

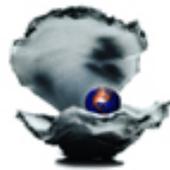


Fisheries and Oceans
Canada

Pêches et Océans
Canada



National Human Resources Strategy for the Science Sector



Fisheries and Oceans Canada

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National Human Resources Strategy for the Science Sector

1. Preamble

The focus of this document is to outline the **National Human Resources Strategy** (the HR Strategy) for the Science Sector within Fisheries and Oceans Canada (DFO). This strategy is the culmination of considerable analysis of business requirements resulting from new directions in Science Renewal and it respects the need to invest in existing programs to maintain the level of excellence to respond to federal Government and Departmental priorities. Additionally, the Strategy is also informed by an extensive analysis of the Science workforce and changes in attrition and representation over time.

The development of the Strategy is framed within the context of the Science Renewal Action Plan. The overarching vision of the Strategy is *to develop and maintain a highly skilled workforce focused on scientific excellence within a scientific culture that is in tune with DFO and Government-wide priorities; working on multidisciplinary ecosystem science and effectively collaborating with partners.*

Given that this is a national strategy for the Science Sector, actions are meant to address human resources management issues that are common across the country. Work undertaken in this strategy will focus on these common areas; however, it does not preclude the regions from developing and implementing specific strategies unique to the region.

This National Strategy requires a collaborative effort. To be successful, it requires engagement and support from all parts of the Science Sector and will often require the support of Human Resources professionals within the regions and corporately in headquarters.

2. Context

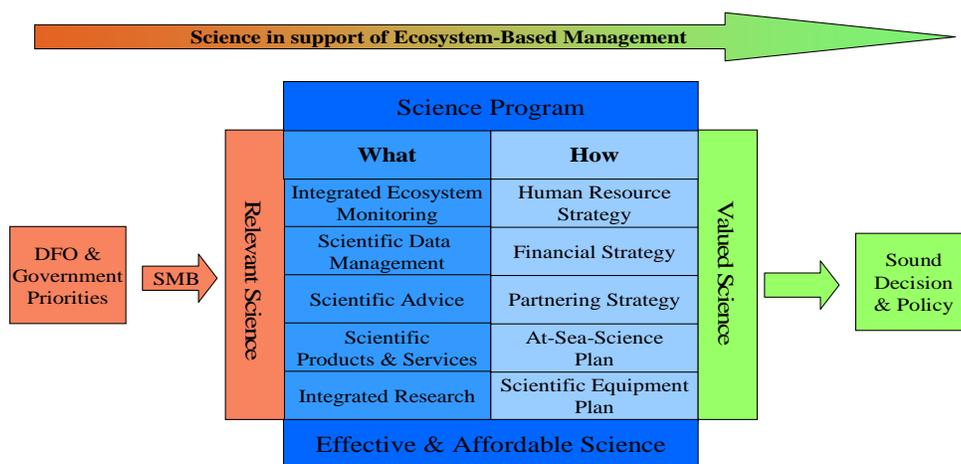
Fisheries and Oceans Canada (DFO) has one of the most complex and comprehensive Science programs in the federal government, both in terms of function and geography. **It supports fisheries, aquaculture, oceans, and habitat management, maritime safety (client sectors) and broader national/global objectives (e.g. the North, climate) and includes marine and freshwater environments and species.** In spite of the increasingly integrated nature of departmental knowledge needs, client sectors require science advice and support that reflects their specific needs. They have come to rely on the traditional single-activity approach and are demanding increasingly specialised products and services. This need for integration, combined with increased demands for new types of knowledge and limited resources, is challenging the Science program's capacity to effectively support Departmental and federal priorities.

With this context in mind, the following sections will discuss the internal and external drivers that have influenced the direction of the National Human Resources Strategy for the Science Sector.

2.1 Science Renewal

Science Renewal is a key driver of the Strategy. It is understood that the demand for scientific information and advice on complex issues of importance to Canadians will continue to increase. To better respond, the **Science program needs to be flexible, relevant and sustainable. This requires a more innovative and adaptive approach to the way science is performed and collaborative partnerships are established.** It also has implications for the delivery of scientific advice, services and products to clients and stakeholders. Science Renewal initiatives are contributing to the increased scope and depth of scientific activities, the building of a national capacity for aquatic science, ensuring transparency and credibility of scientific advice, as well as contributing to scientific innovation and commercialization of technology.

A key outcome of Science Renewal is the modern and effective delivery of science activities achieved through a **balanced science program** that is carrying out integrated research aligned with government and departmental priorities. Ecosystem science is quickly growing to be an area greatly needed to support integrated management. An **ecosystem science approach** means changing the way DFO provides science support. Scientists have to provide decision-makers with comprehensive ecosystem advice about how human activities may interact with other activities being undertaken in the same aquatic ecosystem or take adequate account of major environmental drivers in the ecosystem. Implementing this new approach is far more than redistributing limited resources or aligning the science program with DFO and government-wide priorities, it requires a philosophical and cultural shift and a change in the make up of the science program workforce. This change in culture will result in: changing the way scientific activities are carried out by the DFO science workforce; improving interactions among staff to achieve a better integration of science work; working in collaboration with partners in multidisciplinary teams to leverage scientific capacity and hiring for or developing the skills and personal suitability suited to this changing work environment. Ultimately, it is about ensuring the continued excellence in our people. These important issues are being addressed in the National Human Resource Strategy.



