DEPARTMENT OF ENVIRONMENTAL QUALITY
KATHLEEN BABINEAUX BLANCO
GOVERNOR
MIKE D. McDANIEL, Ph.D.
SECRETARY

July 20, 2007

Ms. Maura Wood
Delta Chapter of the Sierra Club
P. O. Box 80631
Baton Rouge, LA 70898

Dear Ms. Wood (Maura):

Thank you for your May 30, 2007 letter, which followed our field trip to the City of Hammond's wastewater treatment and wetlands assimilation sites. Please accept this correspondence as a response to that letter.

The Louisiana Department of Environmental Quality (LDEQ) representatives appreciated the opportunity to discuss the operation of the City's new municipal wastewater treatment facility with you. We were also appreciative of the presence of Mayor Mason Foster, Mr. Chuck Spangler (the City's facility engineer) and Mr. Garry Knight (the City's Water and Sewer Department Superintendent), during the field trip to discuss problems experienced during the transition to the new facility, and that of Dr. Gary Shaffer and Dr. John Day to discuss issues related to the monitoring of the wetland assimilation site. This letter will hopefully address the concerns raised in your correspondence about the City's wastewater treatment facility and wetland discharge, and about LDEQ's wetlands wastewater assimilation program in general.

LDEQ administers the Municipal Facilities Revolving Loan Fund as established in Louisiana's Environmental Quality Act, R.S. 30:2078, and continues to "provide funds to municipalities and other political subdivisions" in the state for the "planning, design, and rehabilitation of wastewater treatment facilities…", in accordance with applicable federal and state law. Your letter refers to the City of Hammond "being …apparently not able to receive assistance from the Municipal Facilities Revolving Loan Fund". According to our records, the City of Hammond has not applied for funding from this revolving loan program, and an application must be submitted to access this funding source. LDEQ would certainly welcome the opportunity to discuss how the revolving funds program could help the City of Hammond, or any other municipality, achieve its treatment plant improvement goals and meet the enforceable requirements of the Clean Water Act. The Mayor has informed LDEQ that the City of Hammond was able to procure other sources of funding to adequately finance their wastewater facility.

The City of Hammond has reported to LDEQ that it is addressing its wastewater operations and maintenance problems in numerous ways. The City has installed new aerators with increased

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capacity, new trunk lines and diffusers. When operating to full capacity, it is expected that the system will optimize BOD and TSS removal in order to meet the City's discharge limits. In addition, the City has ordered and will be installing a new system to prevent odor-causing hydrogen-sulfide gas releases to the atmosphere. This work is scheduled to be completed by the end of July (2007). It is anticipated these actions will alleviate and ultimately eliminate bad odors from the plant. The City has reported that no new odor complaints have been received since the new aerator has been in operation. Enforcement and surveillance staff at LDEQ will continue to monitor the City's progress and address any significant violations from the previous site and the new facility.

To control infiltration into the collection lines and associated problems, LDEQ has been informed that the City Council has approved extra funding to inspect the sewer lines for leaks, inflow and infiltration, and to replace pipe where necessary. The City is required to discover and mitigate illicit discharges in accordance with Municipal Separate Storm Sewer System (MS4) requirements. Therefore, to address the issue of possible and future illicit dischargers, a company has been hired by the City of Hammond to begin an investigation. The company has conducted similar investigations in other cities and has been successful in identifying and eliminating illicit dischargers.

The City of Hammond is required to disinfect the effluent before it is discharged to the wetland. The level of disinfection is protective of primary contact recreation, although the wetland is not designated for swimming or other full-body immersion activities described as primary contact recreation in LDEQ's water quality standards. The levels of solids in the wastewater must also be maintained within limits and are considered in the disinfection process. The effluent continues to be monitored in accordance with and is meeting the department's requirements.

