

## Canada's progress towards completing commitments to implement the Sustainable Fisheries Framework

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### Background

Canada's marine fisheries are highly valuable: they are a major driver of our economy, shape our culture and sustain our coastal communities. It is important that they are managed well, in ways that support conservation and sustainable use. However, the 2016 audit by the Commissioner of the Environment and Sustainable Development (CESD) conducted on behalf of the Office of the Auditor General found that although Fisheries and Oceans Canada (DFO) had identified key elements necessary for successful management in its Sustainable Fisheries Framework (SFF; DFO 2016), it had failed to put these elements in place for many major stocks (CESD 2016).

A key tool for successful management is the Integrated Fisheries Management Plan (IFMP). An IFMP is both a process and a document, with the primary goal of providing the framework for conservation and sustainable use of fisheries resources, outlining how they will be managed for a given period of time (DFO 2013a). IFMPs are developed by DFO in consultation with the fishing industry, other stakeholders and partners such as Indigenous organizations and the provinces (CESD 2016, DFO 2013a). The CESD audit found that IFMPs were lacking or out of date for nearly a third of stocks examined, and those that were in place had vague objectives to measure how well DFO was managing the stocks and were most often not publicly available (CESD 2016).

Rebuilding plans are an extension of the IFMP process and document the objectives, timelines and management measures that are specific to growing depleted stocks out of the critical zone (DFO 2013b). Although they have been required by policy for depleted stocks since 2009 (DFO 2009), the CESD audit found rebuilding plans were missing for almost all critical zone stocks, increasing the risk that they may not recover (CESD 2016).

To successfully manage stocks, it is important to know how healthy they are. DFO does this by conducting stock assessments, where stock health status is determined, which in turn influences fisheries management decisions, such as catch limits. DFO has established three health status zones: the healthy zone; cautious zone; and critical zone, where serious harm is occurring to the stock (DFO 2009). Health status zones are created by defining a Limit Reference Point (LRP) at the boundary of the critical and cautious zones and an Upper Stock Reference point (USR) at the boundary of the cautious and healthy zones (Figure 1, DFO 2009). According to departmental policy for implementing the Precautionary Approach (PA) in fisheries management, all major fish stocks need reference points to be defined as well as harvest strategies or harvest control rules (HCR) that outline a pre-agreed approach to management in each health status zone (DFO 2009). The CESD audit found that, in part because of data availability and quality issues, DFO could not always define the reference points needed to assign health status zones, and reference points were missing for over half of the stocks examined (CESD 2016). Further, management measures for each health status zone were undefined for nearly half of the stocks, meaning that if stock health declines, management measures would be ad hoc, rather than planned (CESD 2016).

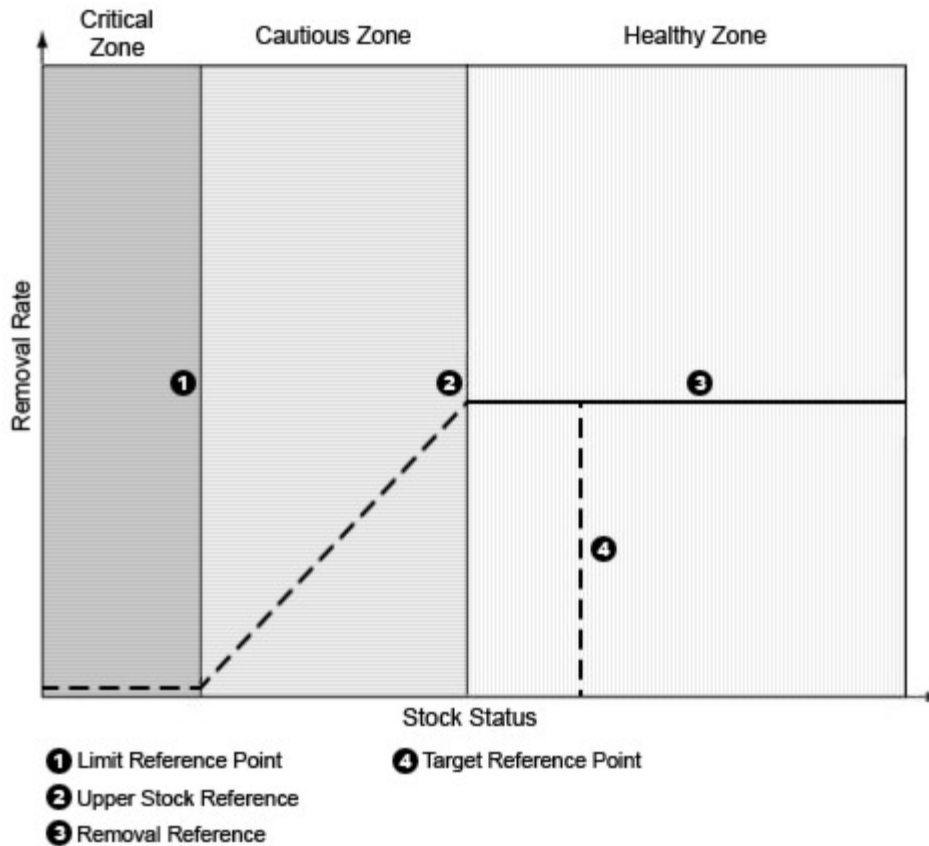


Figure 1. DFO's Precautionary Approach Framework establishes critical, cautious and healthy zones, determined by the Limit Reference Point (LRP), Upper Stock Reference Point (USR), Removal Reference Point (F) and Target Reference Point (TRP) (DFO 2009).

Considering these findings, the CESD made the following recommendations (among others), to which DFO responded:

**CESD Recommendation (2.28):** “Fisheries and Oceans Canada should set out priorities, targets, and timelines for putting in place Integrated Fisheries Management Plans for all major fish stocks. These should include long-term, specific, measurable objectives, performance reviews, and rebuilding plans for stocks in the critical zone that are still being fished. These plans should also be made publicly accessible.” CESD (2016).

**DFO response:** “Agreed. Fisheries and Oceans Canada will develop a plan with priorities, targets, and timelines for completing Integrated Fisheries Management Plans (IFMPs) for all major stocks that currently do not have these plans, and for updating existing plans that are out of date. Development of the IFMPs will be consistent with the Departmental guidance on IFMPs, which includes a requirement for clear fishery objectives and a performance review. The Department’s plan will include priorities and timelines for making IFMPs not already posted accessible to the public through the Departmental website. The Department will also develop a plan with priorities, targets, and timelines for completing rebuilding plans that are in line with the Department’s Guidance for the Development of Rebuilding Plans under the Precautionary Approach Framework for stocks that are in the critical zone. The Department will develop both plans by the end of the 2016–17 fiscal year.” (CESD 2016).

**CESD Recommendation (2.63):** “Fisheries and Oceans Canada should set out priorities and timelines for establishing the reference points at which the major stocks it manages can be considered healthy, in the cautious zone, or in the critical zone.” (CESD 2016).

**DFO response:** “Agreed. Fisheries and Oceans Canada will develop a plan with priorities, targets, and timelines for establishing precautionary approach reference points, where technically feasible, for key stocks under the Department’s management control, where the reference points do not exist. A plan will be developed by the end of the 2016–17 fiscal year.” (CESD 2016).

**CESD Recommendation (2.65):** “Fisheries and Oceans Canada should set out priorities and timelines for identifying the measures to be taken if a major stock falls below a certain level, where this has not yet been done, so that sustainable fishing limits can be determined with greater certainty.” (CESD 2016).

**DFO response:** “Agreed. Fisheries and Oceans Canada will develop a plan with priorities, targets, and timelines for establishing precautionary approach harvest control rules, where technically feasible, for key stocks under its management control, where the harvest control rules do not exist. The plan will be developed by the end of the 2016–17 fiscal year.” (CESD 2016).

In late November of 2017, DFO released a plan in response to the above recommendations (DFO 2017a). It included three work plans: 1) to develop PA-compliant reference points and HCRs for major stocks, 2) to develop rebuilding plans for depleted stocks that lacked plans, and 3) to complete IFMPs for the major fish stocks that currently do not have one, to update IFMPs as needed, and to make IFMPs accessible via the DFO website. Each work plan listed the stock or stock group, the DFO administrative region responsible for it and a description of deliverables for fiscal year 2017/18. DFO also committed to updating the three work plans at the end of 2017/18 fiscal year with new priority actions to be undertaken in the 2018/19 fiscal year, which was done and released in late March 2018 (DFO 2017a, DFO 2018).

This report assesses progress towards the 2017/18 work plan deliverables, outlines the 2018/19 deliverables and discusses how completion of all work plans would improve the management of Canada’s marine fish and invertebrate stocks.

## Methods

All deliverables for each stock in the three work plans in the 2017/18 response were assigned a completion status as of July 1<sup>st</sup>, 2018 by searching for information in Canadian Science Advisory Secretariat (CSAS) website (e.g., published reports or schedule for the development of reference points) and departmental websites (e.g., for new or updated IFMPs and rebuilding plans) and by personal communication with Department officials. One of four completion statuses were assigned to each deliverable:

1. **Completed:** Deliverable met and in publicly available documentation. Because it is important that fisheries management and scientific information in support of fisheries management is transparent and publicly accessible, we required evidence of the ultimate deliverable completion (i.e., HCR, LRP, IFMP or rebuilding plan) in publicly available documentation (i.e., management plans, science reports) but acknowledge that work plans did not always commit to publication. Note there was no attempt made to assess the quality of the deliverable.<sup>1</sup>
2. **Delayed:** Deliverable not completed by deadline date, or deadline date pushed forward as indicated in the 2018/19 work plans.
3. **Suspended:** Deliverable progress halted and unclear if progress will continue.
4. **Ongoing:** Progress is still assumed to be ongoing and deadline date has not passed.

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<sup>1</sup> For an assessment of rebuilding plan quality, please see Oceana Canada (2018a).

The assessment of completion status for the deliverables in each work plan was summarized by noting the 2017/18 and 2018/19 fiscal year ultimate deliverable product (i.e., IFMP, rebuilding plan, LRP or HCR) by stock (or stock group), with deliverable descriptions, completion status and details on progress. Progress towards ultimate completion of some deliverables was broken down into steps by DFO, and several stocks appear in both the 2017/18 fiscal year and the 2018/19 fiscal year plans. In some instances, the 2018/19 work plan indicated the work was not completed as called for in 2017/18, so we have assigned these stocks or stock groups a completion status of *delayed*. In other instances, the 2017/18 work plan indicated progress would be made toward the ultimate product in that fiscal year but the deliverable would not be completed, and further work is outlined in the 2018/19 work plan (e.g., DFO made a commitment to develop an IFMP in 2017/18, with a further commitment in 2018/19 to post it online). In these situations a completion status of *ongoing* was assigned. In the work plans outlining the development of LRPs, one category of deliverables indicated stocks where work would be done to begin to develop LRPs, implying it may not be completed. In these instances, if the stock did not reappear in the 2018/19 work plan, completion status was assessed against any date mentioned in the deliverable description or the end of the 2017/18 fiscal year, whichever was later. All stock definitions remain as they appear in the DFO work plans (DFO 2017a, DFO 2018), unless otherwise noted.

