

FORCE Responds to 10 Questions

The Cape Sharp Tidal turbine was pulled out of the water in June 2017 and re-deployment anticipated mid-2018. Fishers are still upset, calling for more monitoring and research. To understand better what FORCE is doing, and requires berth holders to do, South Cumberland News submitted the following questions to FORCE. The following is FORCE's response to the questions:



FORCE
Fundy Ocean Research Center for Energy

Was the theory of fish avoidance of the turbine approved?

The original Environmental Assessment conducted at the FORCE site resulted in a set of predictions relating to the risks project activities at the FORCE site pose for marine life. The prediction was project activities would have minimal negative impacts to marine fish species. FORCE and developers at the site are conducting monitoring programs to evaluate shifts in the distribution of fish in relation to deployed turbines, with FORCE conducting monitoring in the mid-field (i.e. 100-1000m from the turbine) and CSTV conducting monitoring in the near-field (within 100m of the turbine). To date, no significant shifts in the distribution of fish have been observed in the mid-field of the turbine; more data is required to strengthen that conclusion. Fish observed in the near-field were primarily moving in the direction of the current. More data is needed to fully evaluate avoidance behaviours and verify the prediction that turbines have a minimal negative impact on fish at the FORCE site - that includes better positioning of near-field sensors on the turbine.

How many of the mandated 24 hour fish surveys were completed.

FORCE's 2017 EEMP proposed 9, 24-hour fish surveys that spanned all seasons. This survey schedule was contingent upon a turbine being deployed at the site for the full duration of the year. Following the removal of the turbine in June 2017, FORCE reduced the frequency of surveys to 6 in consultation with regulators. Despite a reduced number of surveys, data was collected during all four seasons and survey timing overlapped with what was completed in previous years.

What was revealed from each of the surveys?

The data collected to date has documented seasonal peaks in fish abundance in the mid-field area of the FORCE site starting in May 2016 and continuing in 2018. The monitoring program compares fish densities between the FORCE site and a site that is un-impacted by MRE development on the opposite side of the passage. Monitoring to date has shown similar abundances of fish at both sites, with no significant changes at the FORCE site in relation to turbine activities. Detailed results are provided in FORCE's 2017 Annual Report.

Is the software installed complete and capable of interpreting /deciphering the data collected?

Various software programs are being utilized in FORCE's environmental effects monitoring programs (as well as Cape Sharp's - talk to them for more info). Data processing techniques are well-developed and are being used effectively for the processing of fish and marine mammal data collected by FORCE's mid-field monitoring program (See FORCE's 2017 Annual Report for details: <http://fundyforce.ca/wp-content/uploads/2012/05/Q4-2017-FORCE-EEMP.pdf>)

Where there any sightings or recoverable sightings of porpoise's in the area of the turbine, or passing through?

Porpoise were recorded on 98% of days in the mid-field area of the turbine (~200-1700 meters), using bottom-mounted C-PODs, which are instruments used to detect marine mammal "clicks." FORCE also records observations of marine life through its seabird observation program and through regular beach walks. In terms of near-field data, check with Cape Sharp.

Last year it was reported on the other side of the basin, some different species of Porpoise – possibly "white sided" – what various species were identified close to the turbine either prior to or after passing by the turbine? In what numbers?

FORCE and CSTV's current monitoring programs utilize acoustic instruments that detect sounds made by marine mammals in the vicinity of the FORCE site. These instruments are used to document the presence of marine mammals that produce vocalizations, including those that use clicks or calls for communication and prey location (e.g. dolphins, porpoises, and whales). FORCE also conducts shore-line observations to document any visual records of marine mammals visiting the site. To date, harbour porpoise and harbour seals are the only sound-producing marine mammals that have been recorded at the site during FORCE and CSTV's monitoring activities. Harbour seals are recorded at the surface very rarely, and harbour porpoises are recorded at the site on 98% of days. There have been no visual or acoustic observations of white-sided dolphins at the FORCE site in the 2016 – present monitoring program.

Late last summer, or early fall, I viewed a "You Tube" segment of a white shark swimming farther down the Bay of Fundy. Were there any white shark sightings in the immediate areas around the Force site and turbine location in the Minas Channel / Passage?

