Evaluating the ‘Conservation Standards’ as a conservation planning framework: A case study on the Inner Bay of Fundy (IBoF) Conservation Planning process

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Abstract

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The Conservation Standards (CS) are a prescribed set of steps, practices and principles for conservation planning. The literature about using CS for global conservation planning is limited, however. A conservation planning initiative for the Inner Bay of Fundy (IBoF) region of Atlantic Canada has been underway since March 2020. This initiative, led by Environment and Climate Change Canada's Canadian Wildlife Service and facilitated by Global Conservation Solutions, is using the CS framework. Participants meet in online workshops and follow the steps of the CS. Since startup, over 100 participants from government, non-governmental organizations, industry, Indigenous organizations, and academia have participated in 42 workshops between March 2020 and December 2024. The initiative was still ongoing when this research concluded in December 2024. This paper reports on the challenges and successes of the CS as a conservation planning framework, using the IBoF Conservation Plan process as a case study. A survey of 16 workshop participants provided insights to the process. Successes of using the CS include knowledge-sharing, relationship-building, and enhanced understanding of the CS as a conservation planning tool. Challenges include engagement and inclusion of all relevant stakeholders and rights holders and a lack of clarity about a timeline for planning process outputs. Recommendations to amplify successes include establishing smaller groups within workshops to help increase efficiency and comfort and maintain participation and interest among participants. Recommendations to address challenges include increased transparency and communication about desired outputs and the anticipated timeline to achieve them. The lessons learned from this case study can inform the final results of the IBoF Conservation Plan and the use of the CS framework in other initiatives.

Keywords: Conservation Standards, Inner Bay of Fundy (IBoF), conservation planning framework

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List of Abbreviations

BoF – Bay of Fundy

CMP – Conservation Measures Partnership

CS – Conservation Standards

CWS – Canadian Wildlife Service

DFO – Fisheries and Oceans Canada

DUC – Ducks Unlimited Canada

ECCC – Environment and Climate Change Canada

FFHR – Fort Folly Habitat Recovery

FNP – Fundy National Park

GCS – Global Conservation Solutions

IBoF – Inner Bay of Fundy

MPA – Marine protected areas

NCC – Nature Conservancy of Canada

NGO – Non-governmental organization

NWA – National Wildlife Area

OECM – Other effective area-based conservation measures

SARA – Species at Risk Act

SARs – Species at risk

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Chapter 1: Introduction

This paper explores the challenges and successes of applying a conservation planning framework to a conservation planning process in practice. This research aims to address gaps in literature on the application of conservation frameworks in practice, including how to address and implement feedback from those involved in these processes. This paper will provide background on conservation planning, the geographic and temporal scope of the research, the methodology used, results of the research, and a discussion on lessons learned, recommendations, and limitations of the research.

Chapter 2: Background

2.1 Conservation Measures Partnership

The Conservation Measures Partnership (CMP) is a group of non-governmental organizations (NGOs), government agencies, funding organizations, and private businesses that have the collective goal of guiding and improving global conservation (CMP, 2024). It is a joint venture with the mission of improving the practice of biodiversity conservation through the development and promotion of common standards for conservation planning (Teofili and Battisti, 2011). This partnership focuses on providing principles and practices for effective conservation, pursuing better ways to design, manage, and measure the impacts that result from conservation action (CMP, 2024). Additionally, the CMP has worked to establish standards of conservation practice to improve the accountability of conservation actions through a process of adaptive management (Redford et al., 2018). The vision of the CMP posits that evidence, measuring effectiveness, and lesson sharing with the conservation community will amplify conservation impacts worldwide (CMP, 2024). The CMP emphasizes the importance of collaboration, efficiency, and innovation, utilizing these principles in their operation (CMP, 2024). The CMP was established in 2002 after meetings involving conservation-oriented organizations (CMP, 2024). Combined with two years of collaboration among CMP members, these meetings led to the development of a common language for project management

terminology, as well as protocols regarding conservation, known as the Conservation Standards (CMP, 2024).

2.1.1 Conservation Standards

The CS, more formally known as the Open Standards for the Practice of Conservation, are a set of principles and practices assembling common concepts, approaches, and terminology involved in conversation project design, management, and monitoring (CMP, 2024). They are designed to provide the necessary steps and general guidance for successfully implementing conservation programs and projects (Teofili and Battisti, 2011). CS is similar in its structure and steps to other conservation planning processes, but the available resources and tools connected to the CS, as well as its user-friendly nature, sets it apart. The CS is a conservation planning framework, which is defined by Schwartz et al. (2018) as "a cohesive set of tools and guidelines within which one may structure the planning and management of a conservation program or project" (p.2). Conservation planning is a strategy for better and more efficient environmental use management. It is a practice that involves not only designating protected areas or species, but also creating a concrete plan for how to manage and protect environments around the world.

The CS are used for the planning and prioritization of conservation actions, which is done based on project priorities, the assumed linkage between action and outcome, the likelihood of success, and the cost of implementation (Schwartz et al., 2012). The first version of the CS was created by the CMP in 2004 and they are updated regularly through community collaboration (CMP, 2024). The fourth and most current version of the CS was released in 2020 (CMP, 2024). The CS are now widely adopted and used in conservation planning globally, as a framework that helps conservation teams achieve lasting impact (CMP, 2024).

The CS provide a five-step framework for conservation planning: "Assess", "Plan", "Implement", "Analyze and Adapt", and "Share" (CMP, 2020) (see *Figure 1*). The first step of the CS is "Assess." This step involves defining the purpose of the project and identifying the project team, defining the scope, vision, and conservation targets of the project, identifying critical threats, and assessing the conservation situation. The second step of the CS is "Plan." This step involves developing a formal action plan, which includes goals, strategies, assumptions, and objectives, developing a formal monitoring, evaluation, and learning plan, and

developing an operational plan. The third step of the CS is “Implement.” This step involves developing a detailed short-term work plan and timeline, developing and refining the project budget, then implementing the plans. The fourth step of the CS is “Analyze and Adapt.” This step involves preparing data for analysis, analyzing and reflecting on results, and adapting the strategic plan. The fifth and final step of the CS is “Share.” This step involves documenting and sharing what is learnt, as well as fostering a learning environment. The process is non-linear, highlighting the flexibility of the CS for adaptive planning and management. Monitoring and evaluation are essential to ensure that plans are delivering on the strategies they have identified. Steps can be revisited throughout the conservation planning process to address plan performance to meet the conservations objectives.

Figure 1. Open Standards for the Practice of Conservation Project Cycle (CMP, 2020).

The CS adheres to a set of key principles and considerations that apply to all steps of the framework. The principles of the CS are collaboration with partners, involvement of stakeholders, appropriate use and contribution to evidence, use of adaptive management in the face of uncertainty, documentation of decisions, and fostering a learning environment (CMP, 2020). The considerations of the CS include that they will change over time, represent the "ideal", assume that some priority identification has taken place before the application of the standards, apply to projects at any spatial and/or temporal scales, focus on conservation as the main aim but can be adapted, and seek to clearly define and consistently use terminology (CMP, 2020). Additionally, the CS can and should be customized to fit the different nature of each project, and the CS can be implemented using a variety of tools provided by the Conservation Measures Partnership (CMP, 2020). These considerations emphasize the importance of evolution throughout and across conservation planning initiatives using the CS, representing an adaptive management approach to conservation.

One of the main themes that the literature review highlighted is that the use of the CS across the global conservation community is a result of the characteristics of this framework that make it particularly well-suited for conservation planning, including adaptability and flexibility, as well as its cyclical and interdisciplinary nature. The regular modification of the CS allows for emphasis on emerging issues that become increasingly relevant with time. For context, the CS have gone through four versions in 20 years, resulting in an average of a new version every five years. One example of this is the beginning steps of the CS, "Assess" and "Plan", being modified to make the process more 'climate-smart', meaning that they are adaptive to a constantly changing climate, shifting towards the further prioritization of addressing climate change in conservation practice (Brown et al., 2022). Connected to this flexibility is the importance of adaptive management in conservation planning, which is a primary principle of the Conservation Standards framework (Redford et al., 2018). The importance of adaptation and learning throughout the conservation planning process, which the Conservation Standards framework helps to foster, was also highlighted in the literature (Grantham et al., 2010).

The CS framework is beneficial for further integrating social sciences, such as human, societal, and cultural perspectives, into conservation planning, allowing for more diverse partners to be involved in the decision-making process (Niemiec et al., 2021). Conservation planning has

not typically included social science perspectives, which separates this framework from others. This inclusion can increase the knowledge base of conservation planning projects, which is essential for making informed decisions throughout these processes.

Some of the literature also detailed the benefits of the CS for specific conservation planning initiatives. Two examples of this are a paper that characterizes the CS as a valuable resource and good guideline for designing systematic conservation planning projects (McIntosh et al., 2017) and another paper that describes the benefits of using the CS as a basis for the evaluation of case studies, by checking if such case studies are completing the steps of the CS and achieving their set goals and objectives (Leslie, 2005). The characteristics outlined in the literature support the global use of the CS as a preferred conservation planning framework.

The CS are valued in the conservation planning community for their structured clear and logical vision, resulting in the CS being used as a key framework for conservation management (Schwartz et al., 2012). Despite their widespread use, there is limited literature detailing the process of using the CS in practice. One of the aims of this research is to help close that gap by identifying the challenges and successes that emerge when applying the CS framework to a conservation planning initiative.

