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## Guysborough County Inshore Fisherman's Association (GCIFA): Response to Regional Assessment of Offshore Wind Development in Nova Scotia Phase II

### Rationale

NOTE: GCIFA has and remains a fully engaged, supportive partner in the NS Fishing Alliance for Energy Engagement and our submission is to support and further define the fishing industry's response to OSW development.

GCIFA has been engaged in the regional assessment process since the spring of 2023, when the assessment was announced by our joint federal and provincial governments. GCIFA resources coupled with an impact assessment agency funding grant assisted with our submission for phase 1. Unfortunately there was no additional funding for phase II, where a very large part of the work / consultations had to be completed. Existing marine users shouldn't have to expend their resources to engage / have input for this new industry to the marine environment and to Canada. It has placed a tax on the existing industries that should have been supported through the second phase of the engagement.

GCIFA has in our first submission identified gaps in data sets used by the RA Phase I to identify some possible OSW development sites (PFDA's) and would like to offer a methodology and some preliminary data to help fill in those gaps and provide a more fulsome understanding of the fishing footprint within the proposed PFDA's. GCIFA have concentrated on 3 PFDA's due to time and resources constraints. We will discuss the area we know best.

### Methodology

GCIFA has applied a vessel monitoring system to collect data on fishing activities being conducted in the potential future development areas for offshore wind. This methodology has been developed with the aid of a satellite AIS software application designed by Fujitsu & Transport Canada called the Enhanced Maritime Situational Awareness (EMSA). This software was developed for use in remote and northern communities.

Our fishermen have been busy conducting their seafood harvesting for the past six months with little to no downtime. This has made gathering and collecting traditional fisheries knowledge about the PFDA's difficult.

GCIFA staff have been monitoring fishing vessel traffic in 3 of the 6 PFDA's. We have been monitoring these sites since April 2024, encompassing snow crab, lobster and now halibut fisheries. We have set up a geo-fence around three of the proposed PFDA's; Canso Bank, Eastern Shore and Middle Bank using the Enhanced Maritimes Situational Awareness software application through an analyst account issued by Transport Canada. Every time a vessel enters or exits the selected PFDA, GCIFA receives an email notification, and this vessel appears in a daily report along with any other vessel that entered or exited the PFDA.

Creating reports on this software is user friendly and automated set to an interval of the user's choice. We have reports produced once every 24 hours sent to an email address. Initially this user account was set up for our association to be able to display our lobster research spatially on maps for our fishermen to see as our staff here are not GIS mapping analysts and did not have the capacity to create maps on our own, but it works effectively for any preset geo-fence.

We feel this marine traffic monitoring software, or a similar tool can be an excellent method to collect more accurate data on marine spaces and identify users of a particular marine space. The date/time variable on the application is extremely useful to sort out which type of fishing activity is being conducted. This method also captures fishing vessel traffic that may not be actively fishing but travels through an area to get to the fishing grounds. This type of data is not been previously recorded by anyone to our knowledge so provides an effective tool to the RA or future EA's. Also, this method captures fishing vessels that may not be perceived as such if looking at the marine traffic density layer of the DFO created Atlas.

This method is not all inclusive. Not all fishing vessels are required to have an AIS tracking system, and regulations surrounding when it has to be turned on and can be turned off are also variable. We found this methodology was effective to help identify which vessels were conducting fishing activities in a given area and which vessels were only transiting through, on their way to or from fishing grounds or back to a port for offloading.

DFO Atlas has a data layer which displays marine traffic density. Other than major shipping lanes, it is unknown what quantity of fishing vessels and what quantity of shipping vessels contribute to the more dense traffic routes. The ATLAS data on fishing activity only displays landings. Privacy screened data does not appear on the DFO ATLAS.

While these areas have been identified as “low conflict areas or low fishing activity” by DFO data from logbooks or VMS, they are high biodiverse areas which have been sustaining our coastal communities for decades. Economically the snow crab fishery for example, conducted in CFA 24 and CFA 23, supplies substantial direct and spinoff employment in Guysborough County and Cape Breton from seafood processing, vessel supplies and laborers just to name a few. A renewable energy project within the Canso Bank PFDA or Eastern Shore PFDA has the potential to economically upset the snow crab processing sector and its workers who rely on this seasonal employment.

