

# Halifax Harbour Water Quality Monitoring Project

## Weekly Summary #94

**Survey Date:** 04 April 2006  
**Nature of Survey:** Coliform Survey  
**Report File (this document):** HHWQMP\_report094\_060404.doc  
**Data File:** HHWQMP\_data094\_060404.xls

**Data Return:**  
 Profile: 100%  
 Bacteria: 100%  
 Chemical: na  
**Overall: 100%**

### Sample Notes:

There was an improper number of sample bottles resulting in only three, rather than the usual four, coliform QA/QC samples being taken

### QA/QC samples:

#### Fecal Coliform (CFU/100ml)

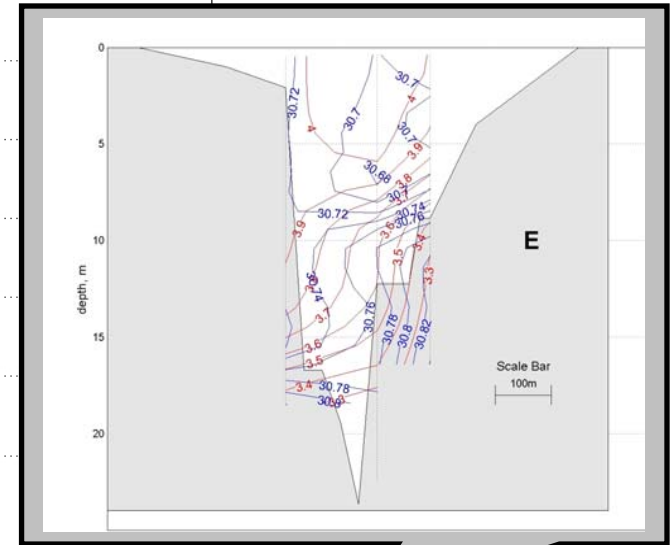
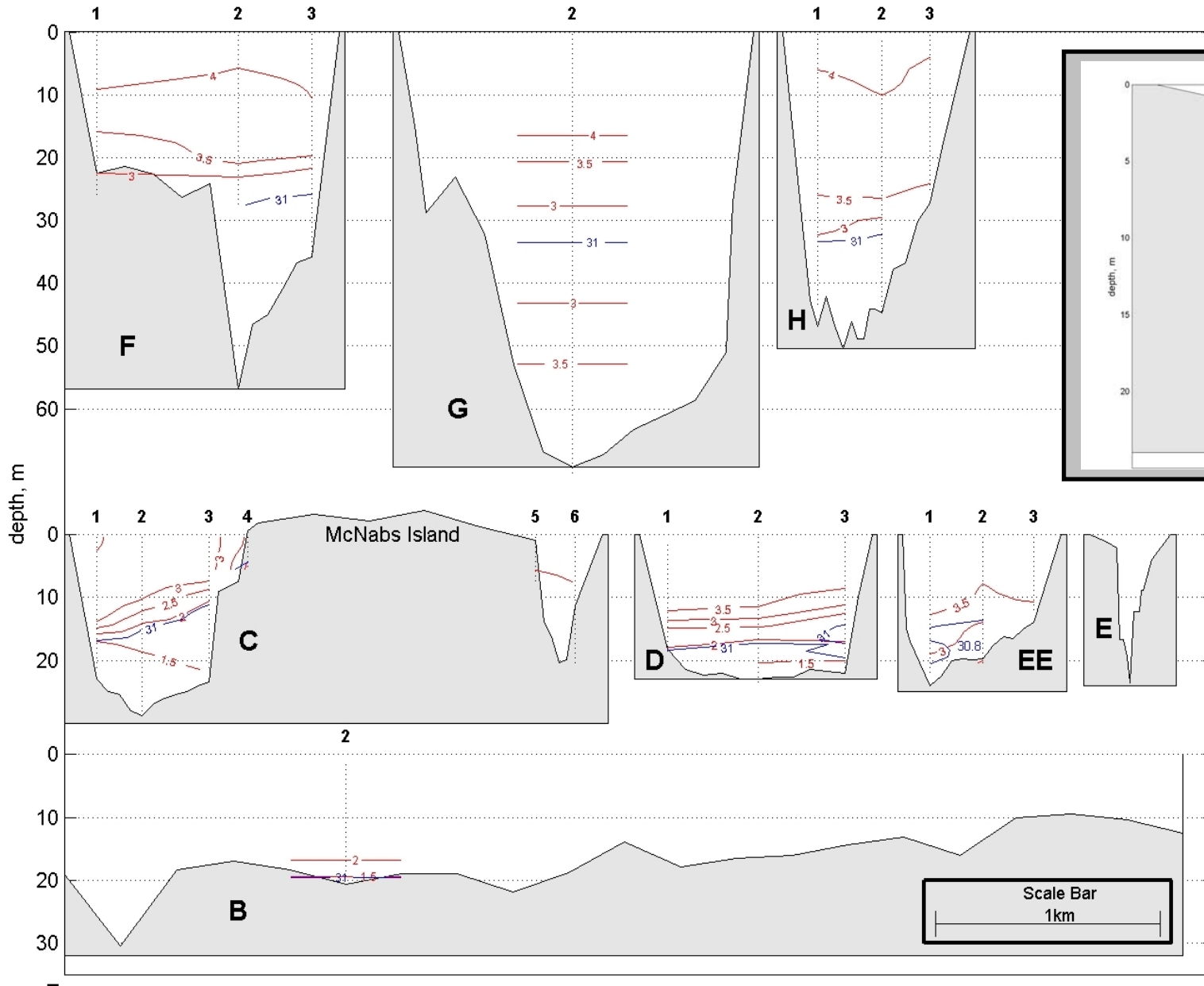
Site	C6-1m	H2-10m	F1-1m
Reference	36	3	4
QA/QC	43	7	0

