**Weekly Estuarine Conditions Update**

**As of October 5, 2009**

**St. Lucie Estuary**

**Current Conditions:**

Over the past week, flow averaged 89 cfs at S-80 and 0 cfs at S308.  Provisional data indicates that discharge of 121 cfs occurred at S-97 on C-23 and 0 cfs at S-49 on C-24.  The current weekly average salinities (in bold) at the four monitoring sites in the St. Lucie Estuary are given below in practical salinity units (psu), along with the previous week’s (in parenthesis).

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| --- | --- | --- | --- |
|  | **Weekly Average Salinity (psu)** | |  |
| **Sampling Site** | **Surface** | **Bottom** | **Envelope** |
| Palm City Bridge (S. Fork) | **5.8** (2.7) | **7.9**(4.2) |  |
| HR1 (N. Fork) | **8.9** (4.5) | **14.7**(8.1) |  |
| Roosevelt Bridge | **12.3** (8.4) | **15.5** (10.9) | 8.0 – 25.0 |
| A1A Bridge | **18.1** (15.1) | **24.1** (23.4) | 20.0 – 31.0 |

Average salinity increased over the last week.  Weekly average salinities at Roosevelt Bridge and A1A Bridge (bottom salinity) are within the preferred range, surface salinity at A1A Bridge is below the preferred range.  Salinity conditions in the estuary are fair to good considering the time of year, the location in the estuary, and salinity preference of the oyster, *Crassostrea virginica*.

**Caloosahatchee Estuary**

**Current Conditions:**

During the past week, flow averaged 929 cfs at S-79, 434 cfs at S-78, and 0 cfs at S-77. The concentration of chlorides at the Olga Plant was 51 ppm yesterday.  The current weekly average salinities (in bold) at the six monitoring sites in the Caloosahatchee Estuary are given below in practical salinity units (psu), along with the previous week’s (in parenthesis).

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| **Weekly Average Salinity (psu)** | | |
| **Sampling Site** | **Surface** | **Bottom** |
| Franklin Locks (S-79) | **0.2** (0.2) | **0.2**(0.2) |
| Rt. 31 Bridge | **0.2** (0.2) | **0.3** (0.2) |
| I-75 Bridge | **0.3**   (0.3) | **0.3**   (0.5) |
| Ft. Myers Yacht Basin | **NR** (NR) | **NR** (NR) |
| Marker 52 | **2.8** (2.3) | **5.4** (8.7) |
| Cape Coral Bridge | **7.9** (6.6) | **9.0**(11.4) |
| Shell Point | **21.6** (20.3) | **22.7**(22.4) |

Conditions in the upper estuary west of Ft. Myers remained similar to last week, with surface waters being fresh to Marker 52.  In the lower estuary salinity, salinity decreased in bottom water and increased in surface water, except at Shell Point where salinity increased at both sensors.  Salinity conditions in the upper estuary are considered good. Salinities at the Cape Coral Bridge are below the preferred range for the oyster, *Crassostrea virginica*, and the range preferred by seagrass, *Halodule wrightii*.  Therefore, conditions in the lower estuary are poor.

FWRI (Fish and Wildlife Research Institute) reports that *Karenia brevis*, the Florida red tide organism, was not detected in water samples collected this week alongshore of Pinellas, Hillsborough, Manatee, Lee and Collier counties or offshore of Sarasota County. Samples collected alongshore of Sarasota County ranged from present to very low in five samples (out of 28 total samples). Two samples collected alongshore of Charlotte County also contained background levels of *K. brevis* ([research.myfwc.com/features/view\_article.asp?id=9670](http://research.myfwc.com/features/view_article.asp?id=9670)).

Monitoring data collected by the River, Estuary and Coastal Observing Network (RECON) of Sanibel-Captiva Conservation Foundation (SCCF) indicated that chlorophyll ranged from 4.0 – 11.0 ug/l at Ft. Myers and 1.6 – 5.8 ug/l at Shell Point;  Dissolved Oxygen ranged from 1.8 – 7.7 mg/l at Ft. Myers and 3.0 – 6.7 mg/l at Shell Point ([www.recon.sccf.org](http://www.recon.sccf.org/)).

**Biscayne Bay**

**Current Conditions:**

Continuous salinity measurements are now being measured at two sites in Biscayne Bay (see map in attached graphics file).  Data will be reported on a monthly basis. This initial report is not particularly detailed but will be refined in the future, as more data is accumulated.  Salinity at both sites showed a general decrease for most of the last month with the southern station, BBCW10, being more variable then BBCW8. Recently salinity has begun to increase, most likely in response to declining rainfall.

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|  | **Average Salinity (psu)** | |
| **Sampling Site** | **August** | **September** |
| BBCW8 | **27.3** | **28.5** |
| BBCW10 | **33.6** | **26.8** |

<https://my.sfwmd.gov/portal/page?_pageid=1314,2554645,1314_19738269:1314_19738234&_dad=portal&_schema=PORTAL>

click on “Current Week”

click on “Technical Summary”

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