



REQUEST FOR PROPOSALS

1. Introduction

Lafayette Consolidated Government (hereinafter “LCG”) is pleased to issue this Request for Proposals (RFP) for the development of a Model Community Watershed Development (MCWD) Plan (hereinafter “Plan”). We are seeking an innovative, and multi-disciplinary planning consultant team (hereinafter “Team”) that will lead LCG in developing a MCWD Plan that is as unique and creative as its community.

The consultant qualifications, process, scope of the Plan, and the requirements for responses to this RFP are described below. The budget for this project is \$164,000.

2. Project Description

The Marais des Cannes is Phase I of a pilot Model Community Watershed Development (MCWD) Project located in Lafayette Parish near the City of Scott, in South Louisiana. The project will develop a set of model environmental, regulatory, and financial water management tools that will be made available for implementation in other communities. These tools will include traditional methods, such as retention and detention ponds, in addition to innovative land use tools, such as wildlife management areas, educational trails, and clustered residential and commercial mixed use development. Some of the benefits to be created as part of the project include flood protection, the removal of pollutants from runoff, and the creation of high quality wildlife habitat.

The MWCD planning area includes portions of the City of Scott and unincorporated land areas within Lafayette Parish, all under the jurisdiction of Lafayette Consolidated Government. The Plan must communicate understandably and compellingly to the public, government officials, the real estate industry, businesses and potential investors, and other stakeholders.

The MWCD Plan must embody an authentic recognition of Lafayette’s unique weather patterns and other related weather events and opportunities for best management of stormwater collection/ harvesting practices. Additionally, the MCWD Planning Team must acknowledge the personality, culture, art, food, architecture and music of this area as opportunities in the creation of a place safe from flooding within a living, breathing

community. At the same time these elements must leverage economic health and ecological prosperity and sustainability.

LCG and the City of Scott have received funding from the Louisiana Recovery Authority, which is now incorporated into the Louisiana Division of Administration, Office of Community Development, Comprehensive Resiliency Program Section. The MWCD must link together all elements of community growth and change, including previously completed planning efforts and plans to coordinate the two projects so that the results of each are complimentary.

The Plan must be the result of a respected, validated, and credible process. A public education component and maximum, meaningful stakeholder and community involvement is critical to project success, too. Finally, it must be implementable, and it must be driven by unique efforts that are doable.

3. Lafayette Description

Lafayette Parish is located in the south-central Louisiana, where Interstates 10 and 49 intersect. According to the 2010 US Census estimate, the parish population is approximately 210,954 (an 11% increase over 2000). The City of Lafayette has a population of 112,000 and is the fourth largest city in the state. Lafayette Parish is comprised of the City of Lafayette, as well as the municipalities of Broussard, Carencro, Duson, Scott, and Youngsville, and the unincorporated areas.

The preliminary Floodway Maps developed by the Federal Emergency Management Agency (FEMA) indicate that much of Lafayette Parish is in regulatory floodways. The total area in the parish is 270.64 square miles. Of that total, 24.46 square miles are floodway (9% of total parish area) while another 99.33 square miles are in the floodplain (36% of total parish area). Thus the total regulated area equals 123.79 square miles or about 45% of total parish area.

In addition to its strong business climate, Lafayette Parish is the heart of a unique cultural region, called Acadiana. The area is famous world-wide for its mix of hard-working, fun-loving, community and family-oriented people, and has a strong tourism industry as a result. Acadians (corrupted in Louisiana to “Cajuns”) originally founded the community now known as Lafayette in 1821, some decades after they were expelled from Nova Scotia. Lafayette is known for its local artists and musicians, festivals (including two yearly international music festivals), Cajun and Creole food, Cajun and Zydeco music, and recreational opportunities. The people in this area celebrate an abundance of hunting, fishing, and boating opportunities including the use of the Atchafalaya Basin and the Vermilion River, which runs through the middle of the Parish of Lafayette.

3.1 Planning Area

The planning area is located in the Isle Des Cannes Watershed (44.3 square miles) which is served by a natural channel named Coulee Isle des Cannes.

A set of digital maps are available as part of the scope of services showing aerial photographs for 1958, 1974, and 2009, the flood plains and flood ways, the location of municipal corporate limit lines of Scott, and a host of other features useful in reviewing the project deliverables.

3.2 Conceptual Master Plan

The LCG planning staff prepared a conceptual master plan of North and South Design Areas as a starting point. The plans contain concepts to be used in the design of the MCWD, but will be refined through the participation of project staff and consultants. The concepts are represented in the application text and drawings for funds from the Louisiana Recovery Authority's Comprehensive Resiliency Program. Readers should read these documents and review the drawings to familiarize with the project located on the LINC website at the following address: http://www.lafayettelinc.net/LINCWeb/CMP/DRAIN/proj/marais_des_canne/Marais_des_cannes.asp.

Historically, residential and business developments have bypassed these kinds of areas below the one hundred year flood plain and areas in the floodway. The MCWD seeks to utilize this type of marginal land in ways that seeks large-scale regional or watershed-wide solutions.

3.3 Background and Baseline Data

The consultants will be provided with background data that characterizes the project planning area. The GIS data to be provided includes: planning area boundaries, business and residential property owners, existing land use, infrastructure inventory (sewer, water, drainage, electrical, streets, sidewalks), demographics, traffic data, historic properties, environmentally sensitive sites, utility companies service areas, existing commercial signage, employment data, and crime data.

In addition, the hydrological data will be derived from using a computerized hydrological model with two foot contours of Lafayette Parish. The model was developed by consultants for the US Corps of Engineers for the use of Federal Emergency Management Administrations (FEMA) and The Federal Insurance and Mitigation Administration (FEMA) for its National Flood Insurance (NFIP) program for Lafayette Parish. The contour map is available in large scale paper maps generated by AutoCAD and ESRI document formats for use as well as in hydrological models (HEC-RAS).

4. Selection Process and Calendar

Below is the schedule for the RFP qualification process, as well as the *tentative* schedule for the RFP selection process:

- May 15th, 2011: RFP issued
- June 10rd, 2011: RFP responses due
- June 17th, 2011: Shortlist interviews
- July 1st, 2011: Consultant selection announced by LCG

All questions regarding the RFP shall be *received in writing* at the following email address, by the date/time shown above:

Mike LeBlanc, [AICP](#), Planning Manager, Special Projects Division
mleblanc@lafayettela.gov

All RFP submissions shall be *received* by the LCG in hard-copy to the following address by the date / time shown above (faxed or electronically transmitted RFP responses shall not be accepted under any circumstances):

Michael Hollier, Planning Manager
Lafayette Consolidated Government
Traffic & Transportation Department, Planning Division
101 E. Cypress, Lafayette, LA 70502
Second Floor
Attention: Charlene Savage

The LCG reserves the right to modify this schedule at its discretion.

Consultants submitting responses to this RFP will be evaluated according to the following (see RFP requirements below, Sec. 6). The total number of points allocated are 100 points.

A. Applicability of firm philosophy and consistency with the Lafayette community culture, values, and specific knowledge of the hydrologic concerns in this Parish as well as demonstration of how consultant will address culture, existing planning efforts, and Lafayette's other assets **(10 points)**.

Added to RFP Revised 5/17/2010

B. Demonstration of relevant qualifications, specifically detailing those capabilities that will address the concerns and subject areas delineated in Section 5, below and include consideration of qualifications offered by proposed subcontractors **(20 points)**.¹

Added to RFP Revised 5/17/2010

C. Demonstration that the proposed cost of project is within budget with five points awarded to proposals that attest that the project can be completed for \$164,000 and an additional point awarded for every \$ 5,000 less than \$164,000 for a maximum of another five points. **(10 Points)**.²

D. Documentation of the firm's or group of consultants' extensive academic training, and professional certification in the areas of hydrology, ecology and permit compliance, economic planning, and civil engineering **(30 points)**.

E. Demonstration of relevant experience, specifically detailing projects of similar type, scale, scope, and complexity executed for clients of similar size, population, planning capability/capacity, and with similar existing plans. This evaluation criterion will include consideration of experience offered by proposed subcontractors **(10 points)**.

F. Demonstration of familiarity with existing Lafayette Stormwater Management, LCG Dept. of Public Works, LINC Planning efforts, both completed and ongoing (see <http://www.lafayettelinc.net>) and a strategy for validation, implementation and, when appropriate, integration in the Plan **(10 points)**.

G. Applicability of the firm's project statement to Lafayette Parish and the Plan it envisions **(5 points)**.

H. Overall packet organization and ease of use **(5 points)**.

5. Process Components and Plan Elements

The below-mentioned list describes desired process components and plan elements that will be addressed by the consultant. LCG requests a full work plan, schedule, or budget. However, consultants should demonstrate via their firms' philosophies, experience,

¹ The point system was revised to reduce the number of points from 30 to 20 points for relevant qualifications.

² The point system was revised to add 10% of all points are based on cost effectiveness and its evaluation.

qualifications, and project approaches (see Sec. 6, below) that consultants have the capability to directly and concretely address the following process components and plan elements.

LCG has identified, via selected interviews and best practices reviews, desired components of a process for the development of the Plan. The model regional storm water facility for the MCWD should include, at a minimum, the following components/characteristics:

- a. Lakes with Adjoining Greenways** – consideration to provide buffering of adjacent land uses, providing recreation, improving water quality through bio-filtering, and creating wildlife habitat.
- b. Coulee By-Pass Structures** – consideration of passive diversion of water from existing coulees when flood stage is reached and then conveying water to storage areas (lakes and wetlands).
- c. Terraced, Natural Coulees** – consideration for planting trees and vegetation thereby slowing storm water discharge, filtering out sediments and pollutants, reducing erosion, reducing water temperature, and increasing water oxygenation. The design of shallow multi-terraced slopes allow for easy access and easy maintenance, aesthetic interest when not conveying storm water, and providing high-capacity channels when storm water is at peak levels.
- d. Dry Retention Areas** – consideration for creating of recreation areas such as golf, soccer, baseball, football fields etc. despite periodic inundation. They can also provide buffers between land uses.
- e. Constructed Wetlands** – consideration for improving water quality, provides access to educational and eco-tourism opportunities, provides area to preserve wildlife, and promotes healthy biodiversity.
- f. Waterfront Mixed-Use Development** – consideration for allowing for urban densities in close proximity to a constructed natural and park-like development in limited areas. The original concept proposed 216 4-story townhouse residential units. The ownership of the residential and commercial units may be held by a Community Land Trust (CLT) as described in Section 3.f, Community Land Trust (CLT), of the original grant application.
- g. Mitigation Banks** – consideration for the creation and enhancement of low-lying areas that are classified as wetlands by the Corps of Engineers that can be purchased to replace other wetlands that will be lost in other projects.