### Comments:

**General:** The Harbour is warmer (on average about 0.5° C and 1° C or more in the surface at some stations) and slightly less saline than last week, however, the harbour remains quite unstratified. There has been a small amount of rain in the previous few days however this hasn't affected Sackville River levels which continue to fall, implying reduced freshwater input. The fecal coliform distribution is quite unusual. The concentrations are generally quite low and the distribution of high concentrations is displaced up-harbour to the Narrows and southern Basin. This implies an up Harbour flow, perhaps accompanied by enhanced mixing. An up-harbour surface flow could be the result of the up-harbour winds before and during sampling or perhaps could be driven by more regional oceanographic features acting at the mouth of the Harbour.

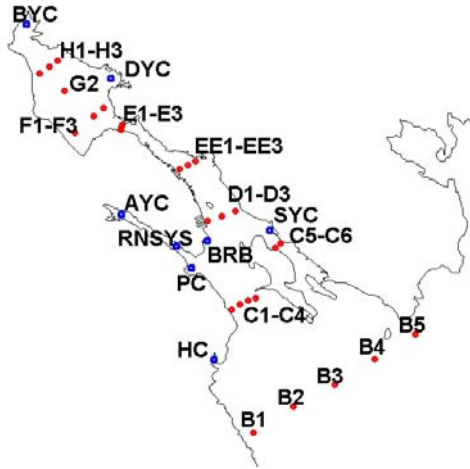
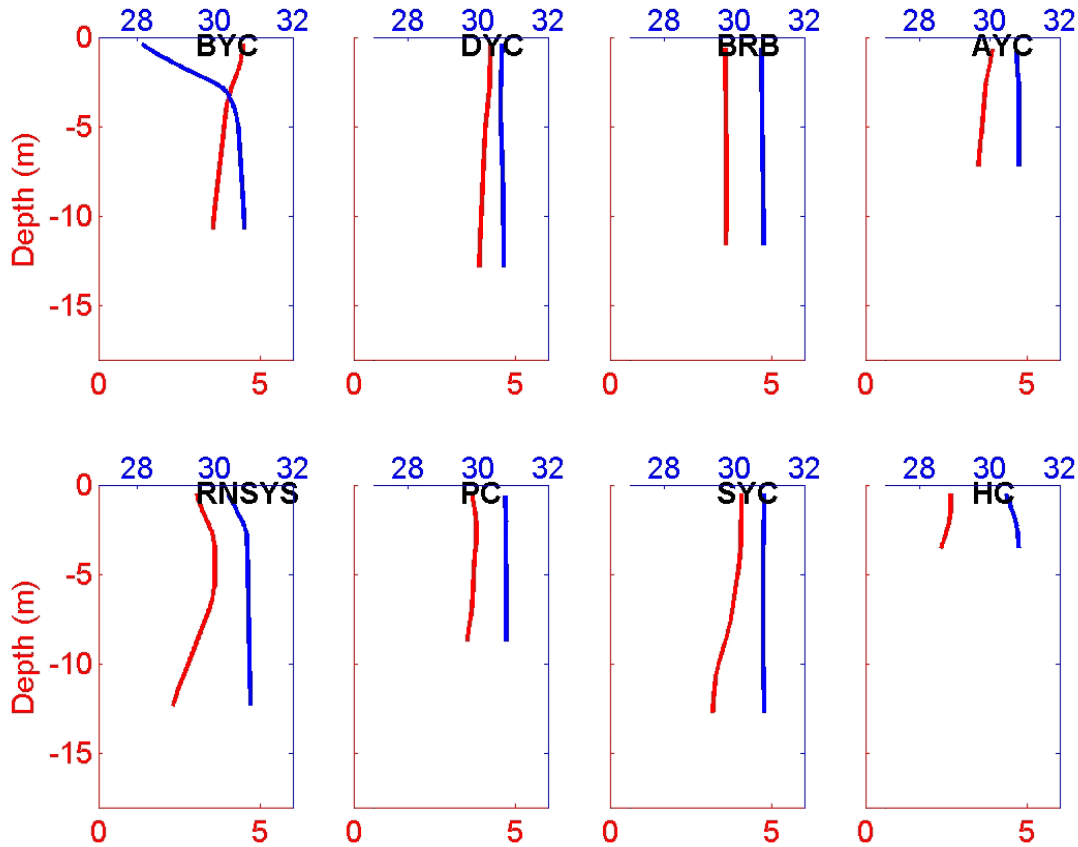
**Fluorescence:** The phytoplankton bloom evident in the Harbour over previous weeks appears to be continuing at about the same relatively low level as last week, however the distribution has again changed. This week the highest values are in the Basin, where profile maximums are 20-22 mg/m<sup>3</sup> at a depth of about 15 m. The remainder of the harbour has profile maximums of about 9 to 14 mg/m<sup>3</sup> at depths of from 10-15 m.

