Newfoundland West Flemish Pass Exploration Drilling Project

Review and Comments on the Draft Environmental Impact Statement

Prepared by
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and
Shared Value Solutions

March 18, 2020

SHARED VALUE SOLUTIONS

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1.0 Introduction

Chevron Canada Limited (Chevron, the Proponent) is proposing to undertake drilling of up to eight exploration and delineation/appraisal wells in Exploration Licence (EL) 1138. The Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) awarded Chevron and its co-venturer, Anadarko Canada E&P Ltd, exploration rights to EL 1138 in 2016, the terms of which extends from January 2016 to January 2025. The scope of work covered in the Environmental Impact Statement (EIS) will occur within the terms of the EL. Chevron will serve as the operator for the exploration drilling program.

EL 1138 is located in the Flemish Pass, approximately 375 kilometres (km) northeast of St. John's Newfoundland and Labrador, and has an area of approximately 2,747 km^2 (Figure 1). The EL is located approximately 130 km from Husky's White Rose oil development field and 370 km from the nearest community of Flatrock. Water depths in the EL range from 400 to 2,200 metres (m). The scope of work covered in the EIS includes vertical seismic profiling (VSP) operations, mobile offshore drilling unit (MODU) mobilization and drilling, well evaluation and testing, supply and servicing, and well decommissioning, suspension and abandonment. Activities occurring at shore-based facilities (e.g. transport vessel and helicopter maintenance) are not covered in the scope of the EIS. The Proponent is currently seeking regulatory approval for these activities by undergoing a Federal Environmental Assessment. Approval of the Project would allow for the Proponent to determine the presence, nature and quantities of potential hydrocarbon resources with the goal of obtaining a Significant Discovery Licence and expanding into production.

Miawpukek First Nation (MFN) has reviewed the draft EIS with support from our Environmental Advisors, Shared Value Solutions Ltd (SVS). Comments on this document and the EA process in general are provided in this report. These comments build on previous communications from MFN sent to the Proponent and the Crown.

The rights, values, and interests of MFN are the focus of these comments. They build on previous submissions completed by MFN, highlighting the concerns of our community, including (but not limited to) commercial and Aboriginal fisheries, species at risk, Atlantic salmon, the marine environment, socioeconomics and community well-being. This report summarizes the position of MFN in regard to the Project and outlines, on behalf of our community, recommendations and requested accommodations.

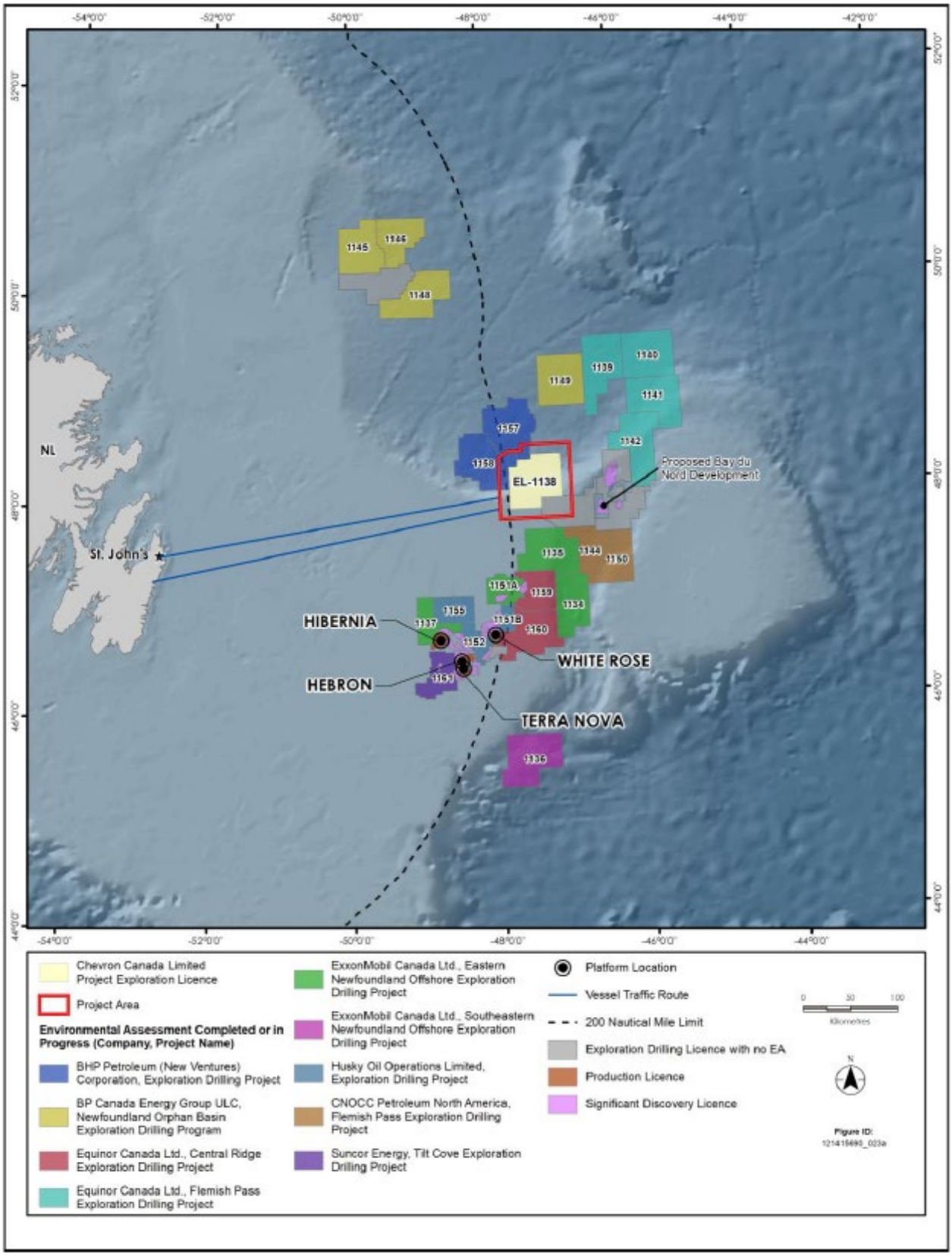

Figure 1. Project Location and Potential Vessel Traffic Routes (Stantec, 2020)

2.0 Miawpukek First Nation

Miawpukek Mi'kamawey Mawi'omi (also known as Miawpukek First Nation) is located on the south shore of Newfoundland along the Conne River at the confluence of the Bay D'Espoir. The community became a permanent settlement in the 1820s but was used long before that as one of the many semi-permanent seasonal camping grounds of the Mi'kmaq on the south shore of Newfoundland. Oral Tradition states that the community reserve lands were established in 1870. This reserve was given the name Samiajij Miawpukek Indian Reserve, which translates to "too small" reserve because the land is considered much too small to carry out traditional activities including hunting for caribou. This name was reportedly chosen partly in frustration and partly out of a sense of humour by the people of MFN.

