

**Response to Public Comments**  
**Eight TMDLs for Indicator Bacteria in Dickinson Bayou and Three Tidal Tributaries**  
**(Segments 1103 and 1104)**  
**November 12, 2013**

Tracking Number	Date Received	Affiliation of Commenter	Request or Comment	Summary of TCEQ Action or Explanation
001_01	08/30/2013	Terry Singeltary (written)	The TCEQ efforts to bring back quality water, instead of polluted water to the Dickinson Bayou and its Tributaries, are greatly appreciated. However, I think it all will be futile, if Dickinson Bayou is not dredged out to where the water can flow freely with the tidal movements. I believe that due to Dickinson Bayou not being dredged and maintained properly, to allow for a maximum flow, by Houston Lighting and Power Co. (HL&P) is/was a cause to a great many of our problems in Dickinson Bayou, and surrounding waters. I also believe that HL&P, the Army, or the Army Corp of Engineers should foot the total bill for the dredging.	The TCEQ and local stakeholders in the Dickinson Bayou watershed have agreed to work together to reduce bacteria pollution in Dickinson Bayou and its tributaries, as described in the I-Plan document. At the same time, stakeholders in the watershed are continuing to explore ways to decrease the effects of pollution on Dickinson Bayou. The TCEQ does not have regulatory authority to compel private or public entities to dredge Texas waterways to improve flow. No changes were made to the I-Plan based on this comment.
004_04	09/12/2013	Arlette Baudat (oral)	What was not addressed in the I-Plan was dredging up the bayou. I believe the Corp of Engineers has approved dredging of the bayou and with more flow of bayou you would have more dilution with the tide coming in and out and that it would help to achieve the goal.	
002_01	09/10/2013	Susie Blake (written)	This implementation plan will be very beneficial to the Dickinson Bayou. Implementing this plan will lead the way to other parameters that are so desperately needed in the Bayou. This is the beginning part of cleaning up the Bayou so that more people can use it for recreational purposes and to protect the watershed.	TCEQ acknowledges the comment and appreciates Mr. Blake's support of the I-Plan. No changes were made to the I-Plan based on this comment.

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003_01	09/10/2013	Charlene Bohannon – Galveston Bay Foundation (written)	GBF supports the draft implementation plan for eight Total Maximum Daily Loads (TMDLs) for Indicator Bacteria in Dickinson Bayou and three Tidal Tributaries in Brazoria and Galveston Counties. Our mission is to preserve, protect, and enhance the natural resources of the Galveston Bay estuarine system and its tributaries for present and future users, and this well-developed plan supports this mission by aiming to create safer water for recreational users to enjoy, as well as improve the overall environmental health of these tributaries. Additionally, reducing bacteria in tributaries like Dickinson Bayou will help us achieve bacteria reductions in the wider Galveston Bay oyster waters, which are currently impaired in many segments of the bay. GBF participated in the OSSF workgroup throughout the preparation of this I-Plan and will continue to collaborate with this group as implementation moves forward. We look forward to seeing this plan approved and in action.	TCEQ acknowledges the comment and appreciates Ms. Bohannon’s and the GBF’s support of the I-Plan. No changes were made to the I-Plan based on this comment.
004_01	09/12/2013	Arlette Baudat (oral)	I was surprised that part of the plan is to eliminate the feral hogs. My comment is that I would like to see TCEQ address the TMDLs and I am not sure that feral hogs should be an urgent priority. Can you tell how many feral hogs there are in Dickinson Bayou watershed? The data that was used and the reference materials used was dated 1991 and 2004. I didn’t see anything any later that was referenced in this document. I think it should be noted.	Addressing feral hogs is just one of several implementation activities proposed in the I-Plan to restore water quality. Loading reductions resulting from feral hog removal were based on the estimate of fecal coliform per hog found in Metcalf and Eddy, 1991, a well-regarded civil engineering reference book. Information on the prevalence of feral hogs in Galveston Co. and in Texas was obtained from the 2004 Texas Cooperative Extension Publication titled “Feral Hogs in Texas.” The information in these publications is considered reliable for the estimation of fecal bacteria loading from feral hogs and their feces. A conservative estimate of 135 hogs in the Dickinson Bayou watershed was used in the load estimates for the I-Plan. No changes were made to the I-Plan based on this comment.

