LOWER ST. JOHNS TECHNICAL ADVISORY COMMITTEE (TAC)
MEETING
FDEP – Northeast District Office
Conference Rooms A & B
Jacksonville, FL
June 18, 2008

Participants

Shelley Beville, TNC	Jim Maher, FDEP
Ray Bowman, UNF	Kraig McLane, SJRWMD
Russ Brodie, FWC	April Moore, UNF
Robert Burks, SJRWMD	Dana Morton, COJ
Tiffany Busby, Wildwood Consulting	George Myers, FDEP/CAMA
Dean Campbell, SJRWMD	Ying Ouyang, SJRWMD
Stuart Chalk, UNF	Marcy Policastro, Wildwood Consulting
Ivan Chow, ECT	Vince Seibold, COJ
Ed Cordova, JEA	Lucy Sonnenberg, JU
Betsy Deuerling, COJ	Greg Strong, FDEP
Amy Kalmbacher, FDEP/CAMA	Jessica Weatherby, Jones Edmunds
Justin Levine, COJ	Pat Welsh, UNF
Melissa Long, FDEP	

Welcome and Introductions

Jim Maher welcomed everyone and reviewed the agenda. Tiffany Busby noted that Mary Paulic was unable to attend this meeting to provide an update on the basin status report and will provide this update at the next meeting. Participants introduced themselves and the entity they represent.

Lower St. Johns River Report Update

Pat Welsh gave a presentation on the State of the Lower St. Johns River (LSJR) Report. The University of North Florida (UNF) and Jacksonville University (JU) had been contacted by the City of Jacksonville Environmental Protection Board (EPB) to summarize historical information about the river and the current health of the river in a way that is generally accessible to the public. A draft report was produced in December 2007, which went through two internal reviews by the universities and city. About one week ago, a formal draft was sent out for review to an external review team, which is made up of experts on the LSJR. Their comments are due by the end of June and the revised report will be sent out in mid-July. The report includes information on the history of the river, problem areas, actions being taken to address the problems, and notes on how the public can assist in this process. A description of the area encompassed by the Lower Basin, challenges faced by nutrient enrichment, and how the report was developed are also included. The majority of the report is made up of tables with indicators, current status, and trends. To simplify the information, a thumbs up/thumbs down rating was used. The trends in the tables are mainly based on STORET data.

The water quality table shows that the fecal coliform standards are being met in the main stem of the river but there are frequent violations of the standard in the tributaries. The data also showed a clear trend in turbidity, with improvement over the last 40 years. Jim Maher asked if the improving trend in turbidity was observed for both the main stem and the tributaries. Mr. Welsh responded that the turbidity in the tributaries is typically worse than the main stem but it was difficult to determine a trend for the tributaries over time because there was not much data available. Mr. Maher asked if the increase in clarity is correlated with the increase in the salt wedge in the main stem. Mr. Welsh responded that they had asked the same question but were unable to determine an answer. There were several issues that could not be answered using the database and this is why the external review by the experts is important.

The fisheries indicator table is focused on specific fish and invertebrates that are of interest to the public. There is also a table for aquatic life, which includes submerged aquatic vegetation (SAV), wetlands, macrobenthic invertebrates, and non-indigenous aquatic species. Justin Levine noted that the table indicates that total wetland acreage is increasing and he asked if this acreage includes retention and detention ponds. Mr. Maher added that these ponds should not be included because they do not perform the same functions as a wetland. Mr. Welsh stated that he would follow-up on this question to determine if stormwater ponds are included. The report also includes indicator tables for key federally threatened and endangered species and sediment contaminants.

Ed Cordova stated that in his review of the report, he felt that the water quality information was not consistent with how the St. Johns River Water Management District (SJRWMD) and Florida Department of Environmental Protection (FDEP) are developing the Total Maximum Daily Loads (TMDLs). Mr. Cordova asked if there were any discussions on tying the report and TMDLs together. Mr. Welsh responded that he hopes the external review will find and address these discrepancies and they will work with the agencies on how to present the water quality information.

