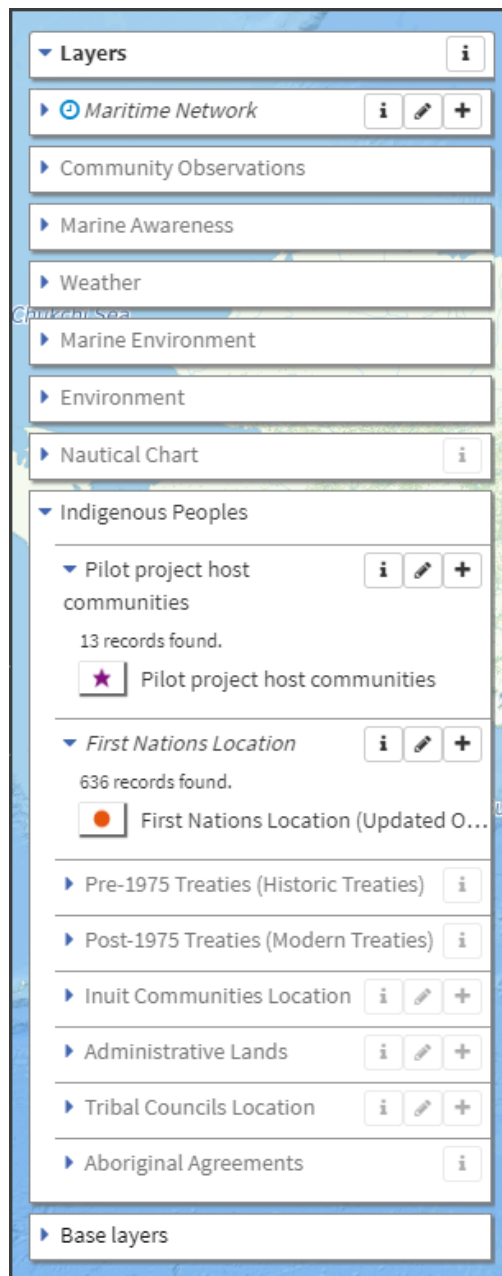




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TURN ON/OFF SPATIAL LAYERS.

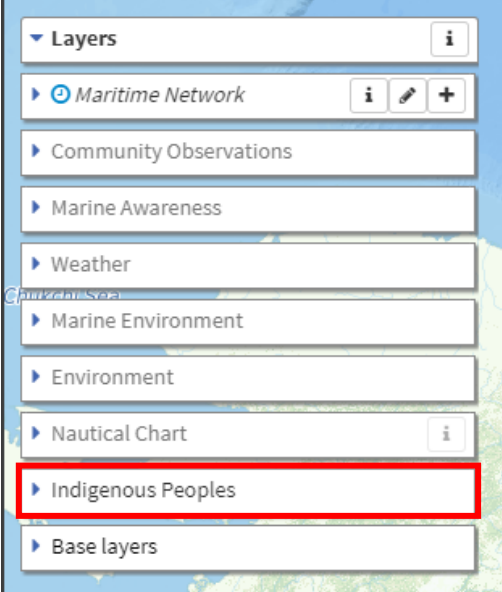
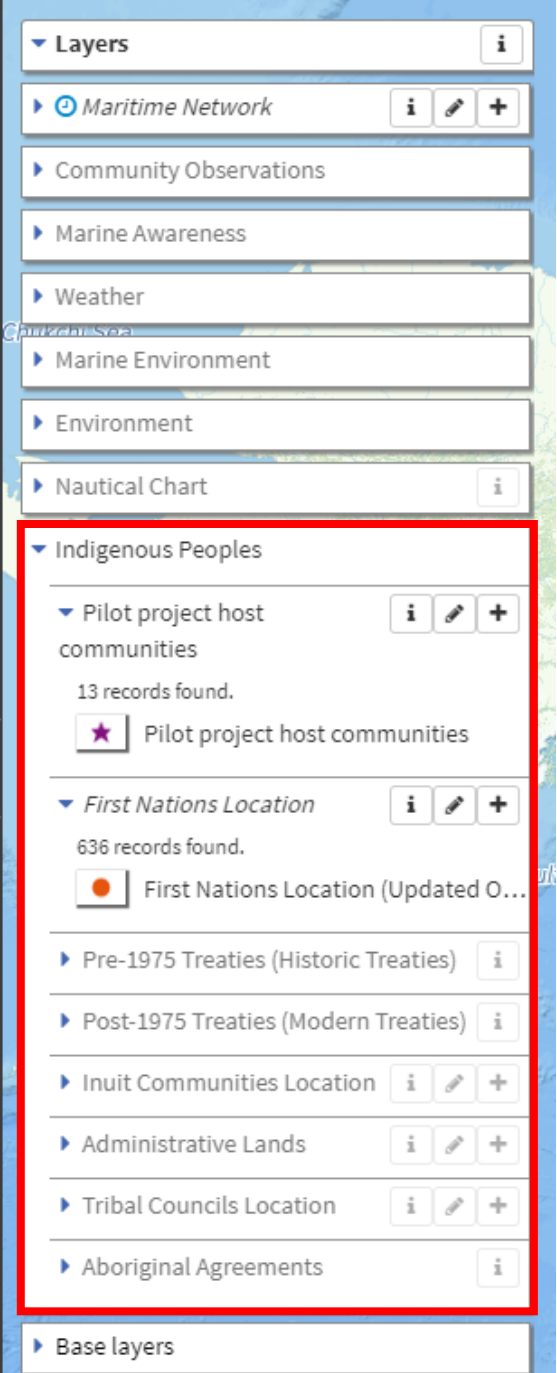
Spatial information is organized into layers or level of information, they can be grouped as well ordered to relate similar information. The layer list looks like this:



Any group of layers can be expanded or collapsed. For that purpose, just use the icon located at the left of the layer name.



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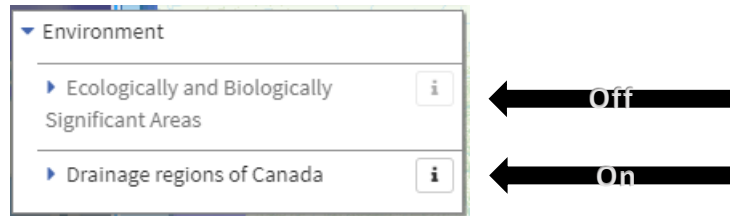
Group "Indigenous Peoples" is collapsed	Group "Indigenous Peoples" is expanded.
	