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004_02	09/12/2013	Arlette Baudat (oral)	My next concern was education of homeowners in talking to HOAs about updating their bylaws as a solution to reduce the daily loads. The reference materials are dated 1995 and indicate that only 40% of homeowners pick up their pet fecal matter. This information is 20 years old. Will new HOA bylaws help us achieve our goal? I believe that pet owners are more responsible for picking up after their pets than they were 10-15 years ago, so I believe that 40% is on the low side.	Information about the percentage of homeowners that pick up their pet's feces was obtained from the <i>National People and Pets Survey</i> , a 1995 report to the Urban Animal Management Coalition. In the absence of site-specific information for Dickinson Bayou watershed, the information in this publication is considered acceptable for estimating fecal bacteria loading from unmanaged pet feces in the watershed. The TCEQ and watershed stakeholders believe pet waste is, and continues to be, a source of bacterial pollution in Dickinson Bayou; information gathered in the watershed shows that a number of HOAs do not have bylaws addressing pet waste management and the number of such HOAs may increase in the future. No changes were made to the I-Plan based on this comment.
004_03	09/12/2013	Arlette Baudat (oral)	I would think our primary concern is the wastewater treatment plants. Some of the wastewater treatment plants are "grandfathered" and I think I understand that under current law there is nothing we can do about that. We can regulate on the design criteria for new wastewater treatment plants, but we can't do anything about the design of old ones. That's a question for our Representative.	Currently, all wastewater treatment facilities discharging to Dickinson Bayou must meet bacteria effluent concentrations equal to, or less than, half of the Texas Surface Water Quality Criterion for Primary Contact Recreation (i.e., geometric mean of 63 MPN <i>E.coli</i> for fresh water and 17.5 MPN Enterococcus for saline water). All new wastewater treatment facilities wishing to discharge to Dickinson Bayou in the future must also be designed to meet these bacteria effluent concentrations. No changes were made to the I-Plan based on this comment.

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005_01	09/13/2013	Tim O'Connell (written)	In regards to Management Measure 2.5, I support appropriate mechanisms to maintain function at lift stations. My understanding is that lift stations should be inspected every 24 hours by the responsible organization. Even if this occurs regularly what happens if a malfunction happens right after an inspection? I think that a wise use of funding to invest in a technology that alerts the responsible organization of a lift station failure by either a visual alarm that public could report or maybe even a smart phone app. that could alert the responsible organization 24/7.	The Houston-Galveston Area Council (H-GAC), an active stakeholder in the Dickinson Bayou watershed, is currently working with the TCEQ under the TCEQ's Clean Rivers Program, to expand the <i>How's the Water?</i> mobile phone application (ap) from iPhone only, to include the Android platform. The new ap will have enhanced capabilities to make it more interactive. H-GAC will be working with local municipalities to develop a process for people to report water quality related problems with the new ap, including wastewater infrastructure features such as lift stations. The details are still being developed, but the ap will ensure that, when a report is made, the responsible entity can get the message in a timely manner and respond to the issue. The H-GAC ap will also be designed to ensure that the resulting action (the repair or resolution of the reported problem) is communicated back to the person reporting the issue. No changes were made to the I-Plan based on this comment.
006_01	09/16/2013	Charriss York	Information about the resources provided by USDA Wildlife Services for feral hog reduction programs should be included in Management Measure 3.1.	In response to the comment, language was added to the description of Management Measure 3.1 in the I-Plan document referring to the USDA's Wildlife Services program for feral hog reduction in Texas and its role in helping Management Measure 3.1 of the Dickinson Bayou Bacteria I-Plan succeed.