To assess how completion of all work plans (in both 2017/18 and 2018/19) would improve the management of Canada's marine fish and invertebrate stocks,<sup>2</sup> we used our 2018 Fishery Audit dataset of index stocks (Oceana Canada 2018b) to assess how the following indicators would improve:

1. Percentage of stocks with LRPs
2. Percentage of stocks included in IFMPs
3. Percentage of critical zone stocks with rebuilding plans

We found all stocks in our index stock dataset that were also included in the work plans and adjusted the relevant indicator fields as required when assuming the work was completed. Please note that the DFO fiscal year work plans include freshwater, anadromous and marine mammal stocks, which are excluded from our audit of marine fish and invertebrate stocks.

## Results

DFO did not complete<sup>3</sup> most of the deliverables outlined in the 2017/18 fiscal year work plans (see Table 1). Out of all 2017/18 deliverables (n = 44 deliverables), only 25 per cent (11) were completed, 23 per cent (10) are still ongoing as expected, 48 per cent (21) are delayed and 5 per cent (2) are suspended (Table 1). The most progress was made in completion of deliverables related to IFMPs in work plan 3 (27 per cent completed), while the most delays or suspensions occurred in the completion of deliverables related to rebuilding plans in work plan 2 (80 per cent delayed or suspended).

Work plan 1, pertaining to the development of PA-compliant reference points and HCRs, outlined a total of 17 stocks with deliverables that would be completed in fiscal year 2017/18.<sup>4</sup> Overall, only 24 per cent were completed (one stock had an LRP developed and three stocks had work done to revise or begin to develop LRPs), 24 per cent have work ongoing (four stocks have work ongoing to revise or begin to develop LRPs) and 53 per cent are delayed (work to develop LRPs for three stocks, to revise or begin to develop LRPs for one stock and to develop or evaluate HCRs for five stocks) (Table 1; see Table 2 for details on deliverables by stock).

<sup>2</sup> Excluding marine mammals, anadromous fish and freshwater fish

<sup>3</sup> The definition of completion used here (i.e., description in public document) and the unit of assessment (i.e., ultimate product; the final IFMP, rebuilding plan, LRP, or HCR per stock/stock group) differs from DFO internal reporting on work plans (i.e., interim steps towards ultimate products evaluated regardless of public documentation, with multiple steps per stock/stock group), which combined with differing evaluation end dates (i.e., July 1<sup>st</sup> versus March 31<sup>st</sup>) may result in different statistics regarding deliverable completion.

<sup>4</sup> The 2017/18 work plan 1 indicated four stocks would have LRPs developed, eight stocks would have work done to revise or begin to develop LRPs and five stocks would have work done to develop or evaluate HCRs

Work plan 2, pertaining to the development of rebuilding plans for depleted stocks, indicated that DFO prioritized 19 stocks for inclusion in rebuilding plans. DFO indicated it would complete, or come close to completing, five rebuilding plans and make progress to complete plans for three other stocks in the 2017/18 fiscal year. Completion status determinations were only assessed for the deliverables of the five stocks slated to be completed by the end of June 2018. Overall, only 20 per cent of work plan 2 deliverables were completed (one stock has a new rebuilding plan, available online), with 40 per cent delayed (two stocks) and 40 per cent suspended (two stocks) (Table 1; see Table 3 for details on deliverables by stock).

Work plan 3, pertaining to completion, updating and publication of IFMPs, outlined a total of 22 stock groups with deliverables in 2017/18.<sup>5</sup> Overall, only 27 per cent of deliverables were completed, with six stock groups now having up-to-date IFMPs available online, 27 per cent (6 stock groups) have work ongoing to complete and post IFMPs, and 46 per cent (10 stock groups) are delayed in completing and posting IFMPs (Table 1; see Table 4 for details on deliverables by stock).

If all deliverables outlined in both fiscal year work plans (2017/18 and 2018/19) are completed, the percentage of marine fish and invertebrate stocks included in our Fishery Audit index dataset with LRPs would increase from 59.8 per cent to 70.6 per cent, the percentage of stocks included in IFMPs would increase from 74.2 per cent to 85.1 per cent and only four stocks that are already included in IFMPs would still need to be posted online. Finally, the percentage of critical zone stocks with rebuilding plans would increase from 11.5 per cent to 53.8 per cent.

## Discussion

DFO can be commended for meeting the CESD audit (2016) recommendations of setting priorities, targets and timelines for putting in place IFMPs, rebuilding plans, reference points and harvest strategies for all major fish stocks and making this plan public (recommendations 2.28, 2.63 and 2.65). This is a big step towards increased transparency in fisheries management in Canada, making clear what the priorities are and when we can expect improvements. This is especially notable given that the CESD audit (2016) found DFO did not even have an up-to-date list of IFMPs, either centrally or within the regions, to readily provide a list of all completed plans or the status of those uncompleted. The lack of an up-to-date list of IFMPs may have been a contributing factor as to why the plan was made public on November 30<sup>th</sup>, 2017 (DFO 2017a), eight months later than stated in DFO's response to the CESD audit (end of fiscal 2016/17; CESD 2016) and rather close to the end of the end of the fiscal year for which it was made (2017/18 fiscal year). DFO met its commitment to update this plan annually, and the timing of the 2018/19 fiscal year work plan release was appropriate, just before the start of the fiscal year for which it was made (March 26<sup>th</sup>, 2018; DFO 2018).

DFO agreed with all the audit recommendations (CESD 2016), and it is expected it will meet the other commitments made in its responses, in addition to those that are the focus of this report (i.e., finalize a national policy on fisheries monitoring). To fully meet recommendation 2.63 pertaining to reference points, DFO needs to include in work plans the development of USRs in addition to LRPs. Without a USR there is no boundary to mark the separation between the healthy and cautious zone, meaning the status of many stocks remains uncertain and managers must continue to make decisions without this important benchmark. Furthermore, for those stocks that are not doing well, without a USR there is no benchmark for rebuilding to a healthy state.

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<sup>5</sup> The 2017/18 work plan 3 indicated seven stock groups would be included in new IFMPs, nine stock groups would have their IFMPs updated, and 12 stock groups would have their IFMPs made available on the departmental website. Five stock groups were listed in both the IFMP development or update section and the online publication section, and one stock was mistakenly listed twice in separate regions (4RST Greenland Halibut in both Gulf and Quebec region), for a total of 22 stock groups with work to be completed in 2017/18.



The development of IFMPs, rebuilding plans, reference points and HCRs are not insignificant tasks. IFMPs and rebuilding plans are developed in close collaboration with the rightsholders and stakeholders, while LRPs are defined by scientists and are peer reviewed in processes scheduled by the CSAS. It is not surprising DFO did not meet all anticipated deliverables, however it is concerning that it was able to complete only 25 per cent of the 2017/18 work plan deliverables. Presumably, DFO evaluated the work required when developing the work plan prior to release and would only include realistic estimates. In fact, much work on many of the deliverables had already been initiated prior to the 2017/18 fiscal year,<sup>6</sup> and one of the completed deliverables even appears to have been completed prior to the work plan publication.<sup>7</sup>

All elements to be developed in the work plans are part of the SFF, which was intended to be implemented over time starting in 2009 (DFO 2016).<sup>8</sup> Significant progress has been made to implement the framework, but nearly a decade later much work remains. Over 40 per cent of marine fish and invertebrate stocks still require LRPs, over half still need USRs, over a quarter still require inclusion in IFMPs, and nearly 90 per cent of critically depleted stocks still lack a rebuilding plan (Oceana Canada 2018b). DFO has clearly laid out its priorities; it now must complete them and fully implement the SFF.

It is most concerning that the least amount of progress was made with rebuilding plans. Rebuilding plans are vital to restoring the health of Canada's oceans and maintaining and strengthening our coastal communities that depend on them. DFO can be commended for committing to develop rebuilding plans for 19 stocks, some of which are in the cautious zone and declining. However, only one of five committed rebuilding plans were completed and posted online by the end of June 2018. The yelloweye rockfish inside population was added to the multi-species Pacific groundfish rebuilding plan, which, although not available directly by navigating the departmental website, is available via a search of the federal science library. Transparency could be improved by including at least a summary of the rebuilding plan with the IFMP summary, to which the rebuilding plan is an appendix.

Two other rebuilding plans had significant progress in 2017/18 but were either not approved (northern shrimp in Shrimp Fishing Area 6) or are yet to be posted online (Atlantic cod in NAFO 4X5Y). It appeared as though the other two rebuilding plans were likely to take the form of one plan encompassing both redfish species in units 1 and 2 combined. But DFO announced at the newly formed Redfish Advisory Group meeting in early May that it will no longer be pursuing a rebuilding plan for these redfish stocks, citing that according to newly revised reference points, both species are now out of the critical zone in units 1+2 and a plan is not required by policy. This change in biomass is largely due to a few recent large cohorts (2011–13), and Acadian redfish remain in the cautious zone. Currently, there is no fisheries management plan (rebuilding plan or IFMP) that covers both species in the entire stock area. Clearly, these stocks need a management plan to guide a rebuilding fishery.

Three further plans are expected by the end of fiscal year 2018/19 (Atlantic cod in NAFO 2J3KL, Atlantic cod in NAFO 5Zjm and yellowtail flounder in NAFO 5Z). With the majority of the work on rebuilding plans outlined in both fiscal year work plans to occur in later years (i.e., by 2021), it is important that DFO intensifies efforts to make the resources available to work on developing robust and meaningful rebuilding plans (for an assessment of developed rebuilding plans, see Oceana Canada (2018a)).

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<sup>6</sup> For example, reference points for eels and elvers in the Maritime region were discussed at a CSAS process in October 2016.

<sup>7</sup> The inshore scallop IFMP in the Maritimes region was indicated as a new IFMP development as there was not one previously. A new IFMP with an effective date of 2015 was posted on the DFO website on February 9, 2017, prior to fiscal year 2017/18.

<sup>8</sup> Many components of the framework, such as reference points, have been part of policy in some regions prior to 2009 (e.g., since 2004 as part of the Atlantic Fisheries Policy Review — A Policy Framework for the Management of Fisheries on Canada's Atlantic Coast (DFO 2004)).

More time should be taken to closely review the work plans for consistency, both within the fiscal year and from year to year. The 2018/19 work plans appropriately acknowledge some of the uncompleted 2017/18 deliverables,<sup>9</sup> but other uncompleted deliverables were not acknowledged.<sup>10</sup> There were also some contradictions among deliverable descriptions within fiscal year work plans,<sup>11</sup> errors in intended stock definitions<sup>12</sup> and one instance of duplicate deliverables.<sup>13</sup> Further, there were instances of differing stock definitions<sup>14</sup> and inconsistencies in listing all stocks within a stock group in the IFMP work plans,<sup>15</sup> making it unclear what stock area or stock group is covered by the work plan or how the stocks are managed. Finally, not all stocks included in the work plans are listed as major stocks included in the 2016 results of the Sustainability Survey for Fisheries (DFO 2017b). It is encouraging to see DFO allocate resources to minor stocks, but if a stock is important enough to be included in work outlined in the work plans, it likely should be included in the survey; after all, the definition of major stocks is rather flexible and not always consistently applied among regions<sup>16</sup> (DFO 2017b).

