

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
a. Name & Title:	<b>Thomas M. Willis, PE.</b>
b. Project Assignment:	<b>Hydrology Engineering</b>
c. Name of Firm with which associated:	<b>MSMM Engineering, LLC</b>
d. Years experience: With This Firm <u>  1  </u> With Other Firms <u>  30  </u>	
e. Education: Degree(s)/Year/ Specialization	<b>M.B.A., 1989, Louisiana State University</b> <b>B.S., 1981, Civil Engineering, Louisiana State University</b>
f. Active Registration: Year First Registered/Discipline	<b>1991, Civil and Environmental, Louisiana No. 24205</b>
g. Other Experience and Qualifications relevant to the proposed project:	<ul style="list-style-type: none"> <li>▪ <b>East Baton Rouge/Parish Wastewater Improvements – Project PS3-01, PS3-02, and PS3-03 (Hydraulics and Hydrology Engineering; General Engineering).</b> These projects were undertaken to correct deficiencies in the collection and treatment systems and to provide for expected future increases in flows. The facilities provided for the abandonment of nine separate package wastewater treatment plants owned and operated by the City/Parish. Each treatment plant was replaced by a wastewater pumping station and force main to convey wastewater to the expanded and upgraded Southern Treatment Plant. Pump station work involved rehabilitation of existing pump stations and construction of new pump stations. Force mains ranged from 8-inch PVC and ductile iron to 42-in prestressed concrete pressure pipe. Design included aerial crossings and subaqueous crossings of streams. Performed surveys and investigations to acquire permits. Performed design and preparation of preliminary and final construction plans. Served as project engineer for construction of PS3-01 and PS3-02 contracts and provided technical assistance for construction of pump stations in PS3-03 contract.</li>   <li>▪ <b>Crescent City Connection Sewer Line Replacement, Algiers, LA (Hydraulics and Hydrology Engineering; General Engineering)</b> – Performed final plan preparation and construction administration for replacement of the force main serving the Algiers/Chalmette ferry and maintenance facility.</li>   <li>▪ <b>NPDES Permitting at Various Military Installations, LA, TX (Environmental Permitting)</b> -- Performed National Pollutant Discharge Elimination System drainage analysis and storm system review and report preparation for Fort Polk, Fort Hood, and Fort Bliss.</li>   <li>▪ <b>LDOTD, Crescent City Connection (CCC) Authority Project Manager and Authority Liaison, LA (Project Management; Construction Oversight)</b> – Assisted Authority Staff in prioritizing needs and schedules and provided engineering and construction management services for the Mississippi River crossing bridges, the Toll Facilities, the Westbank Expressway structure and ramps, the connecting roadway properties, the CCC buildings and the marine facilities for the ferry crossings.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ <b>New Orleans Airport Drainage Study, New Orleans/Kenner, LA (Hydraulics and Hydrology Engineering; Local Coordination).</b> Determine the stormwater runoff contribution of the Louis Armstrong New Orleans International Airport facility as of current conditions in 2013, and determine the incremental runoff generated by the airport facility between 1992 and 2013 conditions. The project tasks include existing data review, identification of data gaps, field verification of drainage infrastructure, acquisition of real time data for model calibration (rainfall, canal stage), <b>Hydrology Analysis (HMS/TR55/Rational Method for Storm Sewer System), Storm Sewer System Hydraulic Grade Line Analysis for Collection System, Storm Pipe HGL, Service Ditch Capacity and Outfall Ditch Capacity, Hydraulics (HEC RAS/ Capacity Analysis Point Studies)</b> for restrictive structures/obstructions, and combining Airport Hydraulics with Jefferson Parish wide Hydraulics.</li>   <li>▪ <b>New Orleans Airport Concept Design, New Orleans/Kenner, LA (Hydraulics and Hydrology Engineering; Local Coordination).</b> Conduct a Concept Planning Study for new or replacement terminal facility at the existing airport. Project tasks included inventory and preliminary concept plans, concept development, alternatives analysis and recommendation formulation. Significant amount of <b>hydrologic and hydraulic analyses</b> were required for this project, which were accomplished via data collection and <b>hydraulic modeling utilizing software such as HEC-HMS, HEC-RAs and TR-55.</b></li> </ul>