The total on-reserve population of MFN was recorded as 956 in 2016 (Stats Canada, 2016). In 1987, the community of MFN was established as a reserve, and since that time has changed from an isolated community with almost 90% unemployment to a vibrant community with nearly 100% full or part-time employment.

2.1 Historic Overview

Covering a vast area, the Mi'kmaq territory of Mi'kmaki stretches from the Gaspe Peninsula in Quebec, through New Brunswick to northern Maine, across Nova Scotia, Prince Edward Island and the Island of Newfoundland, which is known as Ktaqamkuk. The Mi'kmaq of Newfoundland have a shared ancestry with Mi'kmaq from across Mi'kmaki. Their relationship with the land, and the surrounding waters, stretches back over at least 10,000 years.

The earliest use of Ktaqamkuk by the Mi'kmaq is something that is still debated by Western scholars. It is known that Mi'kmaq hunters and fisherman would stay seasonally on the island from as early as the 1600s, although it is likely that this occurred much earlier (Pastore, 1998). French and English historical records suggest that the Mi'kmaq didn't establish permanent residences on Ktaqamkuk until the 1760s (Bartels and Janzen, 1990). However, the idea of permanent residence is rooted in the colonialist ideas and perceptions of the time. It does not account for the Mi'kmaq way of life, which at that time was seasonal and revolved around frequent travel throughout traditional territories to access resources. This would have included travel between Unamaki (Cape Breton) and Taqamkik for hundreds of years before the land became known as Canada. Thus, it is argued by many scholars that the island of Ktaqamkuk is part of the Traditional Territory of the Mi'kmaq.

The people of Miawpukek First Nation assert that the entire Island of Ktaqamkuk is included in their Traditional Territory. Oral history passed down through generations holds that the ancestors of Miawpukek First Nation have lived and travelled Ktaqamkuk since time immemorial. The Mi'kmaq hunted, fished and travelled back and forth along the coasts year-round. Mi'kmaq from the mainland travelled back and forth between Unamaki and Ktaqamkuk, thus maintaining constant connections between the island and the mainland. This occurred as recently as the 1760s when Chief Jeannot Pequidalouet led a group of Mi'kmaq across the Cabot Straight to avoid hostility and mistreatment at

the hands of the British (Martijn, 1989). It should be noted that the Mi'kmaq have a long history as explorers, and similar trips likely occurred frequently before this time but were not documented by European colonizers. This history is best summarized by Frank Speck (1922) who completed ethnographic surveys on Newfoundland in the summer of 1914:

> *Throughout Newfoundland the [Mi'kmaq] Indians refer to their predecessors as Sa'qawedjkik 'the ancients,' speaking of them as though they were the first inhabitants of the island […]. The Sa'qawedjkik families are said to have become completely merged with the later [Mi'kmaq] comers from Cape Breton and Labrador.* (Speck, 1922, p. 123)

The Mi'kmaq of Ktaqamkuk/Newfoundland have continued to live, hunt, fish, trap and guide on the island over the centuries. During the later part of the 18th century through the 19th century, Mi'kmaq guides helped European explorers to visit and map the areas that were already being used by the Mi'kmaq. In 1822, William Cormack, the first European credited with crossing the island, was guided by Sylvester Joe, a Mi'kmaq traveller. During their journey, the two encountered several First Nations people in areas that were thought, by Europeans, to be uninhabited (Pastore, 1998). Ironically, to earn a wage and support themselves, the Mi'kmaq would go on to work on major projects such as the railroad, which ultimately facilitated the expansion of European colonizers who would fight for control over the natural resources upon which the Mi'kmaq traditional livelihood depended.

Where Newfoundland was not part of Confederation until 1949, the Mi'kmaq of Miawpukek were not included under the Indian Act of 1876. In many ways, this may have been beneficial because they were not subject to the harmful actions exerted by the federal government through this act. However, by being outside of the Indian Act they were also not afforded to the same Aboriginal rights granted to Indigenous Peoples across Canada. This lack of protection, combined with political, economic and religious pressure, led to the continuous erosion of traditional practices and ways of life.

In 1984, after years of fighting for recognition, the federal government granted status to the people of Miawpukek under the Indian Act. This was followed three years later by the allocation of a 500-hectare reserve in Conne River named by Council as the Samiajij Miawpukek Indian Reserve, which translates closely to "too small Indian Reserve." The larger Traditional Territory, known as Mimaju'nnulkwe'kati, covers an area greater than 17,000km^2 and has never been surrendered or ceded. This area has been used by the members and ancestors of Miawpukek First Nation since time immemorial. Despite repeated land claims and court battles, this area has never been formally recognized. However, the right has never been extinguished and the people of Miawpukek continue the struggle for recognition to this day.

From their earliest time on Ktaqamkuk, the ancestors of MFN relied on hunting and trapping for sustenance. Diet and preferred location changed with the seasons. Spring and summer were typically spent mostly along the coasts, while the Mi'kmaq returned inland, along rivers and lakes, during fall and winter.

The caribou played a special role for the Mi'kmaq of Ktaqamkuk/Newfoundland, due to their size and abundance. They provided nutritious food but also hide for clothing and construction. However, the expansion of European colonists throughout the eighteenth and nineteenth centuries pushed the Mi'kmaq further and further away from caribou herds, making it more difficult to rely on them for sustenance. Subsequently, large-scale caribou hunting resulted in catastrophic declines of the island population. This pressure nearly caused the extinction of the herd when it declined from an estimated 40,000 individuals in 1900 to approximately 2,000 in the 1930s (Bergerud, 1969). Adapting to the changing circumstances, the Mi'kmaq of Ktaqamkuk/Newfoundland were forced to shift their diets. While fish was always an important part of the Mi'kmaq diet, reduced access to the caribou caused fish, Atlantic salmon in particular, to become much more important.

2.2 Rights and Interests

The Crown has a duty to consult and accommodate First Nations pursuant to section 35 of the *Constitution Act*, *1982*. This is a legal requirement that has been repeatedly upheld by the Supreme Court of Canada. Moreover, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which has been adopted by Canada, requires that states cooperate in good faith with Indigenous Peoples so that they obtain free, prior and informed consent. According to UNDRIP Section (2) and (3) of Article 32:

> *2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.*
>
> *3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.*

The proposed offshore drilling site is within fishing grounds that are part of the Traditional Territory of MFN currently used by community members. There are potential major environmental, cultural, and socio-economic risks associated with all phases of drilling and exploration that could impact MFN's rights and interests. The offshore drilling in Flemish Pass has the potential to cause direct and indirect impacts from all phases. Should the drilling program determine the presence of significant quantities of petroleum hydrocarbons and result in the development of industrial extraction, there will be additional direct and indirect impacts on MFN's rights and interests.