The 2017/18 work plan deliverable descriptions include work to be done in 2018/19, and the 2018/19 work plans update many of the next steps to be taken and outline further work on new stocks. If both plans were completed, it would result in important increases in the percentage of marine fish and invertebrate stocks with these important management elements. The percentage of stocks with LRPs and percentage included in IFMPs would both increase by over ten percentage points, and nearly all developed IFMPs would be available online. Importantly, the number of critical zone stocks included in rebuilding plans would rise from just under 12 per cent to just over 50 per cent.<sup>17</sup> It is encouraging to know that these improvements are underway.

Canada's marine fisheries are highly valuable and sustain our coastal communities, yet they are clearly in trouble, with only about one-third healthy (Oceana Canada 2018b). The fisheries management shortcomings in Canada have been identified, and the response by DFO has been promising. While the Department is still underperforming, priorities have been set and work plans developed. DFO needs to guarantee the work is completed and the Sustainable Fisheries Framework fully implemented, to ensure the stability of healthy fisheries and to promote the rebuilding of depleted stocks for the benefit of marine ecosystems, coastal communities and the fishing industry.

## References

1. Commissioner of the Environment and Sustainable Development (CESD) (2016). Report 2 – Sustaining Canada's Major Fish Stocks. Fisheries and Oceans Canada. [http://www.oag-bvg.gc.ca/internet/English/parl\\_cesd\\_201610\\_02\\_e\\_41672.html](http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201610_02_e_41672.html)

<sup>9</sup> For example, the Gulf of St. Lawrence groundfish IFMP was slated for development and posting online in 2017/18. The 2018/19 work plan acknowledges this was not completed and lists the IFMP for updating.

<sup>10</sup> For example, gaspereau in the Maritimes region were slated for LRP updating or development in the 2017/18 fiscal year work plan, but there has been no CSAS processes since 2016, LRPs are still lacking for some stocks, and no further work is outlined in the 2018/19 work plan.

<sup>11</sup> For example, in the 2017/18 work plan 1 pertaining to LRPs, the deliverable description for lobster in LFA 34 appropriately indicates that work is planned to refine LRP, but it goes on to indicate that following LRP refinement the IFMP will be updated by March 31, 2020, while the work plan 3 deliverable description pertaining to IFMPs indicates that the inshore lobster IFMP will be made accessible online, after completion, by March 31, 2018.

<sup>12</sup> For example, fall spawning herring in 4T captured by mobile gear is mistakenly listed in the 2017/18 work plan 1 as spring spawning mobile gear stock. (The spring spawning stock was already included in the same work plan.)

<sup>13</sup> Greenland halibut NAFO 4RST is included in promised IFMPs both in the Gulf and Quebec regions.

<sup>14</sup> For example, the 2017/18 work plan 1 has redfish in units 1 and 2 listed as units and species combined, whereas in work plan 2 they are listed as separate units.

<sup>15</sup> For example, in the 2017/18 work plan 3 all stocks to be included in the Gulf of St. Lawrence groundfish IFMP are listed. In the 2018/19 work plan 3, "Gulf of St. Lawrence Groundfish IFMP" is listed as a "fish stock," yet within the same work plan all stocks to be included in the 2-3KLLMNO groundfish IFMP are listed.

<sup>16</sup> For example, the *major stock* definition indicates stocks that have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as being threatened, endangered or of special concern will be included regardless of whether they are a targeted species or bycatch, yet some are missing (e.g., redfish in NAFO 23K are part of threatened populations, similarly Atlantic cod in NAFO 4VsW and NAFO 2GH are part of endangered populations).

<sup>17</sup> Assuming all rebuilding plans outlined in work plan 2 are completed, including those with deadlines in 2020/21.

2. DFO (2004). Atlantic Fisheries Policy Review — A Policy Framework for the Management of Fisheries on Canada's Atlantic Coast. <http://www.dfo-mpo.gc.ca/reports-rapports/regs/afpr-rppa/framework-cadre-eng.htm#toc7.2.4>
3. DFO (2009). A Fishery Decision-Making Framework Incorporating the Precautionary Approach. <http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/precaution-eng.htm>
4. DFO (2013a). Preparing an Integrated Fisheries Management Plan (IFMP). Guidance Document January 30, 2013. <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/guidance-guide/preparing-ifmp-pgip-elaboration-eng.htm>
5. DFO (2013b). Guidance for the Development of Rebuilding Plans under the Precautionary Approach Framework: Growing Stocks out of the Critical Zone. <http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/precautionary-precaution-eng.htm>
6. DFO (2016). Sustainable Fisheries Framework. <http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/overview-cadre-eng.htm>
7. DFO (2017a). Fisheries and Oceans Canada's Work Plans for Fiscal from 2017 to 2018 in Response to Recommendation 2.28, 2.63 and 2.65 in the Commissioner of the Environment and Sustainable Development's (CESD). <http://www.dfo-mpo.gc.ca/ae-ve/audits-verifications/16-17/work-plan-travail-eng.html>
8. DFO (2017b). Sustainability Survey for Fisheries. <http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/survey-sondage/index-en.html>
9. DFO (2018). Work Plans for Fiscal 2018-19. Fisheries and Oceans Canada's Work Plans for Fiscal 2018-19 in Response to Recommendation 2.28, 2.63 and 2.65 in the Commissioner of the Environment and Sustainable Development's (CESD) October 2016 Report 2 — Sustaining Canada's Major Fish Stocks — Fisheries and Oceans Canada. <http://www.dfo-mpo.gc.ca/ae-ve/audits-verifications/18-19/work-plan-travail-eng.html>
10. Oceana Canada (2018a). Assessing the Quality of Rebuilding Plans. <https://oceana.ca/fisheryaudit2018>
11. Oceana Canada (2018b). Fisheries Rebuilding Success Indicators: 2018. <https://oceana.ca/fisheryaudit2018>



## Tables

Table 1. **Summary of 2017/18 work plan deliverables completion.** Total number of deliverables and number of deliverables falling into each completion status category for the 2017/18 work plans. See Tables 2–4 for details on each work plan deliverable by stock or stock group.

2017/18 fiscal year work plan	Number of deliverables expected to be completed in 2017/18	Number of deliverables in each completion status category			
		Completed	Ongoing	Delayed	Suspended
Work plan 1; reference points and harvest control rules	17	4	4	9	0
Work plan 2; rebuilding plans	5	1	0	2	2
Work plan 3; Integrated Fisheries Management Plans	22	6	6	10	0
<b>TOTAL</b>	<b>44</b>	<b>11</b>	<b>10</b>	<b>21</b>	<b>2</b>

Table 2. **Work plan 1, reference points and harvest control rules:** Fisheries and Oceans Canada (DFO) prioritized stocks to have limit reference points (LRPs) developed, updated or revised and stocks to have harvest control rules (HCRs) developed or evaluated in 2017/18 (DFO 2017a). Some of this work continues in the 2018/19 work plan, where work was slated to develop, update or revise LRPs or HCRs for several additional stocks (DFO 2018a). The table below summarizes both work plans by stock with health status zone indicated<sup>18</sup> and status towards completion as assessed by Oceana Canada. Stocks noted as completed have new or revised LRPs or HCRs in documentation available online, stocks that have had deadlines shifted or remain uncompleted are noted as delayed, and stocks for which the deadline has not yet passed are noted as ongoing. (Please note: this table does not include any assessment of the quality of the completed deliverables.) Details on status determinations are provided for stocks with deadlines up to the end of fiscal 2017/18. Stocks appearing after the bold line separating rows appear only in 2018/19 work plan, whereas those above appear in 2017/18 only or both work plans. For in-table citations, see the table references section below.

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
1	Central and Arctic	Arctic char – Cumberland Sound; Healthy <sup>†</sup>	✓ <sup>2017/18</sup>			Develop LRP by March 31, 2018.		<b>Delayed</b>	Two CSAS processes were held in February 2017 to assess the stock status and sustainable harvest levels for Arctic Char in Ijaruvung Lake, Iqalujjuaq Fiord and Irvine Inlet, and Naulinniarvik Lake, Cumberland Sound, Nunavut. Although not indicated as a deliverable in the terms of

<sup>18</sup> Health status was assigned primarily using Oceana Canada's Fishery Audit dataset (Oceana Canada 2018), with † denoting assignments for marine mammals, anadromous fish and freshwater fish using the 2016 Sustainability Survey for Fisheries results (DFO 2016b) and †† denoting uncertain status assigned when stocks were not included in either dataset. Because some records represent multiple stocks that appear as more than one record in the datasets used to assign status, all unique statuses for stocks within stock groups are included when applicable.

<sup>19</sup> As stated in DFO work plans.

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
									reference for these processes (DFO 2017c, DFO 2017d), departmental officials indicate that the LRP for this stock(s) was developed but that the CSAS documents have not yet been posted as they are in the process of completing quality control and translation (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).
2	Gulf	Atlantic salmon – Gulf region; <b>Critical</b> <sup>†</sup>	✓ <sup>2017/18</sup>			Develop LRP by March 31, 2018.		<b>Completed</b>	River-specific LRPs were developed for the majority of rivers in the southern Gulf of St. Lawrence during a CSAS process held in February 2018, and details are available online in CSAS Science Response document (DFO 2018e).

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
3	Gulf	Atlantic herring – 4T fall spawner (fixed gear); <b>Cautious</b>			✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>	Harvest control rules will be evaluated and implemented by March 31, 2018.	FY 18-19: Meetings with working groups are planned to reconvene and to revisit HCR with stakeholders. The Herring 4T were previously noted for completion in 2017-18.	<b>Delayed</b>	As noted in the 2018/19 work plan, work to develop and implement an HCR was not completed and continues into 2018/19 (DFO 2018a). A CSAS process was held in March of 2018 to assess Atlantic herring ( <i>Clupea harengus</i> ) from the southern Gulf of St. Lawrence (NAFO Div. 4T-4Vn) to 2017 and provide advice for the 2018 and 2019 fisheries (DFO 2018f), but it did not evaluate HCRs. No further CSAS processes are currently scheduled for 2018/19.
4	Gulf	Atlantic herring – 4T fall spawner (mobile gear) <sup>20</sup> ; <b>Cautious</b>			✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>	Harvest control rules will be evaluated and implemented by March 31, 2018.	FY 18-19: implement HCR compliant with precautionary approach. The Herring 4T were previously noted for completion in 2017-18.	<b>Delayed</b>	As noted in the 2018/19 work plan, work to develop and implement an HCR was not completed and continues into 2018/19 (DFO 2018a). A CSAS process was held in March of 2018 to assess Atlantic herring ( <i>Clupea harengus</i> ) from the southern Gulf of St. Lawrence (NAFO Div. 4T-4Vn) to 2017 and to provide advice for the 2018 and 2019 fisheries (DFO 2018f), but it did not evaluate HCRs. No further CSAS processes are currently scheduled for 2018/19.