Vince Seibold requested that the group limit distribution of this report while it is in draft form. The revised report will be presented to the EPB on July 14th at 5:00 PM in the Ed Ball Building, Training Room. Greg Strong asked Mr. Seibold if any of the information in the report surprised him. Mr. Seibold responded that he did not find any surprises in the trends for the indicators. The report was kept simple so that it would be accessible to the public and they city based on the content on similar public reports in other areas. There will be additional information available online if anyone wants more detail. This report represents year one of a two year plan of study. If funding is available, the city hopes to update the report annually.

Information about the Exchange Network and Water Quality Exchange (WQX)

Stuart Chalk gave a presentation on the Exchange Network (EN) and WQX. The Environmental Protection Agency (EPA) set up the EN in 2001 in collaboration with the Environmental Council of States. This is used as a tool to exchange different types of data and follows a common communication protocol that allows secure exchange of information between computers on the network. Nodes are created, in which a group is set up to talk in the protocol of the network. All of the states and some tribes have nodes (www.exchangenetwork.net). "Flows" are also created, which allow specific types of data to be sent from one node to another, such as the water quality flow that sends data through WQX. The states and anyone submitting data must be authenticated on this network to provide security for the storage of data. Data requests from other nodes can be made either automatically or on demand.

This network provides improved data accuracy, broader data access, more timely data, standardized data, and automated data backup. While STORET will not be replaced by WQX, the mechanism for uploading and downloading data from EPA's STORET will change. STORET uploads to EPA will go away at the state level and instead the data will be uploaded to the network. This allows for more standardized data, which makes it easier to look more deeply into the data. Lucy Sonnenberg asked how the data accuracy will be improved. Mr. Chalk responded that the mechanism for transferring data to EPA will help prevent changes to data along the way. Jim Maher asked if metadata will be required for upload into the system. Mr. Chalk responded that metadata will have to be submitted and other standards will also have to be met to ensure the data are appropriate. Melissa Long noted that the state is working on a system to check the data and if something entered does not make sense, a notice will be given.

Mr. Chalk noted that several examples of flows include the Safe Drinking Water Information System, RCRAInfo, Air Quality Exchange, Toxic Release Inventory, and WQX. Other types of data can be added into new flows. Ms. Sonnenberg asked if the new networks would be the only way to access the data.

Mr. Chalk responded that all the flows should have web interfaces to obtain the data. WQX is the new interface to EPA's STORET and allows the users to enter an Organization ID and other criteria, if needed, to obtain information. Currently, there is a node for FDEP, which serves the Facility Registration System and Safe Drinking Water Information System. There are planned exchanges for Discharge Monitoring Reports, National Emissions Inventory, and Hazardous Waste. There are currently no plans to add WQX. The existing submittal process for the states will be allowed until September 2009. After this time, EPA will not accept ORACLE data dumps for water quality information so a change will need to be made to WQX before that time (www.epa.gov/storet/wqx.html). Mr. Chalk stated that he has copies of the presentations from the WQX conference if anyone is interested and there is also a lot of information on the WQX site.

Ms. Sonnenberg asked how the Organization IDs are given out. Mr. Chalk responded that this ID is from STORET and the EPA STORET site includes a search engine for the IDs. Tiffany Busby noted that the current process to submit data is that the local entities provide their data to FDEP and then FDEP uploads this information into the EPA system. FDEP will need to determine when and how to change to WQX and this could affect the process for local entities. Ms. Busby asked what the time lag is for upload of data from the state to EPA system. Mr. Chalk responded that his understanding is that FDEP uploads data twice a year to the EPA system. Once the WQX is implemented and data protocols are followed, uploads could hopefully occur more often.