Your letter mentions the possibility of "the location and implementation of the Hammond assimilation site" as being "influenced more by political forces than by good science or data", and specifically references the impacts of the railroad rights-of-way locations. The presence of culverts on the railroad right-of-way was documented during the UAA development and recommendations were made to prevent potential hydraulic "short-circuiting" of the treated effluent into the wetland. However, the proposed installation of weirs at the culverts was denied by the railroad company. It was determined that wetland flows would only occur through these culverts during extreme weather conditions and are not an issue during the majority of expected operating conditions. These and other factors were considered by the City's consultants during the baseline studies and in the UAA process. However, in the larger context, all parties involved with the effluent distribution will continue to work together to optimize the distribution of the effluent into the wetlands. As with many projects, while the planners strive to anticipate and control every situation, the final design may not exactly match that described in the feasibility study. However, design changes should be properly noted and evaluated for impacts.

With regard to reviewing monitoring results, nutrient monitoring, or any other studies the City of Hammond is conducting with its consultants or other researchers outside of LDEQ requirements may be considered proprietary by the City or the researchers, and is not necessarily public information. However, monitoring results to meet LDEQ requirements can be reviewed through the Electronic Document Management System (EDMS). The EDMS contains all official records

that have been created or received by DEQ. You may view the records at our Public Records Center at LDEQ's main office, by making a public records request through our Records Center, or by becoming a registered user of EDMS, which enables you to view the records online from any computer. Note that all records are available on-site and through public records requests, but only records generated or received after January 1, 2000 are available online. You may obtain more information about each of these options by visiting the department's website at http://www.deq.louisiana.gov/portal/tabid/2604/Default.aspx. Public information requests can also be made through LDEQ's website at the following url: http://www.deq.louisiana.gov/portal/Default.aspx?tabid=2231.

Wetland assimilation is neither a new nor strictly non-traditional approach. There are thousands of wetland assimilation systems worldwide and hundreds, if not thousands, of scientific studies that have been published in peer-reviewed journal articles and books. Additionally, the work conducted in Louisiana is supported by a history of scientific and applied experience. The design of the wetlands assimilation systems currently operating in Louisiana has benefited from regular conferences with leading researchers recognized as experts in the field of wetlands science and ecology, including William Mitsch, Curtis Richardson, Michael Ogden, and Robert Kadlec. Results of studies conducted in Louisiana wetland sites have shown that treated wastewater effluent is utilized by the receiving wetland to increase wetland productivity, counter salt water intrusion, and enhance vertical accretion which helps offset the high rate of sea level rise.

Wetlands by definition are naturally "wet and organic-rich" and support a highly diverse environment including aerobic, anaerobic and facultative conditions. There are micro-environments associated with living and dead roots, pore spaces, and inorganic particles which also contribute to a high diversity of microbial pathways which facilitate the decomposition of organic matter in treated effluent. Studies have shown that pathogen populations rapidly decline when introduced to wetlands, much more so than in lakes or streams. However, the myriad functions and values of Louisiana's waters, which include wetlands, support an abundance of wildlife and habitat. In all natural waters there is a potential for exposure to a level of microorganisms, some of which occur naturally, and some of which can cause illness in humans (pathogens).

The impacts of pharmaceuticals and personal care products (PPCPs) on natural waters and systems have become important concerns nationwide. Current research suggests that certain drugs may cause ecological harm (e.g. negatively impact aquatic life). However, according to the EPA, scientists have found no evidence of adverse human health effects from PPCPs in the environment. Scientific studies also indicate that the degradation of these types of contaminants is highest in productive wetland systems as opposed to the water columns of lakes or streams. There are many scientific studies on PPCPs underway (within the scientific community and at EPA) which will improve the underlying science, help determine sources and impacts, and lead to consistent testing methods and programs. LDEQ expects to have this and other information available to evaluate the risks of these chemicals, and where necessary, take regulatory action to ensure protections of human health and aquatic life.

