West Greenland Commission

WGC(14)3

Report on the Use of the Framework of Indicators in 2014

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1. At its 2012 Annual Meeting, the West Greenland Commission (WGC) adopted a multi-annual regulatory measure, (WGC(12)12), for the fishing of salmon at West Greenland in 2012, 2013 and 2014. Under this measure, the catch at West Greenland in 2012 was restricted to the amount used for internal consumption in Greenland which in the past has been estimated to be 20 tonnes annually. There would be no commercial export of salmon. The regulatory measure would also apply to the fishery in 2013 and 2014 unless application of the Framework of Indicators (FWI) in those years showed that there had been a significant change in the indicators used and, therefore, that a full reassessment of the catch advice would be required.

2. The Commission agreed that the procedure used during the previous (2009 - 2011) Regulatory Measure, WGC(09)7, should again be used for applying the FWI under the new regulatory measure. Thus, each WGC Party was asked to nominate a representative to serve on the FWI Working Group in 2014. The representatives appointed were Gérald Chaput (Canada), Katrine Kærgaard (Denmark (in respect of the Faroe Islands and Greenland)), Ted Potter (European Union) and Rory Saunders (USA). Rory Saunders served as the Group's Coordinator. The Group worked by correspondence to coordinate the data collection and apply the FWI. The Group's report is attached.

3. The Group concluded that 'the FWI does not show that there has been a significant change in the indicators used and, therefore a reassessment of the ICES management advice for the 2014 fishery is not required'. This means that the multi-annual Regulatory Measure adopted in 2012 will continue to apply to the 2014 fishery. It also means that, in accordance with the request for scientific advice adopted by the Council last year, ICES has been advised that it does not need to provide catch options or alternative management advice for either the NAC or WGC areas.

4. This arrangement again appeared to work well and within the timescale proposed by the Commission. We are grateful to the Group for its work.

Secretary
Edinburgh
8 April 2014

NASCO - WEST GREENLAND COMMISSION

REPORT OF THE FRAMEWORK OF INDICATORS WORKING GROUP 2013

Introduction:

At its Annual Meeting in Edinburgh in 2012, the West Greenland Commission adopted a multi-annual regulatory measure for the West Greenland salmon fishery for the years 2012, 2013 and 2014 (WGC(12)12). This regulatory measure applied to the fishery in 2012 and would be carried forward to 2013 and 2014 without further review unless application of the Framework of Indicators (FWI) shows that there has been a significant change in the indicators used and, therefore, that a full reassessment of the management advice is required.

The Commission agreed that the same procedure used in 2008, 2010, 2011, and 2013 should again be used in applying the FWI in 2014 under the current regulatory measure. Thus, a small group comprising one representative from each member of the Commission was appointed to work by correspondence to collect the data and apply the FWI (Annex 1 and 2). The Working Group comprised:

Gérald Chaput	Canada
Katrine Kærgaard	Denmark (in respect of the Faroe Islands and Greenland)
Ted Potter	European Union
Rory Saunders	USA

The Group was asked complete their tasks by January 31 2014 and to liaise with the NASCO Secretariat who would present their findings to the Parties and to ICES.

Work of the Working Group:

Rory Saunders agreed to act as coordinator of the FWI Working Group for 2014. Annex 3 summarizes the chronology of the work undertaken by the Group. A request for data to populate the FWI was circulated to representatives from each of the North American Commission "management units," and returns were sent to the coordinator. The coordinator then circulated the completed FWI worksheet for 2013 (Annex 4 and 5) and the draft report to the Working Group for their review and agreement.

Framework of Indicators Analysis – 2014:

The FWI worksheet includes data from five North American Commission "management units": Newfoundland, Gulf, Quebec, Scotia-Fundy, and USA. Each Working Group member has reviewed the raw data and the FWI assessment spreadsheet and confirmed their agreement with the following summary of the findings for the return year 2013.

All indicators for the return year 2013 are below the threshold values in USA, Scotia-Fundy and Gulf, with mean indicator scores in each region of -0.93, -0.90, and -0.95, respectively, over a possible range of -1 to +1. For the Quebec region, 11 of 15 reported indicators are below the threshold value, with a mean indicator score of -0.31. The only region with a positive mean indicator score, identifying that the Management Objectives is expected to

have been met, is Newfoundland, with a mean score of 0.22. One of the four indicators for Newfoundland region is below the threshold.

