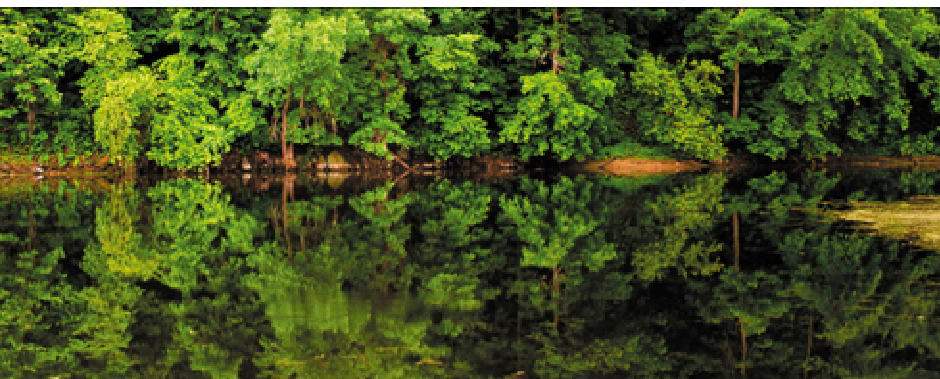




## **FISHERIES AND OCEANS CANADA**

**Conservation and Protection Risk Profile 2011**



**INTERIS**  
Knowing What Works  
Is In Our Nature.

## PUBLICATION HISTORY

Version	Date	Description
DRAFT2	November, 2009	Second draft of the CRP update
DRAFT1	June 23, 2008	First draft of the CRP update

Document Date: January, 2011  
File Name: Conservation and Protection CRP - WIP.doc  
Status & Version: Version2



## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Purpose of This Document .....	1
1.2	Background .....	1
1.3	Methodology .....	1
<b>2</b>	<b>RISK PROFILE – AT-A-GLANCE.....</b>	<b>4</b>
2.1	Overview .....	4
2.2	Conservation and Protection Objectives.....	4
2.3	Risk Heat Map.....	5
2.4	Risk Profile Comparison (2006 vs. 2009) .....	6
<b>3</b>	<b>RISK PROFILE – DETAILED ANALYSIS.....</b>	<b>7</b>
3.1	Voluntary Compliance.....	8
3.2	Knowledge.....	10
3.3	Civil Disobedience .....	13
3.4	Departmental Compliance .....	15
3.5	Human Resources Capacity.....	17
3.6	Resource Alignment .....	20
3.7	Third Party.....	23
3.8	Capital Assets .....	25
<b>4</b>	<b>NEXT STEPS .....</b>	<b>27</b>
<b>APPENDIX A</b>	<b>SOURCES.....</b>	<b>ERROR! BOOKMARK NOT DEFINED.</b>
<b>APPENDIX B</b>	<b>2010 C&amp;P RISK LIST – WORKSHOP DISCUSSION AND</b>	
<b>RESULTS</b>	<b>.....</b>	<b>31</b>
<b>APPENDIX C</b>	<b>RISK MANAGEMENT CONCEPTS.....</b>	<b>40</b>

## 1 INTRODUCTION

### 1.1 PURPOSE OF THIS DOCUMENT

The purpose of this document is to convey concise risk information that accurately presents the assessment of Conservation and Protection (C&P) Risks by C&P Directors' and Managers in December, 2010.

### 1.2 BACKGROUND

To reflect new requirements for incorporation of risk information into the Directorate and Departmental Integrated Business Plan, the Department of Fisheries and Oceans Canada (DFO) Conservation and Protection (C&P) Directorate within Fisheries Management is updating its 2009 risk profile by reviewing business conditions and sources of risk, confirming and updating Directorate risks, and preparing risk response plans. The currency of the updated Directorate profile will improve synchronization with the C&P plans and priorities, as well as both the Fisheries Management and DFO corporate risk profiles.

This update complies with DFO's Integrated Risk Management program and employs Departmental standard risk analysis methods and tools.

The risk profile update is comprised of the following components:

- **Risk Profile Overview** provides a summary of the impact and likelihood of potential risks facing the Sector's objectives
- **Detailed Risk Analysis** provides in-depth information on the risks and their potential impacts for the Sector, as well as current controls and potential mitigation strategies
- **Next Steps** outlines recommendations for moving forward based on the risk analysis

### 1.3 METHODOLOGY

Risk refers to the uncertainty that surrounds future events and outcomes. It is the expression of the likelihood and impact of an event with the potential to influence the achievement of an organization's objectives (Source: TBS Integrated Risk Management Framework). Risk assessment is a systematic process of identifying and ranking risks in terms of likelihood of occurring and impact on the organization's ability to achieve objectives.

The development of the Directorate's 2011 Risk Profile included consultation and document review as well as validation of risks by C&P management at a workshop in Montreal on December 7<sup>th</sup>, 2010. The steps taken are summarized below.

## DATA COLLECTION

For the 2009 version of the C&P Risk Profile, extensive documentation review and interviews with representatives of C&P Directorate were conducted to gain their understanding of current business conditions and existing sources of risk. The list of documents reviewed is presented in Appendix A along with the list of interviewees. For this latest version of the Risk Profile, a workshop was held with the Directors of C&P to review the existing profile and make the necessary changes.

## RISK PROFILE DEVELOPMENT

A preliminary list of risks and risk drivers/sources was developed based on the findings from the data collection phase using the DFO Risk Management (IRM) methodology as well as relevant information from the 2006 risk profile (which was validated but not assessed at the time).

This preliminary list of risks was presented to a group of directors and managers for validation during a workshop. Risks were assessed against the likelihood of occurrence and the impact if the risk did occur. DFO standard departmental scales were used to assess the risks and to provide a common scoring framework for participants. The Departmental scales that were used are presented below. Then as discussed above, a recent workshop was held with the C&P Directors to reassess the risks and drivers and discuss the mitigation strategies.

## DETERMINING THE LIKELIHOOD OF THE EVENT OCCURRING

The first step in the risk assessment process is to identify how likely each threat is to occur. Likelihood is rated using a five-point scale, shown in the table below, which also includes a probability range in brackets. In assessing likelihood, workshop participants were asked to consider the practices currently in place to manage this threat (mitigation practices).

Likelihood	Experience/Observed Frequency
5. Almost Certain	Occurs regularly here (>95%)
4. Likely	Has occurred here more than once, or is occurring to others in similar circumstances (76% - 95%)
3. Moderate	Has occurred here before, or has been observed in similar circumstances (25% - 75%)
2. Unlikely	Has occurred infrequently before to others in similar circumstances, but not here (5% - 24%)
1. Rare	Almost never observed - may occur only in exceptional circumstances (<5%)

## DETERMINING THE IMPACT OF EACH EVENT

The second step in the risk assessment process is to determine the impact of each risk event on the objectives of the Directorate, should it occur. If they materialize, risks can have a variety of consequences, including, but not limited to damage and liability, operational effects and reputational consequences. A five-point scale is used to assess the impacts of risk events. The following table provides a description of each degree of impact and provides some indicators of each level of impact

Level	Definition
<b>5. Extreme</b>	A major event that will require the organization to make a large scale, long term realignment of its operations, objectives or finances
<b>4. Very High</b>	A critical event that with proper management can be endured by the organization
<b>3. Medium</b>	A significant event that can be managed under normal circumstances by the organization. The consequences could mean that the activity could be subject to significant review or changed ways of operation
<b>2. Low</b>	An event, the consequences of which can be absorbed but management effort is required to minimize the impact
<b>1. Negligible</b>	An event, the consequences of which can be absorbed through normal activity

Section 2 of this report documents the results of the assessment of the identified risks using these likelihood and impact scales. A risk profile is completed through the determination of appropriate risk responses, treatments and mitigation strategies. These are described in more detail in Section 3.

## COMPARING 2005 RISK PROFILE TO 2009 AND 2011

Although there had not been an official risk assessment or report for the 2006 risk profile, Interis used the information as a starting point for insight into the risks, risk factors, controls and consequences. As the 2005 risks were not formally assessed, it is impractical to reference any comparative observations. However, the absence of certain identified 2005 risks in the updated 2009 profile is notable and is discussed in the Section 4 – Conclusions and Observations. Most of the risks identified in 2011 are very similar to those from 2009.

## **2 RISK PROFILE – AT-A-GLANCE**

### **2.1 OVERVIEW**

This section provides an overview of the Directorate's objectives and the risks that may prevent those objectives from being achieved. An in-depth analysis of C&P's risks and a review of existing mitigation strategies are examined. For readers not involved in the risk assessment process, a brief discussion of terminology and conventions will provide the basis for a clear understanding of the C&P risk profile. This information can be found in Appendix D. The worksheet or "risk register" containing the detailed information supporting this risk assessment is included in Appendix B.

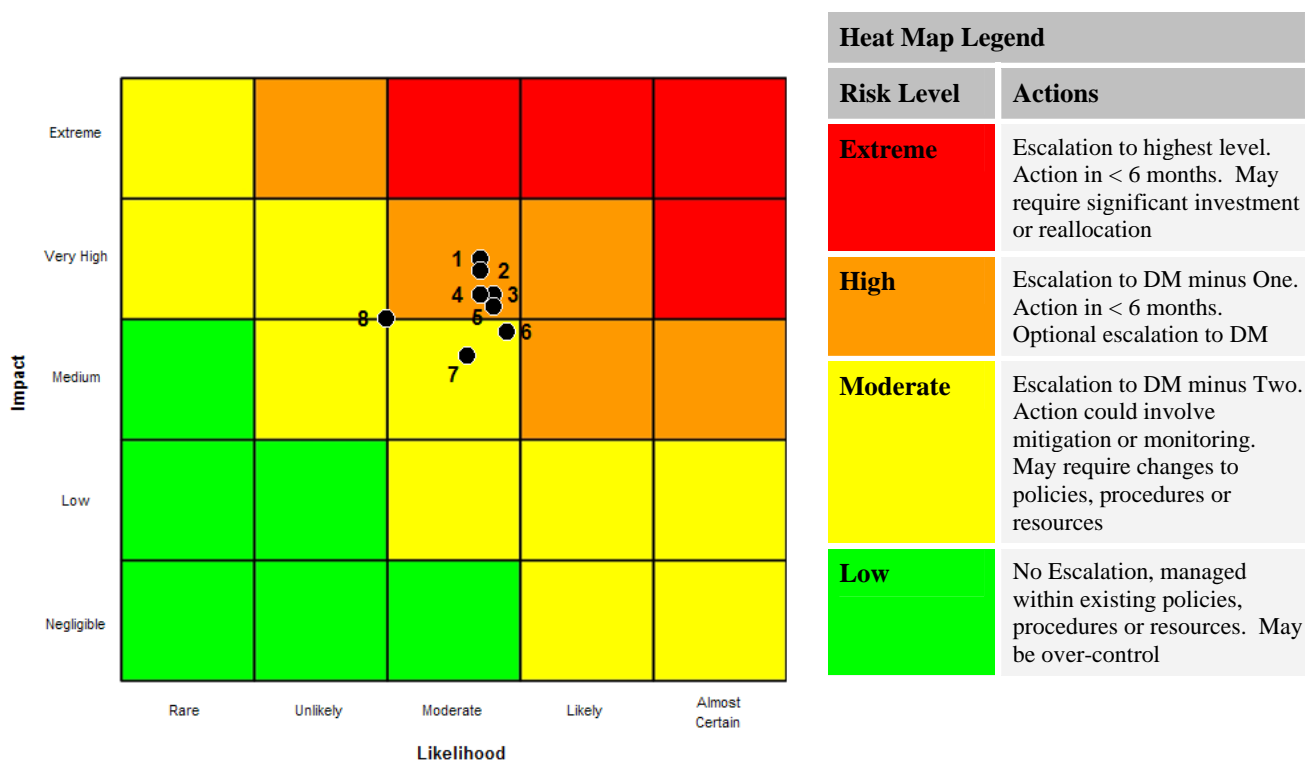
### **2.2 CONSERVATION AND PROTECTION OBJECTIVES**

While discussing risks, it is important to maintain clarity on the scope and level of risks within a Directorate-level risk profile. Conservation and Protection has the following objectives aligned with the Strategic Outcomes of the Department.

