

Amendment of MKI's Environmental Assessment of the Northeast Newfoundland Slope 2-D Seismic Survey Programme, 2012-2017: *MKI Response to Reviewer Comments* (LGL Limited July 12, 2017)

GENERAL COMMENTS

Groundfish Enterprise Allocation Council (GEAC)/Canadian Association of Prawn Producers (CAPP)

Original Comment: Again, with reference to fisheries impacts, we find a similar absence of assessment. The gap in scientific knowledge leads to a low-confidence assessment of 'no impacts'. We feel that this conclusion is inconsistent with the precautionary approach to fisheries and habitat management that we are regulated under by the Department of Fisheries and Oceans, and such a lens should also be applied in this assessment. As in the past, we contend that the impacts are significant and experienced far afield from the source location and last for an extended period after the airgun array has been deployed. This requires further study on the part of the applicant, and should be undertaken prior to exploration activity being further intensified (as is requested by this amendment).

MKI Reply: The prediction that the residual behavioural and physical effects of exposure to airgun sound from simultaneously conducted 3D seismic surveys on the Fisheries VEC will be not significant is based on the best available, albeit limited, scientific data and LGL's professional judgment. MKI would be interested in seeing the evidence that makes GEAC/CAPP contend that 'the impacts are significant and experienced far afield from the source location and last for an extended period after the airgun array has been deployed'. That being said, MKI agrees that further study of the potential effects of exposure to airgun sound on fisheries is necessary in order to strengthen levels of confidence associated with predicting the significance of residual effects.

Follow-up Comment: MKI's response actually echoes our understanding that a robust assessment of the immediate and residual effects of seismic exploration on fish, fish habitat and fishery catch rates is undermined by a significant dearth of knowledge, a travesty after so many years of intensive seismic activity in this region. We continue to view this as an area very much of concern, as decisions are being undertaken without the information needed for an effects assessment that fosters confidence in its results. Furthermore, relying on demonstrated impacts to our livelihoods is not an effective method of designing a mitigation plan, as it places the onus on fishing enterprises to define the impact. In this situation, it would require us to absorb the high cost of deployment of vessel(s) to clearly 'demonstrate' that an impact is being experienced. This is a bastardization of the impact assessment process. It is the responsibility of the proponents, not the parties who are impacted, to provide robust evidence on the

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effects of seismic activity. As indicated above, MKI, GEAC and CAPP are all of common agreement that such an assessment cannot be made with the information at hand.

Our common agreement on the need for a robust impact assessment provides an opportunity for all parties to work towards a common goal. With the apparent support of MKI on this issue, we request the CNLOPB, seismic operators and the Newfoundland and Labrador oil and gas producers to provide the necessary funding and support to allow this key question of impact and mitigation to be addressed. Our concerns with this specific project will not disappear and this will be a recurring theme in future project reviews unless the CNLOPB takes steps to effectively address this issue.

As an initial scoping exercise, an analysis of existing data sources in this region (fishery catch records and seismic activity plots) could filter and identify situations where seismic activity could have impacted fishery catch rates. Such analysis could narrow the range of uncertainty, and provide parameters for either further research or agreed upon mitigation/avoidance strategies. This study could easily be completed within a calendar year if there was commitment by all parties on the need, and support from the regulatory authority to achieve. We strongly request that such an approach be considered, with involvement of the fishing industry as appropriate.

Fish, Food and Allied Workers (FFAW/Unifor)

Original Comment: We do have grave concerns however regarding the timing of seismic data acquisition of two of the planned programs this year – Harbour Deep and Cape Broyle. To begin, there will be active commercial snow crab fishing in NAFO Divisions 3L and 3N during the month of July, when the company plans to start seismic work in Harbour Deep and Cape Broyle. The commercial crab quota has not been caught to date in these areas and we anticipate fishing activity to remain active in these areas until the end of the month.

MKI Reply: MKI aims to schedule its ongoing seismic surveys to have no impact on commercial fishing. It is imperative that there is a two way flow of information between all parties involved so that active fishing gear can be avoided. MKI continues to provide open lines of communication through the weekly meetings with fisheries groups and to provide look ahead maps for the coming week's seismic acquisition.

Follow-up Comment:

The fishery remains open in 3LNO until 2000 hours on Monday, August 7th, 2017 following a one week extension by DFO. At the present time there is quota still available

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to be caught. We cannot support a move into an area of seismic interest that is also an open area for fishing until we have assurance that there will be no fishing activity in the area. We will continue our regular dialogue with the proponent to mitigate potential issues that could easily arise should there be crab gear in the water or should a harvester move to the area before the end of the extended season.

Original Comment: Additionally, the members of FFAW/Unifor have ongoing concerns with seismic activity being conducted in the vicinity of post-season crab survey stations prior to the stations being sampled for the year. The collaborative DFO-industry post season crab survey starts in September and continues until November. MKI's schedule of 3D seismic work in the Harbour Deep (mid-July to mid-October) and Cape Broyle (mid-July to end of August) prospects will not allow for the DFO-industry post-season crab survey to be executed without interference from seismic activity.

This post-season crab survey is vital to the fishing industry as it informs decision making with regards to quotas for coming years. Our members rely on this survey to be completed each year, without interruption or potential effects from outside variables. To date this survey has occurred uninterrupted by seismic or other oil and gas activity, allowing confidence in the index and time series. The current proposed activity by MKI poses to throw an unknown into the data as we are currently unsure of the effect of seismic activity on snow crab catchability, behaviour and physiology. It also threatens the time series of what has been a longstanding collaborative index between fish harvesters and science. Any potential impact on the survey will have significant consequences for the crab fleets – be it either short or long term.

The collaborative DFO-industry post season crab survey is undergoing changes in terms of the location and number of survey stations. Changes have not been confirmed for 2017. While this is frustrating for planning all around it continues to be FFAW/Unifor's position that seismic work should NOT be conducted in the vicinity of survey stations until they have been sampled for the year. We have been consistent in this position with all seismic activity and remain steadfast in our stance. This is an important time series. In the past, we have worked cooperatively with MKI on this issue and anticipate the same level of understanding going forward. We must ensure our members' concerns are heard and addressed, and we must also ensure that the importance of both the fishery and the post season industry collaborative snow crab survey are recognized across each of our industries.

MKI Reply: MKI will continue to observe both temporal and spatial buffers between areas of seismic surveying and post-season crab survey stations in line with all DFO

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scientific surveys. The pre-survey temporal and spatial buffers currently being applied to DFO RV surveys are seven days and 30 km, respectively.

Follow-up Comment: We reiterate our consistent stance that the 7 day/30 km temporal/spatial buffer is NOT an acceptable mitigation for the DFO/Industry post-season crab survey. The DFO/Industry post-season crab survey is not the same as other DFO scientific surveys. Our membership is NOT in support of seismic activity being conducted over these stations prior to them being sampled for the year. We will continue our regular dialogue with the proponent to advise when survey stations have been sampled.

The importance of both the fishery and the post season industry collaborative snow crab survey must be recognized across both industries.