



Agenda Item Executive Summary

Title:

Stormwater Monthly Summary Report

Presenter:

Blaise Gravois, Director of Operations/St. James Parish

Agenda Date: 05/02/2018

Ordinance Resolution Bid Authorization/Award Policy Direction Informational Only

Consent: YES NO

Item History:

Monthly Report

Executive Summary:

The St. James Parish Council has placed a standing agenda item in its regular meeting agenda for updates on the parish's progress toward implementation of the East Bank Stormwater Master Plan. This monthly report brings together status, cost and schedule information for the various goals and action plans in one place.

The report includes a summary Agenda Report, which provides a brief outline and summary of progress on all active action plans within the Master Plan.

Recommendation:

The East Bank Hydrology Model was developed and the results have shown that facilities to prevent flooding from storm surge events can be implemented at an estimated cost of \$16.7MM. The Parish Council should move forward as quickly as possible to obtain funding for installation of the required facilities: gates with pump station at Blind River and gates only at Bayou la Trainasse and East St. James M2 Canal. Adding a pump station at M2 Canal would increase the cost by roughly \$2.4MM. Funding should include needed flood prevention facilities for the West Bank at an estimated cost of roughly \$7MM.

Attachments:

1. Agenda Report

Agenda Report

Subject: East Bank Stormwater Master Plan Update - May 2018
Presented By: Blaise Gravois, Director of Operations/St. James Parish
Date: May 2, 2018

East Bank Stormwater Master Plan

Background

In the fall of 2014, the parish created an East St. James Parish Flood and Drainage Task Force. The group worked for a period of roughly three years and prepared an East Bank Stormwater Master Plan. The plan was unanimously approved by the Parish Council on February 7, 2018 at their regular meeting. The East Bank Stormwater Master Plan is intended to serve as a guide to parish policy and decision making over the next five to ten years and should be updated periodically as objectives are accomplished and goals are met.

Budget Summary

The East Bank Stormwater Master Plan was prepared at no cost to the parish. However, much of the information relied upon for plan development was taken from the Master Drainage Plan prepared by Burk-Kleinpeter, Inc. (BKPI) at a cost of approximately \$389,000 of which 50% was funded by the Pontchartrain Levee District (PLD).

Active Action Plans

OPERATIONS AND MAINTENANCE

Objective B: Schedule and fund regular maintenance of all drainage systems.

The parish is actively engaged in obtaining "rights of way" permits for all drainage systems.

STORMWATER SYSTEM IMPROVEMENTS

Objective C: Greatly improve stormwater drainage on the East Bank of St. James Parish so there is no flooding during a 10-year storm.

Goal 1: To replace all damaged/crushed and/or undersized culverts as recommended in BKPI's Master Drainage Report.

Action Plan 1: Replace the 6 undersized Hwy 3125 culverts as identified by BKPI within the next 3 years at an estimated cost of \$1.5MM.

Status: The Parish is working to solicit funding from the Department of Transportation.

Action Plan 2: Replace the roughly 1178 damaged/crushed or undersized culverts identified by BKPI within the next 10 years at an estimated cost of roughly \$4.6MM.

Status: The parish drainage crew has initiated this effort beginning at Humble Street, North and South Angelle Streets, and Kenmore Street. Prioritization efforts will be completed when funding to complete this project becomes available.

Action Plan 3: Replace the 37 undersized Railroad culverts as identified by BKI within the next 5-10 years at a cost of \$1.1MM.

Status: In 4th quarter 2017 a second culvert was added in Belle Rue Subdivision in Lutcher at a cost of \$89,000. The parish is actively pursuing additional funding for the remaining culverts. In most, if not all cases, a second culvert will be added rather than replacing the existing undersized culvert.

STORM SURGE PROTECTION

Objective D: Improve storm surge protection on the East Bank

Goal 1: To implement a short-term solution for storm surge protection and continue efforts to identify a feasible and cost-effective long-term solution.

Action Plan 1: Implement the short-term solution (Aquadam with sheet pile structures with gates/pumping stations to block backflow from Blind River) at an estimated cost of \$30MM.

Status: BKI has completed the East Bank Hydrology Model and a detailed report is forthcoming. Several members of the parish council have reviewed the model results that have identified a more cost-effective solution at an estimated cost of \$16.7MM. Recommended facilities would include gates and a pump station at Blind River and gates only at Bayou la Trainasse and East St. James M2 Canal. A pump station at M2 Canal would added an estimated \$2.4MM. The purchase of an Aquadam is not warranted at this time.

Recommendation: The Parish Council needs to move forward with putting this to a vote of the people for funding. Funding should include flood prevention facilities totaling roughly \$7MM for the West Bank.

Action Plan 2: Continue efforts to identify a long-term solution to storm surge protection.

Status: In January 2018, the parish received word that GOMESA funding in the amount of \$500,000 has been approved for 2018 and again in 2019 to be used to fund the 30% Design Phases 1-3 of the Inner Levee Alignment proposal defined in the Master Plan.

FLOOD WARNING AND RESPONSE PLAN

Objective E: Enhance the early warning and response systems needed in the event of potential flooding whether from stormwater or storm surge.

Action Plan 1: Purchase and install level gauges at strategic locations.

Status: The Department of Emergency Preparedness has purchased 3 ruler-type level gauges and will be installing them in the near future. Work Order 1469-2017 was issued to place a staff gauge on Woods Canal.

Completed Action Plans

PARISH GOVERNMENT

Objective A: Make drainage and flood protection a parish priority

Goal 1: To review and promote progress on the East Bank Stormwater Master Plan monthly.

