

## SEDAR Research Track Process

### Decision Document

### SEDAR Steering Committee

May 5, 2017

This document summarizes several alternatives for implementing the SEDAR Research Track process. It was developed by SEDAR staff to help the Steering Committee evaluate approaches to Research Track assessments that emerged during webinar deliberations with SEFSC, since the Research Track Working Group did not reach consensus on a preferred approach for implementing the Research Track process. The alternatives shown here were defined and described by SEDAR staff based on notes taken during the webinars, and provided to working group members for review prior to the SEDAR Steering Committee meeting. Full details of the webinar deliberations and provided in a separate document , provided as Attachment 6 for the May 5, 2017 Steering Committee Meeting.

#### Summary of Alternatives:

1. Status quo
2. Extended AW Timeline
3. Research phase prior to SEDAR phase
4. Hypothesis driven Research Track
5. Modified Benchmark Process

#### **I. Status Quo**

This is included for thoroughness. The Committee could choose to proceed with the existing benchmark, standard, and update process.

Pros	Cons
No process changes needed	Extremely deadline oriented
familiarity	Difficulty accommodating unexpected challenges
output rate relatively well known	Extended terminal year – dissemination delay
Roles & responsibilities defined and known	Reviewer suggestions not readily addressed
Favors transparency	Not timely
Follows recent data best practices approach	Difficult to obtain effective constituent feedback, particularly in the AW webinar process

#### **II. Extended AW timeline.**

This is the approach originally put forward by SEDAR staff as a starting point to merge the principles and timeline of the Research Track as proposed in September 2017 with the existing SEDAR process. The approach for resolving stock ID, through a workshop and peer review, is included at the start of the process. It suggests only moderate changes to the general benchmark process as now followed, primarily to extend the assessment development window and adds the Operational Assessment (which removes the expectation to provide management

advice following the peer review). The data process is preserved, but the expectation to complete an assessment dataset with the most recent data is eliminated.

1. Stock ID Process: (4.5 months) resolved prior to data workshop, includes a peer review and final consideration by regional leadership group as described by the Steering Committee in September 2016.
2. Data Stage: (4.5 months) following the Data Best Practices timeline, and a data report deliverable similar to the current process. Primary change is a shift in focus from completing an assessment input dataset with most up to date information to identifying and evaluating data issues; may rely upon preliminary or provisional data for recent years.
3. Assessment Stage: (6 months) similar to the existing benchmark process, with the time allotted doubled from 3 to 6 months, and removing the expectation to provide management advice in the assessment report.
4. Peer Review Stage: (2 months) similar to existing peer review workshop. Includes CIE, so CIE deadlines affect timing for the peer review and assessment stage conclusion. SEDAR role concludes upon report dissemination (same as with current process).
5. Post SEDAR: (9 months) Research Track assessment tool is revised per the peer review, reviewed by SSCs, updated data obtained. Administrative record responsibilities shift to assessment agency and cooperator.
6. Operational assessment: (3 mos) Operational assessment prepared with most recent data similar to existing update process. Cooperators approve TORs that define the nature of the OA and the role of their technical reviewers. Goal is to complete the Operational Assessment within 12 months of the peer review.

Pros	Cons
Minor process changes needed	Remains deadline oriented
Familiarity	May not easily accommodate all unexpected data or modeling challenges
Reduces delay between terminal year and management advice	Follows current sequential decision making process (DW to AW to RW)
Roles & responsibilities defined and known	Difficult to obtain effective constituent feedback, particularly in the AW webinar process
Favors transparency	
Extended AW timeline to aid thoroughness	
Adds Operational Assessment: Reviewer suggestions can be addressed	
Follows data best practices approach	

### III. Pre-Research Approach

This approach is a potential compromise discussed during the workgroup webinars, in response to suggestions that the Research Track should be hypothesis driven rather than timeline driven. In this version, the lead assessment agency (e.g., SEFSC) conducts an initial research phase to identify assessment approaches and develop models for further consideration through a typical SEDAR benchmark process. It essentially shifts the hypothesis driven research component to the analytical agency and removes that aspect of the process from SEDAR. While this was discussed on the second webinar, the group did not reach consensus on the details or a preferred method of implementing this alternative.

1. **Assessment Request:** A cooperator notifies the Steering Committee that a new assessment (i.e., “benchmark”) is desired of a particular species. This will ideally happen during the Committee deliberation of future priorities.
2. **Research Stage:** (no specific deadline) The lead assessment agency (i.e., SEFSC) will conduct research on how best to assess the chosen stock. They will solicit and evaluate data, develop and evaluate assessment models, per their standard practices. Stock ID will be addressed during this stage, and a proposed stock definition provided in the TORs for the next stage. SEDAR will not be involved in this stage. Once the analysts have developed an appropriate approach, they will inform the Steering Committee and Cooperator, and the stock will be added to the SEDAR assessment schedule for assessment development at the next available opportunity. The research deliverable will include a summary of the proposed modelling approach, results of the research leading up to the preferred model selection, and proposed Terms of Reference for the SEDAR stage to follow.
3. **SEDAR Stage:** (12-15 months) The stock will be scheduled by the Steering Committee, and the SEDAR process will proceed through the Data, Assessment and Review steps similar to the existing benchmark process. Management advice will be provided following the peer review model. Timelines could be slightly shortened from the status quo since the scope of the assessment is better defined and preliminary data are already available.

