of year plus part-time commitment of biologists from each area and/or contract support. PBS bio will coordinate many of tasks on this workplan
	1.1.2 Develop multi-attribute approach to CU identification	Preliminary status assessments of CUs, report	Input to templates	Dec 2005			Contract 22K	25	Irvine/Holtby	

Action Item	Task	Deliverable(s)	Outcomes	Completion Date	FTE	Salary (S)	O&M	Budget (K)	Acc.Mgr(s)	Notes
	1.1.3 Develop geo-referenced database; linkages to Habitat Action	Access database	Improved access to integrated CU status and habitat information	Mar-06			Travel, office expenses 3K			
1.2 Develop criteria to assess CUs and identify benchmarks to represent biological status	1.2.1 Study northern coastal sockeye CUs (Action Steps 1.2, 1.3)	Draft report	Refine/document how to assess/monitor habitat/prod capac	Mar-06			Travel 4K, contract 28K	32	Irvine/Hume	
1.3 Monitor and assess status of CUs	1.3.1 WSP Web Development	Contributions to WSP web page	Input of templates and CU lists to website	Mar-06			Contract 10K	10	Irvine	
	1.1.4 Genetic analyses to help ID CUs (Action Step 1.1)	Genetic structuring of CUs	Improved understanding of CUs	Marc-06			Lab analysis	10	Irvine	
	Total Budget 05/06				**0.4**			**192**		
1.1 Identify Conservation Units	1.1.4 Genetic analyses to help ID CUs (Action Step 1.1)	Genetic structuring of CUs	Improved understanding of CUs	Aug-06			Lab analysis	10	Irvine	
	1.1.5 Finalisation of CUs (Action Step 1.1)	Near final list of CUs, populations, and demes	Completion of Action Step 1.1.	Dec-06			Travel, office expenses 3K	3	Irvine	

Action Item	Task	Deliverable(s)	Outcomes	Completion Date	FTE	Salary (S)	O&M	Budget (K)	Acc.Mgr(s)	Notes
1.2 Develop criteria to assess CUs and identify benchmarks to represent biological status	1.2.3 Develop assmt criteria and id benchmarks (Action Step 1.2)	Benchmarks for each CU; updated status templates Updated/expanded Info from 1st Nations + stakeholders	Near completion of Action Step 1.2 Updated info for public dist'n First Nations/stake-holder consultations	Mar-07	0.4	29	Travel 30K, software 5K, Phone 3K Contract/area staff costs 56K Equipment 7K	125	Irvine/bio	Part-time commitment of new bio plus bios from each area and/or contract support
	1.2.4 Study northern coastal sockeye CUs (Action Steps 1.2, 1.3)	PSARC or DFO MS Report and journal manuscript	Improved understanding of sockeye CUs	Oct-06			Travel, office expenses 2K	2	Irvine/Hume	
	1.2.5 Complete multi-attribute study (Action Steps 1.2, 1.3)	PSARC Report	Preliminary status designations for BC units	Apr-06			Travel, office expenses 1K	1	Irvine/Holtby	
1.3 Monitor and assess status of CUs	1.3.2 Operational frameworks (Action Step 1.3)	PSARC Report	Operational frameworks with annual monitoring tasks	Mar-07	0.6	43		43	Irvine/Bio	Major responsibility of new bio who will coordinate most tasks on this workplan
	1.3.3 Web Development + maintenance (Action Steps 1.1, 1.2, 1.3)	Contributions to WSP web page	Updated input of templates and other info to website	Mar-07			Contract 15K	15	Irvine	
	Total Budget 06/07				**1.0**			**199**		

Action Item	Task	Deliverable(s)	Outcomes	Completion Date	FTE	Salary (S)	O&M	Budget (K)	Acc.Mgr(s)	Notes
	Total Budget 05/06		**plus 06/07**		**1.4**			**391**		

Name of Conservation Unit (including species name), e.g. CULTUS LAKE SOCKEYE SALMON (*Oncorhynchus nerka*)