MFN fisheries (offshore, inshore, and land-based), traditional activities, and culture could be at risk from any potential spills, leaks, blowouts, or other releases of petroleum, cuttings, lubricant, or other products from the proposed drilling. MFN's rights to navigable waters may also be impacted from increased traffic in the region and in and around St. John's Harbour. These potential risks to the natural environment, navigation, and the community of MFN underscore the need for meaningful and ongoing

consultation throughout the Environmental Assessment (EA) process and the need for mitigation and accommodation measures to address these potential impacts to MFN rights and interests.

MFN relies on hunting, fishing, and trapping for commercial, recreational, and Aboriginal fisheries. Species that are targeted include salmon, mackerel, cod, herring, redfish, brook trout, rainbow trout, eel, capelin, smelt, tuna, whelk, scallop, snow crab, lobster, and surf clam. MFN possesses several commercial licenses for fishing in NAFO fishing zones 3P, 3KL, and 3LN (Figure 2). The community utilizes a Food, Social and Ceremonial licence to target species off the south shore in Zone 3P. Commercial fishing by MFN in zones 3KL and 3LN overlap with the Project. Impacts to any of the species listed above represent potential effects on the Aboriginal rights of MFN.

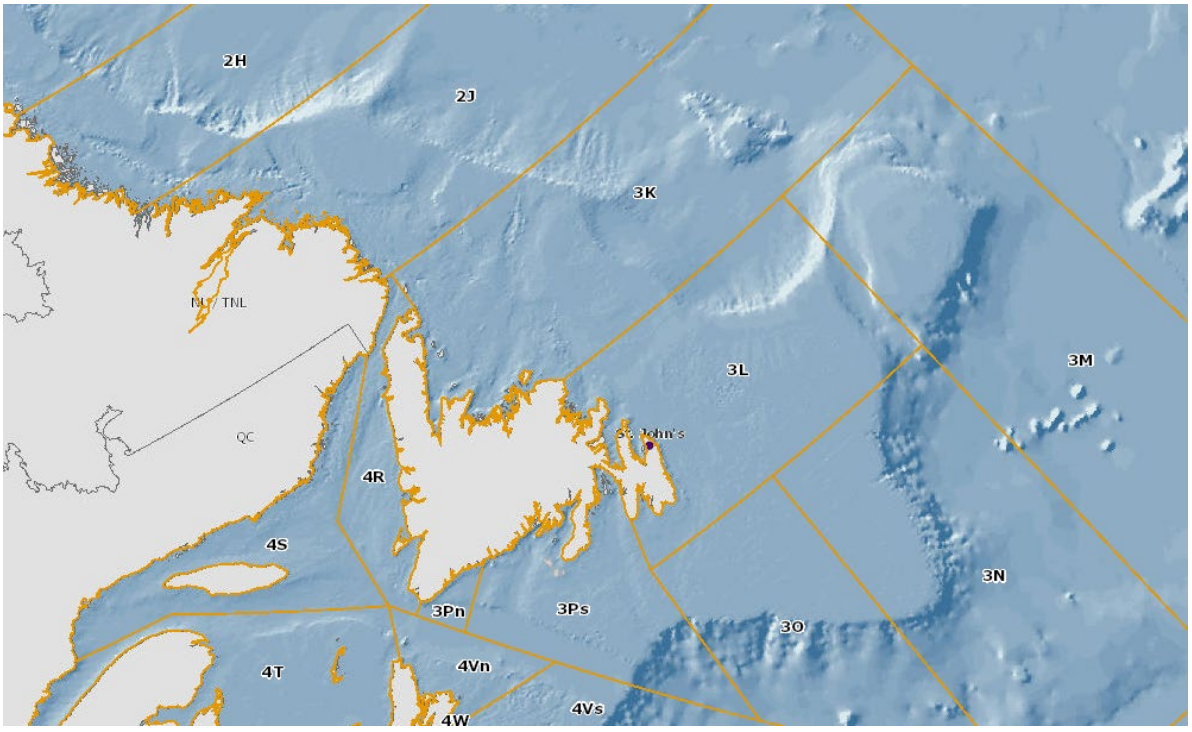

Figure 2. Northwest Atlantic Fisheries Organization (NAFO) Zones (DFO)

3.0 Comments on the Project, EA and Potential Conditions

Comment 1: For the West Flemish Pass EIS, Chevron has modelled 171 individual subsurface blowout events at two release sites in the EL. Scenarios were modelled with both a short- and long-term release duration. It is unclear where the short- and long-term durations were derived from, considering Chevron has not identified a primary or contingency capping stack for the Project. The proximity of this capping stack to the Project, weather during transportation, the potential need for a port call upon arrival, and technical delays during installation will influence the minimum amount of time required for its deployment. While the Proponent does state that the hypothetical short-term durations (30-days and 27-days) are based on the maximum time for a successful capping and containment operation, it is

difficult to assess the validity of these durations without knowing where the capping stack will be sourced from. As an example, Equinor determined that the maximum duration required for a capping and containment operation at the Central Ridge exploratory drilling Project would be 36-days (Equinor Canada Ltd., 2020). In the 36-day scenario, Equinor assumed the contingency capping stack would be shipped from Brazil in the winter, transit speeds would be reduced due to ice and weather, a port call would be required for testing and commission prior to mobilizing, and a longer installation time needed due to technical and weather delays.

Recommendation 1: MFN asserts that it is critical to have a locally managed capping stack deployment entity, along with the appropriate capacity for equipment modification and rapid staging and deployment, situated in Newfoundland or Atlantic Canada to mitigate the risks associated with an uncontained blowout. This is important on a Project-level basis, but also to account for the cumulative risks of all current and future exploratory and production oil and gas projects. This may result in the formation of a consortium, similar to the Marine Well Containment Company (https://marinewellcontainment.com/), whose purpose is to provide at-the-ready state-of-the-art well containment services and technology to operators in the U.S. Gulf of Mexico. Similar industry-led consortia exist in other geographies where offshore oil and gas drilling is commonplace, such as the Helix Well Containment Group (https://www.hwcg.org/) that also serves the Gulf of Mexico, and WellCONTAINED (https://wildwell.com/well-control/wellcontained/), which has capping stacks in Aberdeen and Scotland. MFN's proposed locally managed entity may also be involved in the continual research and development of best available and safest technology (BAST). Whether this effort is funded by a consortium of all offshore oil and gas proponents in Atlantic Canada, and/or the Crown, is of no consequence to MFN: someone must fund and ensure this critical risk mitigation measure to protect MFN's rights, and to reduce the inequitable burden of risk MFN bears in relation to the exercise of our rights.

