SCHEDULE A

To the Agreement between

WORLD WILDLIFE FUND CANADA and Don Stansbury

PROJECT STATEMENT OF WORK

1. Background and Purpose:

Northern cod was the currency that built countries and sustained a way of life for more than 500 years. It was one of the world's largest fisheries and supported livelihoods for many generations, until unsustainable fishing and changes in the ecosystem led to a collapse of the northern cod stock and an unprecedented fishery closure when a moratorium was announced in 1992. More than 30,000 jobs were lost—the largest layoff in North American history—and the northern cod fishery became an iconic example of a large-scale ecological disaster that resulted in devastating economic and social consequences. Coastal communities that relied on the fishery for their livelihoods felt the greatest impact.

There were few signs of recovery for many years after the moratorium and some feared the northern cod stock had been pushed to the brink of extinction. However, since 2006, scientific surveys have shown steady growth of the northern cod stock. Between 2005 and 2015, the biomass increased from three percent to 34 percent of the reference point that separates the critical zone from the cautious zone. Even though the northern cod stock remains in the critical zone, the latest scientific data shows a very promising start to a northern cod recovery and has renewed optimism about the future of cod in Newfoundland and Labrador.

Encouraged by these projections, WWF-Canada (WWF), in partnership with the Fish, Food and Allied Workers Union (FFAW-Unifor), launched a Fishery Improvement Project (FIP) for northern cod. In April 2015, a Memorandum of Understanding was signed to partner on a comprehensive five-year FIP for the northern cod stewardship fishery. The FIP will assist and advise in rebuilding the northern cod inshore fishery in a sustainable manner that keeps conservation and stewardship, socioeconomic wellbeing, and market demands at the forefront, while ensuring long-term economic value.

Initial FIP partners included the Seafood Processors of Newfoundland and Labrador (SPONL), Fogo Island Co-op, FFAW-Unifor and WWF-Canada. In 2016, these partners were joined by the Newfoundland and Labrador Groundfish Industry Development Council (NL-GIDC), a consortium of a group of processors (11 to date, with membership open and expanding) and FFAW-Unifor, with Fisheries and Oceans Canada (DFO), the Department of Fisheries and Land Resources (FLR) and WWF as honorary members. Launched in April 2016, the Council forms a united body unlike any other in the history of the Newfoundland and Labrador fishing industry—a clear indication of the importance of making strong, collaborative decisions on the emerging new groundfish fishery. Chaired by Independent Chairperson Jim Baird, the Council launched its Strategic Plan this fall with the vision for a revitalized groundfish industry that is sustainable, economically viable and internationally competitive. The NL-GIDC's vision is complimentary to the sustainability and market goals of the FIP (i.e. meeting the Marine Stewardship Council's certification standard).

After assessing the current state of the fishery against the MSC's globally recognized sustainability standard, a FIP Action Plan was released in December 2016, after a thorough scoping process and consultation with stakeholders

in a FIP Stakeholder Meeting held in September 2016. The 2016 pre-assessment and stakeholder-endorsed FIP Action Plan were the first two major milestones toward improving the sustainability of the northern cod stewardship fishery. In collaboration with the seafood sector and management authorities, the FIP will implement improvement measures recommended in this action plan that will ensure continued sustainability. After successful completion of the FIP and continued stock growth, the industry may choose to enter the fishery in the Marine Stewardship Council (MSC) certification process.

Over the next three years, WWF-Canada will continue working with our partners towards the goal of rebuilding the historic and now rebounding northern cod stock to sustainable levels and eventual long-term commercial viability—for the benefit and economic well-being of Newfoundland and Labrador communities.

The project is now entering a three-year implementation phase where we will work with partners to make measurable improvements, which includes *improving knowledge/information on bait species* to address the Marine Stewardship Council's Performance Indicators (PIs) regarding "Information on Bait Species". Specific PI's to be addressed are:

2.1.1 Primary Species: Outcome

2.1.2 Primary Species: Management Strategy

2.1.3 Primary Species: Information / Monitoring

2.2.1 Secondary Species: Outcome

2.2.2 Secondary Species: Management Strategy

2.2.3 Secondary Species: Information/ Monitoring

The 2J3KL cod pre-assessment concluded: "The species and stocks that are utilized as bait for the 2J3KL fishery will need to be confirmed. In addition, some analysis of the amount of bait utilized in the cod fishery compared to other MSC assessed fisheries may be required. This evaluation should enable related PIs to move from a Pass with Condition (score 60-79) to a full Pass for related UoA's [unit of assessment]. The gillnet fishery does not require bait, so this UoA has already scored a pass (score ≥ 80 Pass)."

