15-00181

FIRST RENEWAL OF AGREEMENT
(PROFESSIONAL SERVICES)

"NAPLES WATER QUALITY SAMPLING ANALYST PROJECT"

THIS FIRST RENEWAL is made and entered into this ~~4th day of November~~ 27th October **2015** by and between the City of Naples and **Cardno, Inc. dba Cardno and formerly dba Cardno Entrix, a Delaware Corporation located at 551 N. Cattleman Road; Sarasota, Florida 34232.**

WHEREAS, the City and the Consultant entered into that certain Agreement on November 5, 2014 for Naples Water Quality Sampling Project **(Bid No. 14-051), Clerk Tracking No. 14-000141)** for the City of Naples; and

WHEREAS, the parties desire to renew the Original Agreement so that the Consultant will provide said services for an additional year as outlined in Attachment A-1, Scope of Services and Basis of Compensation which is attached hereto and made a part of this Renewal with no price increase to the original hourly rates; and

WHEREAS, the City Manager is authorized by City Council pursuant to Section 2-667 (7)(e), Naples City Code, to renew this Agreement;

NOW, THEREFORE, it is hereby acknowledged and agreed that the Original Agreement is hereby renewed and retroactive from **October 1, 2015 through September 30, 2016 with three additional one year renewal options available.**

WHEREAS, the City and the Consultant have caused this Amendment to be duly executed by their duly authorized officers.

CITY OF NAPLES, FLORIDA

By: A. William Moss

A. William Moss
City Manager

Attest

Jessica R. Rosenberg, Deputy City Clerk

CARDNO, INC. dba CARDNO

By: Timothy L Neldner

Name: Timothy L Neldner

Title: Senior Consultant / Branch Mgr.

Cardno
Shaping the Future

City of Naples, Florida
Streets and Stormwater Department

Water Quality and Biological Analysis Project

SCOPE OF SERVICES
FY 2016 (October 1, 2015 – September 30, 2016)

Cardno is pleased to submit this Scope of Services to provide the City of Naples, Streets and Stormwater Department (City) with data analysis and collection services associated with the City's ongoing natural resource management efforts. This Scope is a continuation of technical services initiated during FY 2015 under Bid/proposal No. 14-051 and Purchase Order 1500545-00. The tasks described here to be completed during FY 2016 include a continuation of upland stormwater lake and pump station water quality monitoring along with analysis and reporting tasks important to continue management and restoration efforts for Naples and Moorings Bays.

This Scope is intended to be implemented immediately upon approval by Naples City Council and will continue through the end of the City's fiscal year (September 30, 2016). The sections below provide detail of each task to be completed by Cardno.

Task 1 – Upland Stormwater and Pump Station Monitoring

The upland stormwater and pump station monitoring will be continued on a quarterly basis, with the first event to be completed during Quarter 4 of 2015 (October – December). The previous monitoring schedule was revised to increase the stormwater lake monitoring frequency from semi-annual to quarterly monitoring events. Quarterly monitoring will continue at the same three pump stations (11-PUMP, 14-PUMP, and PW-PUMP) and the same 15 stormwater lakes as were previously monitored during FY 2015. Four quarterly monitoring events will be conducted through Quarter 3 of 2016. Cardno will coordinate the timing of monitoring events with City staff to coincide with the ongoing Naples and Moorings Bays water quality monitoring events.

The following table provides the parameters for the pump station and upland stormwater lake monitoring that will be measured and collected during the monitoring events.