As explained in WGC (13)3, there were some changes in the indicators in the current FWI from those in the FWI spreadsheet of 2011 (highlighted in red in Annex 4). In Scotia-Fundy Region, two indicators were dropped in the current version (Baddeck large salmon, North River small salmon). As indicated in the note to data providers and explained in WGC(13)3, ICES inadvertently included four indicators for this region which were not available because the series were discontinued (LaHave hatchery smolt survivals to 1SW and 2SW, Liscomb Hatchery smolt 2SW survivals and East Sheet Harbour hatchery smolt 2SW survivals). The exclusion of these indicators does not alter the functioning of the FWI. In gulf Region, Margaree River small salmon returns are not in the current indicator. For Quebec region, one indicator was dropped in the current FWI (Mitis large salmon returns) and nine new indicators were added to the current FWI. For Newfoundland, two indicators were dropped in the current FWI. Region specific comments, when provided, are also included in Annex 4.

The assessment indicates that the Management Objectives are not expected to have been met in four of the five areas in the framework.

Conclusions:

The overall conclusion of the FWI Working Group is that the FWI does not show that there has been a significant change in the indicators used, and therefore a re-assessment of the ICES management advice for the 2014 fishery is not required.

FWI Working Group
31st January 2014

Annex 1. Initial communication from NASCO to Heads of West Greenland Commission regarding application of the Framework of Indicators

from: hq@nasco.int hq@nasco.int
"Marco D'Ambrosio (marco.dambrosio@ec.europa.eu)" <marco.dambrosio@ec.europa.eu>,
"Daniel Morris - NOAA Federal (daniel.morris@noaa.gov)" <daniel.morris@noaa.gov>,
"Kristina Guldbaek (krgu@nanoq.gl)" <krgu@nanoq.gl>,
"Richard Nadeau (Richard.Nadeau@dfo-mpo.gc.ca)" <Richard.Nadeau@dfo-mpo.gc.ca>
"Rory Saunders (rory.saunders@noaa.gov)" <rory.saunders@noaa.gov>,
to:
cc: "Ted Potter (Cefas) (ted.potter@cefas.co.uk)" <ted.potter@cefas.co.uk>,
"Gérald Chaput (Gerald.Chaput@dfo-mpo.gc.ca)" <Gerald.Chaput@dfo-mpo.gc.ca>
date: Wed, Nov 20, 2013 at 12:34 PM
subject: Re: Framework of Indicators - West Greenland Commission

At the Twenty-Ninth Annual Meeting of the West Greenland Commission in Edinburgh in June 2012, a multi-annual regulatory measure was adopted for the West Greenland salmon fishery for the years 2012, 2013 and 2014, WGC(12)12. This measure will apply to the fishery in 2014 unless application of the Framework of Indicators (FWI) shows that there has been a significant change in the indicators used and consequently that a re-assessment of the management advice is required.

The FWI will, therefore, need to be applied in 2014 and the Commission has previously agreed that a Group, comprising one representative of each member of the West Greenland Commission, would work by correspondence to collate the data and apply the FWI. This task needs to be completed by the end of January 2014 and the Secretariat will liaise with the Co-ordinator of the Group (this has changed each year that the Group has met) and present the findings to the Parties and to ICES.

The members of the Group, when it was convened last year, were:

Gerald Chaput	Canada - Coordinator
Kristina Guldbaek	Denmark (in respect of the Faroe Islands and Greenland)
Ted Potter	EU
Rory Saunders	US

We will need to resolve the membership of the Group to apply the FWI for 2014 and I would be grateful, therefore, if you could advise me of the name of your representative by 6 December. Kristina Guldbaek has advised me that she will be leaving her post in Greenland at the end of the year so there will be a need to find a replacement for her. Once membership if resolved, the Group will be able to assemble the data required and conduct its assessment.

Best regards

Peter Hutchinson, Secretary

Annex 2. Notification of representation on the FWI Working Group

from: hq@nasco.int hq@nasco.int
to: "kake@nanoq.gl" <kake@nanoq.gl>, "Ted Potter (Cefas) (ted.potter@cefas.co.uk)" <ted.potter@cefas.co.uk>, "Gérald Chaput (Gerald.Chaput@dfo-mpo.gc.ca)" <Gerald.Chaput@dfo-mpo.gc.ca>, "Rory Saunders (rory.saunders@noaa.gov)" <rory.saunders@noaa.gov>
date: Tue, Dec 17, 2013 at 11:34 AM
subject: FWI Working Group - West Greenland Commission

Dear All,

Thank you for agreeing to serve on the West Greenland Commission's Framework of Indicators Working Group. There is one change from last year because Kristina Guldbæk is taking up a new post in Denmark. Katrine Kærgaard has taken over responsibility for NASCO matters and we very much appreciate her involvement in the Group's work at such short notice.