Action Plan 1: Approve the East Bank Stormwater Master Plan as presented by the East Bank Drainage and Flood Protection Task Force. - Approved on February 7, 2018.

Action Plan 2: Once approved, add East Bank Stormwater Master Plan Review as a standing agenda item at one of the regularly scheduled council monthly meetings. – Initiated beginning March 2018.

Action Plan 4: Require preparation of quarterly reports for publication. – Monthly status reports will be prepared until most Stormwater Master Plan action plans are completed.

Action Plan 5: Post progress reports on parish website. – Monthly status reports will be posted on the website.

OPERATIONS and MAINTENANCE

Objective B: Schedule and fund regular maintenance of all drainage systems.

Goal 1: To maintain drainage systems on a priority basis so that they remain in good condition.

Action Plan 5: Post quarterly reports on the parish website. – Monthly status reports will be posted.

STORMWATER SYSTEM IMPROVEMENTS

Objective C: Greatly improve stormwater drainage on the East Bank of St. James Parish so there is no flooding during a 10-year storm.

Goal 1: To replace all damaged/crushed and/or undersized culverts as recommended by BKI's Master Drainage Plan.

Action Plan 5: Post updated quarterly reports on the parish website each January, April July and October. – Monthly status reports will be posted.

STORM SURGE PROTECTION

Objective D: Improve storm surge protection on the East Bank.

Goal 1: To implement a short-term solution for storm surge protection and continue efforts to identify a feasible and cost-effective long-term solution.

Action Plan 1: Implement the short-term solution (AquaDam with sheet pile structures with gates/pumping stations to block backflow from Blind River) at an estimated cost of roughly \$30MM.

- Develop a model of the area to determine the benefits of implementing the project in phases as funding becomes available. – Funding for the model was approved in March and development is underway.

Action Plan 3: Prepare quarterly progress reports. – Monthly status reports are being prepared.

Action Plan 4: Post updated quarterly reports on the parish website each January, April, July and October.
– Monthly status reports are being posted.

FLOOD WARNING and RESPONSE PLAN

Objective E: Enhance the early warning and response systems needed in the event of potential flooding whether from stormwater or storm surge.

Goal 1: To provide level monitoring at strategic locations to develop historical data to enhance response plan actions by mid-year 2018.

Action Plan 1: Purchase and install level gauges at strategic locations. – Three ruler-type level gauges have been purchased.

Action Plan 5: Prepare quarterly progress reports when new information is available. – New information will be included in the Monthly Status Reports.

Action Plan 6: Post quarterly progress reports on the parish website. – Monthly Status Reports will be posted.

FLOODPLAIN MANAGEMENT

Objective F: Maintain participation and good standing in the National Flood Insurance Program (NFIP) and improve floodplain management practices to minimize flood damages and reduce flood insurance premiums for property owners.

Goal 1: Identify actions needed to improve the Community Rating System (CRS) score to reduce flood insurance premiums and work to implement cost-effective actions.

Action Plan 4: Post quarterly progress reports, if any, on the parish website. – Progress will be included in the Monthly Status Reports posted on the parish website.

Objective G: Reduce flood losses and better protect the natural resources, improving the function of the parish's floodplains.

Goal 1: To implement projects that will restore a significant area of forested wetlands along the Maurepas Basin.

Action Plan 3: Post updated quarterly reports, if any, on the parish website. – Any progress will be included in the Monthly Status Reports posted on the parish website.

STORMWATER BEST MANAGEMENT PRACTICES

Objective H: Encourage the use of stormwater Best Management Practices (BMPs) throughout the parish to reduce stormwater runoff volume.

Goal 1: To establish development regulations for the parish that are state-of-the-art with regard to stormwater management.

Action Plan 4: Advise the public via the parish website. – Progress will be included in the Monthly Status Reports posted on the parish website.

FINANCIAL PLAN

Objective I: Fund stormwater management initiatives through sustainable and equitable sources of revenue.

Goal 1: To search for all potential funding sources and work to solicit those funds on a on-going basis.

Action Plan 1: Estimate the cost of all system improvements to identify funding needs. – Preliminary estimates are available for all identified system improvements.

Action Plan 2: Identify potential funding sources. – The following funding sources have been identified: Tax millage, PLD (Pontchartrain Levee District), State Capital Outlay, GOHSEP (Governor’s Office of Homeland Security and Emergency Preparedness), CPRA (Coastal Protection and Restoration Authority), FEMA (Federal Emergency Management Agency) and GOMESA (Gulf of Mexico Energy Security Act).

Action Plan 4: Prepare quarterly progress reports. – Progress will be included in the Monthly Status Reports.

Action Plan 5: Post quarterly progress reports, if any, of the parish website. – Progress will be included in the Monthly Status Reports being posted on the parish website.

IMPLEMENTATION PLAN

Objective J: Develop an aggressive implementation plan and project tracking system to promote community awareness of progress.

Goal 1: To prioritize project implementation basis greatest impact on reducing flooding and develop a timeline for informing the public, noting that availability of funding will be the greatest obstacle to implementation.

Action Plan 2: Present Implementation Timeline to the Parish Council for approval – Individual project timelines will be prepared when funding becomes available.

Action Plan 3: Prepare quarterly updates on progress. – Progress will be included in the Monthly Status Reports.

Action Plan 5: Post quarterly updates, if any, on the parish website. – Progress will be included in the Monthly Status Reports being posted on the parish website.