<sup>20</sup> this stock is incorrectly listed in the 2017/18 work plan 1 as 4T spring spawner (mobile gear), but departmental officials indicated it was meant to read 4T fall spawner (mobile gear) (M. Clemens, personal communication, June 7, 2018).

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
5	Gulf	Atlantic herring – 4T spring spawner; <b>Critical</b>			✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>	Harvest control rules will be evaluated and implemented by March 31, 2018.	FY 18-19: Meetings are planned with stakeholders to develop HCR. The Herring 4T were previously noted for completion in 2017-18.	<b>Delayed</b>	As noted in the 2018/19 work plan, work to develop and implement an HCR was not completed and continues into 2018/19 (DFO 2018a). A CSAS process was held in March of 2018 to assess Atlantic herring ( <i>Clupea harengus</i> ) from the southern Gulf of St. Lawrence (NAFO Div. 4T-4Vn) to 2017 and to provide advice for the 2018 and 2019 fisheries (DFO 2018f), but it did not evaluate HCRs. No further CSAS processes are currently scheduled for 2018/19.
6	Gulf	Lobster – Southern Gulf LFA 23, 24, 25, 26A, 26B; <b>Healthy</b>			✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>	Harvest control rules will be evaluated and implemented by March 31, 2018.	HCR to be implemented in FY 2018-19 pending approval. The Lobster Southern Gulf were previously noted for completion in 2017-18.	<b>Delayed</b>	As noted in the 2018/19 work plan, work to develop and implement an HCR was not completed and continues into 2018/19 (DFO 2018a). No CSAS processes for this stock were held in 2017. An update of indicators is scheduled for October 2018, but it is unclear if HCRs will be evaluated, as the terms of reference are not yet published.
7	Maritimes	American eel – Adult; <b>Uncertain†</b>	✓ <sup>2017/18</sup>			Develop LRP by March 31, 2018.		<b>Delayed</b>	A framework stock assessment for American eels and elvers was held in October 2016. The proceedings from the process indicate reference points were discussed but does not indicate a final decision was made (DFO 2017e).

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
									Departmental officials indicate a decision was made, no other developments have occurred since, and a CSAS report will be posted online in September which will indicate the LRPs for eels and elvers (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018). An assessment is indicated to occur for eels in summer 2018 on the CSAS schedule website ( <a href="http://www.isdm-gdsi.gc.ca/csas-sccs/applications/events-evenements/index-eng.asp">http://www.isdm-gdsi.gc.ca/csas-sccs/applications/events-evenements/index-eng.asp</a> ).
8	Maritimes	American eel – Elvers; Uncertain†	✓ <sup>2017/18</sup>			Develop LRP by March 31, 2018.		<b>Delayed</b>	A framework stock assessment for American eels and elvers was held in October 2016. The proceedings from the process indicate reference points were discussed but does not indicate a final decision was made (DFO 2017e). Departmental officials indicate a decision was made, no other developments have occurred since, and a CSAS report will be posted online in September which will indicate the LRPs for eels and elvers (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).



#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
9	Maritimes	Gaspereau – Maritimes region; Cautious†		✓ <sup>2017/18</sup>		Work planned to refine reference points based on new scientific information.		Delayed	Alewife ( <i>Alosa pseudoharengus</i> ) and blueback herring ( <i>Alosa aestivalis</i> ) are diadromous fish that are collectively referred to as river herring and are fished together as “gaspereau” (Gibson et al. 2016). In February 2016 a CSAS process was held, in part to determine how to develop reference points. An LRP was developed for alewife but not blueback herring (DFO 2016a). It is unclear if the work planned to refine the references points based on new information (or develop them, in the case of blueback) was completed, and no further CSAS processes have occurred or are scheduled. Departmental officials note that a Maritimes region gaspereau IFMP is in early stages of development, with completion anticipated in 2019 (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018), which should help clarify the status of reference points.

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
10	Maritimes	Lobster – Inshore LFA 27-33; Healthy		✓ <sup>2017/18</sup>		Refine LRP by March 31, 2018. Following this the IFMP will be updated by March 31, 2019.		Completed	New reference points were accepted at a framework meeting for LFAs 27–33 in January 2018, according to documents available from a stock status update process held in February 2018 (DFO 2018g). The documents expected to be published from the January meeting are still not available. The 2017/18 deliverables statement for this section of the work plan (work plan 1) indicates the IFMP will be updated by March 31 <sup>st</sup> , 2019, which contradicts the deliverables statement in the IFMP section of the work plan (work plan 3) for the same fiscal year, where it is stated that the inshore lobster IFMP was to be posted online in 2017/18 fiscal. This statement from the 2017/18 work plan is however consistent with the 2018/19 work plan.

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
11	Maritimes	Lobster – Inshore LFA 34; <b>Healthy</b>		✓ <sup>2017/18</sup>		Work planned to refine LRP. The work is expected to be finalized in the 2018 to 2019 fiscal year. Following this the IFMP will be updated by March 31, 2020.		<b>Ongoing</b>	Reference points will be refined at the next framework stock assessment, scheduled for winter 2019 (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018). Since the work is ongoing, it is unclear why this stock was not also included in the 2018/19 work plan. The 2017/18 deliverables statement for this section of the work plan (work plan 1) indicates the IFMP will be updated by March 31 <sup>st</sup> , 2019, which contradicts the deliverables statement in IFMP section of the work plan (work plan 3) for the same fiscal year, where it is stated that the inshore lobster IFMP was to be posted online in 2017/18 fiscal. This statement from the 2017/18 work plan is however consistent with the 2018/19 work plan.
12	Maritimes	Lobster – Inshore LFA 35–38; <b>Healthy</b>		✓ <sup>2017/18</sup>		Work planned to refine LRP. The work is expected to be finalized in the 2018 to 2019 fiscal year. Following this the IFMP will be updated by March 31, 2020.		<b>Ongoing</b>	Reference points will be refined at the next framework stock assessment, scheduled for winter 2019 (N. Schjott, personal communication, June 29, 2018). Since the work is ongoing, it is unclear why this stock was not also included in the 2018/19 work plan. The 2017/18 deliverables statement for this section of the work plan (work plan 1) indicates the

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
									IFMP will be updated by March 31 <sup>st</sup> , 2019, which contradicts the deliverables statement in IFMP section of the work plan (work plan 3) for the same fiscal year, where it is stated that the inshore lobster IFMP was to be posted online in 2017/18 fiscal. This statement from the 2017/18 work plan is however consistent with the 2018/19 work plan.
13	Maritimes	Lobster – Offshore LFA 41; <b>Healthy</b>		✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>		Refine LRP by March 31, 2018. Following this the IFMP will be updated by March 31, 2019.	Update on progress in developing the precautionary approach framework; update to reference points. Some minor updates and corrections. The Offshore Lobster were previously noted for completion in 2017-18.	<b>Completed</b> <sup>21</sup>	It is noted in the 2018/19 work plan that work to update reference points was not completed and continues into 2018/19 (DFO 2018a). However, two CSAS processes were held in 2017: a framework assessment in January and a stock assessment in September. The research document produced from the framework indicates that attempts to develop reference points based on biomass dynamic modelling were not possible at this time, but several survey and landings-based options to develop reference point indicators were developed (DFO 2017f). Four pairs of upper stock indicators and limit stock

<sup>21</sup> Reference points appear to have been refined according to published CSAS documents. Although the 2018/19 work plan indicates the work was not completed and more work is required, we assigned it the status of *completed* as work to begin to develop LRPs was clearly done and published.

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
									indicators were recommended. The second process assessed the stock against these reference indicators (DFO 2018h). A CSAS process is scheduled for October 2018 to update the stock status. According to the 2018/19 work plan, further minor updates and corrections remain to be conducted on reference points.
14	Newfoundland and Labrador and National Capital Region	Northern shrimp – SFA 0–7; <b>Critical</b> , <b>Healthy</b> , Uncertain		✓2017/18 ✓2018/19		New assessment model under development which may lead to the review of reference points.	SFA 4-6 only: Ongoing evaluation and potential revision of LRPs in FY 2018-19.	Ongoing	Two CSAS processes were held in February 2018. The first provided an update of the status of northern shrimp ( <i>Pandalus borealis</i> ) and striped shrimp ( <i>Pandalus montagui</i> ) in the Eastern and Western Assessment Zones (EAZ and WAZ, respectively, which combined cover the same areas as the former SFA 2 and 3), and striped shrimp in SFA 4. It does not appear that reference points were adjusted in this process, and they are still missing for striped shrimp in SFA 4 and for both species in the WAZ (DFO 2018i, DFO 2018j). The second process assessed northern shrimp in SFAs 4, 5 and 6, and the documentation produced indicates the values of the reference points were revised



#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
									slightly in 2018, in accordance with refinements in the biomass estimation method (DFO 2018k). Another CSAS process is scheduled for winter 2019 to conduct a stock assessment of northern shrimp in SFAs 4, 5 and 6, the EAZ and the WAZ, however this does not appear to be a framework assessment and therefore not likely to include a new model. It will likely evaluate the reference points, although the terms of reference are yet to be determined. Although the 2018/19 work plan only includes SFAs 4–6, the 2017/18 work plan indicates the revision of LRPs for SFAs 0–7. SFA 0 is assessed by NAFO, SFA 1 is assessed by NAFO and jointly managed by Canada and Greenland, while SFA 7 is assessed and managed by NAFO (DFO 2007) and has been closed to commercial fishing since 2015 (DFO 2016b). It remains to be seen how and if DFO Precautionary Approach reference points will be developed for these stocks.
15	Newfoundland and Labrador	Atlantic cod –2J3KL; <b>Critical</b>			✓2017/18 ✓2018/19	Current timelines anticipate being able to develop Harvest	Continued evaluation of HCR. The Atlantic	<b>Delayed</b>	As noted in the 2018/19 work plan, work to develop and implement an HCR was not

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
						Control Rules in 2017 to 2018 to inform the 2018 fishery management decisions. Targeting to complete work the 2018 to 2019 early fiscal year.	Cod 2J3KL were previously noted for completion in 2017-18.		completed and continues into 2018/19 (DFO 2018a). A working group made up of a subset of the 2J3KLMNO Groundfish Advisory Committee has been established and tasked with the development of a rebuilding plan and associated Harvest Control Rule. DFO presented a draft HCR at the most recent groundfish advisory meeting in April, but it was not finalized in time to inform the 2018 management decision.
16	Pacific	Coho salmon – southern inside; Uncertain <sup>††</sup>		✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>		Undertake work to refine reference points based on new science information.	Management reference points will be evaluated and implemented by March 31, 2019.	Ongoing	Work was undertaken in 2017/18 to refine reference points. A CSAS process was held in September 2017, in part to determine reference points for Canadian Pacific Salmon Treaty Southern Coho management units. The resulting documentation indicates that the determination of management reference points cannot be determined solely from the scientific advice provided and the ultimate choice of management reference points requires input from government, First Nations and stakeholders on acceptable probabilities of achieving conservation outcomes given known data