2.2 Inner Bay of Fundy: Location, Area, and Scope

The Inner Bay of Fundy (IBoF) is an area within the Bay of Fundy, located between the provinces of New Brunswick and Nova Scotia in Canada (*Figure 2*). The division of the inner and outer Bay of Fundy extends from Saint John, New Brunswick to the Digby Gut, Nova Scotia (Schleit and Vanderkaden, 2024). Included in the IBoF area are the waters and nearshore areas of Chignecto Bay, Cobequid Bay, and the Minas Basin and Channel (Schleit and Vanderkaden, 2024).

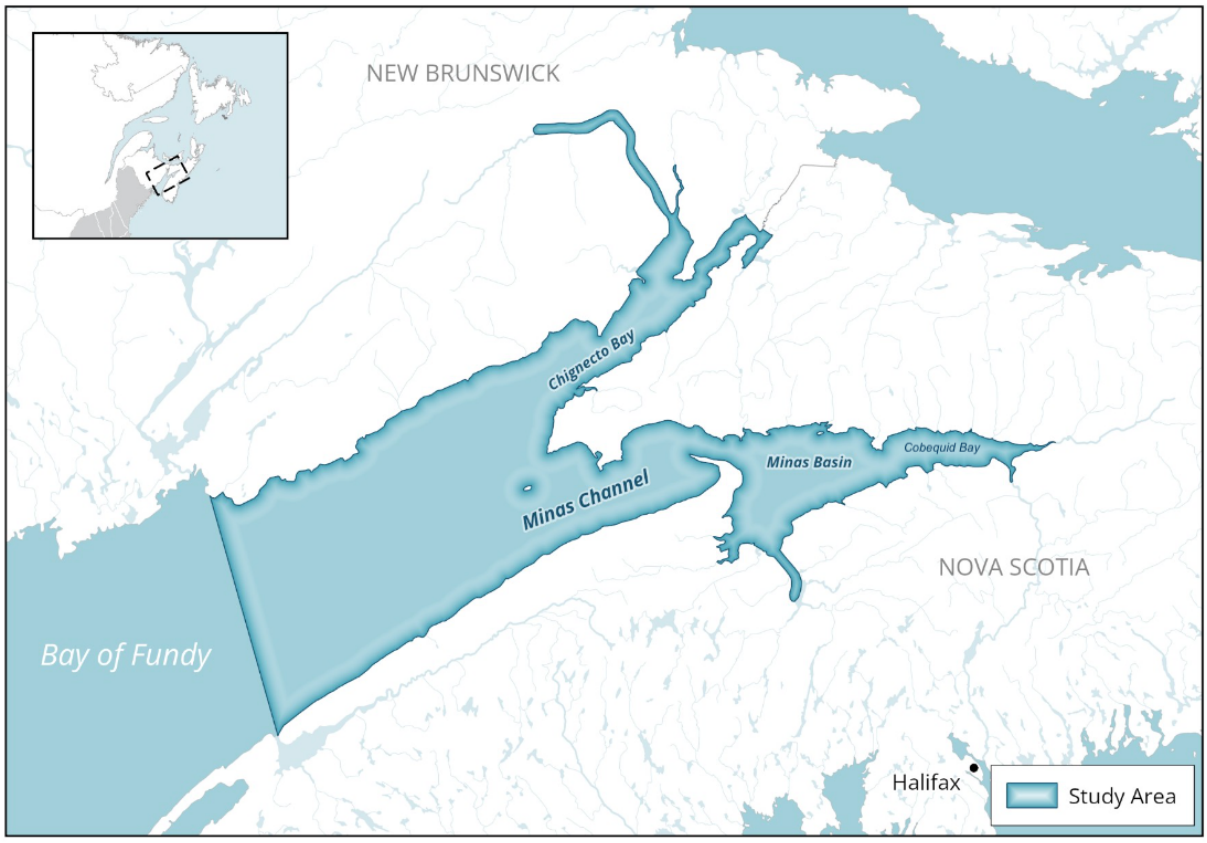

Figure 2. Map of the Inner Bay of Fundy (IBoF) Study Area (*Edited from* Schleit and Vanderkaden, 2024).

The IBoF exists within the ancestral territory of the Wabanaki Confederacy, which is comprised of the Mi'kmaq, Wolastoqiyik (Wolastoqewiyik), Peskotomuhkati (Passamaquoddy), Abenaki and Penobscot (Pena'pskat) Nations (Schleit and Vanderkaden, 2024). These Nations of the Wabanaki Confederacy have lived on and taken care of these lands and waters since time immemorial (Schleit and Vanderkaden, 2024).

2.3 Ecological and Cultural Importance of the Inner Bay of Fundy

The IBoF is an area of ecological importance, due to its unique environment. The IBoF region contains the highest tides in the world, ranging from nine metres near Saint John and the Digby Gut to 16 metres towards inner Cobequid Bay (Daborn and Redden, 2016). These large tides in the IBoF provide a unique and expansive habitat for species living within the area

between high and low tide, known as the intertidal zone (DFO, 1996). The IBoF environment also includes important saltmarsh areas (Schleit and Vanderkaden, 2024), which are coastal wetlands flooded and drained by salt water brought in and out by the tides (NOAA, 2024). Settlers from France, called Acadians, arrived in the Bay of Fundy in the early 1600s and began dyking and draining the coastal wetlands for agriculture (Sherren et al. 2021). The drainage infrastructure was expanded over the centuries, which resulted in the loss of over 69% of the coastal tidal wetlands in the Bay of Fundy (Sherren et al., 2021). Also contributing to this loss was the damming of tidal rivers in the region. This loss is a major factor in the need for conservation in the IBoF; to preserve the remaining wetland habitats and the species that reside within. Some of the wetlands in the IBoF are on the Ramsar List, which is the world's largest network of protected areas, which provides a valuable conservation opportunity (Ramsar, 2024).

The IBoF region exhibits high biological diversity and is biologically very productive (Daborn, 2018). In addition, it is home to wide diversity of habitats, which has given rise to biological connections with a large part of the globe –including the Arctic, North and South Atlantic, North, Central, and South America, and Europe –through the migratory movements of numerous fish, bird, and mammal species (Daborn, 2018). More than 2,300 species, including over 120 fish, 170 marine birds, and more than 20 marine mammals can be found in the Bay of Fundy system, emphasizing the biological and habitat diversity in the region (Daborn, 2018). Within the IBoF is the Minas Basin, which is designated as an ecologically and biologically significant area (DFO, 2018). Critical habitats for species at risk (SARs), including Atlantic salmon (*Salmo salar),* also comprise the IBoF region. The IBoF also provides important habitat for a multitude of both resident and migratory bird species. Forty-eight rivers drain the surrounding upland and discharge into the IBoF, over half of which are essential aspects of this critical habitat for such SARs (DFO, 2006).

The IBoF is also culturally and economically important to those that reside within, rely upon it for their livelihood, and travel to this region. Indigenous peoples have been living and working in the IBoF region for thousands of years and non-indigenous peoples have been living and working in the IBoF region for hundreds of years, both developing strong connections to the lands and waters within. Tourism and fishing are among the main industries in the IBoF, which provide livelihoods for those that live in this region. Tidal power research has also been taking place in the IBoF for over a century, providing jobs in the region (Daborn, 2018). The IBoF is a

major tourist attraction in Atlantic Canada, drawing in visitors from around the world come to the region to see the famous coastal landscape. Attractions include formations such as the Hopewell Rocks, Burntcoat Head Park to see the highest tides in the world and walking along the ocean floor, tidal bore rafting in the Shubenacadie River, and kayaking near Cape Chignecto Provincial Park, among others (Nova Scotia Tourism, 2024). While this tourism is important for increasing cultural awareness of the significance of this region and the need for its protection, its popularity and tourist traffic also contributes to its need for conservation.

2.4 Conservation within the Inner Bay of Fundy

There are numerous conservation initiatives within the IBoF. These include the Eastern Habitat Joint Venture Initiative (EHJV, 2024), the Fort Folly Habitat Recovery Salmon Restoration Program (FFHR, 2017), the Chignecto Isthmus Community Nominated Priority Place (ECCC, 2019), Kespukwitk/Southwest Nova Scotia Priority Place (KCC, 2024), and the Wolastoq/Saint John River Priority Place (Nature Trust NB, 2023)

2.4.1 Proposed and Future Conservation Initiatives

A major future conservation initiative that has recently emerged for the IBoF is a set of proposed marine conservation network sites for the Scotian Shelf-Bay of Fundy Bioregion as shown in *Figure 4* (DFO, 2024a). These proposed network sites are part of a broader marine conservation network development plan for Canada, led by the federal government agencies Fisheries and Oceans Canada (DFO), Parks Canada, and Environment and Climate Change Canada (ECCC) (DFO, 2024b). These departments are working with provincial and territorial governments, as well as Indigenous organizations, industry, and environmental NGOs to build a network of marine protected areas (MPAs) and other conserved areas nationally (DFO, 2024b).