For 2014 the members of the Group are as follows:

Canada	Gérald Chaput
Denmark (in respect of the Faroe Islands and Greenland)	Katrine Kærgaard
European Union	Ted Potter
USA	Rory Saunders

I would ask that you appoint a Coordinator to liaise with the NASCO Secretariat and that the Group's findings be reported to us no later than 31 January 2014 so that we can inform the Parties to the West Greenland Commission and ICES of your findings. Gérald Chaput served as Coordinator for the Group's work in 2013 and prior to that Ted Potter was the Coordinator in 2011.

With best wishes for Christmas and the New Year.

Peter Hutchinson, Secretary

WGC14.377

Annex 3. Summary of Correspondence by FWI Working Group

Date	Contact	Action
20-Nov-13	Secretariat	Request to Heads of WGC for nominations to the FWI Working Group
17-Dec-13	Secretariat	Confirmation of membership and responsibilities of FWI Working Group
09-Jan-14	Chaput	Request for data inputs sent to Canadian and USA contacts
24-Jan-14	Oliver Cox	Data submitted to coordinator for USA indicators
26-Jan-14	Chaput	Data submitted to coordinator for Canadian indicators
29-Jan-14	Saunders	Completed FWI worksheet and prepared draft report.
29-Jan-14	Saunders	Draft report circulated to FWI-WG for approval including FWI input data, FWI worksheet and draft conclusions of assessment.
30-Jan-14	Potter	Confirmed agreement with assessment and report on behalf of EU
30-Jan-14	Chaput	Confirmed agreement with assessment and report on behalf of Canada
30-Jan-14	Kærgaard	Confirmed agreement with assessment and report on behalf of Denmark (in respect of the Faroe Islands and Greenland)
31-Jan-14	Saunders	Agreed Report of FWI-Working Group sent to Peter Hutchinson, NASCO

Annex 4. Data inputs to Indicator Framework for 2008-2010, 2012, and 2013 (including comments by data providers).