Any layer can be turned on or off. Just click on the layer name and you will notice that the name changes its color: black for layers turned-on and gray for turned-off ones.

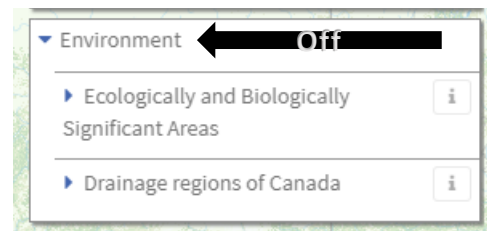
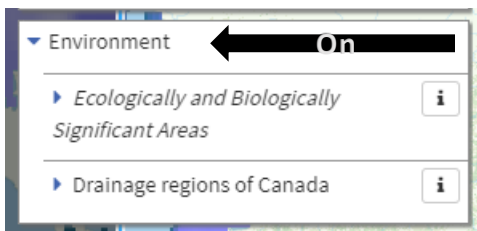


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For example, within the “Environment” group layer, you can see that the “Drainage regions of Canada” layer is on while the “Ecologically and Biologically Significant Areas” layer is off.



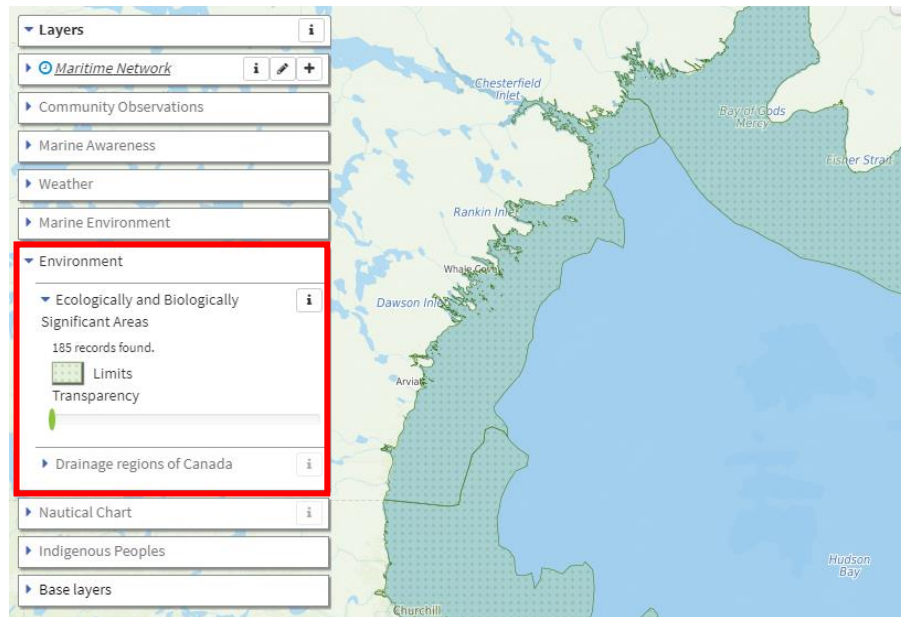
Finally, a layer group can be turned on or off in a single operation, simply clicking on the layer group name.



ACCESS DATA

EMSA allows access to spatial (maps) and non-spatial information (tables, data bases).

For instance, if you are interested in analyzing the ecologically and biologically areas in Canada, you can turn on the layer and the map will show all the zones related to those areas.





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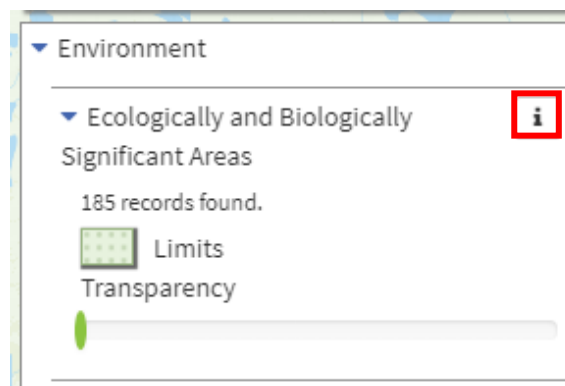
This information is valuable, but it is far from complete, since it is only showing the location but not any relevant details.

By clicking on any of the green zones, a popup form will show the information related to that specific area, such as Name, Ocean, Area Km2, Report, etc.

Ecologically and Biologically Significant Areas	
Objectid	14
Id	143
Name	South-western coast of the Gulf (including Chaleur Bay)
Nom	Côte sud-ouest du Golfe (incluant la Baie des Chaleurs)
Ocean En	Atlantic Ocean
Ocean Fr	Océan Atlantique
Area Km2	13569.2951319
Report	DFO. 2009. Conservation objectives for the Ecologically and Biologically Significant Areas (EBSA) of the Estuary and Gulf of St. Lawrence. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2009/049.
Report Url	http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2009/2009_049-eng.htm
Rapport	MPO. 2009. Objectifs de conservation pour les Zones d'Importance Écologique et Biologique (ZIEB) de l'estuaire et du golfe du Saint-Laurent. Secr. can. de consult. sci. du MPO, Avis sci. 2009/049.
Rapporturl	http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2009/2009_049-fra.htm
Contact En	Claude Savenkoff, Fisheries & Oceans Canada, Mont-Joli, QUÉ, G5H 3Z4; Tel.: 418-775-0764; Claude.Savenkoff@dfo-mpo.gc.ca
Contact Fr	Claude Savenkoff, Pêches et Océans Canada, Mont-Joli, QUÉ, G5H 3Z4; Tel.: 418-775-0764; Claude.Savenkoff@dfo-mpo.gc.ca
Managedby	Gulf
Bioregion	Gulf of St. Lawrence / Golfe du Saint-Laurent

This specific layer “Ecologically and Biologically Significant Areas” contains 200 records; it would be cumbersome to click on all these points one by one to see their related information.

If you are interested in getting as much information as possible on all these zones at once, you need to open the data table related to the layer.




After clicking on the symbol  this form will show up, and here you can get access the table (“Data”).