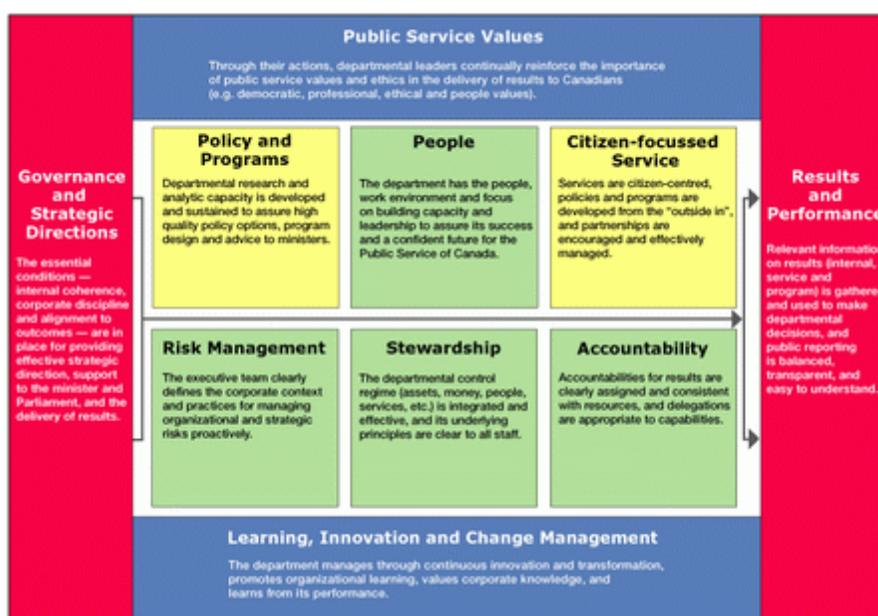
In the coming years, DFO will continue to renew its Science program to enhance the delivery of scientific information, advice and services in support of **better policy development, decision-making and service to Canadians**. Planning will be based on ongoing risk assessments of priorities needing science support. Such planning will be supported through national enabling strategies, including strategies for human resources, funding, partnering, Science vessels, and equipment acquisition and maintenance.

Long-term strategic and multi-year operational planning will be carried out in collaboration with clients and partners. Work will be based on an ecosystem approach that assesses risk and priorities needing science support. The Strategy is one of the national enabling strategies together with funding, partnering, Science vessels and equipment acquisition and maintenance being developed to support strategic and operational plans.

2.2 Management Accountability Framework

The Management Accountability Framework (MAF) is a Treasury Board Secretariat (TBS) framework that *identifies the goals and objectives, governance and strategic direction of the Federal Government*. Put another way, the MAF provides a vision of modern public service and identifies clear performance indicators and management expectations to help departments move forward and measure progress.

DFO is actively working towards aligning itself with these 10 pillars of the MAF. The People pillar of the MAF, serves as a key driver that sets the tone for development of the HR Strategy for the Science Sector. This pillar stipulates that *the department has the people, work environment and focus on building capacity and leadership to ensure its success and a confident future for the Public Service of Canada*. It is anticipated that the strategies identified throughout the Strategy will meet the objective articulated within the People component, thus contributing to the development of sound modern public service management.