The support for the wetlands assimilation program is based on substantial scientific studies and monitoring results in Louisiana backed up by extensive information from other areas. Wetland assimilation is certainly not appropriate in every instance and in every location. There are wetlands for which this process is not appropriate at all. For each site that is considered, a careful scientific analysis is conducted to determine its suitability. There are currently three LPDES permit applications under consideration for a wetland discharge, and two baseline studies are underway or in planning stages. Although LDEQ is aware a number of other cities and parishes have expressed an interest in a 'discharge to wetland' permit, there have been no formal communications with LDEQ for other sites. We will continue to process those applications and respond to inquiries about the permit process, and invite your questions and input on the same.

We concur that a "one-size-fits-all-approach" is not appropriate for wetlands assimilation projects. The wetland assimilation program follows established, quantifiable procedures and criteria for site assessment. The preliminary and feasibility analyses ensure that the wetland is appropriate to receive a wastewater discharge, i.e., can assimilate the proposed flow. A year-long baseline ecological study documents the status of the wetland in terms of soil and water chemistry, hydrology, vegetation ecology, presence of toxic materials, and other appropriate information. The baseline study is also used to describe the monitoring (after the discharge begins) appropriate for each wetland. The guidance for these procedures is found in LDEQ's *Permitting Guidance Document for Implementing Louisiana's Surface Water Quality Standards*, Volume 3 of the Water Quality Management Plan, Section 10. This guidance was public noticed for review and comment during the promulgation of the Wetlands Assimilation Rule WQ068, which was finalized on March 20, 2007. LDEQ's Continuing Planning Process requires that changes to this guidance must also be public-noticed for a review period. Much of the information in Mr. Bodker's commentary provided to us on the field trip is included in the guidance such as consideration of the type and location of the wetland, and hydrological studies of the wetland (flow volume and direction, channels and barriers). The monitoring which results from the baseline studies will be established in both the receiving wetland and a representative wetland reference site as part of the permitting requirements so the effects of the treated effluent on the receiving wetland can be evaluated.

LDEQ agrees that wetland assimilation should be a part of an effective, comprehensive wetland restoration and management plan. Additionally, the regulatory framework for discharges to a wetland must ensure that the designated and existing uses are protected, as they are for other surface waters of the state. Careful consideration of site-specific conditions is absolutely essential to effective implementation of wetland assimilation projects.

LDEQ has sponsored several workshops on wetland assimilation and there have been numerous scientific presentations and peer-reviewed publications on permitted sites in coastal Louisiana. Most recently, EPA and LDEQ hosted two workshops for those interested in the wetland assimilation process in Thibodaux and Lake Charles in response to post-hurricane activities, primarily to benefit Katrina and Rita-impacted communities. While LDEQ recognizes the wealth of sound science supporting the wetland assimilation concept, we also recognize that the application of this science to specific project sites requires careful consideration of many components. We are willing to discuss a forum that would be most beneficial to the public, the

regulated community and the governmental entities involved. The LDEQ continues to encourage your participation in permit development and looks forward to dialogue with your organizations on ensuring that waste water discharge permits are issued in a manner that is protective of Louisiana surface waters.

Thank you for both participating in the field trip and thoughtfully conveying your questions and concerns. We appreciate your willingness to support the process in general, and to work toward addressing specific concerns. We hope that this response has been helpful, and ask you to contact me at the telephone number on the first page of this letter, or Dugan Sabins at (225) 219-3553, if you have further questions.

Sincerely,

Karen Gautreaux
Deputy Secretary

klp

c: Mayor Mason Foster, City of Hammond
Mr. Garry Knight, City of Hammond
Mr. Chuck Spangler, P.E.
Dr. Garry Shaffer, Southeastern Louisiana University
Dr. John Day, Louisiana State University
Dr. Mike McDaniel, LDEQ
Mr. Chris Piehler, LDEQ
Mr. Dugan Sabins, LDEQ
Ms. Kristine Pintado, LDEQ