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007_01	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	We encourage the TCEQ to carry out the listed control actions that are within the regulatory powers of the TCEQ, namely: implement stricter indicator bacteria limits and stricter enforcement measures through wastewater treatment facility effluent discharge permits; increased compliance and enforcement activities by the TCEQ to reinforce the goals of this I-Plan; revise the penalties and violations for sanitary sewer systems and wastewater treatment facility to implement the goals of this I-Plan; and improve the reporting requirements for all sanitary sewer overflows to the TCEQ and local enforcement authorities. We encourage the TCEQ to adopt the management measures that are planned in this I-Plan as voluntary activities.	The TCEQ acknowledges and appreciates the BPA's encouragement of the implementation of Control Actions included in the I-Plan. No changes were made to the I-Plan based on this comment.
007_09	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	As listed in Control Action 2.0, we encourage the TCEQ to employ focused investigations to increase the frequency of inspections in the Dickinson Bayou Watershed until the compliance rate at WWTF reaches a high level.	
007_02	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	Additionally, continue to monitor these activities for the possibility that some measures need to become mandatory should the indicator bacteria sources targeted by these measures fail to realize meaningful reduction and not reach the ultimate goal of contact recreation.	As noted in the I-Plan document (Page 2 – Executive Summary), the TCEQ will track the progress of this I-Plan in restoring the affected use and will report the results of implementation tracking and evaluation on its web site, at regional forums and to stakeholders, as needed. No changes were made to the I-Plan based on this comment.

Tracking Number	Date Received	Affiliation of Commenter	Request or Comment	Summary of TCEQ Action or Explanation
007_03	10/07/2013	Steve Hupp – Bayou Preservation Assoc.  (written)	We encourage the TCEQ to continue to monitor the activities associated with the voluntary Management Measures included in the I-Plan for the possibility that some measures need to become mandatory should the indicator bacteria sources targeted by these measures fail to realize meaningful reduction and not reach the ultimate goal of contact recreation.	As noted in the I-Plan document (Page 2 – Executive Summary), detailed water quality data will be collected for five years to identify trends and compliance with the water quality standards. If standards are not attained by the end of the monitoring period, the TCEQ and watershed stakeholders should reevaluate the TMDL and the I-Plan and take appropriate action.
007_04	10/07/2013		We encourage the continued monitoring of the water quality associated with this I-Plan and suggest that bacteria source tracking be considered to fine tune which indicator bacteria sources are responsible for the failure of these water bodies to meet the water quality standards for indicator bacteria for contact recreation.	The TCEQ and the watershed stakeholders will consider Microbial Source Tracking (MST) as part of future TMDL I-Plan implementation. No changes were made to the I-Plan based on this comment.
007_05	10/07/2013	Steve Hupp – Bayou Preservation Assoc.  (written)	We encourage that Gum Bayou be fully incorporated into this I-Plan and associated TMDL as soon as is practical and that this I-Plan be used as guidance until full incorporation.	In 2013, the TCEQ initiated efforts to address the bacteria impairment in Gum Bayou through the TMDL process. Load allocations are expected to be completed and incorporated into the State’s Water Quality Management Plan in 2014. It should also be noted that the TCEQ and watershed stakeholders plan to use the I-Plan as guidance in addressing the bacteria impairment in Gum Bayou. No changes were made to the I-Plan based on this comment.

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007_06	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	The next to last paragraph on page 10 of the proposed I-Plan, last sentence states: “To meet the TMDL in the Tidal segments, reductions in source loadings are required in all TMDL tidal AUs except 1103_02.” Table 1 on page 9 indicates that AU 1103_03 does not require reductions in source loadings due to the sample exceedance listing of “na.” Please correct or explain this apparent discrepancy in AU designations.	The Assessment Unit (AU) designations in the I-Plan document are correct. No load reductions are needed in AU 1103_02 (Dickinson Bayou Tidal between Benson Bayou and Gum Bayou) because the observed load entering that AU was below the total maximum daily enterococcus load estimated for this AU. It should be noted that the geometric mean of enterococcus concentrations in AU 1103_02 exceeded the state’s criteria by less than 1 MPN in the 2008 state assessment of water quality (2008 Integrated Report). Table 1 (page 9) does not indicate that AU 1103_03 (Dickinson Bayou Tidal between Bordens Gully and Benson Bayou) does not require a reduction in source loadings of enterococcus, only that this AU did not exceed the state’s single sample enterococcus criteria in the state’s assessment of water quality and Integrated Report in 2008. AU 1103_03 did, however, exceed the state’s geometric mean criteria in the state’s assessment of water quality and Integrated Report in 2008. No changes were made to the I-Plan based on this comment.
007_07	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	Table 5 on page 17 of the proposed I-Plan lists no future growth for 5 of the 8 AUs. Please correct this representation and the TMDL calculation or explain why there is no future growth considered for these 5 AUs.	The section of the TMDL document (adopted by the TCEQ in 2012) titled “Allowances for Future Growth” (Page 42) describes the method used to develop allocations for future growth. In this section of the TMDL, “Future Growth” is defined as the difference between future permitted WWTF flows and currently permitted WWTF flows. Allocations for future growth were calculated only for assessment units currently receiving wastewater from permitted outfalls. Assessment units 1103_03, 1103_04, 1103A_01, 1103B_01, and 1103C_01 do not receive wastewater from permitted outfalls; hence these assessment units did not receive an allocation for future growth. No changes were made to the I-Plan based on this comment.