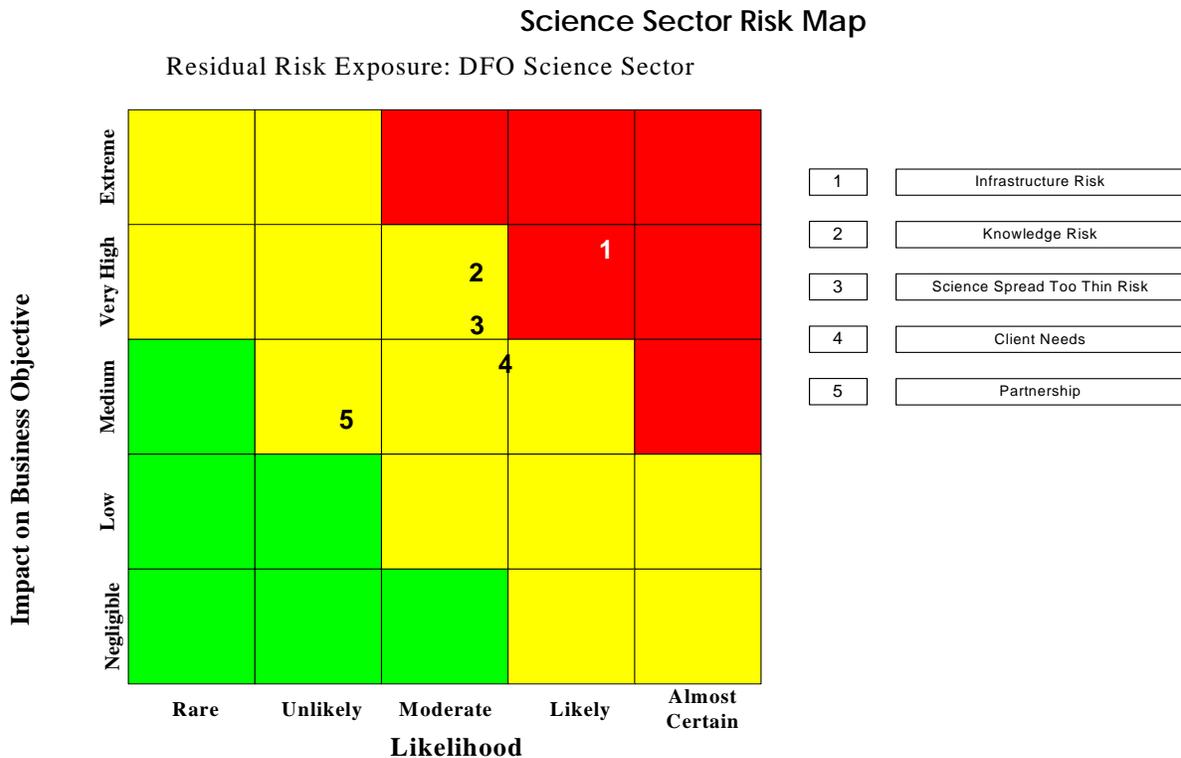


Each year, departments are assessed in terms of their MAF. In this light, the TBS conveys to departments a powerful message in terms of management expectations. In defining a human resources strategy, the Science Sector is putting forward concrete actions to fulfill this human resources management expectation.

2.3 Science Sector's Risk Profile

The Science Sector risk profile (June 2005) is a high-level snap-shot of the key areas – and levels -- of risk exposure facing the Science Sector. Five risk events were identified based on an analysis of the current Sector business conditions:

- Insufficient **infrastructure**: there is a risk that Science will be unable to invest in and maintain the infrastructure necessary to achieve program objectives
- *****Depleting knowledge**: there is a risk that Science will be unable to sustain and develop sufficient knowledge to adequately support current and expanded requirements
- *****Science spread too thin**: there is a risk that Science will be unable to effectively streamline operations further to Expenditure Review and science renewal; this may result in Science being spread “too thinly”
- Fulfilling **client needs**: there is a risk that Science will fail to recognize, address and adapt to the evolving needs and priorities of clients and stakeholders
- **Partnership** failures: there is a risk that Science will be unable to create and sustain partnerships with outside parties and will be unable to meet associated business requirements



Understanding the risks affecting the Sector assists in determining the priority areas and types of actions required to address within the Strategy to mitigate these risks. Regional risk management workshops, held in 2006, have confirmed that the most severe risks that the Science Sector is currently facing are “Science spread too thin” and “knowledge” risks. Both of these risks are human resources related and are presented as issues and risks with the implementation of this National Human Resources Strategy. However, it should be acknowledged that the HR strategy is meant to work in tandem with other strategies to address the risks to the Sector. Not all risk in these areas can be mitigated by the HR Strategy but require action on the other strategies identified by Science Renewal (e.g. Partnering and Financial Strategies).

2.4 Science Sector Situated within the Science and Technology Community

The federal S&T Community, comprised of Science Based Departments and Agencies (SBDA) across the Public Service, is committed to being a world leader in scientific research and technology. Being world leaders of science and maintaining a competitive edge in the global economy requires, among other things, a commitment to recruiting, retaining and developing the best S & T professionals possible. Understanding this, SBDA's have agreed to work together to address Human Resources issues common among S & T community members. A three-year HR plan, endorsed by the Science ADM Advisory Committee (SAAC), is now in place to focus the community's efforts in recruitment, learning and leadership development.

The Science Sector within DFO is an active member of the S&T Community. Additionally, the National Human Resources Strategy for the Science Sector contains many elements in development at this interdepartmental S&T Community level.

2.5 Science Sector Demographics

DFO is guided by the principles of sound scientific knowledge and effective management. Within this context, the Science Sector is implementing changes to better support DFO and Government of Canada decision and policy-making and to better serve Canadians. Of particular importance in meeting this mandate is sound human resources management. In other words, service to Canadians will be met most effectively when the Science Sector has the right people with the best skills set in place to deliver on Science programs.

Regional Distribution of employees (as of September 30, 2006)

	Total	Indeterminate	Determinate
C&A	239	179	60
Gulf	127	111	16
Maritimes	361	326	35
NCR	127	121	6
NFLD	184	181	3
Pacific	442	348	94
Quebec	198	179	19
Science Total	1678	1445	233
DFO Total	10, 275		

A brief overview of Science Sector demographics shows that Science makes up only **16%** (1678 employees) of the entire population of DFO. These employees are distributed across the seven regions and located in many facilities within the regions where they contribute to the three strategic outcomes of the Department.

In terms of age profiles, an important statistic is that 606 (36%) of 1678 employees are 50 years of age and over. Although, the Science Sector has an ageing population, S&T employees often remain in the organization past their retire date to continue to contribute to Science programs.

It is important to note that a vast number of Sector employees are in three occupational groups: Engineering and Scientific Support (EG), Biological Sciences (BI) and Scientific Research (SE). Together they represent 71% of the population in Science. Another important factor for the same group is the fact that 36% of this group is eligible to retire between 2006 and 2011. This information is a critical factor influencing the work to be undertaken in this strategy.

With respect to senior managerial positions in the organization, **68%** of the EX population in Science is eligible to retire between 2006-2011. Science must act now to address this risk of loss of knowledge and leadership.