6.0 Project Deliverables

The project deliverables are documents composed of words, calculations, and drawings, that taken together provide a set of templates of hydrological and city planning concepts for wetlands as well as retention and detention areas within a watershed planning area.

The deliverables are reports which describe model concepts that taken together form a template that can be adapted to similar areas in Louisiana. The template can be used to plan the Marais des Cannes, Phase 1 as well as subsequent phases and other projects in other watersheds to a level of sufficient detail that design engineering and construction documents can be developed directly from the project deliverables.

6.1 Project Staff Personnel

The lead consultant shall be the **Hydrologist** who directs the work of the **Ecologist/Permit Compliance Specialists, Economist, and Civil Engineer**. These consultants will be aided by LCG staff composed of city planners, landscape architects (RLA), architects (AIA), civil engineers, and environmental compliance specialists.

1. **Hydrologist** – The activities of the hydrologist can be summarized as to design a water management system that complies with the following requirements:
 - a. Provide flood protection for residents of the Coulee Isle des Cannes watershed;
 - b. Comply with requirements for the Corps of Engineers related to wetland protection and Section 404 of the Clean Water Act;
 - c. Comply with the requirements of FEMA related to the issuance of the Conditional Letter of Map Revision (CLOMR); and
 - d. Provide improved water quality for rain water flowing through the Coulee Isle des Cannes.
 - e. Design and document the distribution of spoil on the project site.
 - f. Calculate cut volumes of spoil as well as participate in the determination of its monetary value.

2. **Ecologist/Permit Compliance Specialist** – The primary activities of the ecologist/permit compliance specialist can be summarized as to:
 - a. Designing compatible ecological niches for wildlife protection areas in close proximity to human habitations within the Isle des Cannes watershed.Utilize the techniques and procedures to provide maps as outlined in the US Army Corps of Engineers Wetlands Delineation Manual to identify preliminarily wetlands for the area identified as the North Design Area and the South Design Area.

3. **Economist** – The primary activities of the economist can be summarized as to:

- a. Identify a list alternative of financial incentives and implementation strategies that encourages public and private investment in MCWD developments.
4. **Civil Engineer** – The primary activities of the civil engineer can be summarized as to:
- a. Design and document appropriate water control structures as model MCWD alternatives.
 - b. Design and document appropriate other structures as listed in Appendix A as model MCWD alternatives.

6.2 Anticipated List of Project Deliverables

Attached as an appendix is the Scope of Work that includes a list of deliverables. Some negotiation is anticipated between LCG and the selected consultant as to the scope of work implied by the list. Some deliverables may be included within other reports for the reader's convenience and ease of use.

- Deliverable 1 – Wetland Mitigation Report
- Deliverable 2 – Mitigation Prospectus
- Deliverable 3 – Mitigation Agreement
- Deliverable 4 – Cut Quantities
- Deliverable 5 – Flow Capacity
- Deliverable 6 – Impact Fee Calculation
- Deliverable 7 – Detention and Retention Rates
- Deliverable 8 – Coulee X-Sections
- Deliverable 9 – Core Sampling Program
- Deliverable 10 – Hydrological Plan
- Deliverable 11 – Ecological Niche Map
- Deliverable 12 – Plant and Fauna Report
- Deliverable 13 – Wildlife Matrix Report
- Deliverable 14 – Model Landscape Ordinance
- Deliverable 15 – Permit Plan
- Deliverable 16 – Soil and Water Report
- Deliverable 17 – Wetland Delineation Map
- Deliverable 18 – Contact with NRCS
- Deliverable 19 – Existing Plant and Fauna Report
- Deliverable 20 – EIS Outline
- Deliverable 21 – Model Plant and Fauna Management Plan
- Deliverable 22 – Model Vermin and Invasive Plant Plan
- Deliverable 23 – Area Project Maps
- Deliverable 24 – Real Estate Development Plan
- Deliverable 25 – Cut and Fill Sales Report
- Deliverable 26 – Marketability Report
- Deliverable 27 – Public and Private Financing Report

Deliverable 28 – Model Subdivision Covenants
Deliverable 29 – Mitigation Bank Marketability Report
Deliverable 30 – Ownership Alternatives Report
Deliverable 31 – Model Land Use MCWD Ordinance
Deliverable 32 – Transportation Structures
Deliverable 33 – MCWD Drainage Structure Typology
Deliverable 34 – Stormwater Structures Report
Deliverable 35 – MCWD Utility Systems

This list of topical elements are further defined in the attached Scope of Work. It should be understood by the consultant that narrowing, defining, and coordinating a viable, implementable, and meaningful Scope of Work will be an iterative process that arrives at a final Scope of Work and work plan during contracting and the kick-off phase of the planning process.

The Plan currently being contemplated is fully expected to engage and build upon previous efforts to define existing conditions as well as vision and goals, as well as specific future actions, programs, and policies. However, these documents should be used as a starting point (but not a constraint) that will be refined, added to, improved upon and/or revamped through an inclusive and participatory planning process. The planning process will be expected to contain a methodology specifically intended to validate, and, if and when appropriate, incorporate existing planning efforts, as well as to describe specifically how existing planning work will provide guidance or structure to the MCWD Plan process, while also allowing for innovation, new directions, and public/stakeholder input.

Consultants are encouraged to demonstrate creativity and an ability to define a coordinated planning process that meets and exceeds the expectations described above. The above lists and descriptions of MCWD process components and plan elements are subject to change pending discussion with consultant(s), additional input from LCG departments, additional best practices research, or for any other reason at the LCG's discretion.

7. RFP Content Requirements

Applicants must submit three (3) identical copies of a thoughtful, clear and well-organized proposal that demonstrates consultant qualifications and achieves the goals outlined herein. Submittals should be printed on letter-size (8.5" x 11") paper and assembled with spiral- or ring-type binding. Include a Table of Contents for the proposal and provide page numbers for each part of the proposal, as well as any separate attachments. All pages in the proposal should be numbered.

The proposal should include the following items:

- a. Statement of Interest/ Cover Letter** - Provide a statement of interest for the project. The letter, written on the firm's letterhead, shall cite the individual who will be the primary point of contact for matters relating to the proposal and shall be signed by an individual with the authority to commit the firm to the project. It should also include full contact information such as name, address, telephone, fax, and email address. The letter shall further include a narrative summary of the strengths brought by each team component.
- b. Statement of Understanding of the Work** - Responding consultant teams must describe their understanding of the work being solicited and their philosophical approach. The format, content, and length of this statement are entirely at the discretion of the respondent.
- c. Proposed Work Plan with Timelines** - Respondents will provide a detailed proposed work plan and timeline. Respondents are encouraged to comment or recommend improvements to the Scope of Work. The proposed work plan including: planning methodology, technology and resources to be used, public participation strategy, and implementation approaches. The work plan must fully address requirements described in Section II of this RFP.
- d. Project Personnel, Bios, and Relevant Experience** - Respondents will provide an organizational chart showing the roles of the lead firm and any sub-consultant firms or individuals. Proposals will describe the project assignments and system/structure of authority and communication between principals and key professional members of the lead firm and sub-consultant(s). Also provide qualifications and experience of the principals and key professional members of the consultant team that will be involved in the project. Give particular attention to the applicable experience of the lead firm, including experience with similar projects and specific issues relevant to this project. It is strongly recommended that the consultant team include at least one Louisiana-based firm.
- e. Representative Projects** - Respondents will provide a brief narrative for a maximum of five projects performed by the lead firm and a maximum of three projects for any sub-consultant that are most similar and relevant to this project, and that have been completed within the last seven years. Current contact information for all projects listed should be included.
- f. Proposed Budget** - Respondents will include a detailed budget for the proposed SOW. Each team member's hourly rate and projected hours (by task) should be noted, in addition to projected costs for project management/ administration, and expenses.
- g. Work Samples** - Respondents will include comparable work products for the lead firm and all sub-consultants. Sample work products may be submitted in *.pdf format on a CD-ROM. If the team submits a CD-ROM, please provide one disc per package to ensure that each member of the selection committee has access to materials on the disc.

- h. Additional Information** - Respondents will provide any additional information that the lead firm believes may better describe its qualifications or be of benefit to the Lafayette Consolidated Government or the Center for Planning Excellence.

9. Special Instructions

Respondents shall restrict all contact and questions regarding this RFP and selection process to the individual named herein. Questions concerning terms, conditions and technical specifications shall be directed *in writing* to: Mike LeBlanc by email @ mleblanc@lafayettela.gov.

Respondents and their agents are strictly prohibited from lobbying members or representatives from the following: Lafayette Consolidated Government, Planning and Zoning Commission, Council members, parish/city staff members, Lafayette Comprehensive Plan Advisory Committee members, Lafayette In a Century (LINC) committee members, and any citizens involved in the selection process. Failure to comply with this clause shall be grounds for rejection of their RFP as non-responsive.

Professional services are procured in accordance with Louisiana Law and the Home Rule Charter of LCG. Selection of the most highly qualified respondent will be made on the basis of demonstrated competence and qualifications as determined by the LCG Professional Services Committee based upon the proposal submitted in response to this RFP, the RFP, and the interview. LCG reserves the right to reject any and all proposals, to waive any and all formalities outlined in the RFP and in the selection process and generally to make the award that, in its judgment, will best meet the objectives stated in this RFP. The LCG also reserves the right to request additional information and/or proposal clarifications from any or all respondents to assist in its evaluation process.

Expenses incurred by the respondents in replying to the RFP or in making any appearance before the Selection Committee are at the respondents' own expense and risk.

All dates in the RFP are subject to change, and notice of any changes will be provided to all respondents.

10. Miscellaneous Provisions

- a. Rights of Negotiation** - LCG reserves the right to waive any and all irregularities in submittals, and to negotiate with any party.
- b. Cancellation of RFP** - LCG reserves the right to cancel the RFP at any time. All costs incurred by the Proposer in preparing and responding to this solicitation are the sole responsibility of the Proposer and shall not be reimbursed by LCG.