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DFO_Ecologically and Biologically Significant Areas_Conservation / MPO_Zones d'importance écologique et biologique_Conservation

Properties **Data** Used by Metadata Terms of Use



Data Source

Resource Id: 542

Name: DFO_Ecologically and Biologically Significant Areas_Conservation / MPO_Zones d'importance écologique et biologique_Conservation

Ecologically and Biologically Significant Areas (EBSAs) are areas within Canada's oceans that have been identified through formal scientific assessments as having special biological or ecological significance when compared with the surrounding marine ecosystem. Failure to define an area as an EBSA does not mean that it is unimportant ecologically. All areas serve ecological functions to some extent and require sustainable management. Rather, areas identified as EBSAs should be viewed as the most important areas where, with existing knowledge, regulators and marine users should be particularly risk averse to ensure ecosystems remain healthy and productive. [Complete description at <https://gcgeo.gc.ca/geonetwork/metadata/eng/d2d6057f-d7c4-45d9-9fd9-0a58370577e0>.]

Description: Les zones d'importance écologique et biologique (ZIEB) sont des zones au sein des eaux océaniques canadiennes qui, selon des évaluations scientifiques officielles, se distinguent dans leur écosystème en raison de l'intérêt qu'ils présentent du point de vue biologique ou écologique. Le fait qu'une zone n'ait pas été désignée comme ayant une importance écologique et biologique ne signifie pas pour autant qu'elle n'a pas une importance écologique. Toutes les zones assument des fonctions écologiques dans une certaine mesure et exigent une gestion durable. Les zones désignées comme des ZIEB doivent être reconnues comme des milieux prioritaires par les organismes de réglementation et les utilisateurs maritimes qui, en disposant de l'information pertinente, pourront contribuer à préserver la santé et la productivité de ces écosystèmes. [Résumé complet à <https://gcgeo.gc.ca/geonetwork/metadata/fre/d2d6057f-d7c4-45d9-9fd9-0a58370577e0>.]

Type: postgis
Original Name: chsnafila

Close

And after clicking on "Data", the table will be open.

DFO_Ecologically and Biologically Significant Areas_Conservation / MPO_Zones d'importance écologique et biologique_Conservation

Properties Data **Used by** Metadata Terms of Use

Search for... 200 records found.

Icon	Objectid	Id	Name	Nom	
	1	130	Burgeo Bank	Banc Burgeo	Atl
	2	131	Eastern Avalon	Est de l'Avalon	Atl
	3	132	Laurentian Channel and Slope	Chenal et talus laurentien	Atl
	4	133	Lilly Canyon-Carson Canyon	Canyon Lilly-Canyon Carson	Atl
	5	134	Northeast Shelf and Slope	Plate-forme et talus nord-est	Atl
	6	135	Placentia Bay Extension	Prolongement de la baie de Plaisance	Atl

50 per page



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You can see that there are 200 records. The table can be sorted by any column, just click on the column name and the table will be ordered in ascending or descending order.

DFO_Ecologically and Biologically Significant Areas_Conservation / MPO_Zones d'importance écologique et biologique_Conservation

Properties Data Used by Metadata Terms of Use

Search for... 200 records found.

Icon	Objectid	Id	Name ▲	Nom
	175	10	Admiralty Inlet	Inlet de l'Amirauté
	74	11	Archipelago Multi-Year Pack Ice	Banquise permanente de l'archipel
	172	12	Arctic Basin Multi-Year Pack Ice	Banquise permanente du bassin arctique
	102	59	Aspy Bay	Baie Aspy
	191	13	Baffin Bay Shelf Break	Rebord de la plate-forme continentale de la baie de Baffin
	28	165	Barkley Sound and Albernia Inlet	Bassin de Barkley et passage Alberni
	87	15	Bathurst Inlet	Inlet Bathurst
	29	166	Baynes Sound	Détroit Baynes

50 per page

The pagination control in the bottom of the table allows you to select how many records you want to see per page. You can easily navigate between pages 1, 2,3, and so on. You can go to the previous, next, first or last page as well.

It is possible to search within the table, for instance let's list only the zones located in the Pacific Ocean.

Just type Pacific Ocean in the search box and the result will be shown. There are 28 records found matching this condition.



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Ecologically and Biologically Significant Areas / Zones d'importance écologique et biologique

Properties Data Metadata

Pacific Ocean 28 records found.

Id	Name	Nom	Ocean En	Ocean Fr	Area Km ²
187	Shelf Break	Rebord de la plate-forme continentale	Pacific Ocean	Océan Pacifique	24024.51
186	Shelf break	Rebord de la plate-forme continentale	Pacific Ocean	Océan Pacifique	10286.30
185	Scott Islands	Îles Scott	Pacific Ocean	Océan Pacifique	6975.893
173	Continental shelf off of Barkley Sound	Plate-forme continental au large du bassin Barkley	Pacific Ocean	Océan Pacifique	4834.860
171	Central mainland	Région continentale centrale	Pacific Ocean	Océan Pacifique	3537.600
170	Cape St. James	Cap-Saint-James	Pacific Ocean	Océan Pacifique	3371.161

50 per page

EXPORTING DATA

Finally, data can be exported to be used in any application outside EMSA, for instance Open Source QGIS or a spreadsheet such as Microsoft Excel®.



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Ecologically and Biologically Significant Areas / Zones d'importance écologique et biologique

Properties Data Metadata

Pacific Ocean 28 records found.

	Objectid	Id	Name	Nom	Ocean En	Ocea
	50	187	Shelf Break	Rebord de la plate-forme continentale	Pacific Ocean	Océan Pa
	49	186	Shelf break	Rebord de la plate-forme continentale	Pacific Ocean	Océan Pa
	48	185	Scott Islands	Îles Scott	Pacific Ocean	Océan Pa
	36	173	Continental shelf off of Barkley Sound	Plate-forme continental au large du bassin Barkley	Pacific Ocean	Océan Pa
	34	171	Central mainland	Région continentale centrale	Pacific Ocean	Océan Pa
	33	170	Cape St. James	Cap-Saint-James	Pacific Ocean	Océan Pa

50 per page

And you can select which data format is required

Export Data Source

Archive name DFO_Ecologically and Biologically Significant Areas_Conse

Output file type ESRI Shapefile

- CSV
- XLSX
- CSV without geometry
- ESRI Shapefile
- MapInfo File
- KML
- GeoJSON
- GPX

Form ?


Use choice labels ?