Distribution of Science Sector Employees (as of Sept 30, 2006)				
		Number of Employees	Employees Eligible to Retire Between 2006-2011	% of Group Eligible to Retire
EG	Engineering and Scientific Support	628	188	30%
BI	Biological Science	323	107	33%
SE	Scientific Research	247	114	46%
AS	Administrative	68	24	36%
PC	Physical Science	67	22	33%
CS	Computer Science	57	15	26%
EN	Engineering and Land Survey	51	24	48%
CR	Clerical and Regulatory	41	16	39%
EL	Electronics	25	11	44%
GL	General Labour and Trades	22	9	42%
EX	Executives	19	13	68%
-	Other Groups	130	43	N/A
Total		1678	587	35%

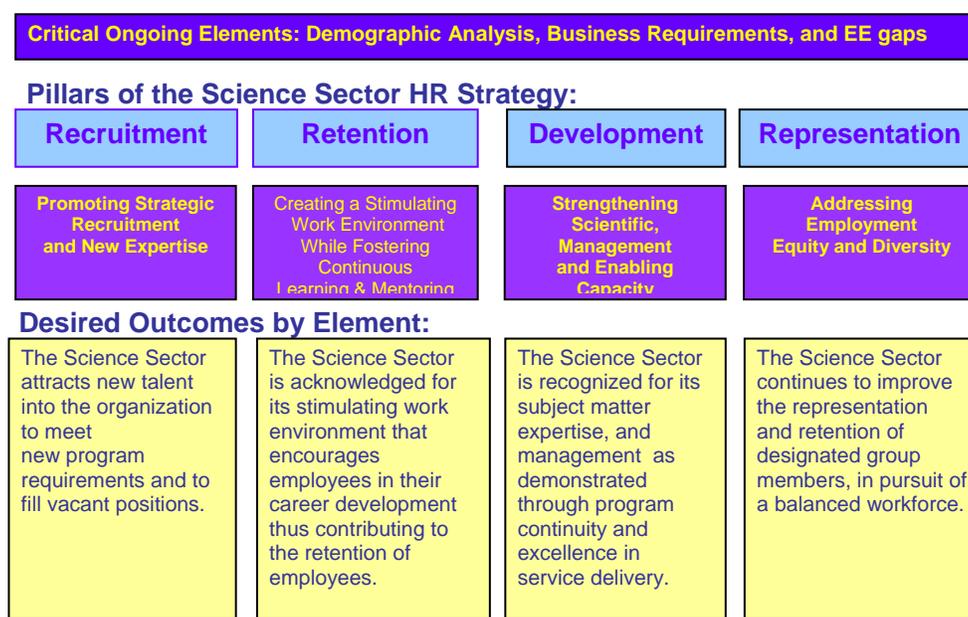
Given the high potential for retirement in critical groups within the Sector, it is important to put strategies in place now to affect knowledge transfer and build the science capacity of the future.

3. National Human Resources Strategy - Overview

In response to these significant drivers, the Science Sector has developed a National Human Resources Strategy. The overarching vision of the Strategy is *to develop and maintain a highly skilled workforce focused on scientific excellence within a scientific culture that is in tune with DFO and Government-wide priorities; working on multidisciplinary ecosystem science and effectively collaborating with partners.*

The strategy will be realized within four broad pillars:

National Human Resources Strategy



While it is anticipated that the pillars will position the Sector to respond effectively to the identified risks, the starting point and desired outcome of the strategy is to ensure that an engaging environment is in place that will facilitate excellence in science development and delivery.

Although each pillar serves its own independent purpose within the context of the HR Strategy, each pillar is designed to dovetail towards accomplishing the same goal. For example, building a representative work environment is a goal that will be pursued throughout recruitment, retention and development initiatives. It is also recognized that developing employees to perform at their best as subject matter experts will have positive implications for retaining the best employees within the Sector, and may also encourage potential employees to recognize the Sector and department as the employer of choice.

While, it is understood that there are numerous initiatives that can be undertaken in each of the four pillars it is necessary to recognize that this strategy will unfold over the next three to five years. Proposed actions will need to be prioritized to reflect: critical areas of focus, available resources and

the ability of partners to assist. To maximize action on all four fronts, it is recommended that at least one initiative be undertaken annually under each of the four pillars. As mentioned above, it is possible that the roll-out of the strategies will overlap and progress simultaneously.

4. Human Resources Strategy - Five Year Plan

This section provides details about each of the pillars, desired outcomes, the risks driving work in the pillars, strategies for the next three to five years, proposed priority ranking and performance measures. The priority for action is identified as follows:

- Red/Immediate = commence within one year
- Orange/Mid-term= commence in two to three years
- Yellow/Longer term = commence in three to five years.

This is a proposed ranking with year one priorities requiring consideration and approval while the medium and low priority items requiring review and approval in principle. The orange and yellow priorities should be reviewed and reprioritized annually to ensure that the Strategy continues to meet human resources management needs as they evolve over time within the Sector.

Following Section four below, section five amalgamates all of the proposed high priority actions for 2007-2008 under each pillar and provides further details on the required action, assigns responsibility and timeframes for commencing the action.

4.1 Recruitment

Pillar 1 - Recruitment						
Promoting strategic recruitment and new expertise						
Desired outcome: The Science Sector attracts new talent into the organization to meet new program requirements and to fill vacant positions						
Issues/Risks	Possible HR actions to consider for 3-5 year plan	Proposed Priority	Performance Measures for Recruitment Pillar			
<p>Out flux of highly qualified personnel due to demographics of the Sector (i.e. retirements). Science spread too thin.</p> <p>Diversity of Science mandate: new professionals with new skills will need to be recruited to build Science capacity.</p> <p>Need for more flexibility to respond to emerging issues while maintaining support for long-standing commitments.</p> <p>Demand for Science-based advice is increasing due to the move to ecosystem</p>	<ul style="list-style-type: none"> Recruit employees at a higher than attrition rate of attrition over the next three years to maintain capacity and promote knowledge transfer 	<table border="1"> <tr> <td style="background-color: red;">I</td> <td style="background-color: orange;">M</td> <td style="background-color: yellow;">L</td> </tr> </table>	I	M	L	<p>Immediate HR result Monitor demographics and attrition data Number of students hired Number of students bridged Number of new employees recruited (externally) Number of positions staffed (internally)</p> <p>Contributing to - Intermediate program result Measure program delivery by monitoring provision of advice in new areas (CSAS) as well as provision of advice in general, as measured with Sector performance indicators</p> <p>Ultimate result Monitor client satisfaction, client</p>
	I	M	L			
	<ul style="list-style-type: none"> Conduct RES recruitment on an annual or bi-annual basis 					
	<ul style="list-style-type: none"> To facilitate collective staffing, develop and implement national model work descriptions (NMWD) for key science sector groups 					
<ul style="list-style-type: none"> Identify 2 <u>collective</u> staffing processes to implement (e.g. BI, EG, EN-SUR, PC and/or EX) 						