- c. **Further Process** - LCG reserves the right to interview only those respondents it determines shall provide the most advantageous services and to negotiate with one or more respondents to contract terms acceptable to LCG.
- d. **Nondiscrimination** - LCG notifies all possible Proposers that no person shall be excluded from participation in, denied any benefits of, or otherwise discriminated against in connection with the award and performance of any contract on the basis of race, religious creed, color, national origin, ancestry, physical disability, sex, age, ethnicity, or on any other basis prohibited by law.
- e. **Distribution of Proposals** - All documentation, information or data provided by the Proposer as part of its submission (whether in writing and/or digital format) shall become the property of LCG. LCG is subject to Louisiana Public Record Law.
- f. **Public Disclosure** - LCG may publish the names of all Proposers on its Website. Proposals will be distributed to members of LCG's evaluation team. LCG reserves the right, at its sole discretion, to use without limitation, any and all information and data submitted in response to the RFP or derived from further investigation of any submittal.
- g. **Notice Conflicts of Interest** - The Proposer and subconsultants shall identify any group, individual or organization that they may have worked for, or currently work for, that has had ownership, lease, development, related or similar interest in LCG and shall disclose such potential conflicts of interest to LCG. LCG reserves the right to reject any proposal or Proposer who it feels has a conflict of interest.
- h. **Exclusion of Team Member** - LCG reserves the right to require any Proposer to exclude or replace one or more subconsultants included in Proposer's proposal with other subconsultants satisfactory to LCG.
- i. **News Release** - Proposer shall make no new/press release pertaining to this RFP or anything contained or referenced herein without prior written approval from LCG.
- j. **Application Law** - This RFP and any contract or agreements resulting herein are subject to all applicable Federal, state and local laws, rules, regulations and executive orders.

Published: The Daily Advertiser newspaper on May 13th, 2011, May 22nd, 2011, May 29th, 2011. RFP and the SOW are available on the Lafayette Consolidated Government's, LINC website on May 13, 2011.

Revised: On May 17, 2011, the point system was revised as footnoted in Section 4, Selection Process and Calendar.

MARAIS DES CANNES – PHASE 1 SCOPE OF SERVICES

1.0 MODEL COMMUNITY WATERSHED DEVELOPMENT

The Marais des Cannes is Phase 1 of the Model Community Watershed Development (MCWD) Project is located in Lafayette Parish near the City of Scott in South Louisiana. The project will develop a template of model environmental, regulatory, and financial water management tools that will be made available for implementation in other communities. These tools will include traditional methods, such as retention and detention ponds, in addition to innovative land use tools, such as wildlife management areas, educational trails, and clustered residential and commercial mixed use development. Some of benefits to be created are flood protection, the removal of pollutants from runoff, and the creation of high quality wildlife habitat.

The reader is cautioned that the document utilizes the convention of referring to the particular project as the Marais des Cannes, Phase 1 for deliverables that deal with the planning area. However, references to the MCWD refer to conceptual application of a set of templates can be used and modified by others to be followed in developing potential projects in South Louisiana.

2.0 PLANNING CONTEXT

The governmental structure of Lafayette Consolidated Government (LCG) includes the municipal limits of the City of Lafayette and the unincorporated areas in Lafayette Parish. In addition to Lafayette Consolidated Government, there are five other municipalities in the parish: Broussard, Carencro Duson, Scott, and Youngsville. The project is partially located in Scott, Louisiana. The City of Lafayette has zoning in place and the unincorporated parts of the parish have only subdivision regulations. The City of Scott has received a grant from the same agency for the development of a municipal master plan with a focus on drainage issues. Preliminary plans are to coordinate the two projects so that the results of each are complimentary.

The preliminary Floodway Maps developed by the Federal Emergency Management Agency (FEMA) indicate that much of Lafayette Parish is in regulatory floodways. The total area in the parish is 270.64 square miles. Of that total, 24.46 square miles are floodway (9% of total Parish area) while another 99.33 square miles are in the floodplain (36% of total Parish area). Thus the total regulated area equals 123.79 square miles or about 45% of total Parish area.

2.1 Planning Area

The planning area is located in the Isle Des Cannes Watershed (44.3 square miles) which is served by a natural channel named Coulee Isle des Cannes. The watershed is about 12.4 miles from north to south and about 4 miles from east to west at its widest point. The project area is in the upper reach of the coulee and in the northern area of the watershed. The planning area is a subarea of the watershed containing 3,888 acres (6.1 square miles). Within the planning area, there are two design areas where most of the planning work will occur. The North Design Area is located north of the I-10, with 487.68 acres, while the South Design Area is located south of I-10, with 591.43 acres. The distribution of regulatory drainage ways in these two areas are summarized in the table below:

| Table 2.1 Lafayette Consolidated Government – Marais des Cannes, Phase 1 Distribution in Acres of the Regulatory Status in Design Areas | | | | | |
|--|-----------------|-------------------|---------------------------------------|--------------------|------------------------------|
| Planning Area | Floodway | Floodplain | Elevated Above Floodplains | Total Acres | Roofed Structures |
| North Design Area | 260.38 | 176.34 | 51.06 | 487.68 | 35 |
| South Design Area | 330.82 | 171.28 | 89.33 | 591.43 | 44 |
| Sub Total | 591.20 | 347.62 | 140.09 | 1,079.11 | 79 |
| Remaining Planning Area | 586.69 | 1,820.34 | 3,607.86 | 2,809.23 | 716 |
| Grand Total | 1,177.89 | 2,167.96 | 542.49 | 3,888.34 | 795 |

The planning area is generally bound by the following roadways:

1. North by Rue Novembre
2. South by Fenetre Road
3. East by La Hwy 93, Apollo Road, Provost Road, Topeka Road, and Tabb Road
4. West by Janvier Road, Rue Septembre, and Andres Road

The North Design Area is delimited by the following roadways:

1. North by Rue Bon Secours
2. South by Interstate 10
3. East by La Hwy 93
4. West by Rue Septembre

The South Design Area is delimited by the following roadways:

1. North by Interstate 10
2. South by Cameron Street (US Hwy 90)
3. East by Apollo Road
4. West by Andres Road

A set of digital maps are available as part of the scope of services showing aerial photographs for 1958, 1974, and 2009, the flood plains and flood ways, the location of municipal corporate limit lines of Scott, and a host of other features useful in reviewing the project deliverables.

2.2 Conceptual Master Plan

The LCG planning staff prepared a conceptual master plan of North and South Design Areas as a starting point. The plans contain concepts to be used in the design of the MCWD, but will be refined through the participation of project staff and consultants. The concepts are represented in the application text and drawings for funds from the Louisiana Recovery Authority's Comprehensive Resiliency Program. Readers should read these documents and review the drawings to familiarize with the project.

The two Design Areas have 79 roofed structures, which are located in the floodway or the flood plains. Primarily, the land was converted for agricultural usage. The project will investigate regulatory tools to protect and mitigate wetlands, floodways, and floodplains. Significant portions will be converted to retention-detention areas with clustered mixed use development along with access roadways, pedestrian and bicycle trails, each of which may also be used as parkways and educational trails.

Historically, residential and business developments have bypassed these kinds of areas below the one hundred year flood plain and areas in the floodway. The MCWD seeks to utilize this type of marginal land in ways that seeks large-scale regional or watershed-wide solutions.

3.0 PROJECT DESCRIPTION

The pilot MCWD is proposed to contain a regional stormwater retention-detention facility several hundred acres in size designed for high storm water storage capacity, with elevated on-site areas using excavated dirt from lakes for amenities. The retention and detention lakes would reduce the risk of flooding in downstream areas by containing excess storm water until it can be recharged into the aquifer or control-released when over-burdened infrastructure can accept it. Some amenities may be located in the floodplain, floodway, and/or wetlands, requiring regulatory permits for the project from Federal Emergency Management Administrations (FEMA) , The Federal Insurance and Mitigation Administration (FIMA) and its National Flood Insurance (NFIP) program for Lafayette Parish, US Corps of Engineers as well as other state and local agencies.

The model regional storm water facility for the MCWD will include the following characteristics:

- A) **Lakes with Adjoining Greenways** – provide buffering of adjacent land uses, providing recreation, improving water quality through bio-filtering, and creating wildlife habitat.

- B) **Coulee By-Pass Structures** – passive diversion of water from existing coulees when flood stage is reached and then conveying water to storage areas (lakes and wetlands).
- C) **Terraced, Natural Coulees** – planted with trees and vegetation thereby slowing storm water discharge, filtering out sediments and pollutants, reducing erosion, reducing water temperature, and increasing water oxygenation. The design of shallow multi-terraced slopes allow for easy access and easy maintenance, aesthetic interest when not conveying storm water, and providing high-capacity channels when storm water is at peak levels.
- D) **Dry Retention Areas** – can be used for recreation areas such as golf, soccer, baseball, football fields etc. despite periodic inundation. They can also provide buffers between land uses.
- E) **Constructed Wetlands** – improves water quality, provides access to educational and eco-tourism opportunities, provides area to preserve wildlife, and promotes healthy biodiversity.
- F) **Waterfront Mixed-Use Development** – allows for urban densities in close proximity to a constructed natural and park-like development in limited areas. The original concept proposed 216 4-story townhouse residential units. The ownership of the residential and commercial units may be held by a Community Land Trust (CLT) as described in Section 3.f, Community Land Trust (CLT), of the original grant application.
- G) **Mitigation Banks** - involves the creation and enhancement of low-lying areas that are classified as wetlands by the Corps of Engineers that can be purchased to replace other wetlands that will be lost in other projects.

The planned structures proposed in this project are listed in **Appendix A - Planned Structures**.

4.0 PROJECT FUNDS AND STAFF

The funds for this project are provided through LCG from The State of Louisiana, Division of Administration, Office of Community Development – Disaster Recovery Unit for a Category 1 of the Comprehensive Resiliency Grant Program. This program is designed to provide comprehensive nonstructural recovery tools to some of our most at-risk communities. The grant funds will be used to pay a significant amount of LCG Staff time over a period of three years.

The Department of Traffic and Transportation, Metropolitan Planning Organization and Comprehensive Planning Division will provide the staff professional expertise of project managers as well as a landscape architect, an architect, an urban designer, several GIS specialists, several urban planners and several civil engineers.

Four consultant specialists – **Hydrologist, Ecologist, Civil Engineer, and Economist** – will be expected to work closely with LCG Staff over the three year period of the grant. Some or all of the specialists may be from the same firm or ad hoc group of consultants

who may apply separately or as a team. In addition, other departments of LCG may participate in the project.