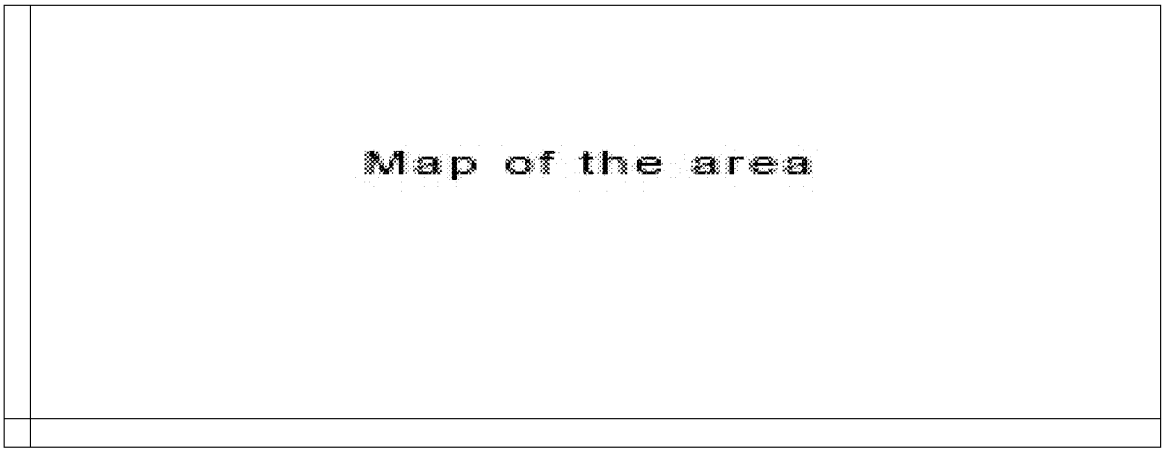

Figure 1: Map showing freshwater area of occupancy and location within DFO area.

Completion of CU templates will be an iterative process with information quality and quantity varying among CUs:

SUMMARY

CONSERVATION UNIT STRUCTURE

- **(listing of CU components, i.e. populations and demes)**

DISTRIBUTION

- **(freshwater and marine; identify trends and fragmentation concerns)**

BIOLOGY

- **(life history, sex and age composition, migration/dispersal patterns, survival information)**

CU SIZE AND TRENDS IN ABUNDANCE

- **(i.e. number of mature individuals by population)**
- **(i.e. declining, stable, increasing, or unknown; if declining, % decline over last 10yrs/ 3 generations, whichever is greater)**

BIOLOGICAL STATUS (red, amber, green, or unknown)

HABITAT

- **(status, concerns, and trends)**

TEK (including ATK) (Traditional Ecological Knowledge includes all historical knowledge while Aboriginal Traditional Knowledge is originates only from aboriginal peoples).

LIMITING FACTORS AND THREATS (actual or imminent)

OTHER CUs WITH COMMON THREATS

MANAGEMENT OBJECTIVE (e.g. maximize catch, minimize bycatch, maximize economic gain, minimize prob. of extirpation, escapement goal)

STAKEHOLDER PERSPECTIVES

BENCHMARKS

CU OUTLOOK

SOURCES OF INFORMATION

NAME(S) OF INDIVIDUALS WHO COMPLETE/ UPDATE TEMPLATE, COMPLETE MAILING ADDRESSES AND DATES

Appendix 3. Strategy 2 Proposal

PROJECT PROPOSAL

DFO Wild Salmon Policy
FY 2005-06/FY 2006/07

PROJECT TITLE: Assessment of Habitat Status (Strategy 2)

DESCRIPTION AND LINK TO WSP STRATEGY / ACTION STEP:

(see attached table)
Action Step 2.1 - **Document habitat characteristics within CUs**
Action Step 2.2 - **Select indicators and develop benchmarks for habitat assessment**
Action Step 2.3 - **Monitor and assess habitat status**
Action Step 2.4 - **Establish linkages to develop an integrated data system for watershed management.**

Habitat management, protection, and restoration require identification of habitats necessary for the conservation of wild salmon and monitoring indicators to assess changes in status over time relative to benchmarks. Identification of habitats will begin with documentation of major habitat characteristics in each CU using the CU specific status templates. (2.1) This is most efficiently done by working closely with StAD on using a common process to complete respective components of the templates. It will include a combination of literature review and area input.