Comment 2: The current approach being taken by proponents for the involvement and capacity support of Indigenous communities in Impact Assessments (IAs) for offshore exploration and development projects is seriously deficient. MFN is being inundated with requests for meetings, input, and document reviews. This includes requests for participation during the Impact Assessment process, after approval, and during exploration (e.g., EIS documents, communication plans, spill reports, etc.). With very limited staff capacity and funding, MFN is significantly challenged to participate effectively in the process. This situation is worsening as more projects are being proposed or moving forward in the exploration process, into Significant Discovery Licenses or Production Licenses. The current situation does not in any way represent meaningful consultation by the Crown—which ultimately bears the duty to consult, and where appropriate, accommodate—or by proponents, in discharging procedural aspects of the Crown's duty to consult and accommodate.

The complex nature and longevity of these exploratory drilling projects warrant more meaningful consultation and involvement of MFN and other affected Mi'kmaq nations throughout the entire lifecycle of the Project. Moreover, proponents should coordinate this involvement to mitigate the cumulative effects of the oil and gas industry on the health and socioeconomic conditions of Indigenous

communities. Due to the complexity and number of projects and documents that must be reviewed, MFN requires adequate capacity funding and support to enable:

a) effective understanding and evaluation of technical and regulatory documentation;

b) community-based decision making, with specific attention to MFN's Aboriginal fishery, about MFN's response to offshore projects such as Central Ridge; and

c) planning and preparation to enable MFN's involvement and participation in the regulatory process and the potential socioeconomic accommodations and opportunities MFN may wish to pursue associated with the projects.

Recommendation 2: MFN firmly believes that an environmental advisory committee (EAC) must be formed, as soon as possible, to provide a forum for ongoing consultation and oversight on potential impacts and mitigation/accommodation measures for MFN's rights and interests and those of and other affected Mi'kmaq nations, for this Project and other offshore projects. Members of the EAC may include a representative from all potentially effected Mi'kmaq nations, a representative from the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB), and/or the Impact Assessment Agency of Canada (IAAC). The mandate of the EAC should be guided by a Terms of Reference codeveloped by Indigenous Nations and the previously mentioned agencies. The Proponent, or a consortium of proponents, must provide sufficient funding to support the EAC in its endeavours. The EAC would act as a technical advisory committee and would be responsible for:

- Identifying common priorities (economic development opportunities, environmental research initiatives, knowledge gaps, mitigation measures, etc.) between Indigenous communities and provide a framework for exploring these;
- Providing informed advice to the IAAC, C-NLOPB, and the industry on addressing concerns and impacts to Indigenous Rights and interests;
- Overseeing the continued collection and incorporation of Indigenous Knowledge through community-led Indigenous Knowledge studies;
- Reviewing and providing input on all monitoring programs, response plans, etc., including, but not limited to, the Fisheries Communication Plan, Spill Response Plan, Spill Impact Mitigation Assessment, seabed investigation survey results, and results from the various follow-up monitoring programs;
- Ensuring regional consultation and engagement with community leadership, Elders, and Indigenous monitors from impacted communities;
- Enabling Indigenous Nations to participate in the oversight of offshore oil and gas exploratory drilling projects. The EAC may enable and support Indigenous Monitors to work alongside Environmental Monitors (EMs), Marine Mammal Observers (MMOs), etc., during

environmental effects monitoring and follow-up programs. This Indigenous Monitoring Program will help to build capacity within the C-NLOPB, IAAC, and industry to better understand and incorporate Indigenous Knowledge into the monitoring of offshore oil and gas infrastructure. It will also facilitate the sharing of capacity between the various environmental experts involved in the industry and Indigenous communities; and,

- Review and provide comments on the results from environmental effects monitoring and follow-up programs and provide input on adaptive management approaches.

Comment 3: In the EIS, Chevron notes that it has requested from MFN any Indigenous Knowledge (IK) the community would like to share. To date, MFN has yet to complete a thorough community-led Traditional Knowledge and Land Use Study for the Project Area. The collection of this knowledge takes planning, time, coordination, and resources. IK is a living body of knowledge that is passed down through generations. Individuals grow in their knowledge throughout their entire lives by listening, observing and doing. IK is also often rooted in the natural world and can be very specific and detailed when it comes to places and landscapes. This knowledge is incredibly valuable for informing design, mitigations, monitoring, impact assessment and accommodation. It is being omitted to the detriment of the EA process.

Thus far, there have been no meaningful attempts by the Proponent, or the Crown represented by the IAAC, to collect or integrate any IK from MFN. The Proponent has offered funding to complete a highly scoped, Atlantic-wide IK study which would then be used for all offshore projects going forward. As previously stated by MFN, this approach is not commensurate with the planned level of offshore activity that is currently happening, and which is planned in the future, and is not acceptable to MFN. This has been communicated to both the Crown and the Proponent on several occasions. Alternatively, Proponents are seeking to fund an IK project through the ESRF; however, it is unclear at the time of writing whether that will become a reality.

Recommendation 3: IK is difficult to collect and must be done with care and to appropriate standards to ensure it is authentic, verifiable, representative, and defensible. In addition, sensitive information cannot just be handed over to the Proponent without ensuring that the proper protocols and protections for MFN and any participating community members' intellectual property (IP) and confidentiality are in place. MFN requires that sufficient resources for the collection of the information requested be provided. This should be completed in accordance with MFN's engagement protocol. Without this highly important baseline information (both in terms of the IA process and the process to determine potential Impacts to MFN's S. 35 and other Aboriginal rights), the IA must be considered incomplete. MFN has shared its *Guidebook for the Collection of Aboriginal Traditional Knowledge* with the Proponent. This detailed guide provides information on the formative steps and methodology necessary for a successful IK study that is protective of MFN's rights and interests.

For the IA process to be completed such that the Honour of the Crown and the Crown's obligations are met, the Proponent and/or IAAC must provide accommodations in the form of resources to MFN for internal coordination, the collection of IK, and reporting. Although the proponent is delegated

procedural aspects of the Duty to Consult and the environmental assessment process, it is ultimately the responsibility of the Crown to ensure that this IK is then meaningfully considered and incorporated into the IA process, the Crown consultation process, and any further Crown accommodations necessary.

Comment 4: The Proponent indicates in the EIS that disposal of drill cuttings at an approved onshore facility was assessed as an alternative means of disposal but notes that a facility is not available in Newfoundland and that cuttings would need to be shipped out of province. Due to increased costs from transportation, operational delays, and greenhouse gas (GHG) emissions as a result of transportation requirements, this method of disposal was deemed infeasible. MFN strongly prefers that drill cuttings be disposed of onshore in an approved and regulated facility, as opposed to discharged to the water column, as this mitigates negative impacts to benthic organisms due to smothering and reduces contaminant release into the marine environment. The development of an approved onshore disposal facility in Newfoundland may help to reduce GHGs associated with shipping cuttings to shore, making this option more economically feasible for Chevron and other proponents, and of benefit to the local economy.