- Promote and maintain compliance with legislation, regulations and management measures to achieve the conservation and sustainable use of Canada's aquatic resources
- Protect species at risk, fish habitat and oceans
- Deliver the program through:
  - Promotion of compliance through education and shared stewardship
  - Monitoring, control and surveillance activities
  - Management of major cases /special investigations in relation to complex compliance issues.
- Work with partners to ensure peaceful and orderly fisheries
- Makes a significant contribution to the protection of Canadian sovereignty and the identification of potential marine security threats through our extensive marine surveillance activities
- Play a key role in the administration of the Canadian Shellfish Sanitation Program (CSSP) to help ensure that the public is protected from consumption of contaminated fisheries products.



## 2.3 RISK HEAT MAP



Risk Name	Risk Event
1. Voluntary Compliance	There is a risk that the level of voluntary compliance among clients will erode.
2. Knowledge	There is a risk that C&P will be unable to develop and sustain sufficient knowledge and skills to adequately support expanding operational requirements.
3. Civil Disobedience	There is a risk that increased civil disobedience will divert resources from C&Ps core mandate.
4. Departmental Compliance	There is a risk that C&P will not comply with government of Canada policies.
5. Human Resource Capacity	There is a risk that there will be insufficient human resources to support the attainment of C&P objectives.
6. Resource Alignment	There is a risk that C&P will not engage in the most effective activities or have the right tools to best support achievement of its mandate.
7. Third Party	There is a risk that there will be gaps or breakdowns of capacity on the part of the third-party agents or partners on which C&P relies.
8. Capital Assets	There is a risk that C&P will be unable to invest in and maintain the infrastructure necessary to achieve program objectives.

## **2.4 RISK PROFILE COMPARISON (2006 VS. 2009 VS, 2011)**

Although there had not been an official risk assessment or report for the 2006 risk profile, Interis used the information as a starting grounds and insights into the risks, risk factors, controls and consequences. It is therefore worthwhile to compare the results between the years.

In 2006 Roles and Responsibilities risk was defined as, unclear definition and communication of expanding roles and responsibilities that will lead to gaps in program delivery. Through our interview process and validation workshop, there was no significant mention of accountability risks. Specifically, this risk is no longer a primary concern to C&P management and much of the risk has been resolved by the successful implementation of line-reporting in regions and the change to the direct reporting structure.

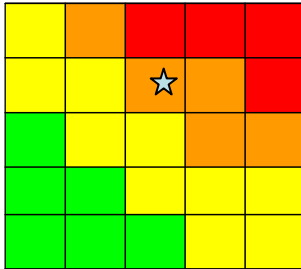
Generally, the category of risks have not changed significantly since 2009. Much of the Capital Assets risk continues to be successfully mitigated due to the on-going investment in vehicle and program vessel fleets. However, the risk associated with the information capital is increasing due to the increased costs, complexity and dependency of the program on the existing and new information systems. Particular attention will have to be paid to this aspect of the Capital Risk in the coming years.

### **3 RISK PROFILE – DETAILED ANALYSIS**

In this section, each identified risk is analyzed in terms of:

- The definition of the risk
- The source(s) of the risk (i.e., risk drivers)
- The existing controls in place to mitigate the risk
- The potential consequences of the risk materializing
- The response and treatment of the risk
- Planned mitigation strategies

### 3.1 VOLUNTARY COMPLIANCE



#### RISK DEFINITION

There is a risk that the level of voluntary compliance among clients will erode.

This risk was assessed as being high risk to the Directorate as shown in the heat map to the left (a likelihood of 3.2 and impact of 4).

#### SOURCES OF RISK

Voluntary compliance risk is directly related to the deterioration of general economic conditions in Canada since August 2008. For example, since the economic downturn, the price of lobster has already fallen significantly resulting in reduced income to harvesters. In scenarios such as this there is concern that fishers may compensate their losses by using a variety of techniques to exceed quota or find additional sources of revenue outside of current licensed practices.

There is a sense that fish harvesters no longer find the enforcement program to be adequate and consider it relatively low-risk to violate regulations through a wide variety of actions that are difficult to detect. In some communities, the penalties for non-compliance are seen as the cost of doing business. For example, a recent conviction of an individual for exceeding the number of seals allowed to be harvested under his license resulted in a fine of just \$250. The probability of being detected is also often considered to be relatively low, hence the willingness to “break the rules”.

Related to the regulatory framework relevancy is the complexity of management measures. The many complex and changing license conditions make enforcement and compliance difficult. This is partly attributable to constantly changing environmental conditions which has an impact of fish stocks and requires an increasing number of specifications and restrictions on licenses.

There is an inverse relationship between increasing controls for other risks and voluntary compliance risks. For example, a reduction in quotas will incent some fishers towards non-compliance or fraud.

Lack of voluntary compliance may be further compounded by a perceived sense of inequity among harvesters. The growth of the black market for fish has reduced the level of voluntary compliance. Some participants stated that they believed as much as 30% fish traded in the illegal market. Knowledge of this by the fishing community reduces the willingness to comply

with the regulations and management measures as there is a sense that the Department is not dealing with the “real problems”. Protest fishing which still occurs also diminishes the willingness of others to comply.

The pre-eminence of Aboriginal Treaty with their statutory harvesting rights may motivate fishers from other communities to “work around” fishing regulations. The complexity of these treaties coupled with the variety and complexity of regulations under the Fisheries Act provides ample opportunity for confusion and justification of non-compliance actions.

The costs associated with traditional MCS activities are also increasing at a significant rate thus reducing the overall number of patrols and other enforcement activities which reduces deterrent effects and tends to reduce overall compliance rates.

## **EXISTING CONTROLS**

The following controls, or current risk mitigation, assist the Directorate in reducing the risks and were taken into consideration when the risk was assessed and ranked. Most of the mitigation stems from the recommendations of the Compliance Review and Modernization initiative. First, the Directorate resources are deployed in a manner that provides the optimal coverage based on risk. Second, as a part of its Pillar I activities C&P has made significant efforts to engage fishing communities in sustainable fishing practices by providing information, education, establishing working groups and developing community-based advisory processes. The Directorate publishes a regulation synopsis (i.e. Fishing Guide) and communicates outcomes of court decisions in the news to demonstrate enforcement activities. Recent investments in major case management activities are helping to focus more on the unreported/misreported activities. Finally, to enhance coverage and detection levels, the program continues to explore new partnerships and new technologies to enhance its monitoring control and surveillance activities.

## **POSSIBLE CONSEQUENCES**

If the risk were to materialize a number of consequences are clearly possible. Increased non-compliance would directly contribute to erosion in fish and habitat stocks. The Directorate’s primary stewardship objectives would not be met. Costs would increase as additional coverage would be needed to compensate for decreased voluntary compliance. As habitat and fish impacts became visible, public confidence in the regulatory system would decline further.

## **RISK RESPONSE AND TREATMENT**

The main concern noted during interviews was that there was little that could be done to control Voluntary Compliance as it is dependant on several factors outside of the control of the department. The primary factor’s affecting Voluntary Compliance is fishers’ perception of future fishing stocks and current market conditions (supply and demand). Understanding this

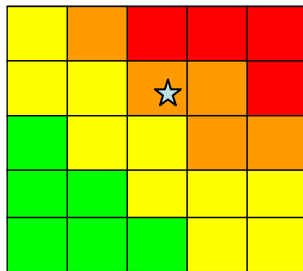
current situation C&P senior management, although ranking the risk exposure as high, does not feel that additional mitigation is feasible. The risk will be monitored.

Continued focus on the implementation of the Compliance Review and Modernization initiative recommendations is considered sufficient mitigation under the circumstances.

## PLANNED MITIGATION STRATEGIES

Additional mitigation is not considered to be feasible at this time.

### 3.2 KNOWLEDGE



#### RISK DEFINITION

There is a risk that C&P will be unable to develop and sustain sufficient knowledge and skills to adequately support expanding operational requirements.

This risk was assessed as being high risk to C&P as shown in the heat map to the left (likelihood of 3.2 and impact of 3.9).

## SOURCES OF RISK

Developing and sustaining sufficient knowledge has a significant number of risk drivers associated with it. It is also affected by many of the same factors that drive Human Resources capacity risks (Risk 5 in this section of the document) because insufficient Human Resources capacity will result in knowledge gaps and drive risks related to having the right set of competencies in the department.

One of the sources of risk to the Directorate is that new priorities and new criminal behaviours are changing enforcement activities which in turn change knowledge requirements. For example, large scale fraud requires in-depth investigation, and requires different skills from those for which staff are currently trained. Initial and refresher training is not keeping up with officers' expanding roles. Changes in technology employed by both fishers and C&P staff (e.g. electronic surveillance) are adding to the competencies required by officers. Increased responsibilities with regard to major case management and more complex court actions require a wider range of skills and experience from C&P employees. Skills in criminal intelligence analysis will also be increasingly important to support future C&P activities. Several participants noted that increasing complexity in the program is increasing the requirement for improved management skills. The addition of programs such as SARA, invasive species, and fisheries renewal into the enforcement mandate are placing greater knowledge demands on

people by introducing complex, systems-based sciences such as biodiversity and the ecosystems approach.

Aside from the above mentioned skill and competency risk drivers, there are other forces that increase knowledge risks. Demographic characteristics of C&P staff have resulted in several key experienced resources retiring. While some are contracting services back to the Directorate, any competency loss at this level reduces C&P capability and increases costs. Although C&P attempts to keep contracting to a minimum there is a need for the experience of retirees, especially in cases where they are needed as expert witnesses.

Departmental recruitment and training functions are perceived to be slow to recognize the shift in needed skills. For example, there are new fisheries and aquaculture programs in the planning stages but without early C&P participation in these initiatives, C&P staff will not be adequately prepared to enforce programs during the start up period. C&P development training budget continues to be limited. The strong focus is on delivering on the Fishery Officer Career Progression Program (FOCPP) in the first four years, and few resources are available to provide training to update skills of experienced staff.