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
									gaps and uncertainties (DFO 2018). As noted in the 2018/19 work plan, work to evaluate and implement reference points continues into 2018/19 (DFO 2018a).
17	Quebec and National Capital Region	Acadian and deepwater redbfish – Units 1 and 2; <sup>22</sup> Cautious, Healthy		✓ <sup>2017/18</sup>		LRP refinements will be completed in conjunction with the management strategy evaluation (MSE), which is anticipated to be completed by late spring 2018.		Completed	The LRP for Acadian redbfish in units 1 and 2 combined were completed in conjunction with the MSE (DFO 2018m). The LRP for deepwater redbfish in units 1 and 2 combined were completed in conjunction with the MSE (DFO 2018m).
18	Central and Arctic	Arctic Char – Jayko Lake and Halovik River; Uncertain <sup>††</sup>	✓ <sup>2018/19</sup>				Develop limit reference points by March 31, 2019.	Ongoing	
19	Gulf	Sea scallop – Southern Gulf of St. Lawrence (SFA 21a, b, c, 22, 23, 24); Uncertain		✓ <sup>2018/19</sup>			FY 2018-19: Stock assessment schedule for May 2018. Present stock assessment and reference points to industry.	Ongoing	
20	Quebec	Greenland halibut (turbot) – 4RST; Cautious	✓ <sup>2018/19</sup>				The limit reference point is established and an upper stock reference point is suggested by science. The latter will be set in FY 2018-19	Ongoing	

<sup>22</sup> Included in 2017/18 work plan 1 as species combined, units combined.

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
							following discussions with fisheries management and industry.		
21	Maritimes	Dogfish – Atlantic Canada 4VWNX-5; Uncertain		✓2018/19			Update to limit reference points (for Atlantic Canada), if Science determines that a change needs to be made (LRP will be reviewed by Science in FY 2018-19).	Ongoing	
22	Maritimes	Atlantic cod – 4X5Y; Critical		✓2018/19			Update to limit reference points, if Science determines that a change needs to be made (LRP will be reviewed by Science in FY 2018-19).	Ongoing	
23	Maritimes	Atlantic herring – Maritimes region; Cautious, Uncertain	✓2018/19				Development of upper stock reference in 2018-19.	Ongoing	
24	Newfoundland and Labrador	Witch flounder – 2J+3KL; Critical	✓2018/19				Develop limit reference points by March 31, 2019	Ongoing	
25	Newfoundland and Labrador	Greenland Halibut (turbot) –	✓2018/19		✓2018/19		Ongoing evaluation and potential development of	Ongoing	

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/ evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
		2+3KLMNO; Uncertain					LRPs in FY 2018-19. Development of exceptional circumstances protocol (within NAFO) to monitor performance of recently adopted HCR.		
26	Newfoundland and Labrador	Snow Crab – 2J, 3KLNO and 3Ps; Uncertain		✓2018/19			Ongoing evaluation and potential development of LRPs in FY 2018-19.	Ongoing	
27	Newfoundland and Labrador	Lumpfish – 3KLPs; Uncertain		✓2018/19			Ongoing evaluation and potential development of LRPs in FY 2018-19.	Ongoing	
28	Newfoundland and Labrador	Monkfish – 3LNOPs; Cautious		✓2018/19			Ongoing evaluation and potential development of LRPs in FY 2018-19.	Ongoing	
29	Newfoundland and Labrador	Thorny skate –3LNOPs; Cautious		✓2018/19			Ongoing evaluation and potential development of LRPs in FY 2018-19.	Ongoing	
30	Newfoundland and Labrador	Haddock – 3Ps; Uncertain		✓2018/19			Ongoing evaluation and potential development of LRPs in FY 2018-19.	Ongoing	



#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
31	Newfoundland and Labrador	Witch flounder – 3Ps; <b>Healthy</b>	✓2018/19				Develop limit reference points by March 31, 2019.	<b>Ongoing</b>	
32	Newfoundland and Labrador	Capelin – 23KLPs; <b>Uncertain</b>		✓2018/19			Ongoing evaluation and potential development of LRPs in FY 2018-19.	<b>Ongoing</b>	
33	Pacific	Green sea urchin – Pacific region; <b>Healthy</b>		✓2018/19			Analysis of provisional limit reference points in FY 2018-19 for better alignment with the PA. Ongoing evaluation for fully PA compliant LRP possibly in 2020.	<b>Ongoing</b>	
34	Pacific	Pacific herring – Strait of Georgia; <b>Healthy</b> Pacific herring – West Coast of Vancouver Island; <b>Cautious</b>			✓2018/19		Development of upper stock reference points and evaluation of PA aligned HCR for West Coast of Vancouver Island and Strait of Georgia stocks in FY 2018–20	<b>Ongoing</b>	
35	Quebec	Snow crab – coastal (12A, 12B, 12C, 13, 14, 15, 16, 16A, 17); <b>Uncertain</b>		✓2018/19			Preliminary work on the development of reference points will be re-examined and a	<b>Ongoing</b>	

#	Region	Stock and health status zone	Develop LRP	Update or begin to develop LRP	Develop/evaluate HCR	2017/18 deliverables <sup>19</sup>	2018/19 deliverables <sup>19</sup>	Status	Details
							<p>new analysis of the dynamics of abundance cycles will be performed on units where biological information is more complete (i.e., Area 17). The analysis will be used to define the indicators used to determine reference points. The reference points will be determined in FY 2019-20.</p>		

**Table 3: Work plan 2, rebuilding plans:** Fisheries and Oceans Canada (DFO) has prioritized the development of rebuilding plans for 19 fish stocks. In the 2017/18 fiscal year work plan, DFO indicated it would complete, or come close to completing, five rebuilding plans (yelloweye rockfish – inside population, Atlantic cod – 4X5Y, redfish unit 1 and unit 2 and northern shrimp SFA 6) and make progress to complete plans for three other stocks (Atlantic cod – 2J3KL, Atlantic cod – 5Zjm and yellowtail flounder – 5Z; DFO 2017a). The 2018/19 work plan includes rebuilding plan commitments for the same 19 stocks, with updated deliverable descriptions (DFO 2018a). The table below summarizes both work plans and their associated deliverables by stock, with health status<sup>23</sup> and status towards completion as assessed by Oceana Canada. Stocks with completed rebuilding plans that are available online are noted as completed, stocks that have had deadlines shifted or remain uncompleted are noted as delayed, and stocks for which the deadline has not yet passed are noted as ongoing. (Please note: this table does not include any assessment of the quality of the completed plan.) Details on status determinations are provided for stocks noted to be completed or have significant progress made in 2017/18 fiscal year work plan. Stocks listed above the bold line were to be completed by the end of June 2018, while stocks below this line at later dates. For in-table citations, see the table references section below.

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
1	Pacific	Yelloweye rockfish – inside population; <b>Critical</b>	The rebuilding plan for the outside stock will be revised to include measures for yelloweye rockfish: inside.	By end of the 2017 to 2018 fiscal year.	Completed in 2017-18.	<b>Completed</b>	The yelloweye rockfish – inside population was added to the multi-species groundfish rebuilding plan that already included the outside population and Bocaccio. The rebuilding plan can be found as an appendix to the 2018 Pacific Groundfish IFMP, which is not posted on the DFO website in entirety but can be found via a search of the federal science library. This plan documents existing measures taken to minimize fishing mortality since 2012 and timelines, target and probabilities that appear to have been estimated at the last stock assessment, which used data up until 2009 (DFO 2011, DFO 2018b).
2	Maritimes	Atlantic cod – 4X5Y; <b>Critical</b>	Develop a rebuilding plan. The plan will document measures taken to minimise fishing mortality including the	By end of the 2017 to 2018 fiscal year.	Completed in 2017-18.	<b>Delayed</b>	A rebuilding plan was developed and approved (P. Doherty, personal communication, June 12 <sup>th</sup> , 2018), but is still not available online. It documents existing measures taken to

<sup>23</sup> Health status was assigned primarily using Oceana Canada’s Fishery Audit dataset (Oceana Canada 2018), with † denoting assignments for marine mammals, anadromous fish and freshwater fish using the 2016 Sustainability Survey for Fisheries results (DFO 2016b) and †† denoting uncertain status assigned when stocks were not included in either dataset. As some records represent multiple stocks that appear as more than one record in the datasets used to assign status, all unique statuses for stocks within stock groups are included when applicable.

<sup>24</sup> As stated in DFO work plans.

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
			harvest strategy and multiple year quotas.				minimize fishing mortality and does outline a generic harvest strategy but does not include multiple year quotas beyond those previously put in place for 2017/18 and 2018/19 (DFO 2018c).
3	National Capital Region	Acadian redfish – Units 1 and 2 <sup>25</sup> ; <b>Cautious</b>	By the end of March 2018: management strategy evaluation (MSE) will be available. The MSE is a simulation computer model that is used to make predictions about the stock status and to test different harvest strategies. By the end of April 2018: MSE and rebuilding plan will be tabled at special meeting of the Gulf Groundfish Advisory Committee (GGAC). By the end of May 2018: MSE and rebuilding plan will be submitted for approval.	June in the 2018 to 2019 fiscal year*  <a href="#">*previously committed to be completed by end of fiscal 2017/18</a>	<b>New deadline:</b> By end of 2018-19.  Management Strategy Evaluation (MSE) and rebuilding plan will be completed in 2018-19.	<b>Suspended</b>	The MSE process passed scientific peer review in late April (DFO 2018d) but was not implemented by management. At the newly formed Redfish Advisory Group meeting in early May, DFO announced it will no longer be pursuing a rebuilding plan for redfish in units 1 and 2. Based on reference points developed in the MSE, both species are now out of the critical zone in units 1 and 2 combined, so a plan is not required by policy. However, this is largely due to a few recent large cohorts (2011–13), and Acadian redfish remain in the cautious zone. DFO and industry recognize they need to figure out the best means to determine the species split in the catches, identify ways to mitigate impacts on small redfish, bycatch and habitat, and include a Harvest Control Rule to guide catch level decisions. How this will be done is not clear as currently there is no fisheries management plan (rebuilding plan or IFMP) that covers both species in the entire stock area.
4	National Capital Region	Deepwater redfish – Units 1 and 2	By the end of March 2018: management strategy evaluation (MSE) will be available. The MSE is a simulation computer model	June in the 2018 to 2019 fiscal year*	<b>New deadline:</b> By end of 2018-19.  Management Strategy Evaluation (MSE) and	<b>Suspended</b>	The MSE process passed scientific peer review in late April (DFO 2018d), but was not implemented by management. At the newly formed Redfish Advisory Group meeting in

<sup>25</sup> Included in 2017/18 and 2018/19 work plan 2 as species combined, unit 1 separate from unit 2.