Contact / Contacte	Geographic Area / Région	River and Indicator / Rivière et indicateur	Units / Unités	2008	2009	2010	2012	2013	Comments from data providers for 2013
Rory Saunders	USA	Penobscot 2SW Returns	Number of 2SW fish (wild & hatchery)	1,377	1757	861	600	319	
		Penobscot 1SW Returns	Number of 1SW fish (wild & hatchery)	736	197	435	13	57	
		Penobscot 2SW Survival (%)	Return rate (%) of hatchery smolts to 2SW fish	0.24	0.30	0.16	0.094	0.049	
		Penobscot 1SW Survival (%)	Return rate (%) of hatchery smolts to 1SW fish	0.12	0.04	0.07	0.001	0.01	
		Narraguagus Returns	Number of fish all ages and sizes	23	38	75	17	21	
Jamie Gibson (DFO)	Scotia-Fundy	Saint John Return Large	Number of large salmon (wild)	143	337	275	71	101	
or		Lahave Return Large	Number of large salmon (wild)	192	103	103	76	111	
Ross Jones (DFO)		St. Mary's Return Large	Number of large salmon (wild)	65	99	26	NA	NA	No St. Mary's adult assessment conducted in 2013
or		Baddeck Return Large	Number of large salmon (wild)	129	134	202		excluded	
Alex Levy (DFO)		North Return Large	Number of large salmon (wild)	454	468	343	240	260	Preliminary estimate based on recreational catch data (database queried on Jan. 21).
		Saint John Survival Hatchery 2SW (%)	Return rate (%) of hatchery smolts to 2SW fish	0.05	0.14	0.13	0.066	0.017	
		Saint John Survival Hatchery 1SW (%)	Return rate (%) of hatchery smolts to 1SW fish	0.70	0.13	0.14	0.017	0.666	
		Saint John Return 1SW	Number of small salmon (wild)	796	437	1708	48	214	
		LaHave Return 1SW	Number of small salmon (wild)	1,158	327	586	55	76	
		St. Mary's Return 1SW	Number of small salmon (wild)	656	265	137	NA	NA	No St. Mary's adult
		North Return 1SW	Number of small salmon (wild)	176	95	73		excluded	
		Lahave Survival 2SW (%)	Return rate (%) of hatchery smolts to 2SW fish					excluded	
		Lahave Survival 1SW (%)	Return rate (%) of hatchery smolts to 1SW fish					excluded	
		Liscomb Survival Hatchery 2SW (%)	Return rate (%) of hatchery smolts to 2SW fish					excluded	
		East Sheet Harbour Hatchery Survival 2	Return rate (%) of hatchery smolts to 2SW fish					excluded	
Scott Douglas (DFO)	Gulf	Miramichi Return 2SW	Number of 2SW fish	11,500	13,100	8,517	9,500	8653	69% 2SW in 2013 from 12,540
		Miramichi Return 1SW	Number of 1SW fish	31,600	12,370	50,200	8,000	11760	
		Margaree Return Small	Number of small salmon (all)	1,311	276	na		excluded	
Mélanie Dionne (MRNF)	Quebec	Cascapédia (Q1) Return Large	Retour de pluribermarin / number of large salmon	1,119	1,723	2,256	1999	2914	
		Bonaventure (Q1) Return Large	Retour de pluribermarin / number of large salmon	753	1,430	1,851	1001	1226	
		Grande Rivière (Q2) Return Large	Retour de pluribermarin / number of large salmon	337	442	577	261	433	
		Saint-Jean (Q2) Return Large	Retour de pluribermarin / number of large salmon	605	722	898	530	786	
		Dartmouth (Q2) Return Large	Retour de pluribermarin / number of large salmon	348	653	580	661	926	
		Madeleine (Q3) Return Large	Retour de pluribermarin / number of large salmon	623	620	620	737	1060	
		Sainte-Anne (Q3) Return Large	Retour de pluribermarin / number of large salmon	584	632	731	571	348	
		Mitis (Q3) Return Large	Retour de pluribermarin / number of large salmon	464	945	470		excluded	
		De la Trinite (Q7) Return Large	Retour de pluribermarin / number of large salmon	328	216	258	285	226	
		Godbout Return Large	Retour de pluribermarin / number of large salmon				598	N/D	non disponible
		York (Q2) Return Return Large	Retour de pluribermarin / number of large salmon				1211	1295	
		Grande Rivière (Q2) Return Small	Retour de madeleineau / return of small salmon				112	172	
		Saint-Jean (Q2) Return Small	Retour de madeleineau / return of small salmon				171	180	
		Godbout Return Small	Retour de madeleineau / return of small salmon				273	N/D	non disponible
		De la Trinite (Q7) Return Small	Retour de madeleineau / return of small salmon				263	172	
		De la Trinite (Q7) Survival Large (%)	Taux de retour redibermarin (%) / return rate (%) large salmon				0.62	0.34	
		De la Trinite (Q7) Survival Small (%)	Taux de retour (%) madeleineau / return rate (%) small salmon				0.60	0.38	
		Saint-Jean (Q2) Survival Small (%)	Taux de retour (%) madeleineau / return rate (%) small salmon				0.38	0.44	
Geoff Veinott (DFO)	Newfoundland	Terra Nova Return Small	Number of small salmon (wild)	3,575	2,503	4,147		excluded	
		Exploits Return Small	Number of small salmon (wild)	31,823	32,252	39,130	25349	29401	Exploits 29041, Middle Brook 2623, Gander 24691, and Torrent 2016
		Middle Brook Return Small	Number of small salmon (wild)	2,167	1,842	2,574	2828	2623	
		Gander Return Small	Number of small salmon (wild)	22,442	18,883	23,184	22652	24691	As noted before Gander is not counted directly but estimated from a tributary and therefore large error bars on that estimate. We may be dropping Salmon Brook next year
		Torrent Return Small	Number of small salmon (wild)	5,847	2,758	4,861	3950	2016	On Torrent this year we had 44% of the run in the large category so the number of small (2016) is not representative of the total run size. We will be looking into this in the spring to be sure it is not a problem with the camera system
		Western Arm Brook Survival Small (%)	Return rate (%) of wild smolts to small salmon	11.6	6.1	9.6		excluded	

Annex 5. Indicator Framework sheet with 2013 analysis.