There is a concern that staff retention may be an increasing risk in the future when the economy recovers. As staff start to respond to increased job opportunities, it will be challenging to invest effectively in providing training on new technologies and management tools.

## EXISTING CONTROLS

The following controls or current risk mitigation strategies assist the Directorate in reducing the risk and were taken into consideration when the risk was ranked. These include, the use of Personal Learning Plans, the ongoing use of the Fishery Officer Career Progression Program (FOCPP), mentoring programs for fisheries officers and Human Resources (HR) staffing modernization plans that will focus the need for more robust skills sets from new hires. HR also has some succession planning at some levels in the organization and a post-season review to discuss the growing needs of the C&P staff.

There are some national level integrated tools designed for planning that help reduce the knowledge risk. These include the process to redefine the role of C&P with regards to the habitat modernization initiative, which helps prioritization decisions, the Integrated Fisheries Management Plan/Process, implementation of the new operational systems (e.g. Compliance System Refresh, CSR) other business planning tools such as the Operational Planning and Budgeting Process (OPBP) and the Integrated Risk Management Process.

Specialized training in intelligence analysis and major case managements has begun but must be at least maintained. There are new training modules for Habitat Inspectors as well as for Oceans Act responsibilities. SARA refresher training is also being developed for deployment in 2011/12.

The recruitment process continues to be refined to ensure that the right mix of skills and knowledge are being acquired for the evolving program.

## **POSSIBLE CONSEQUENCES**

If this risk were to be realized, there would be direct impacts on the delivery of all core priorities of C&P and Fisheries and Aquaculture Management (FAM), as well as the loss of corporate knowledge. It would be difficult to compensate for the loss of specialized knowledge which supports technical evidence in some court actions. Impacts will also be seen in the consistency of application of C&P standards and operational procedures across areas. Simpler enforcement activities would become the focus as the Directorate loses the capability to perform intensive and complex investigations.

The program would also lose capability to deliver effective program services to some of its other clients. Insufficient knowledge and skills could lead to inefficiencies and poorer overall service.

## **RISK RESPONSE AND TREATMENT**

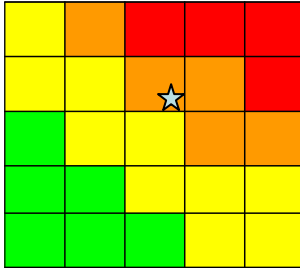
The risk level associated with the Knowledge risk is unacceptable to C&P senior management. Reducing the exposure of this risk is recognized as a concern for the ongoing basis of C&P. The controls in place are somewhat effective but management believes that additional risk mitigation is required.

## **PLANNED MITIGATION STRATEGIES**

Further investments in information management will be made in 2011/12 including the completion of CSR. The program will also be expanding the NHQ training capacity to help in the consistent and effective delivery of our on-going training need. The program will be further refining its recruitment requirements to deal with its major case management, special investigations and traceability requirements. Habitat inspections and investigations course are to be refined and offered to all regions. Other specialized courses are to be offered if funding becomes available. Enhanced integrated planning will take advantage of the knowledge that exists in other programs/Sectors.



### 3.3 Civil Disobedience



There is a risk that increased civil disobedience will divert resources from C&P's core mandate.

This risk was assessed as being high risk to C&P as shown in the heat map to the left (likelihood of 3.3 and impact of 3.7).

### SOURCES OF RISK

Civil disobedience risks are driven by unpopular direction taken by the government or Department. Incidents can arise from protests by fishers or by public actions taken by environmental groups. DFO's responsibility inherently means that departmental direction to reduce quotas and reduce fishing will result in reduced income to fishers. Any significant changes in the management regime can lead to frustration, a perception of unfair treatment, and sometimes desperation which increased the likelihood of conflict. Changes such as increasing quotas or maintaining quotas in fisheries under stress can result in aggressive push back from organized ENGO's and informal environmental activists. The sometimes adversarial relationship between fishers and ENGO's must be balanced by DFO within its statutory authority and regulatory capabilities. However, the actions of both sides are difficult to predict.

### EXISTING CONTROLS

Current risk mitigation includes interagency incident response planning (which contains the impact of these incidents), and preventative controls to reduce the likelihood of incidents such as continuous community engagement, good media relations and public education to ensure understanding of regulations. Using rules-based, defensible decisions based on published science contributes to reducing the likelihood and severity of incidents of civil disobedience. .

It is notable that when the assessment was conducted, the regions believed partnerships were being well managed and effectively resourced. There have been no major incidents of civil disobedience in the last two years. There is also a downward trend in the number of violent incidents involving fishery officers. This is another indication that fisheries are generally proceeding in a peaceful and orderly fashion.

### POSSIBLE CONSEQUENCES

If significant incidents of civil disobedience were to occur, it would lead to significant and unexpected use of resources. Such sudden and unexpected surges for C&P resources would place a strain on the achievability of other objectives as fishery officers would need to be

redeployed to deal with these situations. As well, there would be an increase in stress for staff, increasing the likelihood of occupational health and safety incidents, and possibly increase legal challenges or other litigious action from industry, fishers or ENGO's.

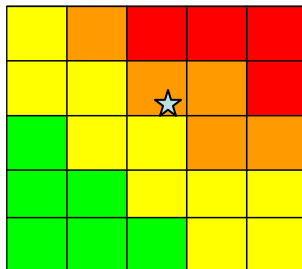
## **RISK RESPONSE AND TREATMENT**

Civil Disobedience incidents are considered to be of moderate likelihood and high impact. The branch considers these incidents to be an inevitable occurrence over time. While the risk level associated with the Civil Disobedience risk is high, it is considered to be acceptable to C&P senior management. Careful attention will continue to be dedicated to the existing actions being taken by C&P. The risk will be assumed and monitored.

## **PLANNED MITIGATION STRATEGIES**

No additional measures are considered necessary.

### 3.4 DEPARTMENTAL COMPLIANCE



There is a risk that C&P will not comply with government of Canada policies.

This risk was assessed as being high risk to C&P as shown in the heat map to the left (likelihood of 3.2 and impact of 3.7).

### SOURCES OF RISK

There are numerous legislative and regulatory policies with which the C&P Program must comply. Internal compliance refers to all the laws and regulations and direction that C&P must adhere to as provided by Government of Canada policies. These include the, Privacy Act, Financial Administration Act (FAA), Collective Bargaining Agreements, Public Service Employment Act (PSEA), Canada Shipping Act, Canadian Labour Code, Public Service Labour Relations Act, Policy on Information Management, Access to Information Act, Aboriginal Treaties, Management Accountability Framework and Court decisions. Specific policies must be followed with respect to firearms and boarding vessels at sea. Provincial legislation must also be considered and C&P staff must also be cognizant of regulations of Regional Conservation Authorities and other bodies.

Various Government initiatives such as Contaminated Sites mandate that environmental assessment of C&P facilities be completed and remedied in prescribed times. Fuel tank remediation is another program that has required the use of operational funds.

Departmental compliance risks are also created from Memorandums of Understanding (MOUs) between the program and 3rd parties, internal partners, international agreements and treaties such as with the United States and the 1999 agreement on Inter-Jurisdictional Cooperation.

The volume and complexity of the so-called “Web of Rules” inherently increases the risk that the organization may experience a significant incident of non-compliance in the future.

### EXISTING CONTROLS

The program does its best to maintain knowledge of obligations and its compliance status with Government internal policies and legislation. Regional and headquarters management are responsible for maintaining awareness and compliance to policy, regulation and legislated requirements. A variety of departmental controls assist in this process. Financial controls determined and set by DFO Finance provide primary compliance processes and controls in support of FAA. Executive Secretariat’s ATIP team control and manage compliance with the

Access to Information Act. Environmental compliance responsibilities are coordinated by the Office of Environmental Coordination. The program's Code of Conduct contributes to the detection of inappropriate behaviours by officers and the carrying out of suitable disciplinary measures. Training related to health and safety and to supervision and management raises awareness of internal policies and legislation.

## **POSSIBLE CONSEQUENCES**

Depending on the type of non-compliance event, the program and possibly the Department could face significant consequences. For example, civil liability and litigation are examples of possible consequences from being found non-compliant with respect to environmental compliance regulations. Other possible consequences include public embarrassment could result from significant public disclosure of certain types of non-compliance incidents. There would likely be some loss of credibility amongst peer organizations such as the RCMP or provincial jurisdictions. The health and safety of fishery officers and the public could be compromised if the program fails to comply with some of the internal policies and legislation.

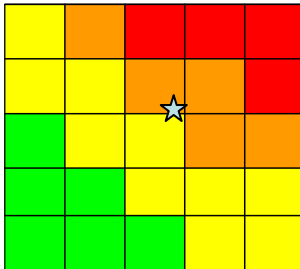
## **RISK RESPONSE AND TREATMENT**

Due to the large variety of policies and their importance, C&P senior management team has determined that this risk is unacceptable. Further mitigation strategies will be developed in response to this level of exposure.

## **PLANNED MITIGATION STRATEGIES**

C&P has recently undergone a Program Audit and the findings contain effective strategies to reduce this risk in several areas. The program has almost fully implemented the recommendation responses outlined in the Management Action Plan. C&P noted that response to this risk is limited by the available resources and capacity of the program to reduce compliance risks without affecting program delivery.

### 3.5 HUMAN RESOURCES CAPACITY



There is a risk that there will be insufficient human resources to support the attainment of C&P objectives.

This risk was assessed as being high risk to C&P as shown in the heat map to the left (likelihood of 3.6 and impact of 3.3).

### SOURCES OF RISK

There are a variety of conditions that increase the demand placed on the Conservation and Protection program. These include increased public expectation for enforcement, a substantial increase in ENGO activity and capability, and increasing resource requirements to enforce commitments arising from collaborative agreements such as the Pacific North Coast Integrated Management Area (PNCIMA) and Memorandums of Understanding with the Oil and Gas Commission. Changes in waste water management planning imposed by other jurisdictions such as the USFDA and EU have also increased the demand on C&P staff.

Increased complexity of fisheries management regimes, changes in stakeholder behaviour and particularly an increase in litigious behaviour have all resulted in an increased amount of work for fisheries officers. The Government agenda towards increased accountability has added to workload, specifically through additional audit and evaluation demands, requirements for risk assessments, performance measurement, and HR planning.

Despite successful efforts to increase recruitment, there are several factors hindering the capability of C&P to grow human resources capacity to meet increasing demand. These include a lack of experienced workers to compensate for increased retirements at headquarters, an inefficient HR classification process which leads to a lengthy hiring process. Normal variances in regional labour also adds cost and time to recruiting efforts for example in Northern Canada. Participants also voiced concern that Generation Y will not be interested in the field of work offered by the Directorate.

There are several other “supply” factors which constrain the ability of the Program. The Directorate has also lost positions due to the Laroque decision (Pacific Region) and some of the programs like the Pacific Integrated Commercial Fisheries Initiative (PICFI) program will be sunseting in about a year. The ending of PICFI funding will mean a cut in the budget of \$1.8 million for which there is, at this time, no alternate sources of funds. The Directorate has also a chronic salary shortfall of about \$5.0 million. The recent freeze on the budgets of federal departments will result in a cumulative impact of over \$3 M within three years. Finally, there

are additional financial pressures on the program as a result of other increasing costs including IPA, fuel, CCG vessels, and equipment.

