

January 31, 2012

A special meeting of the Board of Commissioners of the Bayou Lafourche Fresh Water District was held on Tuesday, January 31, 2012 at 10:00 a.m. at the Water District office, 1016 St. Mary Street, Thibodaux, LA

Present were: Hugh Caffery, Chairman
Gene Harrell, Vice-Chairman
Robert Thibodaux, Secretary/Treasurer
Ron Animashaun
Larry Dugas
Jake Giardina
Greg Nolan

Absent: Dr. Darby Chiasson

Also present were: Earl Paddock, Robert Routon, Shannon Haynes – OCPR
Michelle Robert, Alice Abney, Tom Cancienne –CH2MHill
Michael Somme-CDM; Jerry Waguespack; Archie Chaisson, Jr., Director

Mr. Tom Cancienne, CH2MHill, advised that the Board received a copy of the pump test results. He stated that back in November and December they performed a pump test to evaluate the hydraulic capacity of Bayou Lafourche, and to calibrate the existing Hydrologic Engineering Center-River Analysis System (HEC-RAS) hydraulic model developed for the Bayou.

Mr. Cancienne showed a graph chart of the pump test with two pumps at a maximum of 200cfs. They took a reading at the bridges each day from November 30th through December 5th. He observed that there is some vegetative blockage or restriction going on in the channel. Between Highway 1247 and the Jackson Street Bridge (mile 34), the figure shows the largest change in hydraulic gradient. The extent of the vegetation was observed from the weir in Thibodaux and tapering off at mile 25.4 at the Highway 1243 bridge. The amount of vegetation in the bayou suggests that it is causing the hydraulic gradient change by reducing flow area, slowing the channel flow velocity, and capturing sediments. Commissioner Jake Giardina stated that if you dredge from bayou mile 25 to 35 it would obviously reduce the elevation between 10 and 25.

Mr. Chaisson asked if we remove the weir plug and the vegetation down here, can you put in enough at Donaldsonville and funnel it through that narrow channel around Belle Rose. Mr. Cancienne answered that it would be able to drop the water enough that you would be able to have more capacity in that restricted area.

Ms. Robert stated that the next step would be a preliminary design for the next phase which would take four to six months. Mr. Michael Somme, CDM, advised that as soon as the plan gets approved then they can submit a grant application for the funds.

Mr. Routon stated that CPRA would offer to front the money for the proposal for the preliminary design. Commissioner Giardina asked if the Board would have to take certain action today to move this ahead as fast as possible. Mr. Routon stated we need an outline to start working on now.

Mr. Routon stated that the State would need a proposal from the District for predesign/design activities or pre-construction activities that are needed prior to the District advertising and letting the contract out.

Vice-Chairman Gene Harrell stated that we need a lot of information before we make this proposal so do we use CH2MHill to rely on that information. Obviously, we will be charged for that. Ms. Robert advised that when you hire an engineer or consultant you have to ask for a Request for Proposal for qualifications. You would put out an RFP, and whoever is interested would provide you with a proposal with all their qualifications, and from there you would select the engineer.

Mr. Chaisson asked if we could rely on OCPR to provide us assistance with drafting the RPF. Mr. Routon answered that it is not guaranteed that it is a service they can provide.

Mr. Routon advised that if the Board has any thoughts, ideas, or conditions for this new cooperative endeavor agreement to document them and submit them to the State.

Mr. Routon stated that once the District gets a good design, the State would like to have in their possession a good written document that states what the goals and intentions of the Board and District are as far as the use of the twenty million.

Chairman Caffery advised that we are talking about a proposal for a request for qualifications for this work which would be a scope and schedule for the project.

Chairman Caffery stated let's get back to the pump test results. A discussion was held regarding the results of the pump test with three and four pumps, and the water level at the LA308 Union Pacific Railroad underpass, St. Patrick Street, and Marchand Bridge. Chairman Caffery read from the report that improvements have to be made at these culverts to increase their capacity if higher flows are to be pushed through the bayou. A discussion was held regarding what would need to be done to the railroad underpass in order to not flood that area, and to get more flow down the bayou.

Chairman Caffery read from the conclusions and recommendations section of the pump test report as follows:

First, the bayou will need to be cleared and snagged or dredged to remove flow restriction in the channel. Clearing and snagging the aquatic vegetation will temporarily improve the conveyance. Dredging the bayou will substantially increase the storage and flow capacity of the bayou is the preferred long term solution. The pump test showed that there are two locations within the study area: 1) beginning at the end of the Phase 1 project; and 2) beginning at Labadieville going to Thibodaux.

Second, drainage improvements are warranted in the City of Donaldsonville at the UPRR underpasses at LA308. The City of Donaldsonville does not have records of the existing drainage system. A Master Drainage Plan for the City of Donaldsonville should be considered to

document the drainage system, and provide drainage recommendations at the LA308 and St. Patrick Street underpasses.

