

**MEMORANDUM**  
**Weeks Bay Watershed Management Plan**

TO: File  
FROM: Mike Eubanks  
DATE: September 14, 2016  
SUBJECT: Stakeholders Working Group Meeting #6  
DISTRIBUTION: MBNEP, BCSWCD, Thompson Team, Stakeholders Working Group

1. The meeting was conducted on September 14, 2016, at the Baldwin County Central Annex (on Palmer Street) between 8:30 and 10:15 AM. Copies of the agenda and attendees present are attached. Bob Higgins initiated the meeting with opening remarks and had everyone introduce themselves. He reminded the group about the action list of items to implement from March stakeholders workshop. Today's assignment is to figure out where we stand from a science standpoint and what we can do moving forward.
2. Mike Eubanks reported the overall project status, discussing that we are at month 9 of the 15 month effort. He summarized a number of tasks that have been completed, several that are underway, and a few that will be completed by the end of the effort. He next demonstrated a number of the GIS mapping layers (Google Earth KMZ file layers) that have been developed for the study, e.g., natural resources, land use practices, land cover, sewage disposal systems, erosion sites, demographic data, etc. He summarized the critical path action items underway including completion of the regulatory matrix (regulations for the municipalities and county), development of future growth projection scenarios (high, intermediate, low), and compilation of implementation measures, e.g., agricultural and urban BMPs.
  - a. John Carlton explained what the NPDES permits layer consisted of. Dick Sute asked if all the dirt pits showed up on the permits, and John Carlton assured him the ADEM permitted pits are included.
  - b. Bob Higgins asked about a layer for stormwater detention ponds. Mike Eubanks agreed to work on developing this GIS layer, with help needed from the cities/county.
  - c. Sam Covert asked who would be the owner of the data, GIS layers, and models after the project is completed. The majority of work products developed as part of the watershed management plan will be the property of MBNEP, but technical components like the SWAT models will be retained by Dr. Kalin, developer of the model. Bob stated this matter would be further addressed as the management plan is completed and topics such as monitoring are addressed.
  - d. Tom Poulos added that addition of data for new home monthly sales for the last 10 years would provide good information on projection of future growth areas. He will provide that information to Bob Higgins.

3. Mike Eubanks then gave an overview of Latif Kalin's SWAT Models. Both the Fish River and Magnolia River models have been constructed and calibrated. Graphs were presented that show good calibration for water flow, total suspended sediment, and nutrients (nitrogen and phosphorus).
  - a. Dick Sute asked if the model could predict flood elevations along the river. Mike Eubanks and Emery Baya discussed that the SWAT model focus is on water quality and uses a daily time step, which does not really depict subdaily flood peaks experienced along these streams. Emery brought up the work done by Hydro Engineering Solutions which better portrays smaller time steps more appropriate for local flooding evaluations.
  - b. One of the main purposes of the model is to help locate hot spots in the watershed for sediment and nutrients. Those areas can be further evaluated to identify sources, and find ways to address them. The model will also look long term to see projected growth areas and compare what happens to sediment and nutrients.
  - c. Bob Higgins reminded everyone that they need to provide what we think land cover will be.
  - d. Mike Shelton asked about the E.coli status for the model. Mike Eubanks – even though SWAT models it, there was not enough data to calibrate bacteria accurately since we do not know a definite source for the bacteria, e.g., human, livestock, wildlife.
4. John Carlton provided a status of the Regulatory Matrix.
  - a. The matrix was sent to the 9 municipalities and county about a month ago, but have gotten responses back from only three. He will continue contacting the remaining folks in order to complete this regulatory review.
  - b. The matrix will let us review what everyone is doing, what consistencies are, and what needs to be developed or changed.
  - c. Michael Mullek asked if there is regulatory enforcement that makes sure things are done properly regarding stormwater ponds. Jennifer Fidler stated that Fairhope does have monitoring and enforcement personnel, as do a number of the other cities. Tom Poulos pointed out that it is the homeowner association responsibility to maintain subdivision stormwater ponds and not the developer.
5. Tim Thibaut presented a project update from Vittor and Associates on wetlands and streams.
  - a. He summarized that the 2005 ADID Wetlands Map by Baldwin County was updated with MBNEP's 2015 aerial photography, 1-foot contour LiDAR data, soils data and miscellaneous field wetland delineations.
  - b. Stream and catchment locations were based on the USGS National Hydrology Dataset, with minor updating from the 2015 aerial imagery.
  - c. Landscape assessments of streams and wetlands are being performed to identify the quality of these resources (good, fair, poor).
6. Scott Jackson, from Ecology and Environment, explained where they stand on the shoreline vulnerability assessment and climate change analysis.
  - a. Looking at changes in shoreline and comparing aerial photography (1955 to current).