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
		2 <sup>26</sup> ; Healthy	that is used to make predictions about the stock status and to test different harvest strategies. By the end of April 2018: MSE and rebuilding plan will be tabled at special meeting of the Gulf Groundfish Advisory Committee (GGAC). By the end of May 2018: MSE and rebuilding plan will be submitted for approval.	<a href="#">*previously committed to be completed by end of fiscal 2017/18</a>	rebuilding plan will be completed in 2018-19.		early May, DFO announced it will no longer be pursuing a rebuilding plan for redfish in units 1 and 2. Based on reference points developed in the MSE, both species are now out of the critical zone in units 1 and 2 combined, so a plan is not required by policy. However, this is largely due to a few recent large cohorts (2011–13), and Acadian redfish remain in the cautious zone. DFO and industry recognize they need to figure out the best means to determine the species split in the catches, identify ways to mitigate impacts on small fish, bycatch and habitat, and include a Harvest Control Rule to guide catch level decisions. How this will be done is not clear as currently there is no fisheries management plan (rebuilding plan or IFMP) that covers both species in the entire stock area.
5	National Capital Region	Northern shrimp, SFA 6; Critical	Rebuilding plan currently in draft form.	2017 to 2018 fiscal year	Completed in 2017-18.	Delayed	Although noted as completed in the 2018/19 deliverables (DFO 2018a), departmental officials indicate this plan is not yet complete (N. Schjott, personal communication, June 7 <sup>th</sup> , 2018). DFO formed a working group to develop a plan, a subset of the Northern Shrimp Advisory Committee, with representatives from all allocation holders from SFA 6 involved. A science process was held in January 2017 to assess the reference points, where it was determined that there was insufficient evidence to recommend a change to the current

<sup>26</sup> Included in 2017/18 and 2018/19 work plan 2 as species combined, unit 1 separate from unit 2.

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
							lower stock reference point until a new assessment model can be developed (DFO 2017b). A draft plan has been completed and is awaiting approvals. It will be an appendix to the updated IFMP and will be posted online at the same time, sometime in summer or fall of 2018 (L. Edgar, personal communication, June 18 <sup>th</sup> , 2018). The working group found that focusing on a new assessment model should be the priority, and in the interim the current PA HCRs for each health status zone for this stock, previously peer reviewed prior to the 2007 IFMP, would remain in place. However, it should be noted that at the January science process, the validity of the current exploitation rates outlined for the health status zones for this stock were questioned (DFO 2017b). Without a new and accepted model for this stock, quantifiable targets with timelines were not possible, and the rebuilding plan is likely to summarize current management measures. DFO has allocated resources towards developing a model for this stock by 2020, which may inform a rebuilding plan update, with full assessments of indicators in the interim (L. Edgar, personal communication, June 18 <sup>th</sup> , 2018).
6	Maritimes	Atlantic cod – 5Zjm; <b>Critical</b>	DFO will start work to develop a rebuilding plan. 5Z cod is an international stock, managed through international science (Transboundary Resource	By end of the 2018 to 2019 fiscal year	Continue to work with U.S. and draft rebuilding plan by end of 2018-19.	<b>Ongoing</b>	In 2017 it was announced to members of the Scotia Fundy Groundfish Advisory Committee that a rebuilding plan will be developed for this stock and DFO has begun to draft a plan (K. Spence, personal communication,

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
			Assessment Committee, TRAC) and management (Transboundary Management Guidance Committee, TMGC). The rebuilding plan will identify the harvest strategies and approaches taken to rebuild the stock. It is expected that the plan will be completed by the end of the 2018 to 2019 fiscal year. This plan will not require joint approval from the US, but would be communicated as part of an open and transparent relationship.				June 14 <sup>th</sup> , 2018). DFO staff are in the process of reviewing the DFO guidance document on rebuilding plans (DFO 2013) to determine what information is required. A literature search is currently underway for information relating the stock to inform rebuilding plan development based on the DFO guidance document. A number of upcoming science and management meetings, including the 2018 TRAC and TMGC meetings, will inform the rebuilding plan development (K. Spence, personal communication, June 14 <sup>th</sup> , 2018). It remains to be seen if this plan will include anything new or will simply summarize the existing overarching groundfish harvest strategy in the region and existing management approaches to minimize fishing mortality.
7	Maritimes	Yellowtail flounder – 5Z; <b>Critical</b>	DFO will start work to develop a rebuilding plan. 5Z Yellowtail is an international stock, managed through international science (Transboundary Resource Assessment Committee, TRAC) and management (Transboundary Management Guidance Committee, TMGC). The rebuilding plan will identify the harvest strategies and approaches taken to rebuild stock. It is expected that the plan will be completed by the end of the 2018 to 2019 fiscal year. This plan will not require joint	By end of the 2018 to 2019 fiscal year	Current rebuilding measures are included in the overarching Groundfish IFMP, developed in FY 17-18. Refinement analysis ongoing.	<b>Ongoing</b>	In 2017 it was announced to members of the Scotia Fundy Groundfish Advisory Committee that a rebuilding plan will be developed for this stock, and DFO has begun to draft a plan (K. Spence, personal communication, June 14 <sup>th</sup> , 2018). DFO staff are in the process of reviewing the DFO guidance document on rebuilding plans (DFO 2013) to determine what information is required. A literature search is currently underway for information relating the stock to inform rebuilding plan development based on the DFO guidance document. A number of upcoming science and management meetings, including the 2018 TRAC and TMGC meetings, will

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
			approval from the U.S., but would be communicated as part of an open and transparent relationship.				inform the rebuilding plan development (K. Spence, personal communication, June 14 <sup>th</sup> , 2018). It remains to be seen if this plan will include anything new or will simply summarize the existing overarching groundfish harvest strategy in the region and existing management approaches to minimize fishing mortality.
8	Newfoundland and Labrador	Atlantic cod – 2J3KL; <b>Critical</b>	DFO is currently engaged in a process involving industry, the Government of Newfoundland and Labrador and NGOs to develop a rebuilding plan. It is anticipated that the rebuilding plan will be in place in 2018 to 2019 fiscal year, to inform the 2018 fishery management decisions.	2018 to 2019 fiscal year	Continue to evaluate model and HCR to inform 2018 management decision. Rebuilding plan to be completed by end of 2018-19.	<b>Ongoing</b>	A working group made up of a subset of the 2J3KLMNO Groundfish Advisory Committee has been established and tasked with the development of a rebuilding plan and associated HCR. DFO presented a draft HCR at the most recent groundfish advisory meeting in April, but it was not finalized in time to inform the 2018 management decisions.
9	Pacific	Pacific herring – Haida Gwaii (Pacific QCI); <b>Critical</b>	A meeting with stakeholders will be held to begin discussion on the rebuilding plan. The summary report from the workshop will aid in the development of a draft outline of the rebuilding plan.	By end of the 2018 2019 fiscal year	<b>New Deadline:</b> 2020-21. <sup>27</sup>  Expected date of completion revised from 2018-19 to 2020-21. Draft rebuilding plan developed preliminary simulations to evaluate draft objectives to begin. Hold meetings with Haida to discuss results of simulations and refine objectives.	<b>Ongoing</b>	
10	National Capital Region	Mackerel – (Atlantic) NAFO 3	Departmental working group meeting to consider draft	2019 to 2020 fiscal year	Departmental working group formed and Management Strategy	<b>Ongoing</b>	

<sup>27</sup> The 2018/19 work plan indicates expected date of completion as end of fiscal 2018/19, but departmental officials indicate the description in the deliverables is accurate and 2020/21 is the expected date of completion (N. Schjott, personal communication, June 7, 2018).



#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
		and 4; <b>Critical</b>	objectives and components of a rebuilding plan.		Evaluation (MSE) process initiated to draft objectives and develop a Harvest Control Rule (HCR).		
11	Newfoundland and Labrador	Atlantic cod – 3Ps; <b>Cautious</b>	Begin process to conduct a science framework assessment for the stock.	2020 to 2021 fiscal year	Benchmark assessment process in advance of rebuilding plan development. HCR to inform 2020 management decision. Rebuilding plan to be completed by 2020-21.	<b>Ongoing</b>	
12	Quebec	Iceland scallop – SFA 16ef, 18a; Uncertain	Submit request to DFO Science for advice on the state of the stock to support development of the plan.	2020 to 2021 fiscal year	A scientific survey will be carried out in the management units. A choice of indicators to determine reference points will be made based on the analysis of available biological data and the precautionary approach developed for scallop of an adjacent management unit.	<b>Ongoing</b>	
13	Quebec	Beluga – Northern (Nunavik); Uncertain <sup>††</sup>	A meeting is planned with harvesters to discuss the development of a rebuilding plan.	2020 to 2021 fiscal year	Two meetings are planned with Aboriginal communities to discuss the development of the rebuilding plan.	<b>Ongoing</b>	
14	Pacific	Chinook salmon – WCVI; Uncertain <sup>†</sup>	Known rebuilding factors and threats will be summarized and later reviewed with stakeholders to begin discussion on development of a rebuilding plan.	2020 to 2021 fiscal year	Hold workshops to determine issues and potential actions for Clayoquot chinook. Address knowledge gaps in outmigration and hatchery return information (field studies, data collection and reporting).	<b>Ongoing</b>	

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
15	Gulf	Atlantic cod – Southern Gulf of St. Lawrence, 4TVn; <b>Critical</b>	Develop a work plan that includes compilation of data on the stock and fisheries on the stock to support the development of a rebuilding plan.	to be determined, pending completion of workplan in 2017 to 2018 fiscal year	<i>New deadline:</i> By end of 2020-21.  2018-19 Meetings with industry to discuss rebuilding objectives. Draft rebuilding plans will be prepared.	Ongoing	
16	Gulf	Atlantic herring – 4T spring spawner; <b>Critical</b>	Develop a work plan that includes compilation of data on the stock and fisheries on the stock to support the development of a rebuilding plan.	to be determined, pending completion of workplan in 2017 to 2018 fiscal year	<i>New deadline:</i> By end of 2020-21.  2018-19 Meetings with industry to discuss rebuilding objectives. Draft rebuilding plans will be prepared.	Ongoing	
17	Gulf	American plaice – Southern Gulf of St. Lawrence, 4T; <b>Critical</b>	Develop a work plan that includes compilation of data on the stock and fisheries on the stock to support the development of a rebuilding plan.	to be determined, pending completion of workplan in 2017 to 2018 fiscal year	<i>New deadline:</i> By end of 2020-21.  2018-19 Meetings with industry to discuss rebuilding objectives. Draft rebuilding plans will be prepared.	Ongoing	
18	Gulf	White hake – 4T; <b>Critical</b>	Develop a work plan that includes compilation of data on the stock and fisheries on the stock to support the development of a rebuilding plan.	to be determined, pending completion of workplan in 2017 to 2018 fiscal year	<i>New deadline:</i> By end of 2020-21.  2018-19 Meetings with industry to discuss rebuilding objectives. Draft rebuilding plans will be prepared.	Ongoing	
19	Gulf	Winter flounder – 4T; <b>Critical</b>	Develop a work plan that includes compilation of data on the stock and fisheries on the stock to support the development of a rebuilding plan.	to be determined, pending completion of workplan in 2017 to	<i>New deadline:</i> By end of 2020-21.  2018-19 Meetings with industry to discuss rebuilding objectives.	Ongoing	

#	Region	Stock and health status zone	2017/18 deliverables <sup>24</sup>	Deadline <sup>24</sup>	2018/19 deliverables <sup>24</sup>	Status	Details
				2018 fiscal year	Draft rebuilding plans will be prepared.		