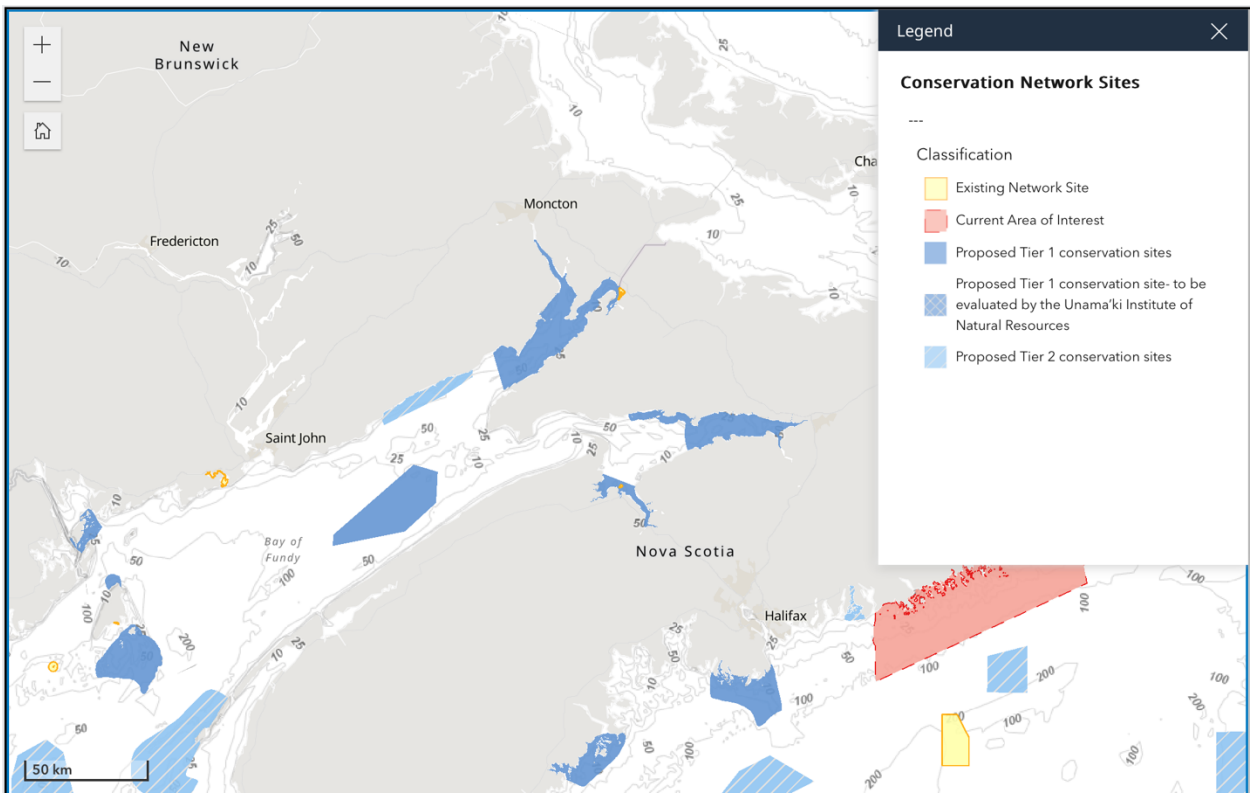

Figure 3. Map of proposed and current marine conservation network sites for the Scotian Shelf-Bay of Fundy Bioregion (DFO, 2024).

A marine conservation network plan has been created for the Scotian Shelf-Bay of Fundy Bioregion, which includes existing and proposed MPAs and other effective area-based conservation measures (OECMs) (DFO, 2024a). Five of the thirty-eight proposed conservation sites from this initiative exist within the IBoF: Cobequid Bay, Southern Bight, Chignecto Bay, Salmon Rivers, and Bay of Fundy Horse Mussel Aggregations (DFO, 2024a). DFO undertook public consultation for on these sites, and the network is not finalized (DFO, 2024a).

The identification of these proposed conservation sites provides an opportunity for the development of future conservation planning processes in the region. The intersection of this plan with the CS could potentially arise with the need for a conservation planning initiative to facilitate and implement the process of creating the proposed MPAs and OECMs. The CS could provide a valuable framework to guide this planning process and is familiar to the federal government, as it has been used for other conservation planning initiatives in Canada, such as the IBoF Conservation Plan process.

2.5 The Inner Bay of Fundy Conservation Plan Process

The IBoF Conservation Plan process is a conservation planning initiative that has been underway since March 2020. It is jointly led by the Canadian Wildlife Service (CWS), a division of ECCC and Global Conservation Solutions (GCS) and is a separate process from the DFO marine conservation network plan. This process is not specifically area-focused but is a spatial-ecological planning initiative. It differs from other conservation planning processes in that it combines both spatial and ecological concerns in its scope, rather than focusing on just one of these dimensions of conservation. This process has identified key spatial and ecological attributes in the IBoF to help identify what is manageable, and then determine a plan of action for the conservation of these attributes. Not only could this process be used to identify priority sites for conservation such as MPAs, but it can also support the conservation of key ecological attributes more generally by identifying threats to these key features to avoid or by implementing appropriate mitigation measures.

The IBoF Conservation Plan process has taken place through a series of exclusively online workshops and special sessions, of which there are 42, as of November 2024. Over 100 individuals participated in these workshops over the four years they have been occurring, though not all participants attend all meetings. Meetings average 25 to 30 participants. The over 100 participants represent various sectors and agencies, including government, industry, Indigenous organizations, non-governmental organizations, academia, and others. The IBoF Conservation Plan process uses the CS as a framework for conservation planning within the IBoF region. These workshops enable the representatives involved in this process to work together through the steps outlined in the CS. Participants use the three-hour workshops as a collaborative space to follow and execute the process steps as outlined in the CS. In addition to actioning the steps outlined in the process, workshop activities include reviewing the CS process and outputs to date, knowledge-sharing, and decision-making. Using the IBoF Conservation Plan process as a case study will help to understand the benefits and challenges of utilizing the Conservation Standards as a planning framework in practice.

The questions this paper aims to answer are, what are the challenges and successes of applying the ‘Conservation Standards’ to the IBoF Conservation Plan process, and how can the

IBoF Conservation Plan process case study inform future conservation planning initiatives and processes in the IBoF and beyond?

Chapter 3: Methods

. The first steop of this study was a traditional, also referred to as a narrative, literature review. The second was the construction of a timeline from workshop documents to provide context on the outcomes and outputs of the IBoF Conservation Plan process from March 2020 to June 2024. The third was a survey distributed to workshop participants, both past and present, to understand the perspectives of those involved on the process regarding the successes and challenges of applying the CS as a conservation planning framework in practice.

3.1 Literature Review: Narrative

The objectives of this literature review were to gain further knowledge relevant to the CS process; to identify similar research on other initiatives globally; and to increase understanding of the scope and context of the IBoF Conservation Plan process, including the location and the CS framework. Gaining insight to the IBoF region and the Conservation Standards was essential for understanding how to best obtain useful and relevant data for analysis of the IBoF Conservation Plan process, pertaining to its use of the Conservation Standards as a planning framework. Additionally, searching for other initiatives using the Conservation Standards as a framework for conservation planning had the potential to inform the design of this research, in terms of formatting and lessons learned. Both grey and peer-reviewed literature were considered in this review.

The literature review search strings and keywords included the following: “utilizing conservation standards”, “conservation standards AND planning”, “open standards for the practice of conservation”, “conservation standards”, “conservation measures partnership”, “inner Bay of Fundy ecology”, “inner bay of Fundy conservation”, “inner Bay of Fundy ecological significance”, and “inner Bay of Fundy cultural significance.” From these keywords and search strings, 12 relevant results were chosen for this paper on the CS, the CMP, and conservation

planning, including both peer-reviewed and grey literature, and 9 relevant results were chosen for this paper on the IBoF ecology, ecological significance, cultural significance, and conservation in the region.

The organization of the literature review findings into a chart allowed for more comprehension and organization regarding the analysis of the data gathered. This chart was mainly used for gathering information on the CS and their application to conservation planning processes. Data surrounding context on the IBoF region was synthesized in a document using point-form text and subheadings as a structure.

3.2 Process Timeline Construction

Following the literature review, the second form of data collection for this project was utilizing available documents from the IBoF Conservation Plan workshops to create a timeline of outputs and outcomes, including milestones, events and decisions throughout their planning process. The documentation included PDF files of slides used to guide the 39 workshops and the ongoing 'Parking Lot' document, used for documenting important items for discussion, completed, or tabled for a later date. The documentation is stored in an open access Google Drive for all participants, helping to ensure a transparent process. Additionally, recordings of the workshops, available only for workshops from September 2023 onwards, as previous workshops were not recorded, were reviewed to fill any gaps in information lacking in the other document types.

3.3 Participant Survey

The final method of data collection for this paper was a survey, the purpose of which was to gain insight to the perspectives of IBoF Conservation Plan workshop participants on their experience throughout the process. The study population for this survey was all individuals who had participated in the IBoF Conservation Plan workshops from March 2020 to September 2024, which was approximately 100 people. This survey used category selection, Likert scale, and short answer questions to ask participants about their experiences in the IBoF Conservation Plan process workshops, pertaining to the use of the CS as a conservation planning framework. The

survey was divided into four sections: ‘Context and Participation’, ‘Conservation Standards Principles’, ‘Opinions on the IBoF Conservation Plan Process using the Conservation Standards’, and ‘Benefits and Outputs of Using the Conservation Standards.’ Survey responses were anonymous, and answers for all questions were optional. The survey is in *Appendix A.*

The survey was designed in collaboration with the facilitators of the IBoF Conservation Plan process. This measure ensured that the objectives of the survey aligned with the desired outputs and outcomes of the IBoF Conservation Planning Committee. The survey received Dalhousie Research Ethics Board approval through the delegated unit-level research ethics review process in the Marine Affairs Program on July 6, 2024. The survey was translated from text to Microsoft Forms, then distributed to the IBoF Conservation Plan process workshop participants linked in an email from a member of the planning committee on July 24, 2024 (see *Appendix B*). Participants were given until September 10, 2024 (48 days) to complete the survey.