5.0 COORDINATION WITH OTHER PLANS

The consultant should be familiar with Louisiana Speaks and other related documents, LCG's Lafayette IN a Century (LINC) Comprehensive Plan, and the local planning efforts in the City of Scott.

After hurricanes Katrina and Rita, Lafayette citizens participated in the Louisiana Speaks Regional Planning effort and the Lafayette Consolidated Government/Lafayette City-Parish Planning Commission has since adopted the Louisiana Speaks Regional Plan.¹ Furthermore, the recommendations in the MCWD should support to the Louisiana Land Use Toolkit², a land use planning document designed to be in board agreement with Louisiana Speaks. Finally, smart growth best practices should be consulted.³

LCG has developed the LINC Comprehensive Plan which contains twelve components of which one of the most significant elements is the drainage element. That element contains recommendations for retention-detention areas as well as other elements of the MCWD.⁴ In addition, the LINC Comprehensive Plan land use element recommends nodal development, which is currently being developed in two locations in Lafayette Parish, along with proposed guidelines. The MCWD resembles a nodal development with reduced residential and commercial acreage with significant mitigation in form of retention and detention areas, wildlife management areas and educational trails and parkways.

In addition, the City of Scott was awarded a similar grant from the same agency and coordination between their consultants and the LCG staff and consultant team has been recommended by the administration of the Comprehensive Resiliency Program Grant. The City of Scott is developing a master plan land use plan that incorporates resiliency storm water planning. Staff and consultants will be expected to provide and receive suggestions so as to make the two projects complementary.

6.0 BACKGROUND AND BASELINE DATA

The consultants will be provided with background data that characterizes the project planning area. The GIS data to be provided includes: planning area boundaries, business and residential property owners, existing land use, infrastructure inventory (sewer, water, drainage, electrical, streets, sidewalks), zoning; demographics, traffic data, historic properties, environmentally sensitive sites, utility companies service areas, restrictive covenants, existing commercial signage, employment data, and crime data.

¹ http://www.planningexcellence.org/louisiana_speaks_main.asp

² www.landusetoolkit.com

³ see <http://www.smartgrowthamerica.org/whatissg.html>

⁴ http://www.lafayettelinc.net/LINCWeb/CMP/DRAIN/DRAIN_intro.asp

In addition, the hydrological data will be derived from using a computerized hydrological model with two foot contours of Lafayette Parish. The model was developed by consultants for the US Corps of Engineers for the use of Federal Emergency Management Administrations (FEMA) and The Federal Insurance and Mitigation Administration (FEMA) for its National Flood Insurance (NFIP) program for Lafayette Parish. The contour map is available in large scale paper maps generated by AutoCAD and ESRI document formats for use as well as in hydrological models (HEC-RAS).

7.0 SUMMARY OF PROJECT DELIVERABLES

The project deliverables are documents composed of words, calculations, and drawings, which taken together provide a set of templates of hydrological and city planning concepts for wetlands as well as retention and detention areas within a watershed planning area.

The deliverables are reports which describe model concepts that taken together form a template that can be adapted to similar areas in Louisiana. The template can be used to plan the Marais des Cannes, Phase 1 as well as subsequent phases and other projects in other watersheds to a level of sufficient detail that design engineering and construction documents can be developed directly from the project deliverables.

The lead consultant shall be the **Hydrologist** who directs the work of the **Ecologist/Permit Compliance Specialists, Economist, and Civil Engineer**.

1. **Hydrologist** – The activities of the hydrologist can be summarized as to design a water management system that complies with the following requirements:
 - a. Provide flood protection for residents of the Coulee Isle des Cannes watershed;
 - b. Comply with requirements for the Corps of Engineers related to wetland protection and Section 404 of the Clean Water Act;
 - c. Comply with the requirements of FEMA related to the issuance of the Conditional Letter of Map Revision (CLOMR); and
 - d. Provide improved water quality for rain water flowing through the Coulee Isle des Cannes.

2. **Ecologist/Permit Compliance Specialist⁵** – The primary activities of the ecologist/permit compliance specialist can be summarized as to:
 - a. Design compatible ecological niches for wildlife protection areas in close proximity to human habitations within the Isle des Cannes watershed.

⁵ The work of the Ecologist may be divided between an ecologist proper who performs Task a while a permit compliance specialist may perform the tasks listed as Task b.

- b. Utilize the techniques and procedures to provide maps as outlined in the US Army Corps of Engineers Wetlands Delineation Manual for the area identified as the North Design Area and the South Design Area.
3. **Economist** – The primary activities of the economist can be summarized as to:
 - a. Identify a list alternative of financial incentives and implementation strategies that encourages public and private investment in MCWD developments.
4. **Civil Engineer** – The primary activities of the civil engineer can be summarized as to:
 - a. Design and document appropriate water control structures as model MCWD alternatives;
 - b. Design and document appropriate other structures as listed in Appendix A as model MCWD alternatives;
 - c. Design and document the distribution of spoil on the project site;
 - d. Calculate cut and fill volumes of spoil as well as its monetary value.

It should be noted that the hydrologist will select the order of magnitude of the stormwater event for planning of the Marais des Cannes Project. This single variable is the most important design decision to be made. The decision is important because the magnitude of the year storm event affects the total cost of the project and the amount of flood protection provided by the project to the residents within the entire watershed. The hydrologist will recommend what information, if any, will be needed from the consultant team and LCG Staff. The project manager will make a decision as to extent of the data that will be collected that balances these concerns of project cost and flood protection.

The consultants and project staff will be expected to participate in a public participation process whereby landowners in the project planning area will be contacted by mail and asked to participate in three design charettes of three hours each. The role of the consultants in public participation will be two-fold: (1) participant in the planning of the charettes to develop an agenda and a presentation for a project overview; and (2) answer questions posed by the public. Each consultants will provide three hours to the public participation process. The time will be allocated between one to three public meetings.

LCG Staff will develop a mailing list of landowners, schedule meetings, develop agendas, develop the presentation, and provide staff for the design charettes.

The staff and consultants will help to identify institutional stakeholders who have an interest in the project. This will include private and public sector agencies, firms, financial concerns and individuals who have a broad interest in the MCWD projects.

The consultants will identify federal, state, and local government grants and funding programs that can be leveraged by private institutional stakeholders.

The consultants will participate with LCG Staff landscape architect, architect, urban designer, and urban planners in the design and placement of facilities to enhance

aesthetics of the project as viewed from ground elevations and multistory elevations of residential buildings in views of lakes, ponds, retention and detention areas, access roadways, parkways, walking trails, bike paths, wildlife areas, coulees, constructed wetlands, and mitigation banks. Consultants and LCG Staff shall enhance ability of these passageways to act as educational exhibits that inform the public of ecological relationships between the plants, fauna and humans.

8.0 SPECIFIC DELIVERABLES

Each of the four major consultants will be expected to work with LCG Staff and other consultants on certain projects so as to produce specific joint deliverables through collaboration. Support by other consultants or LCG Staff may be given on individual deliverables, but it shall be under the direction and supervision of the individual consultant to produce the individual deliverables.

The primary activities of the consultants can be summarized as to:

1. Design flood protection within the watershed;
2. Improve water quality;
3. Create natural habitat for wildlife; and
4. Create areas suitable for mixed residential and commercial development.

The project is inter-disciplinary and requires the collaboration between team members, whose roles are discussed below for each specific deliverable. A listing of all project deliverables is presented on the attached chart, Marais des Cannes, Phase 1, Project Deliverable List. The list provides the name of the project deliverable and the name of team leader for a particular deliverables in charge of directing the completion of that project item as well as the team members who are under his direction. The chart also shows that the Project Manager will review the project deliverable during the process of its composition as well as in its draft form. The final approval of a deliverable will be by the Planning Manager.

8.1 Deliverable 1 – Wetland Mitigation Report Lead – Ecologist/Permit Compliance Specialist

Initial conversations by the LCG staff with the Corps of Engineers indicates that the Marais des Cannes, Phase 1 is not suitable for a mitigation bank. A checklist will be developed as to the variables to be considered so that other MCWDs might consider the essential variables to analyze for the establishment of a mitigation bank.

The Ecologist/Permit Compliance Specialist will work to provide technical expertise in developing a checklist and an example of documents used to create a mitigation bank.

This documentation will include a description of the process to create a mitigation bank including establishment of an Interagency Review Team (IRT), which is usually chaired by the US Corps of Engineers and provides regulatory review, approval, and oversight of documents needed to create mitigation banks. Typically, membership includes the US EPA, the US Fish and Wildlife Service, Louisiana Department of Natural Resources –

Coastal Management Division, Louisiana Department of Environmental Quality – Office of Water Resources, and Louisiana Department of Wildlife and Fisheries. FEMA does not usually participate in the IRT, but in this case, FEMA may participate because much of the project lies within a regulatory floodway.

8.2 Deliverable 2 – Mitigation Prospectus

Lead – **Ecologist/Permit Compliance Specialist**

The Ecologist/Permit Compliance Specialist will provide an example of a Mitigation Prospectus that analyzes both the physical and legal planning requirements of the mitigation bank. The Mitigation Prospectus will consider a broad range of factors applicable for any MCWD and not just factors affecting the Marais des Cannes, Phase 1 so that it may be used as a point of beginning in other projects. The document will be written so that some sections may be selected because of their applicability and other sections not selected because these sections would not be appropriate for the specific Marais des Cannes, Phase 1 planning area.

8.3 Deliverable 3 – Mitigation Agreement

Lead – **Consultant Civil Engineer**

The Civil Engineer will write an example of a Mitigation Agreement that allows transmission of mitigation credits between a developer and owner of the mitigation bank. The Mitigation Agreement will consider a broad range of factors applicable for any MCWD and not just factors affecting the Marais des Cannes, Phase 1 so that it may be used as a point of beginning in other projects. The document will be written so that some sections may be selected because of their applicability and other sections not selected because such sections may not be appropriate for the specific Marais des Cannes, Phase 1 planning area.

8.4 Deliverable 4 – Cut Quantities

Lead – **Hydrologist**

The Hydrologist will determine cut quantities of excavated soil for the Marais des Cannes, Phase 1 Project.

8.5 Deliverable 5 – Flow Capacity

Lead – **Hydrologist**

The Hydrologist will calculate the required flow capacity of water diversion and provide data to Civil Engineer for the design of water control structures (Deliverables 33 & 34) of Marais des Cannes, Phase 1 Project.