	Catch Advice	Catch option > 0 (Yes = 1, No = 0)			0						
	Overall Recommendation										
	No Significant Change Identified by Indicators										
Geographic Area	River/ Indicator	**2013**	Ratio Value to Threshold	Threshold	True Low	True High	Indicator State	Probability of Correct Assignment	Indicator Score	Management Objective Met?	Comment 2013
USA	Penobscot 2SW Returns	319	23%	1415	100%	92%	-1	1	-1		
	Penobscot 1SW Returns	57	15%	377	83%	88%	-1	0.83	-0.83		
	Penobscot 2SW Survival (%)	0.049	21%	0.23	100%	60%	-1	1	-1		
	Penobscot 1SW Survival (%)	0.01	11%	0.09	85%	73%	-1	0.85	-0.85		
	Narraguagus Returns	21	21%	100	95%	61%	-1	0.95	-0.95		
	possible range				*-0.93*	*0.75*					
	Average		18%						**-0.93**	**No**	
Scotia-Fundy	Saint John Return Large	101	3%	3,329	96%	100%	-1	0.96	-0.96		
	Lahave Return Large	111	39%	285	77%	85%	-1	0.77	-0.77		
	St. Mary's Return Large			221	100%	73%					No assessment
	North Return Large	260	37%	712	95%	67%	-1	0.95	-0.95		
	Saint John Return 1SW	214	9%	2,276	86%	80%	-1	0.86	-0.86		
	LaHave Return 1SW	76	5%	1,679	94%	67%	-1	0.94	-0.94		
	St. Mary's Return 1SW			2,038	95%	93%					No assessment
	Saint John Survival 2SW (%)	0.02	8%	0.22	95%	81%	-1	0.95	-0.95		
	Lahave Survival 2SW (%)			0.24	81%	81%					Excluded
	Saint John Survival 1SW (%)	0.67	88%	0.76	86%	73%	-1	0.86	-0.86		
	Lahave Survival 1SW (%)			1.44	92%	78%					Excluded
	Liscomb Survival 2SW (%)			0.05	86%	91%					Excluded
	East Sheet Harbour Survival 2SW (%)			0.02	67%	82%					Excluded
	possible range				*-0.90*	*0.79*					
	Average		27%						**-0.90**	**No**	
Gulf	Miramichi Return 2SW	8,653	55%	15,800	100%	85%	-1	1	-1		
	Miramichi Return 1SW	11,760	28%	41,790	89%	67%	-1	0.89	-0.89		
	possible range				*-0.95*	*0.76*					
	Average		41%						**-0.95**	**No**	
Quebec	Cascapédia Return Large	2914	128%	2,280	69%	92%	1	0.92	0.92		
	Bonaventure Return Large	1226	83%	1,479	75%	81%	-1	0.75	-0.75		
	Grande Rivière Return Large	433	98%	442	100%	94%	-1	1	-1		
	Saint-Jean Return Large	786	104%	758	86%	89%	1	0.89	0.89		
	Dartmouth Return Large	926	122%	756	86%	89%	1	0.89	0.89		
	Madeleine Return Large	1060	162%	653	70%	93%	1	0.93	0.93		
	Sainte-Anne Return Large	348	80%	433	67%	88%	-1	0.67	-0.67		
	Godbout Return Large			641	86%	100%					non disponible
	De la Trinite Return Large	226	59%	385	75%	100%	-1	0.75	-0.75		
	York Return Return Large	1295	92%	1405	63%	83%	-1	0.63	-0.63		
	Grande Rivière Return Small	172	86%	199	59%	80%	-1	0.59	-0.59		
	Saint-Jean Return Small	180	46%	394	53%	80%	-1	0.53	-0.53		
	Godbout Return Small			508	85%	92%					non disponible
	De la Trinite Return Small	172	43%	399	89%	83%	-1	0.89	-0.89		
	De la Trinite Survival Large (%)	0.34	69%	0.49	88%	96%	-1	0.88	-0.88		
	De la Trinite Survival Small (%)	0.38	26%	1.49	63%	89%	-1	0.63	-0.63		
	Saint-Jean Survival Small (%)	0.44	61%	0.72	100%	64%	-1	1	-1		
	possible range				*-0.76*	*0.87*					
	Average		84%						**-0.31**	**No**	
Newfoundland	Exploits Return Small	29401	118%	24,924	83%	56%	1	0.56	0.56		
	Middle Brook Return Small	2623	140%	1,868	84%	63%	1	0.63	0.63		
	Gander Return Small	24691	133%	18,521	79%	63%	1	0.63	0.63		
	Torrent Return Small	2016	49%	4,154	94%	64%	-1	0.94	-0.94		
	possible range				*-0.85*	*0.62*					
	Average		110%						**0.22**	**Yes**	
Labrador											
	possible range										
	Average								**NA**	**Unknown**	
Southern NEAC											
	possible range										
	Average								**NA**	**Unknown**	