Proceed Cancel

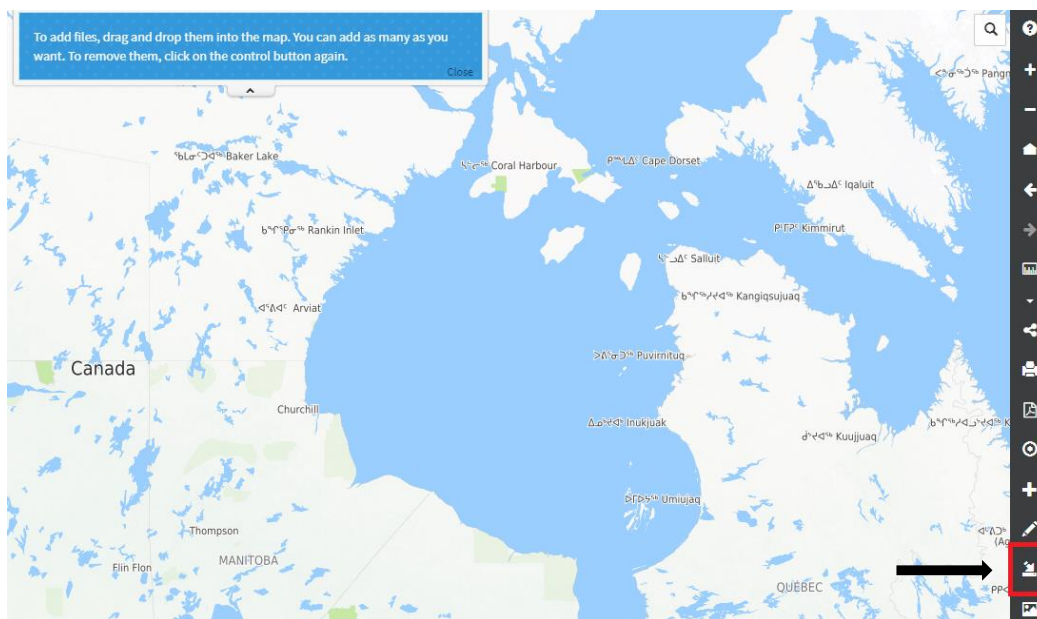



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IMPORTING DATA

It is also possible to import vector files into the map. Previously configured this option in the application tools, you can find this icon in the right vertical menu .

Clicking on the  button a window will open for you to select the file you want to import directly into the map.



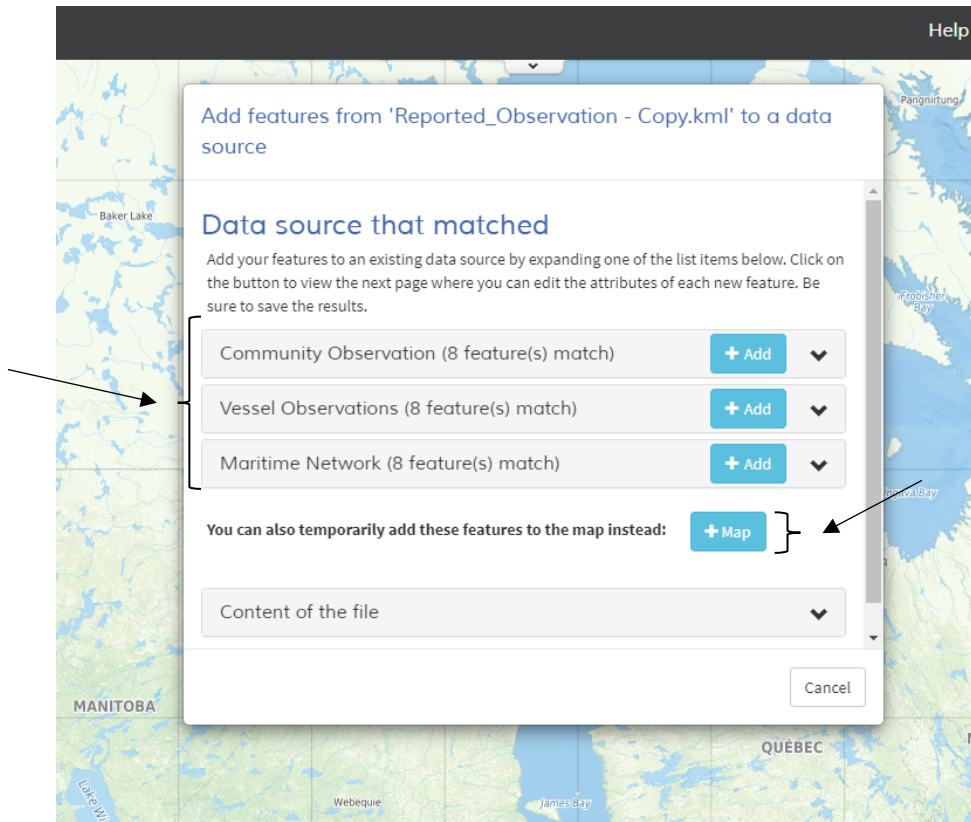
Or simply drag and drop a valid vector file. For this example, we added a file containing these four points  in Hudson's Bay.

In the configuration of your application, you can enable the “add to layers” option in the “Add files”, after dragging your file you will get a modal where you have the option to save your data to any matching data source in the application or you can just add the file temporarily on the map.

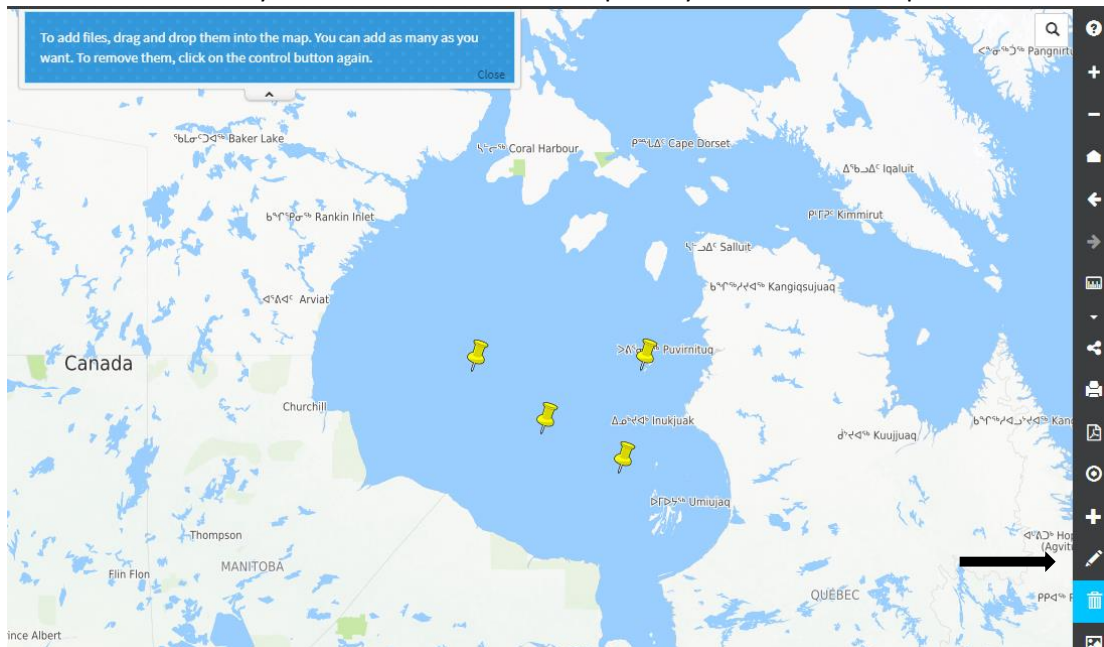
For the example let's select the last option