Recommendation 4: At the time of writing, there are four operating oil and gas production projects, one proposed production project, and ten proposed exploration programs off eastern Newfoundland. Due to the scope of proposed offshore oil and gas activities, including the existing offshore drilling production and proposed exploration, offshore oil and gas Proponents should pool resources to create an approved and regulated treatment facility in Newfoundland. This could potentially involve a partnership with or support from Canada, Newfoundland, or the CNLOPB as well. All cuttings from existing and proposed drilling could be directed to this facility for treatment and disposal. This will benefit the marine environment by reducing the loading of contaminants released and reduce transportation requirements, and it will benefit the local economy by creating local employment.

Comment 5: The southern Newfoundland population of Atlantic salmon is considered *threatened* by the Committee on the Status of Endangered Species in Canada and already faces many risks. The people of MFN have witnessed the continual and alarming decline of this species because of a range of factors including aquaculture, overfishing, forestry, and at-sea mortality. Returns of adult salmon to the Conne River reached an estimated 398 individuals in 2019, a drop from approximately 454, 712, and 1,230 during the years of 2018, 2017, and 2016 respectively (Fisheries and Oceans Canada [DFO], 2019; pers. comm. Brian Dempson, DFO). This is down from an average of 2,432 from 1992–2016 and highs of 10,000 reached during the 1980s (Dempson, O'Connell, & Schwarz, 2004).

The continued exploration in offshore Newfoundland will potentially exert direct impacts and cumulative effects on Atlantic salmon through seismic effects, changes to water quality, major accidents and malfunctions, and more. These effects may cause stress to migrating salmon, induce behavioural changes, reduce feeding efficiency and, in limited circumstances, direct mortality. Atlantic salmon migrate through the Project Area on their way to feeding grounds, and again on their return journey to Conne River and other rivers on the south shore of Newfoundland. The population of these salmon is already in such a poor condition that additional cumulative effects may be the "straw that broke the camel's back," resulting in the extirpation of salmon from rivers in MFN Traditional Territory, rivers that

have had salmon runs since time immemorial. Any negative effects to Atlantic salmon from the Project would represent a direct impact on the rights and interests of MFN.

Recommendation 5a: Due to the value of Atlantic salmon to the MFN community, the continual decline in numbers of returning adults, and the potential effects of the Project, it is necessary that the Proponent and Canada apply the precautionary principle to mitigate potential harm, especially given the already extremely fragile state of the stock. Moreover, any serious harm to fisheries must be offset through an Authorization under the Fisheries Act. This may be achieved, in part, through the delivery of funds to MFN for engaging in a feasibility study for evaluating potential recovery strategies of Atlantic salmon in southern Newfoundland. This research would benefit the local restoration priorities for Atlantic salmon. According to the Fisheries Productivity Investment Policy: Proponent Guide to Offsetting (DFO, 2013), providing funding for this type of research can be considered a Complimentary Measure. The results of this feasibility study would be used to inform recovery actions taken by MFN, the province of Newfoundland and Labrador, and DFO.

Recommendation 5b: Based on the outcome of the feasibility study described above (Recommendation 5a), MFN will identify preferred recovery strategies for Atlantic salmon on the south shore of Newfoundland. In order to undertake the recommendations from this study and the recovery of salmon, the Proponent should provide funding to MFN. In this way, the Proponent may be considered a supporting partner in the recovery efforts.

Recommendation 5c: The Proponent has not completed any targeted baseline monitoring of salmon movement through the Project Area. As a result, baseline data on the migration and behaviour of Atlantic salmon while at sea is insufficient to adequately assess the effects of the Projects. To better evaluate the potential effects of the Project on Atlantic salmon migrating through and near the Project Area, the Proponent should provide funding for tracking studies of Atlantic salmon (e.g. using satellite pop-up tags) to be completed before any exploration activities take place. These studies would improve knowledge of salmon movements during the post-smolt and adult stages of their life cycle. Once baseline data has been collected, it will be necessary for follow-up monitoring to occur during and after the exploration Project.

Rather than initiating new projects, the Proponent should provide funding to support ongoing research projects or programs. This would allow the research protocol for any study to be designed by established organizations and integrated with existing research. Organizations involved in the tracking of marine fishes include MFN, the Atlantic Salmon Federation, the Ocean Tracking Network, and the DFO. These organizations are already engaged in projects aimed at understanding the movements of Atlantic salmon while at sea. In addition to supporting these studies, funding for capacity building and training of MFN community members should be provided directly to MFN. This funding should be in addition to any contributions made on behalf of the Proponent to the Environmental Studies Research Fund (ESRF).

Comment 6: The Proponent states that, in order to mitigate the effects of VSP operations on fish, the air source array will undergo a ramp-up procedure which will provide an opportunity for fish to move out of the area prior to VSP survey initiation. The use of a ramp-up phase or “soft-start” procedure is a

standard mitigation for geophysical surveys to increase initial avoidance behaviors in marine biota. While this measure has been shown to be somewhat effective in increasing avoidance of marine mammals (Moors-Murphy & Theriault, 2017), little research has been conducted to evaluate its effectiveness in increasing avoidance by fish. Furthermore, responses to ramp-up procedures likely differ between fish species, with some species potentially showing an attraction to early stages of the ramp-up procedures. A study of European seabass found that, while ramp-up procedures did illicit an immediate diving response, fish did not swim away from the sound source as expected (Neo, et al., 2016). Understanding if ramp-up procedures are effective in increasing initial avoidance of fish is important in determining if additional measures are required to mitigate the impacts of geophysical surveys on fish.

Recommendation 6: Sonar technologies are providing new and innovative ways to address research questions in fisheries science (Lucchetti, Notti, Sala, & Virgili, 2018). One such suitable use for this technology is for fish school detection and counting (Lucchetti, Notti, Sala, & Virgili, 2018; Grothues, Newhall, Lynch, Vogel, & Gawarkiewicz, 2017). This technology can be applied in the oil and gas industry to determine the effectiveness of ramp-up procedures in increasing fish avoidance of VSP. Chevron, in consultation with MFN and other affected Mi'kmaq nations, as well as DFO, and C-NLOPB, should explore the possibility of using side-scan sonar or an equivalent technology to determine the effectiveness of ramp-up in increasing the intitial avoidance of fish and determine its suitability as a measure for mitigating the impacts of geophysical surveys on fish. Based on the results of these studies, the need for additional mitigation measures can be determined by the above parties in collaboration. Furthermore, if the Proponent has any available primary evidence of the effectiveness of their mitigation approach, please share it with Miawpukek.

Comment 7: The Proponent indicates that discharge of drill muds and cuttings, and other discharges from the MODU, have the potential to change water and sediment quality up to 1 km from the well location. They further note that these changes could indirectly affect the actual or perceived quality of commercial species. This could have serious detrimental effects on MFN, as our community is reliant on fish for sustenance and our commercial fishers rely on the ability to market a safe and healthy product. MFN's FSC licence includes migratory species such as mackerel, herring, Atlantic cod, American eel, smelt and capelin, some of which occur in high relative densities in the Study Area, particularly along the Grand Banks.