A separate related task has been undertaken by the Pacific Fisheries Resource Conservation Council (PFRCC). The Council has initiated a contract to review literature on habitat indicators for applicability and availability and conduct a workshop. The workshop and the literature review will refine the set of potential indicators and establish important linkages with academic institutions, other agencies, and bodies such as the Salmonid Enhancement and Habitat Advisory Board (SEHAB) and stakeholders. The PFRCC report and other applicable indicator work will be distilled to develop the final set of habitat indicators (2.2). Benchmarks will be proposed for CU`s based on a review of previous relevant monitoring works and habitat science research (both undertaken internally and externally to DFO).

Monitoring (2.3) initiatives will include monitoring of compliance and effectiveness of habitat restoration and development projects. There will be initial work on establishment of reference sites and indicators based on habitat restoration and development projects. (2.2). Based on the outcomes of this work and Action steps 2.1 and 2.2, an ongoing operational framework will be developed to identify annual monitoring requirements and responsibilities(2.3). The operational framework will identify where external participation in monitoring by First Nations, community, and stewardship groups may be applicable.

Data availability and management will be identified for indicators as part of the PFRCC contract and when the final set of indicators is developed, data management linkages will be explored (2.4). Data sharing with partners such as the province and stewardship groups already occurs but connections will be reviewed and strengthened particularly as applicable to selected indicators and benchmarks. Linkages between OHEB databases and the geo-referenced database identified in Action Step 1.1 will be made and OHEB GIS systems will be utilized for development of CU maps and ultimately linked with CU status and habitat information.
One OHEB FTE will be re-assigned to coordinate Strategy two for the balance of the 05/06 fiscal year and for fiscal year 06/07 as resources permit.

TIMEFRAME: (1 yr/multi-year)

Multi-year

2005/06 –Initial habitat characteristic documentation on templates, baseline work on potential references sites, indicators and benchmarks based on restoration and development projects, and improved database linkages with the province and other partners
2006/07 – Finalize habitat characteristic documentation, review and finalize indicator selection, begin benchmark development for CUs, develop operational frameworks for monitoring,

PARTICIPANTS:

Cross area team consisting of lead habitat WSP contact, area habitat staff, WSP StAD coordinator

PFRCC
FN's, Province, SEHAB, stewardship groups,

RESOURCES SOUGHT & RATIONALE:

See attached table

Year	FTE	Salary (K $)	O & M (K $)	Total $
05/06	0.4		120	(O&M includes20K from Sc,FAM for GIS)
06/07	1.0	80	100	180

PROPOSED DELIVERABLES

- Overview of major habitat characteristics for each CU as part of CU status template
- Final set of habitat indicators
- Initial establishment of reference sites and indicators for habitat restoration and development projects
- Operational monitoring plan identifying annual monitoring and resource requirements and monitoring partners
- Linkage of CU status templates with OHEB GIS systems

RISKS COMPROMISING SUCCESS

The successful completion of this project in the proposed time frame depends on the ability to identify and make available suitable staff. A habitat FTE will need to be re-assigned to provide overall coordination for the workplan and area staff will need to devote time to provision and review of CU habitat information. Habitat template information is most effectively gathered jointly with StAD but contract dollars or FTE support for the StAD process are required. The major risk to completion within the proposed time frame is availability of staff and resources in the face of competing priorities and pressures to downsize the Habitat program.