management as well as new legislative obligations (i.e. SARA, Oceans Act).	<ul style="list-style-type: none"> Convene national staffing review committee annually to review and approve staffing requirements 				feedback (via client survey)
	<ul style="list-style-type: none"> Promote the use of the S & T community inventory for entry level positions (recruitment genie) 				
	<ul style="list-style-type: none"> Develop and implement generic statements of merit criteria (SOMC) using the national model work descriptions as guide 				
	<ul style="list-style-type: none"> Develop and implement a communication process/tool (e.g. HR corner on web site) to share HR information, strategies, tools, etc. 				
	<ul style="list-style-type: none"> Use FSWEF/CO-OP program each year to attract students (a minimum of 5 per region) into to key groups Use bridging mechanism to staff indeterminately 				
	<ul style="list-style-type: none"> Narrow down national recruitment needs to key occupational groups <i>and levels</i> where largest gaps exist (e.g. EG and BI) 				

4.2 Retention

<u>Pillar 2 - Retention</u>					
<p>Creating a stimulating work environment while fostering continuous learning and mentoring</p> <p>Desired outcome: The Science Sector is acknowledged for its stimulating work environment that encourages employees in their career development, thus contributing to the retention of employees.</p>					
Issues/Risks	Possible HR actions to consider for 3-5 year plan	Proposed Priority			Performance Measures for Retention Pillar
		I	M	L	
<p>Weaknesses in knowledge management</p> <p>PSES – there is a need to address supportive work environment, learning needs and career development and progression</p>	<ul style="list-style-type: none"> Identify critical positions at risk for loss of knowledge and determine Succession Plans 				<p>Immediate result Monitor number of conferences attended using Conference and Foreign Travel System (CFTS)</p> <p>Monitor number of performance appraisals completed (includes learning needs)</p>
	<ul style="list-style-type: none"> Encourage learning plans and career progression for each employee tied to appraisal process For career progression, encourage exchanges between regions for development purposes 				
	<ul style="list-style-type: none"> Promote greater use of Emeritus Program 				
	<p>Strategies for continuous learning/mentoring/coaching</p> <ul style="list-style-type: none"> Explore DFO mentoring program for applicability to Science 				<p>Intermediate result Selective feedback from employees on usefulness and effectiveness of conferences – annual survey</p>

	<ul style="list-style-type: none"> Explore use of DFO's coaching guide for managers and applicability to Science Sector 				(by sampling) of CFTS forms by region. Ultimate result Monitor retention statistics
	<ul style="list-style-type: none"> Identify national learning needs and consider providing access to career development opportunities including conferences 				
	Strategies for knowledge management/ knowledge transfer <ul style="list-style-type: none"> Identify critical positions and establish protocols for information management in the eventuality of incumbent departing 				
	<ul style="list-style-type: none"> Develop a generic learning curriculum for Science Sector Managers 				
	<ul style="list-style-type: none"> Encourage team meetings/discussions as learning circle for knowledge transfer 				

4.3 Development

Pillar 3 - Development				
Strengthening Scientific, Management and Enabling Capacity				
Desired outcome: The Science Sector is recognized for its subject matter expertise and management, as demonstrated through program continuity and excellence in service delivery.				
Issues/Risks	Possible HR actions to consider for 3-5 year plan	Proposed Priority		Performance Measures for Development Pillar
		I	M	L
<p>Need to optimize science delivery</p> <p>Resources, once allocated to programs and regions, are not easily shifted to needs elsewhere.</p> <p>Need to change how people work together across regions (management)</p> <p>PSES – there is a need to address supportive work environment, <u>learning needs and career development and progression</u></p>	<p>New skills</p> <ul style="list-style-type: none"> Participate in S&T Community Scientists as Leaders Pilot 			
	<ul style="list-style-type: none"> Participate in S&T Community developed Leading Scientific Teams course 			
	<ul style="list-style-type: none"> Develop competency profiles for core jobs (e.g. BI, EG) using NMWD 			
	<p>Support knowledge management for program continuity</p> <ul style="list-style-type: none"> Establish/identify national learning needs for Science managers (with other SBDA's). 			
	<ul style="list-style-type: none"> Develop core learning required for administrative positions nationally 			
	<ul style="list-style-type: none"> Review Health Canada's BI apprenticeship program for potential in DFO Science 			
	<ul style="list-style-type: none"> Explore / Use MTP and CAP for continuous learning 			
				<p>Same performance measures as the Retention pillar</p> <p>Plus:</p> <p>Monitor success of Scientists as Leaders Pilot.</p> <p>Monitor number of employees taking Leading Scientific Teams and their feedback as well as how many move into supervisory positions</p>