Monitoring Location Description	Pump Station Monitoring	Stormwater Lake Monitoring
All applicable locations	temperature	temperature
All applicable locations	pH	pH
All applicable locations	conductivity/salinity	conductivity/salinity
All applicable locations	dissolved oxygen (mg/L & % sat)	dissolved oxygen (mg/L & % sat)
All applicable locations	turbidity	turbidity
All applicable locations	total Kjeldahl nitrogen	total Kjeldahl nitrogen
All applicable locations	nitrate+nitrite	nitrate+nitrite
All applicable locations	total ammonia as N	total ammonia as N
All applicable locations	total nitrogen	total nitrogen
All applicable locations	ortho-phosphorus	ortho-phosphorus
All applicable locations	total phosphorus	total phosphorus

Monitoring Location Description	Pump Station Monitoring	Stormwater Lake Monitoring
All applicable locations	total suspended solids	total suspended solids
All applicable locations	copper*	copper*
All applicable locations	fecal coliform	fecal coliform
All applicable locations	enterococcus	enterococcus
Stormwater Lakes Only		chlorophyll-*a*
PW-Pump Only	arsenic	
PW-Pump Only	barium	
PW-Pump Only	cadmium	
PW-Pump Only	chromium	
PW-Pump Only	lead	
PW-Pump Only	mercury	
PW-Pump Only	selenium	
PW-Pump Only	silver	
PW-Pump Only	FL-PRO	

* Copper analyses will utilize EPA method 200.8 in all samples

All samples will be collected according to Florida Department of Environmental Protection (FDEP) Standard Operating Protocols (SOP) by trained and experienced Cardno water resource professionals. Cardno adheres to a strict safety policy (Zero Harm) which requires two field samplers for all field activities. Therefore, costs are based on two samplers for all field events. Samples requiring laboratory analysis will be transported to Benchmark EnviroAnalytical, Inc. (Benchmark) for analysis. Benchmark is an FDEP certified and National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory.

Cardno will prepare a quarterly report summarizing the results of the pump station and stormwater lake monitoring following each monitoring event. Each report will provide a description of the previous quarter's monitoring activities, comparison of results to applicable Class II and III water quality criteria, and any recommendations for future monitoring activities. The final quarterly report (Q3 2016) will also include a summary of loadings from the pump stations and, to the extent possible, the stormwater lakes. The loadings calculations will focus on parameters of concern to the City (nutrients, copper, bacteria, and solids). This analysis will depend on monthly discharge volume estimates provided by the City for the pump stations and assumes the City will provide estimations of volume discharge from the stormwater lakes. This task does not include effort for Cardno to model or calculate estimated flows from the stormwater lakes. Each quarterly report will be provided to the City in draft form and finalized upon approval.

Task 2 – Naples Bay Solids, Turbidity, and Secchi Depth Analysis

In September 2015, Cardno finalized a comprehensive status report on Naples bay water quality and biological conditions. Conclusions from that report warrant further spatial and temporal analysis of the solids loading and turbidity measurements in Naples Bay and, to the extent possible, the effect of these on the biological communities of Naples Bay (seagrass). Cardno will conduct an analysis of solids concentrations in Naples Bay, the relationship between solids and turbidity, any spatial and temporal relationship between solids concentrations and loadings from the Golden Gate Canal, and any relationship between solids and light attenuation (using available secchi disc measurements). This analysis may also include an investigation into possible links between solids, light

attenuation, and effect on seagrass, and may include a literature review to help correlate effects on seagrass with direct solids and secchi measurements.

The scope of this analysis will be limited to the available data for the time frame used during the previous Naples Bay comprehensive report (2005 – 2014), with the exception that Cardno will attempt to obtain and include 2014 water quality data from Collier County which was not available during the comprehensive reporting effort. Database maintenance activities specifically related to this analysis and the addition of 2014 Collier County data are included in this task. This task will focus on Naples Bay and will not include a comparison of solids, turbidity, and/or secchi measurements with other southwest Florida estuaries.

Cardno will generate a report that can serve as a standalone document or as an addendum to the previous comprehensive Naples Bay update report describing the results of the analysis. This report is intended to provide the most recent scientifically defensible information on spatial and temporal distribution of solids in Naples Bay and the potential effect of solids loading on biological communities (seagrass). This has been determined to be a primary concern for ongoing management and restoration activities in Naples Bay, and the report will present the result of the analysis in this context.

This task does not include any presentations to City Council regarding the reporting or results of the analysis. Cardno provides services related to City Council presentations as an optional task at the end of this Scope, in the event the City deems a presentation to City Council necessary. If desired by the City, preparation and presentation time for any City Council presentations will be billed as Additional Services on a Time and Materials basis.