Our goal for this project is to work towards improving the quantity and quality of knowledge and information available on bait species used in the 2J3KL cod fishery to ensure a pass without condition at the point of MSC full assessment for certification. In working towards this goal, a harvester phone survey has been developed and implemented as part of the Fish, Food and Allied Workers' Union/UNIFOR's annual telephone survey of fish harvesters. This survey will help determine the amount and type of bait used in the northern cod fishery as well as the factors influencing the use of bait. The survey is based on a literature review of bait conditions in existing MSC certifications for comparable fisheries. The survey responses must now be analyzed and included in a report to highlight potential sustainability issues with bait use in the northern cod fishery. The report will be used to determine the next course of action to meet the MSC requirements for Principle 2, information on bait species.

This project will provide an analysis of the survey results and a report to inform the FIP's next steps to achieving sustainability in bait use within the northern cod fishery. The report will also inform the agenda for the WWF-Canada-industry workshop planned for the fall of 2018. This work is in line with WWF-Canada's 5 year plan goal: Historic Northern cod fishery rebuilt allowing for a well-managed low impact fishery with benefits for Newfoundland and Labrador communities.

2. Qualifications of Contractor:

graduated from Memorial University of Newfoundland with a B.Sc. in Biology in 1980. Upon convocation accepted a position with the Science Branch, Fisheries and Oceans, at the Northwest Atlantic Fisheries Centre in St. John's, Newfoundland and Labrador. From 1980 to 2016 held various roles in the Department that included; Statistical programmer (1980 to 1993); Gadoid stock assessment biologist (1993-2003) and Section Head of Shellfish Section (2004-2016 main focus of work is in statistical analysis, stock assessment and trawl surveys. has experience conducting biological research and stock assessments on several species/stocks of cod and shellfish in the Newfoundland and Labrador region, including 3Ps cod, Northern Shrimp, Snow Crab, Sea cucumber and Iceland and Sea scallop. To credit has published in primary and secondary scientific literature and acted as chair of the NAFO Scientific Council (2013-2015) and chaired two standing committees of Scientific Council between 2001 and 2013.

3. Scope and Objectives:

The project will include a brief review of background literature relevant to the requirements around the reporting and monitoring of bait species to meet the MSC certification standard v 2.0 requirements for the 2J3KL cod stewardship fishery. This review will provide context for the project and will be included in the final report. In addition, the bait use within a selection of MSC certified fisheries, which share gear types or geographic proximity with the northern cod fishery, shall be reviewed and summarized. This will be completed with the aim of determining the methodologies used to meet the MSC standard. An analysis of a fish harvesters telephone survey results on the bait usage in the 2J3KL cod fishery shall be conducted to determine strengths or concerns in this fishery that will be relevant to the certification process for the 2J3KL cod stewardship fishery. The final intent of this work is to inform an agenda for a fish harvester workshop in the fall 2018 to determine best practices for bait utilization in this fishery.

This project is one of the activities included in the 2J3KL cod Stewardship Fishery, Fishery Improvement Project Action Plan. Once this work is completed it will assist this fishery in moving towards meeting the sustainability requirements as per the Marine Stewardship Council's certification standard. The success of this project will benefit all the partners involved in this FIP, including: FFAW; WWF-Canada; Fogo Island Co-op; Seafood Producers of NL; and the NL-Groundfish Industry Development Council. Most importantly it will benefit the harvesters and the communities adjacent to the 2J3KL stock, which ranges from Northern Labrador to the Southern Avalon on the island of Newfoundland,

The intended outcomes of this project are:

- Increased capacity/knowledge on the best practices/methodologies for the reporting and monitoring of bait usage in the 2J3KL cod fishery based on MSC certified fisheries.
- Understanding of the strengths and/or concerns in the current 2J3KL cod stewardship fishery regarding the use of bait.
- Recommendations on best practices for the reporting and monitoring of bait in the 2J3KL cod stewardship fishery.
- Provide the knowledge and capacity required to develop and implement a workshop on the best practices around bait usage with the fishing industry in the fall of 2018.