PROPOSAL DETAILS:

05/06

Action Item	Task	Deliverables	Outcomes	Date Complete	FTE	Salary $	O&M	Total	Accountable Manager(s)/ Participants	Notes
2.1 Document habitat characteristics	2.1.1 Prepare brief narrative description of major habitat characteristics and issues for each CU using published material, area input and information from external sources e.g. FNs, stewardship groups	Overview of habitat characteristics and issues for each CU included on CU status template.	Involvement of area staff, cross branch working linkages Screening and identification of CU's with priority habitat issues.	31-March-06	0.4		20K contract for habitat document ation + 30K to be converted to 25K salary dollars	50K	Habitat WSP lead/contractor/ area staff/area FN and stewardship groups	- One habitat biologist to be re-assigned to coordinate WSP tasks for the balance of the fiscal and will coordinate all tasks identified on this workplan – requires .4FTE and 15K Salary dollars from OHEB slippage - Habitat Documentation (25K O& M) work to be done with core StAD as part of status template completion process–by contract $
2..2 PFRCC contract for review of potential habitat indicators for usefulness and applicability	2.2.1 PFRCC contract to review literature on habitat indicators for applicability and availability and conduct workshop	Workshop to review indicator candidates and data availability Summary report on best indicator candidates	Workshop report Linkages with academic and other resource management agencies such as forestry	31-March-06					PFRCC/ Saunders, habitat lead	Funded from PFRCC budget - habitat rep and some members of implementation team to provide input as applicable and participate in workshop.
2.3Pilot monitoring study of habitat restoration and development projects	2.3.1 Conduct a review of Environment Canada's Canadian Aquatic Biomonitoring Network (CABIN) database and the Reference Condition Approach with	- Report on an overview and refinement of Environment Canada's Reference Condition Approach methodologies and indicators for use in WSP	Improved habitat restoration and development practices - refined methodologies and indicators for tracking of Habitat Man. and	31-March-06			40K (contract)	40K	Ed Woo/Ryan Galbraith, area staff	

Action Item	Task	Deliverables	Outcomes	Date Complete	FTE	Salary $	O&M	Total	Accountable Manager(s)/ Participants	Notes
	respect to restoration and development projects to develop reference sites and refine an approach to establishment of habitat indicators and benchmarks. - Publish report on compliance and effectiveness of interior BC restoration and development projects in partnership with BCIA and UBC.	performance tracking. – recommendation and selection of restoration project reference sites in key CU's using EC's database to benchmark habitat quantity and quality to track performance - Report on compliance and effectiveness, and recommendations for improvement of practices for interior BC restoration and development projects in partnership with BCIA and UBC.	performance tracking							
2.4 Improve data sharing linkages with partners	2.4.1 Initiate or review existing data sharing with partners espec. Province,	Improved data linkages	More effective data management, reporting and analytical capacity Participation of external partners will improve data quality and departmental capacity.	31-March-06					Karen Calla/OHEB IM group, province	Will be done as part of the Can-BC MOU.
2.4 Review of data availability	2.4.2 As part of PFRCC contract, there will be a review of data availability for	A report detailing data availability for the indicators reviewed and where and how	- selection of habitat indicators with functional data availability	31-March-06					PFRCC/ WSP implementation team	Part of PFRCC contract identified in 2.2

Action Item	Task	Deliverables	Outcomes	Date Complete	FTE	Salary $	O&M	Total	Accountable Manager(s)/ Participants	Notes
	potential indicators.	data are held and managed.								
2.4 Develop linkage between OHEB GIS database, CU Status templates and geo-referenced databases in 1.1	2.4.3 Review geo-referenced database and GIS and determine approach to linkage	Linked data systems	More useful data system for analysis and reporting	31-March-06			30K (10K from OHEB,10 K FAM,10K Science	30K	OHEB IM and GIS staff –	Broader IM strategy needed for all WSP components.