**Dissolved Oxygen:** The data indicate that the surface values everywhere in the Harbour are very uniform at between 9.0 and 9.3 mg/L. These values are similar to last week, but are more uniform. Outside of the Basin the profiles are very uniform vertically with the bottom values generally 0.1 to 0.2 mg/L less than the surface values. The DO values in the bottom water in the Basin are stable at just under 3.5 mg/L. The Basin deep water represents the only values below the applicable use-specific guidelines this week. The DO data is not ground-truthed and absolute values are questionable (see DO discussion in QR#1).



Unless otherwise labeled:  
 - salinity contour interval is 1 PSU  
 - temperature contour interval is 1°C.

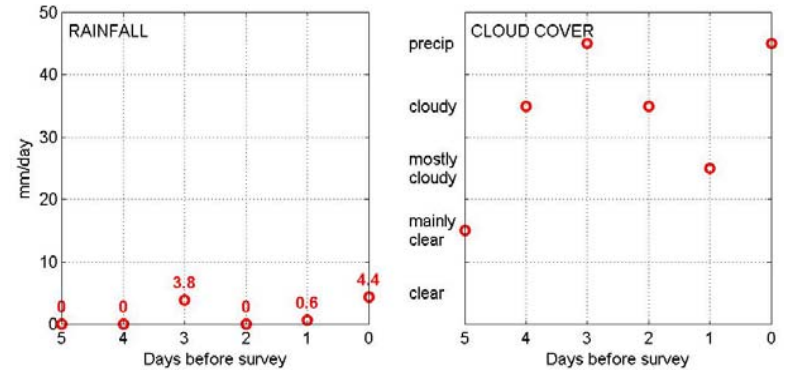
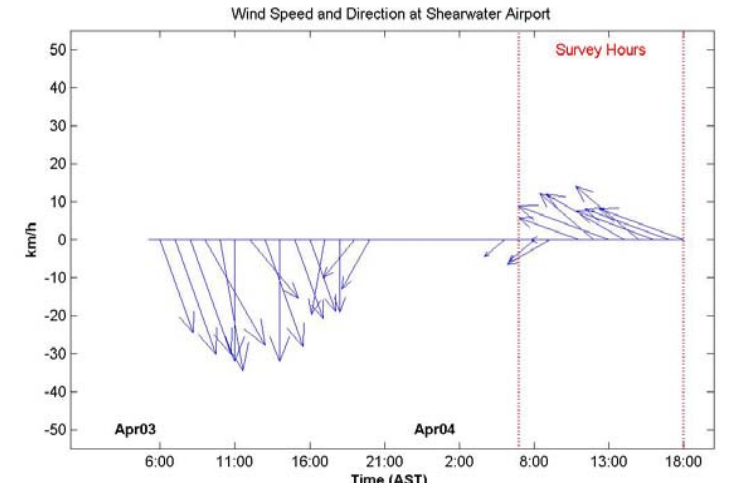
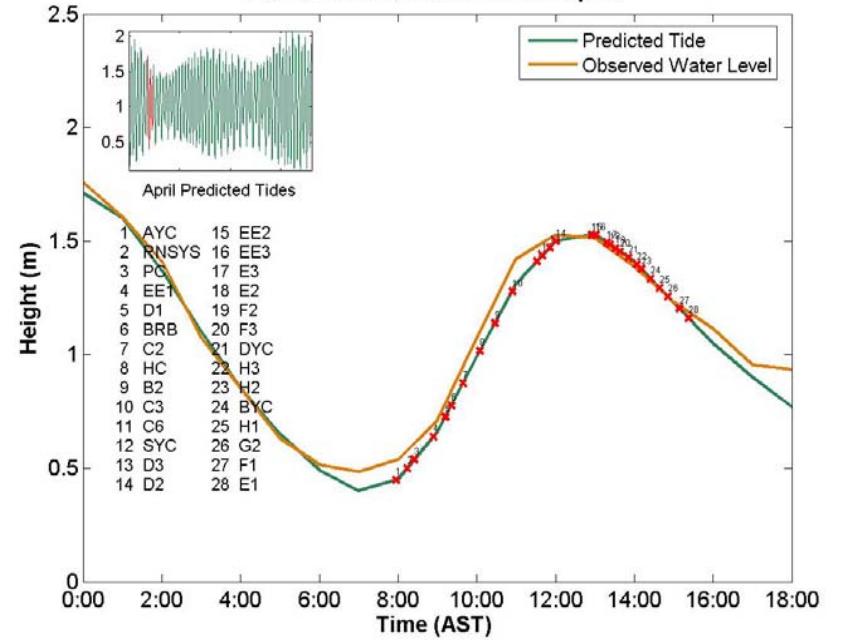
# Yacht Clubs

