## CENTRE FOR MARINE APPLIED RESEARCH

# CMAR COASTAL MONITORING PROGRAM CHEAT SHEET REPORT & DATA ACCESS

CMAR collects data on Essential Ocean Variables (EOVs) to support science-based development of coastal industry, guide government policy and management decisions, encourage environmental stewardship, and prepare for climate change. As part of CMAR's efforts to follow the FAIR (Findable, Accessible, Interoperable and Reusable) data principles, CMAR ensures data are publicly accessible in a variety of formats. Outlined below are CMAR's Coastal Monitoring Program data products & the ways in which they can be accessed.

### **Water Quality**

Water quality data (e.g., temperature, dissolved oxygen, and sometimes salinity) is collected using CMAR's "sensor strings".
Sensor strings are typically attached to the seafloor by an anchored acoustic release and suspended in the water column by a sub-surface buoy, with sensors attached at various depths.



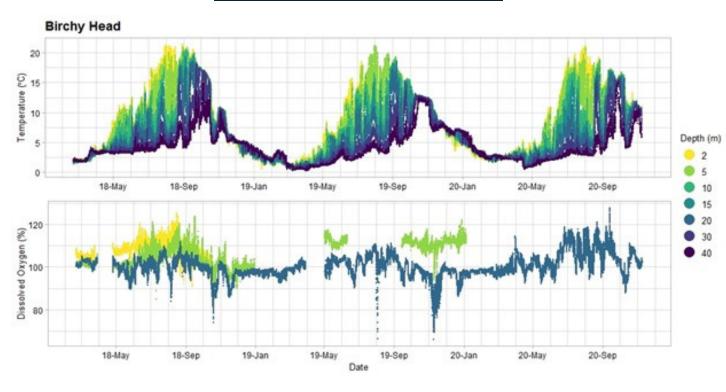
Processed\* data is summarized in reports, which are available via the water quality map on <u>CMAR's</u> website and updated regularly.

Processed data is grouped by county, and can be downloaded directly from the Nova Scotia

<u>Open Data Portal</u>.

A map of sensor string locations is also available on the Nova Scotia Open Data Portal.

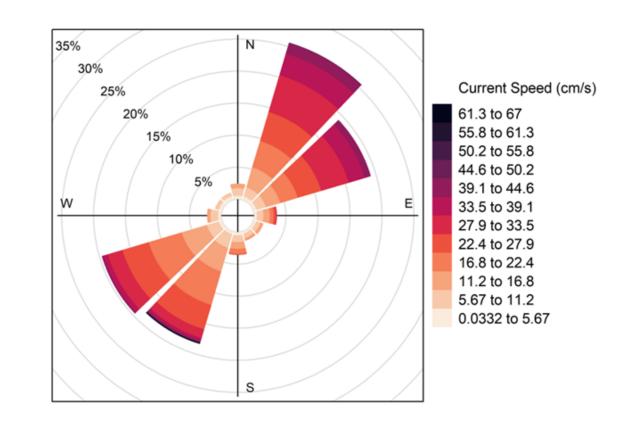
Water quality data is available for download from ERDDAP through <u>CIOOS Atlantic</u>.



\*Water Quality data was processed & plotted using the CMAR-developed R package 'strings'

### **Current Profiles**

Acoustic Doppler Current Profilers (ADCPs) have been deployed by the NSDFA in coastal waters of Nova Scotia to collect current profiles. CMAR has processed over 64 datasets containing current speed and direction data collected throughout the water column.



Processed\* data is summarized in reports, which are available via the ADCP map on <u>CMAR's website</u> and updated regularly.

Processed data is grouped by county, and can be downloaded directly from the Nova Scotia

<u>Open Data Portal.</u>

A map of ADCP deployment locations is also available on the Nova Scotia <u>Open Data Portal</u>.

CMAR is currently working with CIOOS Atlantic to make the current profile data available for download from ERDDAP.



\*Current data was processed & plotted using the CMARdeveloped R package <u>'adcp'</u>

#### Waves

CMAR has several wind-wave buoys and ADCPs which collect wave height, period and sometimes direction data throughout coastal Nova Scotia. Information on how and why the wave data were collected is available on <u>CMAR's website.</u>



Processed data is summarized in reports, which are available via the wave map on <u>CMAR's website</u> and updated regularly.

Processed data is grouped by county, and can be downloaded directly from the Nova Scotia

<u>Open Data Portal.</u>

A map of sensor deployment locations is also available on the Nova Scotia <u>Open Data Portal.</u>

Wave & weather data from three wind-wave buoys is streamed in near real-time to <u>CIOOS Atlantic</u> where it is available for download from ERDDAP.