Recommendation 7a: MFN requests that the Proponent undertake baseline surveys for establishing background hydrocarbon (i.e., polycyclic aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPHs)) and heavy metal body burden in benthic organisms (e.g. snow crab, and lobster), fish, and other commercially harvested species to evaluate the risk of consumption to our community and other consumers. This will provide baseline data to which increases in hydrocarbon and heavy metal body burden can be compared over time and may help to minimize negative perceptions in relation to the quality of fish and other commercially harvested species. This information will also be valuable for evaluating impacts in the event of a large uncontainable spill.

Recommendation 7b: PAHs are highly insoluble in water and, as a result, are often deposited to sediments (Collier, Meador, & Johnson, 2002). This sediment repository can act as a pathway of exposure for many organisms, including benthic invertebrates and fish, either directly through contact or indirectly through consumption of contaminated prey (Collier, Meador, & Johnson, 2002). To address concerns around tainting of benthic fishes and marine invertebrates, the Proponent should sample PAHs and TPHs in sediment and biota (paired observations of chemical concentration) and use these values to estimate biota sediment accumulation factor (BSAF).

Comment 8: Deposition of drill cuttings on the seafloor may cause health effects and/or smothering of marine invertebrates, corals, sponges, and benthic fishes. This deposition of deleterious substances is an activity that results in serious harm to fish and fish habitat under the *Fisheries Act*. If these activities occurred in freshwater habitat, then a Fish Habitat Offsetting Plan would be required. It is unclear why this is not required for offshore oil and gas exploratory drilling.

Recommendation 8: MFN believes that the deposition of drill cuttings on the seafloor represents a clear case of *harmful alteration, disruption or destruction* (HADD) under the *Fisheries Act*. These impacts must be offset through an Authorization from DFO and the creation of a Fish Habitat Offsetting Plan. Chevron must prepare these plans and share them with MFN for review and comment. Moreover, DFO should provide rational for why these plans have not been required for previous projects.

Comment 9: In Section 2.9.2.5 (Offshore Vessel Lighting [including flaring]) the Proponent states that, at this time, they are not aware of any operating MODUs equipped with spectral modified lighting that have the technical capability of supporting the Project. While it is understood that there are currently limitations restricting the use of this technology in the industry, spectral modified lighting has shown promising results in helping to reduce shorebird attraction to offshore oil platform lighting. Studies conducted in the North Sea found that the use of modified spectral lighting on offshore platforms can reduce the disturbance of birds by 50–90% (Marquenie, Donners, Hanneke, Steckel, & de Wit, 2008; Marquenie, Wagner, Stephenson, & Lucas, 2014).

Recommendation 9: Understandably, spectral modified lighting is still in its infancy and has yet to be widely implemented in the offshore oil industry. To address the current limitations of spectral modified lighting, Chevron or a consortium of the companies conducting exploration or operating in offshore Newfoundland waters, should devote funds to the research and development (R & D) of this technology to help expedite its use in the offshore oil and gas industry.

Comment 10: In Section 6.3.1 (Existing Environment), the Proponent describes the baseline data available for the project area to determine the impact of the Project. The baseline data is taken from online resources and opportunistic data received from; previous projects in the area, species assessments and status reports, and DFO research. While these resources provide valuable general information regarding marine mammals and sea turtles, these data cannot be used as a substitute for focused baseline studies within the Project Area. Focused baseline studies provide increased accuracy when assessing species presence, abundance and habitat use. Using only data from outside sources like

databases and past research, prevents completion of a robust effects assessment when the project is in operation and may have an impact on environmental health in the future.

Recommendation 10: The Proponent should complete dedicated marine mammal and sea turtle baseline studies within the Project Area. Baseline surveys would be used to determine the distribution, occurrence and abundance of species within the Project Area, many of which are species considered traditionally important to MFN. Little information is known about many marine mammals and sea turtles' movements and habitat use thus, performing dedicated marine mammal and sea turtle surveys within the project area prior to development would contribute to the bank of knowledge available about these species and could be used in drafting robust recovery and conservation plans.

While completing baseline surveys, Chevron should use Passive Acoustic Monitoring (PAM) in addition to MMOs. Surveyors should record detailed data including measures of survey effort, surveyor experience, timing of surveys, technology and models used and locations of surveys. Using PAM in addition to MMOs would provide increased accuracy through a multi-faceted approach for detecting and identifying marine mammals and sea turtles in the study area. MMOs should also receive standardized training on detection of marine mammals and sea turtles.

These data and protocols from marine mammal and sea turtle baseline surveys should be repeatable for future surveys in the project area after project development is completed, as standardized survey methods would allow for a comprehensive effect's assessment of the Project.

Comment 11: MFN is concerned by the Proponent using only MMOs for marine mammal detection and identification during VSP surveys. While MMOs are a valuable resource for the detection and identification of marine mammals, this methodology has limitations under certain conditions. During times of low light, choppy waters and inclement weather (e.g. rain and fog) the MMO is less likely to correctly detect and identify many species (Brillant, Vanderlaan, Rangeley, & Taggart, 2015). In addition, the accuracy with which MMOs can detect species is dependent on the MMOs training, familiarity and experience with marine mammals and sea turtles. No details were clearly provided in the EIS regarding specific training and procedure guideline which MMOs would adhere to during VSP procedures.

Recommendation 11a: Chevron must share additional details of the procedures and protocols in which MMOs will abide by during VSP. These procedures and protocols must consider the use of PAM, and ideally Unmanned Aerial Vehicle (UAV) methodologies, alongside MMOs to provide additional coverage and more confidence in the identification and detection of marine mammals and sea turtles during and leading up to VSP. The details which should be included in MMO and PAM protocols is outlined in Recommendation 10 . Please submit the MMO protocol to MFN decision makers for approval of methodologies prior to VSP operations.

Recommendation 11b: The Proponent must provide opportunities for MFN community members to take part in training and employment opportunities as MMOs during VSP surveys.

Comment 12: Additional traffic from supply and servicing vessel operations are collision risks to marine mammals and sea turtles in the Project Area. Supply vessels travelling at high speeds limit the

opportunity for ship personnel, and marine mammals or sea turtles, to take adaptive action and avoid collision. Vessel strikes can result in lethal injury and 35% of premature causes of death in some species, and decreased survivability (Vanderlaan & Taggart, 2007; Hazel, et al., 2007; Gerstein, Blue, & Forsythe, 2005). Thus, collisions can have negative impacts on the population of marine mammals and sea turtles, especially if they are considered a species at risk.

