

**LOWER ST. JOHNS TECHNICAL ADVISORY COMMITTEE (TAC)
MEETING
St. Johns County Utility Department
Matanzas Room, 1st Floor
St. Augustine, FL
December 18, 2007**

Participants

Shelley Beville, Three Rivers Conservation Coalition/TNC
Ray Bowman, UNF
Russ Brodie, FWC
Richard Bryant, National Park Service
Tiffany Busby, Wildwood Consulting
Dean Campbell, SJRWMD
Patrick Campbell, Citizen
Ed Cordova, JEA
Betsy Deuerling, COJ
Matt Dinkins, King Engineering
Dean Dobberfuhr, SJRWMD
Bill Green, FDEP/NED
John Hendrickson, SJRWMD
Mike Hollingsworth, USACE
Amy Kalmbacher, FDEP/CAMA
Debbie Kristiansen, St. Johns County
Michele LaCasse, SJRWMD
Justin Levine, COJ/EREQ
Pam Livingston-Way, SJRWMD
Lori McCloud, SJRWMD
Kraig McLane, SJRWMD
Mark Middlebrook, St. Johns River Alliance
April Moore, UNF Environmental Center
Dana Morton, COJ/EQD
Kraig McLane, SJRWMD
Ying Ouyang, SJRWMD
Jennifer Sagan, BCI
Justin Solomon, FWC
Andrea Thornton, FDEP/CAMA
Scott Turner, Duval County Health Dept. (DCHD)
Pat Welch, UNF

Welcome and Introductions

Dean Dobberfuhr welcomed everyone to the meeting and thanked the St. Johns County Utility Department for providing the meeting room. Participants introduced themselves and the entity they represent.

Mr. Dobberfuhr asked for comments on the August 22, 2007 meeting summary. None were provided and the minutes were approved. [Editor's note: A correction was received after the meeting that page 7 of the meeting summary should read "Ray Bowman reported that he will be retiring..."]

Presentation – *Historic Fish Assemblages in the St. Johns River*

Lori McCloud provided a presentation on the changes in fish composition in the St. Johns River. Over time the river has shifted from being a macrophyte-dominated system to a plankton and algal dominated system. Actions to control water hyacinth, navigation maintenance, and channel dredging have altered the hydrology of the river causing marine salinities further upstream.

The goals of the study were to:

- Evaluate current fisheries data against a historical dataset for the Lower St. Johns River; and
- Examine inter-annual changes in a recent fish community assessment along with associated water quality changes.

The SJRWMD contracted with the Florida Fish and Wildlife Conservation Commission (FWC) Fisheries-Independent Monitoring (FIM) group in 2005 to expand the estuarine fish monitoring program into the freshwater reach of the river to determine what species were using the resource. The FIM dataset was compared to a historical dataset from the early 1960s to evaluate whether long term changes in the river have impacted the fish assemblage. The study found that there are a similar number of species between the two datasets; however, only about 50 percent of the species seen in the historical dataset were found by the FIM study. In addition, while similar flows were observed between the two datasets, the salinity was much lower in the past.

Conclusions:

- Difficult to compare historic and current fish assemblages;
- Where the sampling effort is similar, a big difference in the number of species is not observed but there is only a 50 percent similarity between the two datasets; and
- More marine species are being observed over time.

There was discussion on why more marine species are being seen in the Lower St. Johns River. Some possible explanations include dredging, changes in rainfall and/or groundwater contributions to the river, and increased development in the basin.

Dana Morton asked about the number of collections and if any abundance information is available. Ms. McCloud responded that there is a difference in the collection method to measure abundance and therefore those numbers are not being compared.

John Hendrickson asked what the historic sampling frequency was. Ms. McCloud noted that the study addressed blue crabs and there was not standard sampling frequency.

Mr. Hendrickson asked if they could look at tides for the sampling events since salinity is so important. Ms. McCloud responded that they could look at the tides since they know when the samples were taken.

Richard Bryant asked if the study has been published. Ms. McCloud responded that the study has not been published because they are waiting on the third year of the data set from the Florida Fish and Wildlife Conservation Commission's Fisheries-Independent Monitoring (FIM) program.

Mr. Morton asked if the inter-annual comparisons showed more marine species in the dry years. Ms. McCloud responded that the analysis looks more at rare species, not common species. Russ Brodie added that they have observed more marine species in the dry years.

TAC Input on the Lower St. Johns SWIM Document

Tiffany Busby presented the Draft SWIM Plan Update. Ms. Busby noted the following:

- This is an update to the 1993 update.
- The plan includes projects that have been implemented during the period of 1993-2007 and that are projected for 2008-2012.
- This update includes new information for the main stem of the river from the northern boundary of the Middle Basin through Lake George to Buffalo Bluff, which is the southern boundary of the Lower Basin. This segment of the river will be designated as a SWIM waterbody.
- Lake George was not included in the previous versions of the plan and, therefore, more background information is provided than for the Lower St. Johns River.
- There are several sections of the draft plan that are incomplete including future projects for Lake George, the budget table for future projects, and the sediment management section for the Lower St. Johns River.