8.6 Deliverable 6 – Impact Fee Calculation

Lead – **Hydrologist, Team Members – Urban Planners**

The Hydrologist will develop a calculation of showing the amount of excess capacity storm water capacity that can be constructed in the Marais des Cannes, Phase 1 facility. Urban Planners will develop a method of calculation of impact fees that might be charged to landowners within a watershed when landowners select not to provide storm water management on their parcels and out-source the management of storm water management within the Marais des Cannes, Phase 1 project.

8.7 Deliverable 7 – Detention and Retention Rates

Lead – **Hydrologist**, Team Members –**Landscape Architect**

The Hydrologist will estimate the amount of time needed to detain and retain water to improve water quality and convey those findings to the LCG Landscape Architect.

8.8 Deliverable 8 – Coulee X-Sections

Lead – **Hydrologist**, Team Members - **Landscape Architect**

The Hydrologist will measure flow capacity and degree of roughness of the proposed coulee cross-sections and other drainage ways by participating with the Landscape Architect in the selection of plants, slopes of said drainage ways, lakes, coulees, dry retention areas, constructed wetlands, and mitigation banks. The goal is to design low maintenance waterways in terms of mowing and weed control, natural and community generated debris clearance, sedimentation minimization and sedimentation (spoil) deposition, and improved water quality.

8.9 Deliverable 9 – Core Sampling Program

Lead – **Geotechnical Engineer**; Team members: **LCG Urban Planners**;
Hydrologist

The response to this request for services may include or exclude a geotechnical engineer as part of the consultant team. If included, then LCG will contract with the geotechnical engineer through one contract with a consortium of consultants. If excluded, then LCG will contract with the geotechnical engineer directly.

Nearly all services being requested by this request for qualifications is to be funded by a grant from the State of Louisiana, Office of Community Development (OCD). Geotechnical services are not funded by this OCD grant. It is the intent of LCG to seek additional funding for sampling of cores and services of a geotechnical engineer. Funding may or may not be available.

If funding is available as the first alternative, then the geotechnical engineer will work with the team selected by this scope of services to locate the bore holes and analyze the cores.

A geotechnical engineer will direct the core sampling program to determine potential depths of lakes, retention/detention areas, and coulees so as to best achieve water retention and sediment filtration.

LCG Planners will provide land owner releases allowing the collection of core samples. In addition LCG urban planners will serve as a point of contact between the geotechnical engineer, and the land owners.

The geotechnical engineer will determine the location of bore holes by analyzing parcels where landowner gave given approval to allow core sampling. The geotechnical engineer will direct LCG urban planners in staking of bore hole locations and calculating their state plane coordinates and elevations using GIS aerial photographs, lidar point data, and two foot contour FEMA maps.

The geotechnical engineer will provide a scope of services and a draft contract for the selection of the core sampling contractor. The geotechnical engineer will oversee the mobilization and the collection of core samples in the field.

The deliverable for this first alternative is a report with two components: (1) a description of the relationships between the core samples and the types of soils found in the design areas; and (2) a recommendation as to the surface boundaries, subsurface configuration, location and depth of retention and detention ponds that will hold water.

If funding is not available as the second alternative, then sampling of cores and associated geotechnical consultant services will not occur. Under this second scenario, the geotechnical engineer will work with the team selected by this scope of services to provide and analyze the best available existing geotechnical data for the design areas. The deliverable for the second alternative is a report with a recommendation as to the surface boundaries, subsurface configuration, location and depth of retention and detention ponds that will hold water.

Under either the first or second alternative, an additional geotechnical deliverable is required: a report will be written by the geotechnical engineer who will describe remedial steps to be taken when strata that does not hold water is encountered during excavations and how to engineer retention of water when such strata is excavated.

No drawings or reports are required to be stamped by the geotechnical engineer.

8.10 Deliverable 10 – Hydrological Plan **Lead – Hydrologist**

The Hydrologist will deliver a hydrological plan containing drawings and calculations that depict location, extent, depth, capacity, and profile of lakes, terraced coulees, dry retention areas, constructed coulees and wetlands, and mitigation banks and manner in which water flows through said drainage ways.

8.11 Deliverable 11 – Ecological Niche Map **Lead – Ecologist, Team Member – Landscape Architect**

The Ecologist will collaborate with the Landscape Architect to create ecological niches that will provide high quality habitats for wildlife, which will not conflict with human utilization of a MCWD. If conflicts do occur, then mitigation of the effects on human populations will be provided. A map showing the location of the niches is required.

8.12 Deliverable 12 – Plant and Fauna Palette Report

Lead – Ecologist, Team Member – Landscape Architect

The Ecologist will collaborate with the Landscape Architect to develop a palette of plant and fauna species that fit different ecological niches so that the Landscape Architect may select those plant species which provide good habitat as well as have good aesthetic values. The palette will be selected for the area generally south of Interstate 10 in Louisiana. The niches and species will be inventoried in the Plant and Fauna Report written in a manner that an educated layman may understand the relationships between niches, and the internal relationships between plants and fauna. The report may contain maps, drawings, graphs, and overlays.

8.13 Deliverable 13 – Wildlife Matrix Report

Lead – Ecologist, Team Members – Landscape Architect, Architect, Urban Designer, Urban Planners

The Ecologist will collaborate with the Landscape Architect, Architect, and Urban Designer in the selection of plants that attract wildlife, which may live in close proximity to human habitations. In addition, the Ecologist will collaborate with the Landscape Architect to select plant species that do not require periodic burning to regenerate the ecological system or maintenance of growth so that ecological niches are sustainable. The Urban Planners will document how these species may affect the urban and architectural design. A Wildlife Matrix Report will be required to document these findings.

The ecologist will write the Model Plant and Fauna Management Plan, which will describe how a model MCWD will be managed so as to enhance creation and maintenance of high quality wildlife areas in terms of five, ten, fifteen, and twenty-year horizons.

8.14 Deliverable 14 – Model Landscape Ordinance

Lead – LCG Urban Planners, Team Members – Landscape Architect, Architect, Urban Designer

The LCG Urban Planners will seek advice from the Landscape Architect, and Architect to create a model landscape ordinance to create areas that improve wetland functioning and water quality.

8.15 Deliverable 15 – Regulatory Permit Plan

Lead – Ecologist/Permit Compliance Specialist

The ecologist/permit compliance specialist will provide advice and expertise to other project consultants and LCG Staff in compliance with regulatory requirements of US Corps of Engineers and wetland permitting; with FEMA and regulatory floodways and floodplains; and with other environmental agencies that have purview on a MCWD. A Permit Plan will be written that describes the permits required of MCWD's in Louisiana and the typical sequence that permits are applied for. Included in the Permit Plan will be agency correspondence related to the Marais des Cannes, Phase 1 Project requesting initial comments and reviews. However, no permits will be applied for in the Marais des Cannes, Phase 1.

8.16 Deliverable 16 – Soil and Water Report

Lead – **Ecologist**, Team Members – **Landscape Architect, Architect, Urban Designer, Urban Planners**

The Soil and Water Report contains information related to niches and species and their relationship to chemical properties and retention times of storm water. The information will be presented as part of the Wildlife Matrix Report in Section 8.13 above.

8.17 Deliverable 17 – Wetland Delineation Map

Lead – **Ecologist/Compliance Permit Specialist**, Team Members – **Urban Planners**

The Ecologist will be responsible for determining the preliminary regulatory status of wetlands and for wetland delineations that may be required by the Corps of Engineers. The preliminary regulatory status will be determined by a desktop evaluation of maps provided by LCG (as described below) as well as other resources available to the consultant. Additionally, 24 professional hours will be devoted to field research for the North Design Area along with another 24 professional hours to be devoted to the South Design Area for a total of 48 total hours of field research. The North and South Design Areas are defined in Section 2.1.

The LCG Staff will provide aerial photographs of the planning area in 1958, 1974, and 2009 which indicates that the area was predominately prior converted to agriculture before 1975. Prior conversion to agriculture may considerably reduce the work of indentifying wetlands on the ground because of the prior conversion to agriculture and the regulatory status as promulgated by the Corps of Engineers.

The LCG staff from has both training and experience in identification of soils and plants. The LCG staff may participate in the project providing field work under the direction of the ecologist.

8.18 Deliverable 18 – Contact with NRCS

Lead –**LCG Staff** Team Members – **Ecologists/Compliance Permit Specialist**

The prior converted status of wetlands to agriculture may require contact with the Natural Resources Conservation Service (NRCS), who will be contacted by LCG Staff under the direction of the Ecologist/Compliance Permit Specialist.

8.19 Deliverable 19 – Existing Plant and Fauna Report

Lead – Ecologist

The ecologist will prepare a five-page summary of the existing conditions of the project area before construction. The summary will contain a list of plant and fauna species currently located in the area and their relationships.

8.20 Deliverable 20 – EIS Outline

Lead – Ecologist

An environmental impact study (EIS) may be required in some MCWD projects. To facilitate creating an MCWD EIS, the ecologist will provide an outline of the chapters and major headings. The outline will contain short summaries of each chapter and major subheadings. The maximum length of this report is twenty pages.

8.21 Deliverable 21 – Model Plant and Fauna Management Plan

Lead – Ecologist, Team Members – Landscape Architect, Architect, Urban Designer, Urban Planners

The Model Plant and Fauna Management Plan is contained in the Wildlife Matrix Report in Section 8.13.

8.22 Deliverable 22 – Model Vermin and Invasive Plant Plan

Lead – Ecologist

The ecologist will write the Model Vermin and Invasive Plant Plan to manage species that have negative effects on human health. The plan should utilize low maintenance techniques that probably do not pose a threat to humans.

8.23 Deliverable 23 – Area Project Maps

Lead – Urban Planners, Team Members – Ecologist, Civil Engineer, Hydrologist, Geotechnical Engineer

The LCG Staff, under the direction of an Urban Planner, will develop a set of project maps that are described on the attached schedule of deliverables submitted as part of the grant application and labeled Item 1 to 5 in Section II, Environmental Tools. In addition, LCG staff will provide recent maps of the real estate parcels and associated tax assessor data within the planning area and in the vicinity of Exit No. 97 on Interstate 10 at LA Hwy 93, near the community of Cankton, and the City of Scott.

8.24 Deliverable 24 – Real Estate Development Plan

Lead – Economist, Team Members – Architect, Urban Designer, Urban Planners, Hydrologist, Landscape Architect

The economist will work with architects, urban planners, hydrologist, and landscape architects to develop a set of optimum features that will enhance marketability of the Marais des Cannes Project, Phase 1. These features will include a set of recommendations contained in the Real Estate Development Plan that specify:

- 1) the ratio and type of residential, retail, and office square footage within a waterfront mixed use development;
- 2) the differential pricing relative to the residential, retail, and office proximity to value added water and recreational amenities like ponds, constructed wetlands, biking and walking paths, and transportation features; and
- 3) a marketing analysis determining the targeted resident of multi-family type residential units with consideration for mixed incomes.