4.4 Representation

<u>Pillar 4 - Representation</u>					
Addressing employment equity and diversity					
Desired outcome: The Science Sector continues to improve representation and retention of designated group members, in pursuit of a balanced workforce.					
Issues/Risks	Possible HR actions to consider for 3-5 year plan	Proposed Priority			Performance Measures for Representation Pillar
		I	M	L	
<p>Need to diversify science employment pool to achieve a better balance in its workforce</p> <p>Important for the Science Sector workforce to be representative of Canadian population.</p>	<ul style="list-style-type: none"> Focus efforts on analysis of demographics and analysis of attrition rates to better understand impact of attrition on representation. 	I	M	L	<p>Immediate results Monitor Sector statistics for representation of designated group members in the Science Sector.</p> <p>Monitor attrition and hiring of designated group members.</p>
	<ul style="list-style-type: none"> When conducting recruitment or collective staffing activities, review gaps to full representation and build requirement for addressing EE into staffing plan 				
	<ul style="list-style-type: none"> Finalize and disseminate Science Sector EE action plan to complement Departmental Plan 				
	<ul style="list-style-type: none"> Promote Corporate Culture Self-Assessment within the Sector. 			L	

5. Human Resources Strategy Implementation Plan for 2007-2008

WHAT (Immediate Priority Activities - RED)	HOW	TIMELINES	LEAD(S)	PARTNERS
Pillar 1 – Recruitment				
Recruit at Higher than Attrition Rate Recruit employees at a rate higher than national attrition over the next three years to maintain capacity and promote knowledge transfer (See 6.1)	<ul style="list-style-type: none"> Using annual attrition rates and retirement eligibility as a base, recruit new employees at a higher than attrition rate (EE included) 	Beginning June 2007	NSDC RC Managers	HRSWG HR
RES Recruitment Conduct RES Recruitment on an annual or bi-annual basis (See 6.2)	<ul style="list-style-type: none"> Evaluate success of first national RES recruitment campaign Commence second national RES recruitment campaign (EE included) 	April 2007 Sept 2007	NSDC Regional Director Science (TBD)	HRSWG HRSWG HR
National model work descriptions To facilitate collective staffing, develop and implement national model work descriptions (NMWD) for key science sector groups (See 6.3)	<ul style="list-style-type: none"> Develop generic Statements of Merit Criteria (SOMC) for BI, EG and PC 	Dec. 2007	IBM NWMDWG	HR Advisor
Collective staffing Identify 2 <u>collective</u> staffing processes to implement. In 2007-2008 these will be the BI and	<ul style="list-style-type: none"> National collective staffing process of the BI 05 Regional Coordinators Advisory Services (EE included) EX Collective Staffing 	April 2007 April 2007	Jake Rice DG,OS-CHS	Bob O’Boyle HR

EX staffing processes.			DG, Ecosystem	
Staffing Plan Convene national staffing review committee annually to review and approve staffing requirements	<ul style="list-style-type: none"> Review and approve staffing requirements and seek opportunities for collective staffing Ensure EE goals are addressed 	Annual and ongoing	NSDC	IBM
Entry Level Recruitment Promote the use of the S & T community inventory for entry level positions (recruitment genie)	<ul style="list-style-type: none"> Promote the use of the S&T inventory to recruit entry level BI, EG, PC, CH, etc. employees (EE included) 	April 2007	IBM	HRSWG RC Managers
Pillar 2 – Retention				
Succession Planning Identify critical positions at risk for loss of knowledge and determine Succession Plans (See 6.1)	<ul style="list-style-type: none"> Identify critical positions at risk for loss of knowledge due to retirements in 1 year. Staff positions (9) and allow for 6 months of knowledge transfer 	Sept. 2007	NSDC IBM	HRSWG
Learning plans Encourage learning plans for each employee tied to appraisal process For career progression , encourage exchanges between regions for development purposes	<ul style="list-style-type: none"> Implement learning plans Performance Appraisals 	Ongoing	RC Managers	
Emeritus Program Promote greater use of Emeritus programs (program not limited to RES community)	As opportunities arise	Ongoing	NSDC	IBM
Pillar 3 – Development				

<p>Management Development Participate in S&T Community Scientists as Leaders Pilot (See 6.4)</p>	<ul style="list-style-type: none"> • Participate in the Scientists and Leaders program: <ul style="list-style-type: none"> ○ Evaluate 2006-2007 pilot ○ Develop DFO process for 2007-2008 intake 	<p>June 2007</p>	<p>IBM IBM</p>	<p>S&T Community EX Group Services</p>
<p>Leading Scientific Teams Participate in S&T Community developed Leading Scientific Teams course (See 6.4)</p>	<ul style="list-style-type: none"> • Leading Scientific Teams: <ul style="list-style-type: none"> ○ Aim for up to 10 participants scheduled for this course 	<p>June 2007</p>	<p>NSDC</p>	<p>S&T Community</p>
<p>Pillar 4 – Representation</p>				
<p>Analysis of demographics, attrition and representation Focus efforts on analysis of demographics and analysis of attrition rates to better understand impact of attrition on representation</p>	<ul style="list-style-type: none"> • Determine gaps for Science Sector • Determine if retention is affecting designated group members 	<p>March 2008</p>	<p>IBM</p>	<p>HRSWG HR</p>
<p>Science Sector EE action plan Finalize and disseminate Science Sector EE action plan to complement Departmental Plan</p>	<ul style="list-style-type: none"> • Disseminate the plan 	<p>September 2008</p>	<p>HRSWG And IBM</p>	<p>HR</p>
<p>EE targets When conducting recruitment or collective staffing activities, review gaps to full representation and build requirement for addressing EE into staffing plans</p>	<ul style="list-style-type: none"> • Identify number of positions to be staffed 	<p>Ongoing</p>	<p>NSRC</p>	<p>HRSWG</p>