MFN is concerned by the Proponent's approach for detection of marine mammals and sea turtles in supply and servicing vessels' travel path. Vessel crew members would not have appropriate experience, familiarity or training to accurately detect the presence of marine mammals or sea turtles. The ability of crew members to initiate adaptive measures and avoid collisions may also be suppressed given their position of employment by the Proponent. The ability to correctly detect marine mammals and sea turtles is also highly dependent on the experience level of the observer and the weather conditions at the time. Without a reliable method of marine mammal and sea turtle detection, it is unclear to MFN how slow-down or adaptive maneuvers would be implemented, and collisions avoided.

Recommendation 12a: Chevron must decrease the travelling speed and implemented speed restriction upon detection of a marine mammal. In the Gulf of St Lawrence, Transport Canada has imposed a speed limit of a maximum of 10 knots for travelling speeds and reduction to 7 knots upon sighting a marine mammal within 500 meters to mitigate vessel strikes (Transport Canada, 2019). Implementing a more conservative speed limit would allow for increased amount of time on behalf of the ship and the animal to avoid collision. If a collision occurs, more conservative speeds of vessels cause less damage to the animal and is less likely to result in lethal injury.

Recommendation 12b: Dedicated third-party MMOs should be employed and present on all supply vessel transports in order to effectively initiate slow down and adaptive maneuvers upon sighting marine mammals and sea turtles. Detection of marine mammals and sea turtles through MMOs would be aided by using PAM methodologies. An outline for expectation of MMO and PAM methodologies protocol is outlined in Recommendation 10.

Comment 13: As a measure for mitigating the effects of VSP operations on marine mammals and sea turtles, Chevron will immediately shut down the geophysical air source arrays if a species at risk (SAR) marine mammal or sea turtle, as well as any beaked whale species, is observed within a 500 m radius of the drilling platform (the safety zone). In reviewing recent IAs, it has been noted that DFO often supports a higher standard for mitigating the effects of geophysical surveys on marine mammals or sea turtles, which requires the immediate shutdown of the air source array if any species of marine mammal or sea turtle is observed within a 500 m radius of the platform, regardless of whether or not it is designated as a SAR, or a beaked whale species.

Recommendation 13: MFN requires that Chevron voluntarily adopt this standard for mitigating the effects of VSP operations on marine mammals and sea turtles. This would require the immediate shutdown of the geophysical air source array if any marine mammal or sea turtle is observed within the safety zone, regardless if it is designated as a SAR.

Comment 14: The Proponent notes that an average of seven helicopter transits per week are required to support the Project. This represents a significant source of frequently reoccurring sound, the effects of which may be detrimental to marine mammals and sea turtles. The volume of helicopter traffic in the offshore area east of Newfoundland will only increase as the offshore oil and gas sector expands in Atlantic Canada. A review and discussion on progress in the study of aircraft noise effects on marine mammals found that in each of the studies reviewed, cetaceans reacted to aircraft noise to some extent, most often by diving (Luksenberg & Parsons, 2009). Precautionary measures should be taken to mitigate the effects of *all* noise sources resulting from project activities.

Recommendation 14: As a precautionary measure, MFN requests that a visual watch be established 30-minutes prior to scheduled helicopter takeoff from the MODU. If a sea turtle or marine mammal is observed within the 500-metre safety zone, helicopter takeoff from the MODU should be restricted until the sea turtle or marine mammal has moved outside of the safety zone.

Comment 15: Section 17.2.2 provides a summary of the various environmental monitoring programs and follow-up requirements the Proponent will be required to develop and implement. The results of these environmental monitoring and follow-up programs should be shared with the community. As part of our accommodation measures, MFN requires that community members take part in employment, training and resource provision for the entirety of the project. MFN members have lived in the area for time immemorial and their input, opinions and experiences would be a valued asset to the project construction, operation and follow up monitoring procedures.

Recommendation 15: MFN requires that environmental and follow-up monitoring programs be developed in consultation with MFN and other affected Mi'kmaq nations. Included with this accommodation, MFN also requires participation of community monitors in follow-up programs for fish and fish habitat, marine mammals and sea turtles, and migratory birds. MFN requests that the Proponent and/or the Crown provide the necessary training for community members to participate as monitors and the resources required for an annual community meeting in MFN to share the results of monitoring activities and for the MFN monitor(s) to be able to participate in presenting such results to the community. If results from the environmental monitoring and follow-up show that additional mitigation measures are required, MFN's input should be considered in the development and implementation of these additional mitigation measures as a follow-up form of accommodation.

4.0 Conclusion

MFN has not asked for this Project; we currently see few, if any, meaningful benefits arising from it for our community, and we do not wish to bear the risks associated with it. These risks have been described by MFN on several occasions and highlighted by the spill and lack of clean up of 250,000 litres of oil from the SeaRose project. Despite these significant concerns, we have indicated our willingness and openness to engage with the Proponent to understand the Project, make our concerns known and work with the Proponent to address those concerns and potentially reach a mutual understanding. However, the work that is required to get to a place of understanding for these large, complex projects is beyond the capacity of our community. Therefore, as we have described on several occasions, our community

requires adequate resources to support our staff capacity, advice from independent experts, expenses (e.g., travel), and the gathering of Indigenous Ecological Knowledge and traditional use information from Elders and fishermen.

MFN has repeatedly and clearly stated the needs of our community for consultation on these projects to the Proponent and the Crown. These have been rejected repeatedly. MFN has been frustrated and disappointed with the unwillingness of IAAC, and offshore exploration Proponents, to provide the resources required by our community to engage on the proposed projects. More recently, there have been some positive developments with the Proponent, who has tentatively agreed to provide some capacity funding to support MFN's engagement. However, at the time of writing, no formal agreements have been signed, and until such time as those agreements are executed and fulfilled, it is the position of MFN that the duty to consult has not been met.

Legal Requirements for Meaningful Consultation

It is clear to MFN that a high level for the duty to consult and accommodate is triggered by the projects. The legal obligation for the duty is upheld by the Supreme Court of Canada and is a requirement of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which has been adopted by Canada. The requirements of UNDRIP are that states cooperate in good faith with Indigenous Peoples to obtain free, prior and informed consent (FPIC), from Article 32 Sections (2) and (3):

> *2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.*
>
> *3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.*

Moreover, Sections 7 (1) (c) and 7(1)(d) of the *Impact Assessment Act 2019* (IAA, 2019) requires that:

> ***7 (1)** Subject to subsection (3), the proponent of a designated project must not do any act or thing in connection with the carrying out of the designated project, in whole or in part, if that act or thing may cause any of the following effects:*
>
> > ***(c)** with respect to the Indigenous peoples of Canada, an impact — occurring in Canada and resulting from any change to the environment — on*
> >
> > > ***(i)** physical and cultural heritage,*
> > >
> > > ***(ii)** the current use of lands and resources for traditional purposes, or*

> ***(iii)*** *any structure, site or thing that is of historical, archaeological, paleontological or architectural significance;*
>
> ***(d)*** *any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada;*

The requirements of IAA 2019 sections 7(1)(c) and 7(1)(d) are directly applicable to MFN for this Project. There are serious environmental, cultural, and socioeconomic risks from all phases of the Project that have the potential to severely negatively impact the community of MFN's health and socioeconomic conditions, current use of lands, waters and resources for traditional purposes, and rights and interests. The proposed Project overlaps with the Traditional Territory of MFN where our ancestors have fished, hunted, gathered, lived on since time immemorial. MFN members currently use and rely upon the coastal and offshore area where the Project is proposed for subsistence, commercial, recreational fisheries and ceremonial practices to support traditional practices, jobs and community well-being.