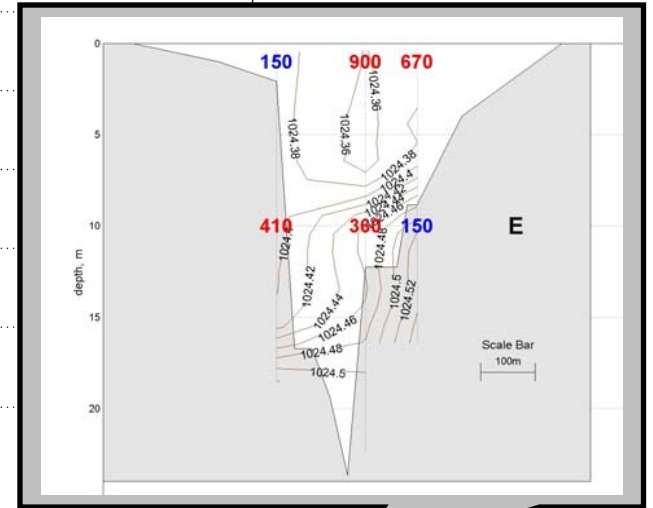
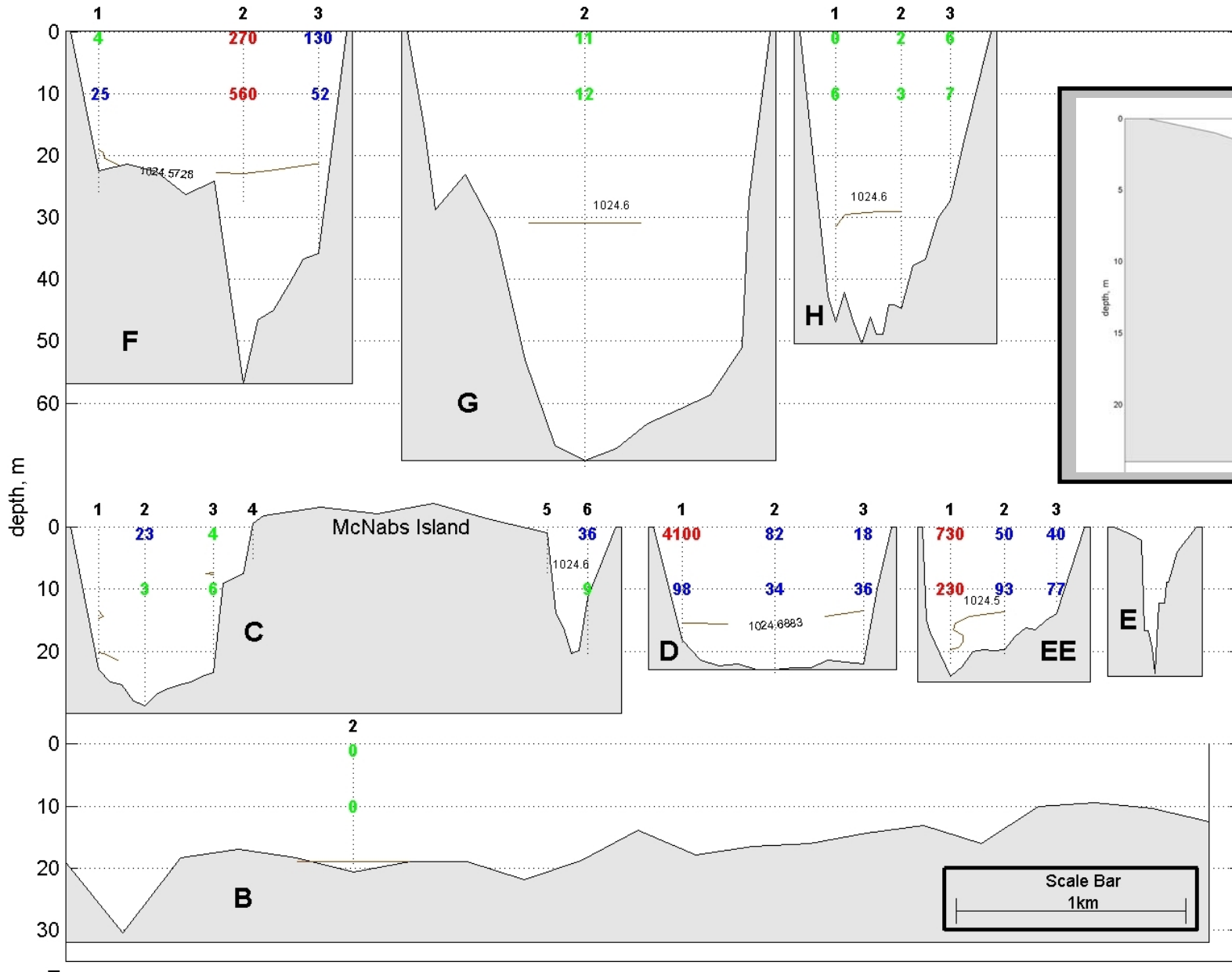


Salinity in PSU      Temperature in °C

Weather data collected at the