PROJECT MEMORANDUM

TO: Ms. Ellen Posivach, Port Richey City Manager

FROM: Joe Wagner, P.E., Taylor Engineering, Inc.

SUBJECT: Preliminary Opinion of Probable Cost, Pithlachascotee River Dredging Project, Port Richey, FL

DATE: November 20, 2009

In accordance with our scope of work for Work Order #4, we have prepared a preliminary opinion of probable cost for the Pithlachascotee (Cotee) River dredging project (Channels 2, 3, 4, 5, 6, 19, 20, 21, 22, 25, and 29). Our preliminary opinion of probable cost includes all expected costs for design and construction-phase engineering, environmental permit modifications, special assessment district establishment (provided by GSG, subconsultant to Taylor Engineering), dredging construction, environmental mitigation for seagrass impacts, and final permit certification. The following paragraphs describe our review of available project data, subsequent data collection, and methods for calculating estimated project quantities and costs, and summarize the cost range associated with this project.

We reviewed all available data from the City of Port Richey to characterize the existing conditions in the project area, most notably the geotechnical conditions within the project channels. The existing data did not reasonably define the horizontal and vertical extent of limestone, rock, rubble, and debris within the permitted dredging channels. Because the quantity and quality of limestone within the dredging template will play a critical role in determining the cost of the dredging project, we retained Ardaman & Associates to perform a geotechnical exploration within the dredging channels. The goal of geotechnical exploration was to locate the limits and describe the quality (location, depths, thickness, and degree of weathering) and quantity (volume) of limestone within the dredging templates.

The typical soil conditions encountered in the borings generally consisted of 2 inches to 6 feet of either a very loose to loose dark gray to black silty fine sand or very soft to soft green sandy clay underlain by soft to very hard limestone. There are instances where no overburden was present above the limestone or where Ardaman did not encounter limestone within the depth of the boring. Ardaman found significant variations in the elevation and quality of the limestone layer across the project site as well as within each channel. Please note that within the Cotee River project area, one core (B-9 in Channel 6) documented the presence of a thin layer of very hard limestone.

Taylor Engineering used AutoCAD Civil 3D surface analysis to estimate the dredging volumes within each channel. Similarly, we used Civil 3D surface analysis combined with the Ardaman & Associates geotechnical data to estimate the volume of limestone within each channel. We researched dredging and ancillary unit costs, adjusted for the project location and current market conditions, and obtained cost information from Florida based contractors and material suppliers. In addition, we estimated fees for professional engineering and environmental services associated with the Cotee River dredging project in this opinion of cost. Taylor Engineering estimates that the quantity of limestone located within the Cotee River project area dredging template ranges from 1,500 to 3,000 cubic yards (5 to 10%) with a maximum total project dredging volume of approximately 28,300 cubic yards (-5 ft project depth plus 1-ft of allowable overdepth dredging).

Based on the data collection, construction quantity, and cost methods previously described, our opinion of probable cost for the Cotee River dredging project dredging project ranges from $2.0M to $2.5M for a mechanical dredging operation. The City of Port Richey should use this opinion of probable cost for planning purposes only; actual construction costs may vary depending on prevailing market conditions at the time of dredging.

Notably, Taylor Engineering based this opinion of probable cost on the use of a specific dredged material management area (DMMA). If the city chooses to pursue an alternative DMMA, the opinion of probable cost will vary based on the differential cost of offloading, dewatering, and final transportation of dredged material from the Pithlachascotee River channels to a final disposal location.