PROPOSAL DETAILS:

06/07

Action Item	Task	Deliverables	Outcomes	Date Complete	FTE	Salary $	O&M	Total	Accountable Manager(s)/ Participants	Notes
2.1 Complete and refine habitat characteristic definition	2.1.2 Review and confirm habitat characteristic templates	Overview report for each CU that provides sufficient information on key habitat to identify initial priorities for protection rehabilitation and restoration. Also identifies information gaps and factors.	Information will contribute to improved watershed planning, both within DFO and with external stakeholders. Also, serve as a guide for habitat protection and planning in Strategies 4 and 5.	31-October-2007	1.0 (re-assigned)	80K	20K contract 10K travel for FTE 30K	110K	WSP Habitat lead/area staff, external area experts (FN etc.)	- One habitat biologist to be re-assigned to coordinate WSP tasks for the fiscal to will coordinate all tasks identified on this workplan - Contract to review and refine habitat characteristics with appropriate internal and external participants.
2..2 Finalize selection of indicators	2.2.2 Integrate PFRCC outcome and indicator work from other sources to develop final set of indicators	Final set of habitat indicators		31-October-07					WSP habitat lead/PFRCC,habitat staff, SEHAB	To be coordinated by WSP habitat lead
2.2 Develop benchmarks	2.2.3 For individual CUs ,assess data quality and availability for defining benchmarks for each CU	Benchmarks for individual CUs	Improved capacity to assess habitat status relative to a standard.	31-March-07			25K contract	25K	Habitat WSP lead/Habitat Science/StAD lead	Funds will be used for contract to support benchmark development
2.3 Begin development of ongoing operational frameworks with annual monitoring tasks	2.3.2 Identify monitoring requirements for each CU based on pilot studies, and indicators. Identify responsibility and capacity for	A finalized monitoring plan identifying monitoring and resource requirements and delivery approach	Appropriately monitored habitat Participation of external partners will improve commitment to the resource	31-March-07			25K contract	25K	Habitat WSP lead/area staff, stewardship groups, SEHAB	To be coordinated by WSP habitat lead Contract funds to be used for assistance in preparting monitoring plan

Action Item	Task	Deliverables	Outcomes	Date Complete	FTE	Salary $	O&M	Total	Accountable Manager(s)/ Participants	Notes
	monitoring by external parties		and departmental capacity.							
2.4 Link OHEB GIS systems with CU status templates	Develop method to link existing and developing OHEB GIS systems with status templates	Linked systems	More effective data management, reporting and analytical capacity	31-March-07			20K contrac t	20K	OHEB IM and GIS staff	Broader IM strategy needed for all WSP components.
2.4 Continue development of data sharing linkages with partners	Continue review of existing data sharing with partners espec. Province,	Linked systems	More effective data management, reporting and analytical capacity Participation of external partners will improve data quality and departmental capacity.	31-March-07					Karen Calla/OHEB IM group, province	Will be done as part of CAN – BC MOU

Appendix 4. Strategy 3 Proposal

PROJECT PROPOSAL

WILD SALMON POLICY
FY 2005/06 & FY 2006/07

PROJECT TITLE: Identification of Ecosystem Values and Integration into Management of Pacific Salmon (Strategies 3.1 and 3.2; July 2005 WSP)

"The Department's intent is to ***progressively consider ecosystem values in salmon management***, but it acknowledges a limited ability to do so at the present time. The following steps will provide the scientific understanding and technical capacity to include ecosystem values over time.

Action Step 3.1. Identify indicators to monitor status of freshwater ecosystems

The Department will use existing data and expert advice to ***identify key indicators*** (biological, physical, and chemical) of the current and potential state of lake and stream ecosystems (diversity of organisms, rates of biological production, etc.). ***Within two years, an ecosystem monitoring and assessment approach will be developed and integrated with ongoing assessments and reporting on the status of wild salmon.*** Implementation of this approach will be coordinated with the monitoring of CU status (Action Step 1.3), their habitats (Action Step 2.3), and marine conditions (Action Step 3.2). ***In the process, knowledge gaps and areas requiring further research will also be identified.***

Action Step 3.2. Integrate climate and ocean information into annual salmon management processes.