The intent of the project is to leverage a water management project with associated recreation resources to increase density and the mix of land use types. A secondary goal is the integration of a mix of incomes in a mix of housing choices.

8.25 Deliverable 25 – Cut and Fill Sales Report

Lead – Economist, Team Members –Hydrologist, LCG Civil Engineer, Geotechnical Engineer

A primary economic resource to finance the project is the sale of excavated spoil dirt for use both inside and outside of the project area. The spoil inside of the project area may be used to elevate the built environment above the floodplain and floodway. Land in the floodway has very low potential for development, but with elevation by deposition of soil a portion of the floodway may be developable.

The spoil outside of the project area may be sold to finance, in part, the construction of the built environment. The soil, depending on its identification by soil borings, may be or may not be of utility for elevation of structures. The economists will work with the civil engineer and the hydrologist to determine quantity, excavation costs, and the market potential for excavated spoil dirt.

The economist will provide a set of alternatives with reasonable estimates in dollars and spoil volume size to be retained within the project area. The economic analysts will work with the hydrologist and civil engineer to develop conceptual models in the form of electronic spreadsheets. These spreadsheets will compute the amount of spoil inside and outside of the project area in terms of the volume and elevation of the area to be developed. The goal is to maximize the sale of the spoil to increase the amount of funds available for development. The sale of spoil is limited by the depth, size, and placement of the borrow pits and their ability to retain and detain water in a manner that does not threaten the built and natural environment. These threats to the built and natural environment need to be mitigated both within the MCWD and further downstream.

The distribution of soil, resulting elevations and these relationships to the size of developable area within the Marais des Cannes, Phase 1 Project will be documented in the Cut and Fill Sales Report under the direction of the economist who will be aided by the hydrologists and the consultant civil engineer.

The report will be based on a review of the soil borings report to determine the presence of soils, which have varying average market prices stated as the highest, the average, and lowest prices. The proportion and amount of these soils types will be estimated and not necessarily computed to exact quantities. The report will state the average unit cost and an estimated sale price based on the estimated quantity of soil in these three ranked categories.

The Cut and Fill Sales Report may be a separate report or it may be integrated into the Marketability Report (described in the next section) depending upon the choice selected by the Economist.

8.26 Deliverable 26 – Marketability Report

Lead – Economist, Team Members – Architect, Urban Designer, Urban Planners, Landscape Architect

The economist will write the Marketability Report to document the following:

Architects and urban planners may design buildings that are elevated on pilings or may be elevated on mounds using spoil based on differential cost factors including real estate values, engineering feasibility and esthetics. These factors can be listed below as generally being influenced by:

- 1) The differential cost of utilizing excavated soil and pilings to increase the elevation of the ground floor on residential, office, and commercial buildings.
- 2) The differential sale price of residential, office and commercial square footage on pilings or on elevation using spoil.
- 3) The net sale price of the spoil derived from the excavation costs and the delivery costs on site and off site.
- 4) The hydrological effects of pilings and elevation using spoil.

These factors will guide the initial planning, but not the final design or siting of any structure.

The influence of these factors may create structures that might be appealing in terms of the profit potential; but will not be esthetically pleasing and so will ultimately lower the sale price of residential, office, and commercial square footage. The economist will work with the consultant hydrologist and the consultant civil engineer as well as the urban design, architects, and planners in balancing esthetics, engineering and hydrological factors, and marketability.

The economist along with a staff architect, staff urban designer, and urban planners will a reasonable estimate in 2010 dollars of residential, retail, and office square footage in the Marais des Cannes, Phase 1 Project.

The economist will work with the LCG and other consultants on distribution of land uses described in Section 3.0 Project Description to increase salability of residential, commercial and office buildings.

The Marketability Report may contain the Cut and Fill Report (described in the above section) depending upon the choice selected by the Economist.

The Marketability Report will gather data from the consultant team and the LCG staff in order to come to a set of recommendations so as to make the project as economically feasible as can be reasonably expected based on the engineering, regulatory, and esthetic constraints.

8.27 Deliverable 27 – Public and Private Financing Report

Lead – Economist, Team Members – Architect, Urban Designer, Urban Planners, Landscape Architect

The economist will collaborate with LCG Staff on the development of incentive packages including Tax Increment Financing (TIF) Districts and Community Development Districts (CDC). The economist will estimate the generated tax and fees from TIF's and the tax burden in a CDC's to be collected and its distribution within the Marais des Cannes Project and more generally within MCWD's. The LCG staff will provide data from the tax assessor as described in Section 8.23 to aid in these estimates.

Community Land Trust (CLT) should be considered as a method to provide for a range of mixed income options. Additionally, the economist will collaborate with LCG Staff to describe local monetary and regulatory incentives to provide to developers. The economist will collaborate with the urban planners to write a Public and Private Financing Report documenting these findings.

The economist will also provide a set of recommendation as to the phasing of the construction of the project. The phasing will be discussed in general terms of a select list of events that should occur in a sequence predicated on the accomplishment of previously completed objectives. The goal is to recommend a method of reducing costs by reducing the length of borrowing funds and increasing the cash flow by creating portions of the project which generate income.

8.28 Deliverable 28 – Model Subdivision Covenants

Lead –Urban Planner Team Members – Ecologist, Architect, Urban Designer, Urban Planners, LCG Civil Engineer, Landscape Architect,

The staff urban planners, architects, LCG civil engineer and landscape architects will write model subdivision covenants and developer subdivision agreements that may be

used in other MCWD's and in the Marais des Cannes Project, Phase 1. They will seek advice from the economist and ecologist. The economic analyst will provide advice on increasing marketability of the resulting plan based on similar marketability surveys for similar water/recreational type amenity developments.

The model subdivision covenants will be composed of the following sections: public access to public facilities; transportation access management; parking; landscaping modification and maintenance; home owners association's responsibilities; urban design standards, maintenance of built structures; maintenance of the waterways; and maintenance of pedestrian ways, etc.

8.29 Deliverable 29 – Mitigation Bank Marketability Report

Lead – **Economist**, Team Members – **Ecologist**

The economist shall work with the ecologist, hydrologist, and consultant civil engineer to determine the appropriateness of mitigation banks which may be constructed in the project area depending on the suitability of the soil, and existing drainage patterns. Mitigation banking is a secondary source of potential income for the project in the form of sale of mitigation credits as regulated by the Corps of Engineers. The creation of mitigation banks may require less investment than retail, commercial and office space. Moreover, it is unknown if the return of the investment will favor only mitigation banking or mixed use development. A Mitigation Banking Marketability Report on Marais des Cannes, Phase 1 will summarize the findings of work described in this paragraph.

8.30 Deliverable 30 – Ownership Alternatives Report

Lead – **Economist**, Team Members – **Architect, Urban Designer, Urban Planners**

The economist will write the Ownership Alternatives Report to document the finding in this section of the scope services. He will be aided by the urban designer, architect, and urban planner. The economist documents a set of alternatives for real estate ownership to achieve the goals of the project. Among the classes of ownership include freehold, rental or condominium ownership. The economist shall also consider a range of mixed income options through joint ownership of residential, commercial, and office units in the form of Community Land Trust (CLT) and a related form known as Community Equity Trust (CET). Additionally, some lands and waterways may be owned by the government or by a CDC, CLT, or a CET or by a non-profit corporation as joint lands held by with conservation easements. These lands are used as common areas for the use of the public or by the residents. The preference is for the economist to propose that common areas are to be held and maintained by the government and are open to the general public. Other alternatives to ownership, maintenance, and public access may also be considered.

Ducks Unlimited has a program of assistance to land owners in helping them establish conservation easements, revolving fund to aid in restoration, and acquisition of key

properties.⁶ The agency will be contact for advice and potential participation in MCWD projects.

8.31 Deliverable 31 – Model Land Use MCWD Ordinance

Lead – **Urban Planners**, Team Member – **Economist**

The LCG Staff will develop a model ordinance that integrates regulatory tools, e.g. pyramidal zoning, performance-based zoning, buffers, etc. The economist will provide advice and guidance; but the primary responsibility of the ordinance will be the LCG Staff's urban planner.

8.32 Deliverable 32 – Transportation Structures

Lead – **Urban Planner**, Team Members: **Architect, Urban Designer, Urban Planners, Landscape Architect, LCG Civil Engineer**

There may be various types of pedestrian-ways: gravel, concrete, and asphalt. The staff civil engineer will document these pedestrian-ways as well as other civil structures documented in Appendix A. These and other transportation structures (such as transit stops, and parking lots) will be described by the staff civil engineers. Moreover, the roofed and unroofed structures for commercial, residential and office space are to be designed by architects and urban designers. These drawings are required to convey concepts and materials; but are not required to be stamped by professional engineers or architects.

8.33 Deliverable 33 – MCWD Drainage Structure Typology

Lead – **Consultant Civil Engineer**

The civil engineer develops a typology of drainage structures that are appropriate for MCWD's. The documentation of the structures need not be a specific design for a particular location; but rather the typology will in a general way document the kinds of structures available for other MCDW's. Documentation to be provided are conceptual drawings and sketches as well as a general textual description so as to inform an educated layman in report entitled MCWD Drainage Structure Typology.

Many of these details will be drawn from typical details as available from the LCG Dept of Public Works. These drawings will not be stamped by a professional engineer or architect.

8.34 Deliverable 34 – Stormwater Structures Report

Lead – **Consultant Civil Engineer**

⁶ <http://www.ducks.org/conservation/landprotection/1489/landprotectionhome.html>

The civil engineer will be responsible for the preliminary design and placement of storm water management structures in the Marais des Cannes, Phase 1 Project. These structures will be documented in Stormwater Structures Report with conceptual drawings and text for use by engineering staff in further work on Marais des Cannes, Phase 1.

8.35 Deliverable 35 – MCWD Utility Systems **Lead – Consultant Civil Engineer**

The consultant civil engineer will also be responsible to describe kinds of potable water, sewer, and electric systems used in mixed use developments. These systems should be discussed generally within ten page report entitled, MCWD Utility Systems.

9.0 FORMATTING OF DELIVERABLE

The goal of these formatting requirements is not to impose a system for the sake of standardization, but rather to present to the reader a single vision of a single team.