Once the survey was closed to responses, the results were automatically displayed as both individual responses and as a summary of responses in Microsoft Forms. This organization, combined with downloading and exporting individual survey responses to Microsoft Excel, were used for data analysis. A thematic analysis was conducted on the open-ended responses from the survey. Sub-themes were drawn out manually and sorted into categories in a Microsoft Word document. Quotes were used in the *Results* section to emphasize common themes within questions, where appropriate. A frequency distribution was conducted for the category selection responses.

The decision to survey participants was made after conducting the literature review and creating the timeline of workshop outputs and outcomes. The literature review and timeline construction provided important context on the CS, IBoF region, and the outcomes and outputs of the IBoF Conservation Plan process, including what was done during the process and when. It did not, however, give insights to the participants’ experiences throughout this process. The survey was deemed necessary to get internal perspective on the application of the CS to the process, which is context that could not be gained through the literature review and analysis of workshop documents. This information is crucial for developing recommendations to streamline and improve this process, as well as informing similar processes in the future. The survey was deemed necessary to get feedback and internal perspective, which is context that could not be gained through the literature review and analysis of workshop documents. The goal of

distributing the survey to workshop participants was to receive feedback that can inform recommendations for future planning initiatives in the IBoF and beyond.

Chapter 4: Results

4.1 Process Timeline Construction

Analysis of the IBoF Conservation Plan workshop documents allowed for composing a timeline of outputs and outcomes throughout the process. The main milestones throughout the process to date are shown in *Figure 5.* The first workshop of the IBoF Conservation Plan process took place on March 24 and 25, 2020. This workshop introduced the Conservation Standards process, define scope, define the project purpose, identify, introduce, and explain the project team, introduce the concept of vision and vision statements, and introduce and identify targets, also referred to throughout the process as key ecological attributes (KEAs). These KEAs were identified as intertidal flats, beaches & cliffs, saltmarsh, riverine estuaries, benthic zone, pelagic zone, intertidal rocky shoreline, and coastal islands. The next workshop took place in July 2020 and involved the introduction of target viabilities, or ecological integrity, which is the process of using the best available evidence to define and measure the health of identified conservation targets (Miradi, 2024). The following workshop in August 2020 included starting the process of connecting targets to the target viability assessment and introducing and identifying pressures. The September 2020 workshop involved the identification of potential strategies and continuing to identify pressures in the form of a list.

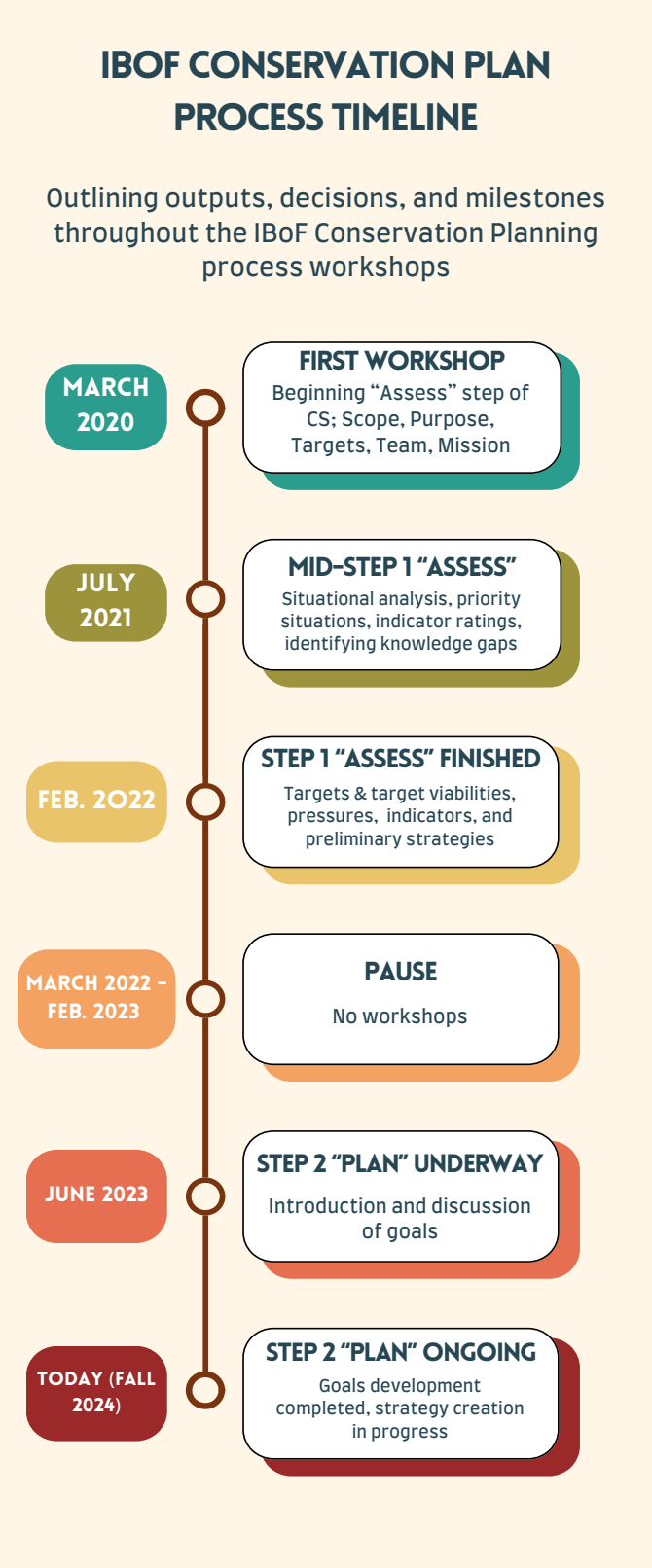

Figure 4. Timeline of the Inner Bay of Fundy (IBoF) Conservation Plan process

The October 2020 workshop continued with the identification of potential strategies, proposing indicators, and beginning of ranking pressures. Two workshops in November 2020 involved identifying emerging pressures, with the following December 2020 workshop being used for development of the communication strategy. Workshops in January, February, and March of 2021 consisted of identifying potential strategies and monitoring strategies.

After a break from workshops during April to June 2021, the July 2021 workshop involved introducing situation analysis, followed by the continuation of identifying potential strategies and identifying priority situations to analyze in the August 2021 workshop. The indicator ratings for targets were completed in the November 2021 workshop. The December 2021 and February 2022 workshops involved a horizon scan and the completion of the priority situation analysis. The second February 2022 also marked the completion of Step 1 of the CS process, "Assess." The two workshops that took place in March 2022 consisted of beginning the creation of a vision statement and a scope map discussion. Following this, there was a pause in workshops between April 2022 and January 2023.

Workshops resumed in February 2023, where scope considerations, a pressure assessment, an overview of the CS framework, a review of the "Assess" steps, creation of a vision statement, and identification of missing data for scope maps were accomplished. Workshops in March, May, and June 2023 involved the continuation of the pressures assessment and summary ratings, identifying GIS analyses to support the pressures extent ratings, identifying future potential strategies to consider, and introducing goals as part of Step 2: "Plan." After another break in workshops during summer 2023, workshops resumed in September 2023, where ECCC presented the "Inner Bay of Fundy Conservation Plan Initiative - IBoF Planning Team Update." This consisted of a summary of the achievements during Step 1: "Assess." Workshops from September to December of 2023 consisted mainly of goal development, which was completed during the December 2023 workshop. Strategy creation also began at this workshop. Strategy creation and identification of potential actions were the priority during workshops from January to June of 2024. The September, October, and November 2024 workshops involved identfying the feasibility, impact, and effectiveness of each of the previously identified strategies and potential actions. This was completed during the November 2024 workshop. Throughout the entire process and across workshops, knowledge gaps were identified and addressed accordingly.

At this point, the IBoF Conservation Plan process team is partway through the second step of the CS, "Plan." This initiative has been underway for four and a half years, but due to the pause in workshops, there has been approximately three and a half years of work on this initiative by participants and the Planning Team. This process does not have a defined end date as of November 2024. Next steps for the process include finishing up the "Plan" step, which will involve the development of monitoring and operational plans, as well as the "Implement", "Analyze & Adapt", and "Share" steps of the CS.

4.2 Participant Survey

The survey of the IBoF Conservation Plan process workshop participants received 16 responses over the course of 61 days, out of 103 possible participants, which is a 15% response rate. The first section of the survey was 'Context and Participation.' The survey asked the participants to identify the organization that they are representing or their affiliation (*Figure 6*). Fifty percent of the survey participants were representatives from non-governmental organizations, 25% of participants were representatives from government, either federal, provincial, or municipal, 12.5% of participants were representatives from Indigenous organizations, and 12.5% were industry representatives. The distribution of total participants involved in the IBoF Conservation Plan process workshops are as follows, approximately: 23% federal government, 10% provincial government, 24% Indigenous representatives, 27% NGO, 8% industry, 5% academia, and 1% academia. Based on these numbers, the survey responses overrepresented NGOs and industry, while underrepresenting Indigenous organizations, government, academia, and other.