Dana Morton asked if Mr. Chalk's interest in WQX came from his work on the River Report. Mr. Chalk responded that he downloaded a lot of information from STORET for the report, which made him interested in the data and its quality. When he heard about the conference and the new network, he thought it could help organize the river based data because there currently is not an easy way to access all the data. Ray Bowman noted that the St. Johns River Alliance has expressed an interest in co-sponsoring a node for the St. Johns River. Mr. Chalk added that the node could contain data about all aspects of the river, provide a repository for all data and not just what is required by EPA, and help get national attention on the St. Johns River. Kraig McLane stated that the SJRWMD has organized a lot of the data and he asked if the Alliance has discussed this idea with SJRWMD staff. Mr. Chalk responded that this a new idea and that if the SJRWMD already had most of the data then a node may not be needed. Greg Strong asked if a similar node has been created in other areas. Mr. Chalk responded that other entities have developed nodes and are willing to share what they learned in terms of format but there are no existing nodes similar to what is proposed for this area. Currently, the nodes are developed through FDEP and other state environmental agencies but this would be a new idea to centralize the data on an important geographic feature.

Vince Seibold suggested that another option could be to create a website that allows users to download information from WQX. Mr. Chalk responded that could be done but it would require that all data be submitted through WQX. Pat Welsh noted that the analysis for the River Report was very limited because the necessary data was not available. If all the data can be stored in one place, it can be looked at temporally and spatially, which makes it easier to determine causality. Tiffany Busby stated that certain types of data are not uploaded to STORET because they are considered event-specific data (such as sampling conducted after a wastewater spill) and not ambient data. George Myers noted that they collect continuous data, which cannot be uploaded into STORET. Mr. Welsh stated that having as much information in one place is important because a sparse data set requires a lot of quality assurance (QA) analysis but an in-depth dataset QAs itself because the outliers are more obvious.

Lower Basin Initiative Legislative Funding Update

Kraig McLane noted that the Lower Basin received $5.2 million in this legislative session and the SJRWMD is in the process of determining the best way to distribute this funding. A caveat was placed on the funding that the focus should be on the projects that provide the most nutrient reduction, which

will most likely be wastewater facility projects. For next year's funding, information will be sent soon to review the Lower Basin Initiative. If an entity wants to submit a new project, there will be a form that must be filled out. For the existing projects, the current write-ups will be sent to the entities for updates. The focus of the funding over the last few years has been on projects that provide the greatest nitrogen and phosphorus reductions, which are mainly wastewater treatment facility upgrades. Last year, some funding also went to septic tank conversion projects. If an entity has stormwater or other types of projects, they should still submit them because having the projects included in the Lower Basin Initiative provides supporting documentation of being in a state plan. Tiffany Busby added that a schedule was provided as a handout. It is important to make sure that the existing project information is correct and that new projects be added to the list because Mr. McLane does receive calls from the Governor's office to make sure the projects are part of a state plan when asking for other funding.

Jim Maher noted that there is an opportunity for funding for a stormwater project. As part of the Jacksonville port expansion, the existing stormwater ponds will have to be filled in. There is a provision for providing compensating treatment elsewhere in the Dames Point area. There is the opportunity to achieve a large nutrient reduction depending on where the ponds are sited and Jacksonville Port Authority will pay for the ponds. Melissa Long stated that she has already talked to the City of Jacksonville about this opportunity.

Dana Morton asked what the timeframe is for a decision on how to spend the $5.2 million appropriation. Mr. McLane responded that it should take about one month and then the SJRWMD will work on the contracts.

Technical Updates and Announcements

St. Johns River Alliance Update

Ray Bowman noted that the Alliance has expressed interest in co-sponsoring a node for the St. Johns River, which could be expanded in the future to include economic and cultural data. The license plate initiative has been deferred but the application will be resubmitted this summer. Tiffany Busby added that Linda King was the main promoter of the license plate and she was told that the plate was not approved because the House wanted the survey that was being conducted to be completed before approving the plate. Ms. King is working with an Alliance team to address any concerns related to the plate before it is resubmitted.