During our 6-month investigation of the identified PFDA's, it does appear that Canso Bank has the highest number of fishing vessels transiting through it compared to the Eastern Shore or Middle Bank areas. The location of key offloading ports play a role in why fishing vessels continue to traverse this PFDA frequently. With seafood processing locations in Cape Breton and Guysborough County, Canso Bank PFDA stands between the fishing grounds and the processing locations and offloading of catch for transport.

GCIFA will be conducting face-to-face interviews to further data collection efforts. These face-to-face interviews will be crucial as a means to include fishing activity from fishing vessels under 45 feet as they are not required to be equipped with an AIS tracking system or VMS tracking with DFO.

The limited timeline for submission of fisheries information to the RA committee is not conducive to gathering a comprehensive list of fishing activity within the PFDA's. The interim report was published in February 2024. Snow crab season commenced within a few weeks of that release date. The inshore lobster fishery in our LFAs opened April 19/April 28 with an end date of June 28, 2024. The month of July and August was used to reach out to fishermen for interviews. Fishing of halibut has begun and soon the Bluefin tuna fishery will commence. This is a busy time of year for fishermen. The GCIFA has limited staff and resources, we usually devote our biologist and technicians to our lobster research surveys. We do not have a staff person designated to offshore wind PFDA's. As a not-for-profit organization in a small coastal community, we struggle to employ our staff year-round with limited funding.

Our association will continue to monitor fishing vessel traffic in the 3 PFDA's mentioned above for the next 2 years. This will allow us to identify fishing vessels engaged in fishing activities for each commercial fishery. It is necessary to monitor a marine space for a 12-month continuous period to capture each commercial fishery which is conducted at specific times of year. The fishing area we harvested snow crab from this year may not be exactly where we capture our crab next year as environmental or ecosystem changes in the ocean are always fluctuating. Multiple years of monitoring a particular marine space would be better to effectively present our fishing footprint than one year of monitoring.

## Compensation Recommendation

GCIFA membership would like to know how the fishing industry will be compensated for loss of space, loss of access to lucrative fishing grounds, ocean highways to their grounds and safe travel back to port for offloading or marine emergency safe haven ports. Compensation should be direct to harvesters not a community slush fund that they will require a lawyer and an accountant to submit a claim, with a 2-3 year wait time for acceptance and reimbursement.

Compensation should include losses incurred during research survey work, construction and operation of the proposed wind development. Compensation should also be extended to the working wharves of our communities through a community fund and take into consideration impact to offloading, processing, trucking, fuel and supply chain attached to the fishing activity losses. Our fishing seasons are short in length and occur during specific times that cannot be shifted earlier or later as this would economically upset our fishing enterprises and biological processes of the species.

We would like to see the RA committee make recommendations for identifying which party is responsible for compensation. The information we are presenting herein is a snapshot of fishing vessel activity within the identified three PFDA's.

Implementation of financial compensation funds is essential. Lessons learned from interactions with the oil and gas industry and our historical attempts at accessing these types of funds are driving our requests for easier access to these types of funds in the future. Funds for research and funds for compensation should be kept separately.

Another concern we would like to raise is the placement of transmission cables from the wind development area to connection sites on land. The construction activities associated with installation of subsea energy cables could impact up to four times the amount of fishing vessels that actively fish in the wind farm PFDA. The cable route should avoid sensitive ecological marine spaces as well as high commercial fishing areas even if it means laying an extra 4km of cable for example. This avoidance/mitigation could save a lot of money in future loss claims as disturbing the seafloor has ecological impacts that can last up to 5 years after construction activities cease. Keeping in mind that our viable seafood harvesting within the PDFAs and surrounding marine space are commercial species that inhabit the ocean floor, crustaceans as well as ground fish. Any disturbance of the seafloor will likely impact commercial species within the area. It is unknown how big the impacted area will be due to construction related activities.