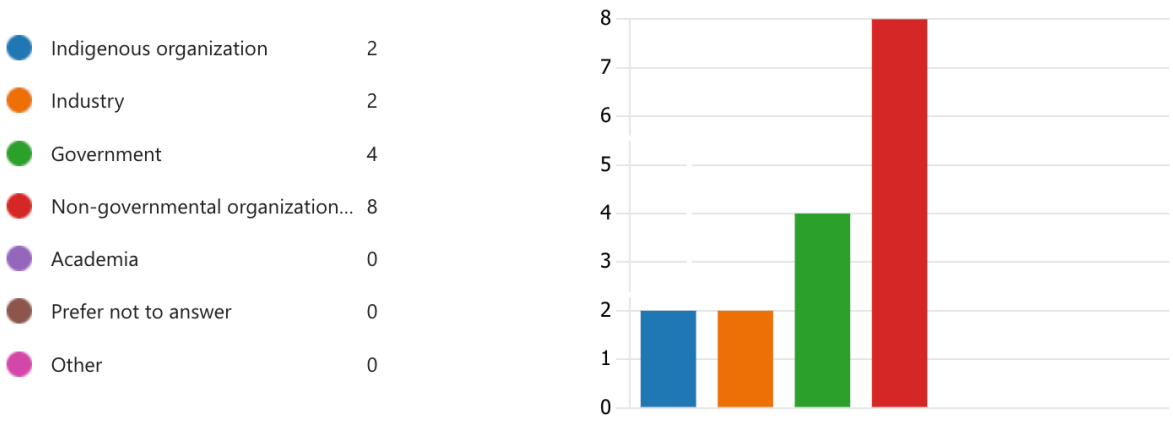

Figure 5. Organization types of survey participants, pertaining to their involvement in the Inner Bay of Fundy (IBoF) Conservation Plan Workshops.

When asked how long they have been participating in the IBoF Conservation Plan process, the results showed that six participants had been participating for more than three years, six had been participating for less than one year, three had been participating for one to two years, and one participant had been participating for two to three years.

Sixty-nine percent (eleven) of participants were aware of other ongoing opportunities to improve conservation within the IBoF at the time of joining the IBoF Conservation Plan process, while the other 31% (five) were not. When asked to elaborate on this knowledge, participants that were aware of other ongoing opportunities listed work done by governmental and non-governmental organizations as their main sources of awareness, including the application of the Species at Risk Act (SARA) to species within the IBoF, IBoF Atlantic salmon (*Salmo salar*) recovery requirements, DFO Marine Conservation Network Plan, designation of the Fundy National Park (FNP), government commitment to a marine National Wildlife Area (NWA) within the Bay of Fundy (BoF) by 2025, establishment of provincial protected areas and parks in the region, and the preparation of a community profile for the IBoF region. Non-governmental initiatives included projects of the Nature Conservancy of Canada (NCC), ECCC, Ducks Unlimited Canada (DUC), Fort Folly Habitat Recovery (FFHR), Fundy Biosphere Reserve, and Dalhousie University. Examples of work done by non-governmental organizations in the region, as mentioned by survey participants, include the establishment of Johnson's Mills Shorebird Reserve and Interpretive Centre by NCC. Other conservation improvement opportunities

identified in the answers to this survey question were ongoing restoration projects; active engagement on the establishment of marine protected areas in the IBoF, public education, and outreach about protection in the region; fish monitoring and passage in the Avon River, an estuary of the Minas Basin; and the establishment of migratory bird sanctuaries in the IBoF. For those unaware of other ongoing opportunities to improve conservation within the IBoF at the time of joining the process, participants noted that they were either new to the initiative, or that the initiatives were non-specific to the IBoF and just targeted to the BoF as a whole.

Participants were asked how they learned about the IBoF Conservation Plan, and their motivation to participate in the workshops. Learning and motivation were attributed to participants being informed by colleagues or enlisted by their respective organizations, approached or invited by members of the process, or involved in early conversations surrounding the need for a collaborative process. All 16 respondents are currently active participants in the IBoF Conservation Plan Workshops. Motivation for remaining an active participant in the process included it being part of the participants' job, the IBoF being important to their family's livelihood, and the IBoF being important to First Nations people. Additionally, some participants felt a sense of responsibility to share the views of their organization in the workshops, remain informed on the conservation planning process, provide their information and knowledge about the IBoF, or the ecosystems comprising it, contribute to and advance the conservation of the area by working with stakeholders and rights holders, and ensure that the work being done leads to action. Other participants attributed their motivation to stay engaged to their belief in the initiative, an interest in learning and relationship-building, a lack of representation of their type of organization, and wanting to see the implementation of the developed conservation strategy.

The survey next gauged familiarity with the Conservation Standards process (*Figure 7).* The majority of participants indicated that they were familiar with the Conservation Standards and had at least a basic level of understanding regarding the logic of the Conservation Standards process. Despite having this basic understanding, the majority of participants also indicated that they would not consider themselves fluent with the Conservation Standards framework and would benefit from greater fluency in the Conservation Standards framework. Generally, it was those participants who indicated they were not fluent with the CS framework or were new to the IBoF Conservation Plan process who suggested that they would benefit from greater fluency with the framework.

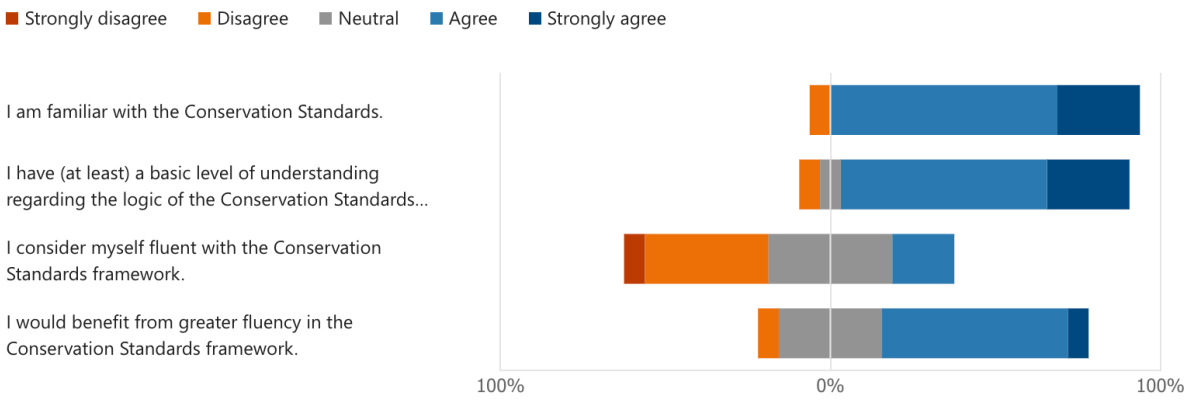

Figure 6. Understanding of the Conservation Standards process amongst Inner Bay of Fundy (IBoF) Conservation Plan Workshop participants (full text of the abbreviated statement can be found in *Appendix A*).

The second section of the survey explored participants' reflections on the application of the six general CS principles to the IBoF Conservation Plan process: "Collaborate with partners". "Involve stakeholders", "Appropriately use and contribute to the evidence base", "Use adaptive management in the face of uncertainty", "Document your decisions", and "Foster a learning environment". For the first principle, "Collaborate with partners," themes that emerge from participants perspectives included the need for benefits and challenges of achieving balanced and diverse representation. Participants suggested that balancing of partners was necessary, as multiple perspectives are important to understand different aspects essential to the conservation planning process and results in well-rounded decisions. Positive views of the current application of this principle include that the many partners active in the workshops allow for collaboration and partnership opportunities; the process provides a "common, transparent framework that enables effective information sharing and collaboration across a wide-range of partners"; and workshops are a "meaningful forum for various stakeholders and rights holders to build relationships, share information, and strategize on how to move conservation forward in the region." Concerns regarding the application of this principle are that not all necessary partners were included from the start and the right partners may not be involved, though there was no elaboration on who is missing and/or who should not be present. Other concerns include gaps in representatives from academia, though participants noted that this has been getting better as the

process goes on; that the online format of workshops sometimes makes it difficult to make strong connections; and that the CS process is too slow to allow collaboration with organizations that have limited time capacity for developing good working relationships. As a result, it is a struggle to have the right people with the right expertise at the table when their expertise is needed.

For the second principle, "Involve stakeholders", themes included level of participation by stakeholders and relative importance of stakeholders vs. partners. Participants reported that, in their view, there are varying levels of participation amongst stakeholders and that the involvement of stakeholders may be less important than having a good team of partners. The major positive response regarding the current application of this principle is that the Planning Committee has included diverse stakeholder and rightsholder groups, and that this expertise is broad enough for stakeholders to take strategic actions when appropriate. In terms of concerns, participants worry that, like partners, not all stakeholders were included from the start. More specifically, it was noted that there is a lack of representation from certain types of stakeholders, such as the fishing industry and academia. Participants further explain that it is important to include representation from the fishing industry because of the concern that their livelihood will be negatively impacted if MPAs in some of the proposed areas are approved, and that involvement and attendance of representatives from academia has been getting better as the process has gone on. Additionally, participants note that earlier on in the process, some of the small and midsize enterprises (SMEs) were not always present when it came to defining the ecosystem components, though information was eventually gathered. Participants explain that this lack of inclusion may have been an issue of a higher level of difficulty in engaging these groups. There are also concerns regarding the wording of this principle, as it is not inclusive of the fact that Indigenous peoples are rights-holders, not stakeholders. Other concerns include that the 3-hour workshop format and high-capacity required for regular commitment may be a barrier for stakeholder participation, and that most of the work has been limited to the people in this group, so other stakeholder and rightsholder groups may feel excluded from the process as a result.