Shearwater Airport and Autoport

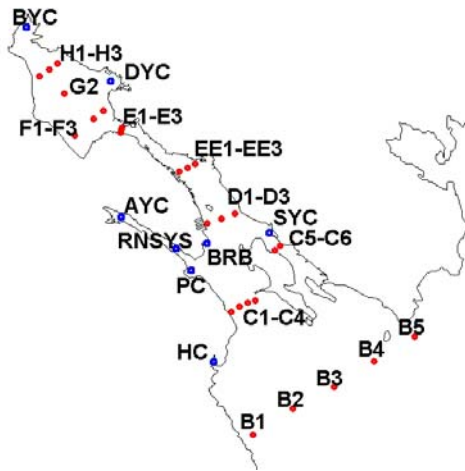
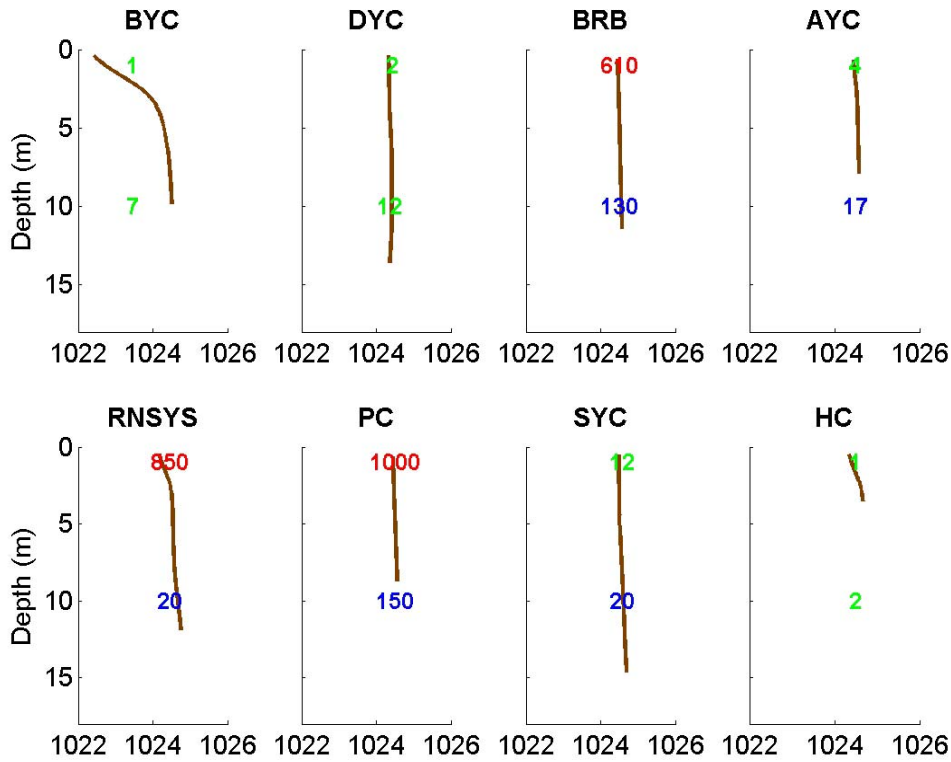
# Halifax Harbour Water Level - Apr04