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Here you can see the features temporarily added on the map.





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You can remove the added vector files by clicking on the  button. You will be prompted to confirm the removal of your files.

Confirm removal

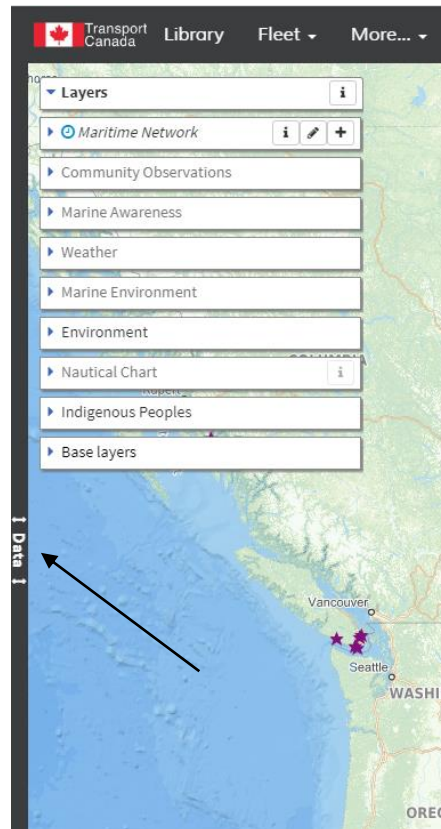
Are you sure you wish to remove those vector files from the map?



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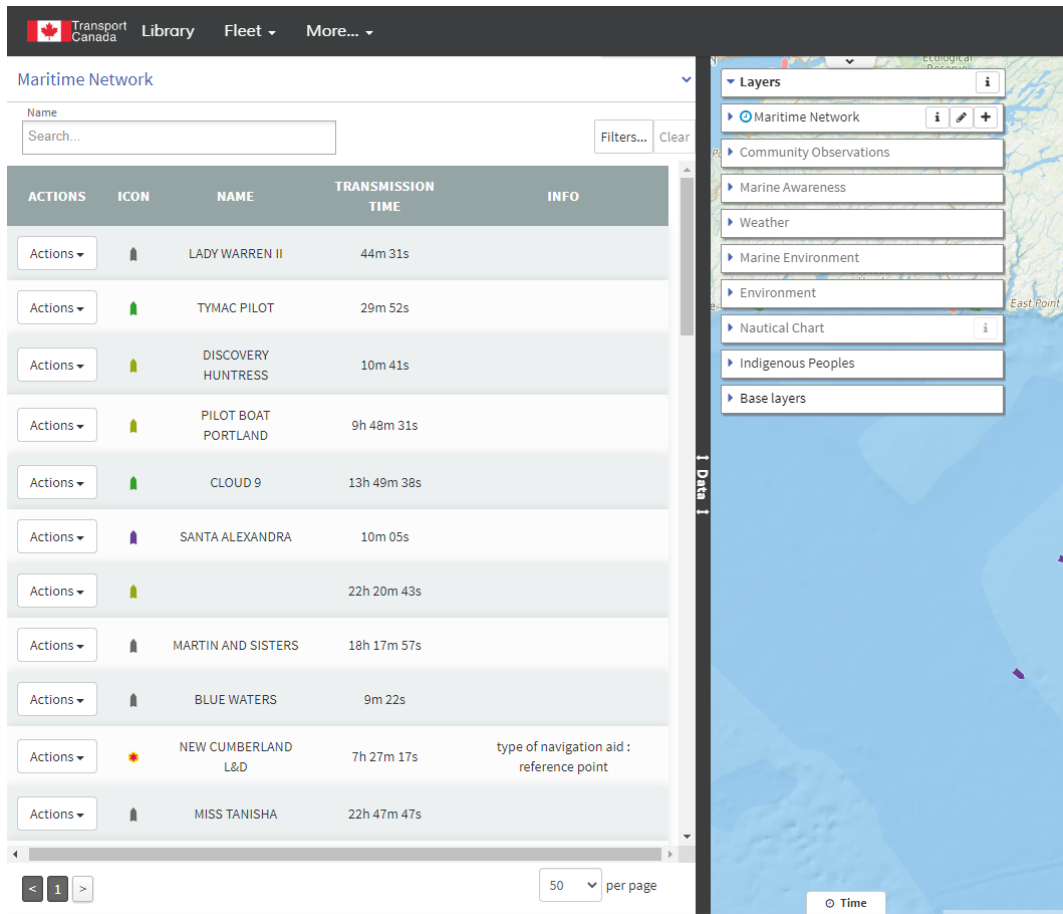
SEARCHING DATA

You can perform a search or create filter to find and display specific records. First, open the Left panel by clicking on the bar on the left.



For this example, let's use the Maritime Network layer. At the top of the Data panel, select "Maritime Network".

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Maritime Network

Name
Search...