Legend:

NSDC: National Science Directors Committee

NMWDWG: National Model Work Description Working Group
HRSWG: Human Resources Strategy Working Group
NSRC: National Staffing Review Committee
S&T Community: Community of Science Based Departments and Agencies
SAAC: Science Assistant Deputy Ministers Advisory Committee (SAAC) – lead for S&T Community HR Initiatives

6.1 Knowledge Transfer and Increasing Capacity Through Recruitment

Summary:

The Science Sector recognizes that with an ageing population, (e.g. 606 (36%) of 1678 employees 50 years of age and over) there is a significant risk of loss of knowledge over the next five to 10 years. This loss of knowledge will impact the Sector's ability to respond to client requirements for advice, products and services, research, etc.

To mitigate this risk, the Science Sector will act now to recruit new employees into the organization to facilitate knowledge transfer and attract new expertise into the organization. A number of strategies are proposed to address this issue.

1. Recruitment at Higher than Rate of Attrition for Three Years

It is proposed that the Sector immediately commence internal staffing or external recruitment to attract new employees into the organization at higher the rate of attrition over the next three years. Given the estimated attrition rate of 60 departures per year, the Sector would plan to hire 60 to 100 employees in addition to the replacement of departing employees. With this aggressive recruitment and staffing plan, the Sector can begin to replace employees who will be retiring in the next one to five years before their departure to allow for sufficient knowledge transfer. Additionally, employment equity gaps within the Sector can also be addressed in this strategy.

With an average salary of \$80K (this is an average salary for cost estimation purposes; however; this program can apply to any position within the organization regardless of salary) it will cost the Science Sector approximately \$4.8M per year to hire these added 60 employees. This Strategy will be dependent on the resources the Sector is able to allocate to this priority and can be adjusted to any resource level depending on annual planning and DFO and government priorities.

This Strategy is also dependent on the Sector receiving relief from the FTE cap to allow the Sector to increase in size from 1678 to 1858 employees over the next three years. FTEs will start to reduce back to the 1678 as employees continue to retire. It is estimated that it will take 3-4 years for the Sector to reduce back to 1678 employees.

2. Knowledge Transfer for Critical Positions:

In addition to the above strategy, it is proposed that annually the Science Sector, via the National Science Directors Committee (NSDC), determines which positions in the organization are critical due to their high potential for loss of knowledge due to the eminent retirement of the incumbent. The Sector will identify those positions most at risk and ensure that a mentoring arrangement is in place between the retiring incumbent and the new employee to be recruited under the above-noted attrition strategy. Depending on the type of skills and knowledge to be transferred, an overlap of six months to one year is suggested.

This strategy will require the assistance of human resources for the approval of Pre-retirement SAPP arrangements.

3. Increasing Capacity Through Students:

Annually, the Science Sector will identify a number of students to be hired based on the core expertise being enhanced within the organizations. To facilitate bridging, students will be hired via the Federal Summer Work Experience Program (FSWEP) or the CO-OP program as these are the federal Public Service students programs which allow for the appointment of students into organizations following the completion of degree programs. While using the FSWEP or CO-OP programs, the Sector can increase representation of designated group members within Science. With respect to knowledge transfer, it is anticipated that during their work experiences, students receive some mentoring opportunities from co-workers and/or managers.

This initiative is a long-term solution to addressing knowledge transfer and the recruitment of new expertise. The goal is to have students working in the organization during FSWEP or CO-OP work terms while completing their studies. Students would be eligible for bridging following completion of their studies – one to four years later.

To accomplish this program goal, the Science Sector will require that student employment be exempt from the FTE CAP.

HR Strategy Pillars Addressed:

Strategic Recruitment and New Expertise
Addressing Employment Equity and Diversity

Partners Required:

National Science Directors Committee
Integrated Business Management Directorate
Human Resources

6.2 Research Scientist Recruitment

Summary:

At the Science Management Board (SMB) meeting (January 23, 2006) members agreed to address the growing attrition rate of research scientists. The decision was made to launch a national RES recruitment initiative, with the intention of building capacity towards Ecosystem Research. SMB agreed that \$1.5 M of relief funding be allocated to fund about 12 – 15 positions nationally. It was agreed that this initiative would also be used to address the gap for women in the Research Scientist category given that this is an area of action for the Science Sector. It is anticipated that this initiative will be repeated in 2007-2008.

Evaluate Success of 2006-2007 Recruitment Campaign

Prior to commencing a second recruitment campaign the Science Sector will evaluate the 2006 – 2007 the RES recruitment campaign. It was the first time that the Sector conducted a national collective staffing action under the new Public Service Employment Act and it will be important for managers and HR professionals to review the process in order to make improvements for the next campaign.

Conduct 2007-2008 Campaign

The RES recruitment strategy will be re-launched in 2007 – 2008, with the goal of recruiting 10 - 30 employees. Employment Equity will continue to be a critical component to this campaign as the Sector continues to address gaps to full representation for this group.