For the third principle, "Appropriately use and contribute to the evidence base", perspectives from participants include that this principle is ongoing and important throughout workshops. They assert that guesses and personal opinions are not sufficient for decision-making, and the bottom-up process of evidence-building being used in this IBoF Conservation

Plan process must continue. Some participants note that they have not seen this principle applied yet, as they are new to the process or do not believe that the stage for this has been reached. Praises regarding the application of this principle include that there are enough partners involved with research and policy to bring evidence to the discussions, the free sharing of information, helpfully saved on Google Drive, allows for updates on current evidence. Concerns regarding the application of this principle include that participants believe that it is hard to have the right experts contribute time and that making decisions without evidence is irresponsible and using all available information is needed, but that this is sometimes ignored in the workshops.

For the fourth principle, "Use adaptive management in the face of uncertainty", participants stated that it is important to ensure there is truly uncertainty, and not just a lack of information. Some participants stated that uncertainty vs. lack of information is to be determined once the plan is implemented or do not believe there is any management being done yet, as this stage is still in process or not far along enough yet to determine. Therefore, adaptive management will be most relevant to the action, monitoring and implementation plans, which are yet to be developed. Praises on the application of this principle are that the planning group is flexible with the plan and able to act, even with uncertainty, and that the team is always revisiting, reflecting, and seeking feedback on group decisions. Concerns on the application of this principle include that there is more discussion than action and a belief that this principle could be better adopted, and that there are some assumptions made during decision-making despite the evidence that strategies may not work.

For the application of the fifth principle, "Document your decisions", praises include that this is one of the biggest strengths of the process, as decisions are documented and shared after each workshop for review at any time. Participants believe that the workshop facilitator excels at this and that workshop recordings are helpful, as they are good for reviewing and refreshing on decisions and rationale, and for those who missed a workshop to catch up. Concerns about the application of this principle include that reflecting back on decisions may stall or delay the process moving forward, which can be difficult for some participants and may have caused de-prioritization of participation in this process. Some participants also believe that there is too much documentation which might not be relevant to the decisions.

For the application of the sixth principle, "Foster a learning environment", participants explained that they believe this to be necessary for continued success and engagement.

Participants also express that they want more shared learning opportunities and face-to-face learning activities. Some participants believe that they have not been part of the process long enough to provide input on the application of this principle or that they believe nothing has been done, so there is nothing to learn from. Praises for the application of this principle include that workshop participants are comfortable asking clarifying questions, different partners bring their own expertise and learn from each other, and that participants are learning much about the IBoF area, including its threats and management context, from the process. Praises for the application of this principle include that high-level language is being used that not all participants understand, which is an accessibility issue and that the pace and flow of the workshops can be difficult for newer participants.

The third section of the survey asked participants their opinions of the IBoF Conservation Plan process using the CS. The first question in this section asked participants if, in their opinion, there had been successes in using the CS as a framework to guide the IBoF Planning Team that had emerged throughout the workshops. Sixty-nine percent (eleven) of workshop participants believed that there were successes. Identified successes included the assembly of the team; the ability to see targets and pressures; highlighting a diversity of threats; identifying a shared vision, targets, goals and strategies; confidence in strategies; engagement; knowledge sharing; consolidation; documentation; and expansion, reflection, and having a clear purpose. Additionally, one participant stated that the establishment of a collaborative environment among the planning committee has "facilitated many beneficial relationships between stakeholder and rightsholder groups that will continue to advance marine conservation across Atlantic Canada for years to come." Twenty-five percent (four) of workshop participants were undecided about successes and 6% (one) of participants did not believe there have been successes thus far. Reasons for this include that the intensity and perceived rigidity of the Conservation Standards process, as well as collaborative exploration, are causing the process to take time. The concern is that time is a resource that may run out before the implementation of the plan that is being developed. Additionally, there is concern regarding a lack of representation from some sectors. Workshop participants believe that the existing successes can be amplified through continuing the CS process to completion and moving the process along faster by starting to carry out actions, rather than just continuing with discussion. To improve momentum, reminding partners of goals, accomplishments, thanking partners for their participation and contributions, and

helping everyone understand the timeline and expectations of the process is important. One participant believes that "more sustained capacity funding for NGOs and Indigenous organizations to participate in more in-depth discussions about how to accomplish spatial conservation and protected areas" is necessary to amplify successes. Some participants assert that more in-person meetings would enhance relationship-building between workshop members. Other ways to amplify successes include ensuring accountability among partners, building on shared knowledge and ecological, social, cultural, and economic values, continued engagement and growth, creating an action plan that addresses all of the identified threats to some degree, and slowing the pace of the workshops to allow for increased comfort regarding speaking up and involvement of newcomers to the process, which is important for Indigenous involvement.

The next set of questions asked participants if, in their opinion, there had been challenges in using the CS as a framework to guide the IBoF Planning Team that had emerged throughout the workshops. Ninety-four percent (fifteen) of workshop participants believed that there were challenges, and 6% (one) of participants were undecided. Identified challenges included that direction and timeline of the process are unclear and that the process is time-consuming and not streamlined, which can be frustrating when the relevant environmental challenges require immediate action. Participants also believe that there are different levels of understanding and familiarity among partners regarding the process, participation does not feel important due to a lack of comfort and knowledge/expertise, and that it is difficult to have sustained dialogue when different participants show up to each workshop, which creates a sense of disconnect. Additionally, some participants feel that there is a lack of transparency and clarity on the end results, deliverables, and the implementation of the final plan from CWS, which is a barrier to inclusion for some participants and causes frustration among the planning committee. With this, some external stakeholder and rightsholder groups feel excluded and uncertain about what is expected of them. A range of suggestions to speed progress were identified by survey participants, such as meeting more often, which may not be feasible for participants' schedules, or further limiting discussion to limit lengthy back-and-forth on certain issues. Some participants believe that assembling small groups representing each stakeholder/partner to establish timeline and end goals and/or specific subject discussions would be beneficial and would solve the issue of the group doing too much and being too broad in scope. Related to this is the idea of including break-out group sessions during each workshop, as it could help increase participation.

Additionally, another participant suggested the division of the planning group into two streams: "a couple of workshops to keep the whole Conservation standards Framework process going and continue/speed up the working group on spatial protection." With these ideas of smaller groups, a participant suggested hiring a conflict resolution expert to help drive outcomes and address trust issues, as well as unspoken concerns. Other suggestions include having a goal of at least one in-person workshop a year, ensuring that necessary expertise is present before having discussion on issues, simplifying the planning process, having frequent check-ins with participants to ensure everyone is up to speed regarding the Conservation Standards framework and regular introductory sessions on the process for newcomers, financial compensation for participants, fast tracking certain strategies, and starting the implementation stage while continuing planning stage to make the process move along faster. One specific suggestion from a workshop participant is that CWS could increase transparency, both within the planning team and publicly, surrounding mandates, expected outcomes and deliverables, and requirements to achieve goals. An example of this that the participant gave is the development of an action plan with milestones and a timeline from now until the end of the project funding in 2026.

The fourth and final section of the survey asked participants about the benefits and outputs of using the CS. Eight statements were given to participants and they were to agree or disagree with the statements on a scale (see *Figure 8*). The majority of participants agreed or strongly agreed with all eight statements, demonstrating the numerous tangible benefits of the IBoF Conservation Plan process' use of the Conservation Standards framework.

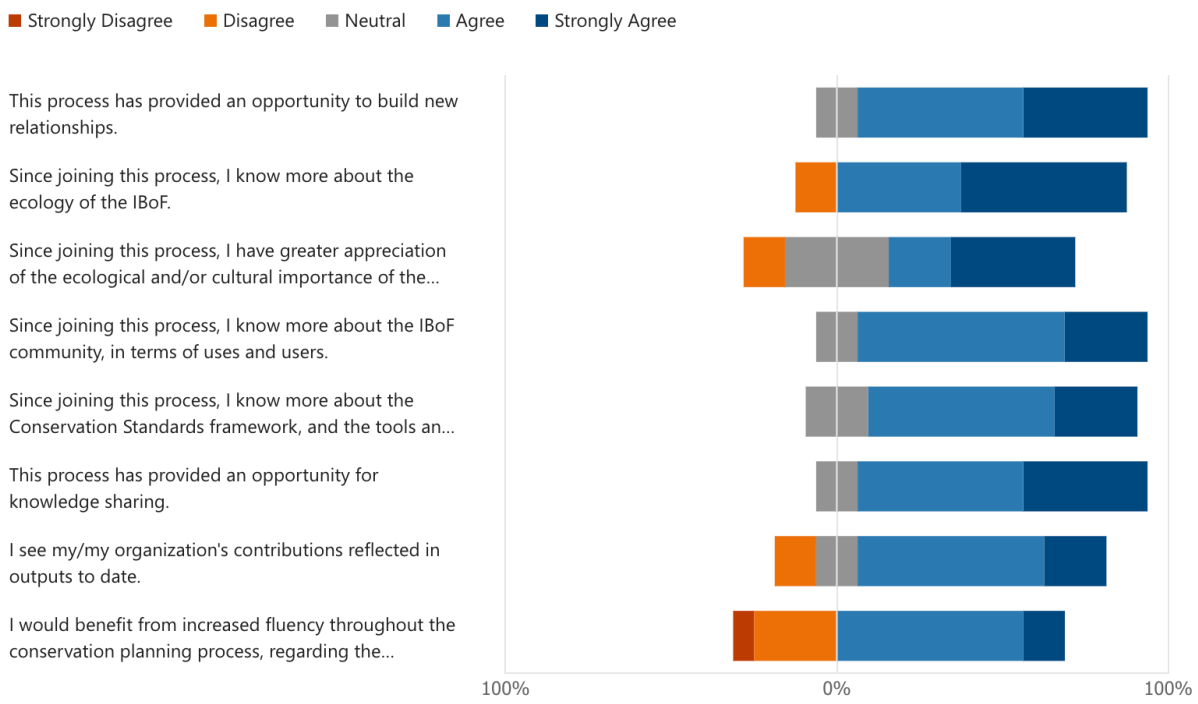

Figure 7. The perceptions of the Inner Bay of Fundy (IBoF) Conservation Plan Workshop participants regarding the benefits and outputs of using the Conservation Standards in the conservation planning process (full text of the abbreviated statements can be found in *Appendix A*).

