What is the current status of the bayou?

**Hudson Bayou Water Quality Sampling**
Sarasota County Water Quality Planning is currently conducting monthly sampling (since November 2006) at three locations within the Hudson Bayou Basin as located on the attached map. EPA has listed Hudson Bayou as impaired for nutrients as part of the implementation of the Federal Clean Waters Act’s Total Maximum Daily Load (TMDL) Program. At each location, water quality samples are collected for the following parameters: nutrients, general wet chemistry (suspended solids, turbidity, and color), chlorophyll and bacteria. Also, physical characteristics are measured including temperature, pH, dissolved oxygen and conductivity. The focus of this sampling is to monitor flows (groundwater and stormwater) entering the bayou. The county is working with the Water Atlas to get this information posted on the internet.

Sarasota County continues to monitor the ambient water quality within the estuarine waters with an emphasis on nutrients and water clarity. These parameters of concern have been the focus of the State’s implementation of the Clean Water Act’s Total Maximum Daily Load Program and locally as a cause of environmental degradation.
Pollutant Loading
During 2007, Sarasota County continued its development of a countywide pollutant loading model. This model utilizes rainfall, land use, soil type, point source and septic locations to calculate pollutant loadings to the bays. As part this project, they are sampling to verify the models outputs, with one of the sites in the Hudson Bayou Basin. Sampling as part of this project consists of the above parameters plus alkalinity, lead and zinc. With this information, we will be able to calculate pollutant loading information for the above parameters. This project is expected to be completed this year.

Seagrass
The county is also working with the Southwest Florida Water Management District to ground truth aerial maps of seagrasses within the county’s bays. Both county staff and volunteers have been out surveying seagrass meadows for species and algal coverage to better gauge the seagrass community’s response to management actions. We are always looking for more volunteers to assist with the mapping.

For more information on monitoring, pollutant loading or to be a seagrass volunteer please contact Jon Perry, 941-861-0984, jsperry@scgov.net.
Oyster Monitoring

Hudson Bayou ranked #6 in the Tidal Creek Condition Index compared to the other 15 coastal tidal creeks.

HUD 1
% Live = 79.17
No. Live = 100.67
No. Spat = 14

HUD 2
% Live = 64.33
No. Live = 55.30
No. Spat = 2

For more information on oyster monitoring, please contact Mike Jones, 941-861-0949, mjones@scgov.net.
The Tidal Creek Condition Index - Hudson Bayou Assessment

Sarasota County and Mote Marine Laboratory have collaborated to develop a rapid-survey, ecologically-based index of tidal creek ecosystem health by assessing a wide range of biological indicators in 16 County creeks, including Hudson Bayou. The three year project has culminated with the development of the Tidal Creek Condition Index that will be applied annually by county staff to those creeks to help identify healthy and impacted streams, prioritize streams for restoration or protection, gauge restoration success, and address the TMDLs assigned to county waterbodies. It can also be used in combination with other indicators such as water quality data, land use, habitats, and pollutant loading to produce a watershed and creek “report card.”

The Index’s scoring range is from 1.0 to 4.0, with 1 representing the poorest quality and 4 the highest quality. Hudson Bayou’s rank was 6th among the 16 county creeks. (See Figure A). Scores ranged from 1.03 to 2.08, with a mean of 1.64. A score for Matheny Creek could not be calculated because of poor bottom and water quality conditions.

Since this is the first assessment with a newly developed index, subsequent fieldwork will be necessary to collect enough data to see if the low 2007 scores are typical. Also, perfect scores occurred for most variables in at least one creek. It is then reasonable to expect higher creek condition index scores in the future.

Sample Site FLO-470-3140 was the site used for the assessment
Figure A. 2007 Sarasota County Tidal Creek Index Scores. Creek scores are shown from north to south in the upper panel and from lowest to highest value in the lower panel.

Dependant upon funding, the intent is to go out in May 2008 to reassess the creeks and perform annual testing thereafter. For additional information please contact the project manager, Kathryn L. Meaux, 941-861-0907, kmeaux@scgov.net.

**Is the water swimmable and fishable? Where are no swimming signs posted?**

The Sarasota County Health Department does not routinely monitor the bacteria levels of Hudson Bayou. They do monitor designated beaches and swimming areas at 16 sites in Sarasota County that were selected base upon risk factors such as the number of individuals regularly swimming at those sites.