To understand changes in climate and oceans and their consequences for salmon production, the freshwater monitoring programs identified in ***Step 3.1 will be integrated with programs investigating variability in climate and ocean conditions***. Canada is developing programs to monitor and study these conditions. To relate variations in freshwater and marine ecosystems, networks of freshwater indicator systems (see Action Step 1.3) are being discussed internationally to assess the magnitude and spatial scale of changes in climate and ocean conditions. Linking variations in salmon returns to changes in the marine ecosystems requires large-scale monitoring programs, extensive planning, and collaboration with domestic and international organizations. "

Tasks: The major tasks associated with implementing Strategy 3 involve:

a. Identifying the public and professional expectations of incorporating "ecosystem values" into salmon management;
b. Identification of the ecosystem indicators recommended by experts for monitoring;
c. Consult with First Nations, academics, ENGO's, local industry and government, and public (e.g. Stream Keeper volunteers) … a public dialogue seeking consensus on an agreed set of indicators;
d. Use an external Expert Panel to conduct the dialogue and recommend the basis of an adequate assessment framework (recognizing a realistic limitation of what we can assess and afford to assess; and identifying linkages with other organizations); and
e. DFO to review Expert Panel report and recommend the Assessment Framework to WSP consultation groups and government.

While Action Step 3.2 of this strategy will require work within DFO, the major task expected under this strategy pertains to Action Step 3.1.

Proposed Project Steps:

1) Fall, 2005 regional workshop to outline our proposal for ecosystem consultations and use of an external Expert Panel. A small contract would be let to co-ordinate and facilitate a workshop (participants similar to WSP consultations, likely a two day session). The objective to this workshop would be to inform clients of our proposal and timeframes, and to seek recommendations on suggested membership of the Expert Panel (a list of suitable members, assuming this option is accepted).
2) Contract individuals to participate on Expert Panel (minimum number of participants would likely be five (3 academics, a FN member, and an ENGO) plus two ex-officio members for the Federal and Provincial governments. Contract duration anticipated up to one year (consultations and final report), and would be limited to $15-20K per external member). Report date by December, 2006.
3) Contract for a consultation/facilitation team to co-ordinate organizations of meetings, logistics for Expert Panel, and maintaining summary minutes of consultations. Expected duration of this contract would be slightly longer than the Expert Panel. Costs of this contract would vary depending on the consultation option chosen.

4) DFO would receive the recommendations of the Expert Panel, formulate an Assessment Framework, and conduct final consultations with a select group of clients before a final recommendation to government (completed by April 2007).
5) DFO Science should assign a lead contact to represent this Department during the development of this Assessment Framework. The tasks involved would involve developing an expertise in ecosystem indicators, participating fully in the consultations and with the Expert Panel but only as an advisor during their deliberations, and then finally to draft Departmental recommendations following from the Panel report and consultations.

Time frame and Resources Sought:

1. Fall 2005, small workshop with recommended list of Experts; $25K
2. Contract for consultation/facilitator to work with Expert Panel; likely 12-13 months and up to $100K for contractors and reporting.
3. Individual service contracts for approximately 5 Experts; maximum duration 12 months; costs for labor and direct costs up to 5@$20K=100K.
4. Costs for individuals attending each consultation, rough approximation of $100K (for 25-40 persons over a few consultations).
5. Direct costs to support DFO/WSP staff participation, $25K.

Total costs, September 2005 through March 2007 estimated to be $350K (over 2 years).

Fiscal year 2005/06 would include $25K (item 1) plus maximum of costs for 3 months on items 2,3,4,5. Assuming proportional split over 12 months would estimated (0.25 * $325K) = $81.25K; total in first fiscal year = 106.25K (it would be possible to forward load costs for two consultations if desired).

Cost for balance of activities in fiscal 2006/07 = $243.75

Proposed Deliverables:

- Definition of public expectations of "ecosystem values" for salmon management
- Identification of indicators useful in monitoring "ecosystem values"
- Report of an Expert Panel on a suitable (and agreed) set of ecosystem indicators to be incorporated into an Assessment Framework
- Fulfillment of the WSP obligation to consult and within two years to develop an Assessment Framework incorporating ecosystem values into salmon management.

- A constructive consultation forum should enable DFO to receive advice on public expectations of incorporating ecosystem attributes into salmon management, while effectively limiting the additional costs inherent in a new monitoring program.