Table 4. **Work plan 3, Integrated Fisheries Management Plans (IFMPs)**: Fisheries and Oceans Canada (DFO) prioritized stocks to be included in new IFMPs, stocks with IFMPs to be updated, and with IFMPs to be made available on the departmental website in 2017/18 (DFO 2017a). Some of this work continues in the 2018/19 work plan, where several additional stocks were outlined with work to create, update or publish IFMPs (DFO 2018b). The table below summarizes work plans by stock or stock group with health status<sup>28</sup> and status towards completion as assessed by Oceana Canada. Stocks with completed IFMPs that are available online are noted as completed, stocks that have had deadlines shifted or remain uncompleted are noted as delayed, and stocks for which the deadline has not yet passed are noted as ongoing. (Please note that the table does not include an assessment of plan quality.) Details on status determinations are provided for stocks included in the 2017/18 work plan. Stocks appearing after the bold line separating rows appear only in 2018/19 work plan, whereas those above appear in the 2017/18 only or in both work plans. For in-table citations, see the table references section below.

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
1	Central and Arctic	Atlantic walrus – Baffin Bay (High Arctic); <b>Uncertain</b> <sup>†</sup> Atlantic walrus – Northern Foxe Basin; <b>Healthy</b> <sup>†</sup>		✓ <sup>2017/18</sup>	✓ <sup>2017/18</sup>	Final version of the IFMP for Atlantic walrus ( <i>Odobensus rosmarus rosmarus</i> ) in the Nunavut Settlement Area <sup>‡</sup> to be sent to Nunavut Wildlife Management Board (NWMB) for final approval in 2017 to 2018 fiscal year. Signing of the final IFMP expected in the 2017 to 2018 fiscal year. IFMP will be made accessible online after approval, in the 2017 to 2018 fiscal year.		<b>Completed</b>	The Atlantic walrus in the Nunavut Settlement Area IFMP was approved by the NWMB on December 22 <sup>nd</sup> , 2017 and by DFO on February 1 <sup>st</sup> , 2018. The IFMP is <a href="#">available on the DFO website</a> , with a last modified date on the webpage of April 3 <sup>rd</sup> , 2018.
2	Central and Arctic	Dolly Varden – North Slope Dolly Varden; Big Fish, Firth, Babbage, Vittrekwa; <b>Cautious</b> <sup>†</sup>		✓ <sup>2017/18</sup>	✓ <sup>2018/19</sup>	The IFMP for Dolly Vardon will be updated by March 31, 2018.	Posted online by end of 2018-19.	<b>Ongoing</b>	The IFMP was updated in 2017/18 but was not approved, as there were delays in the final review. It is anticipated that the IFMP will be approved and posted in fiscal

<sup>28</sup> Health status was assigned primarily using Oceana Canada’s Fishery Audit dataset (Oceana Canada 2018), with † denoting assignments for marine mammals, anadromous fish and freshwater fish using the 2016 Sustainability Survey for Fisheries results (DFO 2016b) and †† denoting uncertain status assigned when stocks were not included in either dataset. As some records represent multiple stocks that appear as more than one record in the datasets used to assign status, all unique statuses for stocks within stock groups are included when applicable.

<sup>29</sup> As stated in DFO work plans.

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
									2018/19 as per the 2018/19 work plan (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).
3	Gulf	Atlantic salmon – Gulf of St. Lawrence; <b>Critical</b> <sup>†</sup>		✓2017/18	✓2018/19	An update to be completed in the 2017 to 2018 fiscal year.	Posted online by end of 2018-19.	<b>Ongoing</b>	The IFMP update was completed but was still awaiting approvals as of March 31 <sup>st</sup> , 2018 (N. Schjott, personal communication, July 27 <sup>th</sup> , 2018). As noted in the 2018/19 work plan, the IFMP is to be posted online in 2018/19.
4	Gulf	Atlantic halibut – (4RST); <b>Healthy</b> Atlantic cod – Northern Gulf of St. Lawrence (3Pn, 4RS); <b>Critical</b> Atlantic cod – Southern Gulf of St. Lawrence, 4TVn; <b>Critical</b> American plaice – Southern Gulf of St. Lawrence, 4T; <b>Critical</b> White hake – 4T; <b>Critical</b> Winter flounder – 4RST; <b>Critical</b> Witch flounder – 4RST; <b>Cautious</b>			✓2017/18 ✓2018/19	Gulf of St. Lawrence groundfish IFMP will be made accessible online by March 31, 2018.	Posted online by end of 2018-19. Gulf of St. Lawrence Groundfish IFMP previously noted for completion in 2017-18.	<b>Delayed</b>	The IFMP was updated in 2017/18 but was not approved for posting by the end of fiscal 2017/18. It is anticipated the objectives will be revisited, the redfish unit 1 section updated and final approvals obtained and the IFMP posted by the end of fiscal 2018/19, as per the 2018/19 work plan (C. Lavoie, personal

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
		Yellowtail flounder – 4T; <b>Critical</b>							communication, July 6 <sup>st</sup> , 2018).
		Greenland halibut (turbot) – 4RST; <sup>30</sup> <b>Cautious</b>							
		Acadian and Deepwater redfish – Unit 1; <sup>31</sup> <b>Cautious, Healthy</b>							
5	Gulf	Atlantic herring – 4T fall spawner (fixed gear)/(mobile gear); <b>Cautious</b>			✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>	The herring in the Southern Gulf of St. Lawrence herring fishing areas 16A to 16G IFMP will be made available online in fall 2017	Posted online by end of 2018-19. Southern Gulf of St. Lawrence-Herring Fishing Areas 16A to 16G (Herring 4T) were previously noted for completion in 2017-18.	<b>Delayed</b>	As noted in the 2018/19 work plan, posting did not occur in 2017/18 but should occur in 2018/19.
		Atlantic herring – 4T spring spawner; <b>Critical</b>							
6	Gulf	Rock crab – CFA 23 to 26; <b>Healthy</b>	✓ <sup>2017/18</sup>		✓ <sup>2018/19</sup>	New IFMP: "Rock crab in the Southern Gulf, LFA 24,25, 26A and 26B IFMP" will be finalized in the 2017 to 2018 fiscal year.	Posted online by end of 2018-19.	<b>Ongoing</b>	The previously existing IFMP was updated in fiscal 2017/18, but final comments were pending from industry at year end, delaying approvals. It is anticipated that the IFMP will be approved and posted in fiscal 2018/19 as per the 2018/19 work plan (N. Schjott, personal

<sup>30</sup> This stock is listed in the 2017/18 work plan 3 twice, once for the Gulf region and once for the Quebec region as "Greenland Halibut, Quebec." Although Quebec lead the science on this stock, management falls under the lead of the Gulf region, and the stock is likely to be included in the multi-species Gulf Groundfish IFMP.

<sup>31</sup> This stock is incorrectly listed in the 2017/18 work plan 3 as unit 2, but the Gulf region is responsible for the management of unit 1. Departmental officials indicated it was meant to read unit (M. Clemens, personal communication, June 7<sup>th</sup>, 2018).

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
									communication, June 29 <sup>th</sup> , 2018).
7	Gulf	Scallop – Southern Gulf of St. Lawrence (SFA 21a, b, c, 22, 23, 24); Uncertain	✓2017/18		✓2018/19	New IFMP: “Giant scallops in the Southern Gulf of St. Lawrence, SFA 21 to 24 IFMP” will be finalized in the 2017 to 2018 fiscal year.	Posted online by end of 2018-19.	Ongoing	The IFMP was updated in fiscal 2017/18 but was still awaiting approvals at year end. It is anticipated that the IFMP will be approved and posted in fiscal 2018/19 as per the 2018/19 work plan (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).
8	Maritimes	American eel (elvers) – Maritimes region; Uncertain†		✓2017/18		An update of the Elvers IFMP is anticipated to be completed by March 31, 2018.		Delayed	The IFMP was updated in fiscal 2017/18, and it is anticipated that it will be posted in 2018/19, which unfortunately was not captured in the 2018/19 work plan (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).
9	Maritimes	Dogfish – Atlantic Canada 4VWNX-5; Uncertain	✓2017/18	✓2018/19	✓2017/18	New IFMP: One “Groundfish IFMP” for these 10 stocks is under development. Anticipated completion by March 31, 2018. Groundfish IFMP will be made accessible online, after completion by March 31, 2018.	Update to limit reference points (for Atlantic Canada [dogfish]), if Science determines that a change needs to be made (limit reference points will be reviewed by Science in 18/19).	Delayed	The multi-stock IFMP was completed and approved by the end of fiscal 2017/18 (P. Doherty, personal communication, May 3 <sup>rd</sup> , 2018) but

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
		Atlantic cod – 4X5Y; <b>Critical</b>					Update to limit reference points, if Science determines that a change needs to be made (limit reference points will be reviewed by Science in 18/19).		has still not been posted online. It is anticipated that the IFMP will be posted later this fall. The 2018/19 deliverables description for dogfish in Atlantic Canada and Atlantic cod in NAFO 4X5Y are a description of updates to the section of IFMP pertaining to these stocks that may be required if it is determined the limit reference points need to be changed (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).
		Atlantic cod – 5Zjm; <b>Critical</b>							
		Atlantic halibut – 3NOPs4VWX+5; <b>Healthy</b>							
		Haddock – 4X5Y; <b>Healthy</b>							
		Haddock – 5Zjm; <b>Healthy</b>							
		Pollock – 4X5 (Western component); <b>Uncertain</b>							
		Redfish – unit 3; <b>Healthy</b>							
		Silver hake – 4VWX; <b>Healthy</b>							
		Yellowtail flounder – 5Z; <b>Critical</b>							
10	Maritimes	Lobster – inshore LFA 27-33; <b>Healthy</b>		✓2018/19	✓2017/18	Inshore lobster IFMP will be made accessible online, after completion, by March 31, 2018.	Update on progress in developing the precautionary approach framework; update to reference points. Some minor updates and corrections.	<b>Delayed</b>	The inshore lobster IFMP was not posted online in fiscal 2017/18. The 2018/19 deliverables description for LFA 27–33 is a description of updates to the section of IFMP pertaining to this stock that may be
		Lobster – inshore LFA 34; <b>Healthy</b>							
		Lobster – inshore LFA 35-38; <b>Healthy</b>							