4. Deliverables, Approach and Methods

Approach:

WWF is a science-based organization which relies on the robust collection and analysis of data to inform its conservation initiatives and work plans. The approach taken with this project is to collect data using methods in line with industry best practices, analyze and present the data according to common scientific practice, and use the data to identify areas of concern and recommendations for next steps to further the goals of the northern cod FIP.

Methods:

Specific methods by deliverable are described below:

- 1. An interim report with graphs, charts and tables produced during the preliminary analysis.
 - Basic statistics shall be used to conduct a quantitative analysis of the responses to the annual FFAW-Unifor telephone survey related to bait use in the northern cod fishery. Qualitative analyses shall also be conducted where appropriate in lieu of quantitative analyses.
 - Graphs, charts and tables shall be designed to summarize the data analysis, making the information is accessible to a broad audience
- 2. A final report to be reviewed by WWF-Canada and FFAW-UNIFOR and subsequently disseminated to a broad audience, which shall include:
 - a. background context
 - WWF shall provide the contractor with the documents listed under the "Contributions of Other Organizations" section. The contractor shall use the information included in these documents to provide background context for the project. The contractor may use other resources they deem pertinent, based on their expertise to supplement the information provided in the WWF-provided documents. The background context will be included in the Final Report so that the Final Report can act as a standalone document.
 - b. summary of best practices from MSC certified fisheries
 - In consultation with WWF and the FFAW, the contractor shall choose 3 MSC fisheries for Atlantic cod, that use similar gear types to the northern cod fishery or that are in relative geographic proximity to the northern cod fishery. The methods used by these fisheries to gather information and report on bait use for MSC assessment and surveillance audits shall be summarized in order to determine best practices for the northern cod FIP to follow.
 - In addition, a summary of the requirements for a pass without condition against the MSC standard with regards to bait use in the 3 selected MSC fisheries shall be completed
 - c. data summary and analysis, with graphs, charts and tables
 - The graphs, tables and charts prepared for the interim report shall be refined if necessary and included in the final report
 - d. identification of areas of strength and/or concern for the bait sustainability of the northern cod fishery, and
 - Based on the background context, the data analysis and the summary of methods used in other MSC fisheries, the contractor shall identify areas of concern to be discussed at the 2J3KL cod Stewardship fishery, Best Practices for Bait, industry workshop planned for the fall of 2018

- e. recommendations for best practices for the reporting and monitoring of bait species in the 2J3KL cod stewardship fishery.
 - Based on the summary of methods used in related MSC fisheries, the contractor shall make recommendations for best practices related to bait used in the northern cod fishery.

Deliverables:

- 1. An interim report of the bait survey analysis with graphs, charts and tables produced during the preliminary analysis.
- 2. A final report including:
 - a. background context,
 - b. summary of best practices from MSC certified fisheries,
 - c. data summary and analysis, with graphs, charts and tables,
 - a. identification of areas of strength and/or concern for the bait sustainability of the northern cod fishery, and
 - e. recommendations for best practices for the reporting and monitoring of bait species in the 2J3KL cod stewardship fishery.

Timeline

The work shall be undertaken by February 19, 2018 and be completed by March 24, 2018, and interim report shall be delivered on March 12, 2018.

Contributions of Other Organizations

- Taylor, S. Evaluation of bait management best practices for Canada. Dalhousie University. December 14, 2017
- Nexus Costal Resource Management Ltd. Bait Use in Canada: Current Practices & Alternatives. August 2017.
- Provide examples of MSC fisheries to review.
- WWF-Canada's Senior Specialist, Forage Fish provided the survey questions in consultation with the FFAW.
- FFAW staff shall take the lead on implementing the survey, surveying fish harvesters and collating the responses.
- FFAW will provide the electronic database containing the northern cod fishery bait related responses to the annual Fish, Food and Allied Worker's Union/UNIFOR telephone survey.

5. Implementation Table and Payment Schedule

Deliverable	Deliverable Name	Completion Date	Payment
1	Preliminary data analysis (Charts, graphs, tables	February 28 2018	
	created)		
2	Mid-contract update on progress and areas of	March 12 2018	
	concern		
3	Final Report to include a, b, c, d and e from the	March 24, 2018	
	methodology outlined above and Final Project		
	Report as per Schedule C		
	Total		

6. PROJECT COMPLETION DATE: March 24, 2018.