Pros	Cons
Minor process changes needed in the SEDAR phase	No set timeline for when the SEDAR phase will begin
Familiarity	Resources required for Research phase may be difficult to estimate
Roles & responsibilities defined and known	May still result in terminal year-dissemination delays
Favors transparency in the SEDAR phase	Logistics and organizational burden on the analytical agency
Open, hypothesis-driven research stage can accommodate unexpected challenges	May be difficult to provide transparency during the research phase
Follows data best practices approach	

#### IV. Open Research Track

This alternative represents an open, hypothesis driven research track approach. The typical SEDAR benchmark steps of data and assessment are somewhat merged to meet the needs of hypothesis testing, and the peer review is not scheduled until the analytical team determines the model is adequately developed.

1. Data Stage: (?) data compilation and evaluation step similar to the existing data workshop. Focus is on identifying potential data, data issues and solutions rather than assessment datasets; reliance upon preliminary or provisional data; data provided in disaggregated formats for further exploration by the analytical team.
2. Assessment Stage: (no deadline) data are explored and evaluated, models developed and evaluated based on hypothesis testing. Stock ID is addressed through this stage. May include regular meetings similar to the current AW webinar process, with added data provider representation. Reduced reliance on specific milestones to meet at each meeting, with discussion points based instead on model issues that develop.
3. Peer Review Stage: (2 months) Peer review is not scheduled until the analytical team has completed model development. Once scheduled, peer review is similar to existing review workshop. Peer review will evaluate the stock ID recommendation, and will not provide management advice.
4. Post SEDAR: (12+ months) Research Track assessment tool is revised per the peer review, reviewed by SSCs, updated data obtained. Administrative record responsibilities shift to assessment agency and cooperator.
5. Operational assessment: (time may vary) Operational assessment prepared with most recent data similar to existing update process. Cooperators approve TORs that define the nature of the OA and the role of their technical reviewers.

Pros	Cons
Greatest flexibility to address data and assessment issues	Lack of a set timeline may be challenging for management
Operational assessment reduces terminal year-dissemination delays	Does not follow data best practices timeline
	Effective public involvement & transparency may be difficult during protracted assessment stage.
	Extended, open-ended commitment for data providers
	Performance of model may change once provisional data are updated

	Potential for additional delays in scheduling RW due to CIE timeline
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## V. Modified Benchmark Process

This alternative represents a modification of the existing benchmark process to add a research oriented, hypothesis driven assessment stage between a typical SEDAR data and review workshop. Logistically, it is essentially a merging of alternative 2 and 3. Depending on how the Steering Committee is willing to view deadlines and driving factors, the assessment development phase could be structured around specific milestones and timelines, as per the existing process, or it could be more hypothesis driven.

1. Stock ID Process: (4.5 months) resolved prior to data workshop, includes a peer review and final consideration by regional leadership group as described by the Steering Committee in September 2016.
2. Data Stage: (4.5 months) following the Data Best Practices timeline, and a data report deliverable similar to the current process. Reduced focus on the most timely data and providing complete assessment datasets, to allow greater consideration of alternatives and identifying issues require research consideration.
3. Assessment Stage: (6 months to no specific deadline) focus is on model development and evaluation. Could include a panel of scientists that will work with the analysts, similar to existing AW panels.
4. Pre-Review Workshop: (4 months) Similar to existing Standard workshops. Once the assessment stage is complete and the assessment tool developed, the data and method will be reviewed. Final data review handled through webinars devoted to each data area, completed before the pre-review workshop (in-person). Goal of the workshop is model review and evaluation, consideration of uncertainties and sensitivities, development of projections. Participants include those from the assessment stage and ~2 independent scientists (from SSC or other experts), fishermen and other constituent reps.
5. Peer Review Stage: (2 months) similar to existing peer review workshop. Includes CIE, so CIE deadlines affect timing for the peer review and assessment stage conclusion. SEDAR role concludes upon report dissemination (same as with current process).
6. Post SEDAR: (9 months) Research Track assessment tool is revised per the peer review, reviewed by SSCs, updated data obtained. Administrative record responsibilities shift to assessment agency and cooperator.
7. Operational assessment: (3 months) Operational assessment prepared with most recent data similar to existing update process. Cooperators approve TORs that define the nature of the OA and the role of their technical reviewers.

Pros	Cons
Familiarity	May not easily accommodate all unexpected data or modeling challenges
Reduces delay between terminal year and management advice	Follows current sequential decision making process (DW to AW to RW)
Roles & responsibilities defined and known	
Favors transparency; the pre-research phase expected to increase the effectiveness of constituent feedback on the assessment model	
Extended AW timeline to aid thoroughness	
Adds Operational Assessment: Reviewer suggestions can be addressed	
Follows data best practices approach	

### Comparison

Alternative	Management Advice	Duration <sup>1</sup>	
1. Status Quo	Following RW	15 mos	No changes
2. Extended AW	Operational Assessment	30 mos	Similar to the Sept. 2016 proposal. Extra time compared to status quo is due to the Operational Assessment (12 mos) and the added AW time (3 mos).
3. Pre-SEDAR Research	Following RW	12 mos +	Allows for research phase without the SEDAR council process limitations. Duration is 12 mos. once the SEDAR benchmark phase begins.
4. Open Research Track	Operational Assessment	Unk	Hypothesis driven process with the most flexibility to address assessment issues. Duration could be defined if boundaries are placed on the time for research and development.
5. Modified Benchmark	Operational Assessment	30 mos to unk	Attempt to resolve differences between hypothesis driven open research and the SEDAR council process

1. Duration based on the time from stock ID to management advice.