## PFDA Recommendations

While the NSFAEE supports any future renewable energy development to occur within the six preliminary PFDA, GCIFA sees the gap between the US market and these identified sites as not proficient. Upon examination of our preliminary data sets collected by GCIFA geo-fencing, we feel having all the PFDA in marine areas east of Halifax unfairly penalizing the smaller coastal fishing villages located in this end of the province. Often the cost of fuel to fish farther marine sites does not make economic sense for our fishermen. GCIFA is open to renewable energy sites outside of the selected PFDA as long as the 25km zone from shore is respected with the new areas being evenly distributed throughout the Scotian Shelf not all concentrated in areas off Guysborough County.

Emerald bank is one site that was suggested by our association as a candidate for renewable energy as no fishing activity is conducted in this space as it is a closed fishing restricted area. When looking at commercial fishing data using the DFO Atlas, the PFDA with the least fishing is Emerald Bank. Sable Island Bank is also an area with very low commercial fishing landings. Seems like a no brainer to us as to which PFDA would cause the least disruption to the fishing industry. Particularly considering the north eastward shift of commercial species as a result of climate change. The figure below shows another marine space suggested by the fishing industry, agreement from a renewable energy proponent during a consultation meeting that this area we selected was indeed a possible good choice for a floating wind turbine project, provided the necessary feedback that we wanted to hear. It has the right depth characteristics and is still close to the pipeline corridor yet a more comfortable distance away from commercial fishing activity.

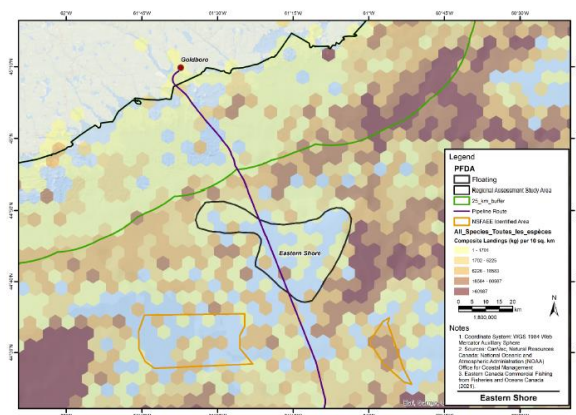


Figure 20: Eastern Shore PFDA and Surrounding Features

## Canso Bank PFDA Marine Activity

### **GCIFA recommends Canso Bank be removed as a PFDA**

If I had to summarize the vessel traffic occurring within this marine space, I would say most vessel traffic is fishing vessels. We have observed 227 fishing traffic transects within this PFDA, this includes vessels conducting fishing and also vessels travelling through to get to fishing grounds father offshore. Keeping in mind that we have only been monitoring this space from mid-April 2024 to August, this encompasses the snow crab fishery, inshore lobster and summer ground fish. It is hard to estimate the amount of boats that we are missing due to AIS systems not installed or required on board. Other fall fisheries such as commercial herring and swordfish have not begun.

I wish I could tell you that fishing vessels more often use the southern half of this PFDA or eastern end but that simply is not the case. We have observed fishing vessels with unique courses specific to their destination fishing area or destination port for offloading. Each fishing trip may be different or similar for specific vessels but what is clear is that there is no distinct highway within this PFDA for fishing vessels. Fishermen take the shortest route to and from their destination to save costs on fuel. Therefore, if a fishing boat is offloading in Louisburg, Cape Breton it will set a course/heading that will cross this PFDA in a different area rather than if this boat is offloading in Canso or Larry's River, it will set a course that will cross in a different part of this PFDA. So, it really depends on where the fishing boat was fishing and where the destination port is.