Mr. Bowman stated that the Alliance is preparing a St. Johns River Symposium, which will occur in May 2009 at Stetson University. The tentative program includes introductions, keynote speaker, St. Johns River overview, and review of research in each basin. The river has been divided into five basins: Upper, Middle, Lower, Lake George, and Ocklawaha River. Discussions will occur on information available on the geology, hydrology and hydrodynamics; water chemistry and quality; sediments and toxic contaminants; biological communities and natural systems; interactions with the adjacent basin, and future research for each basin. The main objective of the symposium is to identify data gaps so that the Alliance can encourage research in those areas. The symposium will end with a summary and panel discussion to summarize knowledge for each research area and gaps. The next step in the planning process is to identify speakers. The Alliance is proposing to send letters to TAC members to nominate speakers. The goal is to find speakers that are capable of giving an overview of all the data for a research area in a basin. Ms. Busby suggested sending letters to the Lower and Middle Basin TACs and Kraig McLane suggested sending the letter to the Upper Basin manager.

Dean Campbell noted that Dean Dobberfuhl (SJRWMD) will be taking over as the Technical Manager of the Upper Basin. He was unable to attend today's meeting because he has only one week to obtain information from the outgoing manager. The SJRWMD will be looking for a strong scientist to fill Mr. Dobberfuhl's current position.

Coastal and Aquatic Managed Areas (CAMA) Update
George Myers stated that he is the new manager for the local CAMA office. They are continuing to collect water sampling data but one of data sondes went down for about two weeks so there will be a gap in the data at that location. They are looking at adding a new sonde in the marshes near the St. Johns and Nassau rivers and they are working with members of the Three Rivers Conservation Coalition to determine priorities for locations of sondes. CAMA just completed their budget and goals planning session but have not received feedback yet on the level of funding for next year.

Jim Maher noted that he saw in the newspaper that a permanent sonde was put out in the Atlantic Ocean. Pat Welsh responded that UNF put a buoy with sondes offshore. The antennae on the buoy struck the side of a ship but the new antennae should be installed soon. The buoy provides real time meteorological data. They have an agreement with the manufacturer to send the equipment back in August so that they can add a package to monitor other parameters. Currently, only hydrological information is available but nutrient information could be collected if someone will donate the sensors. The buoy is located approximately four miles off the coast in a position where it can monitor plumes from both the St. Johns and Nassau rivers depending on the wind conditions.

Vince Seibold asked if the buoy has the capability to monitor atmospheric deposition. Mr. Welsh responded that it does not do this now but this could be added. Mr. Seibold stated that adding atmospheric deposition to the buoy could help with the statewide mercury TMDL to determine what direction the mercury is coming from and at what concentrations. An air quality monitoring site is planned for the Jacksonville area and Mr. Seibold stated that he would provide more details on the site requirements once he has obtained that information.

River Accord/AHRI Anniversary and City of Jacksonville Environmental Protection Board Symposium
Vince Seibold stated that the second anniversary of the River Accord is July 6th. The City of Jacksonville is planning a media release and the events will include the American Heritage River anniversary. The EPB Symposium is scheduled for August 26th at the UNF Alumni Building. The agenda and registration information will be sent out in July for attendees and exhibitors. The theme of the symposium is "Sea of Change."

U.S. Army Corps of Engineers Update
Jim Maher noted that the Corps is working on two studies that will be going out for public review soon: 1) expanding the boat basins at Mayport and 2) deepening the river navigation channel. Tiffany Busby stated that Mike Hollingsworth (Corps) provided updates on these projects at the last meeting and this information is included in the meeting summary.

Fisheries Data Collection Update
Russ Brodie stated that they are finishing the dissolved oxygen (DO) study that was funded by a State Wildlife Grant. They looked at three areas in the LSJR Basin that had problems with algal blooms, which led to low DO. They focused their analysis on the Dame Point area, which had an algal bloom during the period of study, and they found that there were only slight differences in fisheries population after an event. UNF is completing the acute sensitivity analysis for three different species (shrimp, silver perch, and silversides) to determine the affects of low DO on the juvenile stages. This information should be available in the next three to four weeks and will be included in the final report. Mr. Brodie noted that they also hope to expand the fisheries sampling to Lake George if the funding is available. Dean Campbell stated that the SJRWMD did include this project in their funding because Lake George is an important part of the river with good fisheries that should be studied.