Filters... Clear

ACTIONS	ICON	NAME	TRANSMISSION TIME	INFO
Actions		LADY WARREN II	44m 31s	
Actions		TYMAC PILOT	29m 52s	
Actions		DISCOVERY HUNTRESS	10m 41s	
Actions		PILOT BOAT PORTLAND	9h 48m 31s	
Actions		CLOUD 9	13h 49m 38s	
Actions		SANTA ALEXANDRA	10m 05s	
Actions		MARTIN AND SISTERS	22h 20m 43s	
Actions		MARTIN AND SISTERS	18h 17m 57s	
Actions		BLUE WATERS	9m 22s	
Actions		NEW CUMBERLAND L&D	7h 27m 17s	type of navigation aid : reference point
Actions		MISS TANISHA	22h 47m 47s	

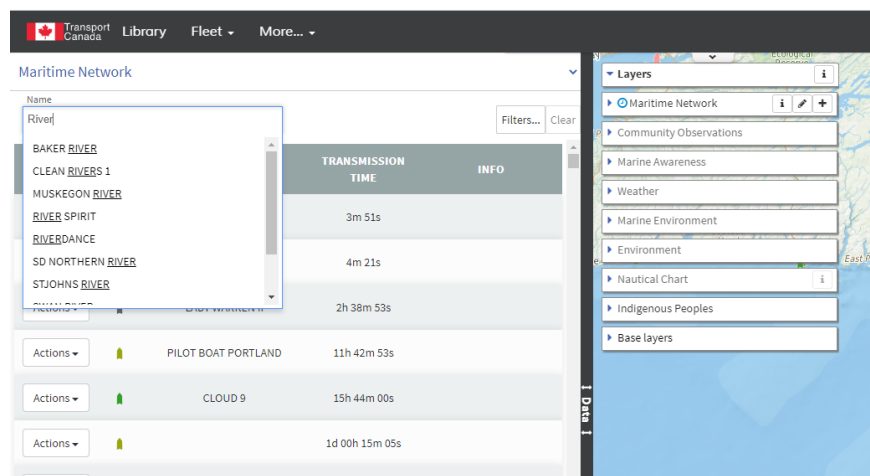
Layers

- Maritime Network
- Community Observations
- Marine Awareness
- Weather
- Marine Environment
- Environment
- Nautical Chart
- Indigenous Peoples
- Base layers

50 per page

Time

Let's type "River" in the Name field.



Maritime Network

Name
River

Filters... Clear

ACTIONS	ICON	NAME	TRANSMISSION TIME	INFO
Actions		PILOT BOAT PORTLAND	11h 42m 53s	
Actions		CLOUD 9	15h 44m 00s	
Actions			1d 00h 15m 05s	

Layers

- Maritime Network
- Community Observations
- Marine Awareness
- Weather
- Marine Environment
- Environment
- Nautical Chart
- Indigenous Peoples
- Base layers

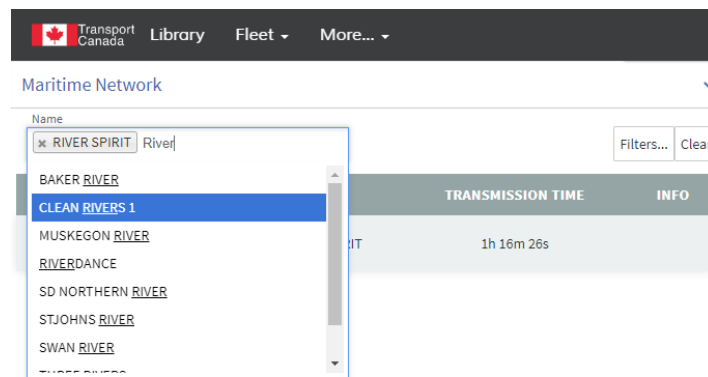


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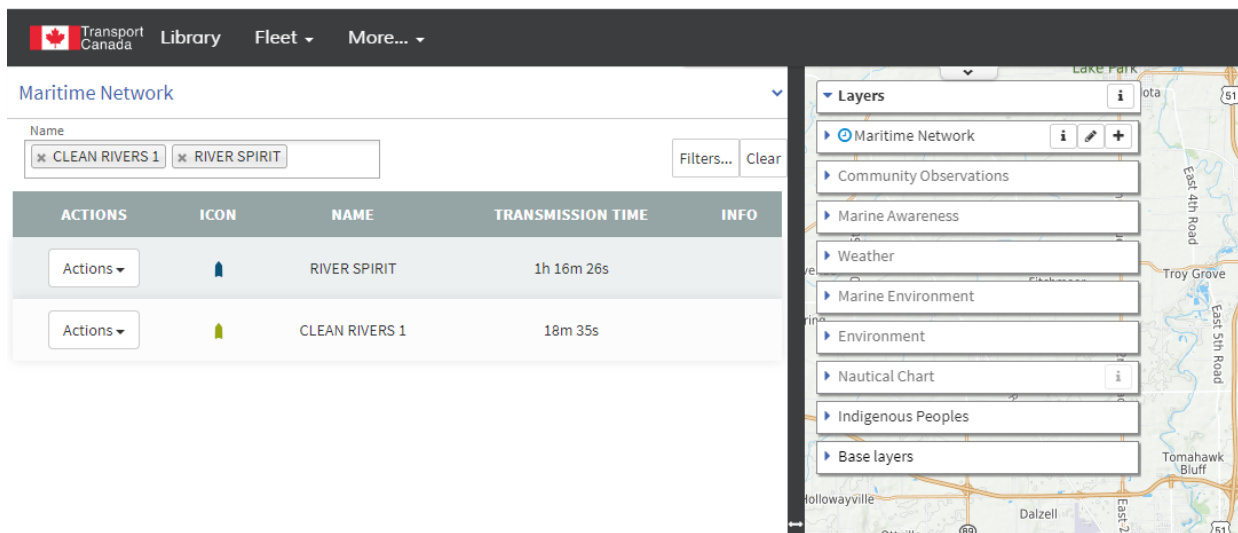
You can see here that it shows the available options as you type. You can then select the name you want. For this example we will select “RIVER SPIRIT”.

The filter tool now only shows the vessel with this name.

If you are interested in more than one vessel, you could add another name to the search. Let’s type “River” again in the Name field. You can see here that there are other vessels available with that name since we already added the one named “RIVER SPIRIT”. Let’s select “CLEAN RIVERS 1”.



