APPENDIX III

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- **2014 PUBLIC UTILITIES DIVISION** *INTEGRATED ASSET MANAGEMENT PROGRAM, PROGRESS REPORT*

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Progress Report IV

Integrated Asset Management Program

Public Utilities Division

October 30, 2014

EXECUTIVE BRIEFING

Progress Report IV

Progress Report IV for the PUD Integrated Asset Management Program, as revised by the Collier County Board of County Commissioners on July 24, 2012 as Agenda Item 10E, with tasks reallocated to expedite expansion agency-wide.

ENTERPRISE ASSET MANAGEMENT

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ENTERPRISE ASSET MANANGEMENT

Board-Approved Direction

The shared Vision, Mission, and Guiding Principles presented to the Board on September 13, 2011 during the Asset Management Program Agenda Item 10E have been incorporated in order to implement and evaluate the potential of the approved pilot asset management system and develop funding recommendations to sustain the quality of the County's established infrastructure and facilities.

Vision

A Geographic Information System (GIS)-based Integrated Asset Management System including a work order system with graphical user interface capable of collecting data automatically through existing SCADA systems, with the last phase being financial integration into enterprise systems including SAP.

Mission/Project Objectives

- Repair/maintain assets just in time through a GIS-based system having full operational visibility.
- Establish risked-based and managed preventative maintenance programs with full visibility of assets for resource optimization.
- Provide short and long term CIP plans integrated into the master plan and the AUIR based on level of risk and service levels.

Guiding Principles

- Sustained safe and reliable delivery of Public Utilities Division Services
- Revenue-centric, cost-contained approach to operations and CIPs
- Full asset visibility and preservation
- Sustainable logistic support functions
- Follow discipline-specific taxonomy

Five Full-Scale Demonstration Projects

1. GIS-based Asset Management (CCWSD horizontal assets)
2. GIS-based inventory and work order management system (CCWSD)
3. GIS-based integration of SCADA data (CCWSD horizontal assets)
4. GIS-based customer management system (UBCS CRM)
5. CIP generation at short and long-term intervals (CCWSD)

Lessons-learned from the above five full-scale demonstration projects will enhance efforts to build an asset management capability in the Agency that will provide complete visibility on the investments required over time to protect and preserve the infrastructure and other critical assets of the organization.

AGENCY-WIDE ENTERPRISE ASSET MANAGEMENT PROGRESS REPORT IV

PUBLIC UTILITIES DIVISION PILOT IMPLEMENTATION

Deliverables:

The Public Utilities Division (PUD) has completed Phase One and Phase Two. On July 24, 2012, the Board approved the reallocation of Tasks Two and Three accelerating the end result of an Agency-wide Asset Management Program.

Phase Two was completed on January 14, 2014 when the Board awarded RFP 13-6164 to Woolpert for Enterprise Asset Management Software, structured as five full-scale implementation projects.

Phase Three, PUD software implementation, is in progress, with a contractual completion date of June 16, 2016.

In summary, accomplishments to date include:

Phase One – EMA Contract 10-5447

* Scope: System requirements and beta demonstration project for Water and Wastewater Departments
* Contract Status: Awarded, PO issued – **Phase One Complete**

Deliverable Status

Description	% Complete
PUD Work Order System Requirements	100
PUD Pilot/beta Demonstration Project	100

Financial Status

Description	Not to Exceed Cost	Total Expenditures	% of Budget
Phase One*	$305,127	$296,265	97%

(*includes 50% of costs common to Phase One and Two)

Phase Two – EMA Contract 10-5447

- Original Scope: Stand-alone GIS-based Interim Work Order System pilot project
- Revised Scope (Board-approved on July 24, 2012, Agenda Item 16C8): Support Agency Wide development and solicitation of RFP for Enterprise (Agency-wide) Asset Management System
- Contract Status: Awarded, PO issued – **Phase Two Complete**