Unless otherwise labeled:  
 - **density** contour interval is 0.5 kg/m<sup>3</sup>

# Yacht Clubs

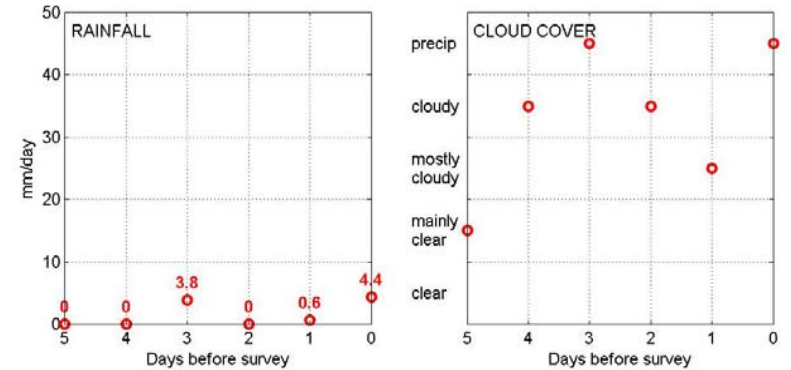
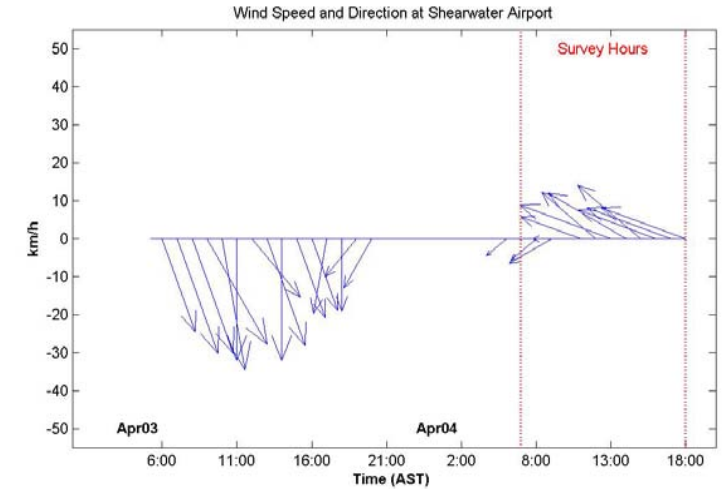
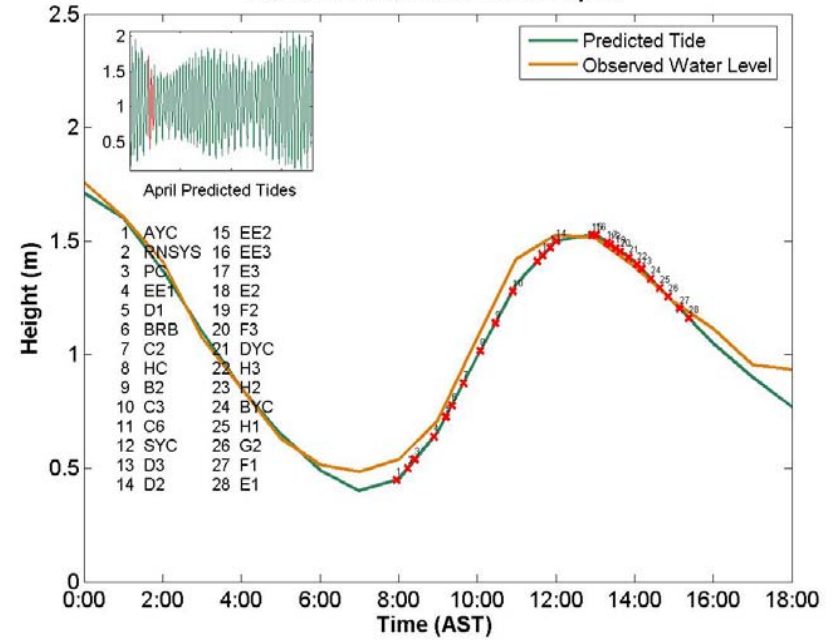