Task 3 – Moorings Bay Statistical Analysis

This task is designed to provide a review and evaluation of the existing water quality and biological data for Moorings Bay. This task will be similar in scope to the evaluation previously completed for Naples Bay, however the level of effort necessary to complete the evaluation is expected to be significantly less. This is because fewer data types and sources exist for Moorings Bay and much of the water quality and biological data compilation for Moorings Bay was already completed during the Naples Bay evaluation in anticipation of this upcoming task.

The Moorings Bay evaluation will be based on some of the same questions addressed during the Naples Bay evaluation. Evaluations of upland contributions to Moorings Bay were completed during the Naples Bay evaluation and will not be repeated here, although those contributions (loadings) may be updated as described in Task 1 above. The evaluation for Moorings Bay will consist of the following analyses:

- Evaluation of statistically significant trends in water quality
- Evaluation of statistically significant trends in biological data (fish)
- Evaluation of spatial and temporal linkages between biological (fish) and water quality data

The Moorings Bay analysis will not include a comparison of Moorings Bay water quality or biology to other southwest Florida estuaries. This is because that comparison was already completed during the Naples Bay evaluation effort and repeating the analysis specifically for Moorings Bay is not expected to yield different results. Cardno believes the cost of such an evaluation would outweigh the potential benefits.

The Moorings Bay statistical analysis effort will focus on the City's ongoing monitoring efforts and will include the 2005 – 2015 time frame. The necessary database updates and maintenance activities to include the City's 2015 water quality and biological data are included in this task.

The deliverable for Task 3 will be a standalone report providing the results of these analyses for Moorings Bay. This report will be sufficient for use by the City for current and future management planning activities.

Cardno
Shaping the Future

Task 4 – Stakeholder Coordination

Based on the expressed need to for increased stakeholder participation in the current and future management restoration discussion and activities for Naples Bay, this task sets aside time and resources for Cardno water resource professionals to assist the City with stakeholder coordination activities. Specific activities have not been determined or assigned yet under this task, but will be directed by City staff. Anticipated activities to be assigned under this task may include, but are not limited to, coordination with SFWMD, Big Cypress Basin, and Collier County staff on monitoring, analysis, and data accuracy needs, travel and attendance at any meetings determined necessary by the City, determination of stormwater flows and routes, identification of future monitoring needs and/or management and restoration activities, and coordination of activities between and among stakeholders. The goal of this task is to provide the necessary technical and planning assistance to the City for advancing the management and restoration of Naples Bay.

This task will be billed on a Time and Materials, Not to Exceed basis at the discretion of City staff.

COSTS

The costs associated with this effort will be both **Time and Materials Not to Exceed**, and **Lump Sum** based on the task. The task breakdown and cost is provided in the table below. Tasks 1 and 4 will be billed as Time and Materials, Not to Exceed. Tasks 2 and 3 are provided as Lump Sum. Rates for all tasks are based on a discounted rate schedule for Cardno personnel.

Task	Fee Type	Task Description	Estimated Hours	Cost
1	Time and Materials	Upland Stormwater and Pump Station Monitoring	240	$35,760
2	Lump Sum	Solids, Turbidity, and Secchi Analysis	126	$14,920
3	Lump Sum	Moorings Bay Statistical Analysis	322	$36,915
4	Time and Materials	Stakeholder Coordination	72	$10,000
Total Project Cost				**$97,595**

Invoices will be submitted monthly.

Optional Task

As an optional task for the City to consider if desired, Cardno can prepare the present the results of any of the above tasks in a City Council workshop. This task is not included in the total project cost presented above, but can be completed as Additional Services at the discretion of the City. The above tasks do not include effort necessary to prepare or present any results to City Council. Based on the task and level of effort deemed necessary by the City, the cost of preparation and presentation of results to City Council can range between approximately $5,000 and $8,000. This effort would be billed on a Time and Materials, not to exceed basis.