Risks Compromising Success:

The critical elements of this proposal are: a) an effective external Expert Panel and (b) the consultation option selected. The primary concern is how effective the consultations are in identifying the "ecosystem values" and in achieving some consensus on a set of indicators to applying within a monitoring program (i.e., an Assessment Framework). A concern for the Expert Panel suggestion is that 5 members may be too small group to incorporate all the client groups that may insist on participating. However, the Expert Panel should be limited to true experts working in this topic. Other interested participants would be included in the consultation forums.

Consultation Process:

A process similar to the BC Electoral Reform process will have selected representatives of interested client groups attend a series of consultations hosted by the Expert Panel and the facilitator (costs would vary with number of representatives required).

This will involve a set of representatives (across client groups) attending a series of consultations (likely 3-5) so that the representatives can consider advice from the Expert Panel (and visa versa), consider the dialogue between consultations, and discuss this topic with their client groups as the dialogue continues through the year.

Since we expect many differences of opinion about what ecosystem values are important to salmon management and limited consideration of what to measure as indicators, these consultations will involve much "give and take" between participants. We expect peoples understanding and expectations will evolve over the year and would have much greater opportunity to achieve some consensus through a series of meetings with a common set of representatives.

A concern for this model is that we may not be able to accommodate the number of representatives that client groups wanting to attend. This may be a particular problem in meeting consultation requirements with First Nations. Also, we would have to limit the number of sessions and their duration.

Appendix 5. Strategy 4 Proposal

PROJECT PROPOSAL

DFO Wild Salmon Policy
FY 2005-06/FY 2006/07

PROJECT TITLE: Development and implementation of a Strategic Planning Process for Salmon Conservation

DESCRIPTION AND LINK TO WSP STRATEGY / ACTION STEP:
Attach separate sheets as necessary

Strategy 4
Action Step 4.1 Implement an interim process for management of priority CUs
Action Step 4.2 Design and implement a fully integrated strategic planning process for salmon conservation.

The Department has agreed to consult with First Nations, Provincial and Territorial governments, communities, and stakeholders to design an effective integrated planning process for salmon conservation (WSP Strategy 4, Action Step 4.2). The new planning process will be tasked with developing long-term strategic plans for CUs that will guide fisheries and habitat activities in specific geographic areas affecting the CUs. These plans will need to determine long term biological targets for CUs and for habitat and ecosystem status and address significant conservation concerns by ensuring that all CUs will remain above their established lower benchmarks with an acceptable degree of certainty. The planning process will ultimately consist of a new planning structure that will develop the plans through an organized procedure that respects people's interests in Pacific salmon, land and water uses, watersheds, fisheries, and marine areas. The planning process must utilize as much as possible existing structures and connect with processes already in place where other levels of government have jurisdiction (ie FN, LRMP/SRMP, LUP, MUP, Community Plans).

Recognizing that it will take time to develop the full process an interim process will be implemented through regional response teams formed to address CUs identified through

Strategy 1 as a priority concern (WSP Strategy 4, Action Step 4.1). Priority CUs will be those in the Red Zone and those that could significantly limit fishing or other activities. The Response Teams will engage First Nations and other salmon interests to assist DFO in the development of plans that will inform regional integrated operational planning for fisheries and habitat. The Response Teams and ultimately the new planning structure will use the 5-step planning procedure outlined in Appendix 2 of the Wild Salmon Policy to develop the plans.

TIMEFRAME: (1 yr/multi-year)

Multi-year
2005/06 – Complete institution of Interim Planning Process
2006/07 – Complete fully Integrated Planning Process

PARTICIPANTS:

Multi-Branch Planning Team including planning representatives from Policy-Consultation Secretariat, Science, Fisheries Management, Oceans, Habitat, and Treaty.

WSP Advisory Forum – as required
First Nations WSP Advisory Forum and Bi-lateral meetings as required.