None, during the shore-based observation program with Envirosphere Consultants.

FORCE has partnered with the Ocean Tracking Network and Dr. Michael Stokesbury at Acadia University to mount receivers on moorings at the FORCE site that record signals produced by tagged fish transiting the site, including those tagged locally, regionally, and internationally. These receivers recorded the presence of a white shark in the vicinity of the FORCE site in the month of [??] in 2017.

FORCE has partnered on two separate tagging projects with Acadia and the Ocean Tracking Network (OTN). FORCE and OTN are in the process of acquiring information, including species information and exact location of detections from the tag receivers deployed within the Minas Passage. Initial results show that the receivers deployed have detected tags from a white shark tagging project. Here's the announcement of the Acadia research project with Dr. Stokesbury: <http://www.oera.ca/press-release-research-investments-in-nova-scotia-in-stream-tidal-technology-research/>

What role has or is FORCE playing concerning possible compensation to area fishers who have been affected by boats creating noise, wave action and lights distracting herring and other species?

FORCE has compensated fishers for lost or damaged gear in the past. And beyond FORCE, we do require all operators, including turbine developers, to submit methods of procedure for offshore activity. That includes communicating with any affected parties to resolve any issues from specific activities - those issues are dealt with directly between the operator and fishers (or others). FORCE can facilitate those discussions, to make sure issues are brought to the attention of the right people. And to support general awareness of activity at the site, to the extent possible, we notify fishers of upcoming operator activity and the vessels that may be involved during an operation.

What is the next step in this process? Who all is involved in the discussions?

In terms of our monitoring program, it's an ongoing process. FORCE speaks regularly with regulators from Nova Scotia Environment and Fisheries and Oceans Canada, developers, local fishers, as well as science leads for our five monitoring programs, including University of Maine, the Sea Mammal Research Unit Consulting (Canada), Envirosphere Consultants, Acadia University, Luna Ocean Consulting, JASCO Applied Scientists, GeoSpectrum Technologies, Ocean Sonics, and Nexus Coastal Resource Management. Key next steps will be improvements to the near-field program, including better positioning of the Gemini sonar, and integrating the near- and mid-field monitoring results to provide a fuller picture of marine life/turbine interactions. We also meet with our Environmental Monitoring Advisory Committee, which includes scientists, a local lobster fisher, and a representative from the Mi'kmaw Conservation Group. Additionally, we meet with our Community Liaison Committee, who's membership includes local residents, fishers, government representatives, First Nations, and industry.

Could any of that research or adjustments be completed using the FAST platforms?

Yes. FORCE currently has several research projects underway to evaluate the use of its FAST platforms for environmental monitoring. For example, FAST-3 is a bottom-mounted platform that can be deployed for 2+ months at a time to continuously monitor fish and environmental variables in a particular location. This gives us temporal data to supplement the spatial data provided by our mobile fish survey data, providing a more continuous picture of fish use of the FORCE test site. As well, FAST-2 is being tested with a dynamic mount system to be deployed near a turbine. The dynamic mount is capable of remote adjustments which is intended to enhance real-time in situ fish data collection in the near-field.

NDP to Formalize Candidate on April 7TH

By Maurice Rees

Cumberland South NDP Assn will formally select its candidate, for the upcoming by-election, at All Saints Hall, Springhill commencing at 2:00 pm. At presstime, Larry Duchesne, was the only declared candidate, as March 8th was deadline for candidate nominations.

Cuchesne ran as the party's candidate on two previous

occasions, the last being the 2017 provincial election. He is active with the Oxford Food Bank Association as board member and regular volunteer, a member of the Oxford Lions and a trustee on the River Philip Community Hall Association. He has run twice before in Cumberland South.

Party leader, Gary Burrill will be in attendance and will be the events guest speaker.



CUMBERLAND SOUTH NDP

NOTICE OF NOMINATION MEETING

2:00 p.m., Saturday April 7TH, 2018
All Saints Parish Hall

92 Main St., Springhill, NS

Meet NS NDP Leader GARY BURRILL

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