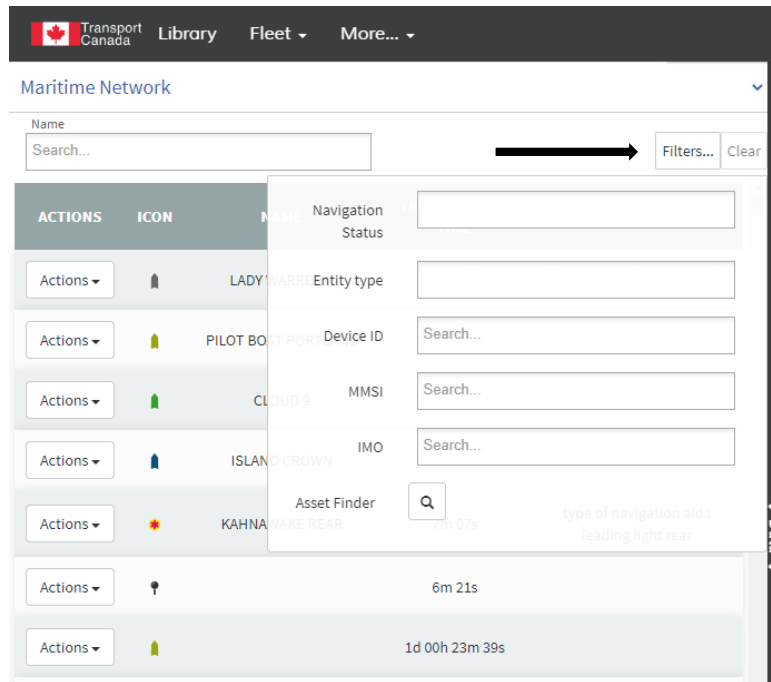
Now both “CLEAN RIVERS 1” and “RIVER SPIRIT” are visible in the table and map views.



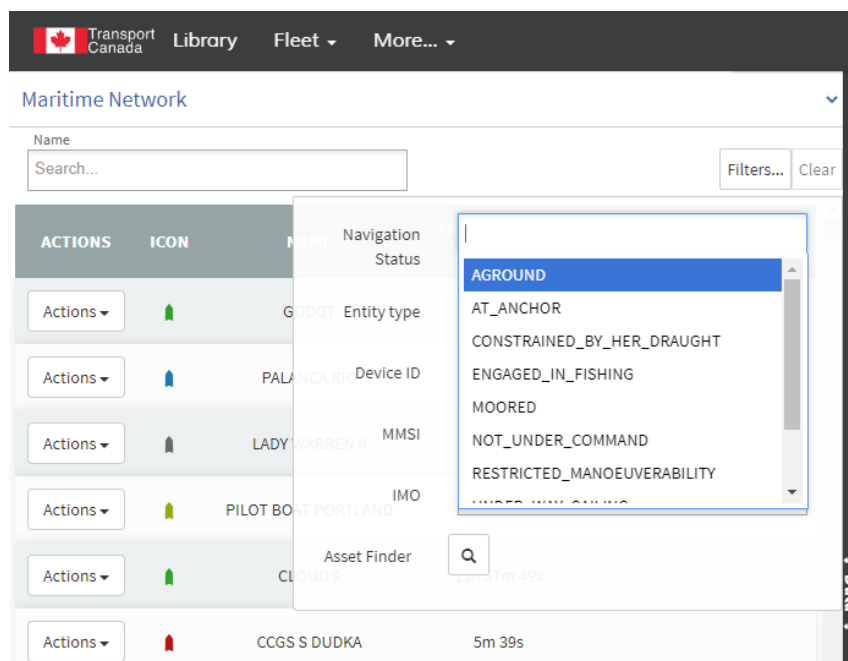
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FILTERING DATA BY ATTRIBUTES

The “Filters” tool allows you to be more specific in your search.



Let's click on the field Navigation Status.

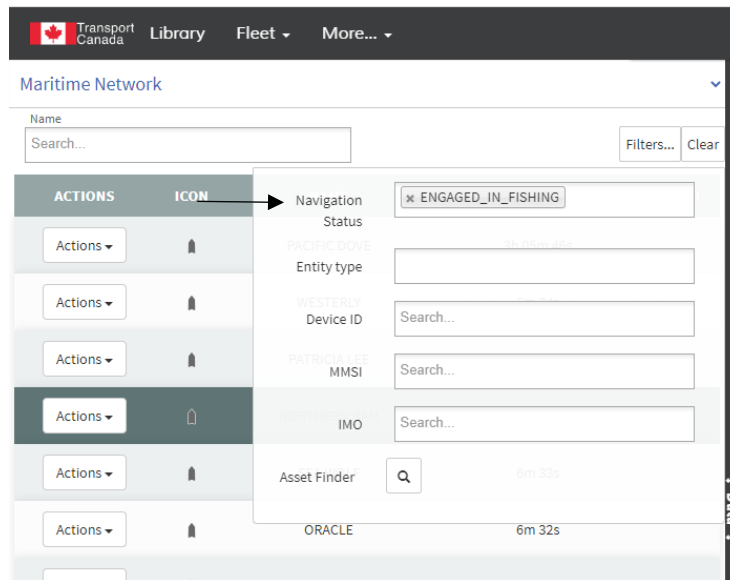




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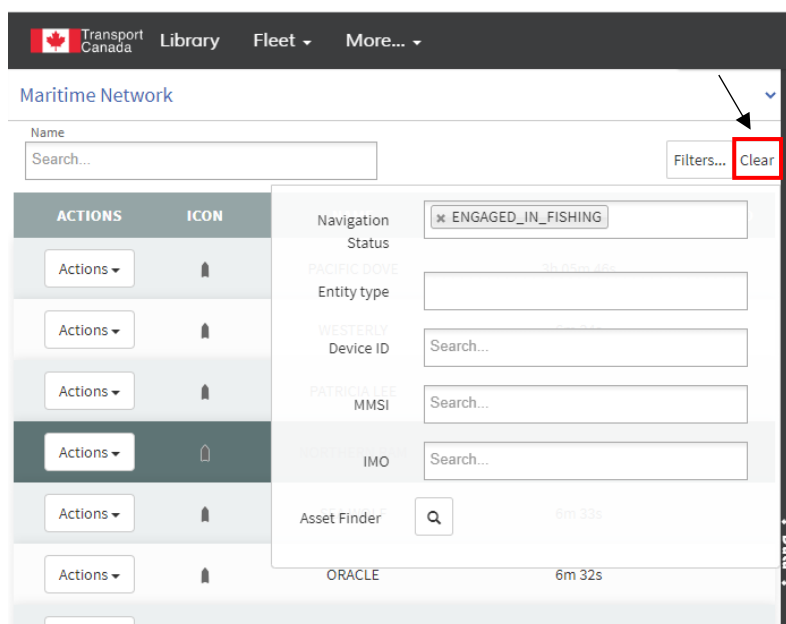
You can see here that the filter tool shows the available options. You can then select the attribute you want. In this case, we will select “ENGAGED_IN_FISHING”.