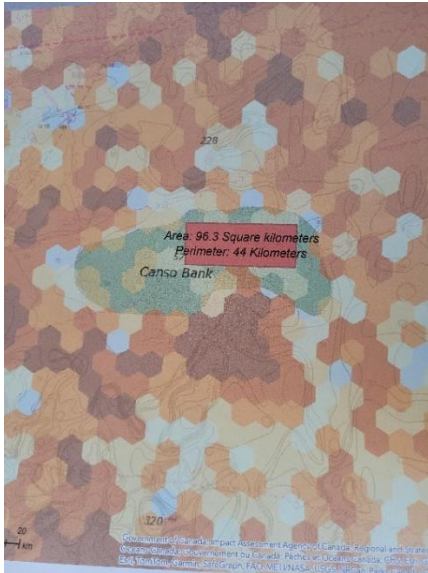
The DFO Atlas displays high fishing activity occurring to the south, west, east and north of the Canso Bank PFDA. We are concerned about snow crab landings within and surrounding this PFDA. We are concerned environmental impacts will reach outside the PFDA or outside the leased renewable energy sites.

We recommend Canso Bank PFDA be removed from further exploration for renewable energy because of the economic importance to commercial fishing industry. If this does not happen, the suggestion as to how to decrease the area of this PDFDA is to shrink it down so that the center middle of the bank is available to offshore wind but edges are still open for fishing. Creating a thick buffer around the high fishing areas along the southern edge of the bank and to the West and North.

Placement of transmission cables and arrays between turbines will be very problematic from this site. Disturbing the seafloor to lay cable to land will disrupt 3 times the amount of fishing vessels and increase the impacted area. The energy cables and installation of these cables need to be included in all discussions of a renewable energy project. The destruction of fish habitat to lay

cables will affect our commercial fishery outside the designated PFDA. Canso Bank PFDA would disrupt the commercial fishing industry and require more mitigation and compensation than a PFDA farther offshore.

Example:



Another orientation would be to place the lease in a slanted position covering the left end. Ultimately there is no way to avoid some halibut landings/fishing in the center of the PFDA.

Socioeconomic compensation benefits to the fishermen should be considered. This is the PFDA with the most fishing vessel traffic. If an area of this PFDA is selected as a potential development area for renewables, mitigation and compensation efforts to avoid interactions with the fishing industry would be more substantial than the other PFDAs. Mitigation actions have associated financial costs which could reduce any cost savings a proponent expects from a project closer to land.

#### Middle Bank PFDA Marine Activity

We have observed 113 fishing traffic transects since mid-April within this PFDA, this includes vessels conducting fishing and also vessels travelling through to get to fishing grounds farther offshore. To the North of this PFDA, the bathymetry provides habitat for shrimp and crab as the seafloor folds to create deep holes. Commercial landings displayed on the atlas within and around this PFDA is associated with snow crab, halibut and shrimp fishery.

Unfortunately, the ATLAS does not display the other commercial fishing in this PFDA due to privacy screened data.

- Significant snow crab landings
- Significant halibut landings
- Herring – privacy screened
- Cusk – privacy screened
- Haddock – privacy screened
- Haddock – privacy screened
- Mackerel - privacy screened
- Other crab - privacy screened
- Other groundfish - privacy screened
- Pollock - privacy screened
- Redfish - privacy screened
- Scollop – few landings in the PFDA
- Sculpin – privacy screened
- Shrimp – lots of fishing North of the PFDA, few inside, some fishing East of the PFDA
- Turbot – privacy screened
- Whelk – privacy screened
- Winter Flounder – privacy screened

We would want to protect lucrative fishing grounds to the North and South of this PFDA therefore eliminate the northern end of this PFDA and trim the eastern end to create a wide buffer between fishing and a renewable energy lease.