Deliverable Status

Description	% Complete	Plan Complete Date	Actual Complete Date
Finalize requirements definitions for Agency-wide Work and Asset management functions	100	12/14/2012	12/14/2012
Finalize RFP, including approval from Executive Steering Committee and Constitutional Officers	100	1/11/2013	1/13/2013
Solicit RFP	100	1/18/2013	2/26/13
Review Responses and schedule onsite software demonstrations	100	7/5/2013	6/24/2013
Develop Agency-wide software implementation plan	100	8/2/2013	8/2/2013
Negotiate Contract with recommended software vendor	100	8/2/2013	9/6/13
Board award of software contract, and EMA Phase Three scope	100	9/24/2013	1/14/2014

Financial Status

Description	Not to Exceed Cost	Total Expenditures	% of Budget
Phase One*	$305,127	$296,265	97%
Phase Two*	$273,803	$239,907	88%
Total for Phases One and Two	$574,996	$536,532	93%

(*includes 50% of costs common to Phase One and Two)

Phase Three – EMA Contract 10-5447

- Revised Scope – focus shifted to provide QA/QC support for PUD during the implementation of Enterprise Asset Management Software – based on as needed basis
- Contract Status: Awarded, PO issued January 14, 2014, **Active**

Deliverable Status

Description	% Complete	Plan Complete Date	Actual Complete Date
Support Implementation Schedule and technical review	20%	6/16/2016	
Support Technical Integration and SOP documentation efforts	10%	6/16/2016	

Financial Status

Description	Not to Exceed Cost	Expenditures to Date	% of Budget
Phase Three (EMA Support)	$567,893*	$47,774	8%

*Initial maximum by contract was $774,240. Actual amount required was determined during contract negotiations after contract 13-6064 was completed –re-scoped and negotiated to be $567,893, as approved by the Board on January 14, 2014 concurrently with 13-6064.

Phase Three – Woolpert Contract 13-6064

- Implement software solutions selected in Phase Two
- Contract Status: Awarded BCC action January 14, 2014, PO/NTP issued February 14, 2014, **Active**

Deliverable Status

Description	% Complete	Plan Complete Date	Actual Complete Date
1. GIS-based Asset Management (CCWSD horizontal assets)	10%	5/22/2015 Proposed 9/1/15	
2. GIS-based inventory and work order management system (CCWSD)	20%	5/22/2015 Proposed 9/1/15	
3. GIS-based integration of SCADA data (CCWSD horizontal assets)	0%	10/23/15 Proposed 2/19/16	
4. GIS-based customer management system (UBCS CRM)	25%	8/28/15 Proposed 9/1/15	
5. CIP generation at short and long-term intervals (CCWSD)	0%	5/20/16 Proposed 8/25/16	
Project Management Implementation and Support	15%	6/16/2016 Proposed 9/30/16	
Quality Assurance Project (Continued on next page)	10%	6/16/2016 Proposed 9/30/16	

Ad Hoc Services for • GIS • SIRE- Content Management • Materials Management	10%	6/16/2016 Proposed 9/30/16	

Financial Status

Description	Budget	Expenditures to Date	% of Budget
1. GIS-based Asset Management (CCWSD horizontal assets)	$330,995.00	$41,462.89	13%
2. GIS-based inventory and work order management system (CCWSD)	$330,995.00	$41,462.90	13%
3.GIS-based integration of SCADA data (CCWSD horizontal assets)	$147,698.00	$0.00	0%
4. GIS-based customer management system (UBCS CRM)	$675,766.00	$157,356.35	23%
5. CIP generation at short and long-term intervals (CCWSD)	$225,575.00	$0.00	0%
Project Management Implementation and Support	$163,078.00	$45,036.66	28%
Quality Assurance Project	$52,014.00	$6,761.82	13%
Ad Hoc Services for • GIS • SIRE- Content Management • Materials Management	$282,478.00	$0.00	0%