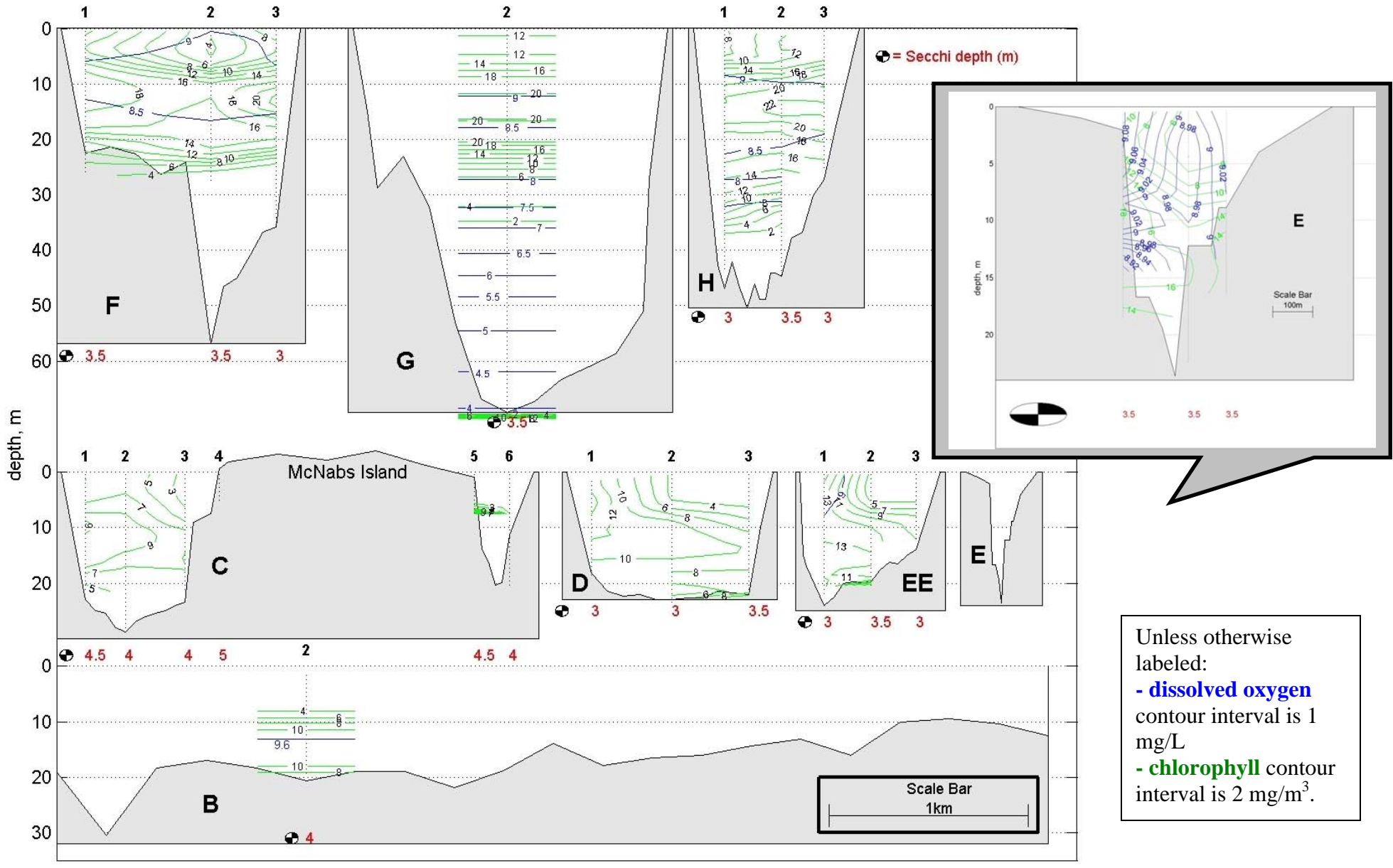
Weather data collected at the Shearwater Airport and Autoport