Participants were next asked if the resources and outcomes of the IBoF Conservation Plan process were useful to their organization. Seventy-five percent (twelve) of participants stated that the resources and outcomes were useful to their organization. Reasoning for this included that the increased knowledge, relationship-building, collaboration and contacts gained from participating in the process have helped or will help their organization in future endeavours. Twenty-five percent (four) of participants stated that they are undecided on whether the resources and outcomes will be useful to their organization. Reasoning for this included that some of the outcomes are still unclear to participants. When asked how resources and outcomes of the IBoF Conservation Plan could be made more useful to participants' organizations, responses included yearly in-person meetings so that the broader IBoF community can be present, increased communication and clarity, summary documentation of the process to date, having a centralized database for knowledge-sharing, and moving beyond the CS framework for conservation planning.

The final question asked participants if there was anything else they would like to contribute regarding their experience throughout the process, pertaining to the use of the 'Conservation Standards' as a conservation planning framework for the IBoF. Responses included greater flexibility to reflect the local context and placing greater emphasis on Indigenous engagement and reflection of Indigenous voices throughout the process.

Chapter 5: Discussion

5.1 Literature Review

The literature review provided important context on both the IBoF's ecological and cultural context, as well as the CS as a conservation planning framework. Ecological and cultural context gained from this literature review was used to inform the Introduction and Background of this paper, understand the workshop documents, and develop the survey questions. Lessons learned from literature regarding the application of the CS as a conservation planning framework in practice helped to guide the creation of the survey questions, as well as informing recommendations for how to improve future conservation planning initiatives in the IBoF region and beyond.

5.2 Process Timeline Construction

The analysis of workshop documents to construct a timeline allowed for further understanding of workshop activities. The timeline helped to determine which steps of the CS had been completed so far, which steps were still in progress, and what was yet to be done. The creation of a timeline of events for the IBoF Conservation Plan process to date was a necessary aspect of the research process, as there was no timeline provided for completion of the five steps of the CS in the workshop documents made prior to starting the process. One reason for this may have been that it can be a challenging task for the leaders and facilitators of this process to establish a timeline for completion, as it is difficult to know how long different steps of the CS framework will take to finish.

The lack of timeline became evident as one of the challenges that many participants identified throughout the survey. While the steps of the CS are clear themselves, there was no clear end date established for the final step to be completed. This has caused some dissatisfaction among workshop participants, as some feel they do not understand what exactly they are working towards, and for when. Additionally, this has caused some participants to become less engaged and involved in the IBoF Conservation Plan process. To solve this challenge, a timeline could be established for completing the remaining steps of the CS. This may help participants to feel heard in their concerns, as well as being more invested in the process if they can envision an end goal. For future initiatives in the IBoF region and beyond, establishment of a timeline at the beginning of the planning process using the CS would prevent similar challenges from occurring. Though some challenges, such as the ones listed above, can be addressed, not all perceived challenges are feasible to solve in a conservation planning process such as the one in the IBoF. This is the reality of having a process with a multitude of partners, as they will all have individual priorities and opinions. Balancing the needs of all is a difficult task, but one that can be done through learning and prioritization, while recognizing that not everyone will be happy with the outcome.

5.3 Participant Survey

The survey helped to fill the gaps and answer the questions that the literature review and timeline construction could not. The first section of the survey helped to understand the statistics surrounding the involvement of participants in the IBoF Conservation Plan process. Having information on the type of organization, length of participation, reasons for participation, and understanding of the CS framework was important to contextualize the answers provided by participants later in the survey. Patterns that emerged in this section were that the majority of survey participants were familiar with conservation work in the IBoF region and that many of the participants discovered the workshops through their work and are participating as a result. Those who indicated that they were familiar with the CS framework and had at least a basic understanding of the process had been participating in workshops for longer than those that identified that they lacked familiarity and understanding. Most survey participants did not

consider themselves fluent with the CS, however, and indicated that they would benefit from increased fluency overall.

The second section of the survey gained insights on the participants' perspectives regarding the application of the CS principles to the IBoF Conservation Plan process. This section was created to understand if the CS principles were applied to the process, helped to guide the process, and if they could be better applied. A positive outlook towards their application could be considered a success of the process, and a negative outlook could suggest that these principles may not be used to their full potential, or that the application of these principles may be a challenge within the process. The majority of responses demonstrated a positive attitude towards the application of the CS principles to the process. There were, however, some responses that suggested they did not always see these principles applied, or did not see them as relevant to this process. These responses could indicate a lack of knowledge on the CS principles on the respondent's behalf, or it could be an accurate representation of the process. There was a lack of suggestions on how these principles could be better applied from those with concerns, however, so it is difficult to known how to better integrate these principles into the IBoF Conservation Plan process, if needed. The third and fourth sections of the survey asked the participants of their opinions on the application of the CS to the IBoF Conservation Plan process and if there have been benefits and challenges in doing so, as well as ways to amplify the successes and solve the challenges. The majority of participants identified both benefits and challenges, and some provided suggestions for the amplification of successes and solutions for challenges.

5.4 Recommendations

Despite these identified challenges regarding engagement and the project timeline, successes of this process have also been identified by workshop participants. Some common themes appearing throughout the survey responses include knowledge-sharing and learning, relationship-building, professional development, and enhanced understanding of conservation planning processes and the application of the CS to such processes. To enhance these successes, listening to the feedback and establishing smaller working groups and/or breakout rooms within workshops that will focus on more specific tasks may help to increase efficiency of the CS

process. By doing so, morale may in turn be increased, as participants may feel more accomplished through the achievement of more timely outputs and outcomes. For future processes, proposing or establishing these smaller groups at the beginning of a planning process, especially one as large as the IBoF Conservation Plan process, may contribute to increased success earlier on.

Drawing upon the findings of this research, best practices for applying the CS to conservation planning initiatives in practices can be identified as follows:

- Increased transparency between facilitators and participants, to create trust and further principles of relationship-building and knowledge-sharing.
- Consistent and clear identification of desired outcomes and outputs of initiatives, to allow for common understanding among facilitators and participants.
- Increased opportunities for improving fluency with the CS framework, both prior to and during conservation planning initiatives.
- Prioritizing feedback from participants throughout the application of the CS standards to a process, to help increase efficiency and allow perspectives to be heard.

Increasing transparency within conservation planning initiatives can help to ensure that participants have a thorough understanding of the processes they are involved in, which will help to improve morale and investment. If people understand what they are working towards and why conservation is important, they may feel more inclined to be a more engaged and active participant. Ensuring consistency and clarity throughout conservation planning initiatives, along with increased transparency, can help participants to further comprehend the processes in which they are taking part, making it easier for them to follow and allowing them to contribute valuably. Increased opportunities for CS fluency can provide participants that require further understanding of the CS framework with a dedicated space for learning. This could take place in the form of special sessions parallel to the planning process taking place. Having a pre-recorded informational webinar on the CS process available on the Google Drive so new participants have a readily available resource would be beneficial. The knowledge gained from the CS information sessions will allow participants to use their learning to inform their contributions to these processes. Implementing participant feedback into conservation planning initiatives can help to ensure that participants feel that their contributions are appreciated and considered. This would

help to improve participant investment in the process, as well as improving the efficiency of such processes through cooperation and collaboration. Utilizing these best practices in conservation planning initiatives can help to ensure maximum efficiency and effectiveness with using the CS as a conservation planning framework.

Implementing the recommendations of participants into workshops has been done previously in this process and has contributed positively to both their success, as well as participants' attitudes. One example of this is providing the Indigenous groups with their own 30-minute session at the end of each workshop, for them alone. This came about because these groups felt that they needed their own space together to discuss workshop topics. This change in the workshop structure was in response to a need expressed by a group of participants, similar to some of the suggestions that were provided in the survey. Extending this response to reflect ideas presented in the survey could help to amplify identified successes.

5.5 Limitations

Limitations of this research include the number of survey responses, the time constraints of this research, and the alignment of the research period of the IBoF Conservation Plan process timeline. With the survey only receiving 16 responses, and half of them being from NGOs, the sample of participants was not necessarily representative of the study population. Additionally, with more responses, there may have been more diverse feedback or new perspectives and ideas on how to amplify the successes and solve the challenges identified through the survey. The timeline to complete this research was to seven months, limiting the time available for research and writing. With more time, there may have been opportunities to extend the scope of this research to see the end of the IBoF Conservation Plan process. This time could be used to provide a more fulsome report on the process, as well possibly creating another participant survey for near the end of the process, to see if or how participants' perspectives might have changed.