RESOURCES SOUGHT & RATIONALE:

Detailed breakdown of budget: for salaries, O&M, equipment, ship time, proposed contracts, etc

Year	FTE	Salary (K $)	O & M (K $)	Total (K$)
2005/06			160	160
2006/07			113	133

PROPOSAL DETAILS:

FY 2005/06

Action Item	Task	Output/ Deliverable(s)	Outcomes	Date Complete	FTE	Salary $	O&M	Total	Accountable Manager(s)/Participants	Notes
4.1. Implement an interim process for management of priority CUs	4.1.1 Pilot 5 step planning procedure (WSP Appendix 2) for developing long term strategic plans including objectives with two response teams	1. Report documenting experience with 5 step process. Recommendation regarding subsequent procedure.	Staff, FN and stakeholders will have ownership of a procedure for strategic planning that will provide buy-in and effectiveness of the final process.	March 31, 2006			50K Modelling contract 40K-2wkshps 20K Travel 20K CyclicDom Wkshp 20K Socio-econ modelling	150	Saunders/Ryall/Fraser WSP Implementation Team	May utilize existin recovery teams or emerging conserva issue. Will establish a lin with Fraser Spawn Escapement Initiat Workshop costs in facilitation
4.2 Design and implement a fully integrated strategic planning process for salmon conservation	4.2.1-Establish a DFO Integrated Planning Team	1. Team List		October 2005					Hobbs/Hartling/ Saunders Lead	
	4..2..2- Hold a **workshop** with staff to begin development of a draft model for an Integrated planning structure and Response teams	1. Workshop 2. Staff recommendations for development of a draft model.	Staff input and buy-in on process for developing an integrated Planning solution that is integrated across Branches. Staff Planning Team	October 2005			Contracts to experts Facilitator	5	Hobbs/Hartling/ Saunders Lead Integrated Planning Team	
	4.2.3 Review of Strategy 4 Implementation Plan with WSP Implementation Advisory Fora (see Admin Proposal)	Meeting of WSP Implementation Advisory Fora (FN and Multi) Advice from Fora on participants in developing planning structure and planning procedure	Buy-in and advice from FN and salmon interests	December 2005					Saunders/Hartling WSP Implementation Team	

	4.2.4 Development of FN structure	First Nation consultation structure interim report	Improved consultation of FN in salmon management decision making	March 31-2007			Contract 20K	20K	TBD	
Total FY 2005/06								**175**		
FY 2006/2007										
4.1. Implement an interim process for management of priority CUs	4.1.2 Convene response teams for priority CUs identified in Strategy 1 Action Item 1.1 – Response teams formation to begin when CU status report available March 31, 2006	1. Response teams formed	Structures formed that bring together FN and stakeholders that can collaborate to develop plans that they can support	May 2006					Saunders WSP Implementation Team	
	4.1.3 Develop strategic plans for priority CUs	Strategic Plans for priority CUs	Long term plans that will guide annual DFO programs	January 2007			30K Travel 30K Admin support	60K	WSP Implementation Team Response Teams	Based on six respo teams
4.2 Design and implement a fully integrated strategic planning process for salmon conservation	4.2.4 Development of FN structure (Cont'd)	First Nation consultation structure interim report	Improved consultation of FN in salmon management decision making	March 31-2007			Contract 30K	30K	TBD	
	4.2.5 – DFO Planning Team to develop a **Draft planning structure** with assistance from FN and stakeholders recommended by FORA	1. Draft planning structure that will be assessed by WSP Advisory Fora. 2. Final Report	A draft planning structure with stakeholder ownership	March 31, 2007			Travel 3K Contracts 20K	23K	Saunders Lead DFO Planning Team and Forum Advisors	
	4.2.6 **Hold two WSP Advisory Fora** to meet and review proposed	1. Fora 2.Report on Recommendations	Advice on how to proceed with revisions to	Sept 2006			Facilitator 10K Travel 10K	20K	Saunders/Hartling	Based on small FC size

	structure provide recommended revisions	for change	proposed planning process.							
	4.2.7 Implementation of final Planning Process-	1. Functioning Planning Structure in each Area 2. Long term strategic plans for all Cus	An operational integrated planning structure for salmon conservation	TBD.					TBD	
	Total F/Y 2006/07							**133**		