Chairman Caffery continued to read from the report that the following activities should be considered to increase the flow capacity and mitigate flooding in Donaldsonville:

- Perform a bathymetric survey of the bayou to update the HEC-RAS model and recalibrate the manning's 'n' values based on the pump test survey data.
- Use the calibrated HEC-RAS model to design a channel for the next phase and identify the highest priority location that will provide the maximum flow increase benefit.
- Develop a Master Plan for the City of Donaldsonville that includes recommendations to improve the drainage at the LA308 and St. Patrick Street underpasses.
- Coordinate with the BLFWD to incorporate the results of the three and four pump tests so as to increase water levels and flow rates for longer duration and/or pulse the pumps at higher flow rates.

Chairman Caffery asked if the bathymetric survey would be something that would be done before the process we talked about for request for qualifications, and he was answered that it would have to wait for CIAP.

Ms. Robert advised that the recommendations coming out of the Bayou Lafourche Summit are very much in line with everything that they have found themselves. The recommendations are in general concurrence with that of CPRA that more freshwater flow from the river is needed in Bayou Lafourche. The recommendations are as follows:

- **Continue the dredging program.** Move forward with the design of the rest of the bayou from the termination of Phase 1 dredging project down through Thibodaux.
- **Refurbish the Existing Pumps.** Currently Joel Tillery has been working with Tim Harper on the rehab of the existing pump station. The purpose is to increase the reliability and provide more effective control of the water levels through the existing pump station.
- **Add Equipment to Combat Vegetation.** The USACE provided the BLFWD with a proposal of how to handle the vegetation issue.
- **Perform Hydrologic Model of Bayou.** CPRA, through a contract with CH2MHill, has constructed and calibrated a working HEC-RAS model of the bayou. The model should be updated with current bathymetric survey and recalibrated since the conditions of the bayou have significantly changed post Gustav.
- **Maintain Sand Trap.** The design of the Sediment Trap Constructed in Phase 1 be maintained appropriately by timely removal of sediment. The Operations and Maintenance Manual recommends a plan for BLFWD field measurements in the sediment trap at prescribed times and locations that will ultimately provide data needed to make decisions on when the trap should be cleaned.
- **Remove Flow Restrictions from the Railroad Crossing at Donaldsonville.** Increased flow capacity at the UPRR Bridge will be needed.
- **Remove Weir at Thibodaux.** This is a long term goal.

- **Evaluate Gate at Donaldsonville.** A preliminary design of the Gravity Diversion/Pump Station completed in May 2008. The results can be found in the Technical Memorandum “Bayou Lafourche Fresh Water District Mississippi River Reintroduction into Bayou Lafourche Gravity Diversion Pump Station Facilities-Description and Basis of Design”, October 14, 2008. This design and Technical Memorandum should be reviewed and referenced.
- **Define the Drainage Area Feeding the Bayou.** The bayou has various municipal and rural drainage areas that deliver flow into the bayou during storm events. Bring the municipalities and parishes together to better understand these individual systems. A general drainage study of the area from Donaldsonville to Lockport was completed. The Summit committee should review and reference the “Mississippi River Water Reintroduction into Bayou Lafourche-Drainage Report”, January 2011.
- **Define the Target Area for Coastal Restoration Work.** The BLFWD should coordinate with CPRA on the work performed during the feasibility stage of the project in Nov. 2005.
- **Feasibility Study of Bayou Terrebonne.** Under contract to LDNR, CH2MHill undertook a feasibility study on diverting between 100cfs to 200cfs from Bayou Lafourche into Bayou Terrebonne. The team came to the conclusion that from a cost benefit standpoint, they did not believe the project should be pursued at that time.
- **Recreation.** The bayou provides an excellent opportunity for recreation and ecotourism that should be maximized.

Ms. Robert requested that the Board review the Operations and Maintenance Manual that came in today and provide their comments to CPRA, and the comments will be provided to CH2MHill. Ms. Robert stated that the comments will be incorporated, and they will provide the Board with a final manual. Mr. Chaisson requested five more copies of the manual, and Ms. Robert stated that the copies need to be requested through the State.

Vice-Chairman Gene Harrell advised that Stevie Smith put together the location of trees that needs to be replaced. He submitted a proposal to the Board for the cost of the tree planting.

Moved by Vice-Chairman Gene Harrell, seconded by Commissioner Robert Thibodaux and unanimously approved that we contract with Stevie Smith of All South Consulting Engineers to provide the service of purchasing the 7 gallon cypress trees, coordinating with landowners of where the trees will be planted, surveyor to mark the spot of where the low water mark is, and plant the trees. The motion includes checking to make sure we don't have to go out for bid for these services.

On motion by Commissioner Jake Giardina, seconded by Vice-Chairman Gene Harrell and unanimously approved the meeting adjourned at 12:10p.m.

Hugh Caffery, Chairman

Robert Thibodaux, Secretary/Treasurer