Chapter 6: Conclusion

Evaluation of the CS as a conservation planning framework using the IBoF Conservation Plan process as a case study enabled some of the challenges and successes of applying this framework in action to be revealed. Understanding the perspectives of those actively involved in conservation planning initiatives or those who are past participants of these initiatives provides valuable insight into what works in practice and what should be changed in these initiatives or future initiatives. The feedback from different sectors is especially important for balancing values and objectives in conservation, as representatives from these sectors all bring unique knowledge and experience to conservation planning processes. Incorporating these diverse perspectives into conservation planning will help to ensure that conservation initiatives are well-informed, equitable, and effective. Combining recommendations from conservation practitioners and stakeholders and rights holders in the conservation sector with existing knowledge available through literature or consultation with others involved in conversation planning can provides a more fulsome understanding of conservation processes. By implementing recommendations and following lessons learned for future conservation planning initiatives in the IBoF region, the CS can be utilized to their full potential and improve conservation globally.

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Appendices

APPENDIX A – SURVEY: PREAMBLE AND QUESTIONS

1. **Pre-survey informative paragraph**

Hello, and welcome to the Inner Bay of Fundy (IBoF) Conservation Plan Process Survey for Workshop Participants.

This survey is designed to gain a further understanding of the of the challenges and successes of using the 'Conservation Standards' as a framework for conservation planning processes in the IBoF and beyond. A conservation planning framework, such as the one being evaluated, is a set of best practices and steps used to guide the conservation processes, which involves collaborative planning and the use of relevant tools.

The information collected from this survey will be used to provide recommendations and best practices for future collaborative planning processes unique to the IBoF region. If you wish to review the Conservation Standards, they are linked here: https://conservationstandards.org/wp-content/uploads/sites/3/2020/10/CMP-Open-Standards-for-the-Practice-of-Conservation-v4.0.pdf (see pg. 2). The following short video is also available, for those that prefer another format: https://www.youtube.com/watch?v=rHk6PG0i66M. This survey provides a space for the IBoF Planning team and other participants to provide their opinions and perspectives on the IBoF Conservation Plan process and its implementation of the Conservation Standards. Your input is essential to better understand the impacts, successes, and challenges of the IBoF Conservation Plan process to date.

This survey should take between 30-45 minutes to complete and will ask you a series of multiple choice, short answer, and Likert scale questions. Most questions are mandatory, but you may refrain from answering by responding "Prefer not to answer." PLEASE NOTE: if you close the survey before submission, you will likely not be able to return to it.

Your identity as a respondent and survey responses will remain completely anonymous. Participation in this survey is optional. If you wish to withdraw from participation in this survey at any time, you are free to do so. However, once you have submitted your survey responses, you can no longer withdraw your responses, as they cannot be linked back to you, to maintain your anonymity. The data from this survey will be stored in an encrypted USB, with members of the research team being the only ones with access to the data. The data will be retained for the period of one year, at which point they will be permanently deleted. Please reach out with any questions or concerns surrounding this survey to georgia.cooney@dal.ca.

Thank you very much for your participation!

2. **Survey questions**

Context and Participation

1. Please indicate the type of organization you are representing or with which you are affiliated, pertaining to the IBoF Conservation Planning Workshops.
    a. Indigenous organization
    b. Industry
    c. Government
    d. Non-governmental organization
    e. Academia
    f. Other (please specify)
    g. Prefer not to answer
2. How long have you been participating?
    a. Less than one year
    b. One to two years
    c. Two to three years
    d. More than three years
    e. Prefer not to answer
3. At the time of joining, were you ware of any other ongoing opportunities to improve conservation within the IBoF?
    a. Yes
    b. No
    c. Prefer not to answer
4. Please elaborate on your answer to the previous question. [TEXT BOX]
5. How did you learn about the IBoF Conservation Plan and what motivated you to participate in the workshops? [TEXT BOX]
6. Are you currently an active participant in the IBoF Conservation Plan Workshops? **(Note: "active" means that you still attend the workshops, and have not ceased attendance.)**
    a. Yes
    b. No
    c. Prefer not to answer
7. If you are currently an active participant, please explain what motivates you to remain part of the workshops. If you are no longer part of the workshops, please briefly explain why. [TEXT BOX]
8. Understanding of the Conservation Standards Process **(Optional Question, Response Choices: Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree)**

a. I am familiar with the Conservation Standards.
b. I have (at least) a basic level of understanding regarding the logic of the Conservation Standards process.
c. I consider myself fluent with the Conservation Standards framework.
d. I would benefit from greater fluency in the Conservation Standards framework.

Conservation Standards Principles

The following principles are those outlined by the Conservation Standards (pg. 73 of the document linked above). Please provide your reflections on the application of these general principles to the IBoF Conservation Plan process.

9. Collaborate with partners [TEXT BOX]
10. Involve stakeholders [TEXT BOX]
11. Appropriately use and contribute to the evidence base [TEXT BOX]
12. Use adaptive management in the face of uncertainty [TEXT BOX]
13. Document your decisions [TEXT BOX]
14. Foster a learning environment [TEXT BOX]

Opinions on the IBoF Conservation Planning Process using the Conservation Standards

15. In your opinion, have there been successes in using the Conservation Standards as a framework to guide the IBoF Planning Team that have emerged throughout the workshop?
    a. Yes
    b. No
    c. Undecided
    d. Prefer not to answer
16. Please explain your answer to the question above. [TEXT BOX]
17. Please provide feedback on the ways in the successes you have listed above, if any, can be further amplified throughout this process. [TEXT BOX]
18. In your opinion, have there been challenges in using the Conservation Standards as a framework to guide the IBoF Planning Team that have emerged throughout the workshop?
    a. Yes
    b. No
    c. Undecided
    d. Prefer not to answer
19. Please explain your answer to the question above. [TEXT BOX]

20. Please provide some solutions regarding ways in which the challenges you have listed above, if any, can be solved. [TEXT BOX]

Benefits and Outputs of Using the Conservation Standards

21. This question is optional. Responding as "Neutral" is not the same as choosing not to answer. (**Response Choices: Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree)**
    a. This process has provided an opportunity to build new relationships.
    b. Since joining this process, I know more about the ecology of the IBoF.
    c. Since joining this process, I have greater appreciation of the ecological and/or cultural importance of the IBoF.
    d. Since joining this process, I know more about the IBoF community, in terms of uses and users.
    e. Since joining this process, I know more about the Conservation Standards framework, and the tools and processes associated with conservation planning.
    f. This process has provided an opportunity for knowledge sharing.
    g. I see my/my organization's contributions reflected in outputs to date.
    h. I would benefit from increased fluency throughout the conservation planning process, regarding the Conservation Standards.
22. Are the resources and outcomes of the IBoF Conservation Planning process useful to your organization?
    a. Yes
    b. No
    c. Undecided
    d. Prefer not to answer
23. Please elaborate on your answer to the question above. [TEXT BOX]
24. How could resources and outcomes of the IBoF Conservation Plan be made more useful to your organization? [TEXT BOX]
25. Is there anything else you would like to contribute regarding your experience throughout the process, pertaining to the use of the 'Conservation Standards' as a conservation planning framework for the IBoF? [TEXT BOX]

APPENDIX B – RECRUITMENT MATERIALS

1. **Pre-survey participation email**

Hello IBoF Conservation Planning Team,

I hope you are all having a fantastic summer.

Georgia Cooney, a Master of Marine Management Candidate at Dalhousie University, is writing her graduate project (thesis) on "Evaluating the 'Conservation Standards' as a conservation planning framework: A case study on the Inner Bay of Fundy (IBoF) Conservation Plan process." As part of her research, Georgia is conducting a survey on our IBoF Conservation Planning process, including the workshops that began in March 2020. This survey is being shared with the IBoF Conservation Planning Team in the spirit of fostering a learning environment and improving our work.

As participants and contributors in these workshops, your input is very valuable to understanding the challenges and successes of applying the Conservation Standards to a conservation planning process. Intent is to gauge how our efforts can inform future collaborative planning initiatives and processes in the IBoF and beyond. Current and past workshop participants are encouraged to participate in this survey; however, this survey is voluntary and there is no requirement to participate. Your identities will remain anonymous, and the results of the survey will be made available to you once the survey is complete and the results have been organized.

What is being asked of you as IBoF Conservation Plan workshop participants is to complete a 30–45-minute survey that asks questions about your experiences throughout the IBoF Conservation Planning process, especially pertaining to the role of the 'Conservation Standards'. The link to this survey is available **here**. You will have until **August 31st, 2024**, to submit your responses.

Thank you very much for your time, and please do not hesitate to reach out if you have any questions or concerns.

2. **Email as a reminder to participate in the survey and to inform IBoF Workshop participants of the extension of the survey response deadline**

Hello IBoF Conservation Planning Team,

I hope your September is off to a good start.

This is a final reminder to complete the IBoF Conservation Planning Workshop Participant Survey from Georgia at Dalhousie University (Please note, this is a different survey from the Strategy Effectiveness Survey from Josh). The link to the workshop participant survey is available **here**. The deadline has been extended to September 10th to give more individuals a chance to respond. More information on the survey can be found below:

Georgia Cooney, a Master of Marine Management Candidate at Dalhousie University, is writing her graduate project (thesis) on "Evaluating the 'Conservation Standards' as a conservation

planning framework: A case study on the Inner Bay of Fundy (IBoF) Conservation Plan process." As part of her research, Georgia is conducting a survey on our IBoF Conservation Planning process, including the workshops that began in March 2020. This survey is being shared with the IBoF Conservation Planning Team in the spirit of fostering a learning environment and improving our work.

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What is being asked of you as IBoF Conservation Plan workshop participants is to complete a 30–45-minute survey that asks questions about your experiences throughout the IBoF Conservation Planning process, especially pertaining to the role of the 'Conservation Standards'.

Thank you very much for your time, and please do not hesitate to reach out if you have any questions or concerns.