In order to insure the proper formatting is achieved, LCG Staff will provide their expertise, printers, computers, and plotters in formatting the deliverables. The use of templates as well as header and footers shall be provided to the consultants in preparing their reports. All documents are submitted in the digital format by CD ROM or by FTP server to LCG. Only three proof copies in paper are required. The cost of printing shall be borne by LCG. However, in no case shall LCG Staff draw lines on technical drawings and maps or rewrite text in documents for consultants.

9.1 Text Documents

The formatting of the text documents shall follow the following requirements:

All pages shall have a standardized header with the name of the team leader in the upper right hand corner and the location of their home office. The right hand corner shall have three lines. The first line shall be Marais des Cannes, Phase 1. The second line shall be the name of the report. The third line is its volume number of reports issued during the duration of the grant. The footer shall be formatted as is the page you are now reading showing the version number, the date and the total number of consecutive pages in a volume and the total number of pages in the volume. Every page shall have a header and footer, even the title page of the document.

The initial pages of the volume shall have the title; the authoring consultant's firm, the table of contents with page numbers of the major chapters; the names of major and minor subsections (as numbered in this report) without page numbers; the names of the consultants, their firm's name, and the names of their role in the project; the names of the LCG Staff participating in the project; the name of the granting agency and key administrators; and the names of any advisory committees participating in the project including the City-Parish Council of Lafayette Consolidated Government, and the City Council of Scott. Several reports as listed in the list of deliverables may be included in one volume. The numbering of the volumes and the relationship of all volumes shall be

documented in the initial pages of all volumes issued during the grant. The name of electronic digital file shall be placed on the title page.

9.2 Maps

The formatting of the maps shall follow the following requirements:

Each map or drawing shall be standardized. The title block of the maps and shall show the name and logo of the agencies or firm participating in the project as well as those of the granting institution. The title block shall be placed in the same position on each page. The block shall show the initials of the person's name who drew the map or drawing as well as the initials of the professional for directed the drawing of the map, the initials of person who reviewed the map, and the initials of the person who approved the map. The title block shall have the date and the electronic editable file and the pdf file name used to print the map. All maps shall have be oriented with north placed at the top of the page (either in portrait or landscape format) indicated with a standardized arrow. There shall be a graphic scale and a legend. The north arrow, the scale, and legend shall be placed in the upper right hand corner of the drawing if at all possible. The name of the drawing shall show Marais des Cannes, Phase 1 as the project name and then underneath the subproject name. The name of the map shall appear beneath the project name. Each map shall be given a unique map number. All printed maps shall be bound into a set with staples. On the title page of the map set, the information listed as appearing in the initial pages of the text document shall be shown. Additionally, all of names and map numbers of the maps in the set shall be indexed. Three final copies of the map set shall be submitted.

9.3 Spreadsheets

Original editable files of spreadsheets shall be provided when volume or dollar estimates are calculated. The spreadsheet shall be formatted so as to fit on letter or tabloid paper. The spreadsheet shall have a header and a footer similar to one described in text documents.

9.4 CD ROM and Digital Files

The original editable digital files will be submitted by the consultants on a CD ROM or DVD. All text documents will be grouped into volumes which will be printed to portable document format (pdf). All maps and drawings will be printed separately in a pdf format. Editable files shall be placed in directories that shall be named by subject matter. PDF files shall be grouped in directories based on volume number of text documents and maps for technical line drawings and maps. The lead consultant shall provide a spreadsheet showing the file name of the electronic document and the title of the document shown on its title page as well as the file name of the map and its map number and name shown in the title block of the map. The spreadsheet shall show the directory in which the pdf file is stored. The spreadsheet shall be included on the CD-ROM/DVD in a directory named INDEX.

The text pdf's shall be formatted to print on 8.5" x 11" pages. In no case shall a foldout map be included in a text document. If an 11" x 17" map is required, then it shall be placed in a separate volume along with other maps of the same size. The maps shall all be formatted to print on 24" by 36" pages.

APPENDIX A: Planned Structures

The proposed structures for Marais des Cannes, Phase 1 are listed below.

1. Roads

- Alley (services)
- Local Streets with access to residential structures
- Transportation Network Streets with access to commercial structures

2. Transit Stops

3. Parking lots

- Public/Private
- Pervious/Impervious

4. Pedestrian Ways

- Sidewalks
- Ecological Trails
- Equestrian Trails
- Bicycle Paths

5. Sewer Treatment and Collection Systems

- Municipal System (off site)
- Mechanical
- Wetland Assimilation
- Lemna Systems
- Rock-Reed Marshes

6. Electrical Generation Systems

- Remote solar panel for nighttime pedestrian way lighting
- Rooftop solar panels for commercial and residential
- Compressed natural gas (CNG) generating stations

7. Existing and Proposed Electric Lines - Transmission

- Buried/overhead transmission
- Buried/overhead supply

8. Proposed Potable Water Systems

Water wells and distribution systems
Cisterns

9. Stormwater Management Systems

Lake
Ponds
 Retention
 Detention
Canals
Ditches
Swales
Terraced Coulees
Lift stations
 Wind mills
 Electric pumps
Constructed Wetlands
 Swamps
 Marsh
Aeration Systems

10. Human Facilities - Roofed

Single family residential - remainders
Multifamily residential – to be constructed
Commercial facilities
 Office
 Retail
Recreational Facilities
 Amphitheater – Stage
 Event Plaza
 Picnic Shelters
 Free Standing Restroom Rooms
 Swimming Pool Dressing Room and restroom
 Civic Center

11. Human Facilities – Unroofed

Multiuse ball fields (soccer/football/baseball)
Basketball Courts
Playgrounds
Swimming Pools
Community Vegetable Gardens
Fishing Piers
Parks
Undeveloped (Passive) Meadows
Undeveloped (Passive) Woods

12. Wildlife Conservation Areas

Ecological Niches

- Wooded Bird Habitats
- Amphibian Island Habitats
- Rock-Reed Marshes

Preservation of Existing Areas

- Woods
- Prairie

Mitigation Banks

APPENDIX B: Glossary of Terms

B.1 Glossary of Terms

CAD - Computer Aided Design

CET- Community Equity Trust - is a similar non-profit corporation that acquires partial ownership of both the structure and the land. The owner who resides in the structure may retain only a portion of the ownership or may purchase full ownership over time. At the time of sale depending on the ownership of the property, the owner and the non-profit corporation may share in the sale price of the increase (or decrease) in the equity according to a set schedule.

CLT – Community Land Trust - an equitable and sustainable model of affordable housing and community development a non-profit corporation which may acquire multiple parcels of land in the North and South Design Areas so that they may be acquired in perpetuity. Residential, commercial, and office buildings may be purchased by tenants. The tenant retains title to the structure while the CLT retains title to the land. Thus, the tenant purchases a ground lease from the CLT. The structure may be retained within a family for multiple generations. However, the CLT retains an option to repurchase any residential and commercial structures if the tenants choose to sell to non-family members. The resale price is set by a formula contained in the ground lease that is designed to give present homeowners a fair return on their investment, while giving future homebuyers fair access to housing at an affordable price.

CLOMR – Conditional Letter of Map Revision is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The letter does not revise an effective NFIP map; it indicates whether the project, if built as proposed, would be recognized by FEMA. FEMA charges a fee for processing a CLOMR to recover the costs associated with the review. Building permits cannot be issued based on a CLOMR, because a CLOMR does not change the NFIP map. Once a project has been completed, the community must request a revision to the Flood

Insurance Rate Map (FIRM) to reflect the project. "As-built" certification and other data must be submitted to support the revision request.⁷

DEQ – Department of Environmental Quality is an agency of the State of Louisiana.

DNR - Department of Natural Resources is an agency of the State of Louisiana.

EIS – Environmental Impact Study, required by the National Environmental Protection Act to describe the effects of project and how they might be mitigated if no other alternative exist.

ESRI - Environmental Systems Research Institute is a software development and services company providing Geographic Information System (GIS) software and geodatabase management applications.

FEMA – Federal Emergency Management Agency is an agency of the federal government charged with implementing the National Flood Insurance (NFIP) program.

FIMA –Federal Insurance and Mitigation Administration is an agency of the federal government charged with implementing the National Flood Insurance (NFIP) program.

GIS - Geographic information systems creates graphic elements that are linked to tabular data so that the user can create selection set of elements either graphically or from a table.

HEC-RAS - Hydrologic Engineering Centers River Analysis System is a computer program that models the hydraulics of water flow through natural rivers and other channels.

IRT – Interagency Review Team is a group of members from various agencies to review a mitigation bank proposal.

LCG – Lafayette Consolidated Government is a local government which consolidates the functions of the City of Lafayette with the former Police Jury in administering the unincorporated areas of Lafayette Parish.

LINC – Lafayette In a Century is a one hundred year comprehensive master plan to provide Lafayette Parish with twelve elements of public and private services.

LRA –Louisiana Recovery Authority is an agency created to deal with the effects of Hurricanes Katrina, Rita, Gustav and Ike.

MPO – Metropolitan Planning Organization is a federal agency created for each metropolitan area to plan regionally significant transportation features.

MDC - Marais des Cannes, Phase 1 is the first proposed phase of large drainage retention and detention systems on the Coulee Isle des Cannes, a natural drainageway in western Lafayette Parish. A *marais* can be translated in Cajun as a low lying area or a wetland in standard French.

MCWD – Model Community Watershed Development is the conceptual approach to planning the integration of human habitations and utilizations with drainage retention and detention systems within the context of an environmental sustainable ecological system.

NFIP – National Flood Insurance Program is a program that regulates the base floor elevation of structures above 100 year flood, that is floods with a 1% chance of occurring each time a rainfall event occurs.

NRCS – Natural Resources Conservation Service is a federal agency with the Department of Agriculture providing services through a County or Parish Agent.

⁷ <http://www.fema.gov/plan/prevent/floodplain/nfipkeywords/clomr.shtm>

OCD-DRU - Office of Community Development – Disaster Recovery Unit is a state agency, which is the successor agency of the LRA.

US ACE – United States Army Corps of Engineers (aka “the Corps”) is a federal agency that regulates waterways and wetlands and is charged with implementing Section 404 of the Clean Water Act.

US EPA – United States Environmental Protection Agency is a federal agency regulating effects on the natural environment and charged with implementing the National Environmental Protection Act, the Clean Air Act and the Clean Water Act.