In general, HR Capacity Risk significantly impacts other risks. For example, reduced effectiveness in hiring and development will amplify partnership risks, delivery capability risks, compliance risks, etc.

## **EXISTING CONTROLS**

As a result of the identification of HR Capacity as the primary departmental risk, significant departmental and program resources have been dedicated in the last several years to increased mitigation. Mitigation currently in place includes double booking of vulnerable, knowledge intensive positions to prepare for retirements. Capacity building initiatives are being planned and implemented for example, alternative surveillance methods such as Vessel Monitoring System although these will increase demand for skills in other fields (e.g. IT Systems developers/monitors). Improved planning practices have directly and clearly contributed to improved efficiency and effectiveness of existing HR resources. Roundtables with industry, aboriginal communities and other stakeholders has improved communication of industry needs and emphasized the need to work together to reach a common solution and helped to manage demands on the program. Changes to collective agreements have provided the program with more effective methods for scheduling and shifting resources. And of course continued recruitment through the FOCPP is key to maintaining HR capacity within the program.

The program also uses traditional HR staffing controls although not in front-line fishery officer roles. Casual and contract staff are engaged mainly in administrative and HQ positions. Using MOU's to share workload and distribute responsibilities among different government organizations also provides additional capacity.

## **POTENTIAL CONSEQUENCES**

The impacts of diminished or insufficient HR capacity has clear and serious consequences to the organization's ability to achieve its objectives. A reduced federal presence may not provide the deterrent effect that is needed, and it is expected that voluntary compliance would diminish commensurately. As a result of this risk being realized black market participation would increase, and stress and overwork of C&P staff would likely result in further attrition.

From a habitat perspective the consequence may be the further loss of a habitat and failure to meet our no-net loss objective. This in turns has a direct impact on the sustainability of the fisheries resource.

## **RISK RESPONSE AND TREATMENT**

As an enforcement function, Human Resources are critical to the delivery of services provided by C&P. As such management is sensitive to the exposure of this risk. The current exposure is

considered unacceptable and more mitigation strategies will be put into place to manage the risk.

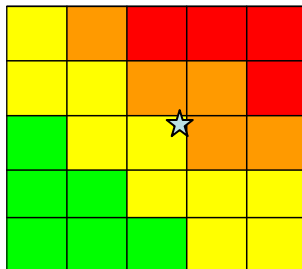
## **PLANNED MITIGATION STRATEGIES**

C&P management observed that one of the areas of control weakness is in staff retention. Senior management recognizes that a strategy must be developed to reduce attrition. This will allow the organization to retain the people and their experience.

At the time of the 2009 assessment, a major funding proposal to deal with the salary shortfall was under consideration by DFO Departmental Management Committee. Unfortunately, DMC did not provide funding to deal with the shortfall and asked that the FAM Sector deal with some of the shortfall internally. Also, a number of the national programs including vehicle capital and air surveillance program have been cut annually to deal with the balance of the shortfall. While this measure has helped reduce the HR Capacity risk, it increases some of the other risks.

An Expenditure and Workload Review has also been undertaken to clearly identify where all C&P resources are going and to find the right balance of salary, O&M, and Capital to optimize the effectiveness of the program.

### 3.6 RESOURCE ALIGNMENT



C&P will not engage in the most effective activities or have the right tools to best support achievement of its mandate.

This risk was assessed as being a moderate risk to C&P as shown in the heat map to the left (likelihood of 3.4 and impact of 3.4).

### SOURCES OF RISK

Current business conditions continue to place some pressure on C&P to effectively allocate its resources. The sources of risk that result in increased demand for service (see HR Capacity) inherently challenge the ability of the organization to align its fixed resource capacity optimally. External, unplanned events such as a major incident of Civil Disobedience which trigger a reactive reallocation of resources can also contribute to this risk.

One of the factors influencing resource alignment is that many of the funding instruments used by C&P are term-specific such as PICFI or task-specific such as Marine Security. There is limited ability to reallocate these funds to higher priorities within the organization even in the face of an emergency incident response. For example, replacing Aurora long-range patrol surveillance will likely require significantly more funding to maintain current coverage. More than 80% of resources are consumed by operational programs to satisfy statutory or term obligations – this clearly constrains the flexibility for the program. Historical program priorities tend to retain significant resources regardless of current economic/environmental importance (e.g. Northern Cod, herring and salmon). Finally, court challenges and legal actions (e.g. Laroque Decision) also may impose resource allocation obligations on C&P that do not align with the program objectives. Recently the directorate has also seen an increase in Department of Justice charge backs and legal costs along with an increase in the cost of acquiring expert witnesses.

The directorate has also noticed the trend in the recent past for shorter response times and higher expectations from the public and stakeholders. This has forced C&P to rapidly allocate a greater number of resources to resolve issues. The increase in visibility and urgency has also increased the need for frequent updates to the Minister and Deputy Minister. Increased media attention, the use of “new media” technology, and the growing public importance of environmentally sustainable commercial practices have combined to reduce the time DFO management has to resolve issues.

The access to and ability to acquire assets is a significant constraint on the ability of C&P to engage in effective activities. In this regard, C&P faces a constrained availability of sea days



on vessels (Note: This risk is linked to Capital Asset and 3<sup>rd</sup> party risks). As mentioned, losses of FTE numbers have made this task more difficult and more recently, with the scheduled end to DND's long-range Aurora patrol flights, there is likely to be a loss of time and thus coverage.

Assets are also required in other activities such as Occupational Health and Safety requirements. These activities consume O&M monies for the purchase of personal protective equipment and providing a safe working environment and although this is not a poor investment, changes in requirements for OSH are usually unplanned and must be purchased immediately.

The diversity of interest groups and stakeholders in DFO regions pose a complex challenge in relationship management for C&P. There is uncertainty about the effectiveness of the tools and methods being used to assist in the management of these relationships. For example, differences in license conditions between neighbouring regions can require more C&P resources.

Lastly, there is a certain dependence by C&P on other programs to help identify priorities. Engaging those programs in integrated planning and assessment processes is difficult or not possible.

## **EXISTING CONTROLS**

Conservation and Protection utilizes MOUs with its departmental and enforcement partners to share workload and distribute responsibilities. C&P are now employing a variety of techniques and practices to optimize resource allocation. These include:

- the use of integrated business planning for optimizing resource allocation
- reducing patrol efforts to reallocate FTE's to other fisheries where risk of non-compliance may be seen as increasing
- exploring new federal initiatives that provide long-term funding (such as stimulus funding)
- implementing an Operational Planning and Budgeting Process (OPBP)

The shift to line reporting in the organization has also made significant positive changes in resource allocation and has aided in the efficient use of resources.

C&P is currently working on developing and implementing a better performance measurement system. This goes along with the Compliance Systems Refresh initiative that will aid in Program Management. Resource alignment is also controlled by the focus of the Directorate on Pillar I (voluntary compliance) and Pillar III activities (major case/special investigations) as they may reduce the demand for coverage and help in reducing cases of non-compliance.

Conservation and Protection also frequently engages the industry and stakeholders to get information on upcoming issues and gain insight on where resources would be most effectively applied. Internal clients are also engaged to ensure communication of each others needs.

## **POTENTIAL CONSEQUENCES**

Failure to align resources (or poor resource alignment) on the basis of risk can result in many consequences. These include a reduced federal presence (particularly in remote areas) and resulting lack of deterrent effect and illegal acts going unpunished. There would also be a loss in public confidence as their expectations are not met. This situation may further compound Civil Disobedience risks and diminish the credibility of the Department. Significant concern was mentioned that the result of poor resource alignment could be that the program might continue to detect many of the “plain view” violations and less of the more serious offenders who contribute to the higher risk “hidden harms” The long-term effects would be unsustainable fish stocks and damaged economic prosperity.

## **RISK RESPONSE AND TREATMENT**

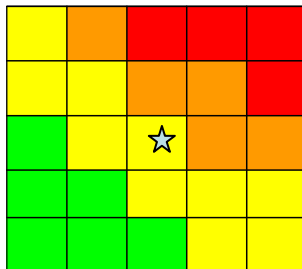
The risk level associated with the Resource Alignment risk is acceptable to C&P senior management. The risk will be assumed and monitored.

Continued focus on the existing actions being taken by C&P is considered sufficient mitigation.

## **PLANNED MITIGATION STRATEGIES**

No additional mitigation strategies are considered necessary at this time.

### 3.7 THIRD PARTY



There will be gaps or breakdowns of capacity on the part of the third-party agents or partners on which C&P relies.

This risk was assessed as being a moderate risk to C&P as shown in the heat map to the left (likelihood of 3.1 and impact of 3.2).

### SOURCES OF RISK

As the number of C&P relationships and interdependencies increase, 3<sup>rd</sup> party risks inherently increase. C&P's has numerous dependencies including Canadian Coast Guard (CCG), dock-side monitors, contracted air surveillance, observer contractors, electronic monitoring service providers, Environment Canada for setting regulations in Section 36 related to deleterious deposits, CFIA and Health Canada for their roles related to the Canadian Shellfish Sanitation Program, etc.

Those territories which are not covered by significant surveillance, create opportunity for non-compliance and fraudulent activity. As previously described, there is a heavy reliance placed on harvesters complying voluntarily. One of the primary controls used to mitigate this risk is through third-party dock-side monitoring (which is funded by the harvesters). Dock-side monitors are currently not perceived to be a highly effective control and the recent C&P audit has identified some weaknesses in monitoring activities of these third parties as well a general lack of control in these contractual arrangements. There is also a concern with the interest or viability of business arrangements with contracted providers of dockside monitors.

Workshop participants noted the dependency on CCG as the primary concern as their fleet availability remains problematic. Participants noted that during FY2008-09, CCG had successfully provided a high degree of planned ship time with few ships experiencing unplanned repairs. However, C&P remains concerned that aging vessels are not being replaced quickly enough and that there will significant deterioration in ship availability.

C&P's U.S. counterparts, the Royal Canadian Mounted Police, the Department of National Defence (DND) (which provide Aurora air surveillance for long range patrol capabilities), and Public prosecution services all provide a range of services that ensure peaceful and orderly fisheries and access to training for fisheries officers. The C&P Directorate also has MOU's with most provinces to share support and maximize resource utility.

## **EXISTING CONTROLS**

Third party risks are managed primarily through investment in formal and informal relationship management activities. C&P has a lengthy and effective set of mitigations for this risk. They include, setting certification requirements and standards for some third parties. Audits are conducted using these standards – for example, the Aboriginal Guardian program which enlists individuals in remote communities to provide enforcement and surveillance services to support First Nation treaty rights and fishing regulations. Habitat and environmental objectives have been supported by creating and administering the Fish Hydro Working Group with the Canadian Environmental Assessment Agency. Specific MOU's have been instituted for high-impact projects (e.g. Placer Mining) which provide for comprehensive audit controls. There are numerous formal initiatives with provincial agencies describing requirements for protecting fish habitat along with Service Level Agreements, MOU's, Standard Operating Procedures and Treaties.