The filter tool now only shows the vessels with this status.



CLEARING FILTERS

You can clear the filter by clicking on the Clear button.





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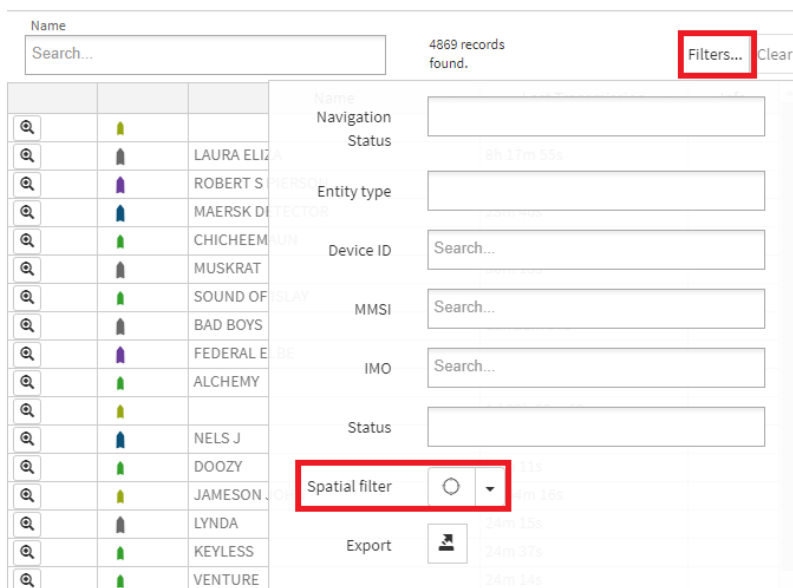
GEOSPATIAL FILTERING

Another way to filter vessels is to use a geographical filter.

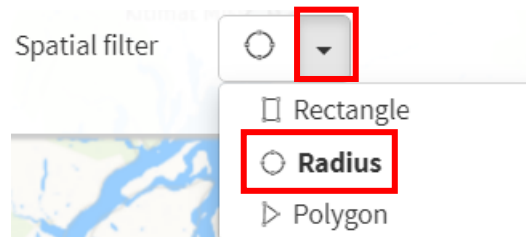
In your application, it is possible to activate the spatial filter in the Data Source Browser. In order to see this option, the Spatial Filter must be disabled.

For our example, pan or use the location search tool and go near Masset in British Columbia.

Let's use the Spatial filter of the Filters tools.



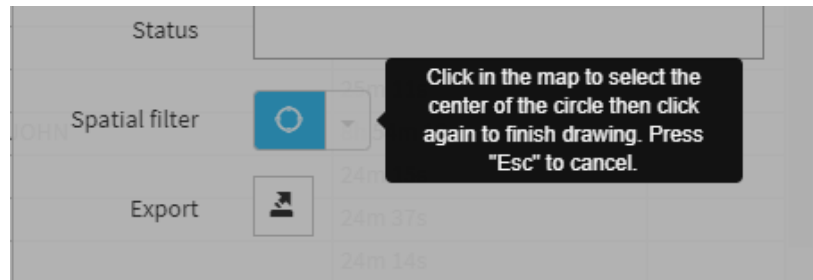
Click on the down arrow to select the spatial filter type and select Radius.



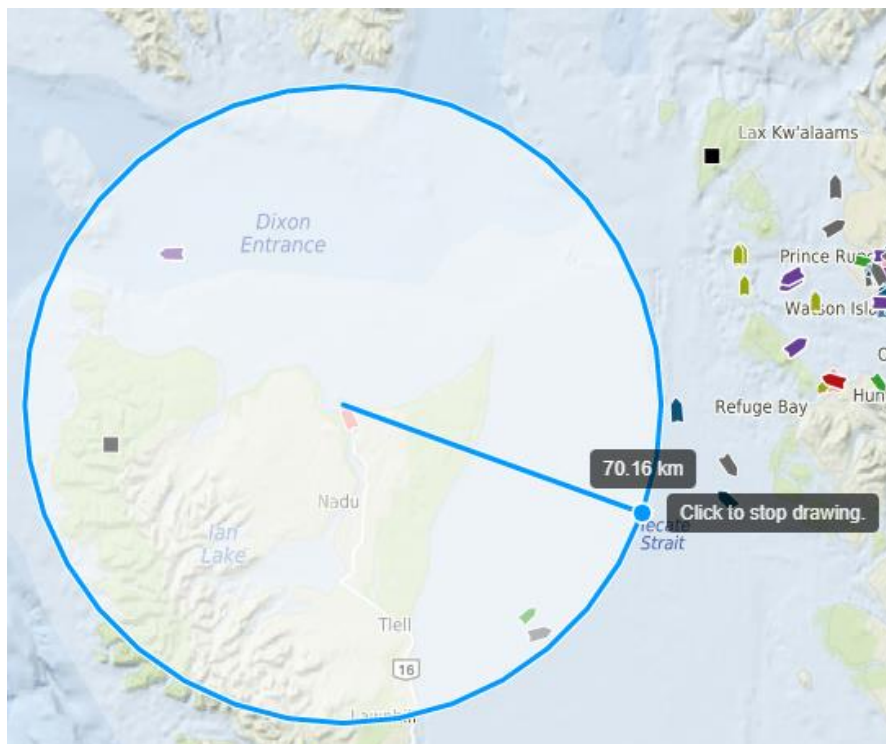
The instructions to create the selected geometry are given by the tool.



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Click on the location of Masset and move your mouse away until you select the desired area. In our example move 70 km away.



Then click again to confirm the circle radius and filter the vessels with the geometry.



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Maritime Network

Name
Search... 5 records found. Filters... Clear

		Name	Last Transmission	Info
		OCEAN RANGER	38m 34s	
		NORTHERN EXPEDITION	38m 30s	
		RCM SAR 45	9h 15m 41s	
		SUIKAI	42m 01s	
			38m 29s	

Only the vessels within the selected geometry will appear on the table and map views.