1. GIS-based Asset Management (CCWSD horizontal assets)

The team conducted 9 PUD configuration workshops for Cityworks and its deployment; concluding with a two day SAP interface and data integration workshop the week of October 27, 2014 to finalize needs from the financial teams. PUD dedicated over 60 individual employees to these department specific sessions. PUD Dedicated IT resources, in coordination with IT infrastructure resources, have created three individual environments for the deployment of Cityworks to ensure optimal availability of the system upon its acceptance and roll out. PUD has also developed and finalized all Vertical and Plant hierarchy components to effectively and efficiently classify and organize their plant assets. This organization strategy has been accepted and implemented with the PUD GIS geodatabase. PUD is actively capturing assets and their respectively attributes to ensure work and asset management processes can be implemented in an automated fashion upon the CityWorks implementation and roll out.

2. GIS-based inventory and work order management system (CCWSD)

The first prerequisite for the Cityworks Store Room Inventory Management system required detailed material masters for each materials vendor/provider. The largest vendor is Ferguson who supplies utility parts. As of October 1, the first day of the fiscal year, the material master has been loaded to SAP, and requisitions are being entered on a line item basis. This significant success is now being duplicated for other material suppliers (e.g., Graybar).

Staff continues to develop and collect asset attributes (historical) and asset hierarchy for vertical assets.

Finalized the meter workflows with Woolpert the week of October 13, including the necessary integration points with the Harris billing system's imbedded work order module.

Configuration workshops are being held the weeks of October 13 and October 20 with all operational groups utilizing the county's own GIS database to test the current work order system and identify business process best practices.

3. GIS-based integration of SCADA data (CCWSD horizontal assets)

This portion of integration includes extensive schema changes to the Public Utilities geodatabase in order to facilitate the Cityworks implementation. The new schema includes all fields required by Cityworks and additional fields for operations asset management. Ratings for linear and vertical assets will be calculated through weighted fields including – install date, life expectancy, and condition.

The data model has been finalized and the GIS team is in the process of loading existing data into the new schema. Vertical asset tables are scheduled to be delivered October 30th and will be loaded into the development environment. Relationships will be built from the Plant-Structure-Process-Subprocess-Asset structure for the November 13th Woolpert demonstration.

4. GIS-based customer management system (UBCS CRM)

This element of enterprise asset management will replace the outdated Special Assessments application. It contains several major inter-related modules, including a custom mandatory residential solid waste service roll module, a case management module, an estoppels module, a capital roll module and a commercial recycling management tracking module.

To date, extensive process flow analysis has been performed on the service roll application including deep dive discovery sessions to identify all necessary business functionality. The discovery sessions extended longer than anticipated, but a development and testing schedule has been developed that will deliver the service roll module in live production by April of 2015. The development requirements have exceeded those included in the RFP, resulting in a need to present a 16.89% change order to the Woolpert contract to successfully complete this module.

Process flow analysis and discovery sessions have been performed on the case management module. Initial configurations have been delivered and are being reviewed and revised as appropriate. Completion of the case management module provides work order functionality necessary to complete the service roll module.

5. CIP generation at short and long-term intervals (CCWSD)

Implementation of this project is scheduled to start in October 2015. In preparation, the sub-team is focused on developing an asset on-boarding process that considers the needs of all workflows and divisions. Project management interfaces are also being evaluated.