## **POTENTIAL CONSEQUENCES**

It was noted that Conservation and Protection understands that it has significant dependency on certain internal groups to achieve its objectives (e.g. CCG for ship time). Failures in these areas would result in stewardship objectives not being achieved and gradual habitat erosion caused by small scale losses, loss of credibility with other government departments and departmental programs (as they also rely on C&P to provide data). Other consequences include reduced integrity of the information collected, inability to respond to crises in a timely manner, an increase in disobedience and not being able to live up to international obligations.

With the number of service providers, C&P felt that beyond CCG, there was no single dependency which would seriously impact the ability of the organization to meet objectives. Most third party failures could be addressed through alternative suppliers or by swinging resources towards a specific location or function.

## **RISK RESPONSE AND TREATMENT**

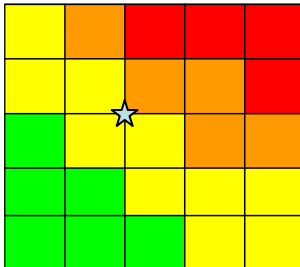
The risk level associated with the Third Party risk is acceptable to C&P senior management. The risk will be assumed and monitored.

Continued focus on the existing actions being taken by C&P is considered sufficient mitigation.

## **PLANNED MITIGATION STRATEGIES**

No mitigation strategies are considered necessary at this time.

### 3.8 CAPITAL ASSETS



C&P will be unable to invest in and maintain the infrastructure necessary to achieve program objectives.

This risk was assessed as being a moderate risk to C&P as shown in the heat map to the left (likelihood of 2.5 and impact of 3.5).

### SOURCES OF RISK

The program manages a substantial asset base of vehicles, vessels, facilities and sensitive enforcement information. Life cycle management is not widely practiced and as a result, until recently, a number of land-based assets were approaching rust-out without adequate replacement plans. Inshore vessels are being adequately replaced but base conditions are deteriorating.

Over the past several years, C&P has experienced ongoing funding pressures, including reductions to O&M and this has constrained the investment in capital assets. In past years, capital was provided to some areas to replace high-priced assets. As with all operational units in DFO, operation and maintenance of these assets has been affected by global economic conditions as commodity prices fluctuated. In the past decade, reduced budgets and higher operating costs have resulted in a substantial reduction in coverage of the fisheries by large offshore vessels. Housing costs (Real Property) costs have also increased and in some regions, housing availability no longer meets our demands.

Asset maintenance is directly impacted by the ability to recruit and retain skilled employees (or contract with appropriately skilled companies), and keeping pace with vessel, vehicle, and other technology is an ongoing concern. For example, technological advancements in monitoring tools is increasing costs as C&P staff need to be trained and provided with better compliance detection tools. As well, on-going support costs increase as new tools are acquired. Requirements to comply with new environmental standards such as fuel tank regulations and contaminated sites add to overhead costs. Thus, more money is spent on keeping vessels and vehicle in service.

Information is another capital asset that is becoming expensive to manage (e.g. Compliance System Refresh is one time Capital funding but has no current on-going support). Similarly, there is no on-going funding for new systems like OPBP, OTIS and the new intelligence systems. The Coast Guard's Radio system is out of date and in serious need of repair. This has to be replaced with a new digital system and will be a large cost driver which may impact C&P. The investment is necessary for the operational effectiveness of the Directorate.

## **EXISTING CONTROLS**

To mitigate the asset risk, the Directorate rents some its vehicles, leverages opportunities from 3<sup>rd</sup> parties (B-base funds), uses operating funds for capital purposes when necessary, conducts joint patrols with other agencies, restricts field operations based on risks, maintains Service Level Agreements with CCG ships and operates under a MOU with DND for air surveillance. A recent influx of major capital funds has also helped rejuvenate the vehicle fleet. Also, the Directorate has received stimulus funding for small crafts. Additionally, the department has in place a capital plan to ensure efficient use of capital assets in the future.

## **POTENTIAL CONSEQUENCES**

The most likely impact that would be felt by the directorate is the reduced effectiveness in capital spending resulting in restricted patrols (eventually leading to increased risks to the sustainability of the resource and health and safety). The loss of ships and other vehicles would result in increased non-compliance and further restricted patrols. Another long term consequence of poor capital asset management would be the inability of support the infrastructure supporting our information management systems which would also impact the efficiency and effectiveness of the enforcement activities and increase the health and safety risks to staff and Canadians.

## **RISK RESPONSE AND TREATMENT**

The risk level associated with the Capital Assets risk is generally acceptable to C&P senior management. More effort is required to mitigate the specific risk related to information management. The risk will be assumed and monitored.

Continued focus on the existing actions being taken by C&P and a few additional investments for information management is considered sufficient mitigation.

## **PLANNED MITIGATION STRATEGIES**

Further investment in the completion of the Compliance System Refresh project is planned for FY 2011/12. No other mitigation strategies are considered necessary at this time.

## 4 NEXT STEPS

The 2011 Risk Profile for Conservation and Protection provides management and staff with a consistent and well documented view of its risks. It is recommended that this report not be viewed as an end of a project but the introduction of information that can be routinely used in all management activities and periodically maintained to ensure ongoing relevance.

Management effectiveness in other sectors and programs has been reported as increasing as a result of the explicit documentation of the sources or risk. The tabling of these factual conditions that are not avoidable has, for some, provided a more effective forum for problem resolution, communication and inclusion in decision making.

As a new asset to management practice, it is expected that C&P can immediately use this risk profile in upcoming efforts in the one-pass planning process, the expenditure review, DPR and RPP contributions and intra-sector meetings with key stakeholders. The risk information contained in the profile will be communicated to the Departmental Risk Manager in Corporate Services and will be included in further risk integration activities.

Risk response plans to be developed should be detailed, costed, and prioritized within the context of C&P's normal business activity. Specific attention should be paid to those additional controls that positively affect more than one risk or are likely to have a significant impact on the high risks.

The Interis project team recommends that the risk table provided in Appendix B be maintained as a working document and reviewed periodically for changes to the sources of risk. It is recommended that the risk assessment be updated annually and that a new profile be developed periodically – perhaps every 3 years. The last time the profile was developed was in 2009. A new risk profile should be developed in 2012.

A specific risk identified in the 2005-06 risk profile was labelled as Roles and Responsibilities. This risk was defined as “unclear definition and communication of expanding roles and responsibilities that will lead to gaps in program delivery”. Throughout our interview process and validation workshop, there was no significant mention of this type of accountability risk. We have concluded that this risk is no longer a primary concern to C&P management. In discussion with the C&P leadership team, we believe that much of the risk has been addressed by the successful implementation of line-reporting in regions and the change to the direct reporting structure.

There are also significant changes in the Infrastructure risk as there has been effective mitigation relating to the renewal of the program vessels and the vehicle fleet. There has, however, been a shift in the Infrastructure risk as it related to enforcement information and the systems that help manage this information. Much of the information over the next few years will need to focus on this aspect of the infrastructure risk.

In 2009, Interis received the following documentation to gain an understanding of Conservation and Protection Directorate's business conditions and existing risk profile:

Documents Reviewed	Received From:
Program Description	Pierre Lemieux
Audit Of The Conservation And Protection Program – Draft	Pierre Lemieux
Staffing Under the New PSEA	Randy Nelson
C&P Incomplete Risk Profile – October 2005	Interis
Management Action Plan – Draft	Pierre Lemieux

## INTERVIEWS

In December 2010, the C&P Directors conducted a half day workshop in Montreal to reassess the risks, risk drivers and mitigation measures which lead to this renewal of the C&P risk profile. Prior to this, in November 2008, Interis conducted a full day workshop with participants in Winnipeg to determine sources of risk to the organization. For follow up we also interviewed nine of the key management team either in person or by teleconference. This gave us further insight on C&P business conditions and sources of risk:

Name	Title	Information Gathering Method
Christine Van Horne	Chief, Program, Planning and Analysis Unit	Workshop
Bryan Wood	Staff Officer, Enforcement Programs	Workshop
Judy Dwyer	Chief, Conservation Technology	Workshop
Marc Naud	Chief, Program Planning and Analysis	Workshop
Murray Gilchrist		Workshop
Margie Lever		Workshop
Scott Gilbert	Director General, Central and Arctic Region	Workshop
Stewart Manderson	Chief, Aboriginal Fisheries and Enforcement	Workshop
Pierre Lemieux	Director, Program Support and Development	Workshop
Paul Steele	Director General, C&P	Interview
Randy Jenkins	Chief of Enforcement Programs	Interview
Allan Maclean	Director, Maritimes	Interview
Randy Nelson	Director, Pacific Region	Interview



Name	Title	Information Gathering Method
Henri Ragetli	Manager, Regional Enforcement Operations, Central and Arctic	Interview
Scott Coultish	Area Chief ,Northcoast, Pacific Region	Interview
Marcel Picard	Chief, Enforcement Operations, Quebec Region	Interview
Bob Lambert	Chief, Enforcement Operations, Newfoundland And Labrador Region	Interview
Kevin Anderson	Director, Newfoundland And Labrador Region	Interview

## WORKSHOP PARTICIPANTS

Interis conducted a workshop with management team members on April 15, 2009 to validate and assess the risks identified through document review and interviews. Participants included:

Name	Title	Region
John Chouinard	Regional Director	Quebec
Allan MacLean	Regional Director	Maritimes
Kevin Anderson	Regional Director	Newfoundland/Labrador
Randy Nelson	Regional Director	Pacific
Scott Gilbert	Regional Director	Central and Arctic
Edmond Martin	Regional Director	Gulf
Paul Steele	Director General	NHQ
Randy Jenkins	Chief of Enforcement Programs	NHQ
Pierre Lemieux	Program Support and Development	NHQ
Tim Surette	Special Projects	Maritimes
Susan Antpoehler	Staff Officer	Central and Arctic