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007_08	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	As identified in Management Measure 1.5, we encourage the TCEQ to foster development of an accepted standard procedure for home sale inspections used in housing transactions and that the state adopt these procedures statewide with consideration of local conditions. TCEQ action in this area is warranted due to the widespread nature of OSSF failure contributing to the indicator bacteria exceedances across Texas. The narrative and Table 6 listing for Management Measure 1.5 should be modified to reflect this needed action by the TCEQ.	The TCEQ does not have regulatory authority to develop or promulgate state-wide rules specifying standard procedures for home sale inspections used in housing transactions. The TCEQ fosters development of accepted standard procedures for home sale inspections used in housing transactions by funding activities that encourage the adoption of best practices for reducing bacterial pollution, including incorporation of OSSF inspections into home sale inspections and raising awareness of the relationship between OSSF inspections used in home sale transactions and water quality improvement.
007_10	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	Landowners, as targeted by the efforts listed in Management Measure 3.0, are often highly motivated to reduce bacteria through the ways they manage their land. Please support these landowners with education and information on grants.	The TCEQ currently supports landowners by providing education and information on grants. The TCEQ also currently partners with Texas AgriLife Extension Service, the Texas State Soil and Water Conservation Board, and Texas Parks and Wildlife Department to provide education to landowners. No changes were made to the I-Plan based on this comment.
007_11	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	Pet owner education and pet waste regulations should be an efficient method of addressing the “low hanging fruit” that is probably a considerable portion of the non-point indicator bacteria in our area.	The TCEQ agrees with Mr. Hupp’s and the BPA’s comment regarding pet owner education. Management Measure 3.2, “Expand pet owner education efforts” (Page 49) describes the pet owner education component of the I-Plan. No changes were made to the I-Plan based on this comment.
007_12	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	Establishment of living shorelines, as discussed in Management Measure 4.0, have multiple ecological and habitat benefits including indicator bacteria reduction through filtration of the bacteria and the solids that transport bacteria.	The TCEQ agrees with Mr. Hupp’s and the BPA’s comment regarding Management Measure 4.0, “Restore and repair riparian zones,” (Page 58). No changes were made to the I-Plan based on this comment.
007_13	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	Preservation and restoration efforts similar to those of the City of League City detailed in Management Measure 5.0 should be encouraged as multiple land use amenities that also reduce indicator bacteria.	The TCEQ agrees with Mr. Hupp’s and the BPA’s comment regarding Management Measure 5.0, “Preserve and restore natural wetlands,” (Page 59). No changes were made to the I-Plan based on this comment.

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007_14	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	As demonstrated at Mason Park, Keith – Weiss Park and other parks in the Houston area, constructed treatment wetlands are an amenity that has multiple ecological benefits including indicator bacteria reduction (Management Measure 6.o).	The TCEQ agrees with Mr. Hupp’s and the BPA’s comment regarding Measure 6.o (Page 6o). The Management Measure includes a description of the wetland project in Mason Park and the water quality benefits of constructed wetland systems in general. No changes were made to the I-Plan based on this comment.
007_15	10/07/2013	Steve Hupp – Bayou Preservation Assoc. (written)	Low Impact Development BMPs are often being implemented in the Houston area as a realistic, cost-effective method of capturing multiple environmental benefits. Continue to encourage these through implementation of Management Measure 7.o.	The TCEQ intends to continue the encouragement of Low Impact Development through its support of implementation of Management Measure 7.o. No changes were made to the I-Plan based on this comment.