More information at [http://ourgulfenvironment.net/HealthBeachProgram.aspx](http://ourgulfenvironment.net/HealthBeachProgram.aspx)

Shellfish harvesting has been prohibited in Hudson Bayou (and much of Sarasota Bay) for many years. More Information at [http://www.floridaaquaculture.com/seas/seas_areainfo.htm](http://www.floridaaquaculture.com/seas/seas_areainfo.htm) Note that Sarasota Bay is area 54.
There are no current health advisories related to swimming posted for Hudson Bayou. Please contact Chuck Henry (941) 861-6134, Charles_Henry@doh.state.fl.us for more information.

**Is there a long term Master Cleanup Plan?**
Sarasota County is working to develop Watershed Management Plans for each watershed throughout the County. These plans will take a comprehensive look at the overall health of the watershed focusing on water quality, natural systems, flood control and water supply. Currently, we are looking at the Roberts Bay North Watershed which includes Phillippi Creek, Matheny Creek and Siesta Key. The first step in developing watershed plans is to gather data to estimate the historical conditions of the watershed and estuary. For example, how much fresh water used to drain into Phillippi Creek and into Roberts Bay North; what are the effects of ditching and draining for agriculture, mosquito control and flood protection; how has urbanization and increased impermeable surfaces (roads, buildings, driveways) increased the amount of fresh water in the Creek. Then, these estimates will be used to look at the effect on the water quality and natural systems, and set targets to protect and improve the watershed.

The schedule for plan development is dependent upon cooperative funding from the Southwest Florida Water Management District. We are currently developing plans for the Roberts Bay North Watershed and Lemon Bay Watershed with an estimated completion date of January 2010. Cooperative funding requests have been submitted for Sarasota Bay Watershed (including Hudson Bayou) and Little Sarasota Bay Watershed for 2009-2010 funding. We will know this fall if funding is expected.

One of the products of the watershed management planning effort will be a Watershed Report Card to communicate with the public the health of each watershed. This is currently under development and is expected to be issued this fall.

Please contact Kelly Westover, 941-861-0526, kwestove@scgov.net for more information on watershed management plans.

**Assessments**
See attached PDF file for information on Hudson Bayou assessments. Please contact Brian Brannen, 941-861-0901, bbrannen@scgov.net for more detailed information.

**Are the Section 319 Florida Department of Environmental Protection Grant for water quality improvements and the Little Five Points CIP project related?**

Yes. The Little Five Points project is a Capital Improvement Program (CIP) Project to address flooding that was recommended by the Hudson Bayou Basin Master Plan. We applied for a 319 water quality improvement grant based upon the Little Five Points project cost to incorporate water quality improvements into the project. The 319 grant has not been awarded yet and the details of the grant application are still under review. We
hope to utilize the funding to reduce non-point source pollution entering Hudson Bayou and Sarasota Bay.

**Little Five Points (Herald Square) Stormwater Improvements**

**Location:** Pineapple Ave, Oak Street, Orange Avenue, Rawls Avenue and Alderman Street

The project is designed to relieve flooding. The work includes improving the stormwater pipes and street drainage along Orange Avenue, Oak Street, Pineapple Avenue and Alderman Street. The storm piping will outfall into the drainage ditch on Alderman which leads into Hudson Bayou. In addition, a water quality inlet baffle box will be installed to reduce pollution loading into the Bays. Work area as marked on the map.

In addition to the stormwater improvements, a FPL underground conduit system will be installed at the same time. Future plans for traffic circulation and pedestrian access will be addressed by the City of Sarasota.

Construction of the project requires deep excavation, temporary detours and road closures, heavy machinery, dewatering activities and some night work. In addition, there may be brief periods of utility service interruption. Residents and merchants will be given advance notice of service interruptions. Sarasota County and the City of Sarasota know that it is important to notify property owners and business operations about activities that could affect their normal operations.

Construction preparation is underway and will begin April 7, 2008 and take approximately 180 days to substantial completion, and final completion by October 2008.

Construction cost of the project is $913,000. Funding for this project is through a combination of Southwest Florida Water Management District cooperative grant ($130,000) and established Hudson Bayou Basin stormwater assessments.

Peter Peduzzi is the project manager for the CIP projects in the Hudson Bayou basin and can provide more detail on the Little Five Points project and other projects in the area. You can contact Peter Peduzzi at 941-861-0523 or ppeduzzi@scgov.net.

**Who attends to the bayou and what actions are taken? Has the depth of the bayou remained steady or is it filling in? Dredging planned?**

As Hudson Bayou is geographically located within the City of Sarasota, the County’s dredging program does not have jurisdiction. You will need to contact the City directly for information on sediment accumulation and dredging plans. I suggest starting with your City Neighborhood Partnership Liaison, Anthony Longo, 941-954-2610, anthony.longo@sarasotagov.com.