#### Eastern Shore PFDA Marine Activity

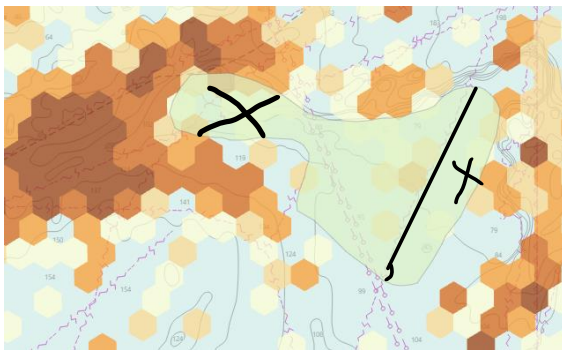
#### **GCIFA recommends Eastern shore be removed as a PFDA**

Using the AIS tracking system on EMSA, most of the marine vessel traffic in this PFDA is shipping/other. It is likely more fishing activity occurs here at other times of year. We know fishermen who travel to this area that do not have an AIS tracking system on board their vessel. This PFDA is closest to land therefore is likely frequented by fishing vessels under 45 feet therefore do not have an AIS tracking system.

Marine vessel traffic is very busy in this area. Lots of cargo, container ships and petroleum tankers. Looking at the vessel density map layer on the atlas compared to our observations of individual vessel routes, it appears that half of the traffic travels through the top end closest to land but vessels are just as likely to travel through the southern edge of the PFDA. The vessel density layer displays the traffic through the northern edge, closest to shore as the predominant route travelled. We have not observed this trend during the last 5 months (spring/summer) but it is possible the last 5 months of the calendar year

(fall/winter) when weather is not as pleasant is when marine traffic travels closer to the vessel density lines shown on the ATLAS.

GCIFA recommends this PFDA be removed from further exploration for renewable energy because of the economic importance to commercial fishing industry. If that is not going to happen, we suggest to reduce the size of the Eastern Shore PFDA, delete the northern end closest to land and trim 5km off the southern end to create a buffer from the snow crab fishery occurring just south east of the PFDA. The northern end is the most used portion by marine traffic according to the atlas vessel density layer and it surrounds economically important commercial fishing activities such as halibut. The figure below displays halibut landings from Atlas commercial fishing data layer.



Most of the other fishing activities conducted within this PFDA are privacy screened therefore are not visible. The AIS tracking method has not captured much of the fishing activity here either. Another means to collect this information may be required.

#### Sable Island/Emerald Bank Marine Activity

Guysborough County Inshore Fishermen's Association has focused on 3 of 6 PFDA's during the last 6 months but could possibly add the other 3 PFDA's into our scope in the future. We hypothesize that the Sable Island/Emerald Bank PFDA's could have a lower volume of fishing traffic. This would of course need to be substantiated with data to support such a hypothesis. Sable Bank PFDA is over 5,000 sq km and Emerald Bank PDFA exceeds 3,400 sq kms. We recall the requirement for 5GW of wind is 2,000 sq km. It is concerning the impact assessment process would identify over 11 times more space than required.

Identifying over 22,370 sq km of ocean space as potential renewable energy sites is concerning. Understanding the process was to pre-identify more than needed and then eliminate areas in the next step of the process where only 2,000km<sup>2</sup> receives designation for potential renewable energy projects as 5GW of energy is more than what our province can use. We are looking forward to seeing these PFDA shrink to the size required. We urge the RA committee to cut

this down to a fraction of the current PFDA's. Creating a thick buffer surrounding the highest commercial fisheries landings directly outside the PFDA. We request the Canso Bank PFDA (870km<sup>2</sup>) and Eastern shore PDFAs (985 km<sup>2</sup>) be deleted from further consideration. This leaves over 20,000 km<sup>2</sup> from the remaining four PFDA's. The PFDA closer to the coastline has more fishing vessels transiting through on their way to fishing areas farther offshore. The PFDA's that are offshore have less fishing vessels transiting through. If fishing vessels are in the farther offshore PFDA, (Sable Island Bank & Emerald Bank), they are likely there to fish and not just steaming through on route to other fishing.

#### SIDENOTES:

Appendix A: Summary of Marine vessel traffic. The tables below do not count number of vessels. The tables display number of times a vessel entered the PFDA. This could count the same boat many times as often as it enters the selected area. Quite often this method will count shipping/petroleum vessels once when they steam through on their way to port and again several days later after they have unloaded their cargo and are leaving the port to traverse another marine route.