Board Actions/Direction - Past

Description	Date
Recommendation to award Contract 10-5447 in the amount of $574,996 for Phase One and Phase Two, and $774,240 for Phase Three to EMA of Minnesota, Inc., with authorization to issue a purchase order for Phases One and Two for $574,996, in support of "Public Utilities Asset Management," Projects 71012 and 73165.	September 13, 2011
GMD-funded change order for GMD Phase One	April 25, 2012
Recommendation to negotiate the reallocation of tasks for Phase Two and Three of Contract No. 10-5447 with EMA of Minnesota, Inc., with authorization to prepare a Request for Proposal for the purchase of Enterprise Asset Management software, in support of "Public Utilities Asset Management," Projects 71012 and 73165, as well as other future projects identified within the County Manager's Agency.	July 24, 2012
Asset Assessment and Management Workshop	October 9, 2013
Recommendation to award Contract 13-6064 in the amount of $2,208,599 for Asset Management software and consulting, including implementation and integration, to Woolpert, Inc.; award licensing and maintenance agreements for software totaling $497,775; and authorize funding in the amount of $567,893 for the approved Phase Three of existing contract 10-5447 with EMA of Minnesota, Inc.	January 14, 2014

Board Actions/Direction – Future Planned

Description	Date
Recommendation to approve a Change Order in the amount of $208,960 and add 162 days to Contract 13-6064 for "Asset Management Software and Consulting," with Woolpert, Inc., Project 50105.	November 18, 2014

AGENCY-WIDE EXPANSION TO OTHER DIVISIONS

Growth Management Division:

Growth Management has an ongoing initiative to update their asset management inventory through an asset collection and verification program. This is to ensure that the current asset management system is updated and to prepare for the agency-wide expansion of EAM.

Through active participation in the various EAM project level workshops, GMD will be better positioned to transition to the agency's EAM system. GMD plans to utilize PUD's finalized asset hierarchies, schemas, and work processes as a basis to develop their own to be more in synch with an agency wide model.

Public Services Division:

The Public Services Division is taking a two-pronged approach in preparing to join the EAM project: 1. Departments that can expect to be significantly integrated in the EAM system (for example, Parks and Recreation) are beginning to catalog assets and familiarize themselves with automated work order systems, and 2. Public Services administration is evaluating the total level of participation needed Division-wide and coordinating with Public Utilities to plan for appropriate human and financial resources to be dedicated to the project. Public Services anticipates completing a project entrance plan by December 31, 2014 and to begin actively participating in the implementation of EAM on or about October 1, 2015, contingent upon securing needed resources.

Administrative Services Division:

Administrative Services is supporting the program by providing resources for sub team leadership and participation as well as guidance and direction for technical implementation associated with software, hardware and networking requirements. ASD Departments are adopting and adapting their inventory and work order processes so as to ensure compatibility and smooth transition when the division is ready to join the project in the future.

AGENCY-WIDE EAM PROGRESS REPORT IV RESPECTFULLY SUBMITTED BY:

Joe Bellone, Operations Finance Department Director   11/3/14   Date

Dan Rodriguez, Solid & Hazardous Waste Management Department Director   11-4-14   Date

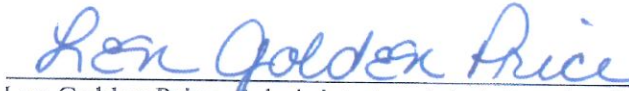Steve Messner, Water Department Director   4/4/14   Date

Beth Johnnsen, Wastewater Department Director   FOR   11/4/14   Date

Tom Chmelik, Planning & Project Management Director   11/3/2014   Date
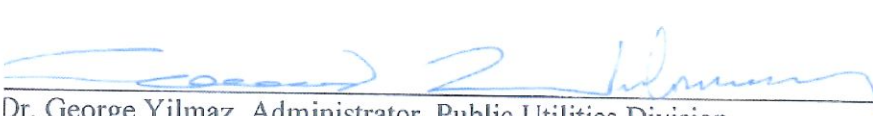
Aaron Cromer, PUD EAM Program Manager   11.3.14   Date

APPROVED BY ADMINISTRATIVE MEMBERS OF THE STEERING COMMITTEE:

Nick Casalanguida, Administrator, Growth Management Division   11-5-14 Date

Len Golden Price, Administrator, Administrative Services Division   11/4/14 Date

Steve Carnell, Administrator, Public Services Division   11/4/14 Date

Dr. George Yilmaz, Administrator, Public Utilities Division   11/4/14 Date

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