Our traditional activities and culture are in jeopardy due to the potential negative impacts associated with marine shipping, drilling, seismic surveys and associated noise, habitat loss, spills/leaks/releases and other environmental effects of the Project. Should the Project be approved by the Crown to proceed, Project activities may directly affect:

- Migratory fish (e.g., salmon and eels) that travel through the study area and into the rivers in our Traditional Territory. These species hold tremendous cultural value and we have spent hundreds of years stewarding them to ensure they prosper. Now, due to a range of known and unknown causes, these species are in decline. Atlantic salmon, in particular, are experiencing a dramatic drop off with adult returns to the Conne River dramatically reduced over time (DFO, 2019). The cumulative effects of this project may contribute further to this decline, a risk that is unacceptable to MFN.

- MFN's communal commercial fisheries. Our community holds commercial and communal licences for a variety of species including tuna, crab, herring, mackerel, cod, haddock, swordfish, scallop, capelin, seal, sea cucumber, whelk, and surf clam. We are constantly expanding these fisheries (in terms of volume and species fished), which support Miawpukek fishers, their families, and the community.

- Food, social and ceremonial fisheries off southern Newfoundland for species including lobster, snow crab, scallop, brook trout, mackerel, capelin, cod, eel, surf clam and redfish.

- Health and socioeconomic conditions of fishers, their families and community members who rely on the benefits (e.g., childcare, school programs) which our communal fisheries support. Impacts to fisheries will translate into lost jobs and lost income. This would harm the financial health, physical health and mental health of fishers and their families.

MFN members have a deep respect for the land and waters of Mi'kma'ki that would be directly impacted by this Project. These risks to the natural environment and the community of MFN emphasize the need for meaningful and ongoing consultation throughout the IA process, and the need for mitigation and accommodation measures to address these potential impacts to MFN rights and interests.

Formal Request for Meaningful Consultation with Miawpukek First Nation

Given the potential impacts to our Aboriginal and asserted rights, we expected that the Proponent and the Crown would meaningfully engage MFN early and often by providing information relevant to the Project in a timely manner and capacity funding to support engagement activities. Canadian civil courts and the Government of Canada's own guidance to civil servants and those delegated the duty to consult underline the need for these aspects of consultation for it to be considered meaningful. This has not occurred. Communication of information and engagement support from the Crown and the Proponent have been lacking during this process. MFN's capacity to properly review and engage adequately with the current process is limited. The large burden and amount of attention required by these projects has created stress and tension with the current situation and leaves the community leadership with serious doubt over the ability of the Crown to fulfil their legal requirements.

To date, the meagre participant funding provided by IAAC has been used to develop initial comments, engage in communication with IAAC and the Proponent, participate in some meetings and workshops, review relevant documentation and a diversity of other activities. However, the limited funding is not sufficient for MFN to adequately understand the Project, engage with community members, evaluate technical/environmental concerns and provide deep and meaningful input on mitigation, monitoring and follow-up measures. We strongly desire the ability to participate more fully, but our hands are tied by the lack of capacity funding.

We believe it is to our mutual benefit for the Crown/Proponent to develop a meaningful relationship, and related agreements, to engage with MFN in this process. This would include a commitment to providing capacity and funding support to MFN to be meaningfully engaged. We feel these are reasonable requests and yet they have been repeatedly rejected by the Proponent and the Crown. While the Proponent has tentatively accepted a dramatically reduced request for capacity funding, no formal agreement has yet been reached.

Path Forward for Miawpukek First Nation

The members of MFN have not asked for this Project, or other offshore developments. When projects like this are approved by the Crown, we are be forced to bear the risks and suffer any negative consequences and environmental effects. MFN has never come to any agreement with the Proponent for our participation in this EA process, and are of the opinion that no meaningful consultation has occurred to date—only information sharing. The poor planning and lack of consideration of our knowledge, rights and interests will only exacerbate the effects of the Project on our community. We continue to voice our concerns that the duty to consult has not been met, implementation of UNDRIP is not occurring and that the requirements of *CEAA 2012* and the new *Impact Assessment Act* are not

satisfied. Ultimately this means that the Crown and the Proponent are far from satisfying their obligations for consultation and engagement with MFN. This is not in line with the legal requirements for consultation nor in the spirit of Truth and Reconciliation.

Going forward, in the absence of reasonable accommodations, MFN will take all the steps within our power to protect our community and the environment from the potential harm associated with this Project. For the sake of open and honest communication, we have provided a brief description of steps MFN is now considering.

1. MFN will issue a public statement regarding our perspectives on the offshore projects and the inadequate consultation that has occurred. This will include an appeal to the Prime Minister, minister of the environment, the people of Canada, Chevron's investors, other affected Mi'kmaq nations, and Indigenous communities across Turtle Island, indicating that the Crown is failing to fulfill their duty to consult on these projects.

2. MFN will reach out to other Indigenous communities across Canada to support us in our cause, as we believe the approach being taken by the Crown and Proponent runs counter to reconciliation and thus affects all Indigenous Peoples.

3. MFN will notify representatives of other sovereign states and Indigenous Peoples outside of Canada (e.g., the Indigenous Peoples of Greenland, Iceland, Ireland, and other European Union member states) who may be impacted by the development of oil and gas in offshore Newfoundland to encourage them to provide letters of comment and request participation in the IA processes for the offshore projects.

If the Proponent and the Crown are willing to engage with MFN in a meaningful and respectful manner, demonstrated by meeting our requests for reasonable accommodations in the form of capacity and engagement funding support (for which agreement in principle has been reached but no formal agreements have been signed), and commit to a defined engagement process which offers us certainty that our rights and interests will be respected and accommodated, then we are willing to come back to the table and engage in open and honest discussion. However, if this does not occur, the community of MFN will be forced to conclude that the Project poses too great a risk to our Aboriginal fishery, our brother salmon, our environment, and our way of life. For this reason, *MFN requests that the Crown take one of two actions*:

1. Determine that the Project poses a risk of significant environmental effects and recommend that the Minister reject the applications for approval, or

2. Make no decision nor proceed with any further steps toward approval of the Project until the requirements of meaningful consultation with MFN, and reasonable accommodations for MFN, are met.

Should the Crown recommend that the Project be approved, then the recommendations within this report (as described in Section 3.0) must be fully addressed though the final conditions of approval.

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