"Upstream Updates" from Upper Basin and Middle Basin

Kraig McLane stated that a handout was provided with basin updates, which was prepared by the program managers for the last Alliance meeting. This handout provides a good summary of the current projects and activities. There is also a description of the alternative water supply cumulative impact assessment. Some of this work has already started but the efforts will increase over the next few years. The SJRWMD has also been looking for projects to reduce nutrients in the Middle Basin and the freshwater portion of the Lower Basin. This initiative will be included in the LSJR main stem Basin Management Action Plan (BMAP) to provide opportunities for local governments to partner with the SJRWMD in implementing these projects.

Jim Maher stated that the LSJR TMDL includes reductions from the Middle Basin and he asked how this would be achieved. Tiffany Busby responded that the FDEP has not decided how to fully address this load reduction. Currently FDEP is verifying impairments in the Middle Basin and those TMDLs will be developed this fall. FDEP will need to decide whether those TMDLs will address the reduction in the LSJR TMDL or if a separate Middle Basin TMDL will be needed. One complicating factor is that there are several large lakes in that area of the river, which are evaluated using lake criteria. It appears that the waterbodies are improving, which is good for those areas but may limit the ability to meet the reductions for the LSJR TMDL.

SWIM Plan Update Status

Kraig McLane stated that the LSJR SWIM Plan is out for agency review and the comments are due by June 30th. The plan will be revised based on the comments and then be presented to the SJRWMD Governing Board in August. The plan includes a section on the Lake George basin, which will be designated as a SWIM waterbody with approval of the plan by the Board.

Fecal Coliform TMDL Update

Vince Seibold stated that the Working Group meets regularly and has reviewed technical reports for several tributaries. The group also determined how to prioritize the waterbodies in order to select which tributaries would receive additional assessment through a "walk the WBID (waterbody identification number)" effort and microbial source tracking (MST) analysis. These assessments will be funded with 2006 legislative appropriations and FDEP will manage the contract for the City of Jacksonville. Several of the tributaries will also receive thermal imaging as another method to identify sources.

Jim Maher stated that it seems like the MST process has become more refined over time. Dana Morton responded that Dr. Jody Harwood (University of South Florida) has been conducting this type of work in many areas and while there are still uncertainties, the method is continuing to improve. Mr. Maher asked if the Tributary Assessment Team (TAT) is still supporting the efforts in the tributaries. Mr. Morton responded that the TAT is active and samples several tributaries on a monthly basis. The TAT met this week to assist the Duval County Health Department and City of Jacksonville to revise the process for scoring septic tank failure areas based on the sanitary condition (fecal coliform) index.

Mr. Maher stated that septic tanks are being permitted on seepage slopes, which causes problems because the groundwater flows downhill and intercepts with the septic tank effluent. There is no one to pay for running sewer lines to these areas and it seems like these should not be permitted especially when septic tanks are being phased out in nearby areas. Mr. Seibold suggested talking to the Water and Sewer Expansion Authority (WSEA) because they have programs to help fund sewer lines, which can be done if these systems are located near phase out areas. The city has proposed a septic tank inspection ordinance, which would require that owners have their systems serviced every five years so there would some assurance that the systems are properly functioning.

LSJR Main Stem TMDL Update

Melissa Long stated that FDEP adopted the revised main stem TMDL on June 3rd. The BMAP to achieve the TMDL is almost complete but there are a few outstanding items related to the stormwater projects and monitoring plan. The next Executive Committee meeting will be on July 31st and the committee will be providing endorsement of the BMAP at that meeting. The BMAP should be adopted in late fall.

Other Member Updates

Jim Maher stated that The Nature Conservancy has a suit against private individuals that wanted to build docks in the Timucuan area. Shelley Beville responded that she was not sure of the status of this lawsuit. Dana Morton noted that the National Park Service (NPS) will be conducting a synoptic survey of those sites on July 14th. Ms. Beville added that the NPS funds this program to conduct a survey of the sediments and water every five years. The University of Georgia will be conducting the preliminary studies during July 14-17.

Next Meeting

Jim Maher stated that the next meeting will be held in September at JU. Tiffany Busby added that a notice will be sent once a date has been determined

Adjourn

The meeting was adjourned at 1:45 PM.