- b. Trying to determine if changes are from erosion or sea level rise (approximately 7 inches since 1955).
  - c. Still analyzing data before making conclusions.
  - d. Using SLAMM to look at different scenarios for anticipated change in habitat and trends of what's going on.
  - e. Sam Covert asked if the information is available online. Scott Jackson – not available yet but will be.
7. Mike Eubanks gave review of Christopher Grant's progress for future growth land cover model status.
- a. Christopher has reviewed municipal and county comprehensive plans to help determine future growth scenarios, annexation areas, etc.
  - b. Christopher is reviewing planning documents such as the Horizon 2025 county plan and the Long Range Transportation Plan (by the Metropolitan Planning Organization) to evaluate the growth projections in those evaluations.
  - c. Thompson team members are reviewing existing zoning codes and maps, subdivision regulations, land use maps, extraterritorial planning jurisdictions to help define the limits of growth.
  - d. Christopher is in the process of meeting with municipality and county staff to review/identify future growth areas. In addition he will follow up with other stakeholders knowledgeable about growth projections in the watershed.
8. Bob Higgins talked about potential recommendations for action and funding (provided on handout). He asked the group to look over the handout and think of potential ideas regarding funding, implementation of LID practices, and places for strategic land acquisition and protection. Have a discussion prepared for the next meeting.
9. The next meeting of the SWG is scheduled for November 16, 2016 in the Baldwin County Central Annex (on Palmer Street), Robertsdale, AL, from 8:30 to 10:00 AM. The frequency of meetings will continue to be once every two months on the 3<sup>rd</sup> Wednesday of each month.

Prepared by  
Courtney Harkness and Mike Eubanks

Attachments:

- a. Meeting Agenda/Recommendations for Action and Funding Development
- b. List of Attendees



# Weeks Bay Stakeholder Work Group

Baldwin County Central Annex

8:30 – 10:00 am September 14, 2016

## AGENDA

1. Welcome/Opening Remarks/Approval of Minutes
2. Overall project status – Mike Eubanks
3. SWAT Model status – Mike Eubanks
4. Regulatory Matrix Review status – John Carlton
5. Growth forecast status – Christopher Grant
6. Potential recommendations for action and funding
7. Roundtable discussion
8. Next steps

Next meeting: Wednesday, November 16<sup>th</sup>, 8:30 – 10 am,  
Baldwin County Central Annex, Robertsdale

## Draft recommendations for action and funding development

### Develop a baseline scenario:

Projected water quality and flooding if we continue the current trends for the next 25 - 50 years. This would represent our baseline projection if no new corrective actions or rulemaking.

*Data needed:*

1. County and municipal growth projections including likely geographic locations.
2. Is the county willing to rerun the flood study with updated growth projections & alternatives?

### Develop potential action plans

At this stage, recommendations for action and funding should:

1. Describe what could be done & expected benefit.
2. Identify data or research needed to run model or models.
3. Implementation costs or funding sources do not need to be identified.

### Potential action plans (evaluate impact using simulation modelling):

1. Joint county/municipal flood management plans and associated rulemaking
  - a. How to organize for this? MBNEP: Discuss with mayors/commissioners on 9/16.
  - b. Model ordinances?
  - c. Use the baseline growth forecast for guidance?
  - d. Is this an organizational model: Choctawhatchee, Pea and Yellow Rivers Watershed Management Authority. MBNEP: Discuss on 9/16
2. Consistent implementation of certain LID practices:
  - a. Which ones are most effective sensitive locations? In high growth locations?
3. Strategic land acquisition:
  - a. Where is this most beneficial?
  - b. Where is it planned?
4. Agriculture:
  - a. Livestock exclusion from wetlands/streams
  - b. Other best practices? Which ones are most effective?
5. Repair failed septic systems or replace with sewers
  - a. Impact of 100% repair?
6. Repair HOA managed retention ponds
  - a. How many and where are they? How many need repair?
  - b. How to incentivize maintenance?
7. Mitigate current sources of pollution; minimize future sources.
8. Continue public outreach and education

## **Weeks Bay Watershed Management Plan, Stakeholders Working Group**

### **Meeting, September 14, 2016, List of Attendees**

1. Larry Morris, Baldwin County Soil and Water Conservation District
2. Joey Koptis, USDA-NRCS, District Conservationist
3. Seth Peterson, Baldwin County Highway Department
4. Mike Shelton, Weeks Bay Reserve
5. Tom Poulas, DR Horton
6. Joel Coleman, DR Horton
7. Duane Miller, DR Horton
8. Kenny Pfeiffer, DR Horton
9. Jennifer Fidler, Fairhope Department of Public Works
10. Dick Sute, Homeowner Interest, Fish River
11. Sam Covert, Homeowner Interest, Fish River
12. Michael Mullek, Farmer
13. Teddy King, Homeowner Interest, Magnolia River
14. Camilla English, Alabama Department of Public Health
15. Rick Wallace, Weeks Bay Foundation
16. Steve Heath, Homeowner Interest, Fish River
17. Mike Eubanks, Thompson Engineering
18. Courtney Harkness, Thompson Engineering
19. John Carlton, Thompson Engineering
20. Emery Baya, Thompson Engineering
21. Bob Higgins, Higgins and Associates
22. Scott Jackson, Ecology and Environment
23. Tim Thibaut, Vittor and Associates
24. Neil Johnston, Hand Arendall LLC