#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
									required if it is determined the reference points need to be changed (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).
11	Maritimes	Sea scallop – inshore SFA 28 (Bay of Fundy); <b>Healthy</b> Sea scallop – inshore SFA 29W; <b>Healthy</b>	✓2017/18			New IFMP: One “Inshore scallop IFMP” covering both stocks is in the final stages and will be finalized and posted on the DFO website in the 2017 to 2018 fiscal year.		<b>Completed</b>	The Inshore Scallop – Maritimes Region – 2015 IFMP is <a href="#">available on the DFO website</a> , with a last modified date on the webpage of February 9 <sup>th</sup> , 2017. It is unclear if this is the new IFMP being referred to in the 2017/18 work plan. If it is, then the work plan was misleading in listing it for fiscal 2017/18, as the work was completed in fiscal 2016/17.
12	Maritimes	Sea scallop – offshore SFA 26, German, Browns; <b>Uncertain</b> Sea scallop – offshore SFA 27 Georges; <b>Healthy</b>		✓2017/18	✓2017/18	An update of the Offshore Scallop IFMP is anticipated to be completed by March 31, 2018. The offshore scallop IFMP is under development. Anticipated to be made accessible online by March 31, 2018.		<b>Delayed</b>	The offshore scallop IFMP was not posted online in fiscal 2017/18. There were some delays in preparing IFMP in a way that met the required accessibility standards, but

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
									these revisions are underway, and it is anticipated to be posted online this summer (C. Bernier, personal communication, August 8 <sup>th</sup> , 2018).
13	National Capital Region	Bluefin tuna – Western Atlantic; Uncertain		✓2017/18		Western Atlantic Bluefin Tuna IFMP will be updated in the 2017 to 2018 fiscal year.		<b>Delayed</b>	The IFMP was updated in fiscal 2017/18, and it is anticipated that it will be posted in 2018/19, which unfortunately was not captured in the 2018/19 work plan (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018).
14	Newfoundland and Labrador	Atlantic herring – 2J3KLPs; Uncertain	✓2017/18		✓2017/18	New IFMP: IFMP will be finalized in fiscal the 2017 to 2018 fiscal year. IFMP will be made accessible online, after completion of update, by March 31, 2018.		<b>Completed</b>	The Herring – Newfoundland and Labrador Region 2+3 (Herring Fishing Areas 1–11) IFMP (effective 2017) is <a href="#">available on the DFO website</a> , with a last modified date on the webpage of March 28 <sup>th</sup> , 2018.
15	Newfoundland and Labrador	Capelin – SA2+3KLPs; Uncertain Capelin – 4RST; Uncertain			✓2017/18	IFMP will be made accessible, after completion of update, by March 31, 2018.		<b>Completed</b>	The Capelin Northwest Atlantic Fisheries Organization Divisions 4RST

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
									(Capelin Fishing Areas 12–16) IFMP (effective 2017) is <a href="#">available on the DFO website</a> , with a last modified date on the webpage of 2018. The date and month were missing (when last accessed July 5 <sup>th</sup> , 2018). The Capelin Newfoundland & Labrador Region 2+3 (Capelin Fishing Areas 1-11) IFMP (effective 2017) is <a href="#">available on the DFO website</a> , with a last modified date on the webpage of March 26 <sup>th</sup> , 2018.
16	Newfoundland and Labrador	Atlantic herring – 4R; <b>Healthy</b> , Uncertain	✓2017/18		✓2017/18	New IFMP: IFMP will be finalized in fiscal the 2017 to 2018 fiscal year. IFMP will be made accessible online, after completion of update, by March 31, 2018.		<b>Completed</b>	The Herring – Newfoundland and Labrador Region 4R3Pn IFMP (effective 2017) is <a href="#">available on the DFO website</a> , with a last modified date on the webpage of March 27 <sup>th</sup> , 2018.
17	Newfoundland and Labrador	Lobster – LFA 3, 4, 6–9,12,13AB,14C; Uncertain		✓2017/18	✓2018/19	NL Lobster IFMP will be updated with a target of fall 2017.	Posted online by end of 2018-19.	<b>Ongoing</b>	The IFMP update was completed (N. Schjott, personal

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
		Lobster – LFA 5,10,11,14A–B; Uncertain							communication, July 27 <sup>th</sup> , 2018), but it was not posted online. As the 2018/19 work plan indicates, the intention is to post it online this fiscal year (DFO 2018a).
18	National Capital Region	Northern shrimp SFA 0–7; <b>Critical</b> , <b>Healthy</b> , Uncertain		✓2017/18	✓2018/19	Northern shrimp IFMP will be updated in the 2017 to 2018 fiscal year.	Northern Shrimp: Posted online by end of 2018-19.	<b>Ongoing</b>	The IFMP was updated in 2017/18, but it was not approved in 2017/18. It will be approved and posted online in 2018/19 (L. Edgar, personal communication, June 18 <sup>th</sup> , 2018), as per the 2018/19 work plan (DFO 2018a).
19	Pacific	Eulachon; Uncertain <sup>†</sup>		✓2017/18		Update to IFMP by end of the 2017 to 2018 fiscal year.		<b>Delayed</b>	The IFMP was updated in the 2017/18 fiscal year (N. Schjott, personal communication, June 29 <sup>th</sup> , 2018), but it is still not posted online.
20	Quebec	Northern shrimp – Gulf of St. Lawrence SFA 8, 9, 10, 12; <b>Cautious</b>			✓2017/18	IFMP will be made accessible online by March 31, 2018.		<b>Delayed</b>	The IFMP is not available on the DFO website. There were delays in the approvals process, but the IFMP has now been approved

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
									and should be posted online in the coming weeks (C. Bernier, personal communication, August 8 <sup>th</sup> , 2018).
21	Quebec	Lobster – 19, 20, 21; Healthy	✓ <sup>2017/18</sup> ✓ <sup>2018/19</sup>		✓ <sup>2018/19</sup>	New IFMP: IFMP will be finalized and posted on the DFO website in the 2017 to 2018 fiscal year. IFMP will be made accessible online by March 31, 2018.	Lobster – 19, 20 and 21 IFMP be completed and posted by end of 2018-19. Lobster 19, 20 and 21 was previously noted for completion in 2017-18. Completed and posted by end of 2018-19.	Completed	The new IFMP was not completed in 2017/18 fiscal year. However, as indicated in the 2018/19 work plan (DFO 2018a), the Lobster fishery – Areas 19, 20 and 21 IFMP is now completed and <a href="#">available on the DFO website</a> , with a last modified date on the webpage of June 6 <sup>th</sup> , 2018.
22	Quebec	Lobster – LFA 22; Healthy			✓ <sup>2017/18</sup>	IFMP will be made accessible online by March 31, 2018.		Delayed	The IFMP update was completed but was still awaiting approvals as of March 31 <sup>st</sup> , 2018 (N. Schjott, personal communication, July 27 <sup>th</sup> , 2018).
23	Central and Arctic	Greenland halibut NAFO Division 0A/0B; Healthy		✓ <sup>2018/19</sup>	✓ <sup>2018/19</sup>		Updated and posted by end of 2018-19. Updated and posted by end of 2018-19.	Ongoing	
24	Central and Arctic	Narwhal – High Arctic and Northern			✓ <sup>2018/19</sup>		Completed and posted by end of 2018-19.	Ongoing	

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
		Hudson Bay; Healthy†							
25	Gulf	Lobster – Southern Gulf LFA 23,24,25,26A,26B; Healthy		✓2018/19			Gulf of St. Lawrence Lobster, Southern Gulf - LFA 23, 24, 25, 26A and 26B IFMP will be updated by end of 2018-19.	Ongoing	
26	Maritimes	Offshore clam; Healthy		✓2018/19			Update to be completed by end of 2018-19.	Ongoing	
27	Newfoundland and Labrador	American plaice – 2+3K and 3NLO; Critical Redfish – 2+3K; Critical Grenadier – 2+3KL; Uncertain Winter flounder – 2+3KL; Uncertain Witch Flounder – 2+3KL; Critical Greenland halibut (Turbot) – 2+3K; Uncertain Greenland halibut (Turbot) – 3LMNO; Uncertain Atlantic cod – 2GH; Uncertain Lumpfish – 2GHL & 3KL; Uncertain Haddock – 3LNO; Uncertain Skates – 3LNO; Cautious 3NLO – Yellowtail; Healthy	✓2018/19		✓2018/19		Groundfish 2+3KLMNO IFMP will be completed and posted by end of 2018-19. Completed and posted by end of 2018-19.	Ongoing	

#	Region	Stock or stock group and health status zone	New IFMP	IFMP update	IFMP online	2017/18 deliverables <sup>29</sup>	2018/19 deliverables <sup>29</sup>	Status	Details
		Atlantic cod – 2J3KL (Northern); <b>Critical</b>							
28	Newfoundland and Labrador	Snow crab – NL Region; <b>Uncertain</b>		✓2018/19	✓2018/19		Updated and posted by end of 2018-19. Updated and posted by end of 2018-19.	<b>Ongoing</b>	
29	Newfoundland and Labrador	Sea cucumber – 3Ps; <b>Uncertain</b>	✓2018/19		✓2018/19		3Ps Sea Cucumber IFMP will be completed and posted by end of 2018-19. Completed and posted by end of 2018-19.	<b>Ongoing</b>	
30	Newfoundland and Labrador	Atlantic salmon – Recreational in NL Region; <b>Uncertain</b> <sup>††</sup>	✓2018/19		✓2018/19		Recreational Salmon IFMP will be completed and posted by end of 2018-19. Completed and posted by end of 2018-19.	<b>Ongoing</b>	
31	Newfoundland and Labrador	Sea scallop – NL Region; <b>Uncertain</b>		✓2018/19	✓2018/19		Updated and posted by end of 2018-19. Updated and posted by end of 2018-19.	<b>Ongoing</b>	
32	Newfoundland and Labrador	Sea urchin – NL Region; <b>Uncertain</b>	✓2018/19		✓2018/19		Completed and posted by end of 2018-19. Completed and posted by end of 2018-19.	<b>Ongoing</b>	
33	Quebec	Atlantic herring – 4S; <b>Uncertain</b>		✓2018/19	✓2018/19		Updated and posted by end of 2018-19. Updated and posted by end of 2018-19.	<b>Ongoing</b>	
34	Quebec	Snow crab – Coastal/Inshore QC Region (12A, 12B, 12C, 13, 14, 15, 16, 16A, 17); <b>Uncertain</b>	✓2018/19		✓2018/19		Snow Crab Coastal areas 13 to 17, 12ABC and 16A IFMP will be completed and posted by end of 2018-19. Snow Crab Inshore (13 to 17, 12 ABC, and 16A), completed and posted by end of 2018-19.	<b>Ongoing</b>	

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