Potential Density in  $\text{kg/m}^3$

Fecal coliform: **above swimming limit (200 cfu/100mL)**  
**above shellfish limit (14 cfu/100mL)**  
 below limits

## Halifax Harbour Water Level - Apr04

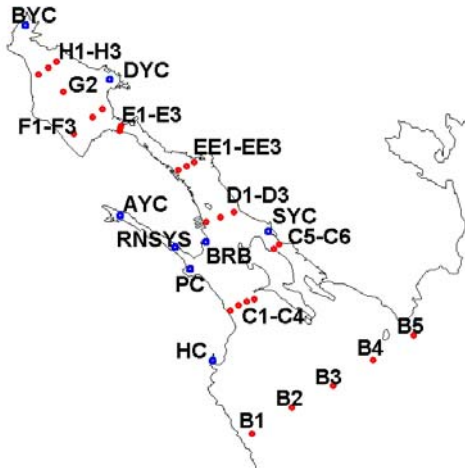
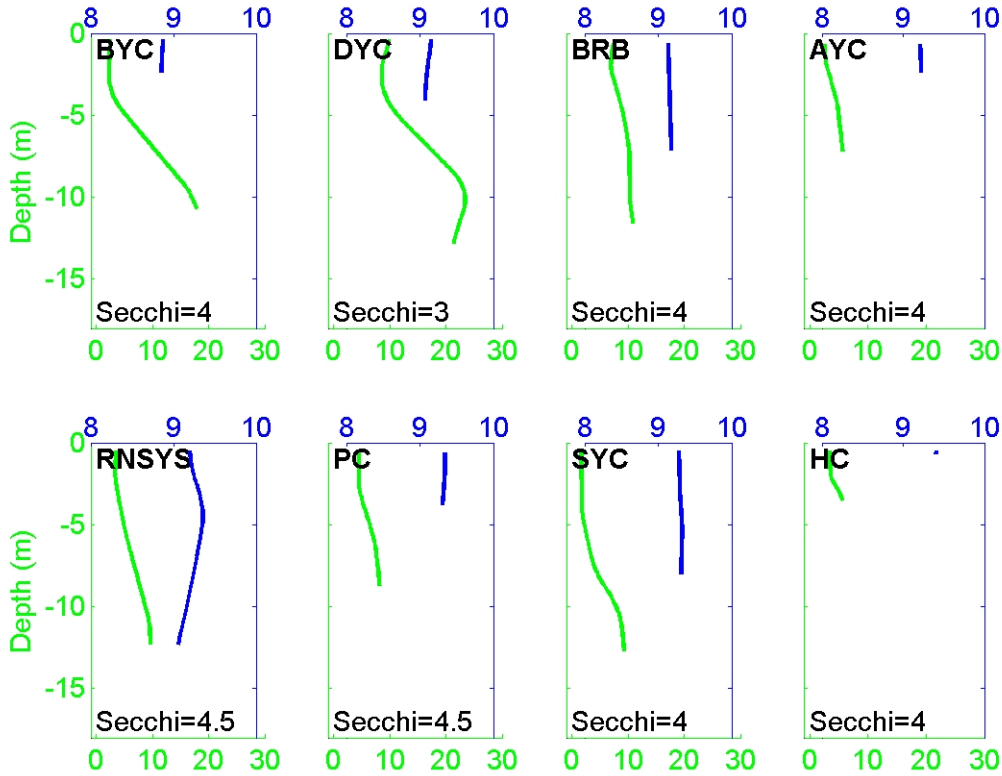




Unless otherwise labeled:  
- **dissolved oxygen** contour interval is 1 mg/L  
- **chlorophyll** contour interval is 2 mg/m<sup>3</sup>.



# Yacht Clubs



DO in mg/L

Chlorophyll in mg/m<sup>3</sup>

Weather data collected at the Shearwater Airport and Autoport

## Halifax Harbour Water Level - Apr04