Ms. Busby thanked everyone for their help and input in preparing the draft. She noted that in order to complete the review and approval process by the end of the SJRWMD's fiscal year, the missing and incomplete portions of the plan must be provided by the end of January 2008. Ms. Busby reviewed the list of outstanding items and the contacts for providing the necessary information. Kraig McLane asked the group if the January 31, 2008 deadline was reasonable for providing the outstanding information. There were no objections to this timeframe.

Lower Basin Legislative Initiative and Updated St. Johns River Website

Kraig McLane reviewed the Lower Basin Legislative Initiative and noted that it is essentially the same document as the past year. However, this new funding request has been increased to \$50 million. Additional funding was requested for the Jacksonville Beach project, tributary assessment project (\$500,000), and water and reuse projects. Mr. McLane requested that the group contact their local representatives and ask them to support the package. He also noted that a coordination session is planned with lobbyists. The document is available online and has already been sent to the TAC in PDF form.

Mr. McLane stated that the SJRWMD website was revamped over the summer and the cooperative funding database has been added to the site.

Providing Lower Basin Technical Information to the St. Johns River Alliance

Mark Middlebrook provided an update on the St. Johns River Alliance. The bylaws have been revised to match the membership and the budget for the year has been adopted. The Alliance has five committees - Research Consortium, Legislative Agenda, Water Quality, Public Access and Outreach, and Land Acquisition - and they are in the process of designating committee chairs. Mr. Middlebrook noted that the Alliance will need the TAC to provide their expertise to the Water Quality Committee.

Mr. Middlebrook explained the license plate initiative the Alliance is implementing. They are currently raising the necessary \$75,000 for the application and survey. Representative Jordan and Senator King will propose the St. Johns River plate in the upcoming legislative session.

Mr. Middlebrook noted that TPL has committed to a green printing program for public access documentation. This will be a ten year program, which will cost approximately \$100,000 and will also include the trails initiative.

The Alliance website has recently been updated to include meeting information and a blog. The website is located at: <http://stjohnsriveralliance.com/>. Mr. Middlebrook stated that the Alliance hopes to become a granting agency once the funds from the license plates begin. He also noted that they are looking to locate their offices at UNF with other non-profits and are negotiating with UNF for office space.

Technical Updates and Announcements

Fisheries Data Collection

Russ Brodie reported that they received a State Wildlife Grant for a dissolved oxygen study. They are currently in the data analysis phase and the study will be complete in 2008. Mr. Brodie noted that the SJRWMD funding for the FIM program for sampling from Julington Creek to Palatka ends in 2008; however, they are expecting level funding in 2009.

Mr. Brodie also reported that they are moving their labs and staff to JU in January into the old alumni house until the new marine sciences building is constructed. The fisheries-independent and -dependent monitoring will be moving but he is not sure about where the other programs (manatees, right whale, turtles, etc.) will be located. Mr. Brodie noted that his email address will stay the same but his phone number will change in January.

Northeast Florida Utilities Managers Meetings

Kraig McLane reported that a work order has been issued for the SJRWMD consultant, CH2M Hill, to look at various scenarios for wastewater and reuse for the west side of the river. The study will extend from the Buckman WWTF upstream to Green Cove Springs. There is the potential for 40 million gallons per day (mgd) of reuse, which could cost up to \$400 million. They are working to finish the optimization models by April 2008 to determine how close to 100 percent reuse is possible. The goal is to fund up to \$150 million in reuse projects and there is \$117 million left to fund regional projects. Mr. McLane stated that he would bring some information back to the group when the analysis is complete.

Reuse and related wastewater improvement projects that are currently underway include NAS Jacksonville, Palatka, Jacksonville Beach, and JEA. Potential projects include Green Cove Springs and the Town of Orange Park.

“Upstream Updates” from the Upper Basin and Middle Basin

John Hendrickson stated that alternative water supply studies are being conducted. There is also work on the Ocklawaha to study rehydration of wetlands, rooted plants/submerged aquatic vegetation, phytoplankton blooms and residence time, and the possible effects of entrainment. The TMDL water quality model is being used in this process. Mr. Hendrickson noted that they are looking at a 260 mgd impact. They have prepared a series of white papers to determine any fatal flaws in the process and to look at considerations on how to mitigate impacts if withdrawals occur. They are also looking at the Ocklawaha and the effects of the removal of Rodman Dam.

Richard Bryant noted that when looking at the effects of global warming and sea level rise, there have been changes in water level since 1961 and also changes in upstream flows. Mr. Bryant asked if these factors were being considered. Mr. Hendrickson replied that sea level rise and changing temperatures are contributing factors in the analyses and they are being considered as much as possible (there are data limitations) as requested by Kirby Green, SJRWMD.

Jennifer Sagan asked if seasonality is being factored in to the analyses. Mr. Hendrickson stated that seasonality is being factored in but it is difficult to consider because the future withdrawal schedule is not known. Dean Dobberfuhl added that they are also looking at the biological effects on fish and other biota.