Name	Title	Region

## APPENDIX A 2009 C&P RISK LIST – WORKSHOP DISCUSSION AND RESULTS

Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
<p><b>Voluntary Compliance Risks</b></p> <p>The level of voluntary compliance among clients will erode.</p>	<p>The <b>deterioration of general economic conditions</b> in Canada is expected to directly affect the level of voluntary compliance. For example, the price of lobster has already fallen resulting in reduced incomes. Fishers will compensate by a variety of techniques to exceed quota or find additional sources of revenue outside of current licensed practices.</p> <p>Does the regulatory framework serve as a deterrent to non-compliance? There is a sense that fish harvesters no longer find the enforcement program to be adequate and consider it relatively <b>easy to “break the rules”</b> with a wide variety of actions easily completed that are difficult to detect.</p> <p>The growth of the <b>“Black Market”</b> for fish has reduced the level of voluntary compliance. Many fish are thought to be traded in an illegal market.</p> <p>Different perspectives between aboriginal and non-aboriginal fishers can lead to conflict and motivate some to “work around” fishing regulations. The complexity of treaties coupled with the variety and complexity of regulations under the Fisheries Act can sometime contribute to non-compliant behaviour</p> <p>There is an <b>inverse relationship between increasing controls for other risks and voluntary compliance risks</b>. For example, a reduction in overall quotas may increase incentive for non-compliance and/or fraud. This may be further compounded by a perceived sense of inequity among harvesters. Protest fishing continues to be a problem and “Bad actors” that choose not to comply can diminishes willingness of others to comply.</p> <p>Micromanagement and complexity of management measures (e.g. many license conditions) make compliance more difficult. Increasing specifications and restrictions on licenses.</p> <p>Penalties are not severe enough and many treat them as the cost of doing business.</p> <p>The costs associated with traditional MCS activities are also increasing at a significant rate thus reducing the overall number of patrols and other enforcement activities which reduces deterrent effects and tends to reduce overall compliance rates.</p>	<ul style="list-style-type: none"> <li>Publish regulation synopses (Fishing guide)</li> <li>News releases to publish outcomes of court decisions.</li> <li>Established groups used for consultation – working groups and advisory processes (Pillar I)</li> <li>Resources are deployed to have the best coverage</li> <li>Development of a new National Compliance Framework with associated tools to develop more effective compliance strategies</li> <li>Information and education activities (Pillar I)</li> <li>Industry engagement</li> <li>Implementation of the National Compliance Framework <ul style="list-style-type: none"> <li>Risk assessment</li> <li>Performance measurement</li> <li>Integrated planning</li> <li>Partnerships</li> </ul> </li> <li>Continue with general deterrence by presense of FO’s</li> </ul>	<ul style="list-style-type: none"> <li>Fraudulent activity</li> <li>Non-compliance with applicable laws, regulations and programs, without DFO knowledge</li> <li>Stewardship objectives are not achieved</li> <li>Gradual habitat erosion</li> <li>Widespread over-harvesting</li> <li>Increased costs</li> <li>Diminished public confidence</li> <li>Impact on stock sustainability and economic prosperity</li> </ul>	<p><b>Likelihood: 3.2</b></p> <p><b>Impact: 4.0</b></p> <p><b>Rank: High</b></p>

Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
<b>Knowledge Risk</b> C&P will be unable to develop and sustain sufficient knowledge and skills to adequately support expanding operational requirements.	<p>Knowledge risk is driven by many of the same factors that drive HR capacity risks. Insufficient HR Capacity will result in knowledge gaps and drive specific risks associated with competency and staff development.</p> <p>C&amp;P mandate and associated knowledge <b>requirements are broad and ever-changing</b>.</p> <ul style="list-style-type: none"> <li>Initial and refresher training are not keeping up with officers' changing roles, e.g., large scale fraud requires in-depth investigation, and different skill sets are needed.</li> <li>Considerable investment is made in training new officers but training becomes opportunistic after 3-4 years. (E.g. providing training on developing technologies)</li> <li>Advances in technology employed by both fishers and C&amp;P staff (e.g. electronic surveillance) are adding to the competencies required by officers.</li> <li>Other areas of activity such as habitat, marine security, aquaculture, traceability, etc. require specialized training as well.</li> <li>Absence of skill set related to increasing good management practices (e.g. operational planning and budget planning, supervision, etc.)</li> <li>New programs such as SARA, invasive species, and Fisheries Renewal are placing greater knowledge demands on the program. This mandate creep is broadening the capacity gap.</li> <li>Increased responsibilities in <b>major case management and more complex court actions</b> require a wider range of skills and experience from C&amp;P employees. Skills in intelligence analysis will be increasingly important for future C&amp;P activities.</li> <li>The demographic characteristics of C&amp;P staff have resulted in <b>several key experienced staff retiring</b>. While some are contracting services back to the Program, any competency loss at this level reduces overall C&amp;P capability and increases costs.</li> <li>The <b>recruitment process</b> does not fully recognize the new skills that are increasingly being required.</li> <li>Science related to <b>biodiversity and the ecosystems approach</b> is another</li> </ul>	<ul style="list-style-type: none"> <li>Some opportunistic and specialized training.</li> <li>Partnering with other programs to provide training (e.g. habitat Inspector course)</li> <li>Better integration with other programs to transfer knowledge</li> <li>Process to redefine role of C&amp;P helps to focus on work that needs to be done</li> <li>Strengthening Regional headquarters</li> <li>Build and develop more strategic work plans – focuses our attention</li> <li>National program that sets standards for Fishery Officers, including training</li> <li>Post-season reviews and Integrated Fisheries Management Plan/Process helps with exchange of information and development of strategies</li> <li>Operational systems, e.g., Compliance System Refresh (CSR) captures important information that can be shared with others</li> <li>HR modernization, staffing plans / recruitment</li> <li>Mentoring program to transfer knowledge</li> <li>OPBP pulls in a lot of information and translated into a concrete</li> </ul>	<ul style="list-style-type: none"> <li>Decrease efficiency and effectiveness in carrying out duties</li> <li>Core priorities will not be met</li> <li>Evidence that is gathered is inadmissible</li> <li>Loss of corporate knowledge</li> <li>Loss of credibility</li> <li>Loss of public confidence</li> <li>Increased inconsistency in the application of C&amp;P standards and operational procedures across areas.</li> <li>Only simple enforcement would be possible and lose capability to do more in-depth investigations.</li> <li>Sustainability of resources</li> <li>Economic viability and prosperity is ultimately impacted</li> </ul>	<p><b>Likelihood: 3.2</b> <b>Impact: 3.9</b> <b>Rank: High</b></p>

Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
	<p>source of knowledge risk. It increases the need for employee training and development and integration of sciences into C&amp;P operations (e.g. how do C&amp;P operations reflect the ecosystems approach?).</p> <ul style="list-style-type: none"> <li>The training budget is limited and focuses on Fishery Officer Career Progression Program (FOCPP), after which there is little training available.</li> <li>New fisheries and aquaculture programs are in the planning stages without always having full C&amp;P participation.</li> <li>Contracting for specialized skill sets is expensive (e.g. expert witnesses)</li> </ul>	<p>operational plan that is shared with others for input</p> <ul style="list-style-type: none"> <li>C&amp;P FOCPP is helpful in creating a career progression</li> <li>Personal Learning Plans (PLP)</li> <li>Some Succession planning in place</li> </ul>		
<p><b>Civil Disobedience Risks</b></p> <p>Increased civil disobedience will divert resources from C&amp;Ps core mandate.</p>	<p>Other than the inherent competition for dwindling stocks, no significant drivers were mentioned. Regions felt “keeping the peace” was being well managed and was effectively resourced. It is a risk that has been effectively mitigated but the threat is always there and must not be ignored.</p> <p>Can rise unexpectedly</p> <p>Unpopular government and departmental decisions</p> <p>ENGO’s with different view and responses to court decisions</p> <p>Unclear roles and responsibilities for DFO - limited to its mandate and statutory authority.</p> <p>Further downloading of compliance costs could increase the risk of civil disobedience.</p>	<ul style="list-style-type: none"> <li>Interagency responses and planning including RCMP.</li> <li>Community engagement</li> <li>Media relations</li> <li>Public education</li> <li>Enhanced relationships with other enforcement agencies</li> </ul>	<ul style="list-style-type: none"> <li>Is a significant and unexpected use of resources which diverts from higher priority compliance issues</li> <li>OSH concerns/risks</li> <li>Legal challenges</li> <li>Increased stress for staff</li> <li>Program and departmental reputation can suffer as frequent conflicts can create impression of DFO mismanagement</li> <li>Diversion of resources leads to increased gap in compliance which contributes to reduced sustainability of resources and reduced economic prosperity</li> </ul>	<p><b>Likelihood: 3.3</b></p> <p><b>Impact: 3.7</b></p> <p><b>Rank: High</b></p>
<p><b>Departmental Compliance Risks</b></p> <p>There is a risk that C&amp;P will not comply with government of Canada policies.</p>	<p>It is immediately noticeable that there are numerous legislative and regulatory policies that require the compliance of the C&amp;P Program.</p> <p>Internal compliance refers to all the <b>laws and regulations that C&amp;P must adhere to</b>. These include, Privacy Act, Financial Administration Act (FAA), Collective Bargaining Agreements, Public Service Employment Act (PSEA), Canada Shipping Act, Canada Labour Code, Public Service Labour Relations, Personal Information Protection and Electronic Documents Act (PIPEDA), Information Management Act, Access to Information Act, and Aboriginal Treaties and Court Decisions.</p>	<ul style="list-style-type: none"> <li>Corporate guidelines and directives</li> <li>Program guidelines and directives</li> <li>Audits, evaluations and reviews</li> <li>Implementation of management action plan for C&amp;P audit</li> <li>Improvements to the C&amp;P Code of Conduct</li> <li>OSH training</li> </ul>	<ul style="list-style-type: none"> <li>Public Embarrassment</li> <li>Litigation</li> <li>Civil liability</li> <li>Criminal liability</li> <li>Loss of credibility</li> <li>Loss of access to important information</li> <li>Injury</li> </ul>	<p><b>Likelihood: 3.2</b></p> <p><b>Impact: 3.7</b></p> <p><b>Rank: High</b></p>

Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
	<p>The complexity of complying with these diverse laws and regulations could lead to a greater risk that organizational objectives are not met.</p> <p>Departmental compliance risks are also created from Memoranda of Understanding (<b>MOUs</b>) between the program and 3<sup>rd</sup> parties, internal partners (HAPAE, SLA), <b>international agreements and treaties</b> such as with the United States and the 1999 agreement on inter-jurisdictional cooperation.</p> <p>Also risks associated with the Government of Canada Management Accountability Framework (MAF) and failure to live up to expectations..</p>			
<p><b>Human Resource Capacity Risk</b></p> <p>There is a risk that there will be insufficient human resources to support the attainment of C&amp;P objectives.</p>	<p>The C&amp;P program is currently facing a Salary Shortfall of \$4.68 Million. Failure of the Department to relieve this funding pressure will result in significant reduction in compliance and enforcement activities.</p> <p>PICFI is a program that is sun-setting in 2010? There is no alternate source of funding once this program ends.</p> <p>There are a variety of conditions which are placing <b>increased demand</b> on the Conservation and Protection program. The primary sources of increased demand for services are:</p> <ul style="list-style-type: none"> <li>the increase in ENGO activity and capability frequently requiring reactive allocation of resources,</li> <li>Increased inter-jurisdictional cooperation required to achieve objectives.</li> <li>Requirement for improved response capability regarding closed shellfish harvesting areas near wastewater treatment plant</li> <li>New EU regulations on IUU fishing requiring more attention on traceability</li> <li>Increased effort on Pillar I and Pillar III at the cost of MCS (Pillar II) activities,</li> <li>Increased public expectations for enforcement including the Arctic,</li> <li>The aging demographics of C&amp;P work force,</li> <li>Increasing commitment to collaborative agreements, ie PNCIMA, MOUs with the Oil and Gas Commission, etc. means C&amp;P staff has increasing commitments out of the field.</li> </ul> <p><b>Increased complexity</b> of fisheries management regimes have added to the volume of work.</p>	<ul style="list-style-type: none"> <li>Double booking to prepare for people leaving</li> <li>Defining resource requirements for new programs such as traceability and eco-certification.</li> <li>Increased accountability through Integrated business planning</li> <li>Use of MOUs and other collaborative arrangements to shift work load and distribute responsibilities</li> <li>Use of creative sentencing/alternatives to prosecution (Pillar I activities)</li> <li>Use of casual staff (mainly admin and HQ)</li> <li>Provisions of the collective agreement used for scheduling and shifting of resources</li> <li>Recruitment successes</li> <li>Line-reporting to increase flexibility to respond to high enforcement priorities in the regions</li> <li>Alternative surveillance methods</li> </ul>	<ul style="list-style-type: none"> <li>Reduced federal presence (particularly in remote areas) and resulting lack of deterrent effect</li> <li>Illegal acts go unpunished</li> <li>Investigating officers may not pursue monitoring activities / may be directed not to by managers</li> <li>Stewardship objectives not achieved</li> <li>Reduction or loss of public confidence</li> <li>Stress and burnout resulting in more attrition</li> <li>Core priorities not met</li> <li>Public expectations are not met. May compound civil disobedience risk and may diminish credibility of the department</li> <li>Loss of habitat</li> <li>Increased trade in black markets</li> <li>Sustainability of the resource jeopardized.</li> <li>Longer-term economic prosperity impacted</li> </ul>	<p><b>Likelihood: 3.6</b> <b>Impact: 3.3</b> <b>Rank: High</b></p>

Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
	<p>Increased requirement for management and analysis of and reporting on enforcement data currently collected by FO's in FEATS and DVS.</p> <p>Changes in stakeholder behaviour, particularly an <b>increase in litigious behaviour</b>, have added significantly to the workload of fishery officers.</p> <p>The government movement to increased accountability has added to workload, specifically through <b>additional audit and evaluation demands</b>, requirement for risk assessment, performance measurement, HR planning, etc.</p> <p>Demands under the new Fisheries Renewal initiatives such as the need for compliance management plans under the IFMPs and the evaluations for the sustainability checklists, have increased workload without new resources widening the capacity gap even more.</p> <p>Recent court decision regarding aquaculture in B.C. may add to the role and responsibilities of the C&amp;P program.</p> <p>The Laroque decision has resulted in the loss of resources coming into the program. 5.5 industry funded positions lost in Pacific Region and other regions impacted as well</p> <p>There are several factors hindering the <b>capability of C&amp;P to increase human resources capacity</b> to meet the new demands despite efforts to increase recruitment. These include:</p> <ul style="list-style-type: none"> <li>• a lack of experienced workers (especially at headquarters) to compensate for increasing retirements</li> <li>• inefficient classification and staffing processes</li> <li>• the lengthy public service hiring process reduces the flexibility of the program to plan adequately for future capacity requirements (this is less of a driver in certain regions). There is also a long lead-time necessary for recruitment through FOCP.</li> <li>• challenges in attracting and retaining experienced staff throughout Northern Canada</li> <li>• Staff leave pressures can occur during peak levels of workload</li> <li>• Recent freeze on departmental budgets</li> </ul> <p>Many of these drivers significantly contribute to other risk factors.</p> <p>The training budget is limited and focuses on Fishery Officer Career Progression</p>	<p>reduces some demand but increases others</p> <ul style="list-style-type: none"> <li>• Intelligence based policing (helps prioritize C&amp;P capacity but does not decrease the overall shortfall)</li> <li>• Adopting a more risk-based approach so that less time is spent on lower risk activities.</li> <li>• Establishing roundtables with industry/stakeholders and aboriginal communities</li> <li>• Proposing changes to C&amp;P staffing processes to improve timelines and efficiency (based on Pacific Region model)</li> <li>• Also need to look more closely at recruitment needs to make sure that new program needs (skills) are met.</li> </ul>		



Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
	<p>Program (FOCPP), after which there is little training available.</p> <p>Although there is an abundance of applicants for our recruitment of new Fishery Officers, there is a concern about Generation Y characteristics. Not seeing the same commitment and “burning desire” to become a fishery officer.</p> <p>Increased international obligations for portstate measures.</p>			
<p><b>Resource Alignment Risk</b></p> <p>C&amp;P will not engage in the most effective activities or have the right tools to best support achievement of its mandate.</p>	<p>Current conditions are placing significant pressure on C&amp;P to effectively allocate its resources. Most conditions which result in increased demand for service (see above) inherently challenge the ability of the organization to align its resources optimally. Other conditions which push the organization to “reactive” allocation of resources include:</p> <ul style="list-style-type: none"> <li>Many of the <b>funds within C&amp;P come with strings attached</b> (e.g. air surveillance is funded by marine security program so there is limited flexibility to shift some of these resources to other activities which might contribute more to compliance).</li> <li>There is a certain dependence of C&amp;P on other programs to help identify priorities. Engaging those programs in integrated planning and assessment processes is difficult.</li> <li>The diversity of interest groups and stakeholders in DFO regions pose a complex challenge in <b>relationship management</b> for C&amp;P. Are the right tools and methods being used to assist in the management of these relationships? eg. Differences in license conditions between neighbouring regions can require more C&amp;P resources</li> <li>Lack of time dedicated to risk assessment and analysis of information can lead to effort not being aligned with the most important problems.</li> <li>Cultural resistance to change in duties (e.g. planning, risk management)</li> <li><b>Court challenges (e.g. Laroque), legal actions and specific funding envelopes</b> may impose resource allocation obligations on C&amp;P that do not align with the program objectives.</li> <li><b>Shorter response times and higher expectations</b> from the public and stakeholders have forced C&amp;P to rapidly allocate a greater number of resources to resolve issues.</li> <li>This increase in visibility and urgency has also increased the <b>need for frequent updates to the Minister and Deputy Minister.</b></li> </ul>	<ul style="list-style-type: none"> <li>Use of MOUs and other collaborative arrangements to shift work load and distribute responsibilities</li> <li>Defined approach to funding new programs / treaties.</li> <li>Integrated business planning</li> <li>Reduced patrol efforts as a means to reallocate to other fisheries or different strategies</li> <li>Line reporting</li> <li>Performance measurement to help focus on areas where we are not achieving the desired results</li> <li>Operational Planning and Budgeting Process (OPBP) to help plan our activities within our means and focus on the higher priorities</li> <li>Compliance Systems Refresh (aids in Program Management and OPBP)</li> <li>Engagement of the industry and stakeholders (e.g. ENGO’s etc.)</li> <li>Engagement with internal clients</li> <li>Investing more in Pillar I (voluntary compliance) and III (major case investigations)</li> </ul>	<ul style="list-style-type: none"> <li>Reduced federal presence (particularly in remote areas) and resulting lack of deterrent effect</li> <li>Illegal acts go undetected</li> <li>Stewardship objectives are not achieved</li> <li>Reduction or loss of public confidence</li> <li>Core priorities not met</li> <li>Public expectations not met. May compound civil disobedience risk and may diminish credibility of the department</li> <li>Not focusing on the right priorities</li> <li>May be catching incidents in plain view which have relatively minor consequences while major non-compliance occurring underground (e.g. Black Market)</li> <li>Sustainability of the stocks is jeopardized.</li> <li>Reduced economic prosperity for fishing industry and communities</li> </ul>	<p><b>Likelihood: 3.4</b></p> <p><b>Impact: 3.4</b></p> <p><b>Rank: Moderate</b></p>



Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
	<ul style="list-style-type: none"> <li><b>Increased media attention</b>, the use of “<b>new media</b>” technology, and the <b>importance of sustainable/environmental/marine stock issues</b> have combined to reduce the amount of time DFO management has to resolve issues</li> <li><b>changing climate</b> specifically warming waters which either cause a species to shift their location or place additional stress on the population thereby affecting quotas and increasing the catch contention</li> <li>DOJ charge backs and legal costs are increasing including expert witness fees.</li> <li>New dollars will not resolve problems unless the FTE complement is increased (e.g. SARA)</li> <li>Constrained sea day availability of platforms (which is linked to capital assets and 3<sup>rd</sup> parties).</li> <li>Occupational Health and Safety requirements consume O&amp;M monies. (Buying personal protective equipment, worksite safety. Standards change at times.)</li> <li>Vast majority of resources (80%+) are consumed by operational programs. This reduces flexibility.</li> <li>Gap between legislative authority and current regulatory needs (need new Fisheries Act). Due to the age of the Fisheries Act there are possibilities to improve efficiency (e.g. Ticketing vs. Court)</li> <li>Lack of Departmental policy results in increased or unexpected operational needs.</li> <li>Historical program priorities tend to retain significant resources regardless of current economic/environmental importance (e.g. Cod, herring and salmon). <ul style="list-style-type: none"> <li>Aurora flights coming to an end.</li> </ul> </li> <li>Lack of financial support from NHQ for legal costs could require regions to divert C&amp;P operational funding to cover legal fees. Could also lead to decisions to not proceed with investigations that could lead to significant legal costs.</li> </ul>	<ul style="list-style-type: none"> <li>Developing clearer roles and responsibilities</li> <li>Use of creative sentencing/alternatives to prosecution (Pillar I activities)</li> <li>Engagement in the multi-year IFMP process</li> </ul>		
<b>Third Party Risks</b>	A heavy reliance is placed on harvesters to complying voluntarily with regulations and management measures which increases the risk of non-compliance and fraudulent activity. Variations in C&P capacity and/or	<ul style="list-style-type: none"> <li>Setting certification requirements and standards and conducting audits against those standards</li> </ul>	<ul style="list-style-type: none"> <li>Stewardship objectives are not achieved</li> <li>Gradual habitat erosion caused by</li> </ul>	<b>Likelihood: 3.1</b> <b>Impact: 3.2</b>

Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
There will be gaps or breakdowns of capacity on the part of the third-party agents or partners on which C&P relies.	<p>presence amplify this opportunity. This has resulted in <b>increased reliance on third parties</b>.</p> <p>As the number of C&amp;P relationships and interdependencies increase, 3<sup>rd</sup> party risks inherently increase. The dependencies continue to be:</p> <ul style="list-style-type: none"> <li>the Canadian Coast Guard (CCG) for ship time</li> <li>contracted air surveillance</li> <li>observer contractors</li> <li>dockside monitors for quota management</li> <li>electronic monitoring service providers</li> <li>Environment Canada (section 36 (regulations on deleterious deposits) and CSSP (CFIA) testing)</li> <li>Health Canada specifically for their role in CSSP</li> <li>Canada Food Inspection Agency for product certification (fish plants and MCP)</li> <li>Provincial government in the Quebec region in support of the Habitat Protection program including carrying out of enforcement actions</li> <li>U.S. counterparts (USCG and NMFS)</li> <li>the RCMP (peaceful and orderly fisheries and access to their training academy), Department of National Defence (DND) for offshore surveillance</li> <li>Canada Border Services Agency (CBSA)</li> <li>Public Prosecution Service Canada (PPSC)</li> <li>DND Aurora provides long range capability</li> <li>MOU's with most provinces</li> <li>Internal enables including IM&amp;TS, Legal Services, HR, Communications, etc.</li> </ul> <p>Workshop participants noted the dependency on CCG as the primary concern as their <b>fleet availability and costing structure</b> remains problematic (although improved). A secondary concern was with the interest or viability of business arrangements with <b>providers of dockside monitors</b>.</p> <p>The recent C&amp;P audit has identified a weakness in monitoring activities of third parties and a general lack of control in these arrangements.</p>	<ul style="list-style-type: none"> <li>DMP review</li> <li>Fish Hydro Working Group / CEA example for cooperation</li> <li>Training courses for Qualified Environmental Professionals and others</li> <li>MOUs with audit functions e.g. Placer Mining</li> <li>Numerous initiatives with provincial agencies describing requirements for protecting fish habitat</li> <li>Precautionary approach to management?</li> <li>CCG SLA</li> <li>MOUs</li> <li>SOPs</li> <li>Review of Aboriginal Guardian Program</li> <li>Follow up on designations as per the recent audit of the C&amp;P program.</li> <li>Increased integration and communication with RM and HM</li> <li>On-going discussions to monitor various collaborative arrangements</li> <li>Regular performance reviews</li> </ul>	<p>small scale losses</p> <ul style="list-style-type: none"> <li>Data from observers is used by many parties so their effectiveness would be reduced</li> <li>Reduced integrity of information</li> <li>Inability to respond to crises in a timely manner</li> <li>Illegal acts go undetected or unpunished (compounds compliance risk)</li> <li>Not being able to live up to international obligations</li> <li>Program effectiveness suffers and stock sustainability and economic viability also suffers in the longer term</li> </ul>	<p><b>Rank:</b> <b>Moderate</b></p>

Risk Name and Description	Sources/Drivers of Risk	Current Mitigations / Controls	Potential Consequences	Risk Exposure & Response
<p><b>Capital Assets Risks</b></p> <p>C&amp;P will be unable to invest in and maintain the infrastructure necessary to achieve program objectives.</p>	<p>Over the past several years, C&amp;P has experienced <b>ongoing funding pressures</b>, including reductions to O&amp;M. These pressures <b>are compounded by weaknesses in resource allocation and priority setting</b>. In past years, capital was provided to areas for higher priced assets. Funding for some capital assets has been pooled thereby requiring increased competition for funding and advanced planning for replacement.</p> <ul style="list-style-type: none"> <li>The program manages a substantial asset base of vehicles, vessels, equipment and facilities. <b>Life cycle management</b> (e.g. to maintain vessels, trucks) is not widely used, which results in rust-out. Operation and maintenance of these assets is also affected by <b>world economic conditions</b> such as the cost of fuel.</li> <li>Asset maintenance is directly impacted by the <b>ability to recruit and retain skilled</b> employees (or contract with appropriately skilled companies).</li> <li><b>Keeping pace with technology</b>, e.g., technological advancements in monitoring tools is increasing costs. On going support is significant and cumulative as we add new tools to the toolbox</li> <li><b>Information</b> is another capital asset that is becoming expensive to manage. New web-based systems are also more expensive. Security requirements are also increasing. (eg. CSR is one time funding but no on-going support afterwards)</li> <li><b>Reduced budgets</b> and <b>higher operation costs</b> have resulted in drastic reduction in coverage of the fisheries by large platforms.</li> <li>Reduction of compensation and increased costs and reduced availability of <b>crown housing</b>.</li> <li>Environmental standards (to comply with new environmental standards). E.g. fuel tank regulations, contaminated sites. This adds to overhead costs. More money is spent on maintaining in service status.</li> <li>Radio system and associated communication infrastructure is going digital and will be a large cost driver.</li> </ul>	<ul style="list-style-type: none"> <li>Rental of vehicles</li> <li>Leveraging of other funding opportunities from 3<sup>rd</sup> parties (B-base funds)</li> <li>Use of operating funds for capital purposes</li> <li>Joint patrols with other agencies</li> <li>Using parts from older vehicles to keep the better ones on the road (average age of vehicles is around 7 years?)</li> <li>Restricted field operations as a way of priority-setting</li> <li>Access to capital funding for vehicles</li> <li>SLA for CCG Ships</li> <li>DND MOU</li> <li>Small craft program boats funding from stimulus funding.</li> <li>There is a capital plan</li> <li>Provide dedicated funding to support our national information systems</li> </ul>	<ul style="list-style-type: none"> <li>Reduced efficiency</li> <li>Increased, excessive costs associated with maintenance</li> <li>Restricted patrols</li> <li>Increased risks to health and safety</li> <li>Increased non-compliance</li> <li>Sustainability and economic prosperity ultimately impacted.</li> </ul>	<p><b>Likelihood: 2.5</b> <b>Impact: 3.5</b> <b>Rank: Moderate</b></p>

## APPENDIX B RISK MANAGEMENT CONCEPTS

For readers not involved in the risk assessment process, a brief discussion of terminology and conventions will provide the basis for a clear understanding of the Conservation and Protection program risk profile. The following sections provided a common language to interpret the risk profile. These terms are part of the DFO standards for integrated risk management.

### RISK

Within the context of this report, a risk is defined as:

- An event that may have negative or undesirable consequences on objectives (Rowe, William D. *An Anatomy of Risk*, Malabar, Fla.: Robert E. Krieger, 1988)
- An expression of the likelihood of an event occurring and a description of its impact(s) in terms of the organization's objectives

### KEY CONCEPTS IN RISK MANAGEMENT

- **Risk Event:** Events or circumstances that, if they materialize, can negatively affect the achievement of key objectives
- **Source of Risk (Risk Driver):** Business conditions, whether internal or external, which inherently pre-dispose the organization to risk. Some of the standard sources of risk include operational complexity, degree and recency of change, and number of dependencies.
- **Risk Mitigation:** Practices or processes that reduce the likelihood of the risk event occurring and/or manage the severity of its consequences. Mitigations are also frequently called "controls".
- **Residual Risk:** Residual risk is the net risk to which the organization is exposed. It is a combination of the likelihood of the risk event occurring and the severity of the impact *after* current risk mitigation practices are considered.
- **Inherent Risk:** The risk to which an organization is predisposed without consideration of the effect of existing risk mitigation practices. The DFO IRM methodology does not typically assess inherent risk.
- **Risk Response:** The general options of responding to a risk include: Assume, Monitor, Avoid, Mitigate or Transfer
- **Risk Indicators:** Risk indicators are quantitative measures or qualitative observations that, if monitored regularly, can effectively provide early warning signs of risk materializing

## RISK TOLERANCE

- Risk tolerance means the amount of risk that an organization is willing to accept. In devising a risk management plan this is the first step to take.

## DETERMINING THE LIKELIHOOD OF THE EVENT OCCURRING

The first step in the risk assessment process is to identify how likely each threat is to occur. Likelihood is rated using a five-point scale, shown in the table below, which also includes a probability range in brackets. In assessing likelihood, you will be asked to consider the practices you currently have in place to manage this threat (mitigation practices).

Likelihood	Experience/Observed Frequency
<b>5. Almost Certain</b>	Occurs regularly here (>95%)
<b>4. Likely</b>	Has occurred here more than once, or is occurring to others in similar circumstances (76% - 95%)
<b>3. Moderate</b>	Has occurred here before, or has been observed in similar circumstances (25% - 75%)
<b>2. Unlikely</b>	Has occurred infrequently before to others in similar circumstances, but not here (5% - 24%)
<b>1. Rare</b>	Almost never observed - may occur only in exceptional circumstances (<5%)

## DETERMINING THE IMPACT OF EACH EVENT

The second step in the risk assessment process is to determine the impact of each threat on the stated objective, should it occur. If they materialize, threats can have a variety of consequences, including, but not limited to damage and liability, operational effects and reputational consequences. A five-point scale is used to assess the impacts of threats. The following table provides a description of each degree of impact and provides some indicators of each level of impact.

Impact	Description	Financial	Health & Safety	Service Delivery	Public Confidence	Stakeholder Concern
<b>5. Extreme</b>	A major event that will require the organization to make a large scale, long term realignment of its operations, objectives or finances	Losses exceeding \$500,000	Death or permanent debilitating injuries	Failure to deliver key services / programs	Loss of public confidence	Serious stakeholder concern with potential severing of relationship

Impact	Description	Financial	Health & Safety	Service Delivery	Public Confidence	Stakeholder Concern
<b>4. Very High</b>	A critical event that with proper management can be endured by the organization	Major financial loss (\$100-\$500K)	Disfiguring injury, or lost-time greater than 6 months	Significant impact on strategy / operations, forced to renegotiate with clients	Longer-term damage to reputation	Significant stakeholder concern
<b>3. Medium</b>	A significant event that can be managed under normal circumstances by the organization. The consequences could mean that the activity could be subject to significant review or changed ways of operation	Moderate financial loss (\$50-100K)	No permanent injury, or lost-time less than 6 months	Re-prioritizing of deliverables required	Medium-term damage to reputation	Stakeholders request information / follow-up
<b>2. Low</b>	An event, the consequences of which can be absorbed but management effort is required to minimize the impact	Minor financial loss (\$10-\$50K)	Short term lost-time injury	Minimal impacts on service delivery	Short-term damage to reputation	Low stakeholder concern
<b>1. Negligible</b>	An event, the consequences of which can be absorbed through normal activity	Financial losses less than \$10K	No lost-time injuries	Service delivery unaffected	Reputation unaffected	Stakeholders unaffected

## RISK RESPONSE STRATEGIES

Risk response strategies identify the most appropriate approach to addressing the identified risks. The response is in part driven by the environmental context of the risk that defines whether it is possible to completely eliminate the risk or whether reduction is a more a reasonable target. In other instances assuming the risk (or do nothing) may be the appropriate response. This may be true in instances where the risk is external in origin and where little control can be exerted by the organization.

Listed below are risk response strategies for consideration when planning a risk management plan:

- **Avoid:** The risk owner will not undertake the activity as the risk associated with it is unacceptable
- **Mitigate:** The risk owner will take action prior to the occurrence of the risk to either reduce the likelihood that it will occur, and/or mitigate the impact should it occur
- **Monitor:** The risk owner will not do anything prior to the risk's occurrence to reduce its likelihood of occurrence or the associated impact, but will develop a contingency plan to manage the impact if it does occur.
- **Assume:** The risk owner accepts the risk and does not intend to do anything to prevent its occurrence or mitigate its impact
- **Transfer/Escalate:** The risk owner cannot deal with the risk because it has no control and requires the transfer of its management to another party for risk management. At this stage, the choice of a transfer response does not take into consideration the willingness of the other party to accept responsibility for the risk

## **RISK MANAGEMENT PLAN**

The risk management plan defines the risk response strategy, identifies as clearly as possible the scope of intervention, assigns an owner to take action, and a due date for completion. In summary the action plan will address the following points:

- Determines the scope of actions to manage the risk
- Assigns risk owners who will have the responsibility to manage the risk
- Defines a timeline for taking action