'Other marine traffic' vessels that enter or cross one PFDA, also usually cross a second PFDA, adding more traffic to all PFDA's by the same vessel. Conversely fishing vessels rarely enter more than one PFDA during a trip but revisit the same area multiple times per month and are counted each time they enter the identified PFDA. We are tracking how many times this space is used by the fishing industry; this is what the tables below display. We also are cataloging each individual fishing vessel and are keeping a log of their trips per month into each PFDA. We will not disclose names of vessels to renewable energy developers or the Impact Assessment Agency unless we have permission by the harvester or commercial fishing license holder to do so. We will continue to accrue fishing data, while keeping protected the privacy of our seafood harvesters, for compensation in future offshore renewable energy developments.

Other marine traffic could include: cargo, container ships, oil/chem tankers, research vessels, coast guard, military, pleasure craft, sailing, anchor handler vessels, heavy lift vessels, resupply vessels, tugs etc.

Sincerely,

Ginny Boudreau, Executive Director Guysborough County Inshore Fishermen's Association

Melinda Cole, Biologist, Guysborough County Inshore Fishermen's Association

## Appendix A

## Summary of Marine Vessel Traffic

### Canso Bank PFDA

April 2024	Fishing traffic	Other marine traffic
April 1-7		
April 8-14		
April 15-21	3	1
April 22-30	3	16
	6	17

May 2024	Fishing traffic	Other marine traffic
May 1-7th	8	17
May 8-14	10	12
May 15-21	13	17
May 22-31	16	24
	47	70

June 2024	Fishing traffic	Other marine traffic
June 1-7th	7	12
June 8-14	18	11
June 15-21	9	24
June 22-30	13	22
	47	69

July 2024	Fishing traffic	Other marine traffic
July 1-7	23	23
July 8-14	20	30
July 15-21	19	29
July 22-July 31	30	33
	92	115

August 2024	Fishing traffic	Other marine traffic
Aug 1-7	14	13
Aug 8-14	13	15
Aug 15-21	3	16
Aug 22-	5	12
	35	56

The research vessel Coriolus II conducting hydrographic surveys entered into this PFDA 6 days in the month of July.

## French Bank (Eastern Shore) PFDA

April 2024	Fishing traffic	Other marine traffic
April 1-7		
April 8-14		
April 15-21	1	6
April 22-30	2	28
	3	34

May 2024	Fishing traffic	Other marine traffic
May 1-7th	6	27
May 8-14	2	27
May 15-21	3	28
May 22-31	3	44
	14	126

June 2024	Fishing traffic	Other marine traffic
June 1-7th	0	29
June 8-14	4	26
June 15-21	2	27
June 22-30	4	48
	10	130

July 2024	Fishing traffic	Other marine traffic
July 1-7	3	34
July 8-14	4	34
July 15-21	3	36
July 22-July 31	4	49
	14	153

August 2024	Fishing traffic	Other marine traffic
Aug 1-7	4	30
Aug 8-14	5	29
Aug 15-21	2	37
Aug 22-	2	13
	13	109

## Middle Bank PFDA

April 2024	Fishing traffic	Other marine traffic
April 1-7		
April 8-14		
April 15-21	3	0
April 22-30	3	14
	6	14

May 2024	Fishing traffic	Other marine traffic
May 1-7th	1	18
May 8-14	1	7
May 15-21	7	18
May 22-31	11	24
	20	67

June 2024	Fishing traffic	Other marine traffic
June 1-7th	0	10
June 8-14	9	12
June 15-21	10	17
June 22-30	5	16
	24	55

July 2024	Fishing traffic	Other marine traffic
July 1-7	12	17
July 8-14	7	11
July 15-21	14	12
July 22-July 31	15	30
	48	70

August 2024	Fishing traffic	Other marine traffic
Aug 1-7	8	13
Aug 8-14	3	10
Aug 15-21	3	14
Aug 22-	1	11
	15	48

The research vessel Coriolus II entered this PFDA 19 days during the month of May, and 7 days during the month of July, 3 days in August so far.

Appendix B

Fishing Vessel Activity within PFDAs organized by Boat Name