B.2 Definitions

Bio-filtering utilizing natural processes to clean water.

Coulee By-Pass Structure is a civil engineering structure that allows water to be channeled from a drainageway to a retention or detention pond.

Floodway is a regulatory area designated by NFIP where storm water overflows the bank of a stream and continues to flow downstream.

Floodplain is a regulatory area designated by NFIP where storm water overflows the bank of a stream and remains generally stagnate causing flooding.

Constructed Wetlands is an area created to mimic the flow of water through an area like the flow through natural low lying areas with standing water or areas with periodic flooding.

Louisiana Speaks Plan is a plan developed by the State of Louisiana to deal with the effects of Hurricanes Katrina, Rita, Gustav and Ike.

Louisiana Speaks Land-Use Toolkit is a set of land use tools to allow communities to integrate long terms planning into their growth and development.

Core sample - A core sample is a piece of rock, soil, or ice that is carved, or cut, from the ground using a piece of equipment.

Mitigation Bank - In the United States, the federal government (under section 404 of the Clean Water Act) as well as many state and local governments, require mitigation for the disturbance or destruction of wetland, stream, or endangered wildlife habitat. Once approved by regulatory agencies the mitigation bank may sell credits to developers whose projects will impact these various ecosystems.

Lafayette Consolidated Government
Marais des Cannes, Phase 1
Project Deliverable List

| No. | Deliverable | Consultants | | | | | Staff | | | | | | Proj. Manager | Plan. Manager |
|-----------------------|--------------------------------------|----------------------|-----------|----------------------|---------------------|---------------|---------------|-------------------|---------------|-------------------|-------------|----------|---------------|---------------|
| | | Hydrologist | Ecologist | Economist | Consult. Civil Eng. | Geotech. Eng. | Landscp. Arch | Architect | Urb. Designer | LCG Civil Eng. | Urb.Planner | EQ Staff | | |
| 1 | Wetland Mitigation Report | | ☆ | | | | | | | | | | ☑ | ■ |
| 2 | Mitigation Prospectus | | ☆ | | | | | | | | | | ☑ | ■ |
| 3 | Mitigation Agreement | | | | ☆ | | | | | | | | ☑ | ■ |
| 4 | Cut Quantities | ☆ | | | | | | | | | | | ☑ | ■ |
| 5 | Flow Capacity | ☆ | | | | | | | | | | | ☑ | ■ |
| 6 | Impact Fee Calculation | ☆ | | | | | | | | | ● | | ☑ | ■ |
| 7 | Detention and Retention Rates | ☆ | | | | | | ● | | | | | ☑ | ■ |
| 8 | Coulee X-Sections | ☆ | | | | | | ● | | | | | ☑ | ■ |
| 9 | Core Sampling Program | ● | | | | ☆ | | | | | ● | | ☑ | ■ |
| 10 | Hydrological Plan | ☆ | | | | | | | | | | | | |
| 11 | Ecological Niche Map | | ☆ | | | | | ● | | | | | ☑ | ■ |
| 12 | Plant and Fauna Palette Report | | ☆ | | | | | ● | | | | | ☑ | ■ |
| 13 | Wildlife Matrix Report | | ☆ | | | | | ● | ● | ● | | ● | ☑ | ■ |
| 14 | Model Landscape Ordinance | | | | | | | ● | ● | ● | | ☆ | ☑ | ■ |
| 15 | Regulatory Permit Plan | | ☆ | | | | | | | | | | ☑ | ■ |
| 16 | Soil and Water Report | | ☆ | | | | | ● | ● | ● | | ● | ☑ | ■ |
| 17 | Wetland Delineation Map | | ☆ | | | | | | | | ● | ● | ☑ | ■ |
| 18 | Contact with NCRS | | ● | | | | | | | | ☆ | | ☑ | ■ |
| 19 | Existing Plant and Fauna Report | | ☆ | | | | | | | | | | ☑ | ■ |
| 20 | EIS Outline | | ☆ | | | | | | | | | | ☑ | ■ |
| 21 | Model Plan and Fauna Management Plan | | ☆ | | | | | ● | ● | ● | | ● | ☑ | ■ |
| 22 | Model Vermin and Invasive Plant Plan | | ☆ | | | | | | | | | | ☑ | ■ |
| 23 | Area Project Maps | ● | ● | | | ● | | | | ● | | ☆ | ☑ | ■ |
| 24 | Real Estate Development Plan | ● | | ☆ | | | | ● | ● | ● | | ● | ☑ | ■ |
| 25 | Cut and Fill Sales Report | ● | | ☆ | | | | | | ● | | | ☑ | ■ |
| 26 | Marketability Report | | | ☆ | | | | ● | ● | ● | | ● | ☑ | ■ |
| 27 | Public and Private Financing Report | | | ☆ | | | | ● | ● | ● | | ● | ☑ | ■ |
| 28 | Model Subdivision Covenants | | ● | | | | | ● | ● | ● | ● | ☆ | ☑ | ■ |
| 29 | Mitigation Bank Marketability Report | | ● | ☆ | | | | | | | | | ☑ | ■ |
| 30 | Ownership Alternatives Report | | | ☆ | | | | ● | ● | | | ● | ☑ | ■ |
| 31 | Model Land Use MCWD Ordinance | | | ● | | | | | | | | ☆ | ☑ | ■ |
| 32 | Transportation Structures | | | | | | | ● | ● | ● | | ● | ☑ | ■ |
| 33 | MCWD Drainage Structure Typology | | | | ☆ | | | | | | | | ☑ | ■ |
| 34 | Stormwater Structures Report | | | | ☆ | | | | | | | | ☑ | ■ |
| 35 | MCWD Utility Systems | | | | ☆ | | | | | | | | ☑ | ■ |
| SYMBOLS ==> | | Team Leader = | ☆ | Team Member = | ● | | | Reviewer = | ☑ | Approver = | ■ | | | |

STANDARD FORM (SF)

2 5 4

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:

1a. Submittal is for: Parent Company Branch or Subsidiary Office

2. Year Present Firm Established:

3. Date Prepared:

4. Specify type of ownership & check below, if applicable
CORPORATION

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-Owned Business

5. Name of Parent Company, if any:

5a. Former Parent Company Name(s), if any, and Year(s) Established:

6. Names of not more than Two Principals to Contact: Title/Telephone

7. Present Offices: City/State/Telephone/No. Personnel Each Office

7a. Total Personnel _____

8. Personnel by Discipline: (list each person only once, by primary function.)

- | | | | |
|---|---|---|---|
| <input type="checkbox"/> Administration | <input type="checkbox"/> Electrical Engineers | <input type="checkbox"/> Oceanographers | <input type="checkbox"/> Architectural Intern |
| <input type="checkbox"/> Architects | <input type="checkbox"/> Estimators | <input type="checkbox"/> Planners | <input type="checkbox"/> Part Time Student |
| <input type="checkbox"/> Chemical Engineers | <input type="checkbox"/> Geologists | <input type="checkbox"/> Sanitary Engineers | <input type="checkbox"/> |
| <input type="checkbox"/> Civil Engineers | <input type="checkbox"/> Hydrologists | <input type="checkbox"/> Soils Engineers | <input type="checkbox"/> |
| <input type="checkbox"/> Construction Engineers | <input type="checkbox"/> Interior Designers | <input type="checkbox"/> Specification Writers | <input type="checkbox"/> |
| <input type="checkbox"/> Draftsmen | <input type="checkbox"/> Landscape Architects | <input type="checkbox"/> Structural Engineers | <input type="checkbox"/> |
| <input type="checkbox"/> Ecologists | <input type="checkbox"/> Mechanical Engineers | <input type="checkbox"/> Surveyors | <input type="checkbox"/> |
| <input type="checkbox"/> Economists | <input type="checkbox"/> Mining Engineers | <input type="checkbox"/> Transportation Engineers | <input type="checkbox"/> |
| | | | <input type="checkbox"/> |
| | | | <input type="checkbox"/> |

9. Summary of Professional Service Fees Received: (Insert Index number)

Last 5 Years (most recent year first)

Direct Parish contract work, including overseas _____
 All other domestic work _____
 All other foreign work* _____

* Firms interested in foreign work, but without such experience, check here:

Ranges of Professional Service Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to \$500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

10. Profile of Firm's Project Experience, Last 5 Years *

| Profile Code | Number of Projects | Total Gross Fees (in thousands) | Profile Code | Number of Projects | Total Gross Fees (in thousands) | Profile Code | Number of Projects | Total Gross Fees (in thousands) |
|--------------|--------------------|---------------------------------|--------------|--------------------|---------------------------------|--------------|--------------------|---------------------------------|
| 1) | | \$ | 11) | | \$ | 21) | | |
| 2) | | \$ | 12) | | \$ | 22) | | |
| 3) | | \$ | 13) | | \$ | 23) | | |
| 4) | | \$ | 14) | | \$ | 24) | | |
| 5) | | \$ | 15) | | \$ | 25) | | |
| 6) | | \$ | 16) | | \$ | 26) | | |
| 7) | | \$ | 17) | | \$ | 27) | | |
| 8) | | \$ | 18) | | \$ | 28) | | |
| 9) | | \$ | 19) | | \$ | 29) | | |
| 10) | | \$ | 20) | | \$ | 30) | | |

11. Project Examples, Last 5 Years

| Profile Code | "P", "C", "JV", or "IE" | Project Name and Location | Owner Name and Address | Cost of Work (in thousands) | Completion Date (Actual or Estimated) |
|--------------|-------------------------|---------------------------|------------------------|-----------------------------|---------------------------------------|
| | | 1 | | \$ | |
| | | 2 | | \$ | |
| | | 3 | | \$ | |
| | | 4 | | \$ | |
| | | 5 | | \$ | |
| | | 6 | | \$ | |
| | | 7 | | \$ | |

| | | | | | | |
|--|--|----|--|--|----|--|
| | | 8 | | | \$ | |
| | | 9 | | | \$ | |
| | | 10 | | | \$ | |
| | | 11 | | | \$ | |
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| | | 20 | | | \$ |
| | | 21 | | | \$ |
| | | 22 | | | \$ |
| | | 23 | | | \$ |
| | | 24 | | | \$ |
| | | 25 | | | \$ |
| | | 26 | | | \$ |
| | | 27 | | | \$ |
| | | 28 | | | \$ |
| | | 29 | | | \$ |
| | | 30 | | | \$ |

12. The foregoing is a statement of facts.

Signature: _____ Typed Name and Title: _____

Date: _____