HR Strategy Pillars Addressed:

Strategic Recruitment and New Expertise
Addressing Employment Equity and Diversity

Partners Required:

National Science Directors Committee
National HR Strategy Working Group
Human Resources – Operations

Cost: N/A (salary costs assumed by hiring manager)

6.3 Maximizing the Use of National Model Work Descriptions

Summary:

The Science Sector has made a significant investment in the development and implementation of National Model Work Descriptions (NMWD). The primary use of the NMWD is to describe the work being undertaken in a particular position and the context within which the position works.

For groups and levels used widely by Science Sector (BI, EG, EN, PC) it would be advantageous for Science to develop additional companion tools to facilitate a common language and a national approach to staffing and learning and development activities.

Developing Generic Statements of Merit Criteria for National Models Work Descriptions

With the wide application of National Models Work Descriptions (NMWD) the Science Sector will undertake to develop generic Statements of Merit Criteria (SOMC) for the core models (e.g. BI, EG and PC). A core model is the NMWD that applies to the majority of positions in that group and level. In Science the core models for the BI, EG and PC cover approximately 80% of the positions in those groups. These will be the focus of this initiative.

With the completion of these SOMC, staffing actions will be facilitated since the first step – creating a SOMC will already be complete in both official languages. Also, opportunities for collective staffing will be explored.

To facilitate communication and sharing of information, the Science Sector plans to post the NMWD and the SOMC on the Sector intranet site for ease of reference.

National Models Work Descriptions Enabling Development of Core Competencies

The NMWD and SOMC can also be used as base of information for the development of competency profiles for the core positions within the organization. With the development of core competencies it is possible to demonstrate the skills required at each group and level. For example with competencies profiles for the BI-01 to BI-5 employees can see what skills are required at each level. Annual learning plans and career development opportunities can be directed towards the development of particular competencies at the employee level and/or core learning for a specific group and level can be developed at the community level (BI or EG).

HR Strategy Pillars Addressed:

Strategic Recruitment and New Expertise
Building our Scientific, Management and Enabling Capacity

Partners Required:

National Science Directors Committee
National Model Work Description Working Group

National HR Strategy Working Group
Human Resources – Learning and Staffing

Cost:

It is possible for the Science Sector to develop generic SOMC with this assistance of internal working groups and HR professionals.

The development of competency profiles for streams of work is complex and large in scope. This exercise may require the assistance of specialists in the field of competency development and a cost will be associated with this activity.

6.4 Developing Science Leaders

Summary:

It is proposed that each fiscal year, the Sector will identify employees who can participate in two, science specific, leadership training programs – *Leading Scientific Teams* 3-day workshop and the *Scientist as Leaders* pilot project. It is proposed that employees selected to participate in the *Scientist as Leaders* program (which has a commitment time of 2 years) should not be encouraged to participate in any other development program during the same period (i.e. CAP or MTP). In keeping with employment equity commitments, designated group members will be targeted for participation in these two development programs. Regional managers will be required to assume all costs for employee participation within the respective programs.

A) Scientists as Leaders Pilot

The goal of the *Scientists as Leaders* pilot program is to prepare S&T professionals, at the EX equivalent and EX minus 1 and minus 2 levels, for the executive cadre. More specifically, *Scientists as Leaders* is designed to prepare managers to lead in a dynamic and complex environment characterized by integration and collaboration across departments and disciplines.

Participants will remain at the same group and level throughout this "development in place" program and will receive both educational and hands-on learning opportunities in their home department over a two-year period. Upon successful completion of the program, candidates should be ready to compete successfully for senior leadership roles.

Within DFO, *Scientists as Leaders* is being piloted for one year. In 2007 – 2008, Science Sector will review the effectiveness of this program pilot and prepare for participation in the next intake. Science Sector will also work with Executive group services to develop the selection criteria that will be used in DFO to make the selection of the next candidates for this program. To date, DFO has supported the participation of four candidates in the program; three are from the Science Sector and one from Oceans and Habitat Management.

HR Strategy Pillar Addressed

Strengthening Scientific and Management Capacity
Addressing Employment Equity and Diversity

Partners Required

HR – Executive Group Services
NSDC

Scientists as Leaders is developed and maintained in partnership between the Science ADM Advisory Committee (SAAC) on behalf of the S&T community and The Leadership Network of the Public Service Human Resources Management Agency of Canada.

Cost:

Managers will be responsible for assuming the financial cost of supporting employee participation in this program. Expenses may include, but are not limited to, travel expenses, program materials and language training.

B) Leading Scientific Teams

The *Leading Scientific Teams* is a three-day experiential, interactive workshop designed to help participants understand and develop the leadership competencies required in the federal S&T work environment. The workshop was designed by the Canada School of Public Service in close collaboration with the federal S&T community. This development workshop focuses on developing managerial competencies and as such senior level employees currently leading projects and managing people should be encouraged to participate. More specifically, the workshop will:

- Explore the context, dynamics, roles and competencies of an S and T manager in relation to the S and T workforce and other stakeholders;
- Improve self-awareness better through an understanding of personal preferences and values, and then apply this knowledge to better manage relationships with others; and,
- Engage others towards a desired goal and adapt to personal leadership approach to meet their needs and obtain desired outcomes.

HR Strategy Pillars Addressed:

Creating a Stimulating Work Environment While Fostering Continuous Learning and Mentoring
Strengthening Scientific and Management Capacity

Partners Required:

Canada School of Public Service

Cost:

It is proposed that Science Sector commit to supporting the participation of 5-10 candidates per year. This would cost 10K -20K (or 2K per participant) plus any travel expenses to be assumed by the region.