Tiffany Busby reported that the Lake Jesup TMDL is moving forward and they have regularly scheduled meetings to discuss BMAP development. There is a phosphorus removal project that has been funded for the basin to help meet the TMDL. In addition, FDEP and SJRWMD are meeting to share information for TMDL development for the main stem of the Middle St. Johns River. FDEP will use the PLRG information from SJRWMD as much as possible; however, the scheduled completion of the PLRG is after the deadline for TMDL development.

Fecal Coliform TMDL

Dana Morton noted that intensive sampling is underway for the fecal coliform TMDL in the Lower St. Johns River Basin. A committee has been formed to track any repair activities in the basin and to follow up with entities conducting the repairs. The status of the projects needs to be tracked to ensure progress in meeting the TMDL.

Ying Ouyang asked if they are looking at both *E. coli* and fecal coliform. Mr. Morton responded that the City of Jacksonville is monitoring *E. coli* but the state standard is based on fecal coliform. There is some funding available for source tracking but the standard is still fecal coliform. Until the standard changes, the process will focus on fecal coliform.

Lower St. Johns Main Stem TMDL

Bill Green stated that the EPA TMDL for the main stem will be adopted shortly and then FDEP will be able to begin issuing permits that have been waiting in house. Tiffany Busby added that Parts 1 and 2 of the BMAP are available on the FDEP Northeast District website at:

http://www.dep.state.fl.us/northeast/stjohns/TMDL/tmdl_announcements.htm.

There was a question on whether the issue on how to express the daily load was resolved. Mr. Green responded that as far as FDEP knows, EPA has accepted the proposed language that was sent by the City of Jacksonville and the Executive Committee.

Dana Morton asked about the status of the monitoring plan. Ms. Busby responded that the monitoring subcommittee is working on the plan but it is behind schedule.

Ed Cordova asked when the monitoring subcommittee would meet to discuss the monitoring consortium. John Hendrickson responded that the committee would need to meet to determine how/if the point source monitoring needs to be adjusted to meet the needs of the TMDL monitoring.

Other Member Updates

John Hendrickson asked about the status of the off-shore buoy. Pat Welch stated that they are working with Coastal Ocean Observation System (COOS) to perform off-shore monitoring of the northeast Florida coast. They are eligible to pursue state and federal funding for this monitoring. Currently, \$1.1 million of state funding is available to begin the buoy observations and the northeast Florida buoy is included in this funding. A buoy should be placed on the south bank by June 2008 with a sensor that is 10-20 meters deep. The group can contact Pat Welch if anyone wants to help fund additional sensors on the array.

Dana Morton noted that the City of Jacksonville Artificial Reef Program has started and he requested that anyone with experience with reef programs talk to him.

Mike Hollingsworth provided updates on the U.S. Army Corps of Engineers projects. The Water Resources Development Act passed and included the completion of the 2003 deepening (from 38 to 40 feet). The costs for the dredging have changed since 2003, which could make funding an issue. They are also planning on having rock material for anticipated reefs as part of the project. There is also funding for a reevaluation of the economic analysis for further deepening for Jax Port. The Corps economic staff are reviewing options and any changes to the plan will be open for public comment. Mr. Hollingsworth will inform the group of when this public comment period will occur. The Corps is also preparing a draft Environmental Impact Statement (EIS) for Mayport. Future deepening of the entrance to 55 feet may be requested to allow the home-porting of additional Navy vessels and Mr. Hollingsworth will provide information on this EIS when it is available. Another project the Corps is working on is erosion issues just north of the intersection of the St. Johns River and the Intracoastal Waterway. They are evaluating

options and one alternative is to remove the jetty, smooth the area out, and restore Great Marsh Island. The Environmental Assessment for this project will also have a public comment period. Mr. Hollingsworth reported that the Big Fishweir Creek project is moving along slowly and they are currently taking an inventory of invasive plants and sampling sediment depositions. Alternatives for this project are under development and will be evaluated on the basis of ecological value and cost. Mr. Hollingsworth noted that a public meeting on this project should be held in the first quarter of 2008.

Pam Livingston-Way provided an update on the SJRWMD Best Management Practice (BMP) Program. The Edgefield regional stormwater treatment area is completed so now both Edgefield and Yarborough are online. There are also three BMP planned projects underway, which all include the use of controlled release fertilizers.

Next Meeting

The next meeting will be held in March 2008 with the City of Jacksonville acting as the host. The group requested that the meeting occur after the first two weeks of the month to avoid conflicts with national conferences. Dana Morton suggested the Ed Ball meeting room at COJ-Public Works for the meeting location. Tiffany Busby asked for recommendations on alternate sites for the 2008 meeting rotation and recommendations included UNF (Pat Welch) and JU.

Adjournment

The meeting was adjourned at 12:35 PM.

The meeting summary was prepared by Wildwood Consulting for the St Johns River Water Management District. Please send corrections or comments to TLBusby@wildwoodconsulting.net.